



# GENERAL CATALOGUE



# MANUALE USO E MANUTENZIONE VALVOLE OLEODINAMICHE

Questo manuale è indirizzato a personale specializzato e competente che non può in ogni caso sostituire la professionalità e la competenza dell'installatore. La Casa Produttrice declina ogni responsabilità per danni alle persone ed agli oggetti dovuti a una cattiva o impropria installazione delle valvole. La **Oleoweb S.r.l.** è orientata ad una continua ricerca e sviluppo dei propri prodotti e pertanto si riserva il diritto di modificare in qualunque momento e senza alcun preavviso tutte le caratteristiche tecniche ritenute necessarie. Il presente manuale potrà subire variazioni e integrazioni, ma non potrà in alcun caso ritenersi superato. Il presente manuale e la documentazione tecnica della **Oleoweb S.r.l.** hanno lo scopo di fornire ulteriori informazioni tecniche a utilizzatori competenti del settore (collaboratori competenti).



## PERSONA COMPETENTE

È una persona che, per merito dell'addestramento tecnico e dell'esperienza, possiede una sufficiente conoscenza del settore. L'utilizzatore è responsabile della scelta del suo prodotto e dei suoi accessori. Risulta quindi importante che l'utilizzatore analizzi le problematiche della propria applicazione, eseguendo analisi e prove adeguate. È inoltre il responsabile dell'applicazione, delle sicurezze e delle avvertenze richieste dalle direttive in vigore.

## STAMPIGLIATURA

Le valvole **Oleoweb** sono identificabili per mezzo della stampigliatura posta sulla valvola:

- Logo aziendale
- Schema idraulico
- Codice
- Mese e anno di fabbricazione (in estensione al codice)

## USO PREVISTO DELLE VALVOLE

Le valvole **Oleoweb** sono destinate a costruttori di macchine e attrezzature a comando oleodinamico.

Data la vastità applicativa delle valvole oleodinamiche e non essendo sempre nota la destinazione finale del prodotto, questo manuale è stato realizzato limitatamente alle generiche applicazioni conosciute.

## LIMITI DI IMPIEGO

La **Oleoweb S.r.l.** diffida ogni utilizzatore/cliente o costruttore nell'impiegare le valvole nelle seguenti applicazioni:

- Ambienti dove esista il pericolo di esplosione o incendio;
  - Veicoli e impianti aeronautici e spaziali;
  - Sistemi e impianti sterzanti su veicoli e su mezzi adibiti al trasporto di persone, cose ed animali;
  - Sistemi frenanti, di blocco e di stallo in genere;
  - Attrezzature ed impianti di applicazione in campo militare, nucleare, medicale ed ospedaliero;
- TUTTAVIA LA DIREZIONE TECNICA DELLA OLEOWEB SRL SI RISERVA, DIETRO RICHIESTA DELL'UTILIZZATORE, DI VALUTARE CASO PER CASO LE APPLICAZIONI SOPRA CITATE E DI DARNE QUALORA LO RITENGA OPPORTUNO L'AUTORIZZAZIONE.

## SPECIFICHE MECCANICHE

- Non manomettere alcun tipo di valvola, un semplice allentamento di una valvola potrebbe provocare la caduta libera di carichi o il cedimento di strutture.
  - Tutte le operazioni d'installazione, montaggio, manutenzione e smontaggio delle valvole e dei componenti a esse applicati devono essere eseguiti nel massimo rispetto delle norme di sicurezza.
- Durante queste operazioni, all'interno del circuito oleodinamico non deve mai essere presente pressione (pressione zero) e non deve gravare nessun tipo di carico sulla struttura dell'attrezzatura o della macchina a cui la valvola è applicata (carico zero).

## SPECIFICHE ELETTRICHE

- Tutti i collegamenti e scollegamenti elettrici devono essere eseguiti da personale specializzato e competente.
- Prima di procedere a qualsiasi tipo di operazione o di intervento sulle valvole, queste devono essere scollegate dalla linea elettrica di alimentazione.

## SPECIFICHE DI SICUREZZA

- Usare protezioni antinfortunistiche;
- Lavorare in condizioni di massima pulizia;
- Lavorare in condizioni di massima sicurezza;
- Usare strumenti, attrezzi e banchi di servizio adatti e puliti;
- Durante le operazioni di avviamento, normale lavoro, manutenzione, regolazione, sfiato dell'impianto, intervento e azionamento di valvole e vari elementi di controllo POSSONO VERIFICARSI DEGLI SCHIZZI IMPROVVISI E DELLE FUORIUSCITE DI FLUIDO IDRAULICO, IL QUALE PUÒ RAGGIUNGERE TEMPERATURE TALI DA CAUSARE USTIONI ALLA PELLE. Il fluido idraulico può essere pericoloso per la salute in quanto il contatto con la pelle e gli occhi può causare gravi danni. Attenersi scrupolosamente alle disposizioni di protezione e sicurezza imposte dal produttore del fluido idraulico riportate sulla scheda tecnica e tossicologica del prodotto. Il fluido idraulico può essere un prodotto inquinante, è perciò buona norma evitare perdite di fluido idraulico con prodotti oleoassorbenti. Rapide variazioni di temperatura possono pregiudicare sia le caratteristiche che la durata del prodotto, pertanto è indispensabile proteggerlo da queste situazioni.

## MONTAGGIO

Un montaggio ed una corretta installazione sono fattori essenziali per il buon funzionamento nel tempo di un impianto oleodinamico. Polvere e sporcizia sono comuni fattori di malfunzionamento per gli impianti oleodinamici. Durante l'installazione preoccuparsi quindi della massima pulizia effettuando le principali operazioni di collegamento in un locale pulito e non polveroso. Le valvole devono essere montate in modo tale da permettere una facile accessibilità ai comandi, alle ispezioni, alla manutenzione e alla riparazione; inoltre è altrettanto indispensabile che esse vengano montate in zone protette da urti accidentali e riparate da casuali contatti fisici, poiché la temperatura raggiunta durante il funzionamento può essere causa di ustioni.

## MOVIMENTAZIONE

Le valvole oleodinamiche sono prodotti da maneggiare con cura e attenzione. Per loro caratteristica presentano protuberanze soggette a rottura.

## STOCCAGGIO

Le valvole oleodinamiche devono essere stoccate in un luogo protetto, possibilmente chiuso, al riparo da polvere, sporcizia, umidità e intemperie, a una temperatura non inferiore a -15° C e non superiore a +50° C; inoltre, l'imballaggio deve evitare la perdita di fluido idraulico rimasto nella valvola dopo il collaudo e non consentire l'accesso di corpi estranei, che potrebbero pregiudicare il buon funzionamento e la durata della valvola.

## SMALTIMENTO VALVOLE

Le valvole oleodinamiche sono costruite principalmente in lega di alluminio, in lega di acciaio e in materiale plastico; possono essere smaltite come normali materiali inviati al riciclaggio con avvertenza di effettuare lo svuotamento dal fluido idraulico in tutte le sue parti.

## SMALTIMENTO FLUIDO IDRAULICO

I fluidi idraulici sono soggetti a speciali prescrizioni di smaltimento: rispettare le indicazioni e le istruzioni dei produttori e attenersi alle disposizioni legislative vigenti nel Paese di utilizzazione.

## NON DISPERDERE NELL'AMBIENTE IL FLUIDO SOSTITUITO

### MANUTENZIONE

Un impianto oleoidraulico ben installato e curato nella fase di montaggio e messa in esercizio assicura una lunga durata senza inconvenienti e non necessita di particolari cure manutentive. Il principio di base è la necessità di controllare spesso la qualità e lo stato del fluido che trasmette potenza e assicurarsi dell'assenza di impurità nel circuito cui è rapportata l'affidabilità di qualsiasi macchina oleoidraulica. Infatti, fra le cause principali di fuori servizio o di guasto, si può segnalare il bloccaggio di apparecchiature a seguito di grippaggi o di rotture dovuti a usura e a invecchiamento del fluido che trasmette potenza, con conseguente perdita delle sue proprietà chimico-fisiche.

È ormai accertato che la causa principale di tutti questi inconvenienti è dovuta alla presenza di particolari e microparticelle che circolano nel fluido e che costituiscono motivo di usura. Queste microparticelle, se lasciate circolare nel sistema, agiscono come una miscela abrasiva scalfendo le superfici con cui vengono a contatto e trascinando in ciclo ulteriore contaminante; i danni sono, ovviamente, tanto più gravi quanto più sono sofisticate le apparecchiature installate. Dalla messa in marcia dell'impianto, la manutenzione è fatta fondamentalmente di piccole operazioni che per essere veramente efficaci devono essere compiute con regolarità. È pertanto estremamente importante che tali operazioni di controllo e di verifica siano programmate e riportate su schede di macchine o di impianto.

### PULIZIA ESTERNA

Permette una facile localizzazione di eventuali perdite e dunque l'immediato intervento.

### CONTROLLO CONTINUO DELLA TEMPERATURA DELL'OLIO

L'alterazione del fluido a causa della temperatura è un motivo di inquinamento e di degradazione dell'impianto. La formazione dei prodotti di degradazione degli idrocarburi è particolarmente favorita dal calore: la velocità di ossidazione si può ritenere circa costante fino a 60°C, raddoppiando a partire da questo punto ad ogni incremento di 10°C. La presenza di morchie e di sedimenti nel fluido, causa di un aspetto torbido, segnala lo stato di degradazione dello stesso.

### CAMBIO FLUIDO

Assicurare nel tempo le migliori condizioni di lavoro, con frequente controllo del fluido e sua periodica sostituzione. Mediamente dopo le prime 100 ore di lavoro, poi ogni 2000 ore o comunque una volta all'anno. A ogni cambio sostituire i filtri ed eseguire la pulizia del serbatoio. Prima di eseguire il cambio del fluido idraulico svuotare completamente l'impianto dallo stesso.

## GARANZIA

### CONDIZIONI GENERALI DI GARANZIA

Oleoweb riconosce una garanzia di 12 (dodici) mesi a copertura di eventuali difettosità di funzionamento sui prodotti di nostra fabbricazione. La garanzia decorre dalla data di spedizione del materiale.

Oleoweb si riserva di accertare la effettiva presenza di eventuali difetti a essa imputabili e che diano diritto al ripristino o alla sostituzione del materiale in garanzia. La garanzia si considera non applicabile in caso di incauto utilizzo, manomissione, modifica e/o riparazione eseguita da personale non da noi autorizzato.

Il materiale reclamato difettoso può essere reso per analisi solo previa autorizzazione di Oleoweb e con spedizione in porto franco.

La garanzia Oleoweb è a copertura unicamente del valore della merce. Non verranno riconosciuti indennizzi per nessun tipo di spesa accessoria, sostenuta dall'emittente del reclamo o altre persone o Aziende a esso collegate, qualora non siano stati esplicitamente e preventivamente presi diversi accordi con la Oleoweb stessa.

Per ulteriori informazioni circa le condizioni di vendita e garanzia si rimanda all'area download del sito internet [www.oleoweb.com](http://www.oleoweb.com).

### ASSISTENZA TECNICA FUORI GARANZIA

La **Oleoweb S.r.l.** è a disposizione per le riparazioni dei prodotti anche decorso il termine di garanzia.

La **Oleoweb S.r.l.** effettuerà la riparazione anche trascorsi diversi anni d'impiego (sempre che sia economicamente conveniente).

Il costo della riparazione dei nostri prodotti non più in garanzia viene normalmente calcolato a consuntivo. L'eventuale richiesta di un preventivo dovrà essere fatta espressamente al momento della consegna del prodotto da riparare. Nel caso che il preventivo non venga accettato, saranno comunque addebitate le spese da noi sostenute per la formulazione dello stesso.

**Ogni prodotto reso per la revisione deve essere accompagnato da:**

1. Regolare bolla completa di dati, come da disposizione di legge.
2. Lettera di indicazione del difetto riscontrato e dati di riferimento di un Tecnico Responsabile per eventuali chiarimenti.



# HYDRAULIC VALVES MAINTENANCE BOOKLET

This handbook is directed to specialized and competent staff that may not replace in any case the knowledge and competence of the installer. The Producer disclaims any responsibility for damage to persons and objects due to a bad or improper installation of the valves. **Oleoweb Srl** is geared to a continuous research and development of its products and therefore reserves the right to change at any time and without notice all the technical characteristics deemed necessary. This manual will undergo changes and additions, but shall in no circumstances be regarded as outdated. This manual and the technical documentation of Oleoweb Srl are intended to provide additional technical information to competent users of the department and/or employees.



## COMPETENT PERSON

It's a person that has sufficient knowledge of the field due to technical worth of training and experience. The User, however, is the only responsible for the choice of the product and its accessories. It is therefore important that the user analyses the problems of its application, running adequate tests. The same user is also responsible for the implementation of security and warnings required by existing laws.

## ENGRAVING

**Oleoweb's** valves can be simply identified through the stamp placed on the valve:

- Corporate Logo
- Hydraulic circuit
- Article code
- Month and year of manufacture (extension code)

## USE OF THE VALVES

**Oleoweb** valves are destined from **Oleoweb** to manufacturers of hydraulic power equipment.

Given the wide application of hydraulic valves and given the fact that it's not always possible to know the final destination of the product, this manual has been produced only on the basis of know generic application.

## LIMITATIONS OF USE

**Oleoweb Srl** warns each user/customer or manufacturer not to employ valves in the following applications:

- Environments where there is danger of explosion and fire;
- Vehicles and aeronautical or space equipment;
- Steering systems and equipment for vehicles due to carry person, things and animals;
- Brake systems, blocking and deadlock in general;
- Equipment and installation of application in the military, nuclear, medical and hospital department

HOWEVER, THE TECHNICAL DEPARTMENT IN OLEOWEB SRL, AFTER REQUEST OF THE USER, MAY EVALUATE CASE-BY-CASE APPLICATIONS AND GIVE IT'S AUTHORIZATION.

## MECHANICAL SPECIFICATIONS

- Do not tamper with any type of valve: a simple loosening of valve could cause the free fall of loads or failure of structures.
- All operations of installation, assembly, maintenance and removal of valves and components applied to it must be executed with the utmost respect of safety standards. During these operations, within the hydraulic circuit there must never be pressure (pressure zero) and there should not be any type of cargo on the structures of the equipment or the machinery to which the valve is applied (load zero).

## ELECTRICAL SPECIFICATION

- All electrical connections and disconnections must be carried out by skilled and competent staff.
- Before making any action or intervention on the valve, this must be disconnected from its power source.

## SECURITY SPECIFICATION

- Use safety protection;
- Work under very clean conditions;
- Work under maximum security conditions;
- Use tools and service desks always in suitable and clean conditions;
- During the start-up operations, normal work, maintenance, adjustment, leaking, intervention and drive of valves and various elements of control, SUDDEN SPILLS AND LEAKS OF HYDRAULIC FLUID MAY OCCUR, WHICH CAN REACH TEMPERATURES SUCH AS TO CAUSE BURNS TO THE SKIN.
- Hydraulic fluid may be dangerous to health as in contact with skin and eyes and can cause serious damage. Follow scrupulously the protection and security provisions imposed by the manufacturer of the hydraulic fluid listed on the technical and toxicological schedule of the product. Hydraulic fluid may be a pollutant product. It's good practice therefore to avoid loss of hydraulic fluid using tanks to collect and protect against accidental spills and leakage of hydraulic fluid using also oil-absorbing products. Quick changes in temperature may affect both the characteristics and the duration of the product, so it is essential to protect it from these situations.

## MOUNTING

- A fitting and proper installation are essential factors for the smooth functioning of an hydraulic plant. Dust and dirt are the worst enemies of hydraulic.
- During installation you have to concentrate on the utmost clean by conducting the main operations in a clean and non-dusty room. Valves must be mounted in such a way as to allow easy access to controls, inspections, maintenance and repair, it is also equally essential that they are mounted in an accidental bumps protected area and repaired by random physical contact, as the temperature reached during the operation can cause burns.

## HANDLING

Hydraulic valves are products to handle with care and attention. Characteristic of those valve is to have protuberances subject to breakage.

## STORAGE

Hydraulic valves must be stored in a protected place, possibly closed, away from dust, dirt, humidity and bad weather conditions, with a minimum temperature of -15°C and not exceeding +50°C. In addition, valves are provided with protective plastic caps into their holes routes to avoid the loss of hydraulic fluid left in the valve after testing and not allow access to foreign bodies, which could be very dangerous for the smooth functioning and for the duration of the valve. It is therefore essential not remove these caps if not before mounting the valve.

## DISPOSAL OF THE VALVES

Hydraulic valves are constructed primarily of aluminum alloy, steel alloy and plastic; therefore they can be disposed of as normal materials sending them for recycling with the only advice to make a complete emptying of the hydraulic fluid they may contain.

## DISPOSAL OF THE HYDRAULIC FLUID

Hydraulic fluids are subject to special disposal requirements: therefore comply with the directions and instructions of producers and abide by the laws in force in the country of use.

## DO NOT THROW THE REPLACED FLUID IN THE ENVIROMENT

## MAINTENANCE

The good installation and care during installation and putting into operation ensures a long duration of the oilhydraulic plant without drawbacks or need of special care maintenance. The principle basic is the need to frequently monitor the quality and status of the fluid that transmits power and ensure that there are no impurities in the circuit: the good condition of the fluid is reported the reliability of any oilhydraulic machine. Indeed, among the leading causes of out of service or fault, you can report the equipment block as a result of seizing or braking due to wear and aging of the fluid that transmits power, with consequent loss of its chemical and physical properties. It's now certain that the main cause of all these drawbacks is due to the presence of hosts and microparticles circulating continuously in the fluid and which constitute grounds for wear. A large quantity of these microparticles, if left circulating in the system, acts as an abrasive mixture scraping the surfaces with which it comes into contact and dragging in cycle further contaminant particles; damage are, of course, the more severe the more sophisticated the installed equipment is.

From the putting in motion of the installation, maintenance is basically made of small operations that, to be truly effective, must be carried out with regularity. It is therefore extremely important that these operations of control and verification are planned and reported on sheets of machinery or plant.

## EXTERIOR CLEANING

It allows easy location of any losses and therefore immediate intervention.

## CONTINUOUS MONITORING OF THE TEMPERATURE

Alteration of the fluid because of the temperature is a cause of pollution and degradation of the plant. The creation of particles inside the oil is particularly favoured by the heat: the rate of oxidation can be considered almost constant up to 60°C, doubling starting from this point to each increment of 10°C. The presence of sludge and sediment in the oil, because of a roiled appearance, reports it's degradation.

## REPLACEMENT OF THE FLUID

Ensure over time better working conditions, with frequent monitoring of the fluid and its periodic replacement. On average, after the first 100 hours of work, then every 2000 hours or once a year. For each exchange replace also the filters and clean the tank. Before running the exchange of hydraulic fluid, completely clear the plant from it.

## GUARANTEE

### GUARANTEE TERMS

Oleoweb recognizes a 12 (twelve) months guarantee to cover any malfunctioning of the products we manufacture. The warranty starts from the shipment date of the material.

Oleoweb reserves the right to ascertain the effective presence of any defects attributable to itself and which give the right to restore or replace the material under warranty. The warranty is considered not applicable in the event of careless use, tampering, modification and/or repair performed by personnel not authorized by Oleoweb.

Defective material claimed can be returned for analysis only with the prior authorization of Oleoweb and with carriage paid.

The Oleoweb guarantee only covers the value of the goods. Compensation will not be recognized for any type of ancillary expense, incurred by the issuer of the complaint or other persons or companies connected to it, if different agreements have not been explicitly and previously made with Oleoweb itself.

For further information on the conditions of sale and warranty, please refer to the download area of the website [www.oleoweb.com](http://www.oleoweb.com).

### TECHNICAL ASSISTANCE AFTER GUARANTEE PERIOD

**Oleoweb Srl** is available for repairs of their products even when the period of guarantee has already run out.

**Oleoweb Srl** will carry out the repair also after several years of use (provided it is still cost convenient). The availability of spare parts made on Oleoweb drawing is guaranteed up to 5 years by ceased production.

The cost of repair of our no longer under warranty products is normally calculated on the actual cost.

**Any price request must be made expressly on delivery of the goods that have to be repaired. If the estimate will not be accepted, we will be anyway charging the costs we incurred for its formulation.**

**Every product sent back for the revision must be accompanied by:**

1. Law Regular and complete transport document.
2. Defect identifying letter and reference of a Technical Manager for any clarifications.



La Viscosità deve essere secondo i parametri ISO 3448 (DIN51519). Il grado di viscosità viene indicato con le lettere ISO VG seguito da un numero che indica la viscosità cinematica media a 40° C in mm<sup>2</sup>/s o centiStokes (cSt).

The viscosity must be according to ISO 3448 (DIN51519) standards. The viscosity degree is stated by ISO VG letters followed by a number showing the average kinematic viscosity at 40° C in mm<sup>2</sup>/s or centistokes (cSt).

## OLIO • OIL

Utilizzare esclusivamente olio idraulico a base minerale ISO 6743/4 (DIN 51524).

Use only ISO 6743/4 (DIN 51524) hydraulic mineral oil.

## VISCOSITÀ • VISCOSITY

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| GRADI DI VISCOSITÀ ISO<br>ISO VISCOSITY DEGREES | VISCOSITÀ CINEMATICA MEDIA<br>AVERAGE KINEMATIC VISCOSITY<br>mm <sup>2</sup> /s at 40° C | LIMITI VISCOSITÀ CINEMATICA<br>KINEMATIC VISCOSITY LIMITS<br>mm <sup>2</sup> /s at 40° C |             |
|-------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------|
|                                                 |                                                                                          | Min.                                                                                     | Max.        |
| ISO VG 15                                       | 15                                                                                       | 13,5                                                                                     | 16,5        |
| ISO VG 22                                       | 22                                                                                       | 19,8                                                                                     | 24,2        |
| ISO VG 32                                       | 32                                                                                       | 28,8                                                                                     | 35,2        |
| <b>ISO VG 46</b>                                | <b>46</b>                                                                                | <b>41,4</b>                                                                              | <b>50,6</b> |
| ISO VG 68                                       | 68                                                                                       | 61,2                                                                                     | 74,8        |
| ISO VG 100                                      | 100                                                                                      | 90,0                                                                                     | 110         |

## TEMPERATURA • TEMPERATURE

Temperatura ambiente da -20°C a 50°C / Temperatura Olio da -20°C a 80°C - con guarnizioni NBR.

Environment temperature from -20°C to 50°C / Oil Temperature from -20°C to 80°C with NBR gaskets.

## FILTRAZIONE CONTAMINAZIONE • FILTRATION CONTAMINATION

Tutti i costruttori di prodotti oleodinamici riconoscono che l'eccessiva contaminazione dell'olio è la principale causa del malfunzionamento negli impianti idraulici. È dunque indispensabile l'utilizzo di un filtro per proteggere le valvole. La contaminazione massima ammessa per ogni valvola è indicata nella rispettiva pagina di catalogo.

All manufacturers of hydraulic products recognize that excessive fluid contamination is the main cause of hydraulic installations bad working. It is necessary a filter use to protect the valves. The maximum permissible contamination for each valve is indicated on the respective catalog page.

## MATERIALI • MATERIALS

Tutte le valvole sono prodotte in acciaio di alta qualità. I blocchi sono realizzati in acciaio o alluminio in relazione alla pressione di lavoro. Corpi e componenti in acciaio sono protetti superficialmente mediante zincatura trivalente CRIII. Su richiesta è disponibile il trattamento di zinco-nichel.

All products are made out high quality steel. The manifolds are produced in steel or aluminium in relation to the working pressure. Bodies and components are protected from corrosion with CRIII zinc plating. Under request zinc-nickel treatment is available.

## GUARNIZIONI • SEALING

Le valvole Oleoweb montano guarnizioni in NBR. Per applicazioni con particolari temperature di lavoro sono disponibili su richiesta guarnizioni in viton o poliuretano.

Oleoweb Valves mount NBR seals as standard. For application exposed to particular temperatures, viton or polyurethane seals are available.

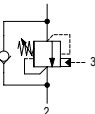
I DATI PRESENTI NEL CATALOGO POSSONO ESSERE SOGGETTI A VARIAZIONI, OLEOWEB SI RISERVA IL DIRITTO DI APPORVI MODIFICHE IN QUALUNQUE MOMENTO E SENZA ALCUN PREAVVISO.

OLEOWEB RESERVES THE RIGHT TO MODIFY THE PRODUCTS AT ANY TIME AND WITHOUT NOTICE: THE TECHNICAL DATA OF THE CATALOGUE CAN CONSEQUENTLY CHANGE.

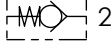
## VALVOLE AD INSERTO - Insert valves

| CIRCUITO IDRAULICO<br>Hydraulic circuit                                           | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | FILETTO<br>Thread | PAGINA<br>Page |
|-----------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|-------------------|----------------|
|  | VUI                  | 20                      | 350                         | BSPP 1/4          | 2              |
|                                                                                   |                      | 30                      |                             | BSPP 3/8          |                |
|                                                                                   |                      | 50                      |                             | BSPP 1/2          |                |
|                                                                                   |                      | 80                      |                             | BSPP 3/4          |                |
|                                                                                   | VUC                  | 20                      | 350                         | BSPP 1/4          | 3              |
|                                                                                   |                      | 30                      |                             | BSPP 3/8          |                |
|                                                                                   | VUP                  | 60                      |                             | BSPP 1/2          | 4              |
|                                                                                   |                      | 80                      |                             | BSPP 3/4          |                |

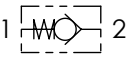
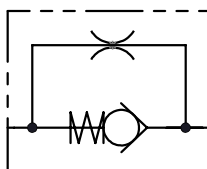
## VALVOLE A CARTUCCIA - Cartridge valves

| CIRCUITO IDRAULICO<br>Hydraulic circuit                                             | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | CAVITÀ<br>Cavity | PAGINA<br>Page |
|-------------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|------------------|----------------|
|    | OW11AS               | 60                      | 350                         | T-11A            | 124            |
|                                                                                     | OW103S               |                         |                             | SAE10/3 SHORT    | 126            |
|    | PO163S               | 30                      | 350                         | T-163A           | 129            |
|                                                                                     | PO11AS               | 60                      |                             | T-11A            | 128            |
|                                                                                     | PO083S               | 30                      |                             | SAE08/3 SHORT    | 130            |
|  | CUR6                 | 25                      | 350                         | SAE8/2           | 131            |
|                                                                                     | CUR2015              | 25                      |                             | C2015/2          | 134            |
|                                                                                     | CUR10N               | 40                      |                             | SAE10/2          | 133            |
|                                                                                     | CUR2215              | 40                      |                             | C2215/2          | 135            |
|                                                                                     | CUR2615              | 60                      |                             | C2615/2          | 136            |
|  | CUR6M                | 25                      | 350                         | SAE8/2           | 132            |

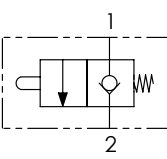
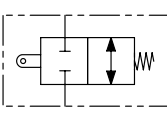
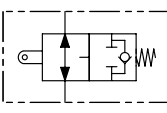
## VALVOLE IN LINEA - In-line valves

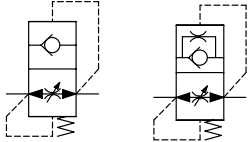
| CIRCUITO IDRAULICO<br>Hydraulic circuit                                             | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | DIMENSIONE<br>Size | PAGINA<br>Page |
|-------------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|--------------------|----------------|
|  | VUR-BSPP             | 5                       | 400                         | BSPP 1/8"          | 16             |
|                                                                                     |                      | 15                      |                             | BSPP 1/4"          |                |
|                                                                                     |                      | 30                      |                             | BSPP 3/8"          |                |
|                                                                                     |                      | 50                      |                             | BSPP 1/2"          |                |
|                                                                                     |                      | 90                      | 350                         | BSPP 3/4"          |                |
|                                                                                     |                      | 150                     |                             | BSPP 1"            |                |
|                                                                                     |                      | 200                     |                             | BSPP 1-1/4"        |                |
|                                                                                     |                      | 300                     |                             | BSPP 1-1/2"        |                |
|                                                                                     | VMF                  | 430                     | 250                         | BSPP 2"            | 20             |
|                                                                                     |                      | 15                      | 400                         | BSPP 1/4"          |                |
|                                                                                     |                      | 30                      |                             | BSPP 3/8"          |                |
|                                                                                     |                      | 50                      |                             | BSPP 1/2"          |                |
|                                                                                     |                      | 90                      |                             | BSPP 3/4"          |                |
|                                                                                     |                      | 150                     | 350                         | BSPP 1"            |                |
|                                                                                     | VUN                  | 5                       | 500                         | BSPP 1/4"          | 22             |
|                                                                                     |                      | 15                      |                             | BSPP 3/8"          |                |
|                                                                                     |                      | 30                      |                             | BSPP 1/2"          |                |
|                                                                                     |                      | 50                      |                             | BSPP 3/4"          |                |
|                                                                                     |                      | 90                      |                             | BSPP 1"            |                |
|                                                                                     | VUR-SAE              | 15                      | 400                         | 7/16-20 UNF        | 18             |
|                                                                                     |                      | 30                      |                             | 9/16-18 UNF        |                |
|                                                                                     |                      | 50                      |                             | 3/4-16 UNF         |                |
|                                                                                     |                      | 90                      |                             | 1-1/16-12 UN       |                |
|                                                                                     |                      | 150                     | 350                         | 1-5/16-12 UN       |                |
|                                                                                     |                      | 200                     |                             | 1-5/8-12 UN        |                |
|                                                                                     |                      | 300                     |                             | 1-7/8-12 UN        |                |
|                                                                                     |                      | 430                     |                             | 2-1/2-12 UN        |                |

VALVOLE UNIDIREZIONALI - Check valves

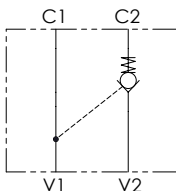
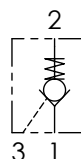
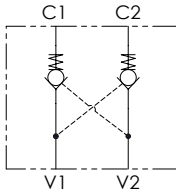
| CIRCUITO IDRAULICO<br>Hydraulic circuit                                           | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | DIMENSIONE<br>Size | PAGINA<br>Page |
|-----------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|--------------------|----------------|
|  | VUR-NPTF             | 5                       | 400                         | 1/8 NPTF           | 19             |
|                                                                                   |                      | 15                      |                             | 1/4 NPTF           |                |
|                                                                                   |                      | 30                      |                             | 3/8 NPTF           |                |
|                                                                                   |                      | 50                      |                             | 1/2 NPTF           |                |
|                                                                                   |                      | 90                      |                             | 3/4 NPTF           |                |
|                                                                                   |                      | 150                     | 350                         | 1 NPTF             |                |
|                                                                                   |                      | 200                     |                             | 1-1/4 NPTF         |                |
|                                                                                   |                      | 300                     |                             | 1-1/2 NPTF         |                |
|                                                                                   |                      | 430                     |                             | 2 NPTF             |                |
|  | VUR-H                | 5                       | 400                         | BSPP 1/8"          | 17             |
|                                                                                   |                      | 15                      |                             | BSPP 1/4"          |                |
|                                                                                   |                      | 30                      |                             | BSPP 3/8"          |                |
|                                                                                   |                      | 50                      |                             | BSPP 1/2"          |                |
|                                                                                   |                      | 90                      |                             | BSPP 3/4"          |                |
|                                                                                   |                      | 150                     | 350                         | BSPP 1"            |                |
|                                                                                   |                      | 200                     |                             | BSPP 1-1/4"        |                |
|                                                                                   |                      | 300                     |                             | BSPP 1-1/2"        |                |
|                                                                                   |                      | 430                     | 250                         | BSPP 2"            |                |
|                                                                                   | VMF-H                | 15                      | 400                         | BSPP 1/4"          | 21             |
|                                                                                   |                      | 30                      |                             | BSPP 3/8"          |                |
|                                                                                   |                      | 50                      |                             | BSPP 1/2"          |                |
|                                                                                   |                      | 90                      |                             | BSPP 3/4"          |                |
|                                                                                   |                      | 150                     | 350                         | BSPP 1"            |                |
|                                                                                   | VUN-H                | 5                       | 500                         | BSPP 1/4"          | 23             |
|                                                                                   |                      | 15                      |                             | BSPP 3/8"          |                |
|                                                                                   |                      | 30                      |                             | BSPP 1/2"          |                |
|                                                                                   |                      | 50                      |                             | BSPP 3/4"          |                |
|                                                                                   |                      | 90                      |                             | BSPP 1"            |                |

VALVOLE DI FINE CORSA  
End stroke valves

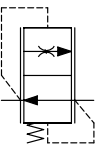
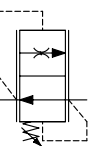
| VALVOLE IN LINEA - In-line valves                                                                                                                                          |                      |                         |                             |                   |                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|-------------------|----------------|
| CIRCUITO IDRAULICO<br>Hydraulic circuit                                                                                                                                    | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | ATTACCHI<br>Ports | PAGINA<br>Page |
|                                                                                         | FCM                  | 40                      | 350                         | BSPP 1/4"         | 46             |
|                                                                                                                                                                            |                      | 60                      | 300                         | BSPP 1/2"         |                |
| <br> | FCT                  | 60                      | 250                         | BSPP 3/8"         | 228            |
|                                                                                                                                                                            |                      | 80                      |                             | BSPP 1/2"         |                |
|                                                                                                                                                                            |                      | 100                     |                             | BSPP 3/4"         |                |
|                                                                                                                                                                            |                      | 140                     | 200                         | BSPP 1"           |                |

| VALVOLE AD INSERTO - Insert valves                                                |                      |                         |                             |                     |                |
|-----------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|---------------------|----------------|
| CIRCUITO IDRAULICO<br>Hydraulic circuit                                           | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | CAVITÀ<br>Cavity    | PAGINA<br>Page |
|  | VUBA                 | 25                      | 350                         | BSPP 1/4"           | 6-7            |
|                                                                                   |                      | 50                      |                             | BSPP 3/8"           |                |
|                                                                                   |                      | 80                      |                             | BSPP 1/2"           |                |
|                                                                                   |                      | 150                     |                             | BSPP 3/4"           |                |
|                                                                                   |                      | 180                     |                             | BSPP 1"             |                |
|                                                                                   | VUBA-DIN             | 50                      | 315                         | BSPP 3/8" - M16x1,5 | 5              |
|                                                                                   |                      | 80                      |                             | BSPP 3/8" - M18x1,5 |                |
|                                                                                   |                      |                         |                             | BSPP 3/8" - M22x1,5 |                |
|                                                                                   |                      |                         |                             | BSPP 1/2" - M22x1,5 |                |

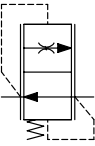
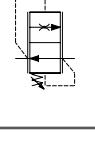
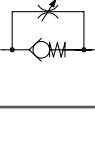
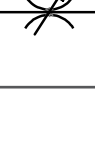
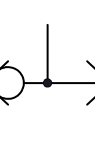
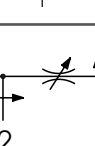
| VALVOLE A CARTUCCIA - Cartridges valves                                           |                      |                         |                             |                  |                |
|-----------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|------------------|----------------|
| CIRCUITO IDRAULICO<br>Hydraulic circuit                                           | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | CAVITÀ<br>Cavity | PAGE<br>Pagina |
|  | VPR                  | 15                      | 350                         | SAE8/3           | 160            |
|                                                                                   |                      | 30                      |                             | SAE10/3          |                |
|                                                                                   | VPR22                | 50                      |                             | C2215/3          | 161            |

| VALVOLE IN LINEA - In-line valves                                                   |                      |                         |                             |                      |                |
|-------------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|----------------------|----------------|
| CIRCUITO IDRAULICO<br>Hydraulic circuit                                             | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | ATTACCHI<br>Ports    | PAGINA<br>Page |
|  | VRP                  | 35                      | 350                         | BSPP 3/8"            | 52             |
|                                                                                     |                      | 50                      |                             | BSPP 1/2"            |                |
|                                                                                     | VRSE                 | 15                      | 320                         | BSPP 1/4"            | 47             |
|                                                                                     |                      | 35                      |                             | BSPP 3/8"            |                |
|                                                                                     |                      | 45                      | 300                         | BSPP 1/2"            |                |
|                                                                                     |                      | 70                      |                             | BSPP 3/4"            |                |
|                                                                                     | VRSD                 | 10                      | 320                         | BSPP 1/4" - pipe Ø8  | 49             |
|                                                                                     |                      | 15                      |                             | BSPP 1/4" - pipe Ø12 |                |
|                                                                                     |                      | 35                      |                             | BSPP 3/8" - pipe Ø12 |                |
|                                                                                     |                      | 45                      |                             | BSPP 1/2" - pipe Ø15 |                |
|  | VRPE                 | 25                      | 350                         | BSPP 1/4"            | 51             |
|                                                                                     |                      | 40                      |                             | BSPP 3/8"            |                |
|                                                                                     |                      | 60                      |                             | BSPP 1/2"            |                |
|                                                                                     |                      | 100                     | 300                         | BSPP 3/4"            |                |
|                                                                                     |                      | 150                     |                             | BSPP 1"              |                |
|  | VRDE                 | 15                      | 320                         | BSPP 1/4"            | 48             |
|                                                                                     |                      | 35                      |                             | BSPP 3/8"            |                |
|                                                                                     |                      | 45                      | 300                         | BSPP 1/2"            |                |
|                                                                                     |                      | 70                      |                             | BSPP 3/4"            |                |
|                                                                                     | VRDD                 | 10                      | 320                         | BSPP 1/4" - pipe Ø8  | 50             |
|                                                                                     |                      | 15                      |                             | BSPP 1/4" - pipe Ø12 |                |
|                                                                                     |                      | 35                      |                             | BSPP 3/8" - pipe Ø12 |                |
|                                                                                     |                      | 45                      |                             | BSPP 1/2" - pipe Ø15 |                |
|                                                                                     | VRDL                 | 35                      | 350                         | BSPP 1/4"            | 53             |
|                                                                                     |                      | 50                      |                             | BSPP 1/2"            |                |
|                                                                                     | VRDF                 | 35                      | 350                         | BSPP 3/8" - Ø6       | 54             |
|                                                                                     |                      | 50                      |                             | BSPP 1/2" - Ø7       |                |

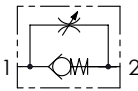
VALVOLE DI CONTROLLO PORTATA  
Flow control valves

| VALVOLE AD INSERTO - Insert Valves                                                |                      |                         |                             |                   |                |
|-----------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|-------------------|----------------|
| CIRCUITO IDRAULICO<br>Hydraulic circuit                                           | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | FILETTO<br>Thread | PAGE<br>Pagina |
|  | VCC                  | 12                      | 250                         | BSPP 1/4"         | 8              |
|                                                                                   |                      | 18                      |                             | BSPP 3/8"         | 9              |
|                                                                                   |                      | 47                      |                             | BSPP 1/2"         | 10             |
|                                                                                   | VSCR6                | 12                      | 250                         | Ø12,7             | 11             |
|  | VRD                  | 20                      | 300                         | BSPP 1/4"         | 12-13          |
|                                                                                   |                      | 35                      |                             | BSPP 3/8"         |                |
|                                                                                   |                      | 65                      |                             | BSPP 1/2"         |                |
|                                                                                   |                      | 150                     |                             | BSPP 3/4"         |                |

VALVOLE DI CONTROLLO PORTATA  
Flow control valves

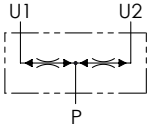
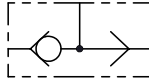
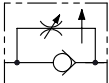
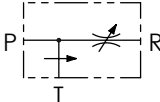
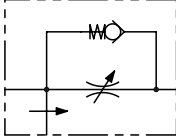
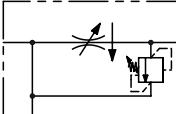
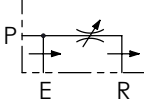
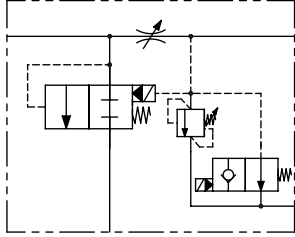
| VALVOLE A CARTUCCIA - Cartridges Valves                                             |                      |                         |                             |                  |                |
|-------------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|------------------|----------------|
| CIRCUITO IDRAULICO<br>Hydraulic circuit                                             | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | CAVITÀ<br>Cavity | PAGINA<br>Page |
|    | VSC6                 | 12                      | 250                         | SAE8/2           | 137            |
|  | VCF6                 | 18                      | 350                         | SAE8/2           | 138            |
|  | VRF6                 | 40                      | 350                         | SAE8/2           | 140            |
|  | VBF6                 | 30                      | 350                         | SAE8/2           | 139            |
|  | SV                   | 15                      | 350                         | SAE8/3           | 162            |
|                                                                                     |                      | 30                      |                             | SAE10/3          |                |
|  | VDRF                 | 40                      | 350                         | SAE10/4          | 141            |
|  | CP10                 | 50                      | 350                         | SAE10/3          | 144            |

VALVOLE IN LINEA - In-line valves

| CIRCUITO IDRAULICO<br>Hydraulic circuit                                             | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | ATTACCHI<br>Ports | PAGINA<br>Page |
|-------------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|-------------------|----------------|
|  | VURF                 | 5                       | 350                         | BSPP 1/8"         | 24             |
|                                                                                     |                      | 15                      |                             | BSPP 1/4"         |                |
|                                                                                     |                      | 30                      |                             | BSPP 3/8"         |                |
|                                                                                     |                      | 45                      |                             | BSPP 1/2"         |                |
|                                                                                     |                      | 85                      | 300                         | BSPP 3/4"         |                |
|                                                                                     |                      | 150                     | 250                         | BSPP 1"           |                |
|                                                                                     |                      | 200                     |                             | BSPP 1-1/4"       |                |
|                                                                                     | STU-BSPP             | 10                      | 400                         | BSPP 1/8"         | 26             |
|                                                                                     |                      | 15                      |                             | BSPP 1/4"         |                |
|                                                                                     |                      | 30                      |                             | BSPP 3/8"         |                |
|                                                                                     |                      | 50                      |                             | BSPP 1/2"         |                |
|                                                                                     |                      | 80                      |                             | BSPP 3/4"         |                |
|                                                                                     |                      | 150                     |                             | BSPP 1"           |                |
|                                                                                     |                      | 200                     | 350                         | BSPP 1-1/4"       |                |
|                                                                                     |                      | 300                     |                             | BSPP 1-1/2"       |                |
|                                                                                     | STUF-BSPP            | 10                      | 400                         | BSPP 1/8"         | 27             |
|                                                                                     |                      | 15                      |                             | BSPP 1/4"         |                |
|                                                                                     |                      | 30                      |                             | BSPP 3/8"         |                |
|                                                                                     |                      | 50                      |                             | BSPP 1/2"         |                |
|                                                                                     |                      | 80                      |                             | BSPP 3/4"         |                |
|                                                                                     |                      | 150                     |                             | BSPP 1"           |                |
|                                                                                     |                      | 200                     | 350                         | BSPP 1-1/4"       |                |
|                                                                                     |                      | 300                     |                             | BSPP 1-1/2"       |                |
|                                                                                     | STU-NPTF             | 10                      | 400                         | 1/8 NPTF          | 28             |
|                                                                                     |                      | 15                      |                             | 1/4 NPTF          |                |
|                                                                                     |                      | 30                      |                             | 3/8 NPTF          |                |
|                                                                                     |                      | 50                      |                             | 1/2 NPTF          |                |
|                                                                                     |                      | 80                      |                             | 3/4 NPTF          |                |
|                                                                                     |                      | 150                     |                             | 1 NPTF            |                |
|                                                                                     |                      | 200                     | 350                         | 1-1/4 NPTF        |                |
|                                                                                     |                      | 300                     |                             | 1-1/2 NPTF        |                |
|                                                                                     | STUF-NPTF            | 10                      | 400                         | 1/8 NPTF          | 29             |
|                                                                                     |                      | 15                      |                             | 1/4 NPTF          |                |
|                                                                                     |                      | 30                      |                             | 3/8 NPTF          |                |
|                                                                                     |                      | 50                      |                             | 1/2 NPTF          |                |
|                                                                                     |                      | 80                      |                             | 3/4 NPTF          |                |
|                                                                                     |                      | 150                     |                             | 1 NPTF            |                |
|                                                                                     |                      | 200                     | 350                         | 1-1/4 NPTF        |                |
|                                                                                     |                      | 300                     |                             | 1-1/2 NPTF        |                |
|                                                                                     | STU-SAE              | 15                      | 400                         | 7/16-20 UNF       | 30             |
|                                                                                     |                      | 30                      |                             | 9/16-18 UNF       |                |
|                                                                                     |                      | 50                      |                             | 3/4-16 UNF        |                |
|                                                                                     |                      | 80                      |                             | 1-1/16-12 UN      |                |
|                                                                                     |                      | 150                     |                             | 1-5/16-12 UN      |                |
|                                                                                     |                      | 200                     | 350                         | 1-5/8-12 UN       |                |
|                                                                                     |                      | 300                     |                             | 1-7/8-12 UN       |                |
|                                                                                     | STUF-SAE             | 15                      | 400                         | 7/16-20 UNF       | 31             |
|                                                                                     |                      | 30                      |                             | 9/16-18 UNF       |                |
|                                                                                     |                      | 50                      |                             | 3/4-16 UNF        |                |
|                                                                                     |                      | 80                      |                             | 1-1/16-12 UN      |                |
|                                                                                     |                      | 150                     |                             | 1-5/16-12 UN      |                |
|                                                                                     |                      | 200                     | 350                         | 1-5/8-12 UN       |                |
|                                                                                     |                      | 300                     |                             | 1-7/8-12 UN       |                |

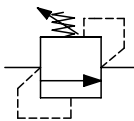
VALVOLE DI CONTROLLO PORTATA - Flow control valves

| CIRCUITO IDRAULICO<br>Hydraulic circuit                                             | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | ATTACCHI<br>Ports | PAGINA<br>Page |
|-------------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|-------------------|----------------|
|  | VBRF                 | 5                       | 350                         | BSPP 1/8"         | 25             |
|                                                                                     |                      | 15                      |                             | BSPP 1/4"         |                |
|                                                                                     |                      | 30                      |                             | BSPP 3/8"         |                |
|                                                                                     |                      | 45                      |                             | BSPP 1/2"         |                |
|                                                                                     |                      | 85                      | 300                         | BSPP 3/4"         |                |
|                                                                                     |                      | 150                     | 250                         | BSPP 1"           |                |
|                                                                                     |                      | 200                     |                             | BSPP 1-1/4"       |                |
|                                                                                     | STB-BSPP             | 10                      | 400                         | BSPP 1/8"         | 32             |
|                                                                                     |                      | 15                      |                             | BSPP 1/4"         |                |
|                                                                                     |                      | 30                      |                             | BSPP 3/8"         |                |
|                                                                                     |                      | 50                      |                             | BSPP 1/2"         |                |
|                                                                                     |                      | 80                      |                             | BSPP 3/4"         |                |
|                                                                                     |                      | 150                     |                             | BSPP 1"           |                |
|                                                                                     |                      | 200                     | 350                         | BSPP 1-1/4"       |                |
|                                                                                     |                      | 300                     |                             | BSPP 1-1/2"       |                |
|                                                                                     | STBF-BSPP            | 10                      | 400                         | BSPP 1/8"         | 33             |
|                                                                                     |                      | 15                      |                             | BSPP 1/4"         |                |
|                                                                                     |                      | 30                      |                             | BSPP 3/8"         |                |
|                                                                                     |                      | 50                      |                             | BSPP 1/2"         |                |
|                                                                                     |                      | 80                      |                             | BSPP 3/4"         |                |
|                                                                                     |                      | 150                     |                             | BSPP 1"           |                |
|                                                                                     |                      | 200                     | 350                         | BSPP 1-1/4"       |                |
|                                                                                     |                      | 300                     |                             | BSPP 1-1/2"       |                |
|                                                                                     | STB-NPTF             | 10                      | 400                         | 1/8 NPTF          | 34             |
|                                                                                     |                      | 15                      |                             | 1/4 NPTF          |                |
|                                                                                     |                      | 30                      |                             | 3/8 NPTF          |                |
|                                                                                     |                      | 50                      |                             | 1/2 NPTF          |                |
|                                                                                     |                      | 80                      |                             | 3/4 NPTF          |                |
|                                                                                     |                      | 150                     |                             | 1 NPTF            |                |
|                                                                                     |                      | 200                     | 350                         | 1-1/4 NPTF        |                |
|                                                                                     |                      | 300                     |                             | 1-1/2 NPTF        |                |
|                                                                                     | STBF-NPTF            | 10                      | 400                         | 1/8 NPTF          | 35             |
|                                                                                     |                      | 15                      |                             | 1/4 NPTF          |                |
|                                                                                     |                      | 30                      |                             | 3/8 NPTF          |                |
|                                                                                     |                      | 50                      |                             | 1/2 NPTF          |                |
|                                                                                     |                      | 80                      |                             | 3/4 NPTF          |                |
|                                                                                     |                      | 150                     |                             | 1 NPTF            |                |
|                                                                                     |                      | 200                     | 350                         | 1-1/4 NPTF        |                |
|                                                                                     |                      | 300                     |                             | 1-1/2 NPTF        |                |
|                                                                                     | STB-SAE              | 15                      | 400                         | 7/16-20 UNF       | 36             |
|                                                                                     |                      | 30                      |                             | 9/16-18 UNF       |                |
|                                                                                     |                      | 50                      |                             | 3/4-16 UNF        |                |
|                                                                                     |                      | 80                      |                             | 1-1/16-12 UN      |                |
|                                                                                     |                      | 150                     |                             | 1-5/16-12 UN      |                |
|                                                                                     |                      | 200                     | 350                         | 1-5/8-12 UN       |                |
|                                                                                     |                      | 300                     |                             | 1-7/8-12 UN       |                |
|                                                                                     | STBF-SAE             | 15                      | 400                         | 7/16-20 UNF       | 37             |
|                                                                                     |                      | 30                      |                             | 9/16-18 UNF       |                |
|                                                                                     |                      | 50                      |                             | 3/4-16 UNF        |                |
|                                                                                     |                      | 80                      |                             | 1-1/16-12 UN      |                |
|                                                                                     |                      | 150                     |                             | 1-5/16-12 UN      |                |
|                                                                                     |                      | 200                     | 350                         | 1-5/8-12 UN       |                |
|                                                                                     |                      | 300                     |                             | 1-7/8-12 UN       |                |

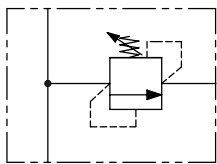
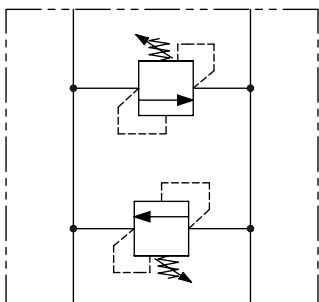
| CIRCUITO IDRAULICO<br>Hydraulic circuit                                             | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | ATTACCHI<br>Ports     | PAGINA<br>Page |
|-------------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|-----------------------|----------------|
|    | DRF10                | 40                      | 250                         | BSPP 3/8" - BSPP 3/8" | 40             |
|                                                                                     |                      |                         |                             | BSPP 3/8" - BSPP 1/2" |                |
|                                                                                     |                      |                         |                             | BSPP 1/2" - BSPP 3/8" |                |
|                                                                                     |                      |                         |                             | BSPP 1/2" - BSPP 1/2" |                |
|    | VUSF                 | 20                      | 350                         | BSPP 1/4"             | 39             |
|                                                                                     |                      | 40                      |                             | BSPP 3/8"             |                |
|                                                                                     |                      | 60                      |                             | BSPP 1/2"             |                |
|    | VRC                  | 10                      | 250                         | BSPP 1/4"             | 38             |
|                                                                                     |                      | 18                      |                             | BSPP 3/8"             |                |
|                                                                                     |                      | 33                      |                             | BSPP 1/2"             |                |
|   | VPT                  | 50                      | 250                         | BSPP 3/8"             | 41             |
|                                                                                     |                      | 90                      |                             | BSPP 1/2"             |                |
|                                                                                     |                      | 150                     |                             | BSPP 3/4"             |                |
|                                                                                     |                      | 240                     |                             | BSPP 1"               |                |
|  | VPT-AR               | 50                      | 250                         | BSPP 3/8"             | 42             |
|                                                                                     |                      | 90                      |                             | BSPP 1/2"             |                |
|  | VPT-RV               | 50                      | 250                         | BSPP 3/8"             | 43             |
|                                                                                     |                      | 90                      |                             | BSPP 1/2"             |                |
|                                                                                     |                      | 150                     |                             | BSPP 3/4"             |                |
|  | VPP                  | 50                      | 250                         | BSPP 3/8"             | 44             |
|                                                                                     |                      | 90                      |                             | BSPP 1/2"             |                |
|                                                                                     |                      | 150                     |                             | BSPP 3/4"             |                |
|  | VPP-RV               | 50                      | 250                         | BSPP 3/8"             | 45             |
|                                                                                     |                      | 90                      |                             | BSPP 1/2"             |                |

VALVOLE DI MASSIMA - Relief valves

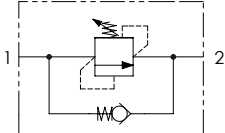
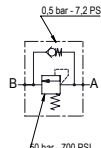
VALVOLE A CARTUCCIA - Cartridges valves

| CIRCUITO IDRAULICO<br>Hydraulic circuit                                           | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | CAVITÀ<br>Cavity | PAGINA<br>Page |
|-----------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|------------------|----------------|
|  | VMD1N                | 20                      | 350                         | SAE8/2           | 152            |
|                                                                                   | VMD10                | 20                      | 350                         | SAE8/2           | 153            |
|                                                                                   | VMD8                 | 40                      | 350                         | SAE10/2          | 154            |
|                                                                                   | VMD30                | 30                      | 320                         | C2015/30         | 155            |
|                                                                                   | VMD40S               | 40                      | 350                         | C2015/1415/2     | 156            |
|                                                                                   | VMD90                | 80                      | 350                         | C2415/2          | 157            |
|                                                                                   | VMD120               | 120                     | 350                         | C2815/2          | 158            |
|                                                                                   | VMD160               | 160                     | 380                         | SAE12/2          | 159            |

VALVOLE IN LINEA - In-line valves

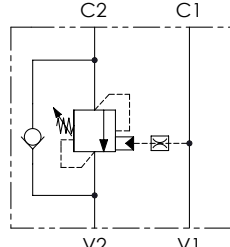
| CIRCUITO IDRAULICO<br>Hydraulic circuit                                            | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | ATTACCHI<br>Ports | PAGINA<br>Page |
|------------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|-------------------|----------------|
|   | VMDR40               | 40                      | 350                         | BSPP 3/8"         | 59             |
|                                                                                    |                      |                         |                             | BSPP 1/2"         |                |
|                                                                                    | VMDR90               | 80                      | 350                         | BSPP 1/2"         | 60             |
|                                                                                    |                      |                         |                             | BSPP 3/4"         |                |
|  | VMDR120              | 120                     | 350                         | BSPP 3/4"         | 61             |
|                                                                                    |                      |                         |                             | BSPP 1"           |                |
|                                                                                    | VBDC                 | 40                      | 350                         | BSPP 3/8"         | 55             |
|                                                                                    |                      |                         |                             | BSPP 1/2"         |                |
|                                                                                    | DCV                  | 40                      | 350                         | BSPP 1/2" - Ø21   | 56             |
|                                                                                    | DCF                  | 40                      | 350                         | BSPP 1/2" - Ø19   | 57             |
|                                                                                    | DCM                  | 40                      | 350                         | BSPP 1/2" - Ø19   | 58             |

VALVOLE DI SEQUENZA  
Sequence valves

| CIRCUITO IDRAULICO<br>Hydraulic circuit                                             | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | ATTACCHI<br>Ports      | PAGINA<br>Page |
|-------------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|------------------------|----------------|
|  | VSL                  | 20                      | 350                         | BSPP 1/4"              | 62             |
|                                                                                     |                      | 40                      |                             | BSPP 3/8"              |                |
|                                                                                     |                      |                         |                             | BSPP 1/2"              |                |
|  | VSLH                 | 45                      | 210                         | BSPP 3/8"<br>NPTF 3/8" | 63             |

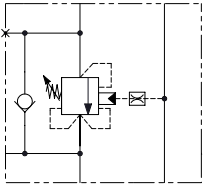
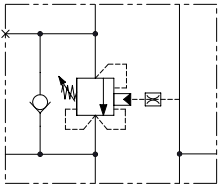
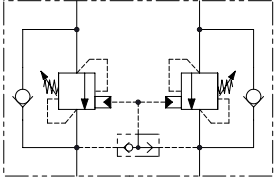
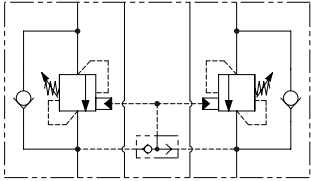
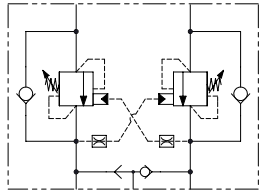
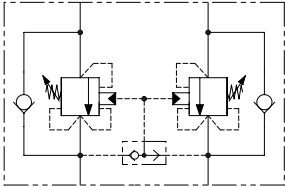
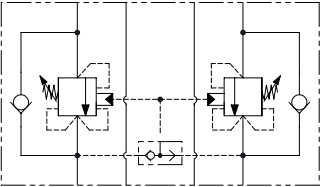
VALVOLE DI BILANCIAMENTO SINGOLE  
Single counterbalance valves

VALVOLE DI BILANCIAMENTO - Counterbalance valves

| CIRCUITO IDRAULICO<br>Hydraulic circuit                                             | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | ATTACCHI<br>Ports      | PAGINA<br>Page |
|-------------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|------------------------|----------------|
|  | VBCB                 | 40                      | 350                         | BSPP 3/8" + BANJO BOLT | 77             |
|                                                                                     | VBCL                 | 30                      | 350                         | BSPP 1/4"              | 79             |
|                                                                                     |                      | 40                      |                             | BSPP 3/8"              |                |
|                                                                                     |                      | 60                      |                             | BSPP 1/2"              |                |
|                                                                                     |                      | 120                     |                             | BSPP 3/4"              |                |
|                                                                                     | VBCL-SAE             | 30                      | 350                         | 7/16-20UNF             | 80             |
|                                                                                     |                      | 40                      |                             | 9/16-18UNF             |                |
|                                                                                     |                      | 60                      |                             | 3/4-16UNF              |                |

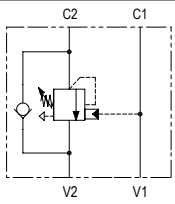
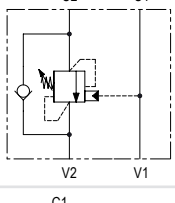
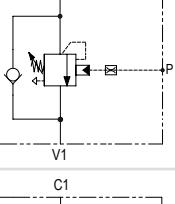
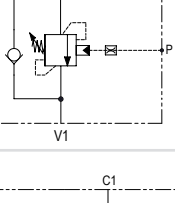
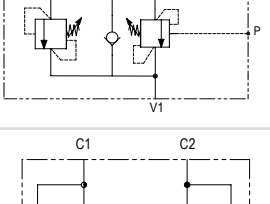
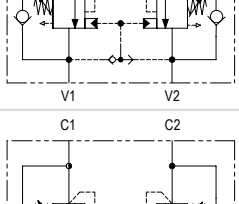
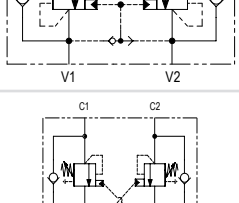
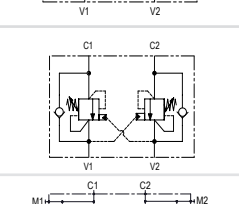
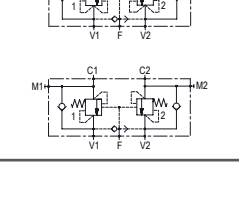
| CIRCUITO IDRAULICO<br>Hydraulic circuit | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | ATTACCHI<br>Ports | PAGINA<br>Page |
|-----------------------------------------|----------------------|-------------------------|-----------------------------|-------------------|----------------|
|                                         | VBLP                 | 40                      | 350                         | BSPP 3/8"         | 83             |
|                                         |                      | 60                      |                             | BSPP 1/2"         |                |
|                                         | VBCR                 | 30                      | 350                         | BSPP 1/4"         | 85             |
|                                         |                      | 40                      |                             | BSPP 3/8"         |                |
|                                         |                      | 60                      |                             | BSPP 1/2"         |                |
|                                         | VBFP                 | 40                      | 350                         | BSPP 3/8"         | 87             |
|                                         | VBLH                 | 40                      | 350                         | BSPP 3/8" - Ø9    | 88             |
|                                         | VBLF                 | 40                      | 350                         | BSPP 3/8" - Ø9    | 90             |
|                                         |                      | 60                      |                             | BSPP 1/2" - Ø9    |                |
|                                         | SCVB                 | 60                      | 350                         | OMP - OMR         | 103            |
|                                         | VCCB                 | 40                      | 350                         | BSPP 3/8"         | 78             |
|                                         | VCCL                 | 30                      | 350                         | BSPP 1/4"         | 81             |
|                                         |                      | 40                      |                             | BSPP 3/8"         |                |
|                                         |                      | 60                      |                             | BSPP 1/2"         |                |
|                                         | VCCL-SAE             | 30                      | 350                         | 7/16-20UNF        | 82             |
|                                         |                      | 40                      |                             | 9/16-18UNF        |                |
|                                         |                      | 60                      |                             | 3/4-16UNF         |                |
|                                         | VCLP                 | 40                      | 350                         | BSPP 3/8"         | 84             |
|                                         |                      | 60                      |                             | BSPP 1/2"         |                |
|                                         | VCCR                 | 30                      | 350                         | BSPP 1/4"         | 86             |
|                                         |                      | 40                      |                             | BSPP 3/8"         |                |
|                                         |                      | 60                      |                             | BSPP 1/2"         |                |

VALVOLE DI BILANCIAMENTO SINGOLE  
Single counterbalance valves

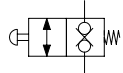
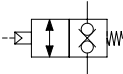
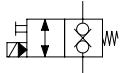
| CIRCUITO IDRAULICO<br>Hydraulic circuit                                             | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | ATTACCHI<br>Ports      | PAGINA<br>Page |
|-------------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|------------------------|----------------|
|    | VCLH                 | 40                      | 350                         | BSPP 3/8" - Ø9         | 89             |
|                                                                                     |                      | 60                      |                             | BSPP 1/2" - Ø9         |                |
|    | VCLF                 | 40                      | 350                         | BSPP 3/8" - Ø9         | 91             |
|                                                                                     |                      | 60                      |                             | BSPP 1/2" - Ø9         |                |
|    | VBCA                 | 40                      | 350                         | BSPP 3/8" + BANJO BOLT | 92             |
|                                                                                     | VBCD                 | 30                      | 350                         | BSPP 1/4"              | 93             |
|                                                                                     |                      | 40                      |                             | BSPP 3/8"              |                |
|                                                                                     |                      | 60                      |                             | BSPP 1/2"              |                |
|                                                                                     |                      | 120                     |                             | BSPP 3/4"              |                |
|                                                                                     | VBCD-SAE             | 30                      | 350                         | 7/16-20UNF             | 94             |
|                                                                                     |                      | 40                      |                             | 9/16-18UNF             |                |
|                                                                                     |                      | 60                      |                             | 3/4-16UNF              |                |
|                                                                                     | S0VBCD               | 30                      | 350                         | BSPP 1/4"              | 97             |
|                                                                                     |                      | 40                      |                             | BSPP 3/8"              |                |
|                                                                                     |                      | 60                      |                             | BSPP 1/2"              |                |
|                                                                                     | VBCF                 | 30                      | 350                         | BSPP 1/4" - Ø9         | 98             |
|                                                                                     |                      | 40                      |                             | BSPP 3/8" - Ø9         |                |
|                                                                                     |                      | 60                      |                             | BSPP 1/2" - Ø9         |                |
|  | VBCS                 | 40                      | 350                         | CETOP 3                | 100            |
|  | DCVB                 | 60                      | 350                         | OMP - OMR              | 104            |
|  | VBCC                 | 30                      | 350                         | BSPP 1/4"              | 95             |
|                                                                                     |                      | 40                      |                             | BSPP 3/8"              |                |
|                                                                                     |                      | 60                      |                             | BSPP 1/2"              |                |
|                                                                                     | VBCC-SAE             | 30                      | 350                         | 7/16-20UNF             | 96             |
|                                                                                     |                      | 40                      |                             | 9/16-18UNF             |                |
|                                                                                     |                      | 60                      |                             | 3/4-16UNF              |                |
|                                                                                     | VBCM                 | 30                      | 350                         | BSPP 1/4" - Ø9         | 99             |
|                                                                                     |                      | 40                      |                             | BSPP 3/8" - Ø9         |                |
|                                                                                     |                      | 60                      |                             | BSPP 1/2" - Ø9         |                |
|  | VBCT                 | 40                      | 350                         | CETOP 3                | 101            |

VALVOLE DI BILANCIAMENTO SINGOLE  
Single counterbalance valves

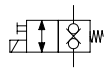
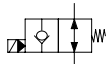
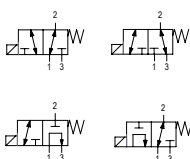
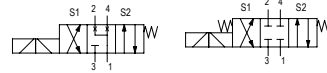
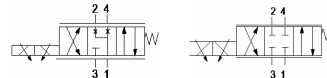
VALVOLE DI BILANCIAMENTO DOPPIE  
Double counterbalance valves

| CIRCUITO IDRAULICO<br>Hydraulic circuit                                             | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | ATTACCHI<br>Ports                    | PAGINA<br>Page |
|-------------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|--------------------------------------|----------------|
|    | B03SC-L1             | 30                      | 350                         | BSPP 1/4"                            | 67             |
|    | B03SN-L1             |                         |                             |                                      | 66             |
|    | B03SC-P1             |                         |                             |                                      | 69             |
|   | B03SN-P1             |                         |                             |                                      | 68             |
|  | B03N-PL              |                         |                             | VI - V2 BSPP 1/4"<br>C1 - C2 FLANGED | 76             |
|  | B03DC-L1             |                         |                             |                                      | 71             |
|  | B03DC-F2             |                         |                             |                                      | 74             |
|  | B03DN-L1             |                         |                             | BSPP 1/4"                            | 70             |
|  | B03DN-F2             |                         |                             | VI - V2 BSPP 1/4"<br>C1 - C2 FLANGED | 72             |
|  | B03SC-F3             | 60                      |                             | VI - V2 BSPP 1/4"<br>C1 - C2 FLANGED | 75             |
|  | B03SN-F3             |                         |                             |                                      | 73             |
|  | VBCFE                |                         |                             | VI - V2 BSPP 1/2"<br>C1 - C2 FLANGED | 102            |

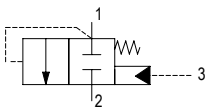
VALVOLE A COMANDO MANUALE o PNEUMATICO  
Manual or pneumatic operated release valves

| VALVOLE A CARTUCCIA - Cartridges valves                                           |                      |                         |                             |                  |                |
|-----------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|------------------|----------------|
| CIRCUITO IDRAULICO<br>Hydraulic circuit                                           | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | CAVITÀ<br>Cavity | PAGINA<br>Page |
|  | VEM6                 | 30                      | 320                         | SAE8/2           | 150            |
|                                                                                   | VEM10                | 50                      |                             | SAE10/2          |                |
|  | VPN6                 | 40                      | 350                         | SAE8/2           | 151            |
|  | CM60                 | 25                      | 320                         | SAE8/2           | 145            |
|                                                                                   | CM6M                 |                         |                             |                  |                |

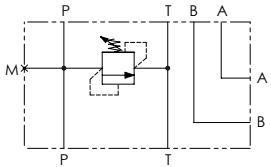
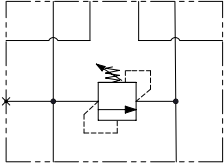
VALVOLE A COMANDO ELETTRICO - Electrical valves

| VALVOLE A CARTUCCIA - Cartridges valves                                             |                      |                         |                             |                  |                |
|-------------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|------------------|----------------|
| CIRCUITO IDRAULICO<br>Hydraulic circuit                                             | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | CAVITÀ<br>Cavity | PAGINA<br>Page |
|    | EC082A               | 22                      | 210                         | SAE8/2           | 108            |
|    | ED082A               | 22                      | 210                         |                  | 109            |
|   | EC082G               | 40                      | 350                         |                  | 110            |
|  | EC082F               |                         |                             |                  |                |
|  | ED102A               | 70                      | 350                         | SAE10/2          | 115            |
|  | EC102G               |                         |                             |                  | 111            |
|  | EC102F               |                         |                             |                  |                |
|  | ES083F               | 15                      | 250                         | SAE8/3           | 112-113        |
|  | ES104F               | 30                      | 250                         | SAE10/4          | 116-117        |
|  | ES104P               |                         |                             |                  | 118-119        |

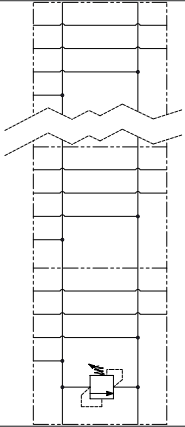
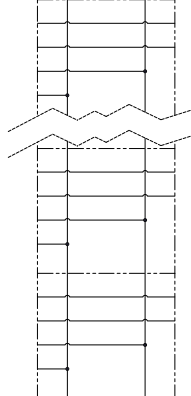
ELEMENTI LOGICI A CARTUCCIA  
Cartridge Logic Elements

| VALVOLE A CARTUCCIA - Cartridges valves                                             |                      |                         |                             |                  |                |
|-------------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|------------------|----------------|
| CIRCUITO IDRAULICO<br>Hydraulic circuit                                             | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | CAVITÀ<br>Cavity | PAGINA<br>Page |
|  | LE103A               | 70                      | 350                         | SAE10/3 SHORT    | 163            |

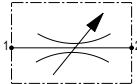
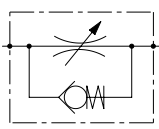
### BASI MULTIPLE - Cetop manifolds

| CIRCUITO IDRAULICO<br>Hydraulic circuit                                          | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | CETOP   | ATTACCHI CETOP<br>CETOP ports |           | PAGINA<br>Page |
|----------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|---------|-------------------------------|-----------|----------------|
|                                                                                  |                      |                         |                             |         | P-T                           | A-B       |                |
|  | BS3                  | 40                      | 210                         | CETOP 3 | BSPP 3/8"                     | BSPP 3/8" | 166            |
|                                                                                  | BP3                  | 40                      | 210                         | CETOP 3 | BSPP 3/8"                     | BSPP 3/8" | 167            |
|  | BS5                  | 80                      | 210                         | CETOP 5 | BSPP 1/2"                     | BSPP 1/2" | 168            |

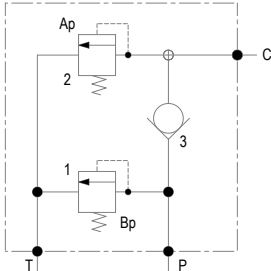
### BASI MULTIPLE - Cetop manifolds

| CIRCUITO IDRAULICO<br>Hydraulic circuit                                             | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | CETOP   | ATTACCHI CETOP<br>CETOP ports |           | PAGINA<br>Page |
|-------------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|---------|-------------------------------|-----------|----------------|
|                                                                                     |                      |                         |                             |         | P-T                           | A-B       |                |
|   | BM-RV                | 40                      | 210                         | CETOP 3 | BSPP 1/2"                     | BSPP 3/8" | 169            |
|  | BM                   | 40                      | 210                         | CETOP 3 | BSPP 1/2"                     | BSPP 3/8" | 170            |

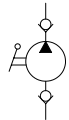
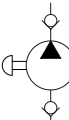
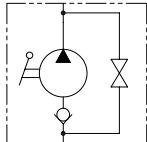
### STROZZATORI A CARTUCCIA SAE 10/2 (CARTRIDGE FLOW RESTRICTOR SAE 10/2)

| CIRCUITO IDRAULICO<br>Hydraulic circuit                                             | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | CAVITÀ<br>Size           | PAGINA<br>Page |
|-------------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|--------------------------|----------------|
|  | RB102                | 70                      | 350                         | SAE 10/2<br>(7/8-14 UNF) | 142            |
|  | RU102                |                         |                             |                          | 143            |

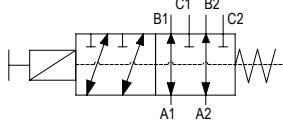
VALVOLE SPECIALI (Special Valves)

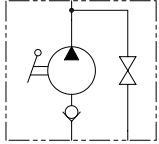
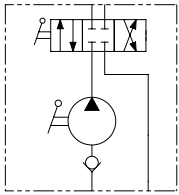
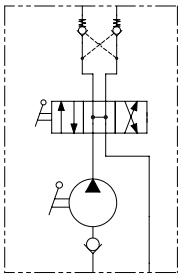
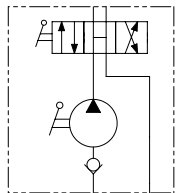
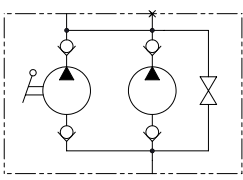
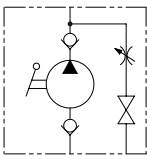
| VALVOLE PER APPLICAZIONI SPECIALI (VALVES FOR SPECIAL APPLICATIONS)               |                      |                         |                             |                    |                |
|-----------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|--------------------|----------------|
| CIRCUITO IDRAULICO<br>Hydraulic circuit                                           | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | DIMENSIONE<br>Size | PAGINA<br>Page |
|  | VARA013801SN-00      | 40                      | 350                         | BSPP 3/8           | 230            |

POMPE - Pumps

| POMPE A CARTUCCIA - Cartridge pumps                                                 |                      |                         |                             |                       |                |
|-------------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|-----------------------|----------------|
| CIRCUITO IDRAULICO<br>Hydraulic circuit                                             | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | CAVITÀ<br>Cavity      | PAGINA<br>Page |
|    | PME                  | 1                       | 300                         | SAE8/2                | 146            |
|                                                                                     |                      | 2                       | 200                         |                       |                |
|                                                                                     |                      | 3                       | 120                         |                       |                |
|                                                                                     | PME10                | 10                      | 200                         | SAE10/2               | 148-149        |
|   | PME5P                | 1                       | 50                          | SAE8/2                | 147            |
| POMPE A MANO - Hand pumps                                                           |                      |                         |                             |                       |                |
|  | PM                   | 20                      | 350                         | BSPP 1/2" - BSPP 3/8" | 186-187        |
|                                                                                     |                      | 50                      | 280                         | BSPP 1/2" - BSPP 1/2" | 188-189        |
|                                                                                     |                      | 70                      | 200                         | BSPP 1/2" - BSPP 1/2" | 190-191        |
|                                                                                     | PMS                  | 6                       | 500                         | Pipe - BSPP 3/8"      | 192-193        |
|                                                                                     |                      | 12                      | 380                         | Pipe - BSPP 3/8"      |                |
|                                                                                     |                      | 25                      | 350                         | Pipe - BSPP 3/8"      |                |
|                                                                                     |                      | 45                      | 280                         | Pipe - BSPP 3/8"      |                |

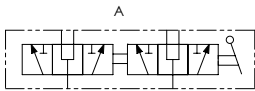
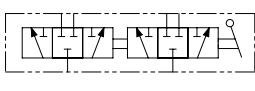
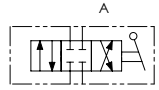
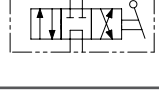
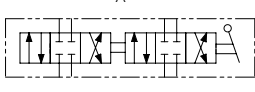
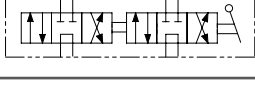
DEVIATORI ELETTRICI

| DEVIATORI ELETTRICI (ELECTRICAL FLOW DIVERTER)                                      |                      |                         |                                                        |                    |                |
|-------------------------------------------------------------------------------------|----------------------|-------------------------|--------------------------------------------------------|--------------------|----------------|
| CIRCUITO IDRAULICO<br>Hydraulic circuit                                             | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar)                            | DIMENSIONE<br>Size | PAGINA<br>Page |
|  | EFD25A               | 50                      | 200 (With Internal drain)<br>310 (With External drain) | BSPP 1/4           | 210-213        |
|                                                                                     | EFD25B               | 25                      |                                                        |                    | 214-217        |

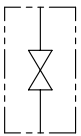
| CIRCUITO IDRAULICO<br>Hydraulic circuit                                             | CODICE<br>Model code | CILINDRATA<br>Displacement<br>(cm <sup>3</sup> ) | PRESSIONE<br>Pressure (bar) | ATTACCHI CETOP<br>CETOP Ports | PAGINA<br>Page |
|-------------------------------------------------------------------------------------|----------------------|--------------------------------------------------|-----------------------------|-------------------------------|----------------|
|                                                                                     |                      |                                                  |                             | IN - OUT                      |                |
|    | PME2                 | 20                                               | 240                         | Pipe - BSPP 1/4"              | 202-203        |
|                                                                                     |                      | 30                                               | 185                         | Pipe - BSPP 1/4"              |                |
|                                                                                     |                      | 40                                               | 160                         | Pipe - BSPP 1/4"              |                |
|                                                                                     | PME1                 | 8                                                | 380                         | Pipe - BSPP 1/4"              | 200-201        |
|                                                                                     |                      | 15                                               | 350                         | Pipe - BSPP 1/4"              |                |
|    | PMI                  | 6                                                | 500                         | Pipe - BSPP 3/8"              | 194-195        |
|                                                                                     |                      | 12                                               | 380                         | Pipe - BSPP 3/8"              |                |
|                                                                                     |                      | 25                                               | 350                         | Pipe - BSPP 3/8"              |                |
|                                                                                     |                      | 45                                               | 280                         | Pipe - BSPP 3/8"              |                |
|   | PMT                  | 6                                                | 500                         | Pipe - BSPP 1/4"              | 196-197        |
|                                                                                     |                      | 12                                               | 380                         | Pipe - BSPP 1/4"              |                |
|                                                                                     |                      | 25                                               | 350                         | Pipe - BSPP 1/4"              |                |
|                                                                                     |                      | 45                                               | 280                         | Pipe - BSPP 1/4"              |                |
|  | PMA                  | 6                                                | 500                         | Pipe - BSPP 3/8"              | 198-199        |
|                                                                                     |                      | 12                                               | 380                         | Pipe - BSPP 3/8"              |                |
|                                                                                     |                      | 25                                               | 350                         | Pipe - BSPP 3/8"              |                |
|                                                                                     |                      | 45                                               | 280                         | Pipe - BSPP 3/8"              |                |
|  | PMD                  | 5                                                | 500                         | BSPP 3/8" - BSPP 3/8"         | 204            |
|                                                                                     |                      | 10                                               | 250                         | BSPP 3/8" - BSPP 3/8"         |                |
|                                                                                     |                      | 17                                               | 150                         | BSPP 3/8" - BSPP 3/8"         |                |
|  | PME3                 | 14                                               | 200                         | BSPP 1/4"                     | 205            |

| VALVOLE IN LINEA - In-line valves       |                      |                         |                             |                   |                |
|-----------------------------------------|----------------------|-------------------------|-----------------------------|-------------------|----------------|
| CIRCUITO IDRAULICO<br>Hydraulic circuit | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | ATTACCHI<br>Ports | PAGINA<br>Page |
|                                         | RAS2-BSPP            | 15                      | 500                         | BSPP 1/8"         | 231            |
|                                         |                      | 25                      |                             | BSPP 1/4"         |                |
|                                         |                      | 35                      |                             | BSPP 3/8"         |                |
|                                         |                      | 60                      | 400                         | BSPP 1/2"         |                |
|                                         |                      | 100                     |                             | BSPP 3/4"         |                |
|                                         |                      | 150                     |                             | BSPP 1"           |                |
|                                         | RAS2-NPTF            | 15                      | 500                         | BSPP 1-1/4"       | 234            |
|                                         |                      | 25                      |                             | BSPP 1-1/2"       |                |
|                                         |                      | 35                      |                             | 1/8 NPTF          |                |
|                                         |                      | 60                      | 400                         | 1/4 NPTF          |                |
|                                         |                      | 100                     |                             | 3/8 NPTF          |                |
|                                         |                      | 150                     |                             | 1/2 NPTF          |                |
|                                         | RAS3-BSPP            | 15                      | 400                         | 1 NPTF            | 232            |
|                                         |                      | 25                      |                             | BSPP 1/8"         |                |
|                                         |                      | 35                      |                             | BSPP 1/4"         |                |
|                                         | RAS3-NPTF            | 60                      | 350                         | BSPP 3/8"         | 235            |
|                                         |                      | 100                     |                             | BSPP 1/2"         |                |
|                                         |                      | 150                     |                             | BSPP 3/4"         |                |
|                                         | RAS3-BSPP            | 15                      | 400                         | BSPP 1"           | 232            |
|                                         |                      | 25                      |                             | BSPP 1-1/4"       |                |
|                                         |                      | 35                      |                             | BSPP 1-1/2"       |                |
|                                         | RAS3-NPTF            | 60                      | 350                         | BSPP 1/8"         | 235            |
|                                         |                      | 100                     |                             | BSPP 1/4"         |                |
|                                         |                      | 150                     |                             | BSPP 3/8"         |                |
|                                         | RAS4-BSPP            | 25                      | 500                         | BSPP 1/4"         | 233            |
|                                         |                      | 35                      | 400                         | BSPP 3/8"         |                |
|                                         |                      | 60                      | 350                         | BSPP 1/2"         |                |
|                                         |                      | 100                     |                             | BSPP 3/4"         |                |
|                                         |                      | 150                     |                             | BSPP 1"           |                |
|                                         | RAS4-NPTF            | 25                      | 500                         | BSPP 1-1/4"       | 236            |
|                                         |                      | 35                      | 400                         | BSPP 1-1/2"       |                |
|                                         |                      | 60                      | 350                         | 1/4 NPTF          |                |
|                                         |                      | 100                     |                             | 3/8 NPTF          |                |
|                                         |                      | 150                     |                             | 1/2 NPTF          |                |
|                                         | RAS4-NPTF            | 25                      | 500                         | 1 NPTF            | 236            |
|                                         |                      | 35                      | 400                         | 1-1/4 NPTF        |                |
|                                         |                      | 60                      | 350                         | 1-1/2 NPTF        |                |
|                                         |                      | 100                     |                             | BSPP 1/4"         |                |
|                                         |                      | 150                     |                             | BSPP 3/8"         |                |
|                                         | RAS4-NPTF            | 25                      | 500                         | BSPP 1/2"         | 236            |
|                                         |                      | 35                      | 400                         | BSPP 3/4"         |                |
|                                         |                      | 60                      | 350                         | BSPP 1"           |                |
|                                         |                      | 100                     |                             | BSPP 1-1/4"       |                |
|                                         |                      | 150                     |                             | BSPP 1-1/2"       |                |
|                                         | DDFA3-Z              | 40                      | 500                         | BSPP 1/4"         | 218-219        |
|                                         | DDFA6-Z              | 60                      |                             | BSPP 3/8"         |                |
|                                         | DDFA3-N              | 100                     |                             | BSPP 1/2"         |                |
|                                         | DDF3-BSPP            | 180                     | 350                         | BSPP 3/4"         | 216            |
|                                         |                      | 60                      |                             | BSPP 1"           |                |
|                                         |                      | 90                      |                             | BSPP 1/4"         |                |
|                                         |                      | 120                     |                             | BSPP 3/8"         |                |
|                                         | DDF3-BSPP            | 200                     | 300                         | BSPP 1/2"         | 220            |
|                                         |                      | 60                      |                             | BSPP 3/4"         |                |
|                                         |                      | 90                      |                             | BSPP 1"           |                |
|                                         |                      | 120                     |                             | 3/4-16UNF         |                |
|                                         | DDF3-SAE             | 200                     | 300                         | 7/8-14UNF         | 221            |
|                                         |                      | 200                     |                             | 1-1/16-12UN       |                |

DEVIATORI E VALVOLE A SFERA  
Flow diverters and ball valves

| CIRCUITO IDRAULICO<br>Hydraulic circuit                                                                                                                                | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | ATTACCHI<br>Ports | PAGINA<br>Page |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|-------------------|----------------|
| <br> | DDF6-BSPP            | 60                      | 350                         | BSPP 1/4"         | 222            |
|                                                                                                                                                                        |                      | 90                      |                             | BSPP 3/8"         |                |
|                                                                                                                                                                        |                      | 120                     | 300                         | BSPP 1/2"         |                |
|                                                                                                                                                                        |                      | 200                     |                             | BSPP 3/4"         |                |
|                                                                                                                                                                        | DDF6-SAE             | 60                      | 350                         | BSPP 1"           | 223            |
|                                                                                                                                                                        |                      | 90                      |                             | 3/4-16UNF         |                |
|                                                                                                                                                                        |                      | 120                     | 300                         | 7/8-14UNF         |                |
|                                                                                                                                                                        |                      | 200                     |                             | 1-1/16-12UN       |                |
| <br> | IDF4-BSPP            | 60                      | 350                         | 1-5/16-12UN       | 224            |
|                                                                                                                                                                        |                      | 90                      |                             | BSPP 1/4"         |                |
|                                                                                                                                                                        |                      | 120                     | 300                         | BSPP 3/8"         |                |
|                                                                                                                                                                        |                      | 200                     |                             | BSPP 1/2"         |                |
|                                                                                                                                                                        | IDF4-SAE             | 60                      | 350                         | BSPP 3/4"         | 225            |
|                                                                                                                                                                        |                      | 90                      |                             | BSPP 1"           |                |
|                                                                                                                                                                        |                      | 120                     | 300                         | 3/4-16UNF         |                |
|                                                                                                                                                                        |                      | 200                     |                             | 7/8-14UNF         |                |
| <br> | IDF8-BSPP            | 60                      | 350                         | 1-1/16-12UN       | 226            |
|                                                                                                                                                                        |                      | 90                      |                             | BSPP 1/4"         |                |
|                                                                                                                                                                        |                      | 120                     | 300                         | BSPP 3/8"         |                |
|                                                                                                                                                                        |                      | 200                     |                             | BSPP 1/2"         |                |
|                                                                                                                                                                        | IDF8-SAE             | 60                      | 350                         | BSPP 3/4"         | 227            |
|                                                                                                                                                                        |                      | 90                      |                             | BSPP 1"           |                |
|                                                                                                                                                                        |                      | 120                     | 300                         | 3/4-16UNF         |                |
|                                                                                                                                                                        |                      | 200                     |                             | 7/8-14UNF         |                |

COMPONENTI VARI - Hydraulic components

| CIRCUITO IDRAULICO<br>Hydraulic circuit                                             | CODICE<br>Model code | PORTATA<br>Flow (l/min) | PRESSIONE<br>Pressure (bar) | FILETTO<br>Thread     | PAGINA<br>Page |
|-------------------------------------------------------------------------------------|----------------------|-------------------------|-----------------------------|-----------------------|----------------|
|  | GGIL                 | 25                      | 400                         | BSPP 1/4"             | 237            |
|                                                                                     |                      | 35                      |                             | BSPP 3/8"             |                |
|                                                                                     |                      | 60                      | 300                         | BSPP 1/2"             |                |
|                                                                                     |                      | 100                     |                             | BSPP 3/4"             |                |
|                                                                                     | GG90                 | 180                     | 400                         | BSPP 1"               | 238            |
|                                                                                     |                      | 25                      |                             | BSPP 1/4"             |                |
|                                                                                     |                      | 35                      | 300                         | BSPP 3/8"             |                |
|                                                                                     |                      | 60                      |                             | BSPP 1/2"             |                |
|  | SOV                  | -                       | 400                         | BSPP 3/4"             | 239-240        |
|                                                                                     |                      |                         |                             | BSPP 1"               |                |
|                                                                                     |                      |                         |                             | BSPT 1/4" - BSPP 1/4" |                |
|                                                                                     |                      |                         |                             | BSPT 1/4" - BSPP 1/4" |                |
|                                                                                     |                      |                         |                             | BSPT 1/4" - BSPP 1/4" |                |
|                                                                                     |                      |                         |                             | BSPT 1/4" - BSPP 1/4" |                |
|  | MNP-BSPP             | -                       | 630                         | BSPT 1/4" - BSPP 1/4" | 241            |
|                                                                                     |                      |                         |                             | BSPP 1/8"             |                |
|                                                                                     |                      |                         |                             | BSPP 1/4"             |                |
|                                                                                     |                      |                         |                             | BSPP 3/8"             |                |
|                                                                                     | MNP-NPTF             | -                       | 630                         | BSPP 1/2"             | 242            |
|                                                                                     |                      |                         |                             | 1/8 NPTF              |                |
|                                                                                     |                      |                         |                             | 1/4 NPTF              |                |
|                                                                                     |                      |                         |                             | 3/8 NPTF              |                |

SERBATOI - Reservoirs

| CIRCUITO IDRAULICO<br>Hydraulic circuit | CAPACITÀ (l)<br>Capacity (l) | PAGINA<br>Page |
|-----------------------------------------|------------------------------|----------------|
| TNK                                     | 1                            | 206            |
|                                         | 2                            |                |
|                                         | 3                            |                |
|                                         | 5                            |                |
|                                         | 7                            |                |
|                                         | 10                           |                |
|                                         | 13                           |                |
|                                         | 15                           |                |
| TNA                                     | 20                           |                |
|                                         | 1                            | 207            |
|                                         | 2                            |                |
|                                         | 3                            |                |
|                                         | 5                            |                |

BLOCCHI - Manifolds

| CODICE<br>Model code | CAVITÀ<br>Cavity | ATTACCHI<br>Ports | PAGINA<br>Page |
|----------------------|------------------|-------------------|----------------|
| 62200032             | SAE8/2           | BSPP 1/4"         | 172            |
| 62200051             |                  | BSPP 3/8"         |                |
| 62200369             |                  | BSPP 1/4"         |                |
| 62200370             |                  | BSPP 3/8"         |                |
| 62200357             | SAE8/3           | BSPP 1/4"         | 173            |
| 62200358             |                  | BSPP 3/8"         |                |
| 62200451             | SAE10/2          | BSPP 3/8"         |                |
| 62200452             |                  | BSPP 1/2"         |                |
| 62200367             |                  | BSPP 3/8"         |                |
| 62200368             | SAE10/3          | BSPP 1/2"         | 173            |
| 62200373             |                  | BSPP 3/8"         |                |
| 62200374             |                  | BSPP 1/2"         |                |
| 62200023             |                  | BSPP 1/4"         |                |

## BLOCCHI - Manifolds

| CODICE<br>Model code         | CAVITÀ<br>Cavity | LAYOUT                      | ATTACCHI<br>Ports                      | PAGINA<br>Page |
|------------------------------|------------------|-----------------------------|----------------------------------------|----------------|
| 9COS08338020                 | SAE08/3 SHORT    | SINGLE CAVITY               | Port 1-2 BSPP 3/8"<br>Port 3 BSPP 1/4" | 171            |
| 9COS10314010<br>9COS10314020 | SAE10/3 SHORT    |                             |                                        | 171            |
| 9COR08S08200                 | T-11A            | CROSS-PILOTED DOUBLE CAVITY | SAE08                                  |                |
| 9COR08S08201                 |                  | CROSS-PILOTED SINGLE CAVITY |                                        |                |
| 9COR08380200                 |                  | CROSS-PILOTED DOUBLE CAVITY | BSPP 1/2"                              |                |
| 9COR08380201                 |                  | CROSS-PILOTED SINGLE CAVITY |                                        |                |
| 9COR08120200                 |                  | CROSS-PILOTED DOUBLE CAVITY | BSPP 3/8"                              |                |
| 9COR08120201                 |                  | CROSS-PILOTED SINGLE CAVITY |                                        |                |

## CAVITÀ - Cavities

| CODICE<br>Model code | CAVITÀ<br>Cavity  | PAGINA<br>Page |
|----------------------|-------------------|----------------|
| T-163A               | T-163A            | 174            |
| T-11A                | T-11A             | 175            |
| SAE08/3 SHORT        | 3/4-16 UNF SHORT  | 178            |
| SAE10/3 SHORT        | 7/8-14 UNF SHORT  | 179            |
| SAE /2               | 3/4-16UNF         | 176            |
|                      | 7/8-14UNF         |                |
|                      | 1-1/16-12UNF      |                |
|                      | 1-5/16-12UNF      |                |
| SAE /3               | 3/4-16UNF         | 177            |
|                      | 7/8-14UNF         |                |
|                      | 1-1/16-12UNF      |                |
|                      | 1-5/16-12UNF      |                |
| SAE /4               | 3/4-16UNF         | 180            |
|                      | 7/8-14UNF         |                |
|                      | 1-1/16-12UNF      |                |
|                      | 1-5/16-12UNF      |                |
| C2015/2              | M20x1,5           | 181            |
| C2015/30             | M20x1,5           |                |
| C2015/1415/2         | M20x1,5 - M14x1,5 |                |
| C2215/2              | M22x1,5           |                |
| C2215/3              | M22x1,5           | 182            |
| C2415/2              | M24x1,5           |                |
| C2615/2              | M26x1,5           |                |
| C2815/2              | M28x1,5           |                |

BOBINE  
Coils

| BOBINE - Coil        |                      |                          |                             |                |
|----------------------|----------------------|--------------------------|-----------------------------|----------------|
| CODICE<br>Model code | POTENZA<br>Power (W) | TENSIONE<br>Voltage (V)  | Ø CANOTTO<br>Tube size (mm) | PAGINA<br>Page |
| EC                   | 18                   | 12 - VDC                 | Ø13                         | 120            |
|                      | 18                   | 24 - VDC                 |                             |                |
|                      | 18                   | 220 - 50/60Hz            |                             |                |
|                      | 18                   | 220 RAC                  |                             |                |
| EC36                 | 22                   | 12 - VDC                 | Ø13                         | 120            |
|                      | 22                   | 24 - VDC                 |                             |                |
|                      | 22                   | 220 - 50/60Hz<br>220 RAC |                             |                |
| C012NDIN1400         | 27                   | 12 - VDC                 | Ø14                         | 121            |
| C012NDT41400         |                      |                          |                             |                |
| C024NDIN1400         |                      | 24 - VDC                 |                             |                |
| C024NDT41400         |                      |                          |                             |                |
| C012NDIN1900         | 24                   | 12 - VDC                 | Ø19                         | 117            |
| C012NDT41900         |                      |                          |                             |                |
| C024NDIN1900         |                      | 24 - VDC                 |                             |                |
| C024NDT41900         |                      |                          |                             |                |
| C012PDIN1900         | 36                   | 12 - VDC                 | Ø19                         | 119            |
| C012PDT41900         |                      |                          |                             |                |
| C024PDIN1900         | 39,7                 | 24 - VDC                 |                             |                |
| C024PDT41900         |                      |                          |                             |                |
| C012NDIN2200         | 40                   | 12 - VDC                 | Ø22                         | 121            |
| C012NDT42200         |                      |                          |                             |                |
| C024NDIN2200         |                      | 24 - VDC                 |                             |                |
| C024NDT42200         |                      |                          |                             |                |

CONNETTORI  
Connectors

| CONNETTORI - Connectors |                           |                |
|-------------------------|---------------------------|----------------|
| CODICE<br>Model code    | TIPO - Type               | PAGINA<br>Page |
| 88100002                | STANDARD                  | 120            |
| 88100003                | STANDARD - With rectifier |                |

## notes

## notes

# VALVOLE A INSERTO

## INSERT VALVES

Valvole a inserto unidirezionali, per il controllo della portata, di sicurezza anti rottura tubo e di regolazione della velocità di discesa degli attuatori.

Insert check valves, Flow control valves pressure compensated, Hose burst valves, Lowering speed control valves.





**CODICE ORDINAZIONE**  
ORDERING CODE

|            |    |
|------------|----|
| 01         | 02 |
| <b>VUI</b> |    |

| 01 | VALVOLE UNIDIREZIONALI A SFERA<br>(CHECK VALVES - BALL TYPE) |          | VUI        |
|----|--------------------------------------------------------------|----------|------------|
| 02 | DIMENSIONE<br>(SIZE)                                         | BSPP 1/4 | <b>140</b> |
|    |                                                              | BSPP 3/8 | <b>380</b> |
|    |                                                              | BSPP 1/2 | <b>120</b> |
|    |                                                              | BSPP 3/4 | <b>340</b> |

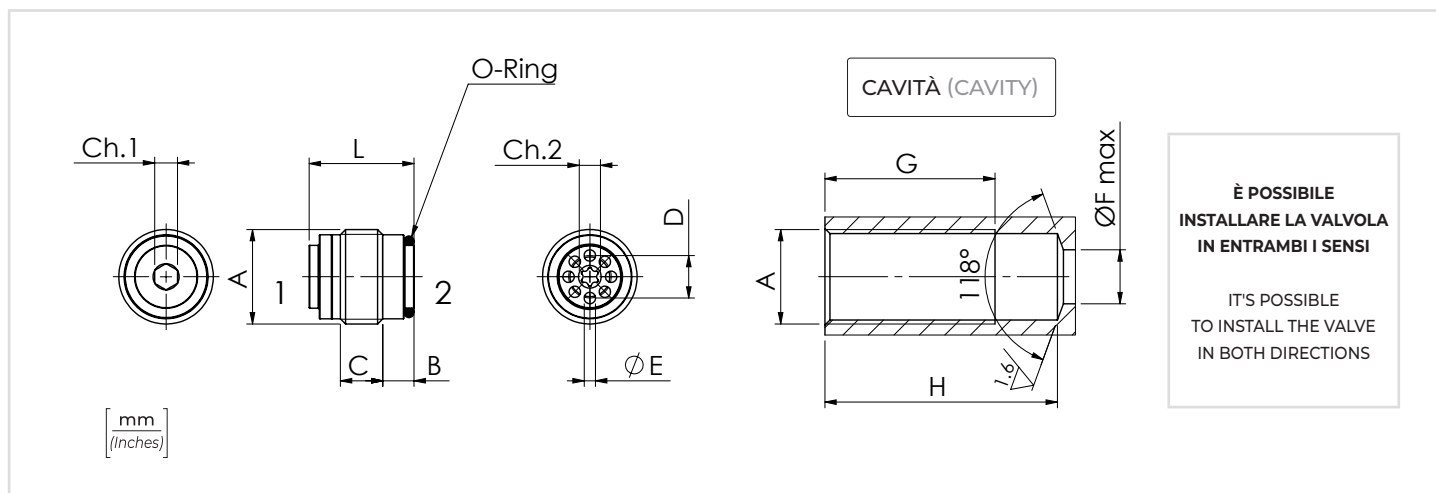
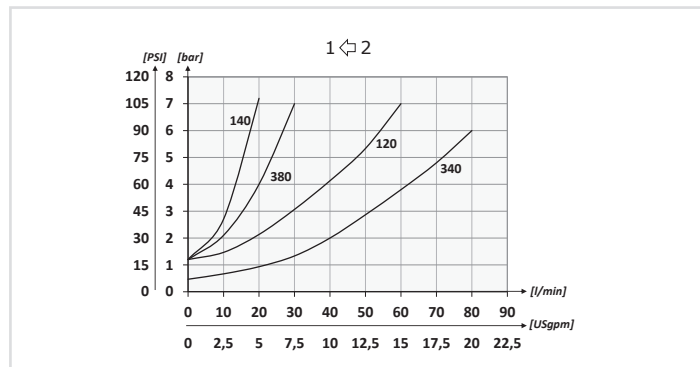
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                | <b>ISO 6743/4</b> (DIN 51524)                                    |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                              | <b>15-250 mm²/s</b> (15 to 250 cSt)                              |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                     | <b>ISO 4406:1999 Classe 19/17/14</b>                             |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                     | <b>-20°C +80°C</b> -4°F +176°F                                   |
| <b>Temperatura ambiente</b> - Ambient temperature                                                                                                                                  | <b>-20°C +50°C</b> -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                  |
| <b>Trafilamento massimo</b><br>Max leakage                                                                                                                                         | <b>0,25 cm³/min - 5 gocce/min</b><br>0,015 in³/min - 5 drops/min |
| <b>Pressione d'apertura</b> - Cracking pressure                                                                                                                                    | <b>0,5 bar - 7.25 PSI</b>                                        |

**PERFORMANCES**



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | A        | PORTATA<br>MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B             | C             | D              | E             | F             | G            | H            | L              | CH.1 | CH.2     | COPPIA<br>DI SERRAGGIO<br>TIGHTENING<br>TORQUE<br>Nm-lbt ft | O-RING       | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt |
|--------------|----------|-------------------------------------------|------------------------------------------|---------------|---------------|----------------|---------------|---------------|--------------|--------------|----------------|------|----------|-------------------------------------------------------------|--------------|-------------------------------------------|
| VUI140       | BSPP 1/4 | 20 (5.3)                                  | 350 (5075)                               | 5,5<br>(0.22) | 6<br>(0.24)   | 6<br>(0.24)    | 1,3<br>(0.05) | 7<br>(0.28)   | 28<br>(1.10) | 31<br>(1.22) | 17<br>(0.67)   | 3    | Torx T15 | 4 (35)                                                      | 9 x 1        | 0,01 (0.022)                              |
| VUI380       | BSPP 3/8 | 30 (7.9)                                  |                                          |               | 7,5<br>(0.30) | 7,5<br>(0.30)  | 2<br>(0.08)   | 9<br>(0.35)   | 31<br>(1.22) | 34<br>(1.34) | 18,5<br>(0.73) | 4    | Torx T15 | 6 (53)                                                      | 10,82 x 1,78 | 0,018 (0.040)                             |
| VUI120       | BSPP 1/2 | 50 (13.2)                                 |                                          |               | 7<br>(0.28)   | 8,5<br>(0.34)  | 10<br>(0.39)  | 2,5<br>(0.10) | 12<br>(0.47) | 35<br>(1.38) | 38<br>(1.50)   | 6    | 5        | 10 (88)                                                     | 14 x 1,78    | 0,033 (0.073)                             |
| VUI340       | BSPP 3/4 | 80 (21.1)                                 |                                          |               | 8<br>(0.31)   | 12,5<br>(0.49) | 14<br>(0.55)  | 3<br>(0.12)   | 16<br>(0.63) | 41<br>(1.61) | 45<br>(1.77)   | 8    | 8        | 20 (177)                                                    | 18,72 x 2,62 | 0,07 (0.16)                               |



### CODICE ORDINAZIONE ORDERING CODE

|            |    |
|------------|----|
| 01         | 02 |
| <b>VUC</b> |    |

| 01 | VALVOLE UNIDIREZIONALI AD OTTURATORE<br>(CHECK VALVES - POPPET TYPE) |          | VUC |
|----|----------------------------------------------------------------------|----------|-----|
| 02 | DIMENSIONE<br>(SIZE)                                                 | BSPP 1/4 | 140 |
|    |                                                                      | BSPP 3/8 | 380 |

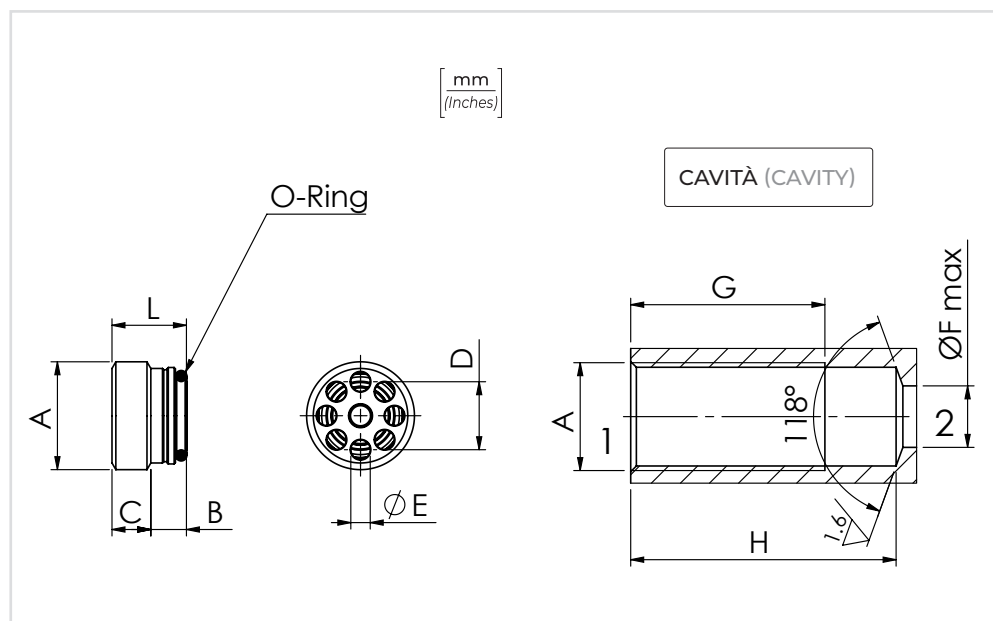
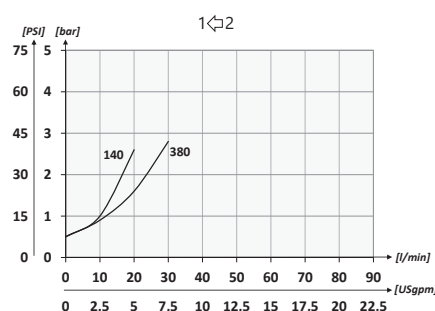
### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



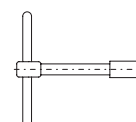
### DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                         |                    |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------|--|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                | <b>ISO 6743/4 (DIN 51524)</b>                                           |                    |  |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                              | <b>15-250 mm²/s (15 to 250 cSt)</b>                                     |                    |  |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                     | <b>ISO 4406:1999 Classe 19/17/14</b>                                    |                    |  |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                     | <b>-20°C +80°C</b>                                                      | <b>-4°F +176°F</b> |  |
| <b>Temperatura ambiente</b> - Ambient temperature                                                                                                                                  | <b>-20°C +50°C</b>                                                      | <b>-4°F +122°F</b> |  |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                         |                    |  |
| <b>Trafilamento massimo</b><br>Max leakage                                                                                                                                         | <b>0,25 cm³/min - 5 gocce/min</b><br><b>0,015 in³/min - 5 drops/min</b> |                    |  |
| <b>Pressione d'apertura</b> - Cracking pressure                                                                                                                                    | <b>0,5 bar - 7.25 PSI</b>                                               |                    |  |

### PERFORMANCES



### CHIAVE TOOL



### DIMENSIONE (DIMENSIONS)

| TIPO CHIAVE<br>TOOL'S TYPE | TIPO<br>TYPE | PESO (kg)<br>WEIGHT (lb) |
|----------------------------|--------------|--------------------------|
| 61700005                   | VUC140       | 0,12 (0.27)              |
| 61700031                   | VUC380       | 0,13 (0.29)              |

### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B             | C           | D              | E             | F           | G            | H            | L              | COPPIA<br>DI SERRAGGIO<br>TIGHTENING<br>TORQUE<br>Nm-lbt ft | O-Ring       | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt |
|--------------|----------|----------------------------------------|------------------------------------------|---------------|-------------|----------------|---------------|-------------|--------------|--------------|----------------|-------------------------------------------------------------|--------------|-------------------------------------------|
| VUC140       | BSPP 1/4 | 20 (5.3)                               | 350<br>(5075)                            | 4<br>(0.16)   | 5<br>(0.20) | 7<br>(0.28)    | 2,2<br>(0.94) | 7<br>(0.28) | 22<br>(0.87) | 24<br>(0.94) | 9<br>(0.35)    | 6<br>(53)                                                   | 9 x 1        | 0,01<br>(0.022)                           |
| VUC380       | BSPP 3/8 | 30 (7.9)                               |                                          | 5,5<br>(0.22) | 6<br>(0.24) | 10,5<br>(0.41) | 3<br>(0.12)   | 9<br>(0.35) | 27<br>(1.06) | 29<br>(1.14) | 11,5<br>(0.45) | 6<br>(53)                                                   | 10,82 x 1,78 |                                           |



**CODICE ORDINAZIONE**  
ORDERING CODE

|            |    |
|------------|----|
| 01         | 02 |
| <b>VUP</b> |    |

|           |                                                              |          |            |
|-----------|--------------------------------------------------------------|----------|------------|
| <b>01</b> | VALVOLE UNIDIREZIONALI A DISCO<br>(CHECK VALVES - DISK TYPE) |          | <b>VUP</b> |
| <b>02</b> | DIMENSIONE<br>(SIZE)                                         | BSPP 1/2 | <b>120</b> |
|           |                                                              | BSPP 3/4 | <b>340</b> |

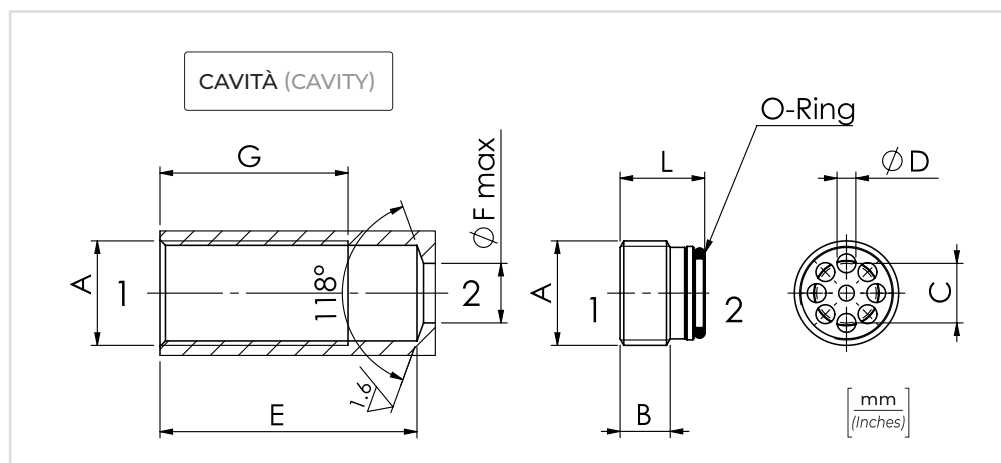
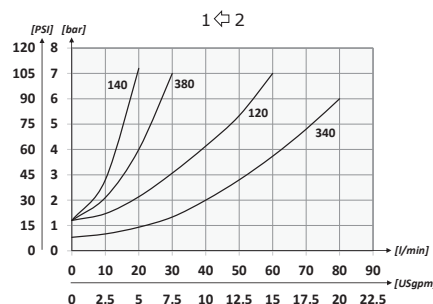
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

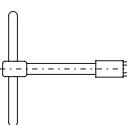


**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Olivo idraulico - Mineral oil                                                                                                                                                      | ISO 6743/4 (DIN 51524)                                                              |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14                                                       |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                                             |
| Temperatura ambiente - Ambient temperature                                                                                                                                         | -20°C +50°C -4°F +122°F                                                             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |
| Pressione d'apertura - Cracking pressure                                                                                                                                           | 0,5 bar - 7.25 PSI                                                                  |

**PERFORMANCES**



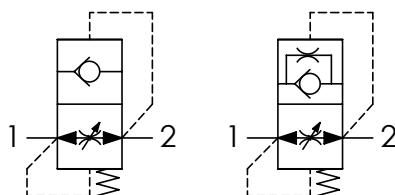
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|-------------------------------------------------------------------------------------------------------------|--------------|--------------------------|
|  <b>CHIAVE</b><br>TOOL |              |                          |
| DIMENSIONE<br>(DIMENSIONS)                                                                                  |              |                          |
| TIPO CHIAVE<br>TOOL'S TYPE                                                                                  | TIPO<br>TYPE | PESO (kg)<br>WEIGHT (lb) |
| 61700003                                                                                                    | VUP120       | 0,15 (0.33)              |
| 61700030                                                                                                    | VUP340       | 0,18 (0.40)              |

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B              | C            | D              | E            | F            | G            | L              | COPPIA<br>DI SERRAGGIO<br>TIGHTENING<br>TORQUE<br>Nm-lbt ft | O-Ring       | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt |
|--------------|----------|----------------------------------------|------------------------------------------|----------------|--------------|----------------|--------------|--------------|--------------|----------------|-------------------------------------------------------------|--------------|-------------------------------------------|
| VUP120       | BSPP 1/2 | 60 (15.9)                              | 350 (5075)                               | 10<br>(0.39)   | 12<br>(0.47) | 4<br>(0.16)    | 32<br>(1.26) | 12<br>(0.47) | 29<br>(1.14) | 16,1<br>(0.63) | 10 (88)                                                     | 14 x 1,78    | 0,02 (0.044)                              |
| VUP340       | BSPP 3/4 | 80 (21.1)                              |                                          | 10,5<br>(0.41) | 16<br>(0.63) | 4,75<br>(0.19) | 37<br>(1.46) | 16<br>(0.63) | 33<br>(1.30) | 20,2<br>(0.80) | 20 (177)                                                    | 18,72 x 2,62 | 0,043 (1.12)                              |

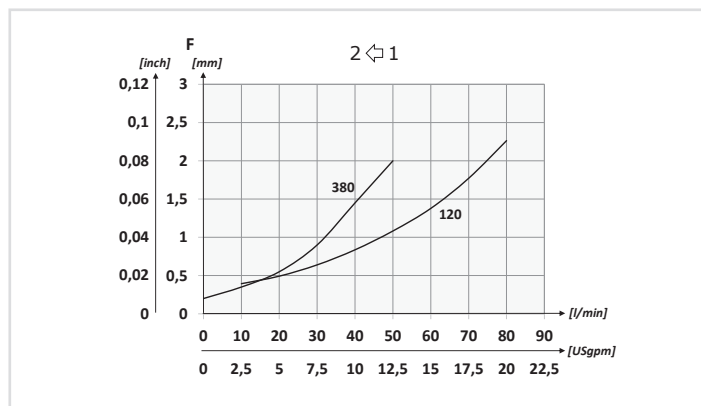


### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



CON FORO  
(WITH ORIFICE)

### REGOLAZIONE "F" / SETTING "F"



### DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                                                             |                                                           |       |             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-------|-------------|
| Olio idraulico - Mineral oil                                                                                                                                                                                                | ISO 6743/4 (DIN 51524)                                    |       |             |
| Viscosità olio - Oil viscosity                                                                                                                                                                                              | 15-250 mm²/s (15 to 250 cSt)                              |       |             |
| Classe di contaminazione max<br>Max contamination index                                                                                                                                                                     | ISO 4406:1999 Classe 19/17/14                             |       |             |
| Temperatura dell'olio - Oil temperature                                                                                                                                                                                     | -20°C                                                     | +80°C | -4°F +176°F |
| Temperatura ambiente - Ambient temperature                                                                                                                                                                                  | -20°C                                                     | +50°C | -4°F +122°F |
| È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)<br>A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm) |                                                           |       |             |
| Trafilamento massimo<br>Max leakage                                                                                                                                                                                         | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |       |             |

### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

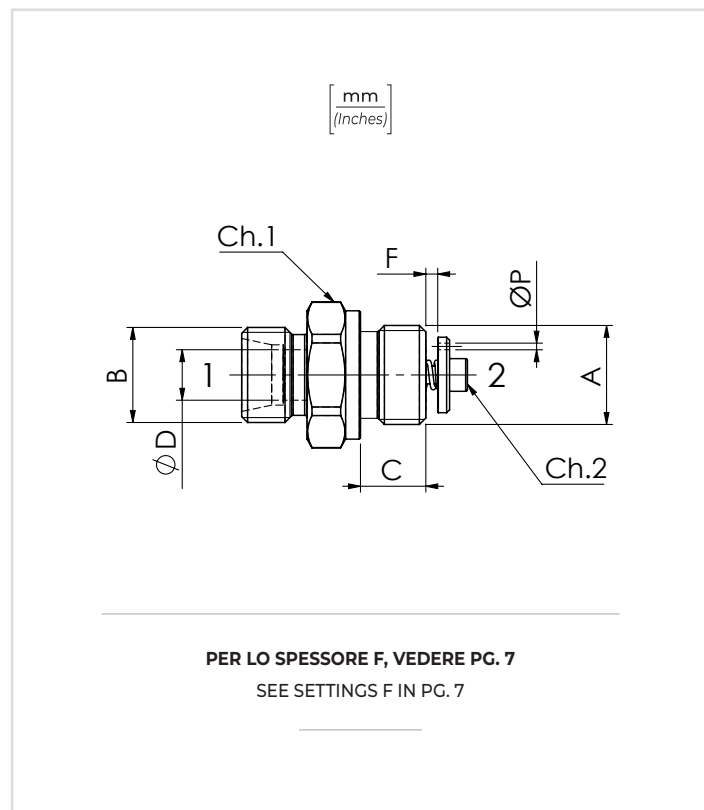
| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | mm - inch |              |           | Ch.1 | Ch.2 | COPPIA MAX DI SERRAGGIO<br>RACCORDO (Nm)<br>MAX FITTING TIGHTENING<br>TORQUE (lbt in) | COPPIA MAX DI<br>SERRAGGIO TUBO (Nm)<br>MAX TIGHTENING TORQUE<br>FOR HOSE (lbt in) | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt |
|--------------|----------|----------------------------------------|------------------------------------------|-----------|--------------|-----------|------|------|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------|
|              |          |                                        |                                          | B         | C            | D         |      |      |                                                                                       |                                                                                    |                                           |
| VUBA380T10   | BSPP 3/8 | 50 (13.2)                              | 315 (4568)                               | M16 x 1,5 | 11<br>(0.43) | 10 (0.39) | 22   | 2,5  | 45 (33.2)                                                                             | 20 (15)                                                                            | 0,044<br>(0.097)                          |
| VUBA380T12   |          |                                        |                                          | M18 x 1,5 |              | 12 (0.47) | 22   |      |                                                                                       | 40 (30)                                                                            |                                           |
| VUBA380T15   |          |                                        |                                          | M22 x 1,5 | 13<br>(0.51) | 15 (0.59) | 24   | 3    | 60 (44.3)                                                                             | 70 (50)                                                                            | 0,060<br>(0.13)                           |
| VUBA120T15   | BSPP 1/2 | 80 (21.1)                              |                                          |           |              |           | 27   |      |                                                                                       |                                                                                    | 0,077<br>(0.17)                           |

| CODICE ORDINAZIONE<br>ORDERING CODE | 01 | 02 | 03 | 04 | 05 |
|-------------------------------------|----|----|----|----|----|
| VUBA                                |    |    |    |    |    |

| 01 | VALVOLE DI SICUREZZA PER TUBAZIONI DIN<br>(DIN HOSE BURST VALVES) |                                                                |  | VUBA |
|----|-------------------------------------------------------------------|----------------------------------------------------------------|--|------|
| 02 | DIMENSIONE<br>(SIZE)                                              | BSPP 3/8                                                       |  | 380  |
|    |                                                                   | BSPP 1/2                                                       |  | 120  |
| 03 | DIMENSIONE<br>(SIZE)                                              | Tubo Ø 10 (For Ø 10 pipe)                                      |  | T10  |
|    |                                                                   | Tubo Ø 12 (For Ø 12 pipe)                                      |  | T12  |
|    |                                                                   | Tubo Ø 15 (For Ø 15 pipe, only for VUBA120)                    |  | T15  |
| 04 | REGOLAZIONE<br>(SETTING)                                          | Esempio: regolazione 0,7 mm<br>(Example: setting 0.7 mm) F 0,7 |  | F__  |
|    |                                                                   | *Omettere se non richiesto (Omit if not required)              |  |      |
| 05 | FORO SUL<br>PIATTELLO<br>(ORIFICE ON FLAT<br>POPPET)              | Esempio: foro 1,5 mm (Example: hole 1,5 mm) P 1,5              |  | P__  |
|    |                                                                   | Omettere se non richiesto (Omit if not required)               |  |      |

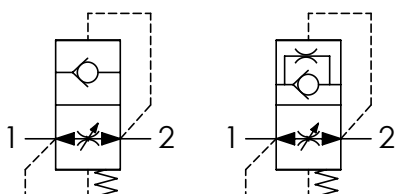
\*Se ommesso questo valore, le valvole vengono fornite senza alcuna taratura di fabbrica e i dadi non sono serrati. Per garantire il loro corretto funzionamento è necessario che venga eseguito il settaggio da parte dell'installatore finale.

If omitted this value, the valves are supplied without factory setting and nuts are not tightened. For the correct operating it is needed a calibration of the valve made by final installer.





### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



CON FORO  
(WITH ORIFICE)

### CODICE ORDINAZIONE ORDERING CODE

| 01          | 02 | 03 | 04 |
|-------------|----|----|----|
| <b>VUBA</b> |    |    |    |

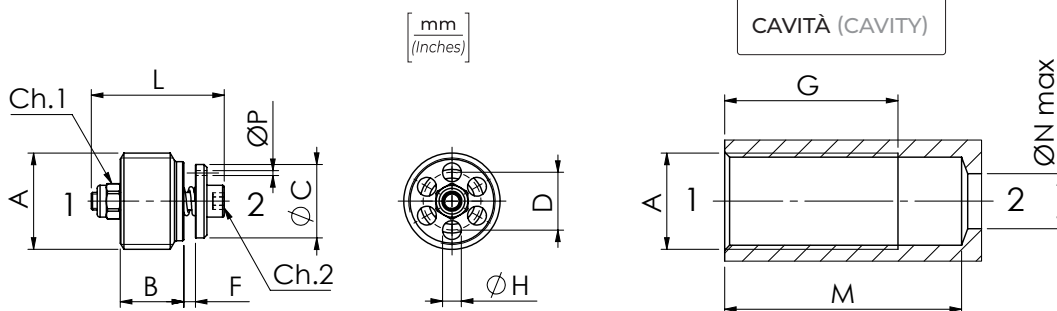
| 01 | VALVOLE DI SICUREZZA PER TUBAZIONI (HOSE BURST VALVES) | VUBA                                                                  |
|----|--------------------------------------------------------|-----------------------------------------------------------------------|
| 02 | DIMENSIONE<br>(SIZE)                                   | BSPP 1/4                                                              |
|    |                                                        | 140                                                                   |
|    |                                                        | BSPP 3/8                                                              |
|    |                                                        | 380                                                                   |
|    |                                                        | BSPP 1/2                                                              |
| 03 | REGOLAZIONE<br>(SETTING)                               | BSPP 3/4                                                              |
|    |                                                        | 120                                                                   |
|    |                                                        | BSPP 1                                                                |
| 04 | FORO SUL PIATTELLO<br>(ORIFICE ON FLAT POPPET)         | Esempio: regolazione 0,7 mm<br>(Example: setting 0.7 mm) <b>F 0,7</b> |
|    |                                                        | Omettere se non richiesto<br>(Omit if not required)                   |
|    |                                                        | F__                                                                   |
|    |                                                        | Esempio: foro 1,5 mm<br>(Example: hole 1.5 mm) <b>P 1,5</b>           |
|    |                                                        | *Omettere se non richiesto<br>(Omit if not required)                  |
|    |                                                        | P__                                                                   |

\*Se ommesso questo valore, le valvole vengono fornite senza alcuna taratura di fabbrica e i dadi non sono serrati. Per garantire il loro corretto funzionamento è necessario che venga eseguito il settaggio da parte dell'installatore finale.

If omitted this value, the valves are supplied without factory setting and nuts are not tightened. For the correct operating it is needed a calibration of the valve made by final installer.

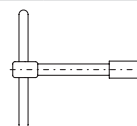
Regolazione F a richiesta  
F setting on request

Foro su piattello a richiesta  
Orifice on flat poppet  
on request



### DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14                             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                   |
| Temperatura ambiente - Ambient temperature                                                                                                                                         | -20°C +50°C -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |

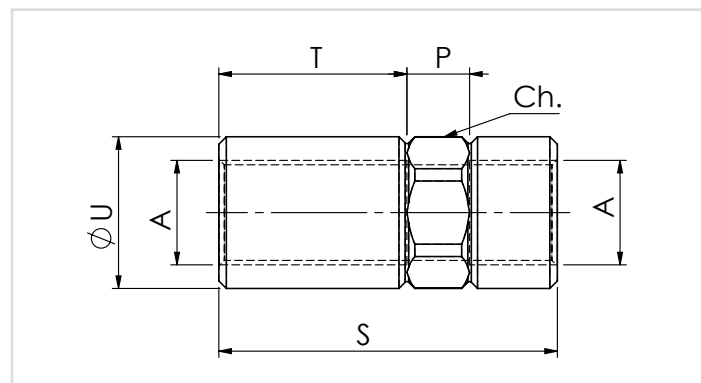
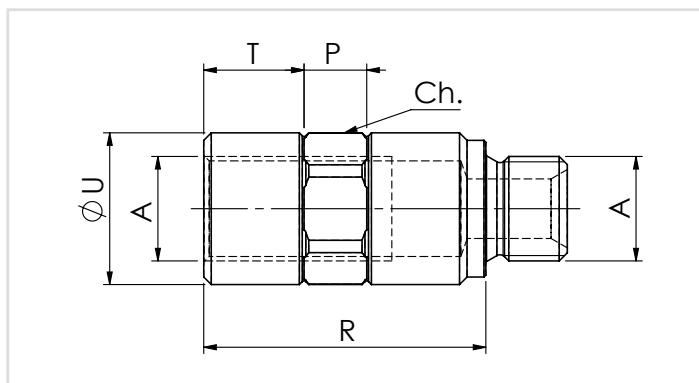


CHIAVE  
TOOL

| Dimensione/Dimensions      |              |                       |
|----------------------------|--------------|-----------------------|
| Tipo chiave<br>Tool's Type | Tipo<br>Type | Peso/Weight<br>kg-lbt |
| 61700001                   | VUBA140      | 0,12 (0.27)           |
| 61700002                   | VUBA380      | 0,13 (0.29)           |
| 61700003                   | VUBA120      | 0,15 (0.33)           |
| 61700004                   | VUBA340      | 0,18 (0.40)           |

### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | mm - inch     |                |                |              |                |              |              |               | Ch. 1 | Ch. 2 | COPPIA<br>DI SERRAGGIO<br>TIGHTENING<br>TORQUE<br>Nm-lbt ft | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt |
|--------------|----------|----------------------------------------|------------------------------------------|---------------|----------------|----------------|--------------|----------------|--------------|--------------|---------------|-------|-------|-------------------------------------------------------------|-------------------------------------------|
|              |          |                                        |                                          | B             | C              | D              | G            | H              | L            | M            | N             |       |       |                                                             |                                           |
| VUBA140      | BSPP 1/4 | 25 (6.6)                               | 350 (5075)                               | 8,2<br>(0.32) | 10,4<br>(0.41) | 8<br>(0.31)    | 25<br>(0.98) | 2,5<br>(0.10)  | 19<br>(0.75) | 35<br>(1.38) | 7<br>(0.28)   | 5,5   | 2,5   | 2<br>(1.5)                                                  | 0,008<br>(0.017)                          |
| VUBA380      | BSPP 3/8 | 50 (13.2)                              |                                          | 11<br>(0.43)  | 12,7<br>(0.50) | 10<br>(0.39)   | 30<br>(1.18) | 3,25<br>(0.13) | 23<br>(0.90) | 41<br>(1.61) | 9,5<br>(0.37) |       |       | 3<br>(2.5)                                                  | 0,014<br>(0.030)                          |
| VUBA120      | BSPP 1/2 | 80 (21.1)                              |                                          | 13<br>(0.51)  | 15<br>(0.59)   | 11,5<br>(0.45) | 33<br>(1.30) | 4<br>(0.16)    | 29<br>(1.14) | 46<br>(1.81) | 12<br>(0.47)  | 7     | 3     | 4<br>(3)                                                    | 0,025<br>(0.055)                          |
| VUBA340      | BSPP 3/4 | 150 (39.6)                             |                                          | 18<br>(0.71)  | 18<br>(0.71)   | 14,5<br>(0.57) | 42<br>(1.65) | 5,2<br>(0.20)  | 34<br>(1.34) | 55<br>(2.17) | 16<br>(0.63)  |       |       | 10<br>(7.5)                                                 | 0,054<br>(0.12)                           |
| VUBA100      | BSPP 1   | 180 (47.5)                             |                                          | 20<br>(0.79)  | 26<br>(1.02)   | 19<br>(0.75)   | 48<br>(1.89) | 7<br>(0.28)    | 40<br>(1.57) | 63<br>(2.48) | 22<br>(0.87)  | 8     | 4     | 12<br>(9)                                                   | 0,1<br>(0.22)                             |



#### COLONNETTE - HOUSINGS M/F

| TIPO<br>TYPE | A        | R         | P         | T         | U           | Ch. | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt |
|--------------|----------|-----------|-----------|-----------|-------------|-----|-------------------------------------------|
| 61100087     | BSPP 1/4 | 39 (1.53) | 10 (0.39) | 13 (0.51) | 20.5 (0.80) | 19  | 0.07 (0.16)                               |
| 61100088     | BSPP 3/8 | 45 (1.77) | 10 (0.39) | 16 (0.63) | 24.5 (0.96) | 22  | 0.10 (0.22)                               |
| 61100089     | BSPP 1/2 | 52 (2.05) | 10 (0.39) | 19 (0.75) | 29.5 (1.16) | 27  | 0.17 (0.37)                               |
| 61100090     | BSPP 3/4 | 61 (2.40) | 12 (0.47) | 23 (0.90) | 35.5 (1.32) | 32  | 0.26 (0.57)                               |
| 61100091     | BSPP 1   | 67 (2.63) | 15 (0.59) | 25.5 (1)  | 44.5 (1.75) | 41  | 0.4 (0.88)                                |

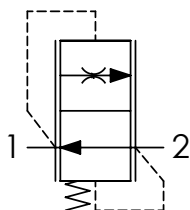
#### COLONNETTE - HOUSINGS F/F

| TIPO<br>TYPE | A        | S         | P         | T           | U           | Ch. | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt |
|--------------|----------|-----------|-----------|-------------|-------------|-----|-------------------------------------------|
| 61100092     | BSPP 1/4 | 48 (1.89) | 10 (0.39) | 13 (0.51)   | 20.5 (0.80) | 19  | 0.09 (0.20)                               |
| 61100093     | BSPP 3/8 | 54 (2.13) | 10 (0.39) | 30 (1.18)   | 24.2 (0.95) | 22  | 0.11 (0.24)                               |
| 61100094     | BSPP 1/2 | 73 (2.87) | 10 (0.39) | 46.5 (1.83) | 29.2 (1.14) | 27  | 0.20 (0.44)                               |
| 61100095     | BSPP 3/4 | 74 (2.91) | 12 (0.47) | 44 (1.73)   | 35.5 (1.32) | 32  | 0.27 (0.59)                               |

| TARATURA<br>SETTING<br>mm | Portata (l/min) - Flow rate (Usqpm)<br>Tolleranza $\pm 10\%$ - Tolerance $\pm 10\%$ |             |             |              |             |
|---------------------------|-------------------------------------------------------------------------------------|-------------|-------------|--------------|-------------|
|                           | VUBA140                                                                             | VUBA380     | VUBA120     | VUBA340      | VUBA100     |
| 0                         | 0                                                                                   | 0           | 0           | 0            | 0           |
| 0,1                       | 3,0 (0,8)                                                                           | 3,0 (0,8)   | 4,0 (1,1)   | 9,0 (2,4)    | 3,5 (0,9)   |
| 0,2                       | 6,0 (1,6)                                                                           | 6,0 (1,6)   | 8,0 (2,1)   | 18,0 (4,8)   | 7,0 (1,8)   |
| 0,3                       | 9,3 (2,5)                                                                           | 10,0 (2,6)  | 12,7 (3,3)  | 25,3 (6,7)   | 12,0 (3,2)  |
| 0,4                       | 12,7 (3,3)                                                                          | 14,0 (3,7)  | 17,3 (4,6)  | 32,7 (8,6)   | 17,0 (4,5)  |
| 0,5                       | 16,0 (4,2)                                                                          | 18,0 (4,8)  | 22,0 (5,8)  | 40,0 (10,6)  | 22,0 (5,8)  |
| 0,6                       | 17,0 (4,5)                                                                          | 20,5 (5,4)  | 26,5 (7,0)  | 48,5 (12,8)  | 27,5 (7,3)  |
| 0,7                       | 18,0 (4,8)                                                                          | 23,0 (6,1)  | 31,0 (8,2)  | 57,0 (15,0)  | 33,0 (8,7)  |
| 0,8                       | 19,2 (5,1)                                                                          | 25,0 (6,6)  | 34,0 (9,0)  | 61,7 (16,3)  | 39,0 (10,3) |
| 0,9                       | 20,3 (5,4)                                                                          | 27,0 (7,1)  | 37,0 (9,8)  | 66,3 (17,5)  | 45,0 (11,9) |
| 1                         | 21,5 (5,7)                                                                          | 29,0 (7,7)  | 40,0 (10,6) | 71,0 (18,7)  | 51,0 (13,5) |
| 1,1                       | 22,3 (5,9)                                                                          | 30,0 (7,9)  | 42,5 (11,2) | 77,0 (20,3)  | 53,5 (14,1) |
| 1,2                       | 23,0 (6,1)                                                                          | 31,0 (8,2)  | 45,0 (11,9) | 83,0 (21,9)  | 56,0 (14,8) |
| 1,3                       | 23,7 (6,2)                                                                          | 32,3 (8,5)  | 47,7 (12,6) | 88,7 (23,4)  | 60,7 (16,0) |
| 1,4                       | 24,3 (6,4)                                                                          | 33,7 (8,9)  | 50,3 (13,3) | 94,3 (24,9)  | 65,3 (17,2) |
| 1,5                       | 25,0 (6,6)                                                                          | 35,0 (9,2)  | 53,0 (14,0) | 100,0 (26,4) | 70,0 (18,5) |
| 1,6                       | 25,4 (6,7)                                                                          | 36,4 (9,6)  | 55,8 (14,7) | 106,0 (28,0) | 72,4 (19,1) |
| 1,7                       | 26,0 (6,9)                                                                          | 37,0 (9,8)  | 58,6 (15,5) | 111,0 (29,3) | 74,8 (19,7) |
| 1,8                       | 26,3 (7,0)                                                                          | 38,7 (10,2) | 61,4 (16,2) | 116,0 (30,6) | 77,2 (20,4) |
| 1,9                       | 26,7 (7,0)                                                                          | 40,3 (10,6) | 64,2 (16,9) | 120,0 (31,7) | 79,6 (21,0) |
| 2                         | 27,0 (7,1)                                                                          | 42,0 (11,1) | 67,0 (17,7) | 124,0 (32,7) | 82,0 (21,6) |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

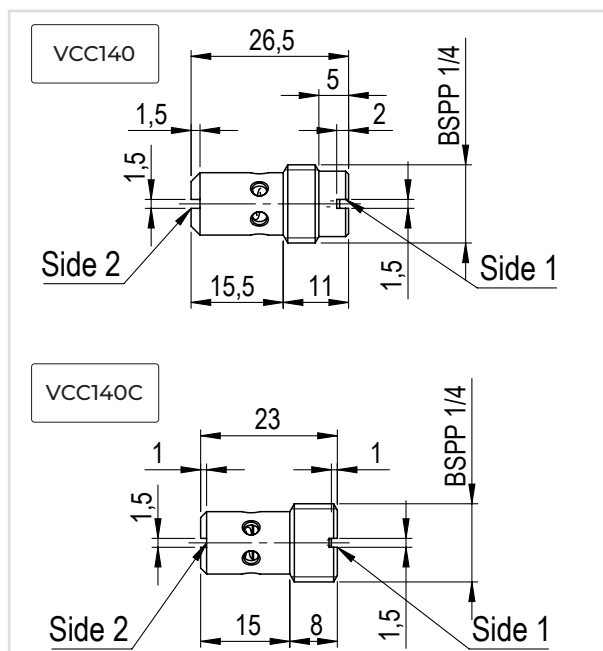


| TIPO<br>TYPE | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | COPPIA<br>DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|----------------------------------------|------------------------------------------|----------------------------------------------------------|----------------------------------------|
| VCC140       | 15 (3.96)                              | 250 (3625)                               | 4 (3)                                                    | 0,014 (0.031)                          |

## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Ambient temperature                                                                                                                                         | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

## INGOMBRI / DIMENSIONS

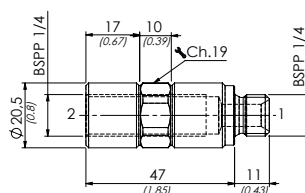


## CODICE ORDINAZIONE ORDERING CODE

| 01     | 02 | 03 |
|--------|----|----|
| VCC140 |    |    |

| 01 | VALVOLE CONTROLLO DISCESA FISSE COMPENSATE<br>(FIXED FLOW CONTROL VALVES - PRESSURE COMPENSATED) |                       | VCC140 |
|----|--------------------------------------------------------------------------------------------------|-----------------------|--------|
| 02 | VERSIONE<br>(VERSION)                                                                            | STD L = 26,5 (1.02)   | C      |
|    |                                                                                                  | SHORT L = 23 (0.90)   |        |
| 03 | PORTATA<br>CONTROLLATA<br>A 100 BAR ± 10%<br>(CONTROLLED<br>FLOW AT<br>100 BAR ± 10 %)           | 1 l/min (0.26 USgpm)  | 1      |
|    |                                                                                                  | 2 l/min (0.53 USgpm)  | 2      |
|    |                                                                                                  | 3 l/min (0.79 USgpm)  | 3      |
|    |                                                                                                  | 4 l/min (1.06 USgpm)  | 4      |
|    |                                                                                                  | 5 l/min (1.32 USgpm)  | 5      |
|    |                                                                                                  | 6 l/min (1.58 USgpm)  | 6      |
|    |                                                                                                  | 7 l/min (1.85 USgpm)  | 7      |
|    |                                                                                                  | 8 l/min (2.11 USgpm)  | 8      |
|    |                                                                                                  | 9 l/min (2.38 USgpm)  | 9      |
|    |                                                                                                  | 10 l/min (2.64 USgpm) | 10     |
|    |                                                                                                  | 11 l/min (2.90 USgpm) | 11     |
|    |                                                                                                  | 12 l/min (3.17 USgpm) | 12     |
|    |                                                                                                  | 15 l/min (3.96 USgpm) | 15     |

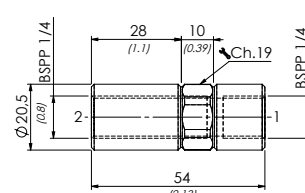
## TIPO / TYPE 61100160 \*



Peso Approx (Approx weight)  
0,09 kg (0.20 lb)

\* FOR MOUNTING DIRECTION  
1 TO 2 ONLY

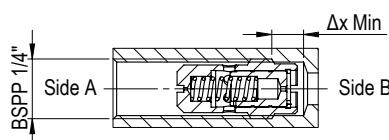
## TIPO / TYPE 61100159 \*



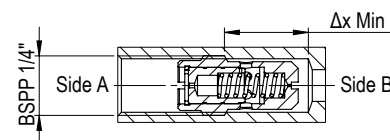
Peso Approx (Approx weight)  
0,09 kg (0.20 lb)

\* FOR MOUNTING DIRECTION  
1 TO 2 ONLY

## CAVITÀ (CAVITIES)



Mounting orientation type 1



Mounting orientation type 2

| CAVITY CHARACTERISTICS |                      |                    |
|------------------------|----------------------|--------------------|
| Valve Type             | Mounting Orientation | Recommended Δx Min |
| VCC140                 | Type 1               | 7                  |
|                        | Type 2               | 18,5               |
| VCC140C                | Type 1               | 3                  |
|                        | Type 2               | 18                 |

01

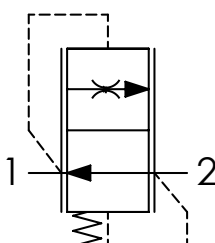
02

**CODICE ORDINAZIONE**  
ORDERING CODE

**VCC380**



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



| 01 | VALVOLE CONTROLLO DISCESA FISSE COMPENSATE<br>(FIXED FLOW CONTROL VALVES - PRESSURE COMPENSATED)     | VCC380                          |
|----|------------------------------------------------------------------------------------------------------|---------------------------------|
| 02 | PORTATA<br>CONTROLLATA<br>A 100 BAR $\pm 10\%$<br><br>(CONTROLLED<br>FLOW AT 100 BAR<br>$\pm 10\%$ ) | 1 l/min (0.26 USgpm) <b>1</b>   |
|    |                                                                                                      | 2 l/min (0.53 USgpm) <b>2</b>   |
|    |                                                                                                      | 3 l/min (0.79 USgpm) <b>3</b>   |
|    |                                                                                                      | 4 l/min (1.06 USgpm) <b>4</b>   |
|    |                                                                                                      | 5 l/min (1.32 USgpm) <b>5</b>   |
|    |                                                                                                      | 6 l/min (1.58 USgpm) <b>6</b>   |
|    |                                                                                                      | 7 l/min (1.89 USgpm) <b>7</b>   |
|    |                                                                                                      | 8 l/min (2.11 USgpm) <b>8</b>   |
|    |                                                                                                      | 9 l/min (2.38 USgpm) <b>9</b>   |
|    |                                                                                                      | 10 l/min (2.64 USgpm) <b>10</b> |
|    |                                                                                                      | 11 l/min (2.90 USgpm) <b>11</b> |
|    |                                                                                                      | 12 l/min (3.17 USgpm) <b>12</b> |
|    |                                                                                                      | 16 l/min (4.22 USgpm) <b>16</b> |
|    |                                                                                                      | 18 l/min (4.75 USgpm) <b>18</b> |

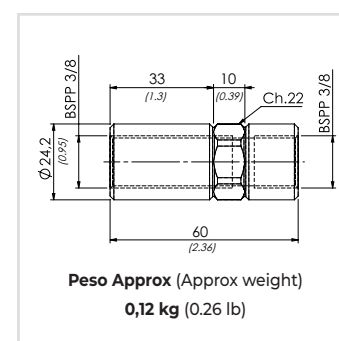
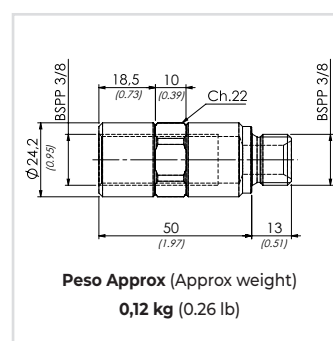
| TIPO<br>TYPE | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | COPPIA<br>DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|----------------------------------------|------------------------------------------|----------------------------------------------------------|----------------------------------------|
| VCC380       | 18 (4.8)                               | 250 (3625)                               | 6 (4.5)                                                  | 0,024 (0.053)                          |

**TIPO / TYPE**  
**61100162 \***

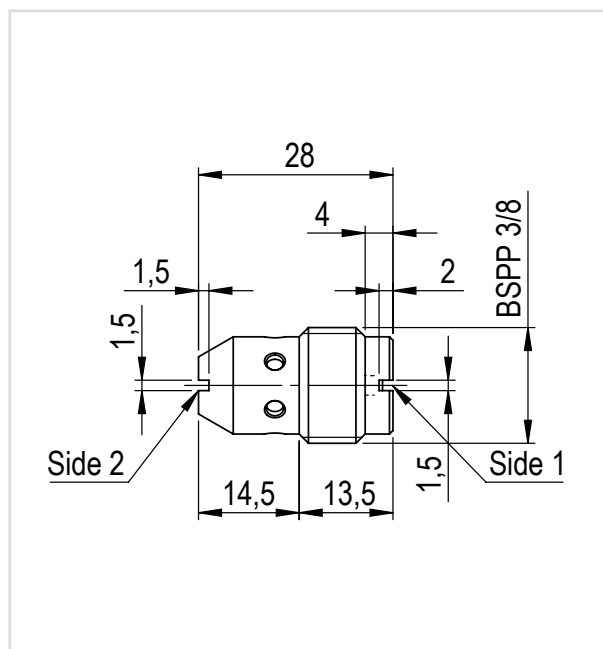
**TIPO / TYPE**  
**61100161 \***

## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                | <b>ISO 6743/4</b> (DIN 51524)                  |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                              | <b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt) |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                     | <b>ISO 4406:1999 Classe 18/16/13</b>           |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                     | <b>-20°C +80°C</b> -4°F +176°F                 |
| <b>Temperatura ambiente</b> - Ambient temperature                                                                                                                                  | <b>-20°C +50°C</b> -4°F +122°F                 |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                |



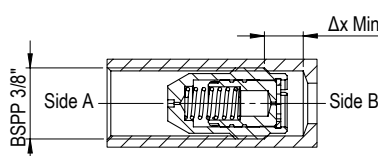
## INGOMBRO / DIMENSIONS



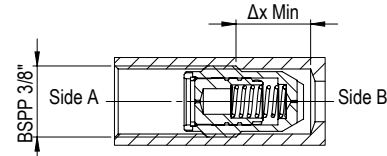
\* FOR MOUNTING DIRECTION  
1 TO 2 ONLY

\* FOR MOUNTING DIRECTION  
1 TO 2 ONLY

CAVITÀ (CAVITIES)



Mounting orientation type 1



Mounting orientation type 2

| CAVITY CHARACTERISTICS |                      |                            |
|------------------------|----------------------|----------------------------|
| Valve Type             | Mounting Orientation | Recommended $\Delta x$ Min |
| VCC380                 | Type 1               | 7                          |
|                        | Type 2               | 16,5                       |

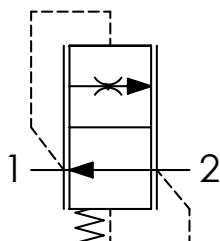
**CODICE ORDINAZIONE**  
ORDERING CODE

01  
**VCC120**

02



**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



| 01 | VALVOLE CONTROLLO DISCESA FISSE COMPENSATE<br>(FIXED FLOW CONTROL VALVES - PRESSURE COMPENSATED) |          |               | VCC120 |
|----|--------------------------------------------------------------------------------------------------|----------|---------------|--------|
| 02 | PORTATA<br>CONTROLLATA<br>A 100 BAR ± 10%<br>(CONTROLLED<br>FLOW AT 100 BAR<br>± 10 %)           | 9 l/min  | (2.38 USgpm)  | 9      |
|    |                                                                                                  | 12 l/min | (3.17 USgpm)  | 12     |
|    |                                                                                                  | 15 l/min | (3.96 USgpm)  | 15     |
|    |                                                                                                  | 17 l/min | (4.49 USgpm)  | 17     |
|    |                                                                                                  | 21 l/min | (5.54 USgpm)  | 21     |
|    |                                                                                                  | 25 l/min | (6.60 USgpm)  | 25     |
|    |                                                                                                  | 27 l/min | (7.1 USgpm)   | 27     |
|    |                                                                                                  | 32 l/min | (8.45 USgpm)  | 32     |
|    |                                                                                                  | 35 l/min | (9.24 USgpm)  | 35     |
|    |                                                                                                  | 40 l/min | (10.56 USgpm) | 40     |
|    |                                                                                                  | 47 l/min | (12.4 USgpm)  | 47     |

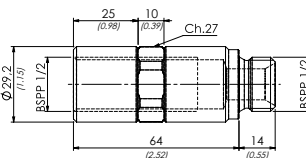
| TIPO<br>TYPE | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | COPPIA<br>DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|----------------------------------------|------------------------------------------|----------------------------------------------------------|----------------------------------------|
| VCC120       | 47 (12.4)                              | 250 (3625)                               | 10 (7.5)                                                 | 0,050 (0.11)                           |

**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olío idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Ambient temperature                                                                                                                                         | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

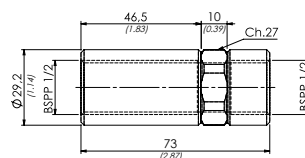
**TIPO / TYPE**  
**61100033 \***

**TIPO / TYPE**  
**61100094 \***



**Peso Approx (Approx weight)**  
**0,21 kg (0.46 lb)**

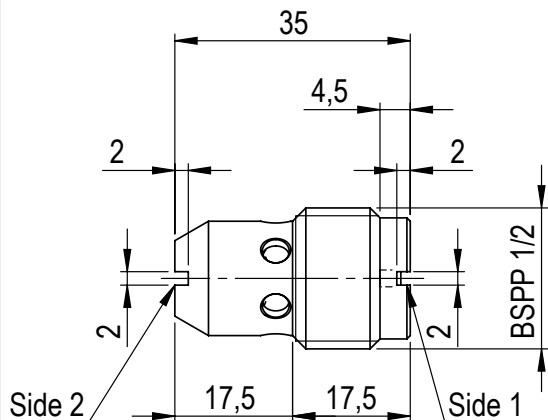
\* FOR MOUNTING DIRECTION  
1 TO 2 ONLY



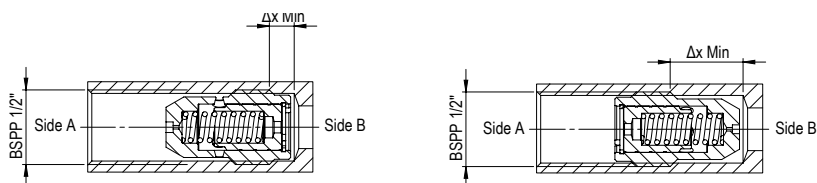
**Peso Approx (Approx weight)**  
**0,21 kg (0.46 lb)**

\* FOR MOUNTING DIRECTION  
1 TO 2 ONLY

**INGOMBRO / DIMENSIONS**



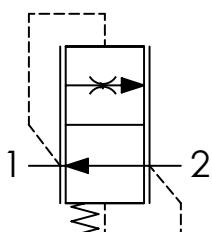
**CAVITÀ (CAVITIES)**



| CAVITY CHARACTERISTICS |                      |                    |
|------------------------|----------------------|--------------------|
| Valve Type             | Mounting Orientation | Recommended Δx Min |
| VCC120                 | Type 1               | 8                  |
|                        | Type 2               | 20,5               |

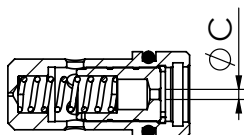


## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Ambient temperature                                                                                                                                         | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

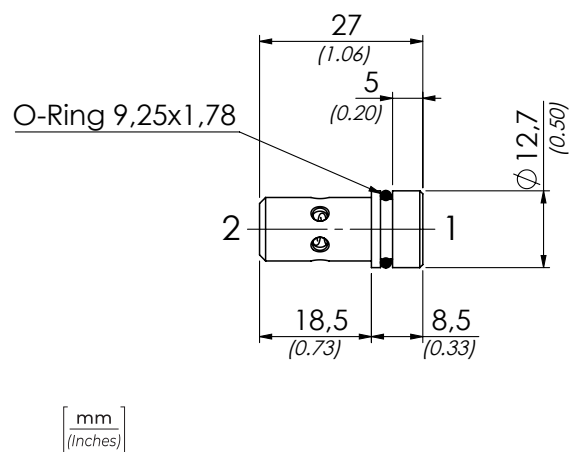


| TIPO (TYPE) | Ø C         |
|-------------|-------------|
| VSCR61      | 1 ( 0.04)   |
| VSCR62      | 1,2 ( 0.05) |
| VSCR63      | 1,5 ( 0.06) |
| VSCR64      | 1,7 ( 0.07) |
| VSCR65      | 1,9 ( 0.07) |
| VSCR66      | 2,1 ( 0.08) |
| VSCR67      | 2,3 ( 0.09) |
| VSCR68      | 2,4 ( 0.09) |
| VSCR69      | 2,7 ( 0.11) |
| VSCR610     | 2,8 ( 0.11) |
| VSCR611     | 3,1 ( 0.12) |
| VSCR612     | 3,3 ( 0.13) |

## CODICE ORDINAZIONE ORDERING CODE

|              |    |
|--------------|----|
| 01           | 02 |
| <b>VSCR6</b> |    |

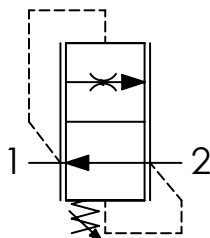
| 01 | VALVOLE CONTROLLO DISCESA FISSE COMPENSATE<br>(FIXED FLOW CONTROL VALVES - PRESSURE COMPENSATED) | VSCR6                           |
|----|--------------------------------------------------------------------------------------------------|---------------------------------|
| 02 | PORTATA CONTROLLATA<br>A 100 BAR ± 10%<br>(CONTROLLED FLOW<br>AT 100 BAR ± 10 %)                 | 1 l/min (0.26 USgpm) <b>1</b>   |
|    |                                                                                                  | 2 l/min (0.53 USgpm) <b>2</b>   |
|    |                                                                                                  | 3 l/min (0.79 USgpm) <b>3</b>   |
|    |                                                                                                  | 4 l/min (1.06 USgpm) <b>4</b>   |
|    |                                                                                                  | 5 l/min (1.32 USgpm) <b>5</b>   |
|    |                                                                                                  | 6 l/min (1.58 USgpm) <b>6</b>   |
|    |                                                                                                  | 7 l/min (1.85 USgpm) <b>7</b>   |
|    |                                                                                                  | 8 l/min (2.11 USgpm) <b>8</b>   |
|    |                                                                                                  | 9 l/min (2.38 USgpm) <b>9</b>   |
|    |                                                                                                  | 10 l/min (2.64 USgpm) <b>10</b> |
|    |                                                                                                  | 11 l/min (2.90 USgpm) <b>11</b> |
|    |                                                                                                  | 12 l/min (3.17 USgpm) <b>12</b> |



| TIPO<br>TYPE | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt |
|--------------|----------------------------------------|------------------------------------------|-------------------------------------------|
| VSCR6        | 12 (3.20)                              | 250 (3625)                               | 0,012 (0.026)                             |



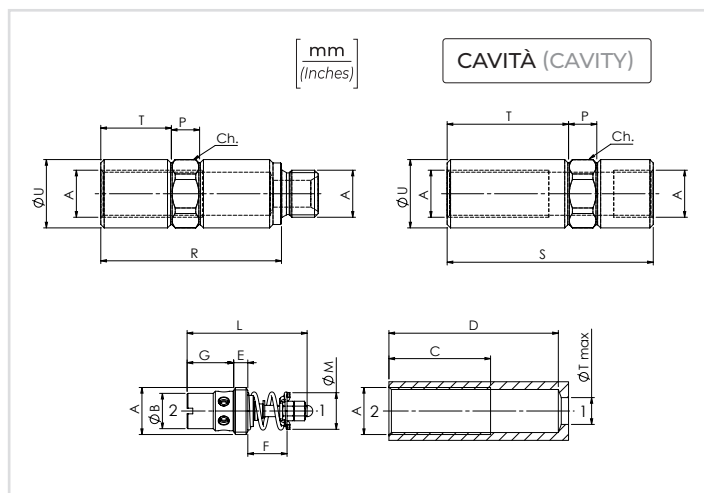
### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Ambient temperature                                                                                                                                         | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

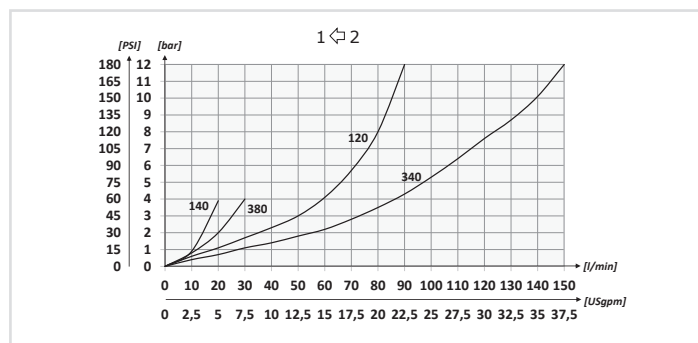
| CODICE ORDINAZIONE<br>ORDERING CODE |                                                                                                            | 01                                                                      |                          | 02                         |                         | 03                        |                        | 04     |     |
|-------------------------------------|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------|----------------------------|-------------------------|---------------------------|------------------------|--------|-----|
|                                     |                                                                                                            | VRD                                                                     |                          |                            |                         |                           |                        |        |     |
| 01                                  | VALVOLE CONTROLLO DISCESA REGOLABILI COMPENSATE<br>(ADJUSTABLE FLOW CONTROL VALVES - PRESSURE COMPENSATED) |                                                                         |                          |                            |                         |                           |                        |        | VRD |
| 02                                  | DIMENSIONE<br>(SIZE)                                                                                       | BSPP 1/4                                                                |                          |                            |                         |                           |                        | 140    |     |
|                                     |                                                                                                            | BSPP 3/8                                                                |                          |                            |                         |                           |                        | 380    |     |
|                                     |                                                                                                            | BSPP 1/2                                                                |                          |                            |                         |                           |                        | 120    |     |
|                                     |                                                                                                            | BSPP 3/4                                                                |                          |                            |                         |                           |                        | 340    |     |
| 03                                  | FLUSSO<br>CONTROLLATO<br>A 50 BAR<br>(CONTROLLED<br>FLOW AT<br>50 BAR)                                     | A                                                                       | B                        | C                          | D                       | E                         | F                      |        |     |
|                                     |                                                                                                            | l/min-USgpm                                                             |                          |                            |                         |                           |                        |        |     |
|                                     |                                                                                                            | 1,4/4,2<br>(0,37/1,11)                                                  | 2,4/7,8<br>(0,63/2,06)   | 3,8/9<br>(1/2,38)          | 6/13,4<br>(1,58/3,54)   | 8,6/17,5<br>(2,27/4,62)   | 12,2/24<br>(3,22/6,34) | VRD140 |     |
|                                     |                                                                                                            | 1,7/3,7<br>(0,45/0,98)                                                  | 3/5,5<br>(0,79/1,45)     | 5/10,5<br>(1,32/2,77)      | 10/18<br>(2,64/4,75)    | 16,5/25,4<br>(4,36/6,71)  | 19,5/33<br>(5,15/8,71) | VRD380 |     |
|                                     |                                                                                                            | 15,5/23,8<br>(4,09/6,28)                                                | 19,7/32,5<br>(5,20/8,58) | 22,8/38,4<br>(6,02/10,14)  | 32/51,4<br>(8,45/13,57) | 40,5/71,6<br>(10,69/18,9) | -                      | VRD120 |     |
| 04                                  | REGOLAZIONE<br>(SETTING)                                                                                   | 39,8/57,1<br>(10,51/15,07)                                              | 45,2/68,2<br>(11,93/18)  | 63,2/83,3<br>(16,68/21,99) | 67/107<br>(17,69/28,25) | 105/151<br>(27,72/39,86)  | -                      | VRD340 |     |
|                                     |                                                                                                            | ESEMPIO: REGOLAZIONE 15 MM<br>(EXAMPLE: SETTING 15 MM)<br>F 15          |                          |                            |                         |                           |                        |        |     |
|                                     |                                                                                                            | (TOLLERANZA IN PORTATA ± 10%)<br>(TOLERANCE OF SETTING FLOW RATE ± 10%) |                          |                            |                         |                           |                        | F__    |     |
|                                     |                                                                                                            | *OMESSO SE NON RICHIESTO<br>(OMITTED IF NOT REQUIRED)                   |                          |                            |                         |                           |                        |        |     |



\*Se ommesso questo valore, le valvole vengono fornite senza alcuna taratura di fabbrica e i dadi non sono serrati. Per garantire il loro corretto funzionamento è necessario che venga eseguito il settaggio da parte dell'installatore finale.

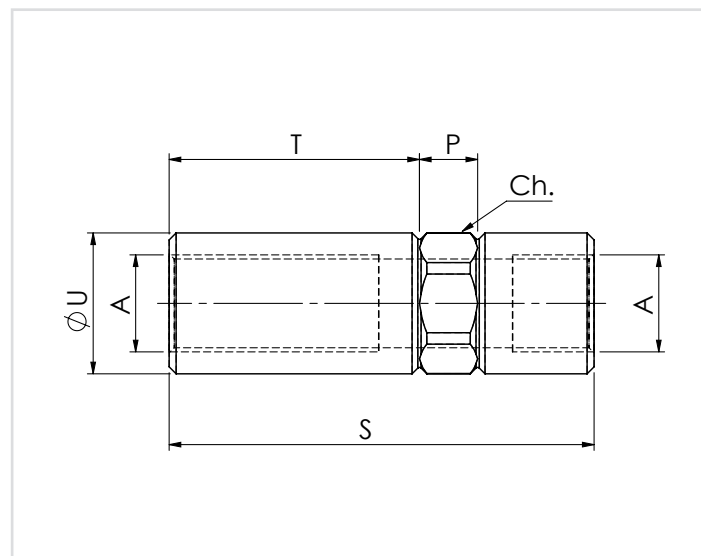
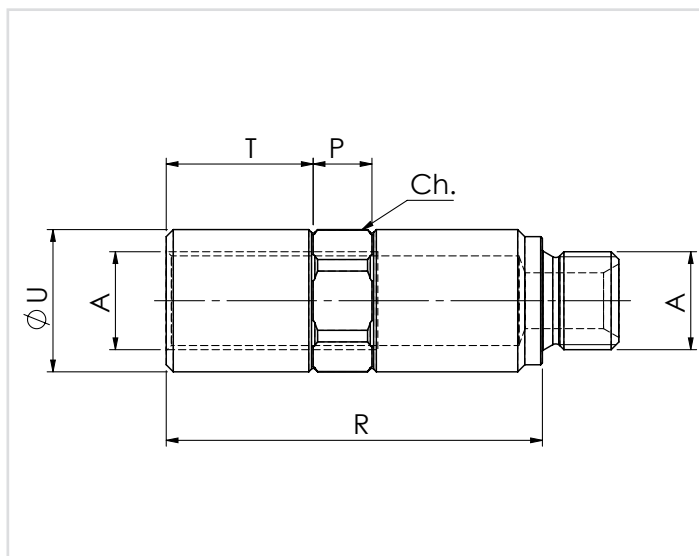
If omitted this value, the valves are supplied without factory setting and nuts are not tightened. For the correct operating it is needed a calibration of the valve made by final installer.

### PERFORMANCES



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B              | C            | D            | E            | T             | G              | L            | M            | R            | S            | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt | COPPIA<br>DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft |
|--------------|----------|----------------------------------------|------------------------------------------|----------------|--------------|--------------|--------------|---------------|----------------|--------------|--------------|--------------|--------------|-------------------------------------------|----------------------------------------------------------|
| VRD140       | BSPP 1/4 | 20<br>(5.3)                            | 300<br>(4350)                            | 10<br>(0.39)   | 33<br>(1.30) | 53<br>(2.09) | 6<br>(0.24)  | 7<br>(0.28)   | 13,5<br>(0.53) | 39<br>(1.54) | 10<br>(0.39) | 57<br>(2.24) | 66<br>(2.60) | 0,013<br>(0.029)                          | 6<br>(4.5)                                               |
| VRD380       | BSPP 3/8 | 35<br>(9.2)                            |                                          | 12,5<br>(0.49) | 36<br>(1.42) | 60<br>(2.63) | 5<br>(0.20)  | 9,5<br>(0.37) | 15,5<br>(0.61) | 45<br>(1.77) | 14<br>(0.55) | 64<br>(2.52) | 73<br>(2.87) | 0,024<br>(0.053)                          | 8<br>(6)                                                 |
| VRD120       | BSPP 1/2 | 65<br>(17.2)                           |                                          | 16<br>(0.63)   | 39<br>(1.54) | 63<br>(2.48) | 7<br>(0.28)  | 12<br>(0.47)  | 16<br>(0.63)   | 51<br>(2.01) | 18<br>(0.71) | 69<br>(2.72) | 81<br>(3.19) | 0,037<br>(0.082)                          | 12<br>(9)                                                |
| VRD340       | BSPP 3/4 | 150<br>(39.6)                          |                                          | 20<br>(0.79)   | 50<br>(1.97) | 81<br>(3.19) | 10<br>(0.39) | 16<br>(0.63)  | 21<br>(0.83)   | 62<br>(2.44) | 23<br>(0.91) | 87<br>(3.43) | 99<br>(3.90) | 0,079<br>(0.18)                           | 15<br>(11.25)                                            |



#### COLONNETTE - HOUSING M/F

| TIPO<br>TYPE | A        | R            | P            | T            | U              | Ch. | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|----------|--------------|--------------|--------------|----------------|-----|----------------------------------------|
| 61100057     | BSPP 1/4 | 57<br>(2.24) | 10<br>(0.39) | 22<br>(0.87) | 20.5<br>(0.81) | 19  | 0.11 (0.16)                            |
| 61100058     | BSPP 3/8 | 64<br>(2.52) | 10<br>(0.39) | 25<br>(0.98) | 24.5<br>(0.96) | 22  | 0.14 (0.20)                            |
| 61100059     | BSPP 1/2 | 69<br>(2.71) | 10<br>(0.39) | 28<br>(1.10) | 29.5<br>(1.16) | 27  | 0.24 (0.30)                            |
| 61100060     | BSPP 3/4 | 87<br>(3.42) | 12<br>(0.47) | 36<br>(1.42) | 35.5<br>(1.40) | 32  | 0.34 (0.48)                            |

#### COLONNETTE - HOUSING F/F

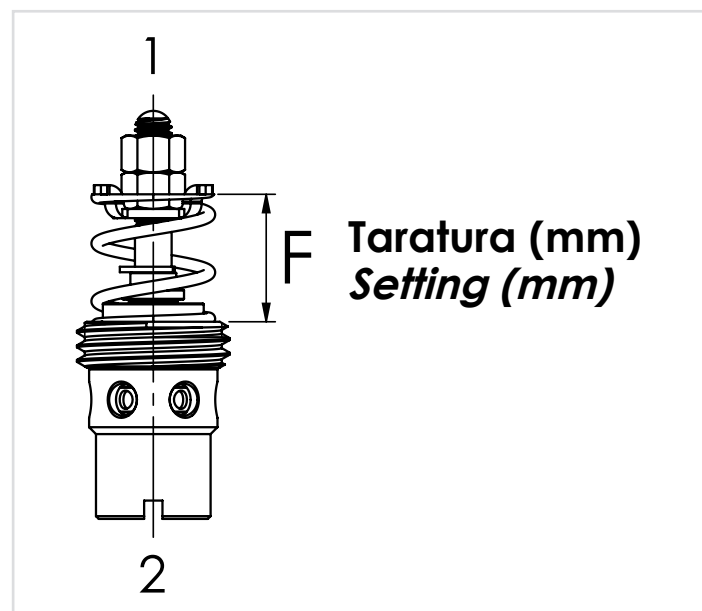
| TIPO<br>TYPE | A        | S            | P            | T              | U              | Ch. | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|----------|--------------|--------------|----------------|----------------|-----|----------------------------------------|
| 61100051     | BSPP 1/4 | 66<br>(2.60) | 10<br>(0.39) | 38<br>(1.50)   | 20.5<br>(0.81) | 19  | 0.11 (0.16)                            |
| 61100052     | BSPP 3/8 | 73<br>(2.87) | 10<br>(0.39) | 43<br>(1.69)   | 24.5<br>(0.96) | 22  | 0.12 (0.20)                            |
| 61100053     | BSPP 1/2 | 81<br>(3.19) | 10<br>(0.39) | 50.5<br>(1.99) | 29.5<br>(1.16) | 27  | 0.20 (0.33)                            |
| 61100054     | BSPP 3/4 | 99<br>(3.90) | 12<br>(0.47) | 57<br>(2.24)   | 35.5<br>(1.40) | 32  | 0.29 (0.50)                            |

| TARATURA<br>SETTING<br>mm | F <sub>—</sub> | VRD140 Portata (l/min) - Flow rate (Usgpm) |            |            |             |             |             |
|---------------------------|----------------|--------------------------------------------|------------|------------|-------------|-------------|-------------|
|                           |                | A                                          | B          | C          | D           | E           | F           |
| 10                        |                | 1,4 (0,37)                                 | 2,4 (0,63) | 3,8 (1,00) | 6 (1,58)    | 8,6 (2,27)  | 12,2 (3,22) |
| 9                         |                | 1,9 (0,50)                                 | 3,1 (0,82) | 4,7 (1,24) | 7,6 (2,01)  | 10,3 (2,72) | 15,4 (4,07) |
| 8                         |                | 2,1 (0,55)                                 | 3,8 (1,00) | 5,6 (1,48) | 8,9 (2,35)  | 12 (3,17)   | 18,6 (4,91) |
| 7                         |                | 3,3 (0,87)                                 | 5,9 (1,56) | 7,2 (1,90) | 10,6 (2,80) | 13,1 (3,46) | 18,8 (4,96) |
| 6                         |                | 4,2 (1,11)                                 | 7,8 (2,06) | 9 (2,38)   | 13,4 (3,54) | 17,5 (4,62) | 24 (6,34)   |

| TARATURA<br>SETTING<br>mm | F <sub>—</sub> | VRD340 Portata (l/min) - Flow rate (Usgpm) |              |              |              |               |
|---------------------------|----------------|--------------------------------------------|--------------|--------------|--------------|---------------|
|                           |                | A                                          | B            | C            | D            | E             |
| 23                        |                | 39,8 (10,51)                               | 45,2 (11,93) | 63,2 (16,68) | 67 (17,69)   | 105 (27,72)   |
| 22                        |                | 42,1 (11,11)                               | 48 (12,67)   | 65,7 (17,34) | 69,7 (18,40) | 112,5 (29,70) |
| 21                        |                | 45,1 (11,91)                               | 51,8 (13,68) | 68 (17,95)   | 76,6 (20,22) | 119 (31,42)   |
| 20                        |                | 47 (12,41)                                 | 54,9 (14,49) | 70,7 (18,66) | 81,9 (21,62) | 126,2 (33,32) |
| 19                        |                | 50,2 (13,25)                               | 58,1 (15,34) | 73,4 (19,38) | 90,1 (23,79) | 133,7 (35,30) |
| 18                        |                | 51,8 (13,68)                               | 62,3 (16,45) | 77,1 (20,35) | 95 (25,08)   | 140,2 (37,01) |
| 17                        |                | 54,5 (14,39)                               | 64,8 (17,11) | 80,2 (21,17) | 101 (26,66)  | 145,4 (38,39) |
| 16                        |                | 57,1 (15,07)                               | 68,2 (18,00) | 83,3 (21,99) | 107 (28,25)  | 151 (39,86)   |

| TARATURA<br>SETTING<br>mm | F <sub>—</sub> | VRD380 Portata (l/min) - Flow rate (Usgpm) |            |             |             |             |             |
|---------------------------|----------------|--------------------------------------------|------------|-------------|-------------|-------------|-------------|
|                           |                | A                                          | B          | C           | D           | E           | F           |
| 15                        |                | 1,7 (0,45)                                 | 3 (0,79)   | 5 (1,32)    | 10 (2,64)   | 16,5 (4,36) | 19,5 (5,15) |
| 14                        |                | 2,3 (0,61)                                 | 3,8 (1,00) | 6,2 (1,64)  | 13 (3,43)   | 20 (5,28)   | 23,4 (6,18) |
| 13                        |                | 2,6 (0,69)                                 | 4,7 (1,24) | 8,2 (2,16)  | 15,6 (4,12) | 22 (5,81)   | 26,9 (7,10) |
| 12                        |                | 3 (0,79)                                   | 5,2 (1,37) | 9,4 (2,48)  | 16,6 (4,38) | 23,5 (6,20) | 29,8 (7,87) |
| 11                        |                | 3,7 (0,98)                                 | 5,5 (1,45) | 10,5 (2,77) | 18 (4,75)   | 25,4 (6,71) | 33 (8,71)   |

| TARATURA<br>SETTING<br>mm | F <sub>—</sub> | VRD120 Portata (l/min) - Flow rate (Usgpm) |             |              |              |              |
|---------------------------|----------------|--------------------------------------------|-------------|--------------|--------------|--------------|
|                           |                | A                                          | B           | C            | D            | E            |
| 20                        |                | 15,5 (4,09)                                | 19,7 (5,20) | 22,8 (6,02)  | 32 (8,45)    | 40,5 (10,69) |
| 19                        |                | 17 (4,49)                                  | 21,7 (5,73) | 25,8 (6,81)  | 35,4 (9,35)  | 44,3 (11,70) |
| 18                        |                | 18 (4,75)                                  | 24,3 (6,42) | 28 (7,39)    | 38,7 (10,22) | 49,3 (13,02) |
| 17                        |                | 19,4 (5,12)                                | 26,2 (6,92) | 31,2 (8,24)  | 41,8 (11,04) | 54,8 (14,47) |
| 16                        |                | 20,4 (5,39)                                | 28,1 (7,42) | 33,5 (8,84)  | 44 (11,62)   | 59,2 (15,63) |
| 15                        |                | 21,6 (5,70)                                | 29,2 (7,71) | 34,2 (9,03)  | 46,2 (12,20) | 62,9 (16,61) |
| 14                        |                | 22,6 (5,97)                                | 31 (8,18)   | 36,1 (9,53)  | 49,2 (12,99) | 67,7 (17,87) |
| 13                        |                | 23,8 (6,28)                                | 32,5 (8,58) | 38,4 (10,14) | 51,4 (13,57) | 71,6 (18,90) |



notes

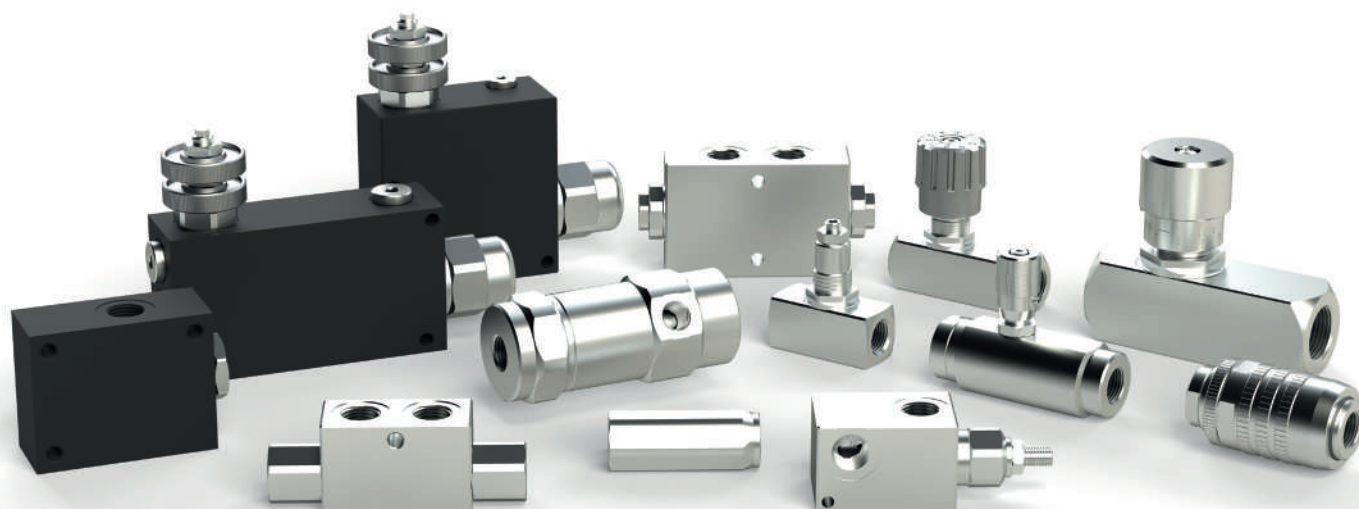
Notes area with horizontal dotted lines for writing.

# VALVOLE IN LINEA

## IN-LINE VALVES

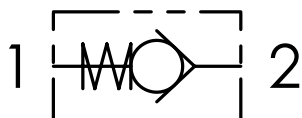
Le famiglia delle valvole in linea comprende: valvole di regolazione della portata unidirezionali, bidirezionali, valvole per il controllo di portata compensate, valvole divisori/riunificatori di flusso, valvole finecorsa, valvole di blocco singole e doppie, valvole antiurto doppie, valvole limitatrici di pressione per montaggio in linea e valvole di sequenza.

Unidirectional flow control valves, bidirectional flow control valves, flow control valves pressure compensated, flow dividers, end-stroke valves, single or double acting pilot check valves, double cross direct acting relief valves, direct acting relief valves and sequence valves.



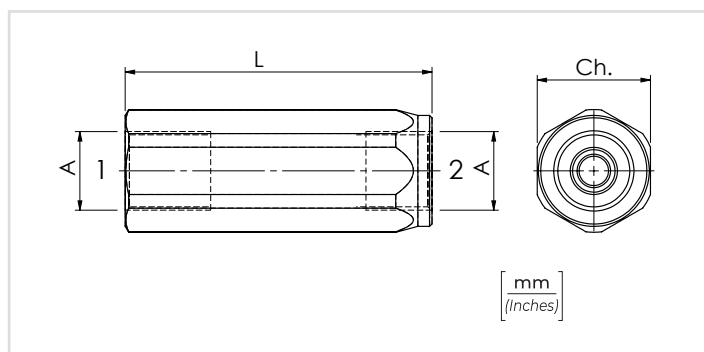


## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Olivo idraulico - Mineral oil                                                                                                                                                      | ISO 6743/4 (DIN 51524)                                                              |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14                                                       |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                                             |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                                             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |



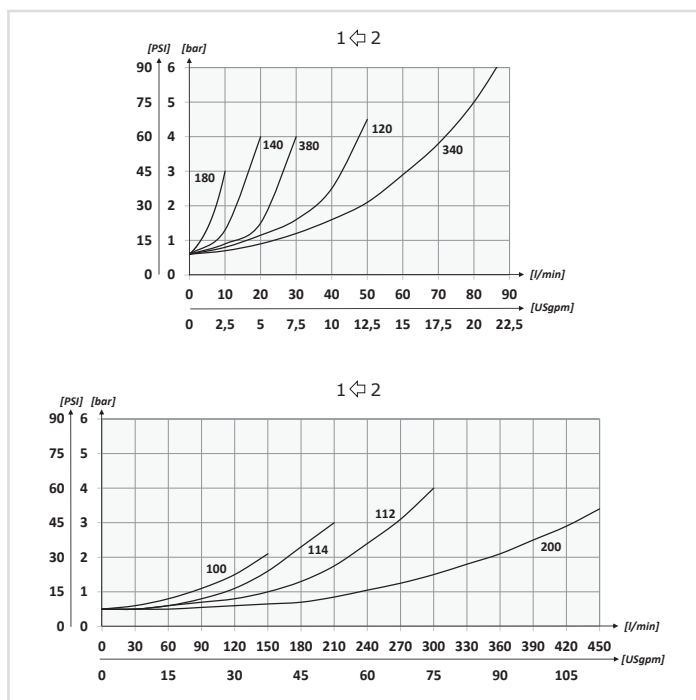
## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

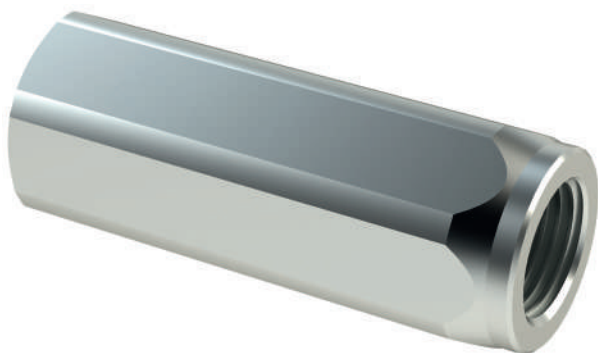
| TIPO<br>TYPE | A          | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | L           | Ch. | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|--------------|------------|-----------------------------------------|-------------------------------------------|-------------|-----|-----------------------------------------|
| VUR180       | BSPP 1/8   | 5 (1.3)                                 | 400 (5800)                                | 47 (1.85)   | 14  | 0,05 (0.11)                             |
| VUR140       | BSPP 1/4   | 15 (4.0)                                |                                           | 55 (2.17)   | 19  | 0,10 (0.22)                             |
| VUR380       | BSPP 3/8   | 30 (7.9)                                |                                           | 65 (2.56)   | 24  | 0,18 (0.40)                             |
| VUR120       | BSPP 1/2   | 50 (13.2)                               |                                           | 75 (2.95)   | 27  | 0,23 (0.50)                             |
| VUR340       | BSPP 3/4   | 90 (23.8)                               |                                           | 86,5 (3.41) | 35  | 0,45 (1)                                |
| VUR100       | BSPP 1     | 150 (39.6)                              | 350 (5075)                                | 110 (4.33)  | 41  | 0,73 (1.6)                              |
| VUR114       | BSPP 1-1/4 | 200 (52.8)                              |                                           | 123 (4.84)  | 54  | 1,5 (3.3)                               |
| VUR112       | BSPP 1-1/2 | 300 (79.2)                              |                                           | 138 (5.43)  | 59  | 1,85 (4.07)                             |
| VUR200       | BSPP 2     | 430 (113.5)                             | 250 (3625)                                | 145 (5.71)  | 69  | 2,7 (6)                                 |

## CODICE ORDINAZIONE ORDERING CODE

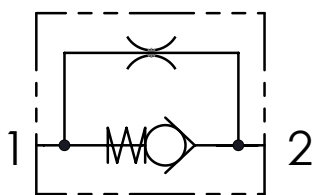
| 01         | 02                                                                    | 03                                                                                                                          | 04                                      |
|------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| <b>VUR</b> |                                                                       |                                                                                                                             |                                         |
| 01         | VALVOLE UNIDIREZIONALI A COLONNETTA F/F<br>(F/F CHECK HOUSING VALVES) |                                                                                                                             | VUR                                     |
| 02         | DIMENSIONE<br>(SIZE)                                                  | BSPP 1/8                                                                                                                    | 180                                     |
|            |                                                                       | BSPP 1/4                                                                                                                    | 140                                     |
|            |                                                                       | BSPP 3/8                                                                                                                    | 380                                     |
|            |                                                                       | BSPP 1/2                                                                                                                    | 120                                     |
|            |                                                                       | BSPP 3/4                                                                                                                    | 340                                     |
|            |                                                                       | BSPP 1                                                                                                                      | 100                                     |
|            |                                                                       | BSPP 1-1/4                                                                                                                  | 114                                     |
|            |                                                                       | BSPP 1-1/2                                                                                                                  | 112                                     |
|            |                                                                       | BSPP 2                                                                                                                      | 200                                     |
| 03         | TENUTA<br>(SEALING)                                                   | Tenuta a sfera solo per VUR180/140/380/120 e molla 0,5 bar<br>(Ball sealing only for VUR180/140/380/120 and spring 0,5 bar) | SF                                      |
|            |                                                                       | Tenuta a cono (Poppet sealing)                                                                                              | SP                                      |
| 04         | MOLLA<br>(SPRING)                                                     | 0,5 bar Standard (7.25 PSI)                                                                                                 | 0,5                                     |
|            |                                                                       | 1,5 bar (21.7 PSI)                                                                                                          | Solo versione 112<br>(Only 112 version) |
|            |                                                                       | 3 bar (43.5 PSI)                                                                                                            | 3                                       |
|            |                                                                       | 4,5 bar (65.25 PSI)                                                                                                         | 4,5                                     |
|            |                                                                       | 6 bar (87 PSI)                                                                                                              | 6                                       |
|            |                                                                       | 10 bar (145 PSI)                                                                                                            | Solo versione 120<br>(Only 120 version) |

## PERFORMANCES



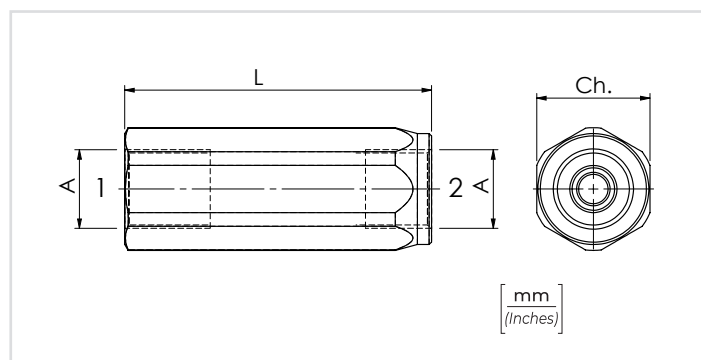


## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Oil idraulico - Mineral oil                                                                                                                                                        | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

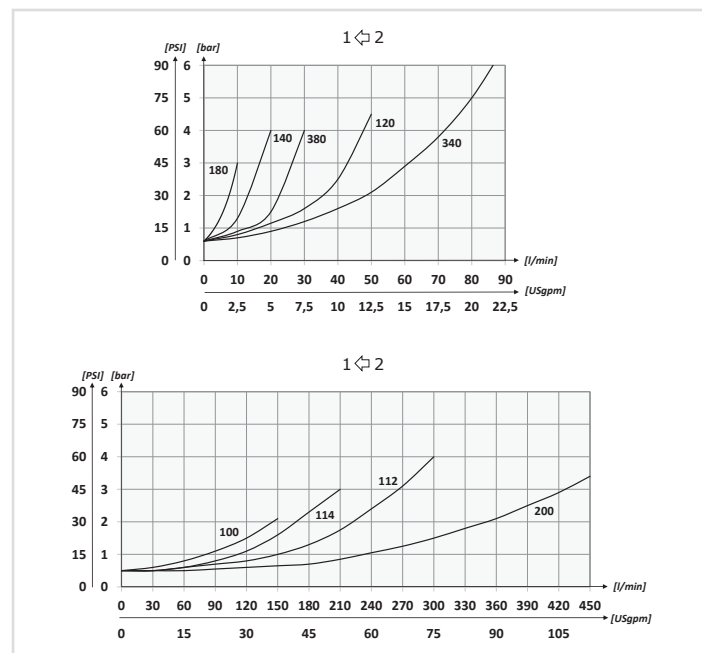


## CODICE ORDINAZIONE ORDERING CODE

|            |    |           |    |    |
|------------|----|-----------|----|----|
| 01         | 02 | 03        | 04 | 05 |
| <b>VUR</b> |    | <b>SP</b> |    |    |

|           |                                                                                                                     |                                                                                                                                                                                                              |
|-----------|---------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>01</b> | VALVOLE UNIDIREZIONALI F/F A COLONNETTA CON FORO DI STROZZATURA<br>(F/F CHECK HOUSING VALVES WITH RESTRICTION HOLE) | <b>VUR</b>                                                                                                                                                                                                   |
| <b>02</b> | DIMENSIONE<br>(SIZE)                                                                                                | BSPP 1/8 <b>180</b>                                                                                                                                                                                          |
|           |                                                                                                                     | BSPP 1/4 <b>140</b>                                                                                                                                                                                          |
|           |                                                                                                                     | BSPP 3/8 <b>380</b>                                                                                                                                                                                          |
|           |                                                                                                                     | BSPP 1/2 <b>120</b>                                                                                                                                                                                          |
|           |                                                                                                                     | BSPP 3/4 <b>340</b>                                                                                                                                                                                          |
|           |                                                                                                                     | BSPP 1 <b>100</b>                                                                                                                                                                                            |
|           |                                                                                                                     | BSPP 1-1/4 <b>114</b>                                                                                                                                                                                        |
|           |                                                                                                                     | BSPP 1-1/2 <b>112</b>                                                                                                                                                                                        |
|           |                                                                                                                     | BSPP 2 <b>200</b>                                                                                                                                                                                            |
| <b>03</b> | TENUTA (SEALING)                                                                                                    | Tenuta a cono (Poppet sealing) <b>SP</b>                                                                                                                                                                     |
| <b>04</b> | MOLLA<br>(SPRING)                                                                                                   | 0,5 bar Standard (7.25 PSI) <b>0,5</b>                                                                                                                                                                       |
|           |                                                                                                                     | 3 bar (43.5 PSI) <b>3</b>                                                                                                                                                                                    |
|           |                                                                                                                     | 4,5 bar (65.25 PSI) <b>4,5</b>                                                                                                                                                                               |
|           |                                                                                                                     | 6 bar (87 PSI) <b>6</b>                                                                                                                                                                                      |
|           |                                                                                                                     | 10 bar (145 PSI) <b>Solo versione 120</b><br>(Only 120 version) <b>10</b>                                                                                                                                    |
| <b>05</b> | FORO DI STROZZATURA<br>(RESTRICTION HOLE)                                                                           | Indicare il diametro del foro.<br>Esempio: VUR380SP0,5 con foro Ø 1,5 mm Cod. <b>VUR380SP0,5-1,5</b><br>State the hole diameter. Example:<br>VUR380SP0,5-1,5 with Ø 0,06 in hole Cod. <b>VUR380SP0,5-1,5</b> |

## PERFORMANCES

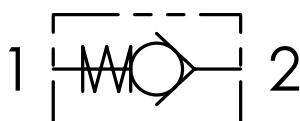


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A          | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | L           | Ch. | PESO APPROX (kg)<br>APPROX WEIGHT (lb) |
|--------------|------------|-----------------------------------------|-------------------------------------------|-------------|-----|----------------------------------------|
| VUR180-H     | BSPP 1/8   | 5 (1.3)                                 | 400 (5800)                                | 47 (1.85)   | 14  | 0,05 (0.11)                            |
| VUR140-H     | BSPP 1/4   | 15 (4.0)                                |                                           | 55 (2.17)   | 19  | 0,10 (0.22)                            |
| VUR380-H     | BSPP 3/8   | 30 (7.9)                                |                                           | 65 (2.56)   | 24  | 0,18 (0.40)                            |
| VUR120-H     | BSPP 1/2   | 50 (13.2)                               |                                           | 75 (2.95)   | 27  | 0,23 (0.50)                            |
| VUR340-H     | BSPP 3/4   | 90 (23.8)                               |                                           | 86,5 (3.41) | 35  | 0,45 (1)                               |
| VUR100-H     | BSPP 1     | 150 (39.6)                              | 350 (5075)                                | 110 (4.33)  | 41  | 0,73 (1.6)                             |
| VUR114-H     | BSPP 1-1/4 | 200 (52.8)                              |                                           | 123 (4.84)  | 55  | 1,5 (3.3)                              |
| VUR112-H     | BSPP 1-1/2 | 300 (79.2)                              |                                           | 138 (5.43)  | 60  | 1,85 (4.07)                            |
| VUR200-H     | BSPP 2     | 430 (113.5)                             | 250 (3625)                                | 145 (5.71)  | 70  | 2,7 (6)                                |

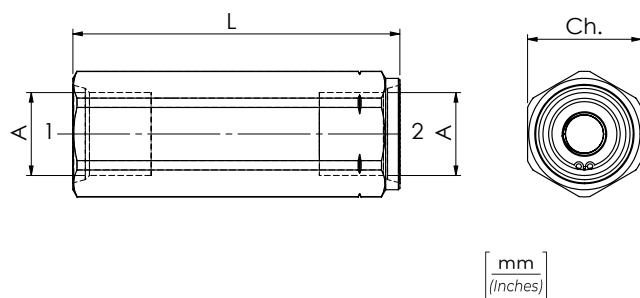


## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                                              |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14                                                       |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                                             |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                                             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |

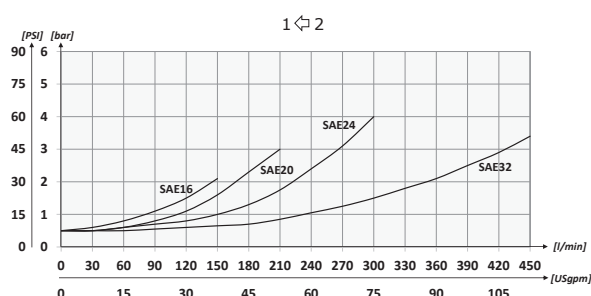
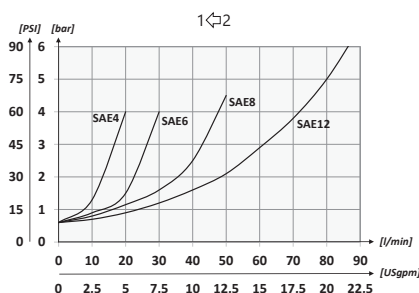


## CODICE ORDINAZIONE ORDERING CODE

|            |    |           |    |
|------------|----|-----------|----|
| 01         | 02 | 03        | 04 |
| <b>VUR</b> |    | <b>SP</b> |    |

| 01 | VALVOLE UNIDIREZIONALI A COLONNETTA F/F<br>(F/F CHECK HOUSING VALVES) |                                   | VUR |
|----|-----------------------------------------------------------------------|-----------------------------------|-----|
| 02 | DIMENSIONE<br>(SIZE)                                                  | 7/16-20UNF                        | 4   |
|    |                                                                       | 9/16-18UNF                        | 6   |
|    |                                                                       | 3/4-16UNF                         | 8   |
|    |                                                                       | 1-1/16-12UN                       | 12  |
|    |                                                                       | 1-5/16-12UN                       | 16  |
|    |                                                                       | 1-5/8-12UN                        | 20  |
|    |                                                                       | 1-7/8-12UN                        | 24  |
| 03 | TENUTA<br>(SEALING)                                                   | Tenuta a cono<br>(Poppet sealing) | SP  |
|    |                                                                       |                                   |     |
| 04 | MOLLA<br>(SPRING)                                                     | 0,5 bar Standard (7.25 PSI)       | 0,5 |
|    |                                                                       | 3 bar (43.5 PSI)                  | 3   |
|    |                                                                       | 4,5 bar (65.25 PSI)               | 4,5 |
|    |                                                                       | 6 bar (87 PSI)                    | 6   |

## PERFORMANCES

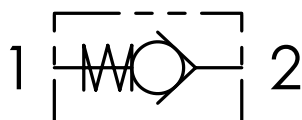


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A           | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | L           | Ch. | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|--------------|-------------|-----------------------------------------|-------------------------------------------|-------------|-----|-----------------------------------------|
| VUR4         | 7/16-20UNF  | 15 (4)                                  | 400 (5800)                                | 55 (2.17)   | 19  | 0,11 (0.24)                             |
| VUR6         | 9/16-18UNF  | 30 (7.9)                                |                                           | 58 (2.28)   | 19  | 0,09 (0.20)                             |
| VUR8         | 3/4-16UNF   | 50 (13.2)                               |                                           | 69 (2.71)   | 24  | 0,18 (0.40)                             |
| VUR12        | 1-1/16-12UN | 90 (23.8)                               |                                           | 88,5 (3.48) | 35  | 0,45 (1)                                |
| VUR16        | 1-5/16-12UN | 150 (39.6)                              | 350 (5075)                                | 110 (4.33)  | 41  | 0,73 (1.6)                              |
| VUR20        | 1-5/8-12UN  | 200 (52.8)                              |                                           | 120 (4.72)  | 54  | 1,5 (3.43)                              |
| VUR24        | 1-7/8-12UN  | 300 (79.2)                              |                                           | 138 (5.43)  | 59  | 2,5 (5.5)                               |
| VUR32        | 2-1/2-12UN  | 430 (113.5)                             |                                           |             | 69  | 2,9 (6.4)                               |

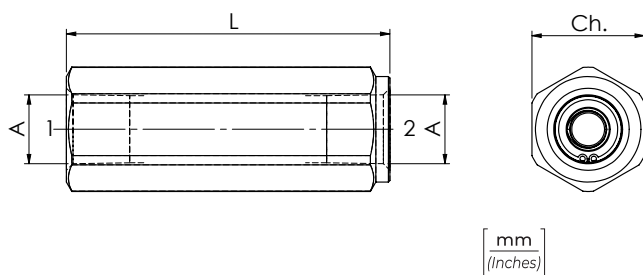


## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14                             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |

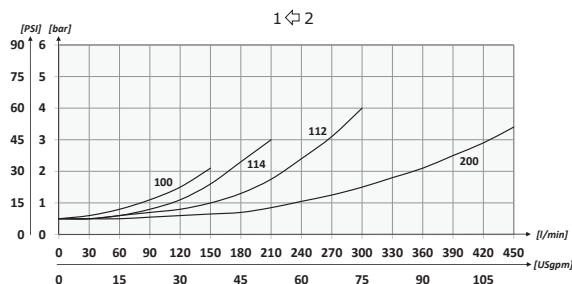
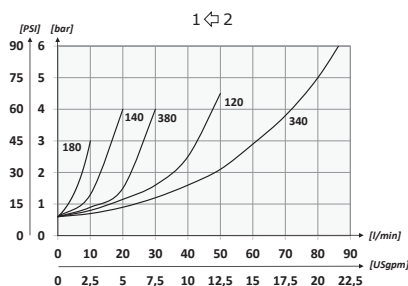


## CODICE ORDINAZIONE ORDERING CODE

|            |    |           |    |
|------------|----|-----------|----|
| 01         | 02 | 03        | 04 |
| <b>VUR</b> |    | <b>SP</b> |    |

| 01 | VALVOLE UNIDIREZIONALI A COLONNETTA<br>F/F (F/F CHECK HOUSING VALVES) |                                                            | VUR  |
|----|-----------------------------------------------------------------------|------------------------------------------------------------|------|
| 02 | DIMENSIONE<br>(SIZE)                                                  | 1/8 NPTF                                                   | 180N |
|    |                                                                       | 1/4 NPTF                                                   | 140N |
|    |                                                                       | 3/8 NPTF                                                   | 380N |
|    |                                                                       | 1/2 NPTF                                                   | 120N |
|    |                                                                       | 3/4 NPTF                                                   | 340N |
|    |                                                                       | 1 NPTF                                                     | 100N |
|    |                                                                       | 1-1/4 NPTF                                                 | 114N |
|    |                                                                       | 1-1/2 NPTF                                                 | 112N |
|    |                                                                       | 2 NPTF                                                     | 200N |
| 03 | TENUTA (SEALING)                                                      | Tenuta a cono (Poppet sealing)                             | SP   |
| 04 | MOLLA<br>(SPRING)                                                     | 0,5 bar Standard (7.25 PSI)                                | 0,5  |
|    |                                                                       | 3 bar (43.5 PSI)                                           | 3    |
|    |                                                                       | 4,5 bar (65.25 PSI)                                        | 4,5  |
|    |                                                                       | 6 bar (87 PSI)                                             | 6    |
|    |                                                                       | 10 bar (145 PSI) Solo versione 120N<br>(Only 120N version) | 10   |

## PERFORMANCES

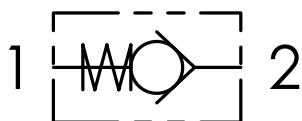


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A          | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | L           | Ch. | PESO APPROX (kg)<br>APPROX WEIGHT (lb) |
|--------------|------------|-----------------------------------------|-------------------------------------------|-------------|-----|----------------------------------------|
| VUR180N      | 1/8 NPTF   | 5 (1,3)                                 | 400 (5800)                                | 47 (1.85)   | 14  | 0,05 (0.11)                            |
| VUR140N      | 1/4 NPTF   | 15 (4)                                  |                                           | 58 (2.28)   | 19  | 0,10 (0.22)                            |
| VUR380N      | 3/8 NPTF   | 30 (7.9)                                |                                           | 69 (2.72)   | 24  | 0,18 (0.40)                            |
| VUR120N      | 1/2 NPTF   | 50 (13.2)                               |                                           | 75 (2.95)   | 27  | 0,23 (0.50)                            |
| VUR340N      | 3/4 NPTF   | 90 (23.8)                               |                                           | 88,5 (3.48) | 35  | 0,45 (1)                               |
| VUR100N      | 1 NPTF     | 150 (39.6)                              | 350 (5075)                                | 110 (4.33)  | 41  | 0,75 (1.7)                             |
| VUR114N      | 1-1/4 NPTF | 200 (52.8)                              |                                           | 120 (4.72)  | 54  | 1,5 (3.3)                              |
| VUR112N      | 1-1/2 NPTF | 300 (79.2)                              |                                           | 138 (5.43)  | 59  | 2,6 (5.7)                              |
| VUR200N      | 2 NPTF     | 430 (113.5)                             |                                           |             | 69  | 3 (6.60)                               |

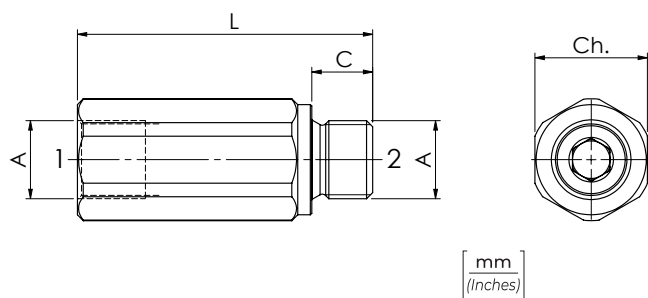


## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Olivo idraulico - Mineral oil                                                                                                                                                      | ISO 6743/4 (DIN 51524)                                                              |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14                                                       |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                                             |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                                             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

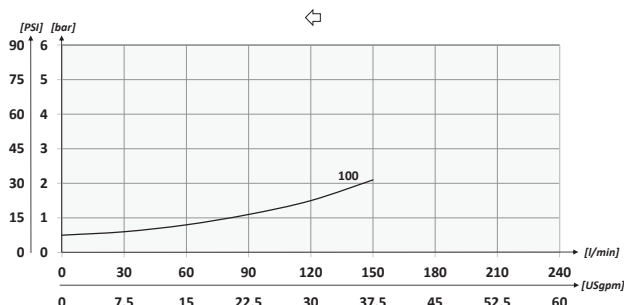
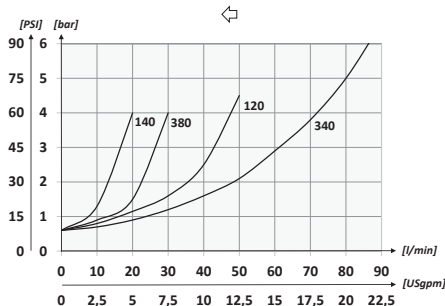
| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | L            | C         | Ch.       | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|----------|----------------------------------------|-------------------------------------------|--------------|-----------|-----------|----------------------------------------|
| VMF140       | BSPP 1/4 | 15 (4)                                 | 400 (5800)                                | 50 (1.96)    | 11 (0.43) | 19 (0.75) | 0,08 (0.18)                            |
| VMF380       | BSPP 3/8 | 30 (8)                                 |                                           | 63 (2.48)    | 13 (0.51) | 24 (0.94) | 0,16 (0.35)                            |
| VMF120       | BSPP 1/2 | 50 (13)                                |                                           | 70 (2.75)    | 14 (0.55) | 27 (1.06) | 0,20 (0.44)                            |
| VMF340       | BSPP 3/4 | 90 (23)                                |                                           | 82 (3.23)    | 17 (0.67) | 35 (1.38) | 0,39 (0.86)                            |
| VMF100       | BSPP 1   | 150 (40)                               | 350 (5075)                                | 100,5 (3.95) | 19 (0.75) | 41 (1.61) | 0,63 (1.38)                            |

## CODICE ORDINAZIONE ORDERING CODE

|     |    |    |    |
|-----|----|----|----|
| 01  | 02 | 03 | 04 |
| VMF |    |    |    |

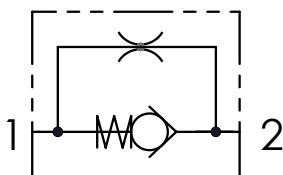
| 01 | VALVOLE UNIDIREZIONALI A COLONNETTA M/F<br>(M/F CHECK HOUSING VALVES) |                                                                                                                     | VMF                                     |
|----|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| 02 | DIMENSIONE<br>(SIZE)                                                  | BSPP 1/4                                                                                                            | 140                                     |
|    |                                                                       | BSPP 3/8                                                                                                            | 380                                     |
|    |                                                                       | BSPP 1/2                                                                                                            | 120                                     |
|    |                                                                       | BSPP 3/4                                                                                                            | 340                                     |
|    |                                                                       | BSPP 1                                                                                                              | 100                                     |
| 03 | TENUTA<br>(SEALING)                                                   | Tenuta a sfera solo per VMF140/380/120 e molla 0,5 bar<br>(Ball sealing only for VMF140/380/120 and spring 0,5 bar) | SF                                      |
|    |                                                                       | Tenuta a cono (Poppet sealing)                                                                                      | SP                                      |
| 04 | MOLLA<br>(SPRING)                                                     | 0,5 bar Standard (7.25 PSI)                                                                                         | 0,5                                     |
|    |                                                                       | 3 bar (43.5 PSI)                                                                                                    | 3                                       |
|    |                                                                       | 4,5 bar (65 PSI)                                                                                                    | 4,5                                     |
|    |                                                                       | 6 bar (87 PSI)                                                                                                      | 6                                       |
|    |                                                                       | 10 bar (145 PSI)                                                                                                    | Solo versione 120<br>(Only 120 version) |

## PERFORMANCES



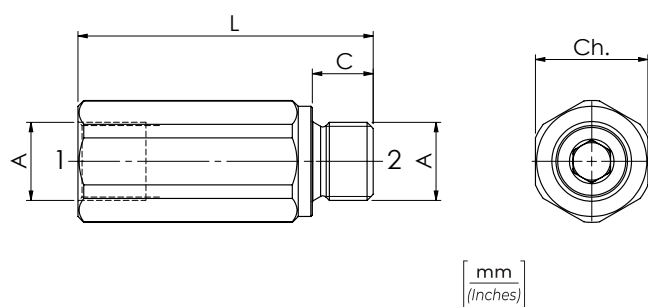


## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                                              |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14                                                       |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                                             |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                                             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |

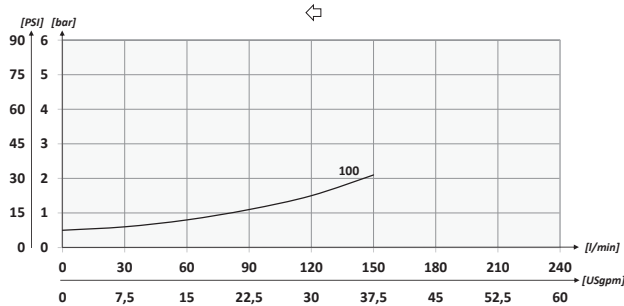
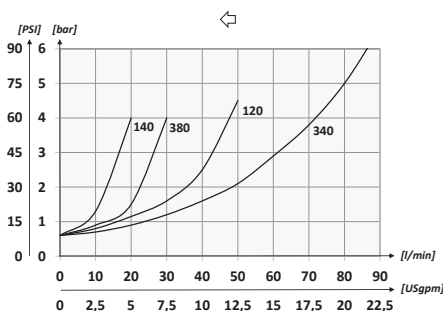


## CODICE ORDINAZIONE ORDERING CODE

| 01         | 02 | 03        | 04 | 05 |
|------------|----|-----------|----|----|
| <b>VMF</b> |    | <b>SP</b> |    |    |

| 01 | VALVOLE UNIDIREZIONALI A COLONNETTA M/F<br>(M/F CHECK HOUSING VALVES) |                                                                                                                                                                                                   |                                         | VMF |
|----|-----------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----|
| 02 | DIMENSIONE<br>(SIZE)                                                  | BSPP 1/4                                                                                                                                                                                          |                                         | 140 |
|    |                                                                       | BSPP 3/8                                                                                                                                                                                          |                                         | 380 |
|    |                                                                       | BSPP 1/2                                                                                                                                                                                          |                                         | 120 |
|    |                                                                       | BSPP 3/4                                                                                                                                                                                          |                                         | 340 |
|    |                                                                       | BSPP 1                                                                                                                                                                                            |                                         | 100 |
| 03 | TENUTA (SEALING)                                                      | Tenuta a cono (Poppet sealing)                                                                                                                                                                    |                                         | SP  |
| 04 | MOLLA<br>(SPRING)                                                     | 0,5 bar Standard (7.25 PSI)                                                                                                                                                                       |                                         | 0,5 |
|    |                                                                       | 3 bar (43.5 PSI)                                                                                                                                                                                  |                                         | 3   |
|    |                                                                       | 4,5 bar (65 PSI)                                                                                                                                                                                  |                                         | 4,5 |
|    |                                                                       | 6 bar (87 PSI)                                                                                                                                                                                    |                                         | 6   |
|    |                                                                       | 10 bar (145 PSI)                                                                                                                                                                                  | Solo versione 120<br>(Only 120 version) | 10  |
| 05 | FORO DISTROZZATURA<br>(RESTRICTION HOLE)                              | Indicare il diametro del foro. Esempio: VMF380SP0,5 con foro Ø 1,5 mm Cod. <b>VMF380SP0,5-1,5</b><br>State the hole diameter Example: VMF380SP0,5 with Ø 0,06 in hole Cod. <b>VMF380SP0,5-1,5</b> |                                         |     |

## PERFORMANCES

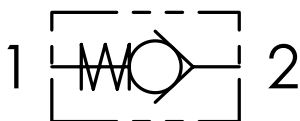


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | L            | C         | Ch.       | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|--------------|----------|-----------------------------------------|-------------------------------------------|--------------|-----------|-----------|-----------------------------------------|
| VMF140-H     | BSPP 1/4 | 15 (4)                                  | 400 (5800)                                | 50 (1.96)    | 11 (0.43) | 19 (0.75) | 0,08 (0.18)                             |
| VMF380-H     | BSPP 3/8 | 30 (8)                                  |                                           | 63 (2.48)    | 13 (0.51) | 24 (0.94) | 0,16 (0.35)                             |
| VMF120-H     | BSPP 1/2 | 50 (13)                                 |                                           | 70 (2.75)    | 14 (0.55) | 27 (1.06) | 0,20 (0.44)                             |
| VMF340-H     | BSPP 3/4 | 90 (23)                                 |                                           | 82 (3.23)    | 17 (0.67) | 35 (1.38) | 0,39 (0.86)                             |
| VMF100-H     | BSPP 1   | 150 (40)                                | 350 (5075)                                | 100,5 (3.95) | 19 (0.75) | 41 (1.61) | 0,63 (1.38)                             |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

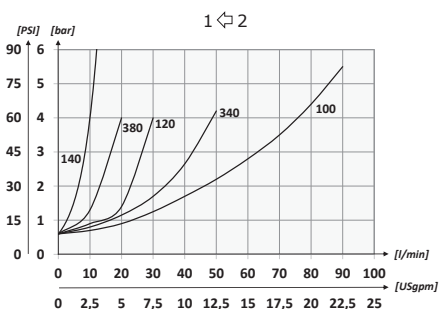


## CODICE ORDINAZIONE ORDERING CODE

| 01         | 02 | 03 | 04 |
|------------|----|----|----|
| <b>VUN</b> |    |    |    |

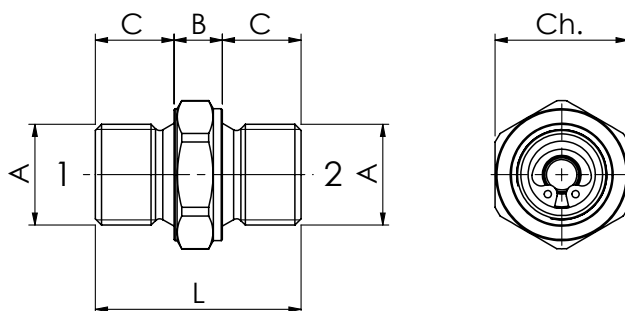
| 01 | VALVOLE UNIDIREZIONALI M/M<br>(M/M CHECK VALVES) |                                                                                                                     | VUN |
|----|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-----|
| 02 | DIMENSIONE<br>(SIZE)                             | BSPP 1/4                                                                                                            | 140 |
|    |                                                  | BSPP 3/8                                                                                                            | 380 |
|    |                                                  | BSPP 1/2                                                                                                            | 120 |
|    |                                                  | BSPP 3/4                                                                                                            | 340 |
|    |                                                  | BSPP 1                                                                                                              | 100 |
| 03 | TENUTA<br>(SEALING)                              | Tenuta a sfera solo per VUN140/380/120 e molla 0,5 bar<br>(Ball sealing only for VUN140/380/120 and spring 0,5 bar) | SF  |
|    |                                                  | Tenuta a cono (Poppet sealing)                                                                                      | SP  |
| 04 | MOLLA<br>(SPRING)                                | 0,5 bar Standard (7.25 PSI)                                                                                         | 0,5 |
|    |                                                  | 3 bar (43.5 PSI)                                                                                                    | 3   |
|    |                                                  | 4,5 bar (65.25 PSI)                                                                                                 | 4,5 |
|    |                                                  | 6 bar (87 PSI)<br>(Not available for 1/4" version)                                                                  | 6   |

## PERFORMANCES



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14                             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |



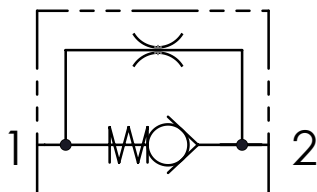
mm  
(Inches)

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

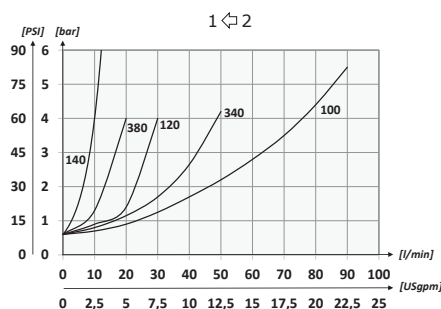
| CODICE<br>CODE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | L         | B         | C         | Ch. | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | COPPIA MAX DI<br>SERRAGGIO TUBO<br>MAX TIGHTENING TORQUE<br>FOR HOSE (lbt in) | PESO APPROX<br>APPROX WEIGHT<br>kg - (lbt) |
|----------------|----------|----------------------------------------|------------------------------------------|-----------|-----------|-----------|-----|-------------------------------------------------------|-------------------------------------------------------------------------------|--------------------------------------------|
| VUN140         | BSPP 1/4 | 5 (1.3)                                | 500 (7250)                               | 29 (0.28) | 7 (1.27)  | 11 (0.43) | 19  | 30 (22.2)                                             | 20 (14.75)                                                                    | 0,03 (0.066)                               |
| VUN380         | BSPP 3/8 | 15 (4)                                 |                                          | 34 (1.34) | 8 (0.31)  | 13 (0.51) | 22  | 45 (33.2)                                             | 35 (25.8)                                                                     | 0,05 (0.01)                                |
| VUN120         | BSPP 1/2 | 30 (7.9)                               |                                          | 44 (1.73) | 16 (0.63) | 14 (0.55) | 27  | 60 (44.3)                                             | 50 (36.8)                                                                     | 0,11 (0.24)                                |
| VUN340         | BSPP 3/4 | 50 (13.2)                              |                                          | 50 (1.97) | 16 (0.63) | 17 (0.67) | 32  | 100 (73.75)                                           | 90 (66.3)                                                                     | 0,18 (0.40)                                |
| VUN100         | BSPP 1   | 90 (23.8)                              |                                          | 57 (2.24) | 19 (0.75) | 19 (0.75) | 41  | 140 (103.3)                                           | 120 (88.5)                                                                    | 0,32 (0.71)                                |



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### PERFORMANCES



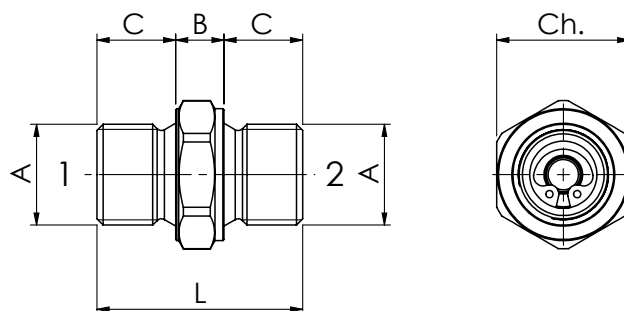
### CODICE ORDINAZIONE ORDERING CODE

| 01         | 02 | 03        | 04 | 05 |
|------------|----|-----------|----|----|
| <b>VUN</b> |    | <b>SP</b> |    |    |

| 01 | VALVOLE UNIDIREZIONALI M/M CON FORO DI STROZZATURA<br>(M/M CHECK VALVES WITH RESTRICTION HOLE) | VUN                                                                                        |
|----|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| 02 | DIMENSIONE<br>(SIZE)                                                                           | BSPP 1/4                                                                                   |
|    |                                                                                                | 140                                                                                        |
|    |                                                                                                | BSPP 3/8                                                                                   |
|    |                                                                                                | 380                                                                                        |
|    |                                                                                                | BSPP 1/2                                                                                   |
| 03 | TENUTA (SEALING)                                                                               | BSPP 3/4                                                                                   |
|    |                                                                                                | 120                                                                                        |
|    |                                                                                                | 340                                                                                        |
| 04 | MOLLA<br>(SPRING)                                                                              | BSPP 1                                                                                     |
|    |                                                                                                | 100                                                                                        |
|    |                                                                                                | Tenuta a cono (Poppet sealing)                                                             |
|    |                                                                                                | SP                                                                                         |
|    |                                                                                                | 0,5 bar Standard (7.25 PSI)                                                                |
| 05 | FORO DI STROZZATURA<br>(RESTRICTION HOLE)                                                      | 0,5                                                                                        |
|    |                                                                                                | 3 bar (43.5 PSI)                                                                           |
|    |                                                                                                | 3                                                                                          |
|    |                                                                                                | 4,5 bar (65.25 PSI)                                                                        |
|    |                                                                                                | 4,5                                                                                        |
|    |                                                                                                | 6 bar (87 PSI)                                                                             |
|    |                                                                                                | 6                                                                                          |
|    |                                                                                                | (Not available for 1/4" version)                                                           |
|    |                                                                                                | Indicare il diametro del foro. Esempio: VUN380SP0,5 con foro Ø 1,5 mm Cod. VUN380SP0,5-1,5 |
|    |                                                                                                | State the hole diameter Example: VUN380SP0,5 with Ø 0,06 in hole Cod. VUN380SP0,5-1,5      |
|    |                                                                                                |                                                                                            |

### DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14                             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |



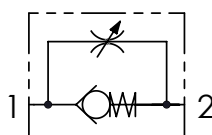
### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| CODICE<br>CODE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | L         | B         | C         | Ch. | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | COPPIA MAX DI<br>SERRAGGIO TUBO (Nm)<br>MAX TIGHTENING TORQUE<br>FOR HOSE (lbt in) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|----------------|----------|----------------------------------------|------------------------------------------|-----------|-----------|-----------|-----|-------------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------|
| VUN140-H       | BSPP 1/4 | 5 (1.3)                                | 500 (7250)                               | 29 (0.28) | 7 (1.27)  | 11 (0.43) | 19  | 30 (22.2)                                             | 20 (14.75)                                                                         | 0,03 (0.066)                            |
| VUN380-H       | BSPP 3/8 | 15 (4)                                 |                                          | 34 (1.34) | 8 (0.31)  | 13 (0.51) | 22  | 45 (33.2)                                             | 35 (25.8)                                                                          | 0,05 (0.01)                             |
| VUN120-H       | BSPP 1/2 | 30 (7.9)                               |                                          | 44 (1.73) | 16 (0.63) | 14 (0.55) | 27  | 60 (44.3)                                             | 50 (36.8)                                                                          | 0,11 (0.24)                             |
| VUN340-H       | BSPP 3/4 | 50 (13.2)                              |                                          | 50 (1.97) | 16 (0.63) | 17 (0.67) | 32  | 100 (73.75)                                           | 90 (66.3)                                                                          | 0,18 (0.40)                             |
| VUN100-H       | BSPP 1   | 90 (23.8)                              |                                          | 57 (2.24) | 19 (0.75) | 19 (0.75) | 41  | 140 (103.3)                                           | 120 (88.5)                                                                         | 0,32 (0.71)                             |



**TENUTA A SFERA SOLO PER VURF 140/380/120**  
**BALL SEALING ONLY FOR VURF 140/380/120**

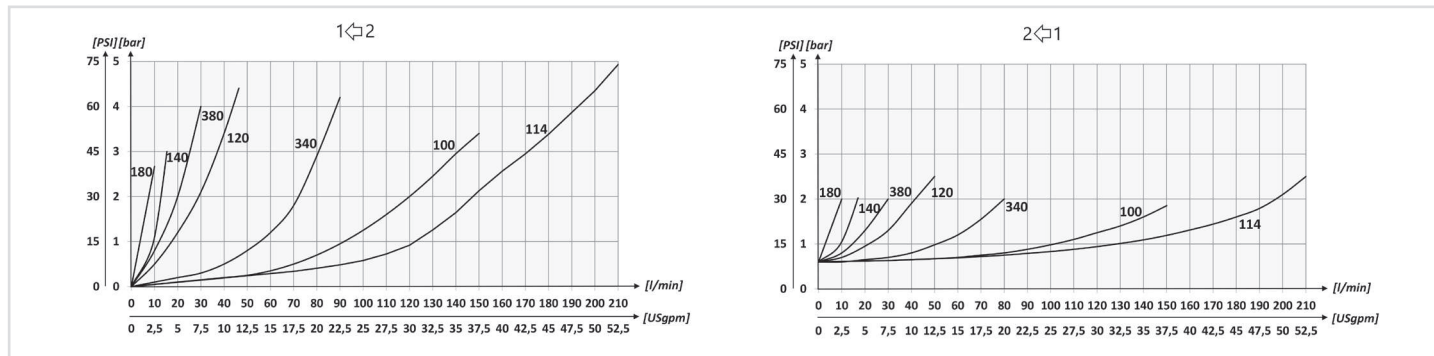
## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                            |                                           |
|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olío idraulico - Mineral oil                                                                                               | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                             | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                    | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                    | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                             | -20°C +50°C -4°F +122°F                   |
| È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm) |                                           |
| A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)                              |                                           |

## PERFORMANCES



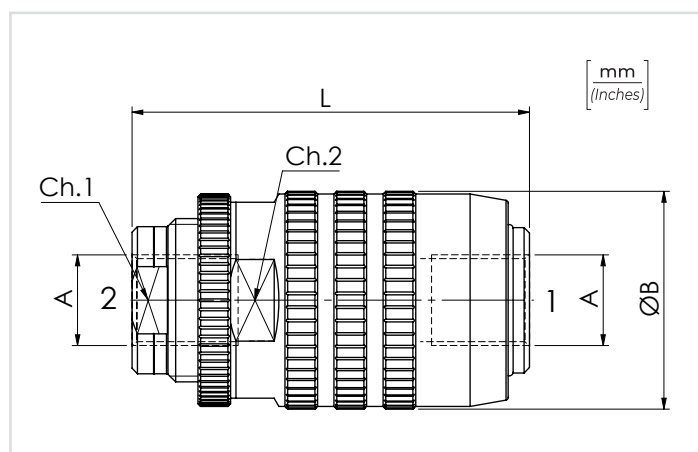
## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A          | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | mm - inch |              | Ch. 1 | Ch. 2 | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|------------|----------------------------------------|-------------------------------------------|-----------|--------------|-------|-------|----------------------------------------|
|              |            |                                        |                                           | B         | L            |       |       |                                        |
| VURF180      | BSPP 1/8   | 5 (1,3)                                | 350 (5075)                                | 25 (0.98) | 48 (1.89)    | 14    | 22    | 0,12 (0.26)                            |
| VURF140      | BSPP 1/4   | 15 (4)                                 |                                           | 34 (1.34) | 62 (2.44)    | 19    | 30    | 0,28 (0.6)                             |
| VURF380      | BSPP 3/8   | 30 (7.9)                               |                                           | 39 (1.54) | 73 (2.87)    | 24    | 36    | 0,46 (1.01)                            |
| VURF120      | BSPP 1/2   | 45 (11.9)                              |                                           | 44 (1.73) | 83 (3.27)    | 30    | 42    | 0,66 (1.45)                            |
| VURF340      | BSPP 3/4   | 85 (22.4)                              | 300 (4350)                                | 54 (2.13) | 102 (4.02)   | 36    | 50    | 1,10 (2.42)                            |
| VURF100      | BSPP 1     | 150 (39.6)                             | 250 (3625)                                | 65 (2.56) | 124,5 (4.90) | 42    | 60    | 1,9 (4.20)                             |
| VURF114      | BSPP 1-1/4 | 200 (52.8)                             |                                           | 75 (2.95) | 144 (5.67)   | 50    | 70    | 2,95 (6.32)                            |

## CODICE ORDINAZIONE ORDERING CODE

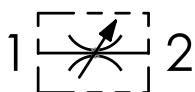
|             |    |
|-------------|----|
| 01          | 02 |
| <b>VURF</b> |    |

| 01 | VALVOLE DI CONTROLLO FLUSSO UNIDIREZIONALI<br>(UNIDIRECTIONAL FLOW CONTROL VALVES) |            | VURF |
|----|------------------------------------------------------------------------------------|------------|------|
| 02 | DIMENSIONE<br>SIZE                                                                 | BSPP 1/8   | 180  |
|    |                                                                                    | BSPP 1/4   | 140  |
|    |                                                                                    | BSPP 3/8   | 380  |
|    |                                                                                    | BSPP 1/2   | 120  |
|    |                                                                                    | BSPP 3/4   | 340  |
|    |                                                                                    | BSPP 1     | 100  |
|    |                                                                                    | BSPP 1-1/4 | 114  |





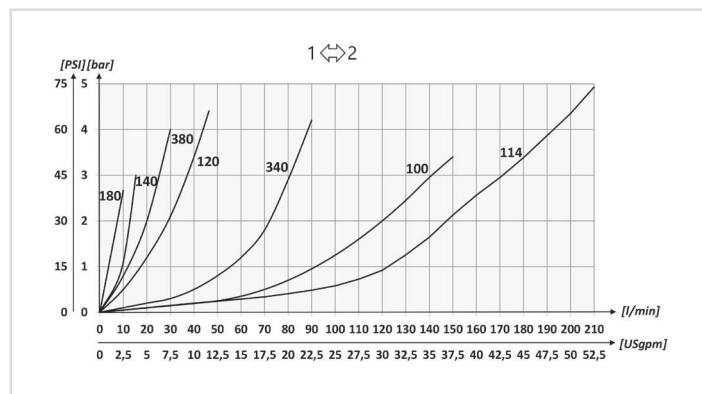
## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



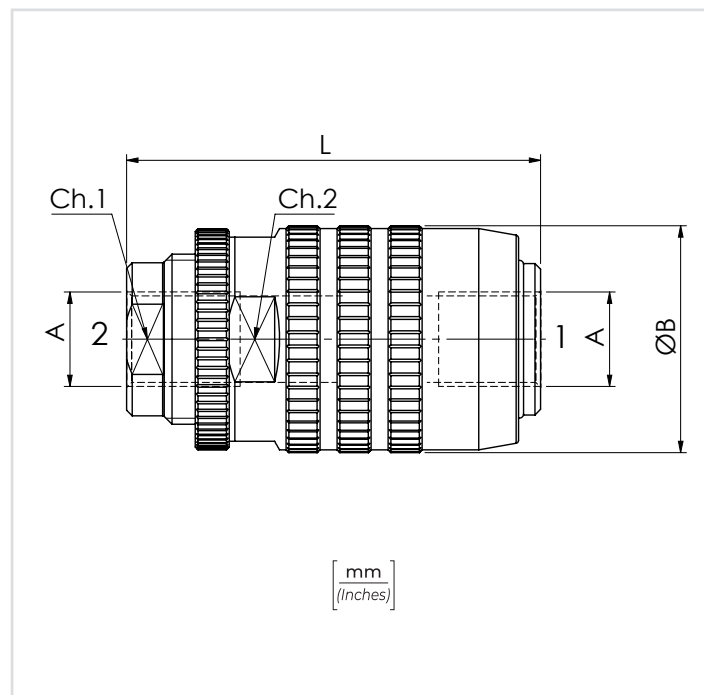
## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                   |                                      |                    |  |
|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------|--|
| <b>Olio idraulico</b> - Mineral oil                                                                                               | <b>ISO 6743/4</b> (DIN 51524)        |                    |  |
| <b>Viscosità olio</b> - Oil viscosity                                                                                             | <b>15-250 mm²/s</b> (15 to 250 cSt)  |                    |  |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                    | <b>ISO 4406:1999 Classe 19/17/14</b> |                    |  |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                    | <b>-20°C +80°C</b>                   | <b>-4°F +176°F</b> |  |
| <b>Temperatura ambiente</b> - Environment temperature                                                                             | <b>-20°C +50°C</b>                   | <b>-4°F +122°F</b> |  |
| <b>È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)</b> |                                      |                    |  |
| A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)                                     |                                      |                    |  |

## PERFORMANCES



| CODICE ORDINAZIONE<br>ORDERING CODE |                                                                                  | 01          | 02         |
|-------------------------------------|----------------------------------------------------------------------------------|-------------|------------|
|                                     |                                                                                  | <b>VBRF</b> |            |
| 01                                  | VALVOLE DI CONTROLLO FLUSSO BIDIREZIONALI<br>(BIDIRECTIONAL FLOW CONTROL VALVES) |             | VBRF       |
| 02                                  | DIMENSIONE<br>SIZE                                                               | BSPP 1/8    | <b>180</b> |
|                                     |                                                                                  | BSPP 1/4    | <b>140</b> |
|                                     |                                                                                  | BSPP 3/8    | <b>380</b> |
|                                     |                                                                                  | BSPP 1/2    | <b>120</b> |
|                                     |                                                                                  | BSPP 3/4    | <b>340</b> |
|                                     |                                                                                  | BSPP 1      | <b>100</b> |
|                                     |                                                                                  | BSPP 1-1/4  | <b>114</b> |



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A          | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | mm - inch |              | Ch. 1 | Ch. 2 | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|------------|----------------------------------------|------------------------------------------|-----------|--------------|-------|-------|----------------------------------------|
|              |            |                                        |                                          | B         | L            |       |       |                                        |
| VBRF180      | BSPP 1/8   | 5 (1,3)                                | 350 (5075)                               | 25 (0.98) | 48 (1.89)    | 14    | 22    | 0,12 (0.26)                            |
| VBRF140      | BSPP 1/4   | 15 (4)                                 |                                          | 34 (1.34) | 62 (2.44)    | 19    | 30    | 0,28 (0.6)                             |
| VBRF380      | BSPP 3/8   | 30 (7.9)                               |                                          | 39 (1.54) | 73 (2.87)    | 24    | 36    | 0,45 (1)                               |
| VBRF120      | BSPP 1/2   | 45 (11.9)                              |                                          | 44 (1.73) | 83 (3.27)    | 30    | 42    | 0,63 (1.4)                             |
| VBRF340      | BSPP 3/4   | 85 (22.4)                              | 300 (4350)                               | 54 (2.13) | 102 (4.02)   | 36    | 50    | 1,06 (2.33)                            |
| VBRF100      | BSPP 1     | 150 (39.6)                             | 250 (3625)                               | 65 (2.56) | 124,5 (4.90) | 42    | 60    | 1,8 (4)                                |
| VBRF114      | BSPP 1-1/4 | 200 (52.8)                             |                                          | 75 (2.95) | 144 (5.67)   | 50    | 70    | 2,78 (5.96)                            |

POMELLO IN ALLUMINIO PRESSOFUSO  
DIE CAST ALUMINIUM HANDKNOBPOMELLO IN ALLUMINIO TORNITO  
TURNED ALUMINIUM HANDKNOB

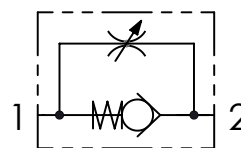
BSPP STU140 - STU380 - STU120

BSPP STU180 - STU340 - STU100 -  
STU114 - STU112CODICE ORDINAZIONE  
ORDERING CODE01  
STU

02

| 01 | VALVOLE DI CONTROLLO FLUSSO UNIDIREZIONALI<br>(UNIDIRECTIONAL FLOW CONTROL VALVES)                                        | STU                   |
|----|---------------------------------------------------------------------------------------------------------------------------|-----------------------|
| 02 | DIMENSIONE (SIZE)<br><br>Tenuta a sfera solo per<br>STU180/140/380/120<br><br>Ball sealing only<br>for STU180/140/380/120 | BSPP 1/8 <b>180</b>   |
|    |                                                                                                                           | BSPP 1/4 <b>140</b>   |
|    |                                                                                                                           | BSPP 3/8 <b>380</b>   |
|    |                                                                                                                           | BSPP 1/2 <b>120</b>   |
|    |                                                                                                                           | BSPP 3/4 <b>340</b>   |
|    |                                                                                                                           | BSPP 1 <b>100</b>     |
|    |                                                                                                                           | BSPP 1-1/4 <b>114</b> |
|    |                                                                                                                           | BSPP 1-1/2 <b>112</b> |

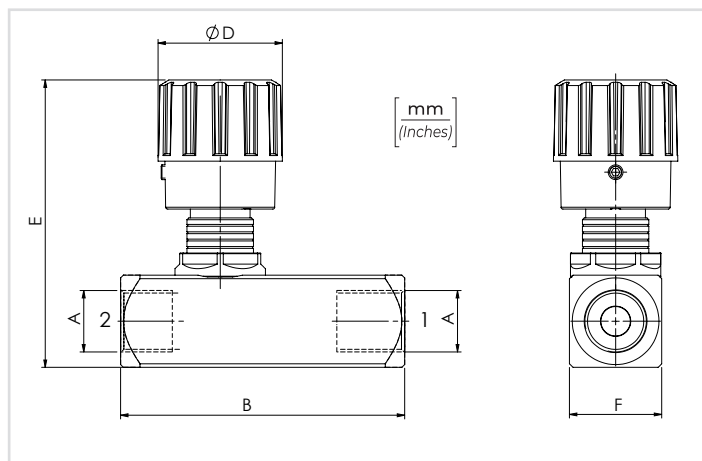
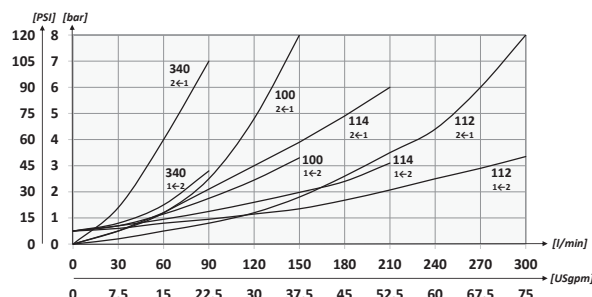
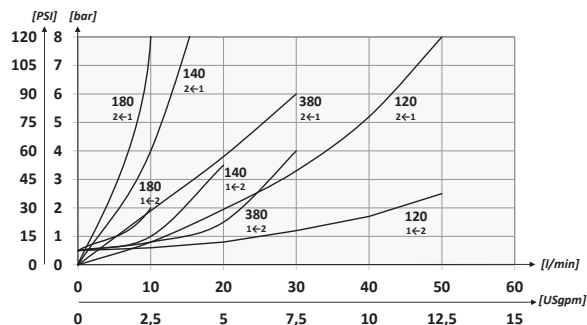
## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olivo idraulico - Mineral oil                                                                                                                                                      | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

## PERFORMANCES



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A          | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B            | D         | E            | F         | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|------------|----------------------------------------|------------------------------------------|--------------|-----------|--------------|-----------|----------------------------------------|
| STU180       | BSPP 1/8   | 10 (2.6)                               | 400 (5800)                               | 58 (2.28)    | 20 (0.79) | 53 (2.09)    | 20 (0.79) | 0,19 (0.42)                            |
| STU140       | BSPP 1/4   | 15 (4)                                 |                                          | 66 (2.60)    | 30 (1.18) | 71,5 (2.81)  | 25 (0.98) | 0,34 (0.75)                            |
| STU380       | BSPP 3/8   | 30 (7.9)                               |                                          | 77 (3.03)    |           |              |           | 0,36 (0.80)                            |
| STU120       | BSPP 1/2   | 50 (13.2)                              |                                          | 91 (3.58)    | 33 (1.30) | 72 (2.83)    | 30 (1.18) | 0,60 (1.3)                             |
| STU340       | BSPP 3/4   | 80 (21.1)                              |                                          | 112,5 (4.43) | 42 (1.65) | 94 (3.70)    | 40 (1.57) | 1,33 (3)                               |
| STU100       | BSPP 1     | 150 (39.6)                             | 350 (5075)                               | 141 (5.55)   |           | 99 (3.90)    | 45 (1.77) | 1,83 (4.03)                            |
| STU114       | BSPP 1-1/4 | 200 (52.8)                             |                                          | 155 (6.10)   | 53 (2.09) | 121,5 (4.78) | 55 (2.17) | 3,1 (6.8)                              |
| STU112       | BSPP 1-1/2 | 300 (79.2)                             |                                          | 168 (6.61)   |           | 131,5 (5.18) | 65 (2.56) | 4,5 (10)                               |

POMELLO IN ALLUMINIO PRESSOFUSO  
DIE CAST ALUMINIUM HANDKNOBPOMELLO IN ALLUMINIO TORNITO  
TURNED ALUMINIUM HANDKNOB

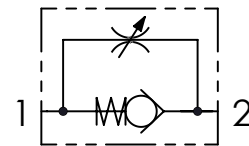
BSPP STUF140 - STUF380 - STUF120

BSPP STUF180 - STUF340 - STUF100 -  
STUF114 - STUF112CODICE ORDINAZIONE  
ORDERING CODE01  
STUF

02

| 01 | VALVOLE DI CONTROLLO FLUSSO UNIDIREZIONALI<br>(UNIDIRECTIONAL FLOW CONTROL VALVES)                                             | STUF           |
|----|--------------------------------------------------------------------------------------------------------------------------------|----------------|
| 02 | DIMENSIONE<br>(SIZE)<br><br>Tenuta a sfera solo per<br>STUF180/140/380/120<br><br>Ball sealing only<br>for STUF180/140/380/120 | BSPP 1/8 180   |
|    |                                                                                                                                | BSPP 1/4 140   |
|    |                                                                                                                                | BSPP 3/8 380   |
|    |                                                                                                                                | BSPP 1/2 120   |
|    |                                                                                                                                | BSPP 3/4 340   |
|    |                                                                                                                                | BSPP 1 100     |
|    |                                                                                                                                | BSPP 1-1/4 114 |
|    |                                                                                                                                | BSPP 1-1/2 112 |

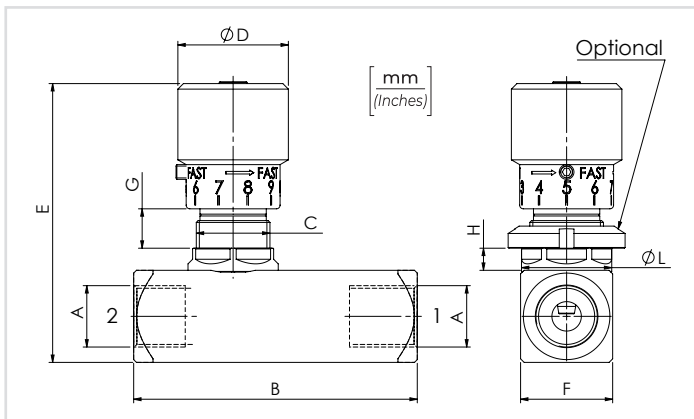
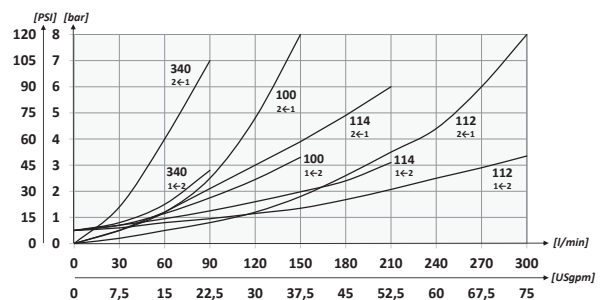
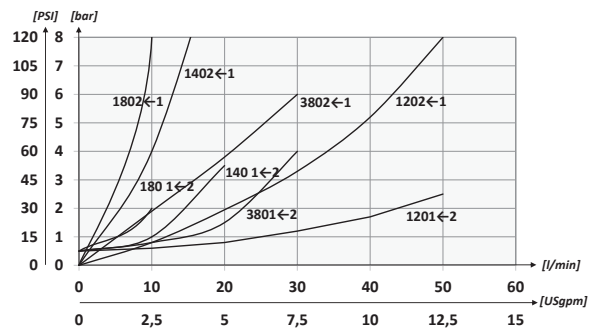
## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olío idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

## PERFORMANCES



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A          | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B            | C       | D             | E              | F            | G              | H              | L              | OPTIONAL<br>TYPE | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|------------|----------------------------------------|------------------------------------------|--------------|---------|---------------|----------------|--------------|----------------|----------------|----------------|------------------|----------------------------------------|
| STUF180      | BSPP 1/8   | 10 (2.6)                               | 400<br>(5800)                            | 58 (2.28)    | M15x1   | 20<br>(0.79)  | 60,5<br>(2.38) | 20<br>(0.79) | 8<br>(0.31)    | 5,5<br>(0.21)  | 19,5<br>(0.76) | 84100031         | 0,20 (0.44)                            |
| STUF140      | BSPP 1/4   | 15 (4)                                 |                                          | 66 (2.60)    | M20x1   | 33<br>(1.30)  | 75<br>(2.95)   | 25<br>(0.98) | 7,5<br>(0.29)  | 6<br>(0.23)    | 24,5<br>(0.96) | 84100022         | 0,38 (0.84)                            |
| STUF380      | BSPP 3/8   | 30 (7.9)                               |                                          | 77 (3.03)    |         |               |                |              |                |                |                |                  | 0,40 (0.88)                            |
| STUF120      | BSPP 1/2   | 50 (13.2)                              |                                          | 91 (3.58)    | M25x1,5 | 81<br>(3.19)  | 30<br>(1.18)   | 9<br>(0.35)  | 7<br>(0.27)    | 29,5<br>(1.16) | 84100023       | 0,63 (1.40)      |                                        |
| STUF340      | BSPP 3/4   | 80 (21.1)                              |                                          | 112,5 (4.43) | M35x1,5 | 42<br>(1.65)  | 110<br>(4.33)  | 40<br>(1.57) | 15,5<br>(0.61) | 8<br>(0.31)    | 39,5<br>(1.55) | 84100024         | 1,45 (3.2)                             |
| STUF100      | BSPP 1     | 150 (39.6)                             |                                          | 141 (5.55)   |         |               | 115<br>(4.53)  | 45<br>(1.77) |                |                |                |                  | 2 (4.4)                                |
| STUF114      | BSPP 1-1/4 | 200 (52.8)                             | 350<br>(5075)                            | 155 (6.10)   | M45x1,5 | 53<br>(2.09)  | 137<br>(5.39)  | 55<br>(2.17) | 13,5<br>(0.53) | 10<br>(0.39)   | 50<br>(1.96)   | 84100030         | 3,3 (7.25)                             |
| STUF112      | BSPP 1-1/2 | 300 (79.2)                             |                                          | 168 (6.61)   |         | 147<br>(5.79) | 65<br>(2.56)   | 4,7 (10.3)   |                |                |                |                  |                                        |

POMELLO IN ALLUMINIO PRESSOFUSO  
DIE CAST ALUMINIUM HANDKNOBPOMELLO IN ALLUMINIO TORNITO  
TURNED ALUMINIUM HANDKNOB

NPTF STU140N - STU380N - STU120N

NPTF STU180N - STU340N - STU100N -  
STU114N - STU12NCODICE ORDINAZIONE  
ORDERING CODE

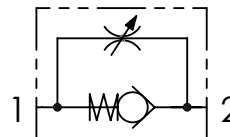
01

02

STU

| 01 | VALVOLE DI CONTROLLO FLUSSO UNIDIREZIONALI<br>(UNIDIRECTIONAL FLOW CONTROL VALVES) | STU             |
|----|------------------------------------------------------------------------------------|-----------------|
| 02 | DIMENSIONE<br>(SIZE)                                                               | NPTF 1/8 180N   |
|    |                                                                                    | NPTF 1/4 140N   |
|    |                                                                                    | NPTF 3/8 380N   |
|    |                                                                                    | NPTF 1/2 120N   |
|    |                                                                                    | NPTF 3/4 340N   |
|    |                                                                                    | NPTF 1 100N     |
|    |                                                                                    | NPTF 1-1/4 114N |
|    |                                                                                    | NPTF 1-1/2 112N |

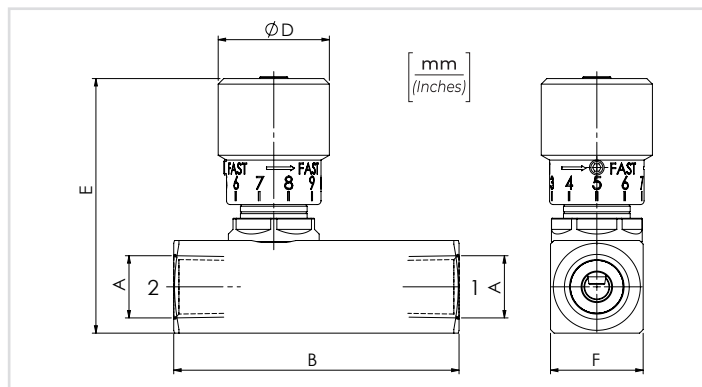
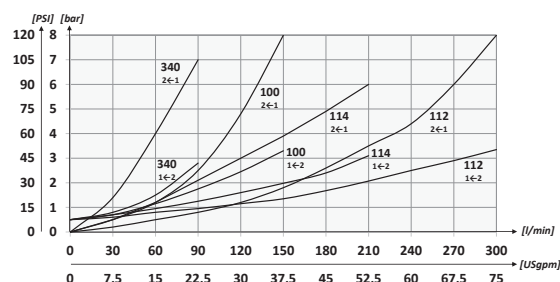
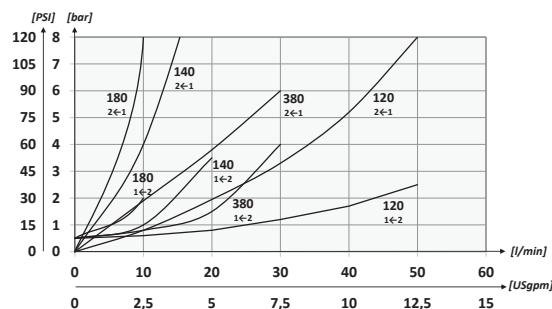
## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olivo idraulico - Mineral oil                                                                                                                                                      | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

## PERFORMANCES



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A          | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | B            | D         | E            | F         | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|--------------|------------|-----------------------------------------|-------------------------------------------|--------------|-----------|--------------|-----------|-----------------------------------------|
| STU180N      | NPTF 1/8   | 10 (2.6)                                | 400 (5800)                                | 58 (2.28)    | 20 (0.79) | 53 (2.08)    | 20 (0.79) | 0,19 (0.42)                             |
| STU140N      | NPTF 1/4   | 15 (4)                                  |                                           | 66 (2.60)    | 33 (1.30) | 68 (2.68)    | 25 (0.98) | 0,37 (0.75)                             |
| STU380N      | NPTF 3/8   | 30 (7.9)                                |                                           | 77 (3.03)    |           | 72 (2.83)    | 30 (1.18) | 0,40 (0.9)                              |
| STU120N      | NPTF 1/2   | 50 (13.2)                               |                                           | 91 (3.58)    | 42 (1.65) |              | 40 (1.57) | 0,60 (1.3)                              |
| STU340N      | NPTF 3/4   | 80 (21.1)                               |                                           | 112,5 (4.43) | 42 (1.65) | 94 (3.70)    | 40 (1.57) | 1,40 (3.09)                             |
| STU100N      | NPTF 1     | 150 (39.6)                              |                                           | 141 (5.55)   |           | 99 (3.90)    | 45 (1.77) | 1,9 (4.2)                               |
| STU114N      | NPTF 1-1/4 | 200 (52.8)                              | 350 (5075)                                | 155 (6.10)   | 53 (2.09) | 121,5 (4.78) | 55 (2.17) | 3,06 (6.73)                             |
| STU112N      | NPTF 1-1/2 | 300 (79.2)                              |                                           | 168 (6.61)   |           | 131,5 (5.17) | 65 (2.56) | 4,5 (10)                                |

POMELLO IN ALLUMINIO PRESSOFUSO  
DIE CAST ALUMINIUM HANDKNOBPOMELLO IN ALLUMINIO TORNITO  
TURNED ALUMINIUM HANDKNOB

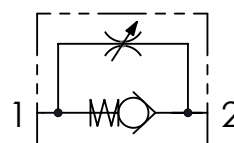
NPTF STUF140N - STUF380N - STUF120N

NPTF STUF180N - STUF340N -  
STUF100N - STUF114N - STUF112NCODICE ORDINAZIONE  
ORDERING CODE01  
STUF

02

| 01 | VALVOLE DI CONTROLLO FLUSSO UNIDIREZIONALI<br>(UNIDIRECTIONAL FLOW CONTROL VALVES) |            | STUF |
|----|------------------------------------------------------------------------------------|------------|------|
| 02 | DIMENSIONE<br>(SIZE)                                                               | NPTF 1/8   | 180N |
|    |                                                                                    | NPTF 1/4   | 140N |
|    |                                                                                    | NPTF 3/8   | 380N |
|    |                                                                                    | NPTF 1/2   | 120N |
|    |                                                                                    | NPTF 3/4   | 340N |
|    |                                                                                    | NPTF 1     | 100N |
|    |                                                                                    | NPTF 1-1/4 | 114N |
|    |                                                                                    | NPTF 1-1/2 | 112N |

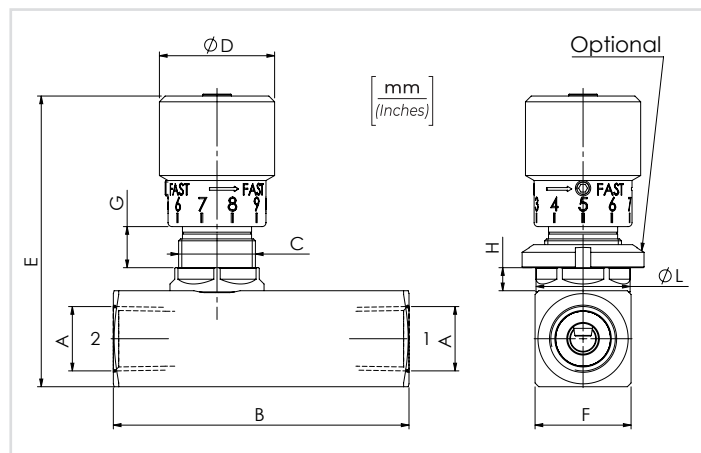
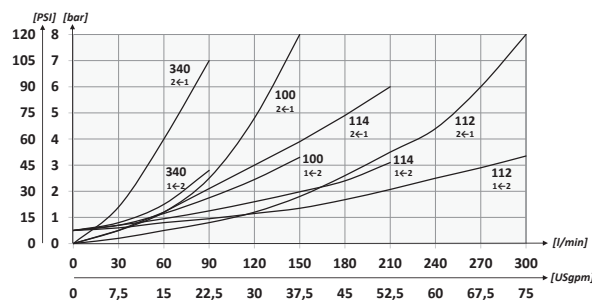
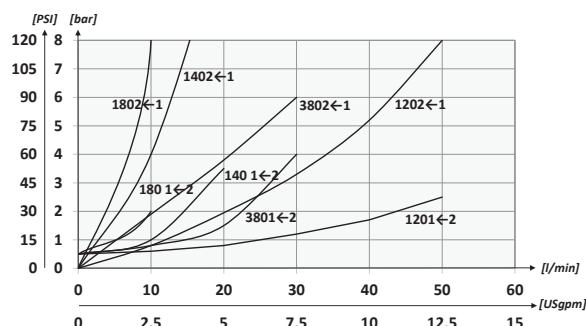
## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

## PERFORMANCES



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A          | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B            | C       | D         | E           | F         | G           | H          | L           | OPTIONAL<br>TYPE | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt |
|--------------|------------|----------------------------------------|------------------------------------------|--------------|---------|-----------|-------------|-----------|-------------|------------|-------------|------------------|-------------------------------------------|
| STUF180N     | NPTF 1/8   | 10 (2.6)                               | 400 (5800)                               | 58 (2.28)    | M15x1   | 20 (0.79) | 60,5 (2.38) | 20 (0.79) | 8 (0.31)    | 5,5 (0.22) | 19,5 (0.77) | 84100031         | 0,20 (0.44)                               |
| STUF140N     | NPTF 1/4   | 15 (4)                                 |                                          | 66 (2.60)    | M20x1   | 33 (1.30) | 75 (2.95)   | 25 (0.98) | 7,5 (0.30)  | 6 (0.24)   | 24,5 (0.96) | 84100022         | 0,40 (0.88)                               |
| STUF380N     | NPTF 3/8   | 30 (7.9)                               |                                          | 77 (3.03)    |         |           | 81 (3.19)   | 30 (1.18) | 9 (0.35)    | 7 (0.28)   | 29,5 (1.16) | 84100023         | 0,42 (0.92)                               |
| STUF120N     | NPTF 1/2   | 50 (13.2)                              |                                          | 91 (3.58)    | M25x1,5 | 42 (1.65) | 110 (4.33)  | 40 (1.57) | 15,5 (0.61) | 8 (0.31)   | 39,5 (1.56) | 84100024         | 0,63 (1.40)                               |
| STUF340N     | NPTF 3/4   | 80 (21.1)                              |                                          | 112,5 (4.43) | M35x1,5 |           | 115 (4.53)  | 45 (1.77) |             |            |             |                  | 1,5 (3.3)                                 |
| STUF100N     | NPTF 1     | 150 (39.6)                             | 350 (5075)                               | 141 (5.55)   | M45x1,5 | 53 (2.09) | 137 (5.39)  | 55 (2.17) | 13,5 (0.53) | 10 (0.39)  | 50 (1.97)   | 84100030         | 2 (4.4)                                   |
| STUF114N     | NPTF 1-1/4 | 200 (52.8)                             |                                          | 155 (6.10)   |         |           | 147 (5.79)  | 65 (2.56) |             |            |             |                  | 3,2 (7.05)                                |
| STUF112N     | NPTF 1-1/2 | 300 (79.2)                             |                                          | 168 (6.61)   |         |           |             |           |             |            |             |                  | 4,7 (10.3)                                |



POMELLO IN ALLUMINIO PRESSOFUSO  
DIE CAST ALUMINIUM HANDKNOB

POMELLO IN ALLUMINIO TORNITO  
TURNED ALUMINIUM HANDKNOB



SAE STUF4 - STUF6 - STUF8

SAE STU4S - STUF12  
STUF16 - STUF20 - STUF24

## CODICE ORDINAZIONE ORDERING CODE

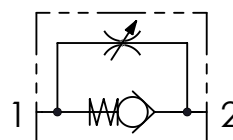
01

02

**STU**

| 01 | VALVOLE DI CONTROLLO FLUSSO UNIDIREZIONALI<br>(UNIDIRECTIONAL FLOW CONTROL VALVES) |                  | STU |
|----|------------------------------------------------------------------------------------|------------------|-----|
| 02 | DIMENSIONE<br>(SIZE)                                                               | 7/16-20UNF Small | 4S  |
|    |                                                                                    | 7/16-20UNF       | 4   |
|    |                                                                                    | 9/16-18UNF       | 6   |
|    |                                                                                    | 3/4-16UNF        | 8   |
|    |                                                                                    | 1-1/16-12UN      | 12  |
|    |                                                                                    | 1-5/16-12UN      | 16  |
|    |                                                                                    | 1-5/8-12UN       | 20  |
|    |                                                                                    | 1-7/8-12UN       | 24  |

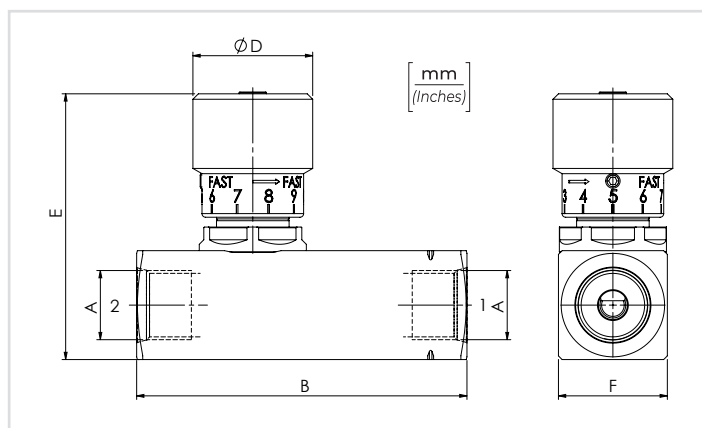
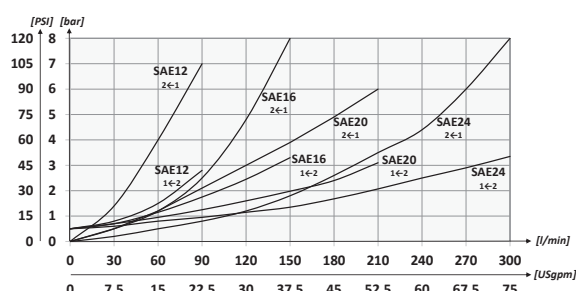
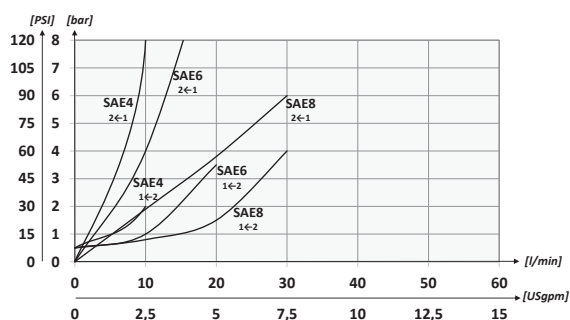
## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olivo idraulico - Mineral oil                                                                                                                                                      | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

## PERFORMANCES



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A           | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | B            | D         | E            | F         | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|--------------|-------------|-----------------------------------------|-------------------------------------------|--------------|-----------|--------------|-----------|-----------------------------------------|
| STU4S        | 7/16-20UNF  | 10 (2.6)                                | 400 (5800)                                | 66 (2.60)    | 33 (1.30) | 68 (2.68)    | 20 (0.79) | 0,21 (0.46)                             |
| STU4         |             |                                         |                                           | 70,5 (2.78)  |           |              | 25 (0.98) | 0,39 (0.85)                             |
| STU6         | 9/16-18UNF  | 15 (4)                                  |                                           | 91 (3.58)    | 42 (1.65) | 72 (2.83)    | 30 (1.18) | 0,60 (1.3)                              |
| STU8         | 3/4-16UNF   | 30 (7.9)                                |                                           | 112,5 (4.43) |           | 94 (3.70)    | 40 (1.57) | 1,28 (2.80)                             |
| STU12        | 1-1/16-12UN | 80 (21.1)                               | 350 (5075)                                | 141 (5.55)   | 53 (2.09) | 99 (3.90)    | 45 (1.77) | 1,87 (4.11)                             |
| STU16        | 1-5/16-12UN | 150 (39.6)                              |                                           | 155 (6.10)   |           | 121,5 (4.78) | 55 (2.17) | 3,06 (6.73)                             |
| STU20        | 1-5/8-12UN  | 200 (52.8)                              |                                           | 168 (6.61)   |           |              |           |                                         |
| STU24        | 1-7/8-12UN  | 300 (79.2)                              |                                           |              |           | 131,5 (5.18) | 65 (2.56) | 4,5 (10)                                |

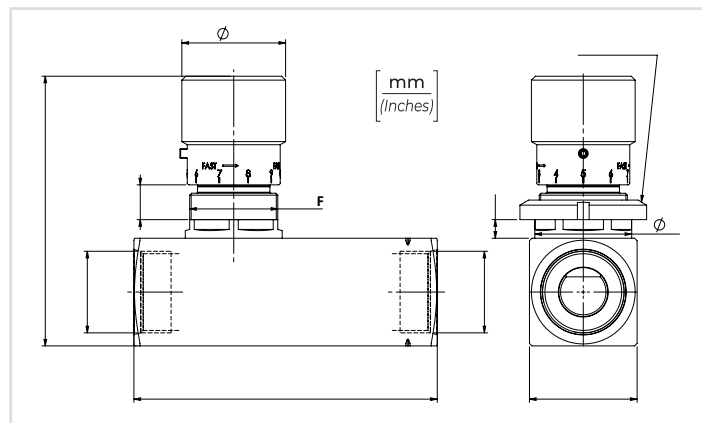
POMELLO IN ALLUMINIO PRESSOFUSO  
DIE CAST ALUMINIUM HANDKNOBPOMELLO IN ALLUMINIO TORNITO  
TURNED ALUMINIUM HANDKNOB

SAE STUF4 - STUF6 - STUF8

SAE STUF4S - STUF12  
STUF16 - STUF20 - STUF24

## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A           | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B            | C       | D         | E          | F         | G           | H         | L           | OPTIONAL<br>TYPE | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt |
|--------------|-------------|----------------------------------------|------------------------------------------|--------------|---------|-----------|------------|-----------|-------------|-----------|-------------|------------------|-------------------------------------------|
| STUF4S       | 7/16-20UNF  | 10 (2.6)                               | 400 (5800)                               | 66 (2.60)    | M20x1   | 33 (1.30) | 75 (2.95)  | 20 (0.79) | 7,5 (0.30)  | 6 (0.24)  | 24,5 (0.96) | 84100022         | 0,22 (0.48)                               |
| STUF4        |             |                                        |                                          | 70,5 (2.78)  |         |           |            | 25 (0.98) |             |           |             |                  | 0,41 (0.90)                               |
| STUF6        | 9/16-18UNF  | 15 (4)                                 |                                          | 91 (3.58)    | M25x1,5 | 42 (1.65) | 81 (3.19)  | 30 (1.18) | 9 (0.35)    | 7 (0.28)  | 29,5 (1.16) | 84100023         | 0,63 (1.40)                               |
| STUF8        | 3/4-16UNF   | 30 (7.9)                               |                                          | 112,5 (4.43) | M35x1,5 |           | 110 (4.33) | 40 (1.57) | 15,5 (0.61) | 8 (0.31)  | 39,5 (1.56) | 84100024         | 1,40 (3.10)                               |
| STUF12       | 1-1/16-12UN | 80 (21.1)                              | 350 (5075)                               | 141 (5.55)   | M45x1,5 | 53 (2.09) | 115 (4.53) | 45 (1.77) | 13,5 (0.53) | 10 (0.39) | 50 (1.97)   | 84100030         | 2 (4.4)                                   |
| STUF16       | 1-5/16-12UN | 150 (39.6)                             |                                          | 155 (6.10)   |         |           | 137 (5.39) | 55 (2.17) |             |           |             |                  | 3,3 (7.25)                                |
| STUF20       | 1-5/8-12UN  | 200 (52.8)                             |                                          | 168 (6.61)   | M45x1,5 | 53 (2.09) | 147 (5.79) | 65 (2.56) |             |           |             |                  | 4,7 (10.3)                                |
| STUF24       | 1-7/8-12UN  | 300 (79.2)                             |                                          |              |         |           |            |           |             |           |             |                  |                                           |

CODICE ORDINAZIONE  
ORDERING CODE

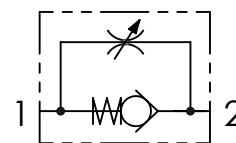
01

02

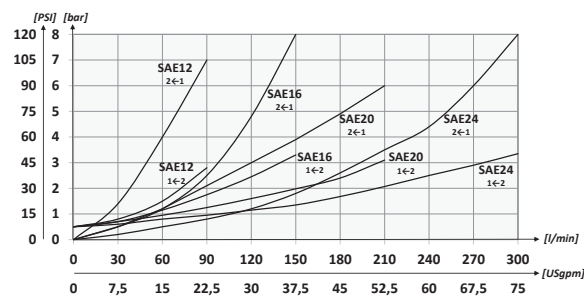
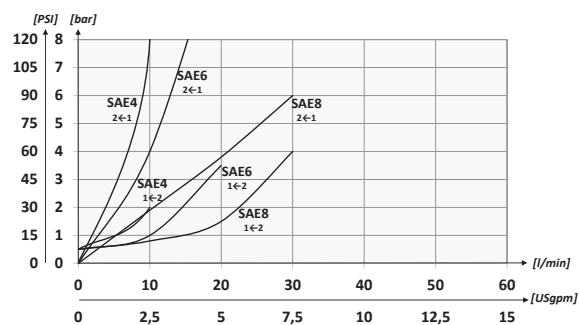
STUF

| 01 | VALVOLE DI CONTROLLO FLUSSO UNIDIREZIONALI<br>(UNIDIRECTIONAL FLOW CONTROL VALVES) | STUF             |
|----|------------------------------------------------------------------------------------|------------------|
| 02 | DIMENSIONE<br>(SIZE)                                                               | 7/16-20UNF Small |
|    |                                                                                    | 7/16-20UNF       |
|    |                                                                                    | 9/16-18UNF       |
|    |                                                                                    | 3/4-16UNF        |
|    |                                                                                    | 1-1/16-12UN      |
|    |                                                                                    | 1-5/16-12UN      |
|    |                                                                                    | 1-5/8-12UN       |
|    |                                                                                    | 1-7/8-12UN       |

## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PERFORMANCES





POMELLO IN ALLUMINIO PRESSOFUSO  
DIE CAST ALUMINIUM HANDKNOB

POMELLO IN ALLUMINIO TORNITO  
TURNED ALUMINIUM HANDKNOB



BSPP STB140 - STB380 - STB120

BSPP STB180 - STB340 -  
STB100 - STB114 - STB112

**CODICE ORDINAZIONE**  
ORDERING CODE

01  
**STB**

02

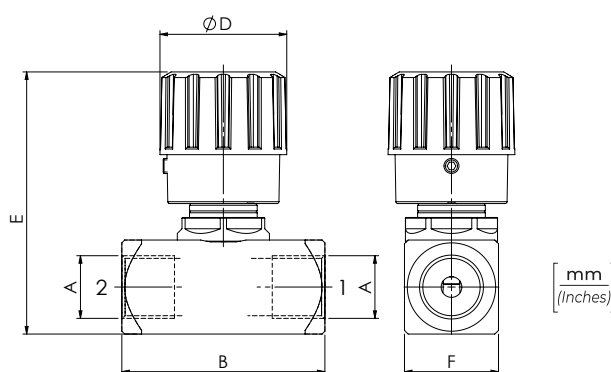
| 01 | VALVOLE DI CONTROLLO FLUSSO BIDIREZIONALI<br>(BIDIRECTIONAL FLOW CONTROL VALVES) |            | STB |
|----|----------------------------------------------------------------------------------|------------|-----|
| 02 | DIMENSIONE<br>(SIZE)                                                             | BSPP 1/8   | 180 |
|    |                                                                                  | BSPP 1/4   | 140 |
|    |                                                                                  | BSPP 3/8   | 380 |
|    |                                                                                  | BSPP 1/2   | 120 |
|    |                                                                                  | BSPP 3/4   | 340 |
|    |                                                                                  | BSPP 1     | 100 |
|    |                                                                                  | BSPP 1-1/4 | 114 |
|    |                                                                                  | BSPP 1-1/2 | 112 |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

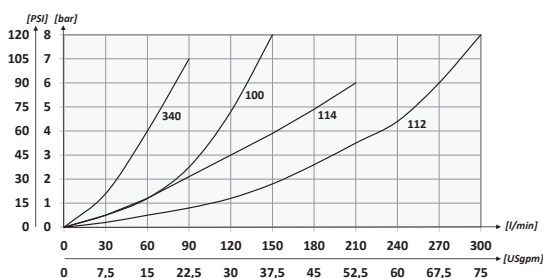
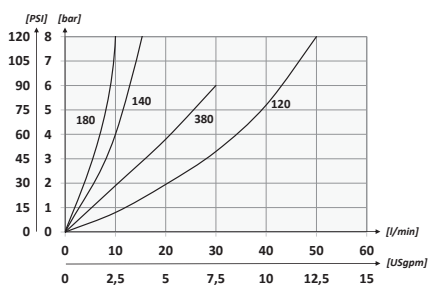


## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |



## PERFORMANCES



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A          | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | B          | D         | E            | F         | PESO APPROX (kg)<br>APPROX WEIGHT (lb) |
|--------------|------------|-----------------------------------------|-------------------------------------------|------------|-----------|--------------|-----------|----------------------------------------|
| STB180       | BSPP 1/8   | 10 (2.6)                                | 400 (5800)                                | 44 (1.73)  | 20 (0.79) | 53 (2.09)    | 20 (0.79) | 0,15 (0.33)                            |
| STB140       | BSPP 1/4   | 15 (4)                                  |                                           | 54 (2.13)  | 33 (1.30) | 71,5 (2.81)  | 25 (0.98) | 0,29 (0.70)                            |
| STB380       | BSPP 3/8   | 30 (7.9)                                |                                           | 64 (2.52)  |           | 72 (2.83)    | 30 (1.18) | 0,26 (0.57)                            |
| STB120       | BSPP 1/2   | 50 (13.2)                               |                                           | 81 (3.19)  | 42 (1.65) | 94 (3.70)    | 40 (1.57) | 1,02 (2.25)                            |
| STB340       | BSPP 3/4   | 80 (21.1)                               |                                           | 102 (4.01) |           | 99 (3.90)    | 45 (1.77) | 1,38 (3.04)                            |
| STB100       | BSPP 1     | 150 (39.6)                              | 350 (5075)                                | 102 (4.01) | 53 (2.09) | 121,5 (4.78) | 55 (2.17) | 2,2 (4.8)                              |
| STB114       | BSPP 1-1/4 | 200 (52.8)                              |                                           |            |           | 131,5 (5.18) | 65 (2.56) | 3 (6.6)                                |
| STB112       | BSPP 1-1/2 | 300 (79.2)                              |                                           |            |           |              |           |                                        |

POMELLO IN ALLUMINIO PRESSOFUSO  
DIE CAST ALUMINIUM HANDKNOBPOMELLO IN ALLUMINIO TORNITO  
TURNED ALUMINIUM HANDKNOB

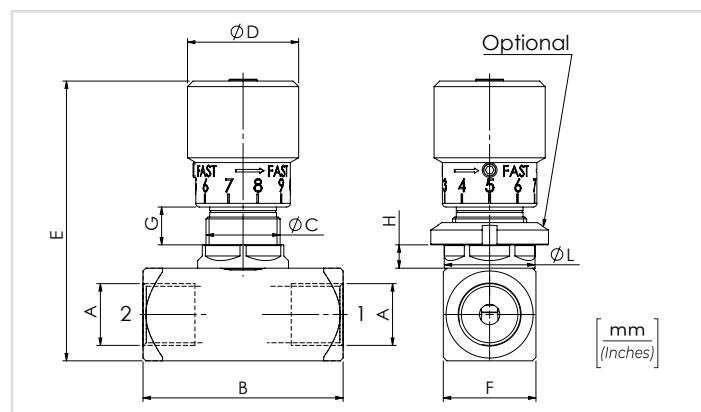
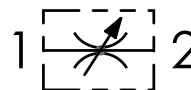
BSPP STBF140 - STBF380 - STBF120

BSPP STBF180 - STBF340 -  
STBF100 - STBF114 - STBF112

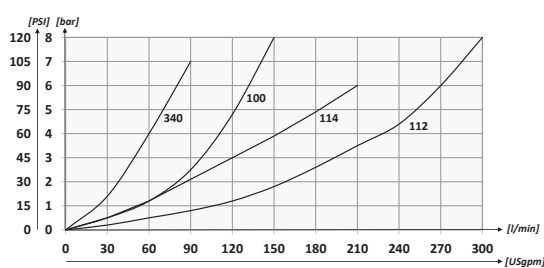
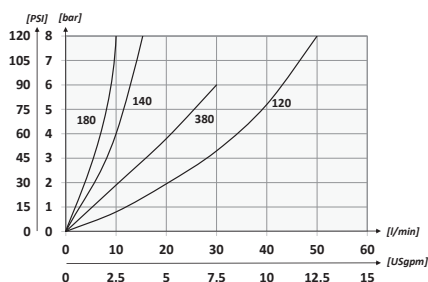
## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PERFORMANCES



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A          | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | B             | C       | D         | E           | F         | G              | H             | L              | OPTIONAL<br>TYPE | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|--------------|------------|-----------------------------------------|-------------------------------------------|---------------|---------|-----------|-------------|-----------|----------------|---------------|----------------|------------------|-----------------------------------------|
| STBF180      | BSPP 1/8   | 10 (2.6)                                | 400 (5800)                                | 44<br>(1.73)  | M15x1   | 20 (0.79) | 60,5 (2.38) | 20 (0.79) | 8<br>(0.31)    | 5,5<br>(0.22) | 19,5<br>(0.77) | 84100031         | 0,16 (0.36)                             |
| STBF140      | BSPP 1/4   | 15 (4)                                  |                                           | 54<br>(2.13)  | M20x1   | 33 (1.30) | 75 (2.95)   | 25 (0.98) | 7,5<br>(0.30)  | 6<br>(0.24)   | 24,5<br>(0.96) | 84100022         | 0,31 (0.68)                             |
| STBF380      | BSPP 3/8   | 30 (7.9)                                |                                           | 64<br>(2.52)  | M25x1,5 |           | 81 (3.19)   | 30 (1.18) | 9<br>(0.35)    | 7<br>(0.28)   | 29,5<br>(1.16) | 84100023         | 0,28 (0.62)                             |
| STBF120      | BSPP 1/2   | 50 (13.2)                               |                                           | 81<br>(3.19)  | M35x1,5 | 42 (1.65) | 110 (4.33)  | 40 (1.57) | 15,5<br>(0.61) | 8<br>(0.31)   | 39,5<br>(1.56) | 84100024         | 0,48 (1.06)                             |
| STBF340      | BSPP 3/4   | 80 (21.1)                               |                                           |               |         |           | 115 (4.53)  | 45 (1.77) |                |               |                |                  | 1,13 (2.50)                             |
| STBF100      | BSPP 1     | 150 (39.6)                              | 350 (5075)                                | 102<br>(4.01) | M45x1,5 | 53 (2.09) | 137 (5.39)  | 55 (2.17) | 13,5<br>(0.53) | 10<br>(0.39)  | 50<br>(1.97)   | 84100030         | 1,50 (3.3)                              |
| STBF114      | BSPP 1-1/4 | 200 (52.8)                              |                                           |               |         |           | 147 (5.79)  | 65 (2.56) |                |               |                |                  | 2,37 (5.21)                             |
| STBF112      | BSPP 1-1/2 | 300 (79.2)                              |                                           |               |         |           |             |           |                |               |                |                  | 3,17 (7)                                |

POMELLO IN ALLUMINIO PRESSOFUSO  
DIE CAST ALUMINIUM HANDKNOBPOMELLO IN ALLUMINIO TORNITO  
TURNED ALUMINIUM HANDKNOB

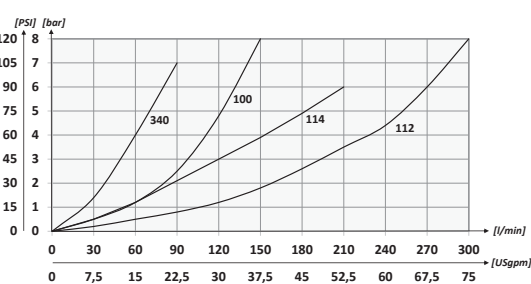
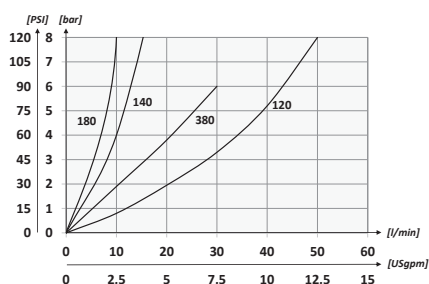
NPTF STB140N - STB380N - STB120N

NPTF STB180N - STB340N -  
STB100N - STB114N - STB112N

## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olío idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

## PERFORMANCES



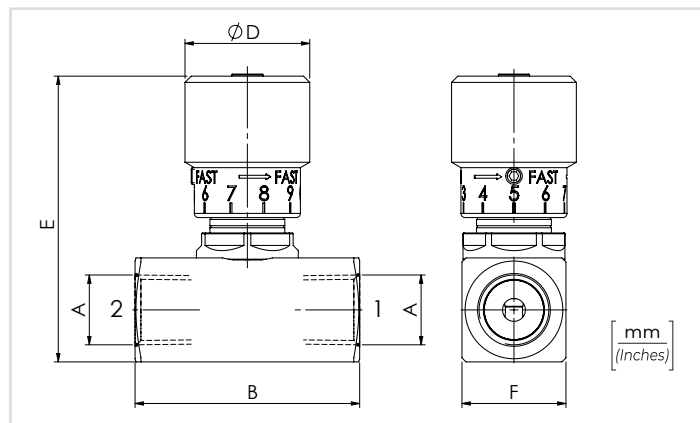
## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A          | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | B          | D         | E            | F         | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|--------------|------------|-----------------------------------------|-------------------------------------------|------------|-----------|--------------|-----------|-----------------------------------------|
| STB180N      | NPTF 1/8   | 10 (2.6)                                | 400 (5800)                                | 44 (1.73)  | 20 (0.79) | 53 (2.09)    | 20 (0.79) | 0,15 (0.33)                             |
| STB140N      | NPTF 1/4   | 15 (4)                                  |                                           | 54 (2.13)  | 33 (1.30) | 68 (2.68)    | 25 (0.98) | 0,32 (0.71)                             |
| STB380N      | NPTF 3/8   | 30 (7.9)                                |                                           | 64 (2.52)  |           | 72 (2.83)    | 30 (1.18) | 0,30 (0.66)                             |
| STB120N      | NPTF 1/2   | 50 (13.2)                               |                                           | 81 (3.19)  | 42 (1.65) | 94 (3.70)    | 40 (1.57) | 0,47 (1.03)                             |
| STB340N      | NPTF 3/4   | 80 (21.1)                               |                                           | 102 (4.02) |           | 99 (3.90)    | 45 (1.77) | 1,05 (2.31)                             |
| STB100N      | NPTF 1     | 150 (39.6)                              | 350 (5075)                                | 102 (4.02) | 53 (2.09) | 121,5 (4.78) | 55 (2.16) | 1,49 (3.95)                             |
| STB114N      | NPTF 1-1/4 | 200 (52.8)                              |                                           |            |           | 131,5 (5.18) | 65 (2.56) | 2,27 (5.21)                             |
| STB112N      | NPTF 1-1/2 | 300 (79.2)                              |                                           |            |           |              |           | 3 (6.6)                                 |

|                                            |            |
|--------------------------------------------|------------|
| 01                                         | 02         |
| <b>CODICE ORDINAZIONE</b><br>ORDERING CODE | <b>STB</b> |

| 01 | VALVOLE DI CONTROLLO FLUSSO BIDIREZIONALI<br>(BIDIRECTIONAL FLOW CONTROL VALVES) |            | STB  |
|----|----------------------------------------------------------------------------------|------------|------|
| 02 | DIMENSIONE<br>(SIZE)                                                             | NPTF 1/8   | 180N |
|    |                                                                                  | NPTF 1/4   | 140N |
|    |                                                                                  | NPTF 3/8   | 380N |
|    |                                                                                  | NPTF 1/2   | 120N |
|    |                                                                                  | NPTF 3/4   | 340N |
|    |                                                                                  | NPTF 1     | 100N |
|    |                                                                                  | NPTF 1-1/4 | 114N |
|    |                                                                                  | NPTF 1-1/2 | 112N |

## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



POMELLO IN ALLUMINIO PRESSOFUSO  
DIE CAST ALUMINIUM HANDKNOBPOMELLO IN ALLUMINIO TORNITO  
TURNED ALUMINIUM HANDKNOB

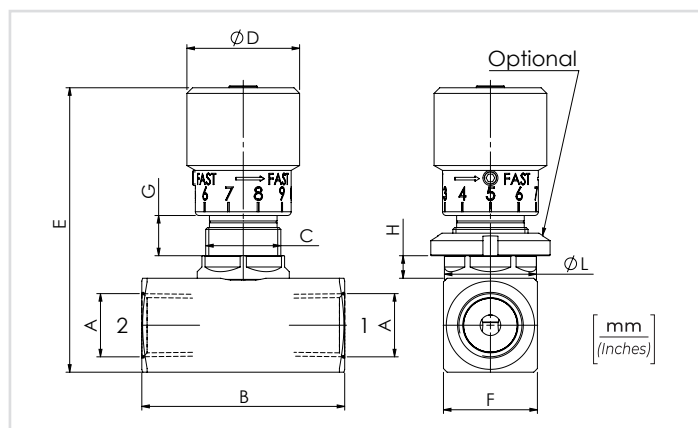
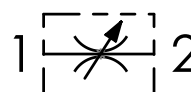
NPTF STBF140N - STBF380N - STBF120N

NPTF STBF180N - STBF340N - STBF100N -  
STBF114N - STBF112N

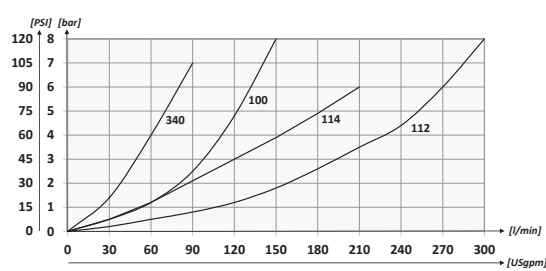
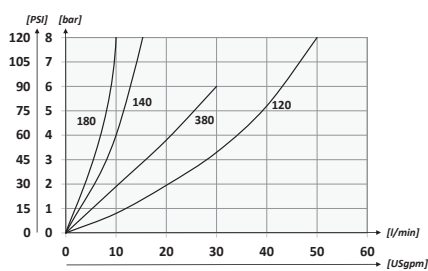
## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Oil idraulico - Mineral oil                                                                                                                                                        | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PERFORMANCES



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A          | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | B          | C       | D            | E              | F            | G              | H             | L              | OPTIONAL<br>TYPE | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|--------------|------------|-------------------------------------------|-------------------------------------------|------------|---------|--------------|----------------|--------------|----------------|---------------|----------------|------------------|-----------------------------------------|
| STBF180N     | NPTF 1/8   | 10 (2.6)                                  | 400<br>5800                               | 44 (1.73)  | M15x1   | 20<br>(0.79) | 60,5<br>(2.38) | 20<br>(0.79) | 8<br>(0.31)    | 5,5<br>(0.22) | 19,5<br>(0.77) | 84100031         | 0,16 (0.36)                             |
| STBF140N     | NPTF 1/4   | 15 (4)                                    |                                           | 54 (2.13)  | M20x1   | 33<br>(1.30) | 75<br>(2.95)   | 25<br>(0.98) | 7,5<br>(0.30)  | 6<br>(0.24)   | 24,5<br>(0.96) | 84100022         | 0,34 (0.75)                             |
| STBF380N     | NPTF 3/8   | 30 (7.9)                                  |                                           | 64 (2.52)  | M25x1,5 |              | 81<br>(3.19)   | 30<br>(1.18) | 9<br>(0.35)    | 7<br>(0.28)   | 29,5<br>(1.16) | 84100023         | 0,32 (0.71)                             |
| STBF120N     | NPTF 1/2   | 50 (13.2)                                 |                                           | 81 (3.19)  | M35x1,5 | 42<br>(1.65) | 110<br>(4.33)  | 40<br>(1.57) | 15,5<br>(0.61) | 8<br>(0.31)   | 39,5<br>(1.55) | 84100024         | 0,50 (1.1)                              |
| STBF340N     | NPTF 3/4   | 80 (21.1)                                 |                                           |            |         |              | 115<br>(4.53)  | 45<br>(1.77) |                |               |                |                  | 1,15 (2.53)                             |
| STBF100N     | NPTF 1     | 150 (39.6)                                | 350<br>(5075)                             | 102 (4.01) | M45x1,5 | 53<br>(2.09) | 137<br>(5.39)  | 55<br>(2.17) | 13,5<br>(0.53) | 10<br>(0.39)  | 50<br>(1.96)   | 84100030         | 1,49 (3.30)                             |
| STBF114N     | NPTF 1-1/4 | 200 (52.8)                                |                                           |            |         |              | 147<br>(5.78)  | 65<br>(2.56) |                |               |                |                  | 2,54 (5.6)                              |
| STBF112N     | NPTF 1-1/2 | 300 (79.2)                                |                                           |            |         |              |                |              |                |               |                |                  | 3,17 (7)                                |



POMELLO IN ALLUMINIO PRESSOFUSO  
DIE CAST ALUMINIUM HANDKNOB

POMELLO IN ALLUMINIO TORNITO  
TURNED ALUMINIUM HANDKNOB



SAE STB4 - STB6 - STB8

SAE STB4S - STB12 - STB16  
STB20 - STB24

## CODICE ORDINAZIONE ORDERING CODE

01

**STB**

02

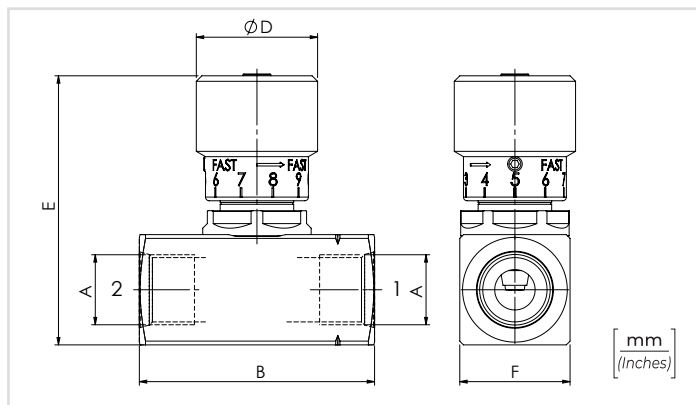
| 01 | VALVOLE DI CONTROLLO FLUSSO BIDIREZIONALI<br>(BIDIRECTIONAL FLOW CONTROL VALVES) |                  | STB       |
|----|----------------------------------------------------------------------------------|------------------|-----------|
| 02 | DIMENSIONE<br>(SIZE)                                                             | 7/16-20UNF Small | <b>4S</b> |
|    |                                                                                  | 7/16-20UNF       | <b>4</b>  |
|    |                                                                                  | 9/16-18UNF       | <b>6</b>  |
|    |                                                                                  | 3/4-16UNF        | <b>8</b>  |
|    |                                                                                  | 1-1/16-12UN      | <b>12</b> |
|    |                                                                                  | 1-5/16-12UN      | <b>16</b> |
|    |                                                                                  | 1-5/8-12UN       | <b>20</b> |
|    |                                                                                  | 1-7/8-12UN       | <b>24</b> |

## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

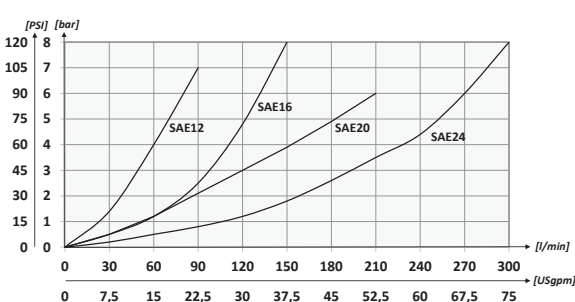
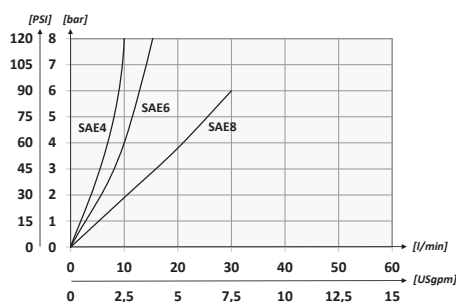


## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |



## PERFORMANCES



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A           | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | B          | D         | E            | F         | PESO APPROX (kg)<br>APPROX WEIGHT (lb) |
|--------------|-------------|-----------------------------------------|-------------------------------------------|------------|-----------|--------------|-----------|----------------------------------------|
| STB4S        | 7/16-20UNF  | 10 (2.6)                                | 400 (5800)                                | 54 (2.13)  | 33 (1.30) | 68 (2.68)    | 20 (0.79) | 0,21 (0.46)                            |
| STB4         |             |                                         |                                           |            |           |              | 25 (0.98) | 0,32 (0.71)                            |
| STB6         | 9/16-18UNF  | 15 (4)                                  |                                           | 64 (2.52)  | 42 (1.65) | 72 (2.83)    | 30 (1.18) | 0,30 (0.66)                            |
| STB8         | 3/4-16UNF   | 30 (7.9)                                |                                           |            |           |              | 40 (1.57) | 0,45 (0.99)                            |
| STB12        | 1-1/16-12UN | 80 (21.1)                               | 350 (5075)                                | 81 (3.19)  | 53 (2.09) | 94 (3.70)    | 45 (1.77) | 1 (2.2)                                |
| STB16        | 1-5/16-12UN | 150 (39.6)                              |                                           |            |           |              | 55 (2.17) | 1,35 (3)                               |
| STB20        | 1-5/8-12UN  | 200 (52.8)                              |                                           | 102 (4.02) | 53 (2.09) | 121,5 (4.78) | 65 (2.56) | 2,37 (5.21)                            |
| STB24        | 1-7/8-12UN  | 300 (79.2)                              |                                           |            |           |              | 65 (2.56) | 3 (6.6)                                |



POMELLO IN ALLUMINIO PRESSOFUSO  
DIE CAST ALUMINIUM HANDKNOB

POMELLO IN ALLUMINIO TORNITO  
TURNED ALUMINIUM HANDKNOB



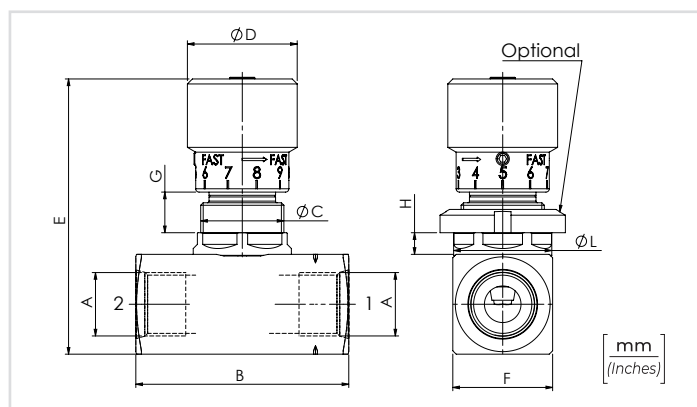
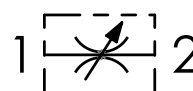
SAE STBF4 - STBF6 - STBF8

SAE STBF4S STBF12 - STBF16  
STBF20 - STBF24

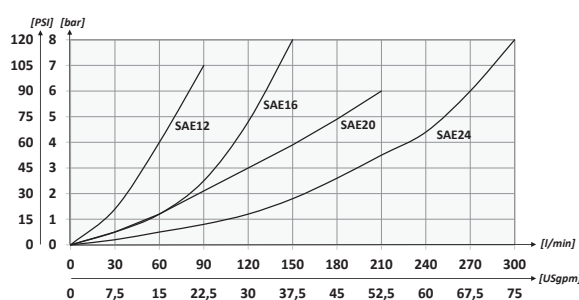
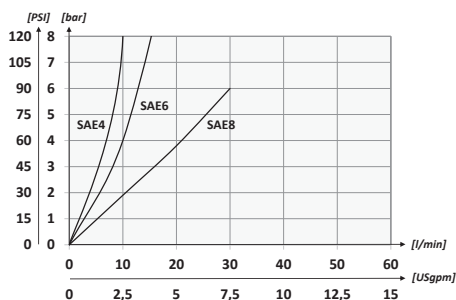
## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Olío idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)        |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)  |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14 |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F       |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F       |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                               |

## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PERFORMANCES

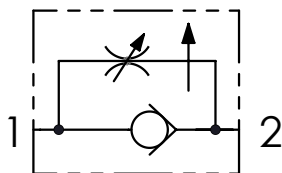


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A           | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B          | C       | D            | E          | F         | G              | H         | L              | OPTIONAL<br>TYPE | PESO APPROX (kg)<br>APPROX WEIGHT (lbft) |
|--------------|-------------|------------------------------------------|------------------------------------------|------------|---------|--------------|------------|-----------|----------------|-----------|----------------|------------------|------------------------------------------|
| STBF4S       | 7/16-20UNF  | 10 (2.6)                                 | 400 (5800)                               | 54 (2.13)  | M20x1   | 33<br>(1.30) | 75 (2.95)  | 20 (0.79) | 7,5 (0.29)     | 6 (0.24)  | 24,5<br>(0.96) | 84100022         | 0,22 (0.48)                              |
| STBF4        |             |                                          |                                          |            |         |              |            | 25 (0.98) |                |           |                |                  | 0,34 (0.75)                              |
| STBF6        |             |                                          |                                          |            |         |              |            | 30 (1.18) |                |           |                |                  | 0,32 (0.71)                              |
| STBF8        | 9/16-18UNF  | 15 (4)                                   |                                          | 64 (2.52)  | M25x1,5 | 42<br>(1.65) | 81 (3.19)  | 30 (1.18) | 9 (0.35)       | 7 (0.28)  | 29,5<br>(1.16) | 84100023         | 0,48 (1.05)                              |
| STBF12       | 1-1/16-12UN | 80 (21.1)                                |                                          |            |         |              |            | 40 (1.57) |                |           |                |                  | 1,1 (2.42)                               |
| STBF16       | 1-5/16-12UN | 150 (39.6)                               |                                          |            |         |              |            | 45 (1.77) |                |           |                |                  | 1,45 (3.2)                               |
| STBF20       | 1-5/8-12UN  | 200 (52.8)                               | 350 (5075)                               | 102 (4.02) | M45x1,5 | 53<br>(2.09) | 137 (5.39) | 55 (2.17) | 13,5<br>(0.53) | 10 (0.39) | 50<br>(1.96)   | 84100030         | 2,45 (5.39)                              |
| STBF24       | 1-7/8-12UN  | 300 (79.2)                               |                                          |            |         |              |            | 65 (2.56) |                |           |                |                  | 3,17 (7)                                 |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



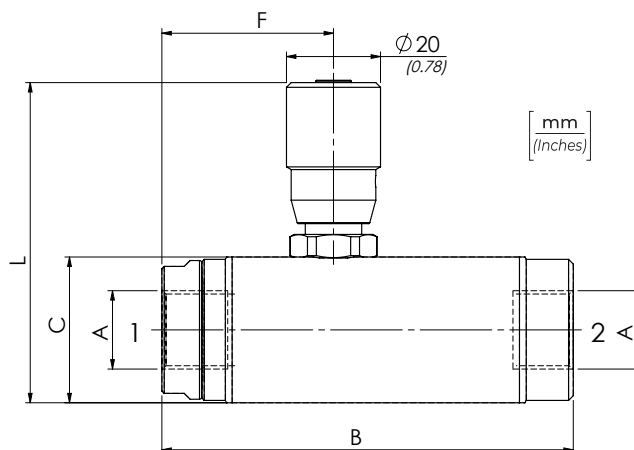
## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

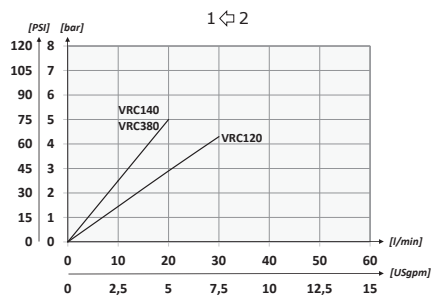
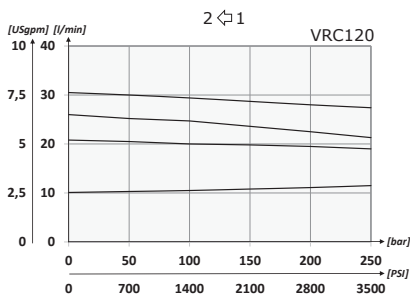
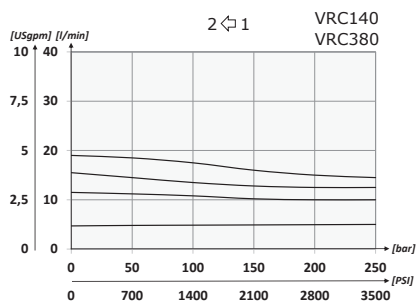
## CODICE ORDINAZIONE ORDERING CODE

|            |    |
|------------|----|
| 01         | 02 |
| <b>VRC</b> |    |

|    |                                                                                                     |          |            |
|----|-----------------------------------------------------------------------------------------------------|----------|------------|
| 01 | VALVOLE DI CONTROLLO FLUSSO 2 VIE COMPENSATE<br>(2 WAYS FLOW CONTROL VALVES - PRESSURE COMPENSATED) |          | <b>VRC</b> |
| 02 | DIMENSIONE<br>(SIZE)                                                                                | BSPP 1/4 | <b>140</b> |
|    |                                                                                                     | BSPP 3/8 | <b>380</b> |
|    |                                                                                                     | BSPP 1/2 | <b>120</b> |



## PERFORMANCES



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | B            | C         | F           | L         | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|--------------|----------|-----------------------------------------|-------------------------------------------|--------------|-----------|-------------|-----------|-----------------------------------------|
| VRC140       | BSPP 1/4 | 10 (2.6)                                | 250 (3625)                                | 87,5 (3.44)  | 31 (1.22) | 36,5 (1.44) | 68 (2.68) | 0,51 (1.12)                             |
| VRC380       | BSPP 3/8 | 18 (4.8)                                |                                           |              |           |             |           | 0,50 (1.10)                             |
| VRC120       | BSPP 1/2 | 33 (8.7)                                |                                           | 107,5 (4.31) | 36 (1.42) | 46 (1.81)   | 73 (2.87) | 0,76 (1.67)                             |

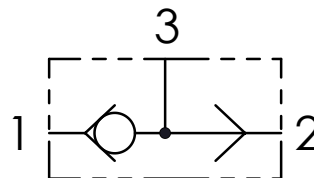


**CODICE ORDINAZIONE**  
ORDERING CODE

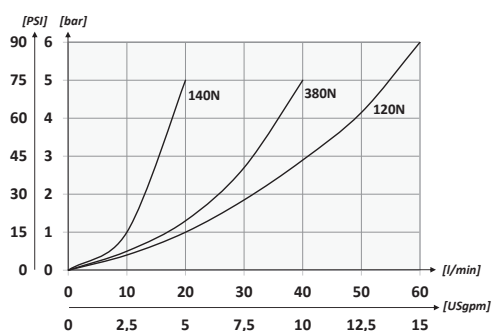
|             |    |
|-------------|----|
| 01          | 02 |
| <b>VUSF</b> |    |

| 01 | VALVOLE SELETTRICI (LOAD SHUTTLE VALVES) |          | VUSF        |
|----|------------------------------------------|----------|-------------|
| 02 | DIMENSIONE<br>(SIZE)                     | BSPP 1/4 | <b>140N</b> |
|    |                                          | BSPP 3/8 | <b>380N</b> |
|    |                                          | BSPP 1/2 | <b>120N</b> |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

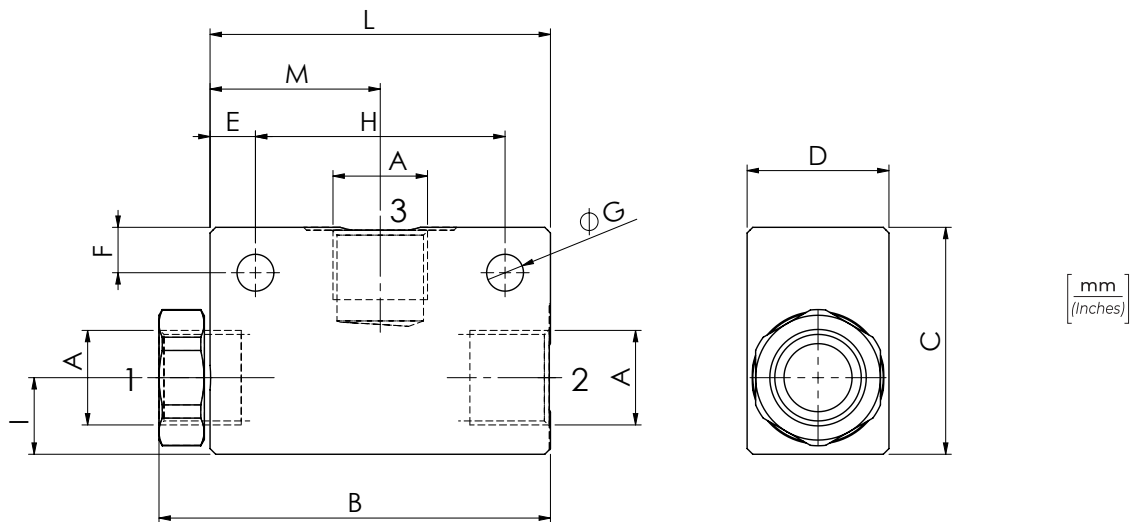


**PERFORMANCES**



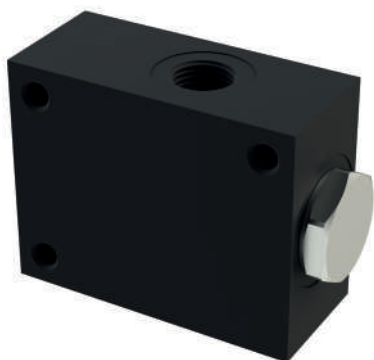
**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                | <b>ISO 6743/4</b> (DIN 51524)        |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                              | <b>15-250 mm²/s</b> (15 to 250 cSt)  |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                     | <b>ISO 4406:1999 Classe 19/17/14</b> |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                     | <b>-20°C +80°C</b> -4°F +176°F       |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                              | <b>-20°C +50°C</b> -4°F +122°F       |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                      |

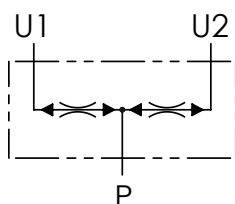


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | A        | PORTATA<br>MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B           | C         | D         | E         | F         | G          | H         | I           | L         | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt |
|--------------|----------|-------------------------------------------|------------------------------------------|-------------|-----------|-----------|-----------|-----------|------------|-----------|-------------|-----------|-------------------------------------------|
| VUSF140N     | BSPP 1/4 | 20 (5.3)                                  | 350 (5075)                               | 57,3 (2.26) | 35 (1.38) | 25 (0.98) | 9 (0.35)  | 8 (0.31)  | 6,5 (0.26) | 34 (1.34) | 12 (0.47)   | 52 (2.05) | 0,29 (0.65)                               |
| VUSF380N     | BSPP 3/8 | 40 (10.6)                                 |                                          | 69 (2.72)   | 40 (1.57) |           | 8 (0.31)  |           |            | 44 (1.73) | 13,5 (0.53) | 60 (2.36) | 0,37 (0.81)                               |
| VUSF120N     | BSPP 1/2 | 60 (15.8)                                 |                                          | 73,8 (2.90) | 50 (1.97) | 35 (1.38) | 10 (0.39) | 10 (0.39) | 8,5 (0.33) | 45 (1.79) | 18 (0.71)   | 65 (2.56) | 0,71 (1.56)                               |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## CODICE ORDINAZIONE ORDERING CODE

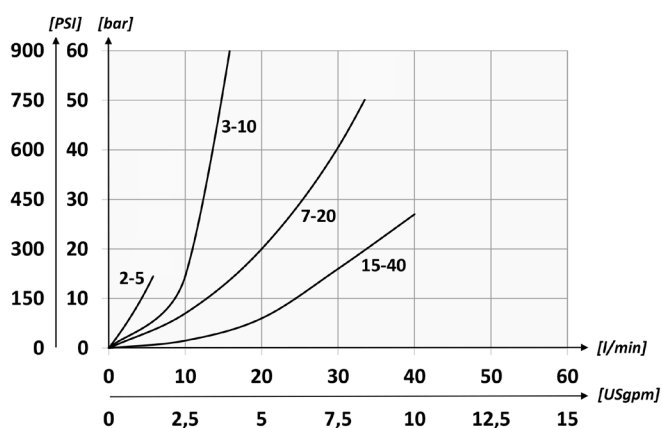
| 01           | 02 | 03 | 04 |
|--------------|----|----|----|
| <b>DRF10</b> |    |    |    |

| 01 | VALVOLA DIVISORE/RIUNIFICATORE DI FLUSSO<br>(FLOW DIVIDER/COMBINER VALVES) | DRF10            |
|----|----------------------------------------------------------------------------|------------------|
| 02 | CAMPO DI PORTATA IN INGRESSO (L/MIN)<br>INLET FLOW RANGE (USGPM)           | 2-5 (0.5-1.3)    |
|    |                                                                            | 3-10 (0.8-2.6)   |
|    |                                                                            | 7-20 (1.8-5.2)   |
|    |                                                                            | 15-40 (3.9-10.4) |
| 03 | CONNESSIONE P<br>(PORT P)                                                  | BSPP 3/8         |
|    |                                                                            | BSPP 1/2         |
| 04 | CONNESSIONE U1/U2<br>(PORT U1/U2)                                          | BSPP 3/8         |
|    |                                                                            | BSPP 1/2         |

## DATI TECNICI / TECHNICAL DATA

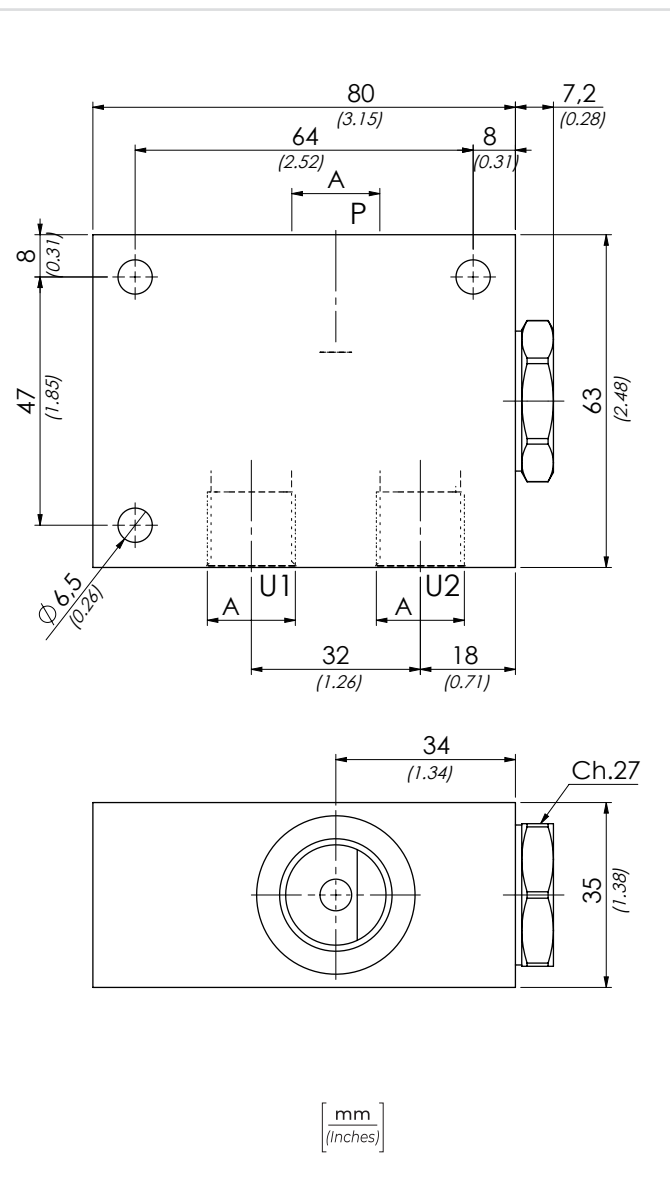
|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

## PERFORMANCES



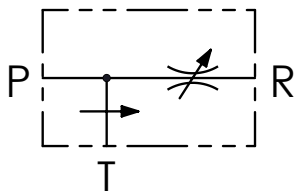
## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|----------------------------------------|------------------------------------------|----------------------------------------|
| DRF10        | 40 (10.6)                              | 250 (3625)                               | 0,52 (1.14)                            |





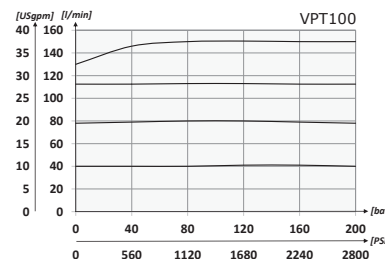
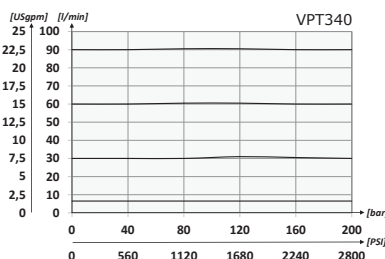
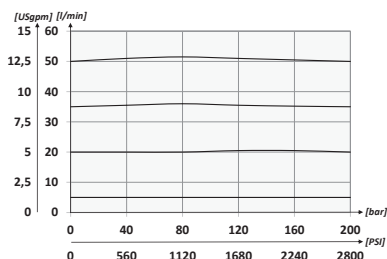
## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |      |        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------|--------|
| olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |      |        |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |      |        |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |      |        |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C                               | -4°F | +176°F |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C                               | -4°F | +122°F |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |      |        |

## PERFORMANCES



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B             | C               | D               | E              | F            | G            | H            | I              | L             | M             | N              | S             | U            | Z            | PESO APPROX (kg)<br>APPROX WEIGHT (lb) |
|--------------|----------|----------------------------------------|------------------------------------------|---------------|-----------------|-----------------|----------------|--------------|--------------|--------------|----------------|---------------|---------------|----------------|---------------|--------------|--------------|----------------------------------------|
| VPT380       | BSPP 3/8 | 50 (13.2)                              | 250<br>(3625)                            | 90<br>(3.54)  | 89,5<br>(35.24) | 39,5<br>(15.55) | 47,5<br>(1.87) | 30<br>(1.18) | 42<br>(1.65) | 64<br>(2.52) | 54<br>(2.13)   | 6<br>(0.24)   | 78<br>(3.07)  | 36,5<br>(1.44) | 6,5<br>(0.26) | 40<br>(1.57) | /            | 1,39 (3.06)                            |
| VPT120       | BSPP 1/2 | 90 (23.8)                              |                                          |               |                 |                 |                |              |              |              |                |               |               |                |               |              |              | 1,37 (3.02)                            |
| VPT340       | BSPP 3/4 | 150 (39.6)                             |                                          | 110<br>(4.33) | 110<br>(4.33)   | 50<br>(1.97)    | 49,5<br>(1.95) | 35<br>(1.38) | 50<br>(1.97) | 88<br>(3.46) | 63,5<br>(2.50) | 8,5<br>(0.33) | 100<br>(3.70) | 34,7<br>(1.37) | 8,5<br>(0.33) | 44<br>(1.73) | /            | 1,94 (4.28)                            |
| VPT100       | BSPP 1   | 240 (63.4)                             |                                          |               |                 |                 | 52,5<br>(2.07) | 47<br>(1.85) | /            | /            | /              | 10<br>(0.39)  | /             | 36,5<br>(1.44) |               | 44<br>(1.73) | 87<br>(3.45) | 2,05 (4.52)                            |

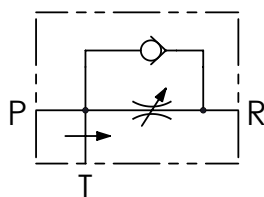


## CODICE ORDINAZIONE ORDERING CODE

| 01         | 02 | 03       | 04        |
|------------|----|----------|-----------|
| <b>VPT</b> |    | <b>V</b> | <b>AR</b> |

|           |                                                                                                                                                                                                                              |                        |            |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------|
| <b>01</b> | REGOLATORI DI FLUSSO 3 VIE - COMPENSATI, CON ECCEDENZA IN SCARICO E VALVOLA DI RITEGNO PER FLUSSO INVERSO<br>3 WAYS FLOW CONTROL VALVES - PRESSURE COMPENSATED, EXCEEDING FLOW TO TANK AND CHECK VALVE FOR FREE REVERSE FLOW |                        | <b>VPT</b> |
| <b>02</b> | DIMENSIONE (SIZE)                                                                                                                                                                                                            | BSPP 3/8               | <b>380</b> |
|           |                                                                                                                                                                                                                              | BSPP 1/2               | <b>120</b> |
| <b>03</b> | REGOLAZIONE (SETTING)                                                                                                                                                                                                        | Volantino (Hand wheel) | <b>V</b>   |
| <b>04</b> | Con valvola di ritegno per flusso inverso<br>(check valve for free reverse flow)                                                                                                                                             |                        | <b>AR</b>  |

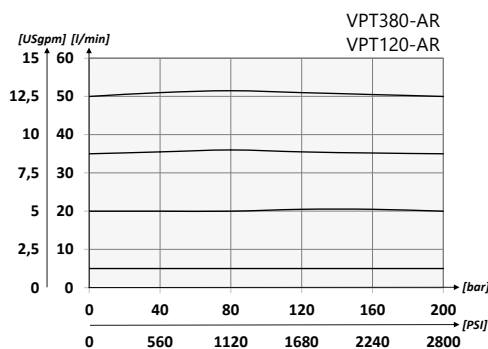
## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PORTATA MASSIMA L/MIN - MAX FLOW USGPM

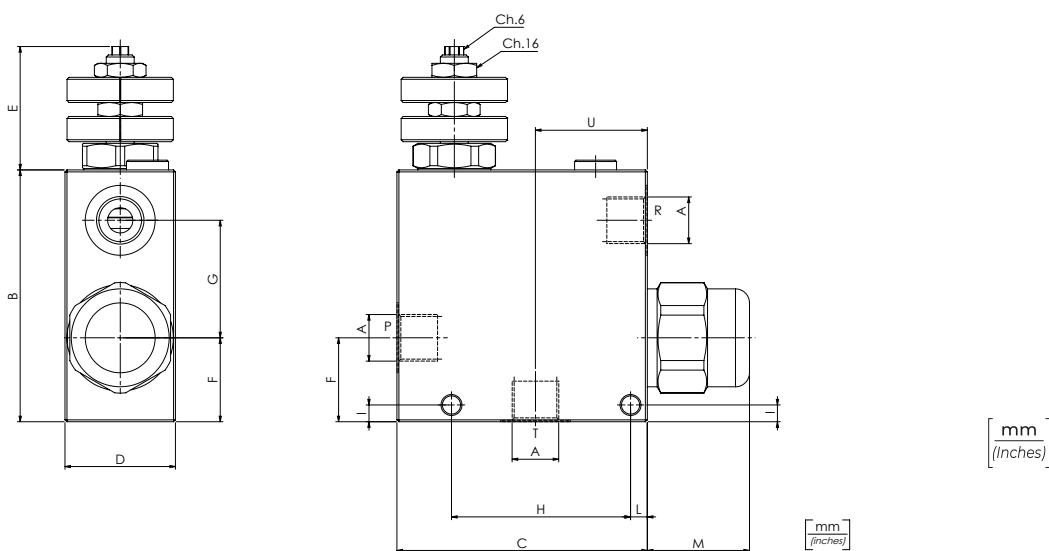
|                                                              |            |
|--------------------------------------------------------------|------------|
| 50 L/MIN CON 30 L/MIN IN R (13,3 USGPM WITH 8 USGPM IN R)    | <b>380</b> |
| 80 L/MIN CON 50 L/MIN IN R (21,3 USGPM WITH 13,3 USGPM IN R) | <b>120</b> |

## PERFORMANCES



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

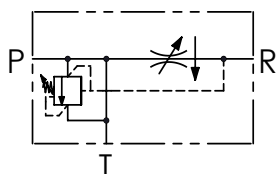


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

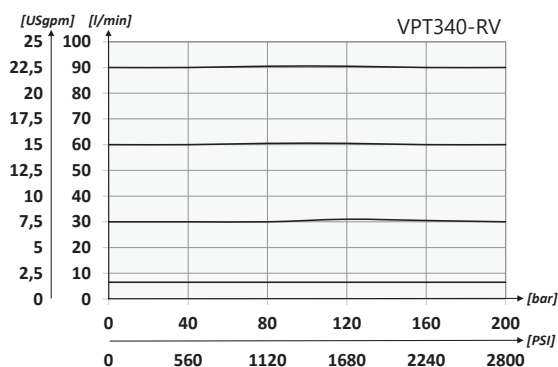
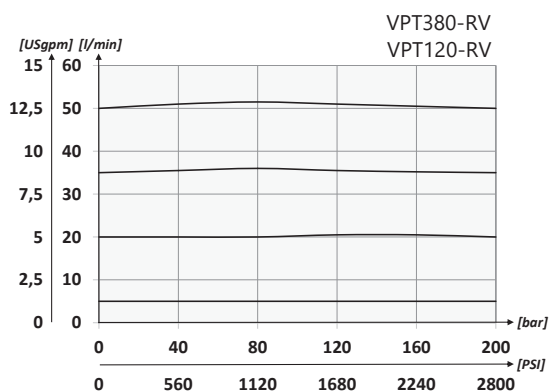
| CODICE CODE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B              | C             | D              | E              | F            | G            | H            | I           | L            | M              | S             | U            | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|-------------|----------|----------------------------------------|------------------------------------------|----------------|---------------|----------------|----------------|--------------|--------------|--------------|-------------|--------------|----------------|---------------|--------------|----------------------------------------|
| VPT380-AR   | BSPP 3/8 | 50 (13.2)                              | 250<br>(3625)                            | 89,5<br>(3.52) | 110<br>(4.33) | 39,5<br>(1.55) | 47,5<br>(1.87) | 30<br>(1.18) | 42<br>(1.65) | 57<br>(2.24) | 6<br>(0.24) | 13<br>(0.50) | 36,5<br>(1.44) | 6,5<br>(0.26) | 40<br>(1.57) | 1,60 (3.52)                            |
| VPT120-AR   | BSPP 1/2 | 90 (23.8)                              |                                          |                |               |                |                |              |              |              |             |              |                |               |              | 1,61 (3.54)                            |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PERFORMANCES

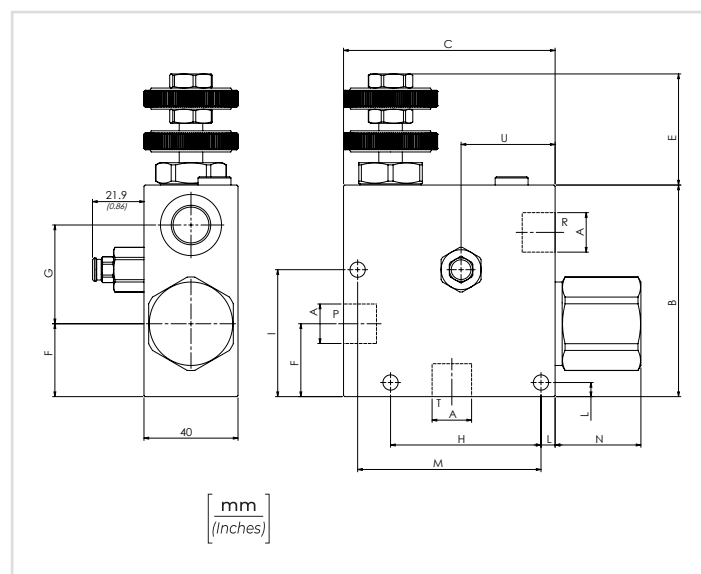
CODICE ORDINAZIONE  
ORDERING CODE

| 01         | 02 | 03       | 04        |
|------------|----|----------|-----------|
| <b>VPT</b> |    | <b>V</b> | <b>RV</b> |

|           |                                                                                                                                                                   |                        |            |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|------------|
| <b>01</b> | REGOLATORI DI FLUSSO 3 VIE - COMPENSATI, CON ECCEDEZZA IN SCARICO<br>(3 WAYS FLOW CONTROL VALVES - PRESSURE COMPENSATED, EXCEEDING FLOW TO TANK AND RELIEF VALVE) |                        | <b>VPT</b> |
| <b>02</b> | DIMENSIONE<br>(SIZE)                                                                                                                                              | BSPP 3/8               | <b>380</b> |
|           |                                                                                                                                                                   | BSPP 1/2               | <b>120</b> |
|           |                                                                                                                                                                   | BSPP 3/4               | <b>340</b> |
| <b>03</b> | REGOLAZIONE (SETTING)                                                                                                                                             | Volantino (Hand wheel) | <b>V</b>   |
| <b>04</b> | Valvola di massima - Relief valve<br>(10/250 bar - 145/3625 PSI)                                                                                                  |                        | <b>RV</b>  |

## PORTATA MASSIMA L/MIN - MAX FLOW USGPM

|                                                              |            |
|--------------------------------------------------------------|------------|
| 50 L/MIN CON 30 L/MIN IN R (13,3 USGPM WITH 8 USGPM IN R)    | <b>380</b> |
| 80 L/MIN CON 50 L/MIN IN R (21,3 USGPM WITH 13,3 USGPM IN R) | <b>120</b> |
| 150 L/MIN CON 80 L/MIN IN R (40 USGPM WITH 21,3 USGPM IN R)  | <b>340</b> |



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                           |                                      |              |                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------|--------------------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                       | <b>ISO 6743/4</b> (DIN 51524)        |              |                    |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                                     | <b>15-250 mm²/s</b> (15 to 250 cSt)  |              |                    |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                            | <b>ISO 4406:1999 Classe 19/17/14</b> |              |                    |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                            | <b>-20°C</b>                         | <b>+80°C</b> | <b>-4°F +176°F</b> |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                                     | <b>-20°C</b>                         | <b>+50°C</b> | <b>-4°F +122°F</b> |
| <b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b><br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                      |              |                    |

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B             | C             | D            | E              | F            | G            | H            | I              | L           | M            | N              | S             | U            | PESO APPROX (kg)<br>APPROX WEIGHT (lb) |
|--------------|----------|----------------------------------------|------------------------------------------|---------------|---------------|--------------|----------------|--------------|--------------|--------------|----------------|-------------|--------------|----------------|---------------|--------------|----------------------------------------|
| VPT380-RV    | BSPP 3/8 | 50 (13.2)                              | 250 (3625)                               | 90<br>(3.54)  | 90<br>(3.54)  | 40<br>(1.57) | 47,5<br>(1.87) | 31<br>(1.22) | 42<br>(1.65) | 64<br>(2.52) | 54<br>(2.13)   | 6<br>(0.24) | 78<br>(3.07) | 36,5<br>(1.44) | 6,5<br>(0.26) | 40<br>(1.57) | 1,15 (2.54)                            |
| VPT120-RV    | BSPP 1/2 | 90 (23.8)                              |                                          |               |               |              |                |              |              |              |                |             |              |                |               |              |                                        |
| VPT340-RV    | BSPP 3/4 | 150 (39.6)                             |                                          | 110<br>(4.33) | 110<br>(4.33) | 50<br>(1.97) | 49,5<br>(1.95) | 35<br>(1.38) | 50<br>(1.97) | 88<br>(3.46) | 63,5<br>(2.50) | 8<br>(0.31) | 94<br>(3.70) | 34,7<br>(1.37) | 8,5<br>(0.33) | 44<br>(1.73) | 1,94 (4.28)                            |

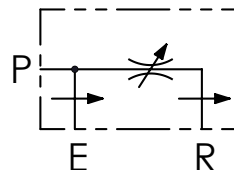


**CODICE ORDINAZIONE**  
ORDERING CODE

|            |    |          |
|------------|----|----------|
| 01         | 02 | 03       |
| <b>VPP</b> |    | <b>V</b> |

|           |                                                                                                                                                        |                                 |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| <b>01</b> | REGOLATORI DI FLUSSO 3 VIE - COMPENSATI, CON ECCEDENZA IN PRESSIONE<br>(3 WAYS FLOW CONTROL VALVES - PRESSURE COMPENSATED, EXCEEDING FLOW TO PRESSURE) | <b>VPP</b>                      |
| <b>02</b> | DIMENSIONE (SIZE)                                                                                                                                      | BSPP 3/8 <b>380</b>             |
|           |                                                                                                                                                        | BSPP 1/2 <b>120</b>             |
|           |                                                                                                                                                        | BSPP 3/4 <b>340</b>             |
| <b>03</b> | REGOLAZIONE (SETTING)                                                                                                                                  | Volantino (Hand wheel) <b>V</b> |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

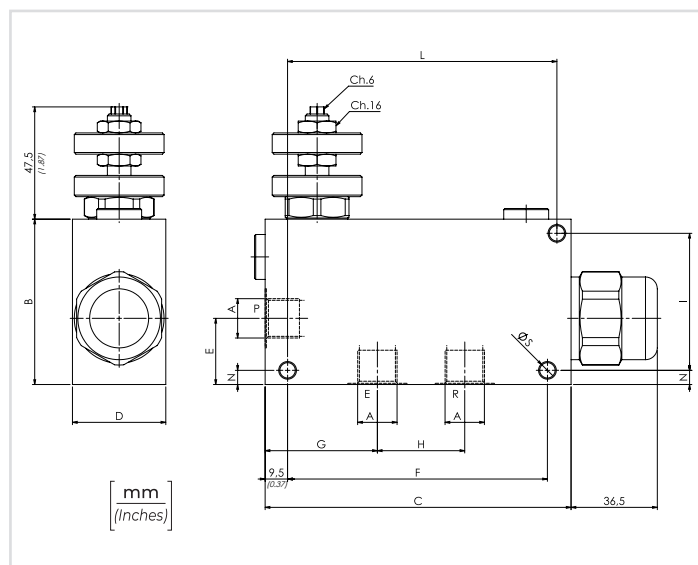


**DATI TECNICI / TECHNICAL DATA**

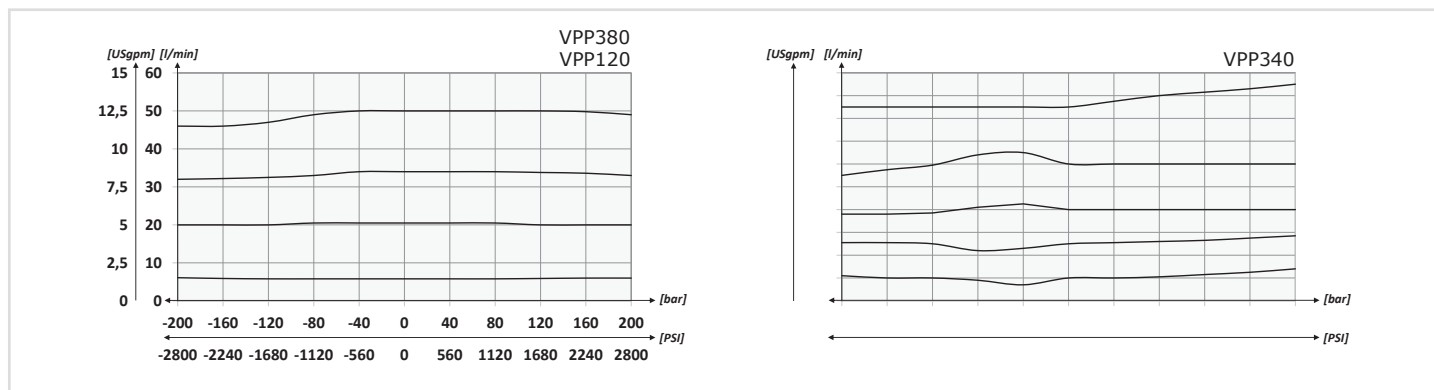
|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olío idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

**PORTATA MASSIMA L/MIN - MAX FLOW USGPM**

|                                                             |            |
|-------------------------------------------------------------|------------|
| 50 L/MIN CON 30 L/MIN IN R (13,3 USGPM WITH 8 USGPM IN R)   | <b>380</b> |
| 90 L/MIN CON 50 L/MIN IN R (24 USGPM WITH 13,3 USGPM IN R)  | <b>120</b> |
| 150 L/MIN CON 80 L/MIN IN R (40 USGPM WITH 21,3 USGPM IN R) | <b>340</b> |

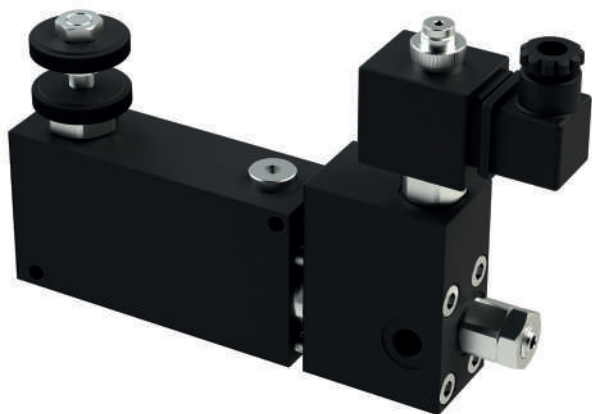


**PERFORMANCES**



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

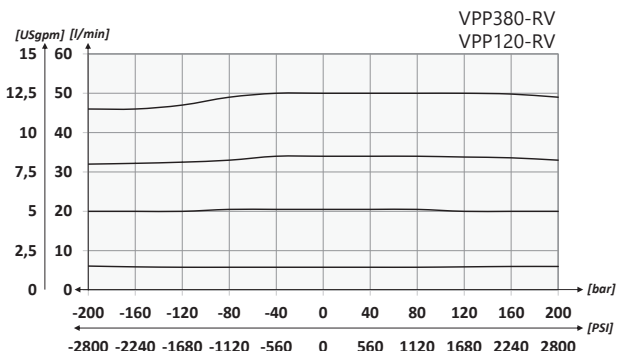
| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B         | C             | D            | E         | F          | G          | H         | I         | L          | N        | S          | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|--------------|----------|----------------------------------------|------------------------------------------|-----------|---------------|--------------|-----------|------------|------------|-----------|-----------|------------|----------|------------|-----------------------------------------|
| VPP380       | BSPP 3/8 | 50 (13.2)                              | 250 (3625)                               | 70 (2.76) | 129,5 (50.98) | 39,5 (15.55) | 28 (1.10) | 110 (4.33) | 47 (18.70) | 37 (1.46) | 58 (2.28) | 114 (4.49) | 6 (0.24) | 6,5 (0.26) | 1,54 (3.39)                             |
| VPP120       | BSPP 1/2 | 90 (23.8)                              |                                          |           |               |              |           |            |            |           |           |            |          |            | 1,52 (3.35)                             |
| VPP340       | BSPP 3/4 | 150 (39.6)                             |                                          | 90 (3.54) | 155 (6.10)    | 50 (1.97)    | 35 (1.38) | /          | 57 (2.24)  | 44 (1.73) | 74 (2.91) | 135 (5.31) | 8 (0.31) | 8,5 (0.33) | 2,48 (5.46)                             |



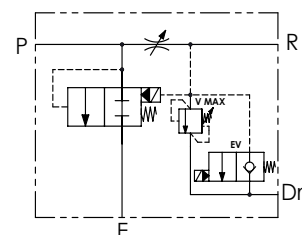
### DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

### PERFORMANCES

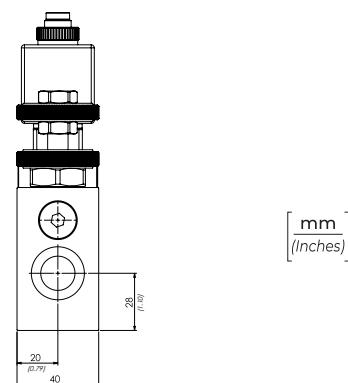
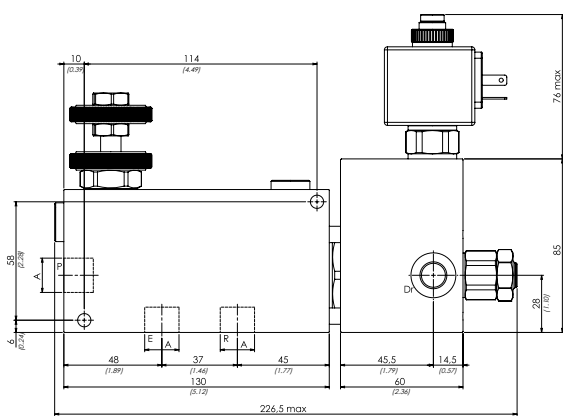


### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### PORTATA MASSIMA L/MIN - MAX FLOW USGPM

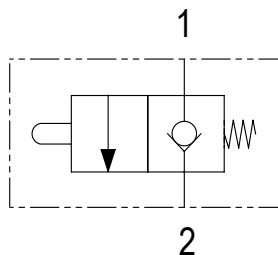
|                                                            |            |
|------------------------------------------------------------|------------|
| 50 L/MIN CON 30 L/MIN IN R (13,3 USGPM WITH 8 USGPM IN R)  | <b>380</b> |
| 90 L/MIN CON 50 L/MIN IN R (24 USGPM WITH 13,3 USGPM IN R) | <b>120</b> |



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX SENZA VALVOLE (kg)<br>APPROX WEIGHT WITHOUT VALVES (lb) |
|--------------|----------|-----------------------------------------|-------------------------------------------|---------------------------------------------------------------------|
| VPP380-RV    | BSPP 3/8 | 50 (13.2)                               | 250 (3625)                                | 2,25 (4.97)                                                         |
| VPP120-RV    | BSPP 1/2 | 90 (23.8)                               |                                           |                                                                     |

## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

CODICE ORDINAZIONE  
ORDERING CODE

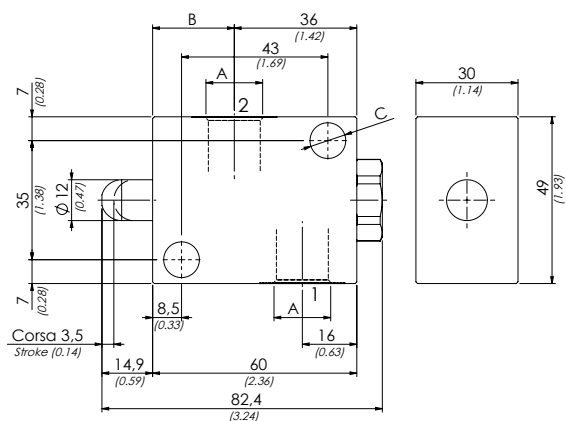
01

02

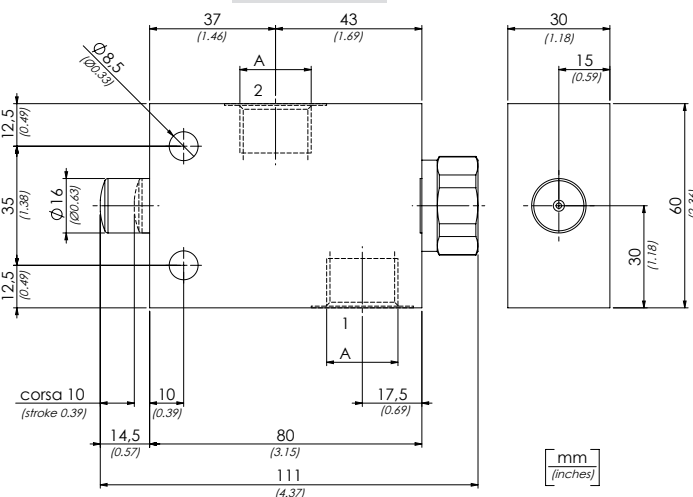
FCM

| 01 | VALVOLE DI FINE CORSA NORMALMENTE CHIUSE<br>(NORMALLY CLOSED END - STROKE VALVES) | FCM      |
|----|-----------------------------------------------------------------------------------|----------|
| 02 | DIMENSIONE (SIZE)                                                                 | BSPP 1/4 |
|    |                                                                                   | BSPP 3/8 |
|    |                                                                                   | BSPP 1/2 |

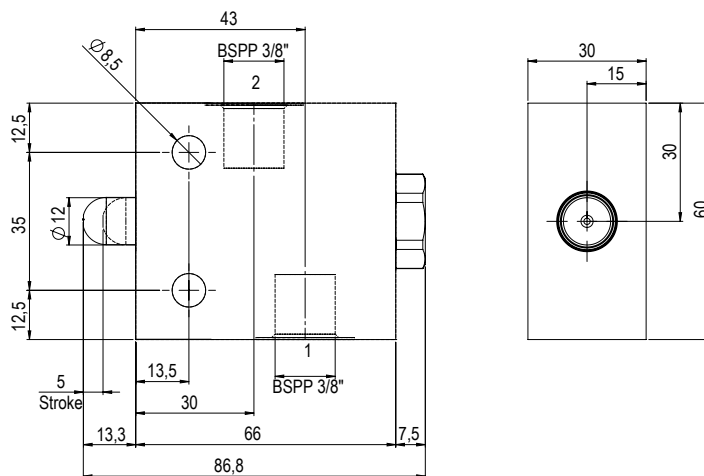
## FCM140N - FCM380N



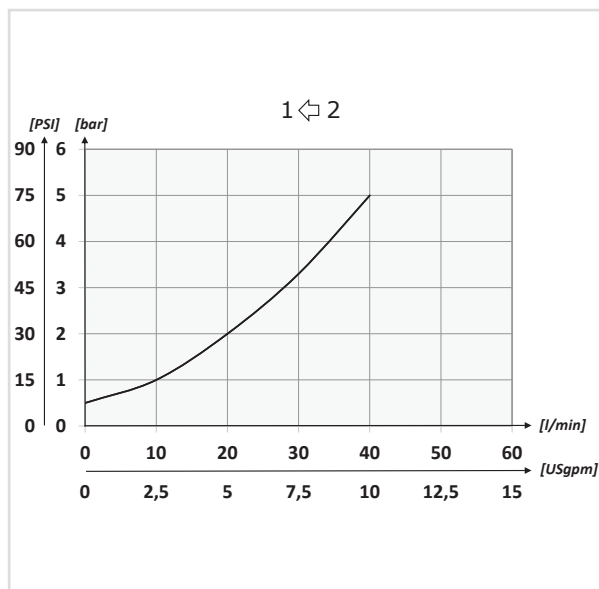
## FCM120N



## FCM380A



## PERFORMANCES



## DATI TECNICI / TECHNICAL DATA

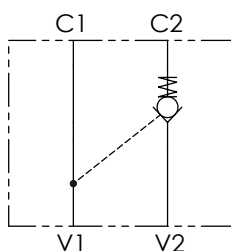
|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | B           | C           | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|----------|-------------|-------------|----------------------------------------|------------------------------------------|----------------------------------------|
| FCM140N      | BSPP 1/4 | 26,5 (1.04) | 8,5 (0.33)  | 40 (10.6)                              | 350 (5075)                               | 0,53 (1.16)                            |
| FCM380N      | BSPP 3/8 | 24 (0.94)   | 10,5 (0.41) |                                        |                                          | 0,60 (1.32)                            |
| FCM380A      |          | -           | 8,5 (0.33)  |                                        |                                          | 0,84 (1.85)                            |
| FCM120N      | BSPP 1/2 | /           | /           | 60 (15.8)                              | 300 (4350)                               | 1,01 (2.22)                            |



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

**DATI TECNICI / TECHNICAL DATA**

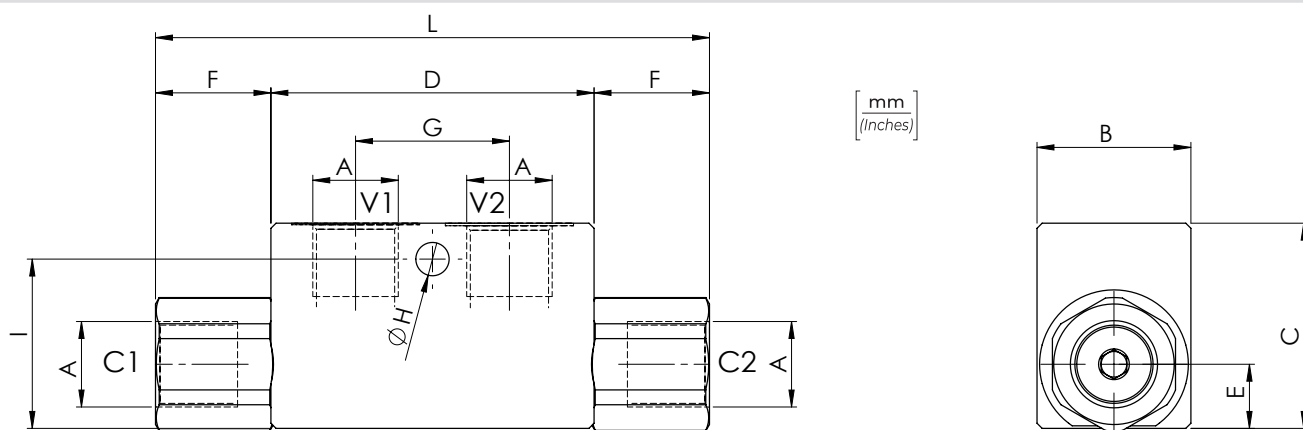
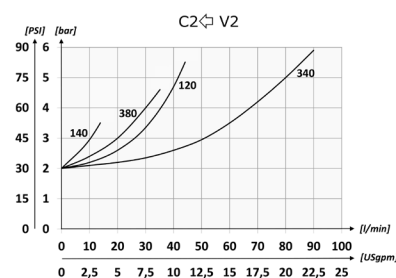
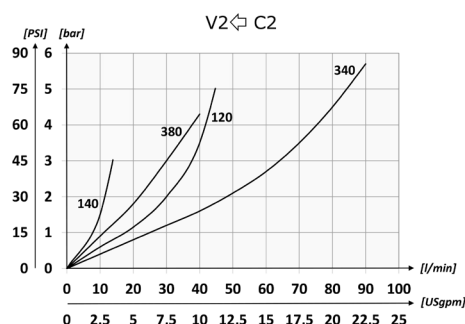
|                                                                                                                                                                                           |                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                       | <b>ISO 6743/4</b> (DIN 51524)                                           |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                                     | <b>15-250 mm²/s</b> (15 to 250 cSt)                                     |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                            | <b>ISO 4406:1999 Classe 19/17/14</b>                                    |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                            | <b>-20°C +80°C</b> <b>-4°F +176°F</b>                                   |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                                     | <b>-20°C +50°C</b> <b>-4°F +122°F</b>                                   |
| <b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b><br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                         |
| <b>Trafilamento massimo</b><br>Max leakage                                                                                                                                                | <b>0,25 cm³/min - 5 gocce/min</b><br><b>0,015 in³/min - 5 drops/min</b> |

**CODICE ORDINAZIONE**  
ORDERING CODE

| 01          | 02 |
|-------------|----|
| <b>VRSE</b> |    |

| <b>01</b> | <b>VALVOLE DI BLOCCO A SEMPLICE EFFETTO</b><br>(SINGLE ACTING PILOT CHECK VALVES) |          | <b>VRSE</b> |
|-----------|-----------------------------------------------------------------------------------|----------|-------------|
| <b>02</b> | <b>DIMENSIONE</b><br>(SIZE)                                                       | BSPP 1/4 | <b>140</b>  |
|           |                                                                                   | BSPP 3/8 | <b>380</b>  |
|           |                                                                                   | BSPP 1/2 | <b>120</b>  |
|           |                                                                                   | BSPP 3/4 | <b>340</b>  |

## PERFORMANCES



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B            | C            | D             | E              | F              | G            | H             | I            | L             | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt | RAPPORTO<br>DI PILOTAGGIO<br>PILOT RATIO |
|--------------|----------|----------------------------------------|------------------------------------------|--------------|--------------|---------------|----------------|----------------|--------------|---------------|--------------|---------------|----------------------------------------|------------------------------------------|
| VRSE140      | BSPP 1/4 | 15 (4)                                 | 350<br>(5075)                            | 30 (1.18)    | 40<br>(1.57) | 63<br>(2.48)  | 12,5<br>(0.49) | 22,5<br>(0.89) | 30<br>(1.18) | 6,5<br>(0.26) | 33<br>(1.30) | 108<br>(4.25) | 0,64 (1.41)                            | 1:4                                      |
| VRSE380      | BSPP 3/8 | 35 (9.2)                               |                                          |              |              |               |                |                |              |               |              |               | 0,59 (1.30)                            |                                          |
| VRSE120      | BSPP 1/2 | 45 (11.9)                              |                                          | 1,08 (2.38)  |              |               |                |                |              |               |              |               |                                        |                                          |
| VRSE340      | BSPP 3/4 | 70 (18.5)                              |                                          | 40<br>(1.57) | 60<br>(2.36) | 100<br>(3.94) | 22,5<br>(0.89) | 46 (1.81)      | 50<br>(1.97) | 8,5<br>(0.33) | 50 (1.97)    | 192 (7.56)    | 2 (4.41)                               | 1:2.9                                    |

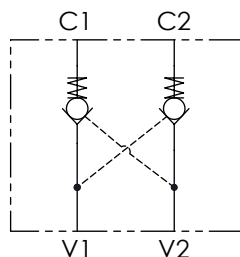


## CODICE ORDINAZIONE ORDERING CODE

|             |    |
|-------------|----|
| 01          | 02 |
| <b>VRDE</b> |    |

| 01 | VALVOLE DI BLOCCO A DOPPIO EFFETTO<br>(DOUBLE ACTING PILOT CHECK VALVES) | VRDE     |
|----|--------------------------------------------------------------------------|----------|
| 02 | DIMENSIONE<br>(SIZE)                                                     | BSPP 1/4 |
|    |                                                                          | BSPP 3/8 |
|    |                                                                          | BSPP 1/2 |
|    |                                                                          | BSPP 3/4 |

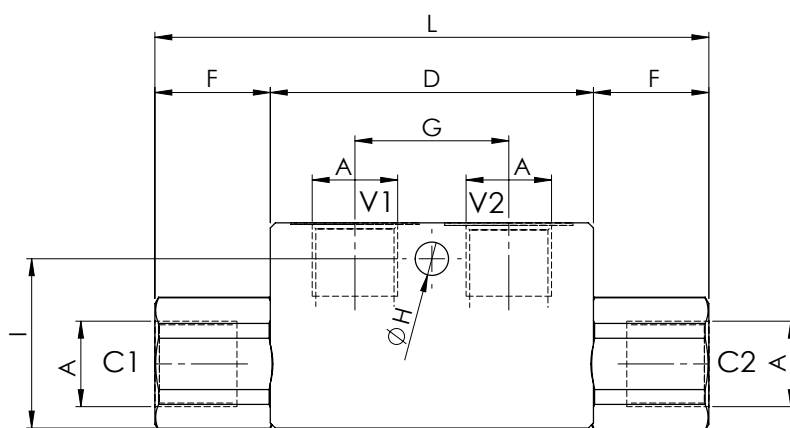
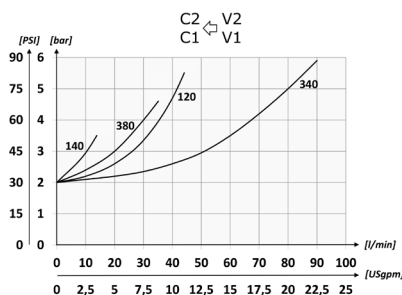
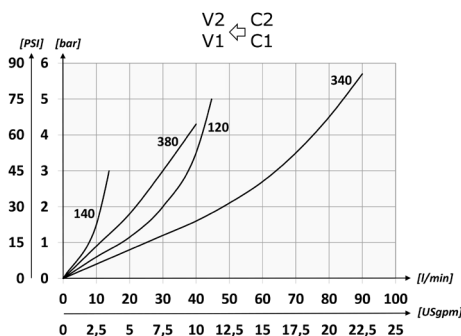
## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



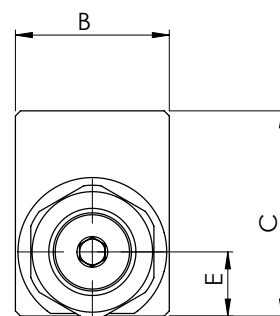
## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Olío idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14                             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |

## PERFORMANCES



[ mm  
(Inches) ]

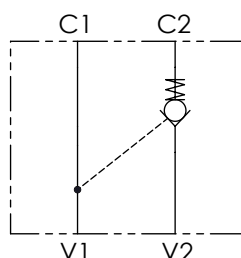


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B            | C            | D             | E              | F              | G            | H             | I            | L             | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt | RAPPORTO<br>DI PILOTAGGIO<br>PILOT RATIO |
|--------------|----------|----------------------------------------|------------------------------------------|--------------|--------------|---------------|----------------|----------------|--------------|---------------|--------------|---------------|----------------------------------------|------------------------------------------|
| VRDE140      | BSPP 1/4 | 15 (4)                                 | 350<br>(5075)                            | 30<br>(1.18) | 40<br>(1.57) | 63<br>(2.48)  | 12,5<br>(0.49) | 22,5<br>(0.89) | 30<br>(1.18) | 6,5<br>(0.26) | 33<br>(1.30) | 108<br>(4.25) | 0,64 (1.41)                            | 1:4                                      |
| VRDE380      | BSPP 3/8 | 35 (9.2)                               |                                          |              |              |               |                |                |              |               |              |               | 0,60 (1.32)                            |                                          |
| VRDE120      | BSPP 1/2 | 45 (11.9)                              |                                          | 35<br>(1.38) | 50<br>(1.97) | 82<br>(3.23)  | 16,5<br>(0.65) | 31,5<br>(1.24) | 36<br>(1.42) |               | 35<br>(1.38) | 145<br>(5.71) | 1,10 (2.42)                            |                                          |
| VRDE340      | BSPP 3/4 | 70 (18.5)                              |                                          | 40<br>(1.57) | 60<br>(2.36) | 100<br>(3.94) | 22,5<br>(0.89) | 46<br>(1.81)   | 50<br>(1.97) | 8,5<br>(0.33) | 50<br>(1.97) | 192<br>(7.56) | 2 (4.40)                               | 1:2.9                                    |



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



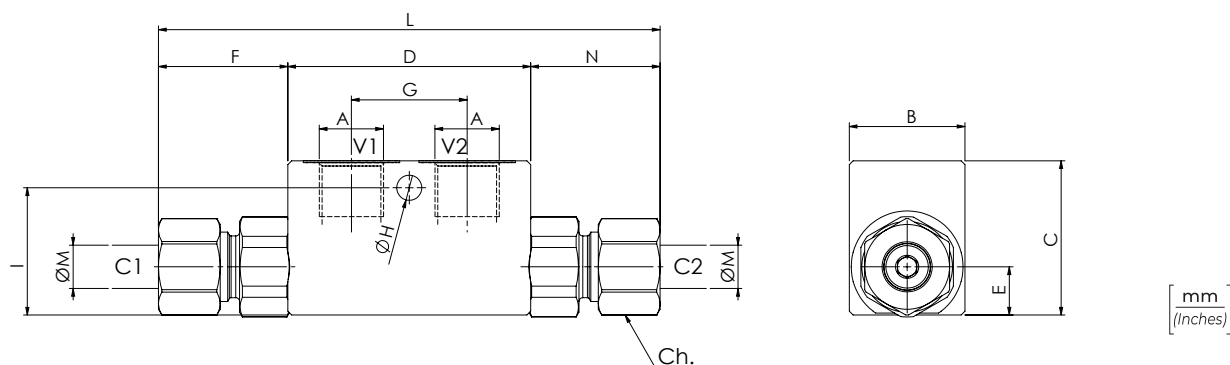
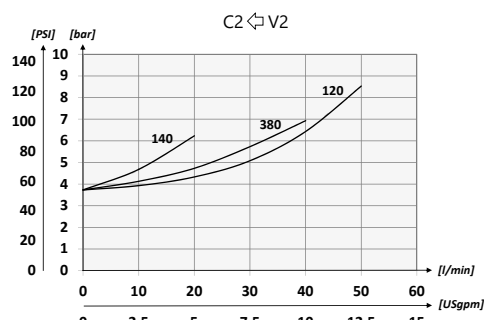
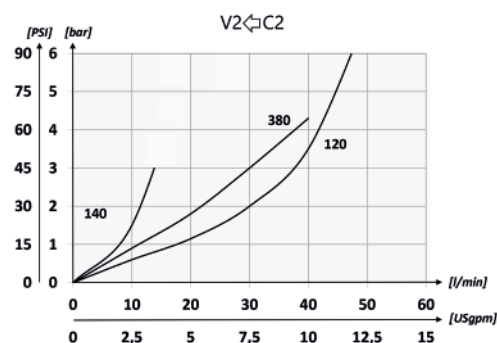
### DATI TECNICI / TECHNICAL DATA

|                                                                                                                            |                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| olio idraulico - Mineral oil                                                                                               | ISO 6743/4 (DIN 51524)                                                              |
| Viscosità olio - Oil viscosity                                                                                             | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |
| Classe di contaminazione max<br>Max contamination index                                                                    | ISO 4406:1999 Classe 19/17/14                                                       |
| Temperatura dell'olio - Oil temperature                                                                                    | -20°C +80°C -4°F +176°F                                                             |
| Temperatura ambiente - Environment temperature                                                                             | -20°C +50°C -4°F +122°F                                                             |
| È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm) |                                                                                     |
| A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)                              |                                                                                     |
| Trafilamento massimo<br>Max leakage                                                                                        | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |

### CODICE ORDINAZIONE ORDERING CODE

| 01          | 02                                                                                         | 03                                                                  |
|-------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <b>VRSD</b> |                                                                                            |                                                                     |
| 01          | VALVOLE DI BLOCCO A SEMPLICE EFFETTO DIN2353<br>(DIN2353 SINGLE ACTING PILOT CHECK VALVES) |                                                                     |
| 02          | DIMENSIONE<br>SIZE                                                                         | BSPP 1/4                                                            |
|             |                                                                                            | BSPP 3/8                                                            |
|             |                                                                                            | BSPP 1/2                                                            |
| 03          | DIMENSIONE TUBO<br>SIZE PIPE                                                               | Per tubo Ø 8 - For Ø 8 pipe<br>only for BSPP 1/4                    |
|             |                                                                                            | Per tubo Ø 12 - For Ø 12 pipe standard<br>only for BSPP 1/4 and 3/8 |
|             |                                                                                            | Per tubo Ø 15 - For Ø 15 pipe standard<br>only for BSPP 1/2         |

### PERFORMANCES

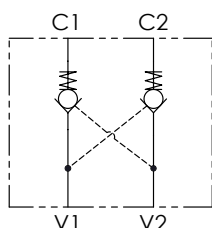


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA<br>MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | mm - inch |           |           |             |             |           |            |           |            |           | Ch. | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt | RAPPORTO DI<br>PILOTAGGIO<br>PILOT RATIO |
|--------------|----------|-------------------------------------------|------------------------------------------|-----------|-----------|-----------|-------------|-------------|-----------|------------|-----------|------------|-----------|-----|-------------------------------------------|------------------------------------------|
|              |          |                                           |                                          | B         | C         | D         | E           | F           | G         | H          | I         | L          | M         |     |                                           |                                          |
| VRSDI40T8    | BSPP 1/4 | 10 (2.6)                                  | 350<br>(5075)                            |           |           |           |             | 28 (1.10)   |           |            |           | 119 (4.69) | 8 (0.31)  | 17  | 0,62 (1.36)                               | 1:9                                      |
| VRSD140      |          | 15 (4)                                    |                                          | 30 (1.18) | 40 (1.57) | 63 (2.48) | 12,5 (0.49) | 32 (1.26)   | 30 (1.18) |            | 33 (1.30) |            |           |     | 0,63 (1.37)                               |                                          |
| VRSD380      | BSPP 3/8 | 35 (9.2)                                  |                                          |           |           |           |             |             |           | 6,5 (0.26) |           | 127 (5)    | 12 (0.47) | 22  | 0,60 (1.32)                               |                                          |
| VRSD120      | BSPP 1/2 | 45 (11.9)                                 |                                          | 35 (1.38) | 50 (1.97) | 82 (3.23) | 16,5 (0.65) | 33,5 (1.32) | 36 (1.42) |            | 35 (1.38) | 149 (5.87) | 15 (0.59) | 27  | 1,10 (2.42)                               |                                          |



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

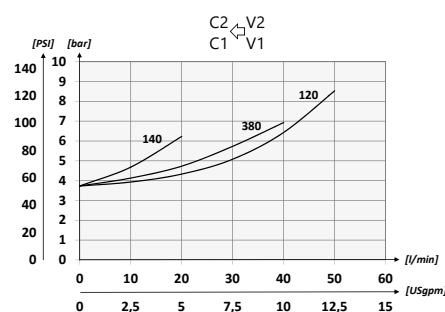
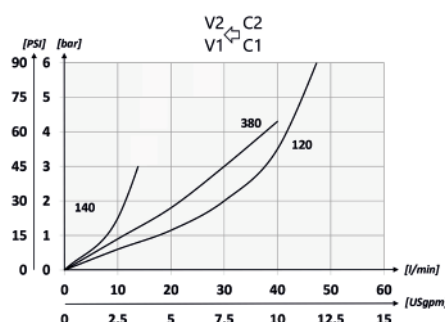
|                                                                                                                            |                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Olivo idraulico - Mineral oil                                                                                              | ISO 6743/4 (DIN 51524)                                                              |
| Viscosità olio - Oil viscosity                                                                                             | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |
| Classe di contaminazione max<br>Max contamination index                                                                    | ISO 4406:1999 Classe 19/17/14                                                       |
| Temperatura dell'olio - Oil temperature                                                                                    | -20°C +80°C -4°F +176°F                                                             |
| Temperatura ambiente - Environment temperature                                                                             | -20°C +50°C -4°F +122°F                                                             |
| È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm) |                                                                                     |
| A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)                              |                                                                                     |
| Trafilamento massimo<br>Max leakage                                                                                        | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |

### CODICE ORDINAZIONE ORDERING CODE

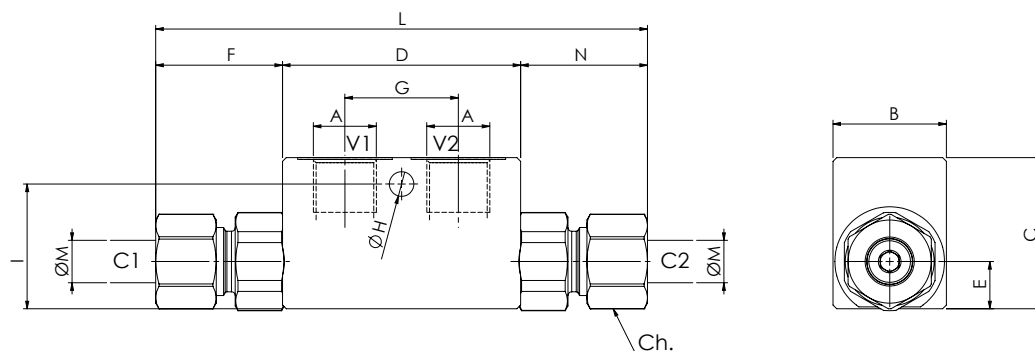
|             |    |    |
|-------------|----|----|
| 01          | 02 | 03 |
| <b>VRDD</b> |    |    |

| 01 | VALVOLE DI BLOCCO A DOPPIO EFFETTO DIN2353<br>(DIN2353 DOUBLE ACTING PILOT CHECK VALVES) | VRDD                                                                    |
|----|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| 02 | DIMENSIONE<br>SIZE                                                                       | BSPP 1/4 <b>140</b>                                                     |
|    |                                                                                          | BSPP 3/8 <b>380</b>                                                     |
|    |                                                                                          | BSPP 1/2 <b>120</b>                                                     |
| 03 | DIMENSIONE TUBO<br>SIZE PIPE                                                             | Per tubo Ø 8 - For Ø 8 pipe only for <b>BSPP 1/4</b> <b>T8</b>          |
|    |                                                                                          | Per tubo Ø 12 - For Ø 12 pipe standard only for <b>BSPP 1/4 and 3/8</b> |
|    |                                                                                          | Per tubo Ø 15 - For Ø 15 pipe standard only for <b>BSPP 1/2</b>         |

### PERFORMANCES



mm  
(Inches)

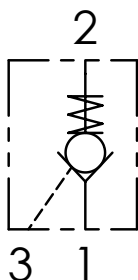


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | mm - inch    |              |              |                |                |              |               |              |               |              | Ch. | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt | RAPPORTO<br>DI PILOTAGGIO<br>PILOT RATIO |     |  |  |
|--------------|----------|----------------------------------------|------------------------------------------|--------------|--------------|--------------|----------------|----------------|--------------|---------------|--------------|---------------|--------------|-----|-------------------------------------------|------------------------------------------|-----|--|--|
|              |          |                                        |                                          | B            | C            | D            | E              | F              | G            | H             | I            | L             | M            |     |                                           |                                          |     |  |  |
| VRDD140T8    | BSPP 1/4 | 10 (2.6)                               | 350<br>(5075)                            | 30<br>(1.18) | 40<br>(1.57) | 63<br>(2.48) | 12,5<br>(0.49) | 28<br>(1.10)   | 30<br>(1.18) | 6,5<br>(0.26) | 35<br>(1.38) | 113<br>(4.45) | 8<br>(0.31)  | 17  | 0,60 (1.32)                               | 1:9                                      |     |  |  |
| VRDD140      |          | 15 (4)                                 |                                          |              |              |              |                | 32<br>(1.26)   |              |               |              | 127<br>(5)    | 12<br>(0.47) | 22  | 0,64 (1.40)                               |                                          |     |  |  |
| VRDD380      | BSPP 3/8 | 35 (9.2)                               |                                          |              |              |              |                | 33,5<br>(1.32) | 36<br>(1.42) |               |              | 149<br>(5.87) | 15<br>(0.59) | 27  | 0,63 (1.38)                               |                                          | 1:4 |  |  |
| VRDD120      | BSPP 1/2 | 45 (11.9)                              |                                          |              |              |              |                |                |              |               |              |               |              |     | 1,17 (2.57)                               |                                          |     |  |  |



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

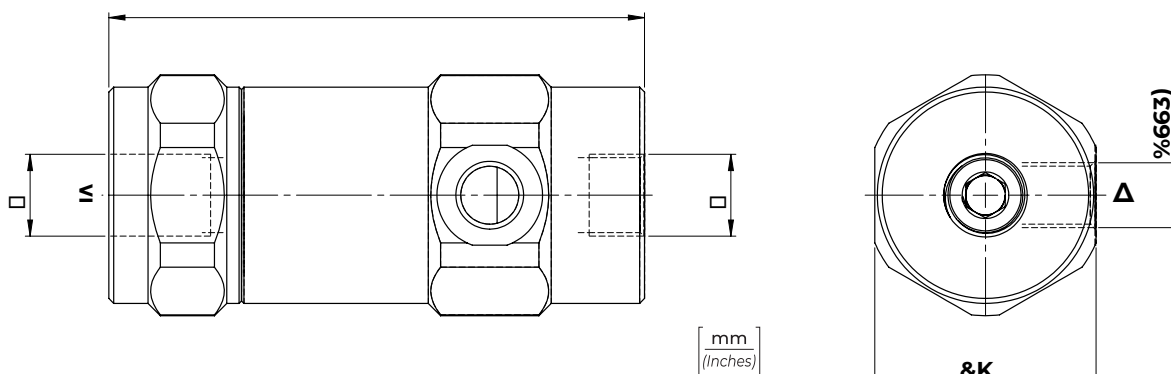
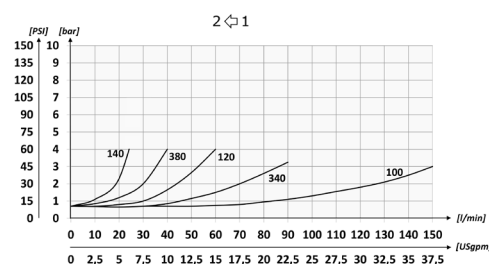
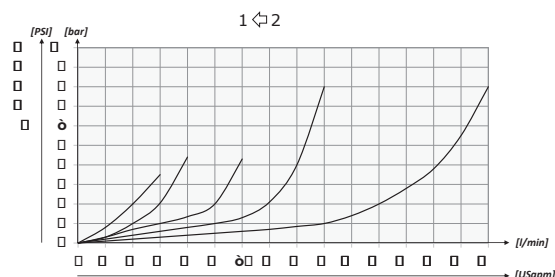
|                                                                                                                                                                                    |                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Oil idraulico - Mineral oil                                                                                                                                                        | ISO 6743/4 (DIN 51524)                                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14                             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |

### CODICE ORDINAZIONE ORDERING CODE

|             |    |
|-------------|----|
| 01          | 02 |
| <b>VRPE</b> |    |

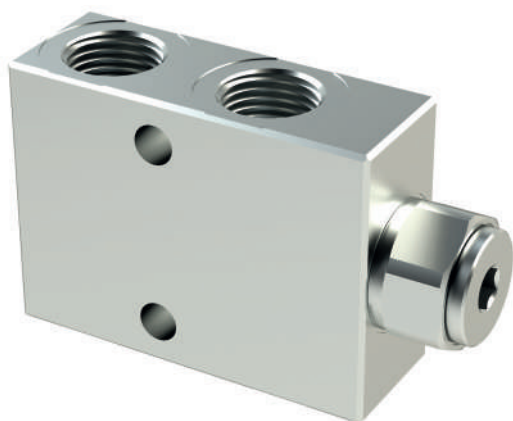
| 01 | VALVOLE DI BLOCCO PILOTATE A SEMPLICE EFFETTO<br>(SINGLE ACTING PILOT CHECK VALVES) | VRPE     |
|----|-------------------------------------------------------------------------------------|----------|
| 02 | DIMENSIONE (SIZE)                                                                   | BSPP 1/4 |
|    |                                                                                     | 140      |
|    |                                                                                     | BSPP 3/8 |
|    |                                                                                     | 380      |
|    |                                                                                     | BSPP 1/2 |
|    |                                                                                     | 120      |
|    |                                                                                     | BSPP 3/4 |
|    |                                                                                     | 340      |
|    |                                                                                     | BSPP 1   |
|    |                                                                                     | 100      |

### PERFORMANCES



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | L            | C         | FILETTATURA MAX ATTACCO<br>BSPP 1/4" (mm)<br>THREAD MAX PORT<br>BSPP 1/4" (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT<br>(lb) | RAPPORTO<br>DI PILOTAGGIO<br>PILOT RATIO |
|--------------|----------|-----------------------------------------|-------------------------------------------|--------------|-----------|---------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------|
| VRPE140      | BSPP 1/4 | 25 (6.6)                                | 350 (5075)                                | 96 (3.78)    | 40 (1.57) | 13 (0.51)                                                                       | 0,84 (1.85)                               | 1:5.3                                    |
| VRPE380      | BSPP 3/8 | 40 (10.6)                               |                                           | 109 (4.29)   | 45 (1.77) |                                                                                 | 1,14 (2.51)                               | 1:4.4                                    |
| VRPE120      | BSPP 1/2 | 60 (15.9)                               |                                           | 121,7 (4.79) | 42 (1.62) |                                                                                 | 1,24 (2.73)                               | 1:4.2                                    |
| VRPE340      | BSPP 3/4 | 100 (26.4)                              | 300 (4350)                                | 132 (5.20)   | 55 (2.17) | 13 (0.51)                                                                       | 1,87 (4.12)                               | 1:4                                      |
| VRPE100      | BSPP 1   | 150 (39.6)                              |                                           | 166 (6.54)   | 65 (2.56) |                                                                                 | 3,22 (7.10)                               | 1:4.1                                    |

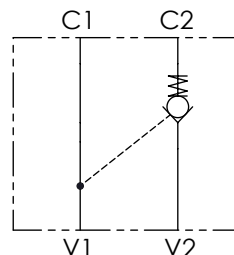


### CODICE ORDINAZIONE ORDERING CODE

|            |    |
|------------|----|
| 01         | 02 |
| <b>VRP</b> |    |

|           |                                                                                     |          |            |
|-----------|-------------------------------------------------------------------------------------|----------|------------|
| <b>01</b> | VALVOLE DI BLOCCO PILOTATE A SEMPLICE EFFETTO<br>(SINGLE ACTING PILOT CHECK VALVES) |          | <b>VRP</b> |
| <b>02</b> | DIMENSIONE<br>(SIZE)                                                                | BSPP 3/8 | <b>380</b> |
|           |                                                                                     | BSPP 1/2 | <b>120</b> |

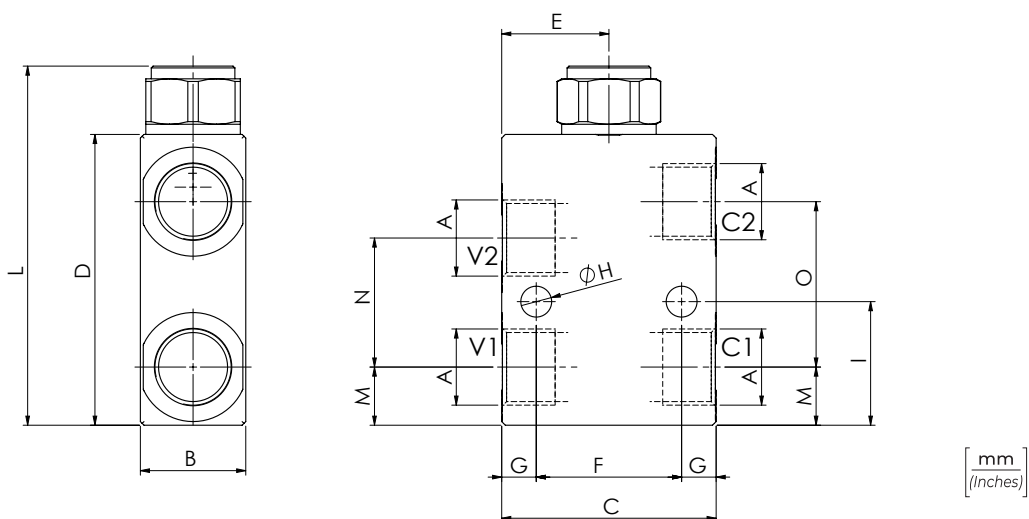
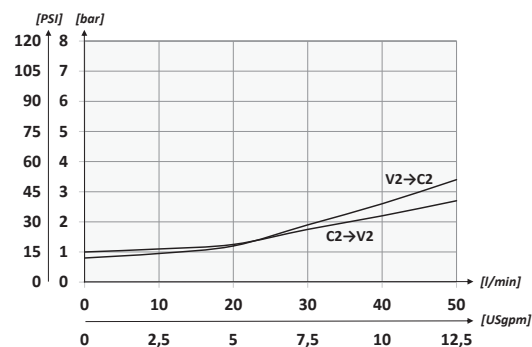
### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |                                          |        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------------------------------------|--------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |                                          |        |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |                                          |        |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |                                          |        |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C                               | -4°F                                     | +176°F |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C                               | -4°F                                     | +122°F |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |                                          |        |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 0,25 cm <sup>3</sup> /min - 5 gocce/min   | 0,015 in <sup>3</sup> /min - 5 drops/min |        |

### PERFORMANCES



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B         | C         | D        | E           | F         | G          | H          | I            | L         | M         | N            | O           | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt | RAPPORTO<br>DI PILOTAGGIO<br>PILOT RATIO |
|--------------|----------|----------------------------------------|------------------------------------------|-----------|-----------|----------|-------------|-----------|------------|------------|--------------|-----------|-----------|--------------|-------------|-------------------------------------------|------------------------------------------|
| VRP380       | BSPP 3/8 | 35 (9.2)                               | 350 (5075)                               | 29 (1.14) | 59 (2.32) | 80 (3.5) | 29,5 (1.16) | 40 (1.57) | 9,5 (0.37) | 8,5 (0.33) | 31,75 (1.25) | 99 (3.70) | 15 (0.59) | 33,50 (1.32) | 50 (1.97)   | 0,9 (2)                                   | 1:4                                      |
| VRP120       | BSPP 1/2 | 50 (13.2)                              |                                          |           |           |          |             |           |            |            | 34 (1.34)    |           | 16 (0.63) | 35,50 (1.40) | 45,5 (1.79) |                                           |                                          |

CODICE ORDINAZIONE  
ORDERING CODE

01

02

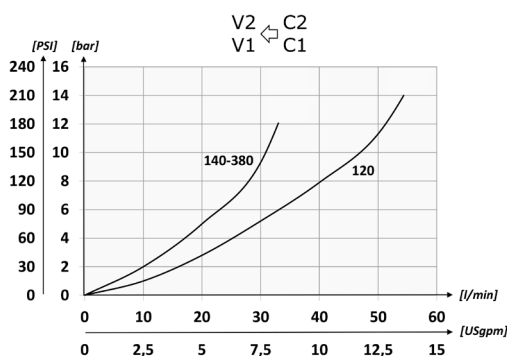
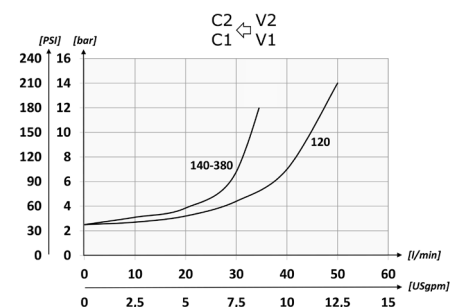
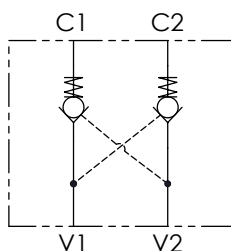
VRDL

| 01 | VALVOLE DI BLOCCO PILOTATE A DOPPIO EFFETTO<br>(DOUBLE ACTING PILOT CHECK VALVES) | VRDL     |
|----|-----------------------------------------------------------------------------------|----------|
| 02 | DIMENSIONE (SIZE)                                                                 | BSPP 1/4 |
|    |                                                                                   | BSPP 3/8 |
|    |                                                                                   | BSPP 1/2 |

140N  
380N  
120N

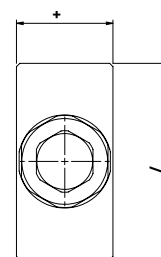
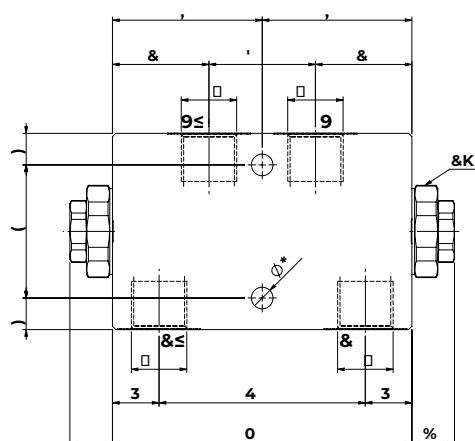
## PERFORMANCES

## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Olío idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14                             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |

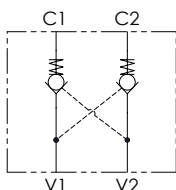
[ mm ]  
[ inches ]

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA<br>MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B              | C            | D            | E            | F              | G             | H            | I            | L            | M             | P              | Q            | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt | RAPPORTO<br>DI PILOTAGGIO<br>PILOT RATIO |
|--------------|----------|-------------------------------------------|------------------------------------------|----------------|--------------|--------------|--------------|----------------|---------------|--------------|--------------|--------------|---------------|----------------|--------------|-------------------------------------------|------------------------------------------|
| VRDL140N     | BSPP 1/4 | 35 (9.2)                                  | 350 (5075)                               | 13<br>(0.51)   | 29<br>(1.14) | 32<br>(1.26) | 40<br>(1.57) | 9,5<br>(0.37)  | 6,5<br>(0.26) | 29<br>(1.14) | 45<br>(1.77) | 59<br>(2.32) | 90<br>(3.54)  | 14<br>(0.55)   | 62<br>(2.44) | 1,18 (2.60)                               | 1:7                                      |
| VRDL380N     | BSPP 3/8 |                                           |                                          | 14,8<br>(0.58) | 38<br>(1.50) | 34<br>(1.34) |              | 14,5<br>(0.57) | 8,5<br>(0.33) | 34<br>(1.34) | 55<br>(2.17) | 69<br>(2.72) | 110<br>(4.33) | 20,5<br>(0.81) | 69<br>(2.72) | 1,10 (2.42)                               |                                          |
| VRDL120N     | BSPP 1/2 | 50 (13.2)                                 |                                          |                |              |              |              |                |               |              |              |              |               |                |              | 1,77 (3.90)                               |                                          |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

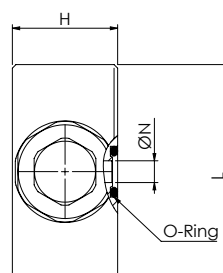
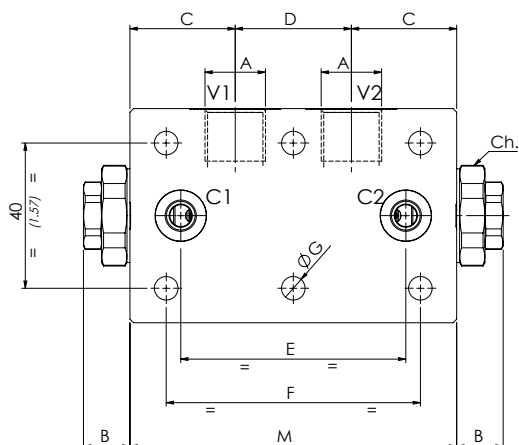
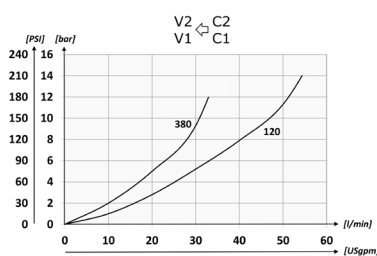
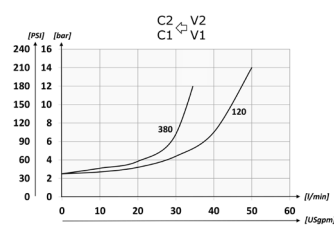
|                                                                                                                                                                                    |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Olivo idraulico - Mineral oil                                                                                                                                                      | ISO 6743/4 (DIN 51524)                                                              |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14                                                       |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                                             |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                                             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |

## CODICE ORDINAZIONE ORDERING CODE

|             |    |    |    |    |
|-------------|----|----|----|----|
| 01          | 02 | 03 | 04 | 05 |
| <b>VRDF</b> |    |    |    |    |

| 01 | VALVOLE DI BLOCCO FLANGIATA A DOPPIO EFFETTO<br>(DOUBLE ACTING PILOT CHECK VALVES - FLANGED VERSION) | VRDF                                              |
|----|------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| 02 | DIMENSIONE<br>(SIZE)                                                                                 | BSPP 3/8                                          |
|    |                                                                                                      | BSPP 1/2                                          |
| 03 | MOLLA<br>(SPRING)                                                                                    | 1 bar (14.5 PSI)                                  |
|    |                                                                                                      | 6 bar (87 PSI) Standard                           |
| 04 | O-RING SUL PISTONE<br>DI PILOTAGGIO<br>(O-RING ON<br>PILOT PISTON)                                   | Senza o-ring (without o-ring)                     |
|    |                                                                                                      | con o-ring (with o-ring)                          |
| 05 | RAPPORTO<br>DI PILOTAGGIO<br>(PILOT RATIO)                                                           | 1:3,2 solo per dimensione 120 (only for size 120) |
|    |                                                                                                      | 1:7                                               |

## PERFORMANCES



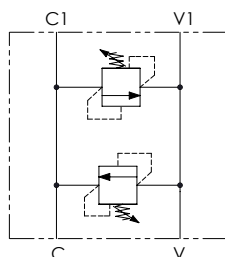
[ mm  
(Inches) ]

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

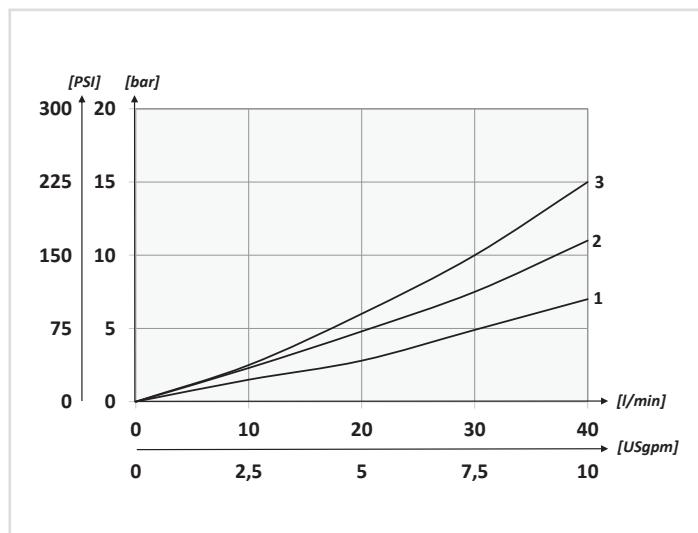
| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B              | C            | D            | E            | F            | G             | H            | L            | M             | N             | O-RING     | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt | RAPPORTO DI<br>PILOTAGGIO<br>PILOT RATIO |
|--------------|----------|----------------------------------------|------------------------------------------|----------------|--------------|--------------|--------------|--------------|---------------|--------------|--------------|---------------|---------------|------------|-------------------------------------------|------------------------------------------|
| VRDF380      | BSPP 3/8 | 35 (9.2)                               | 350<br>(5075)                            | 12,8<br>(0.50) | 29<br>(1.94) | 32<br>(1.26) | 62<br>(2.44) | 70<br>(2.76) | 6.5<br>(0.26) | 34<br>(1.34) | 59<br>(2.32) | 90<br>(3.54)  | Ø 6<br>(0.24) | 9,19x2,62  | 1,11 (2.44)                               | 1:7                                      |
| VRDF120      | BSPP 1/2 | 50 (13.2)                              |                                          | 14.8<br>(0.58) | 38<br>(1.50) | 34<br>(1.34) | 65<br>(2.56) | 80<br>(3.15) | 8.5<br>(0.33) |              | 69<br>(2.72) | 110<br>(4.33) | Ø 7<br>(0.28) | 15,08x2,62 | 1,85 (4)                                  | 1:3,2<br>1:7                             |



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



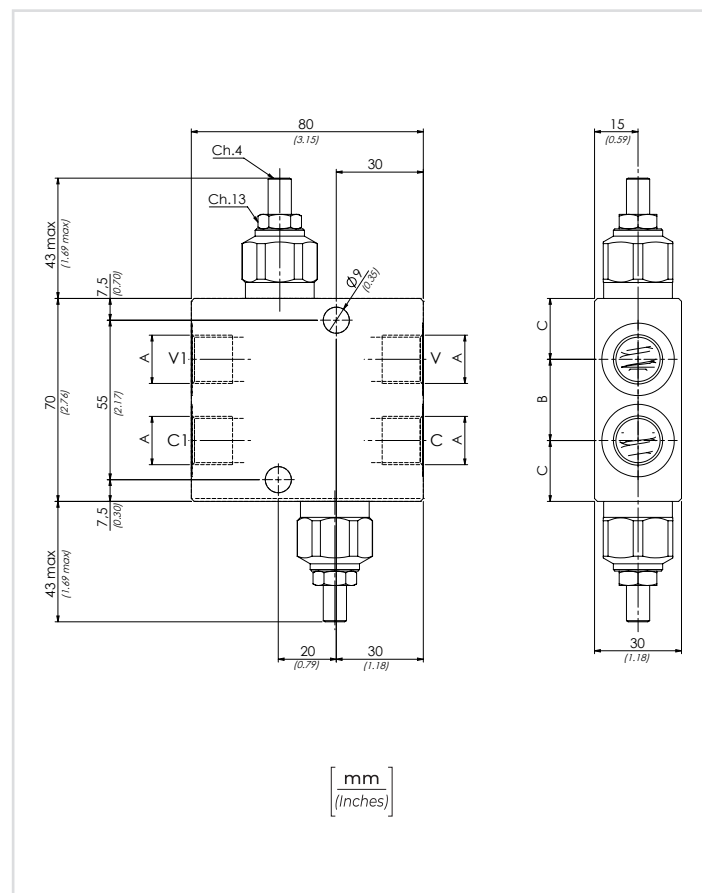
### PERFORMANCES



### DATI TECNICI / TECHNICAL DATA

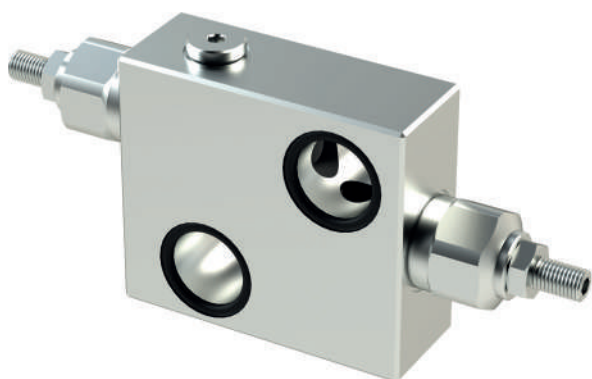
|                                                                                                                                                                                    |                                           |      |        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------|--------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |      |        |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |      |        |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |      |        |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C                               | -4°F | +176°F |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C                               | -4°F | +122°F |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |      |        |

| 01                        |                                                                                       | 02                                       | 03          |
|---------------------------|---------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>CODICE ORDINAZIONE</b> |                                                                                       | <b>VBDC</b>                              |             |
| <b>ORDERING CODE</b>      |                                                                                       |                                          |             |
| <b>01</b>                 | VALVOLE ANTIURTO DOPPIE INCROCIATE<br>(DOUBLE CROSS LINE DIRECT ACTING RELIEF VALVES) |                                          | <b>VBDC</b> |
| <b>02</b>                 | DIMENSIONE<br>(SIZE)                                                                  | BSPP 3/8                                 | <b>380</b>  |
|                           |                                                                                       | BSPP 1/2                                 | <b>120</b>  |
| <b>03</b>                 | MOLLA (SPRING)<br><b>10/90 bar</b> (145/1305 PSI)                                     | <b>12 bar/al giro</b><br>(174 PSI/turn)  | <b>1</b>    |
|                           | MOLLA (SPRING)<br><b>20/210 bar</b> (290/3045 PSI)                                    | <b>33 bar/al giro</b><br>(479 PSI/turn)  | <b>2</b>    |
|                           | MOLLA (SPRING)<br><b>70/350 bar</b> (1015/5075 PSI)                                   | <b>70 bar/al giro</b><br>(1015 PSI/turn) | <b>3</b>    |

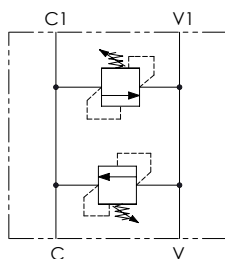


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B            | C              | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt | VALVOLA TIPO<br>TYPE OF VALVE |
|--------------|----------|----------------------------------------|------------------------------------------|--------------|----------------|----------------------------------------|-------------------------------|
| VBDC380      | BSPP 3/8 | 40 (10.6)                              | 350 (5075)                               | 28<br>(1.10) | 21<br>(0.83)   | 1,18<br>(2.60)                         | VMD405                        |
| VBDC120      | BSPP 1/2 |                                        |                                          | 33<br>(1.30) | 18,5<br>(0.73) | 1,12<br>(2.47)                         |                               |



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



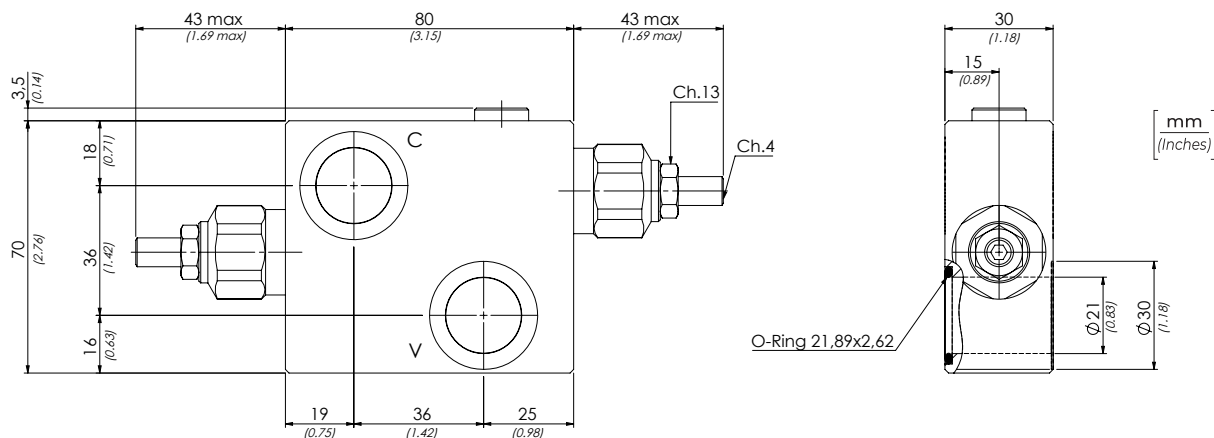
### CODICE ORDINAZIONE ORDERING CODE

| 01         | 02         | 03 |
|------------|------------|----|
| <b>DCV</b> | <b>120</b> |    |

| 01 | VALVOLE ANTIURTO DOPPIE INCROCIATE<br>(DOUBLE CROSS LINE DIRECT ACTING RELIEF VALVES) |                                   | DCV |
|----|---------------------------------------------------------------------------------------|-----------------------------------|-----|
| 02 | DIMENSIONE<br>(SIZE)                                                                  | Ø 21 (BSPP 1/2)                   | 120 |
| 03 | MOLLA (SPRING)<br>10/90 bar (145/1305 PSI)                                            | 12 bar/al giro<br>(174 PSI/turn)  | 1   |
|    | MOLLA (SPRING)<br>20/210 bar (290/3045 PSI)                                           | 33 bar/al giro<br>(479 PSI/turn)  | 2   |
|    | MOLLA (SPRING)<br>70/350 bar (1015/5075 PSI)                                          | 70 bar/al giro<br>(1015 PSI/turn) | 3   |

### DATI TECNICI / TECHNICAL DATA

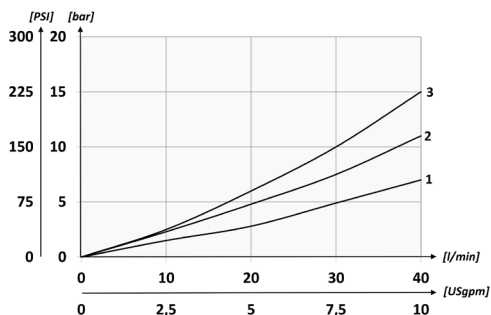
|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olío idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A                  | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PESO<br>APPROX<br>APPROX WEIGHT<br>kg-lbt | VALVOLA<br>TIPO<br>TYPE OF VALVE |
|--------------|--------------------|----------------------------------------|----------------------------------------|-------------------------------------------|----------------------------------|
| DCV120       | Ø 21<br>(BSPP 1/2) | 40 (10.6)                              | 350 (5075)                             | 1,2 (2.7)                                 | VMD40S                           |

### PERFORMANCES



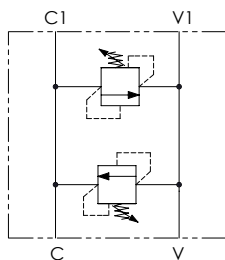


### CODICE ORDINAZIONE ORDERING CODE

| 01         | 02 | 03 |
|------------|----|----|
| <b>DCF</b> |    |    |

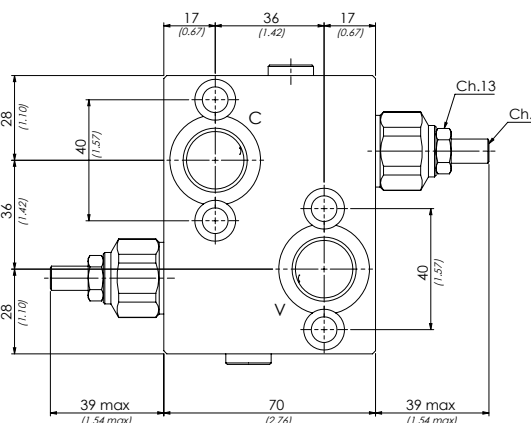
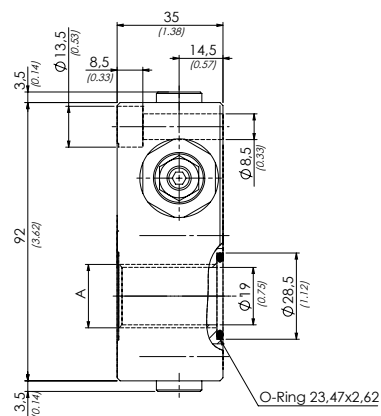
| 01 | VALVOLE ANTIURTO DOPPIE INCROCIATE<br>(DOUBLE CROSS LINE DIRECT ACTING RELIEF VALVES) |                                   | DCF |
|----|---------------------------------------------------------------------------------------|-----------------------------------|-----|
| 02 | DIMENSIONE<br>(SIZE)                                                                  | BSPP 1/2                          | 120 |
| 03 | MOLLA (SPRING)<br>10/40 bar (145/580 PSI)                                             | 12 bar/al giro<br>(174 PSI/turn)  | 1   |
|    | MOLLA (SPRING)<br>20/210 bar (290/3045 PSI)                                           | 33 bar/al giro<br>(479 PSI/turn)  | 2   |
|    | MOLLA (SPRING)<br>70/350 bar (1015/5075 PSI)                                          | 70 bar/al giro<br>(1015 PSI/turn) | 3   |

### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

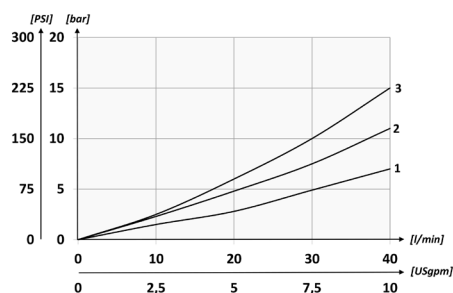


mm  
(Inches)

### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt | VALVOLA TIPO<br>TYPE<br>OF VALVE |
|--------------|----------|----------------------------------------|------------------------------------------|-------------------------------------------|----------------------------------|
| DCF120       | BSPP 1/2 | 40 (10.6)                              | 350 (5075)                               | 1,5 (3.3)                                 | VMD40S                           |

### PERFORMANCES



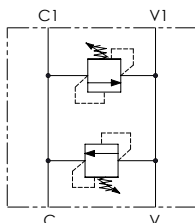


### CODICE ORDINAZIONE ORDERING CODE

| 01         | 02 | 03 |
|------------|----|----|
| <b>DCM</b> |    |    |

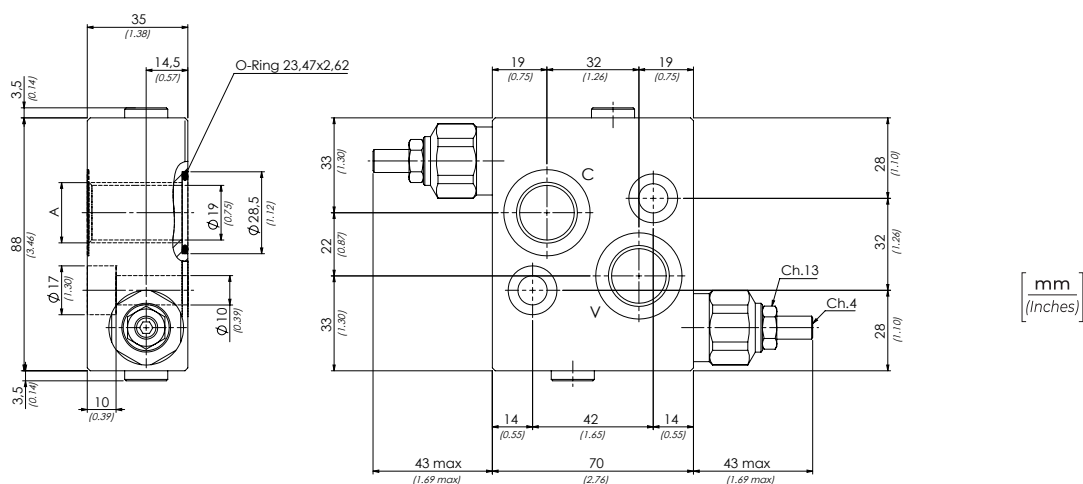
| 01 | VALVOLE ANTIURTO DOPPIE INCROCIATE<br>(DOUBLE CROSS LINE DIRECT ACTING RELIEF VALVES) |                                          | DCM      |
|----|---------------------------------------------------------------------------------------|------------------------------------------|----------|
| 02 | DIMENSIONE<br>(SIZE)                                                                  | BSPP 1/2                                 | 120      |
| 03 | MOLLA (SPRING)<br><b>10/40 bar</b> (145/580 PSI)                                      | <b>12 bar/al giro</b><br>(174 PSI/turn)  | <b>1</b> |
|    | MOLLA (SPRING)<br><b>20/210 bar</b> (290/3045 PSI)                                    | <b>33 bar/al giro</b><br>(479 PSI/turn)  | <b>2</b> |
|    | MOLLA (SPRING)<br><b>70/350 bar</b> (1015/5075 PSI)                                   | <b>70 bar/al giro</b><br>(1015 PSI/turn) | <b>3</b> |

### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

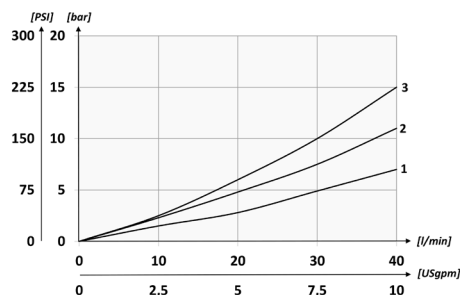
|                                                                                                                                                                                            |                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| <b>Olio idraulico - Mineral oil</b>                                                                                                                                                        | <b>ISO 6743/4 (DIN 51524)</b>        |
| <b>Viscosità olio - Oil viscosity</b>                                                                                                                                                      | <b>15-250 mm²/s (15 to 250 cSt)</b>  |
| <b>Classe di contaminazione max<br/>Max contamination index</b>                                                                                                                            | <b>ISO 4406:1999 Classe 19/17/14</b> |
| <b>Temperatura dell'olio - Oil temperature</b>                                                                                                                                             | <b>-20°C +80°C -4°F +176°F</b>       |
| <b>Temperatura ambiente - Environment temperature</b>                                                                                                                                      | <b>-20°C +50°C -4°F +122°F</b>       |
| <b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br/>It is necessary a filter use to protect the valve (advised filtration 15 µm)</b> |                                      |



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

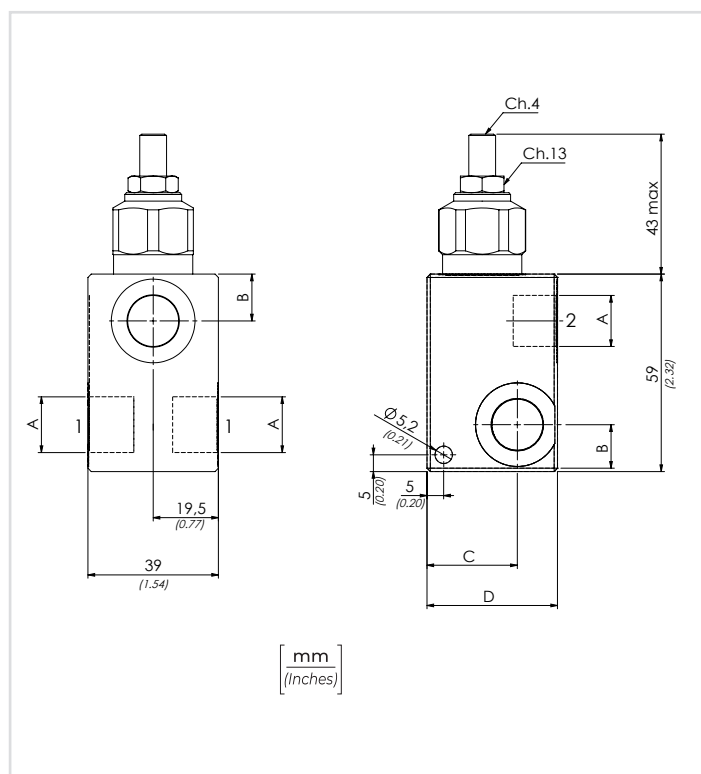
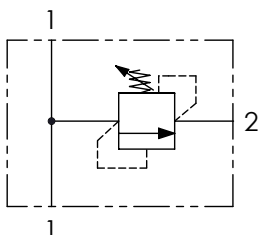
| TIPO<br>TYPE | A        | PORTATA<br>MAX<br>MAX FLOW<br>l/min-U-<br>Sgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt | VALVOLA<br>TIPO<br>TYPE<br>OF VALVE |
|--------------|----------|------------------------------------------------|------------------------------------------|-------------------------------------------|-------------------------------------|
| DCM120       | BSPP 1/2 | 40 (10.6)                                      | 350 (5075)                               | 1,45 (3.20)                               | VMD40S                              |

### PERFORMANCES





## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

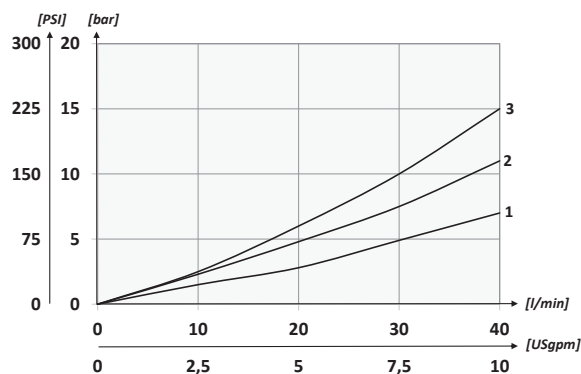


## CODICE ORDINAZIONE ORDERING CODE

| 01            | 02 | 03 | 04 |
|---------------|----|----|----|
| <b>VMDR40</b> |    |    |    |

| 01 | VALVOLE DI MASSIMA PRESSIONE DIRETTA IN LINEA<br>(DIRECT ACTING PRESSURE RELIEF VALVES) | VMDR40                                              |
|----|-----------------------------------------------------------------------------------------|-----------------------------------------------------|
| 02 | DIMENSIONE<br>(SIZE)                                                                    | BSPP 3/8                                            |
|    |                                                                                         | BSPP 1/2                                            |
| 03 | REGOLAZIONE<br>(SETTING)                                                                | Chiave (Screw)                                      |
|    |                                                                                         | Volantino (Handknob)<br>Tipo (Type) <b>81300109</b> |
| 04 | MOLLA (SPRING)<br><b>10/90 bar</b> (145/1305 PSI)                                       | <b>12 bar/al giro</b><br>(174 PSI/turn)             |
|    | MOLLA (SPRING)<br><b>20/210 bar</b> (290/3045 PSI)                                      | <b>33 bar/al giro</b><br>(479 PSI/turn)             |
|    | MOLLA (SPRING)<br><b>70/350 bar</b> (1015/5075 PSI)                                     | <b>70 bar/al giro</b><br>(1015 PSI/turn)            |

## PERFORMANCES



## DATI TECNICI / TECHNICAL DATA

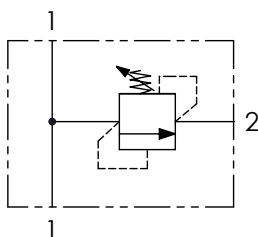
|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

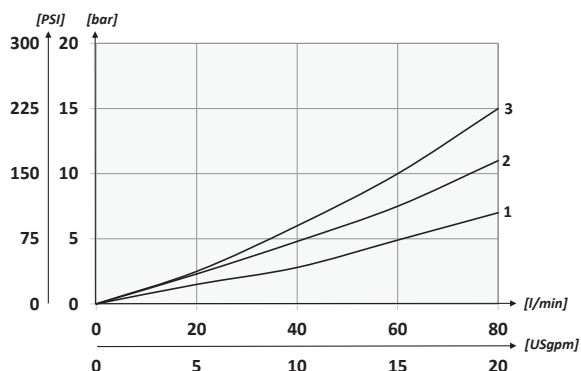
| TIPO<br>TYPE | A        | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | B         | C           | D         | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|--------------|----------|-----------------------------------------|-------------------------------------------|-----------|-------------|-----------|-----------------------------------------|
| VMDR40380    | BSPP 3/8 | 40 (10.6)                               | 350 (5075)                                | 14 (0.55) | 27 (1.06)   | 39 (1.54) | 0,64 (1.39)                             |
| VMDR40120    | BSPP 1/2 |                                         |                                           | 15 (0.59) | 29,5 (1.16) | 45 (1.77) | 0,69 (1.50)                             |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PERFORMANCES



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

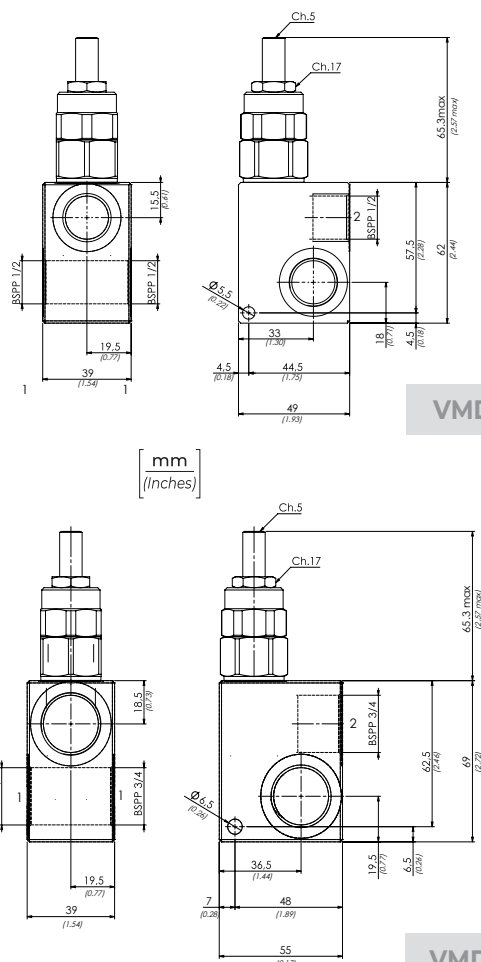
## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lb) |
|--------------|-----------------------------------------|-------------------------------------------|----------------------------------------|
| VMDR90120    | 80 (21.1)                               | 350 (5075)                                | 0,65 (1.43)                            |
| VMDR90340    |                                         |                                           | 1 (2.2)                                |

## CODICE ORDINAZIONE ORDERING CODE

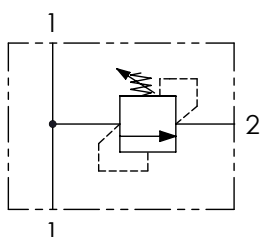
|        |    |    |    |
|--------|----|----|----|
| 01     | 02 | 03 | 04 |
| VMDR90 |    |    |    |

|    |                                                                                         |                                              |
|----|-----------------------------------------------------------------------------------------|----------------------------------------------|
| 01 | VALVOLE DI MASSIMA PRESSIONE DIRETTA IN LINEA<br>(DIRECT ACTING PRESSURE RELIEF VALVES) | VMDR90                                       |
| 02 | DIMENSIONE<br>(SIZE)                                                                    | BSPP 1/2                                     |
|    |                                                                                         | BSPP 3/4                                     |
| 03 | REGOLAZIONE<br>(SETTING)                                                                | Chiave (Screw)                               |
|    |                                                                                         | Volantino (Handknob)<br>Tipo (Type) 81300023 |
| 04 | MOLLA (SPRING)<br>10/100 bar (145/1450 PSI)                                             | 1                                            |
|    | MOLLA (SPRING)<br>20/250 bar (290/3625 PSI)                                             | 2                                            |
|    | MOLLA (SPRING)<br>50/350 bar (725/5075 PSI)                                             | 3                                            |

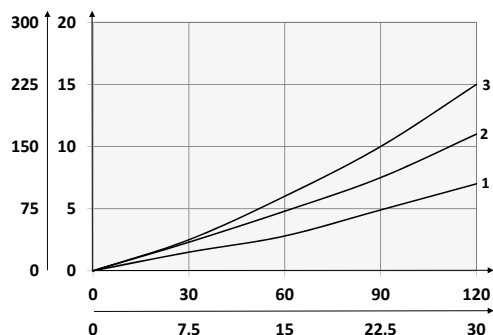




## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PERFORMANCES



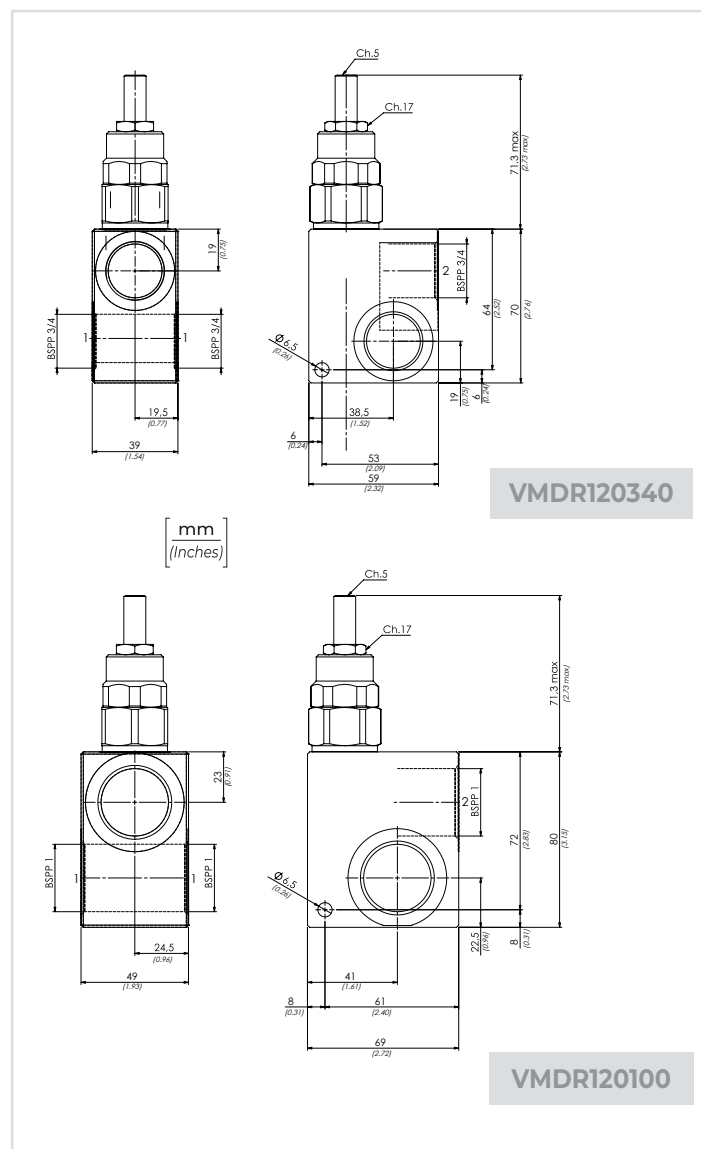
## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Oil idraulico - Mineral oil                                                                                                                                                        | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

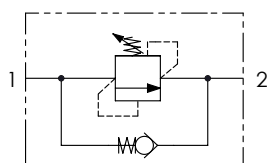
| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lb) |
|--------------|-----------------------------------------|-------------------------------------------|----------------------------------------|
| VMDR120340   | 120 (31.7)                              | 350 (5075)                                | 1,1 (2.42)                             |
| VMDR120100   |                                         |                                           | 1,7 (3.74)                             |

|                                                   | 01                                                                                      | 02                                                  | 03         | 04             |
|---------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------|------------|----------------|
| <b>CODICE ORDINAZIONE</b><br><b>ORDERING CODE</b> | <b>VMDR120</b>                                                                          |                                                     |            |                |
| <b>01</b>                                         | VALVOLE DI MASSIMA PRESSIONE DIRETTA IN LINEA<br>(DIRECT ACTING PRESSURE RELIEF VALVES) |                                                     |            | <b>VMDR120</b> |
| <b>02</b>                                         | DIMENSIONE<br>(SIZE)                                                                    | BSPP 3/4                                            | <b>340</b> |                |
|                                                   |                                                                                         | BSPP 1                                              | <b>100</b> |                |
| <b>03</b>                                         | REGOLAZIONE<br>(SETTING)                                                                | Chiave (Screw)                                      | <b>C</b>   |                |
|                                                   |                                                                                         | Volantino (Handknob)<br>Tipo (Type) <b>81300023</b> | <b>V</b>   |                |
| <b>04</b>                                         | MOLLA (SPRING)<br><b>10/100 bar (145/1450 PSI)</b>                                      | <b>21 bar/al giro</b><br>(305 PSI/turn)             | <b>1</b>   |                |
|                                                   | MOLLA (SPRING)<br><b>20/250 bar (290/3625 PSI)</b>                                      | <b>48 bar/al giro</b><br>(696 PSI/turn)             | <b>2</b>   |                |
|                                                   | MOLLA (SPRING)<br><b>40/350 bar (580/5075 PSI)</b>                                      | <b>55 bar/al giro</b><br>(798 PSI/turn)             | <b>3</b>   |                |





### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

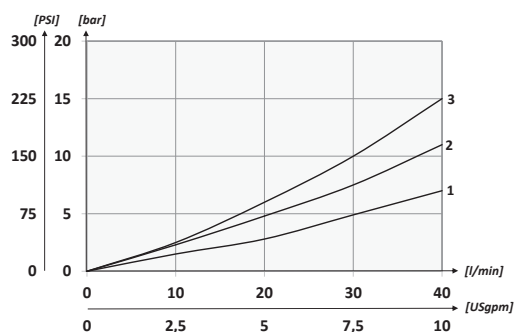


### CODICE ORDINAZIONE ORDERING CODE

| 01         | 02 | 03 |
|------------|----|----|
| <b>VSL</b> |    |    |

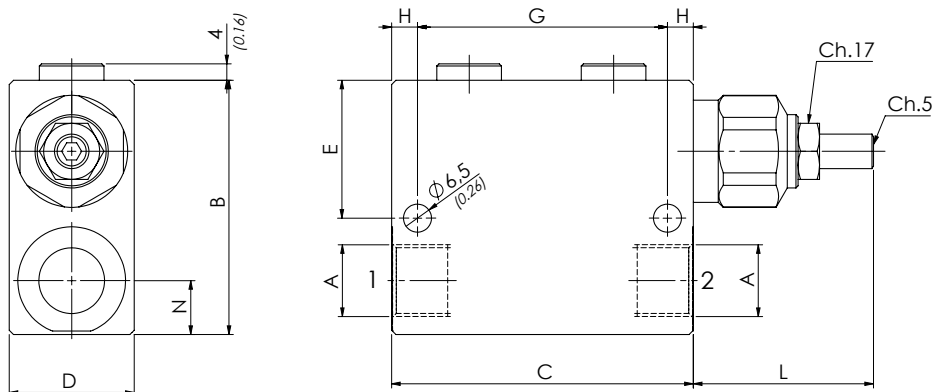
| 01 | VALVOLE DI SEQUENZA DIRETTE<br>(IN-LINE DIRECT SEQUENCE VALVES) |                                  | VSL |
|----|-----------------------------------------------------------------|----------------------------------|-----|
| 02 | DIMENSIONE<br>(SIZE)                                            | BSPP 1/4                         | 140 |
|    |                                                                 | BSPP 3/8                         | 380 |
|    |                                                                 | BSPP 1/2                         | 120 |
| 03 | MOLLA (SPRING)<br>10/90 bar<br>(145/1305 PSI) max               | 12 bar/al giro<br>(174 PSI/turn) | 1   |
|    | MOLLA (SPRING)<br>20/210 bar<br>(290/3045 PSI) max              | 30 bar/al giro<br>(435 PSI/turn) | 2   |
|    | MOLLA (SPRING)<br>70/350 bar<br>(1015/5075 PSI) max             | 65 bar/al giro<br>(943 PSI/turn) | 3   |

### PERFORMANCES



### DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                                                             |                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                                                                | ISO 6743/4 (DIN 51524)        |
| Viscosità olio - Oil viscosity                                                                                                                                                                                              | 15-250 mm²/s (15 to 250 cSt)  |
| Classe di contaminazione max<br>Max contamination index                                                                                                                                                                     | ISO 4406:1999 Classe 19/17/14 |
| Temperatura dell'olio - Oil temperature                                                                                                                                                                                     | -20°C +80°C -4°F +176°F       |
| Temperatura ambiente - Environment temperature                                                                                                                                                                              | -20°C +50°C -4°F +122°F       |
| È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)<br>A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm) |                               |

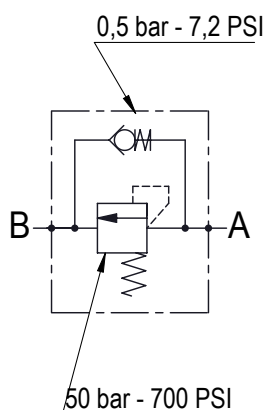


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

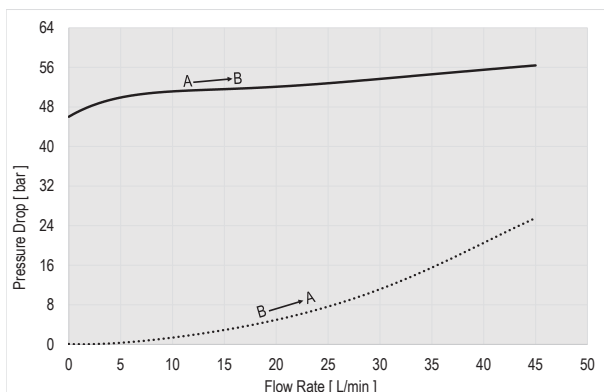
| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | mm - inch |           |           |             |           |           |           |           |            | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt |
|--------------|----------|----------------------------------------|------------------------------------------|-----------|-----------|-----------|-------------|-----------|-----------|-----------|-----------|------------|-------------------------------------------|
|              |          |                                        |                                          | B         | C         | D         | E           | G         | L         | N         | H         | P          |                                           |
| VSL140       | BSPP 1/4 | 20 (5.3)                               | 350 (5075)                               | 60 (2.36) | 60 (0.98) | 25 (0.98) | 35.5 (1.40) | 49 (1.93) | 53 (2.09) | 12 (0.47) | 20 (0.79) | 5.5 (0.22) | 0,72 (1.58)                               |
| VSL380       | BSPP 3/8 | 40 (10.6)                              |                                          |           | 70 (2.76) | 30 (1.18) | 32.5 (1.28) | 58 (2.28) | 43 (1.69) | 13 (0.51) | 17 (0.67) | 6.5 (0.26) | 0,89 (1.96)                               |
| VSL120       | BSPP 1/2 |                                        |                                          | 35 (1.38) |           |           | 17 (0.67)   |           |           | 1 (2.21)  |           |            |                                           |

CODICE ORDINAZIONE  
ORDERING CODE

## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PERFORMANCES



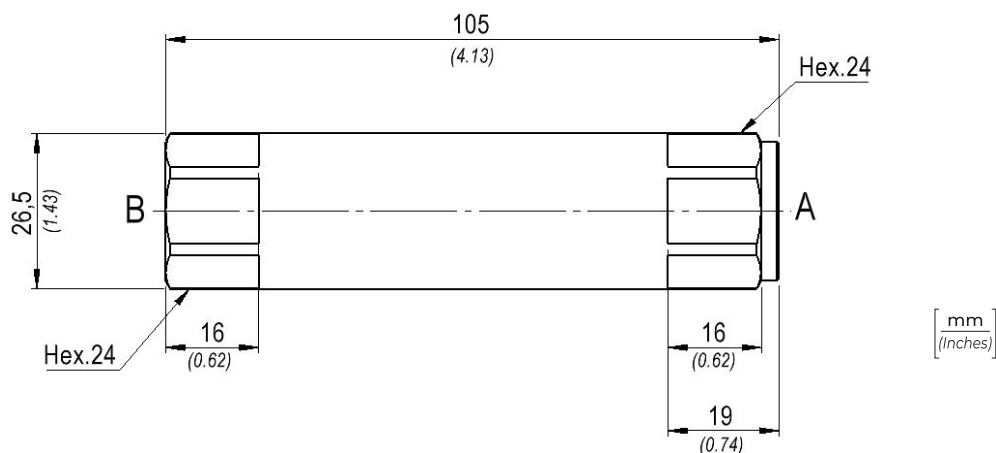
| 01   | 02  | 03 |  |  |
|------|-----|----|--|--|
| VSLH | 380 |    |  |  |

| 01 | VALVOLE DI SEQUENZA DIRETTE A TARATURA FISSA<br>(IN-LINE SEQUENCE VALVES FIXED SETTING) |                       |  | VSLH |
|----|-----------------------------------------------------------------------------------------|-----------------------|--|------|
| 02 | DIMENSIONE<br>(SIZE)                                                                    | 3/8                   |  | 380  |
| 03 | FILETTATURA<br>(THREAD)                                                                 | BSPP 3/8              |  | G    |
|    |                                                                                         | NPTF 3/8              |  | F    |
| 04 | TARATURA SEQUENZA<br>(SETTING SEQUENCE)                                                 | 50 bar*<br>(725 PSI)  |  | 50   |
| 05 | PRESSIONE DI APERTURA<br>(CHECK VALVE CRACKING PRESSURE)                                | 0.5 bar<br>(7.25 PSI) |  | 05   |

\* PER TARATURE DIFFERENTI DALLO STD CONTATTARE UFFICIO COMMERCIALE  
(FOR DIFFERENT SETTING OPTIONS CONTACT OUR CUSTOMER CARE)

## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                                                             |                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                                                                | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                                                              | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                                                                     | ISO 4406:1999 Classe 18/16/13             |
| Temperatura dell'olio - Oil temperature                                                                                                                                                                                     | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                                                              | -20°C +50°C -4°F +122°F                   |
| È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)<br>A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm) |                                           |



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE   | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | ATTACCHI A-B<br>PORTS A-B |
|----------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|---------------------------|
| VSLH380G50-0,5 | 45 (12)                                 | 350 (5075)                                | 0,35 (0.77)                             | BSPP 3/8                  |
| VSLH380F50-0,5 |                                         |                                           |                                         | NPTF 3/8                  |

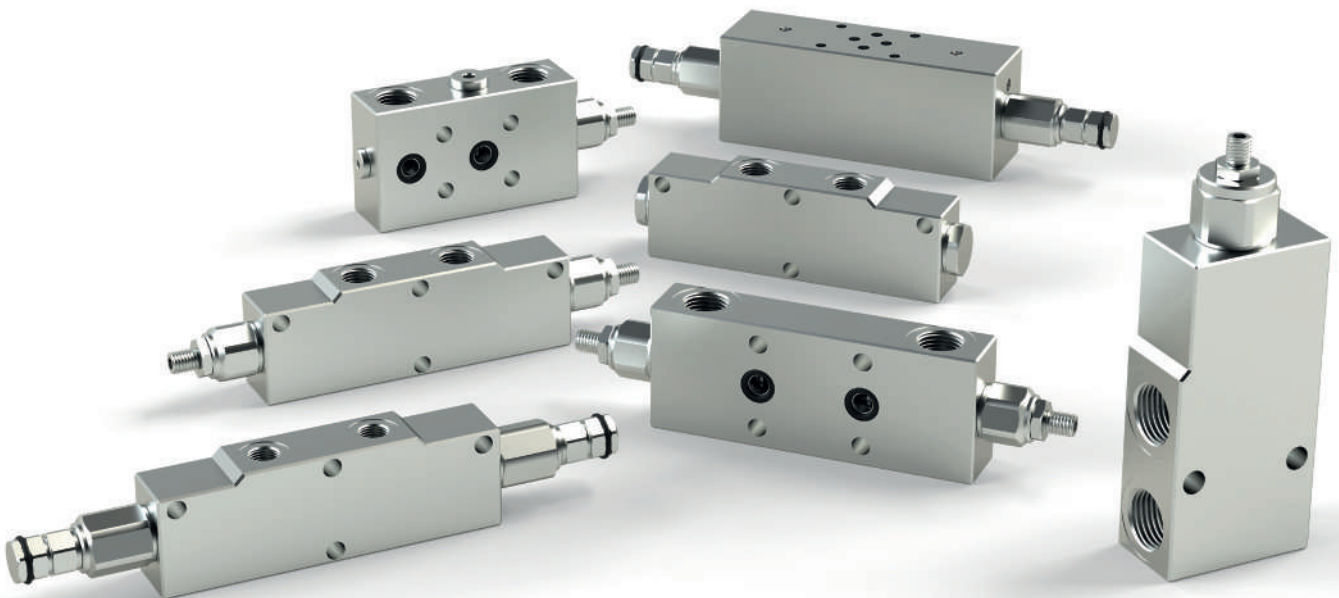


# VALVOLE DI BILANCIAMENTO

## COUNTERBALANCE VALVES

La gamma di valvole di bilanciamento OLEOWEB comprende soluzioni per installazioni in linea o flangiata o con bullone banjo su cilindro a motore, con bocche filettate BSPP-GAS o SAE UNF, e per installazioni su sistemi a centro aperto (non compensate) e a centro chiuso (semi-compensate).

The range of Oleoweb's Overcenter valves includes solutions for in-line installations, flanged or with banjo bolt, with BSP-P-GAS or UNF-SAE threaded parts, and for installation on open center (not compensated) or closed center (semi-compensated) systems.

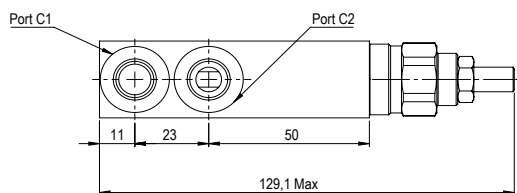
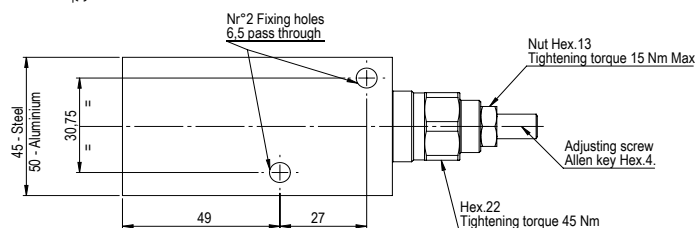
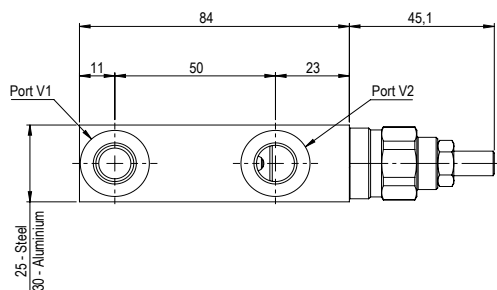
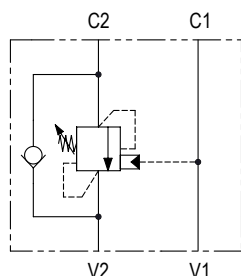


**CODICE ORDINAZIONE**  
ORDERING CODE

|             |          |    |    |    |           |    |             |
|-------------|----------|----|----|----|-----------|----|-------------|
| 01          | 02       | 03 | 04 | 05 | 06        | 07 | 08          |
| <b>B03S</b> | <b>N</b> |    |    |    | <b>L1</b> |    | <b>G140</b> |



**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

|                                                         |                                           |             |  |
|---------------------------------------------------------|-------------------------------------------|-------------|--|
| olio idraulico - Mineral oil                            | ISO 6743/4 (DIN 51524)                    |             |  |
| Viscosità olio - Oil viscosity                          | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |             |  |
| Classe di contaminazione max<br>Max contamination index | ISO 4406:1999 Classe 18/16/13             |             |  |
| Temperatura dell'olio - Oil temperature                 | -20°C +80°C                               | -4°F +176°F |  |
| Temperatura ambiente - Environment temperature          | -20°C +50°C                               | -4°F +122°F |  |

È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)

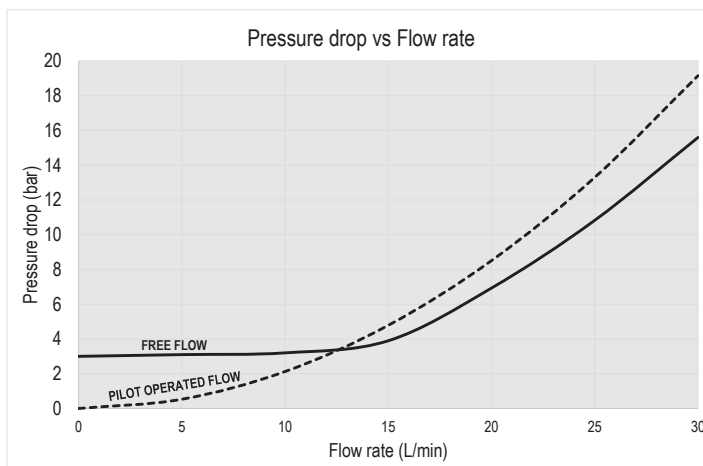
|                                                         |                                                                                     |
|---------------------------------------------------------|-------------------------------------------------------------------------------------|
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |
|---------------------------------------------------------|-------------------------------------------------------------------------------------|

|    |                                                                                                            |                                                                                                                                                                    |      |
|----|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 01 | VALVOLE DI BILANCIAMENTO SINGOLE<br>PER CENTRO APERTO<br>(SINGLE COUNTERBALANCE VALVES<br>FOR OPEN CENTER) |                                                                                                                                                                    | B03S |
| 02 | VERSIONE<br>(VERSION)                                                                                      | Non Compensata<br>(Not Compensated)                                                                                                                                | N    |
| 03 | CAMPO DI TARATURA<br>(SETTING RANGE)                                                                       | Campo di Taratura (setting range)<br><b>60 ÷ 210 bar</b> (870 ÷ 3045 PSI)<br>Taratura standard (Std. setting) *<br><b>210 bar @ 5 l/min</b> (3045 PSI @ 1.3 gpm)   | 1    |
|    |                                                                                                            | Campo di Taratura (setting range)<br><b>100 ÷ 350 bar</b> (1450 ÷ 5075 PSI)<br>Taratura standard (Std. setting) *<br><b>350 bar @ 5 l/min</b> (5075 PSI @ 1.3 gpm) | 2    |
| 04 | RAPPORTO DI PILOTAGGIO<br>(PILOT RATIO)                                                                    | Rp 4:1<br><b>56 bar/al giro (Taratura std. a 210 bar)</b><br>(797 PSI/turn -std. Setting at 210 bar)                                                               | 4    |
|    |                                                                                                            | Rp 4:1<br><b>116 bar/al giro (Taratura std. a 350 bar)</b><br>(1785 PSI/turn - std.Setting at 350 bar)                                                             |      |
|    |                                                                                                            | Rp 8:1<br><b>114 bar/al giro</b><br>(1653 PSI/turn)                                                                                                                | 8    |
|    |                                                                                                            | Rp 11,5:1<br><b>153 bar/al giro</b><br>(2219 PSI/turn)                                                                                                             | A    |
| 05 | GUARNIZIONI<br>(GASKETS)                                                                                   | NBR                                                                                                                                                                | B    |
|    |                                                                                                            | VITON                                                                                                                                                              | V    |
| 06 | CORPO<br>(BODY)                                                                                            | Single Acting                                                                                                                                                      | L1   |
| 07 | MATERIALE<br>(MATERIAL)                                                                                    | Acciaio + Zincatura<br>(Steel + Zinc-plating)                                                                                                                      | S    |
|    |                                                                                                            | Acciaio + Zinco-nichel<br>(Steel + Zinc-nickel)                                                                                                                    | K    |
|    |                                                                                                            | Alluminio<br>(Aluminum)                                                                                                                                            | A    |
| 08 | ATTACCHI<br>(PORTS)                                                                                        | BSPP 1/4                                                                                                                                                           | G140 |

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300037**

\* PER TARATURE DIFFERENTI DALLO STD CONTATTARE UFFICIO COMMERCIALE  
(FOR DIFFERENT SETTING OPTIONS CONTACT OUR CUSTOMER CARE)

**PERFORMANCES**

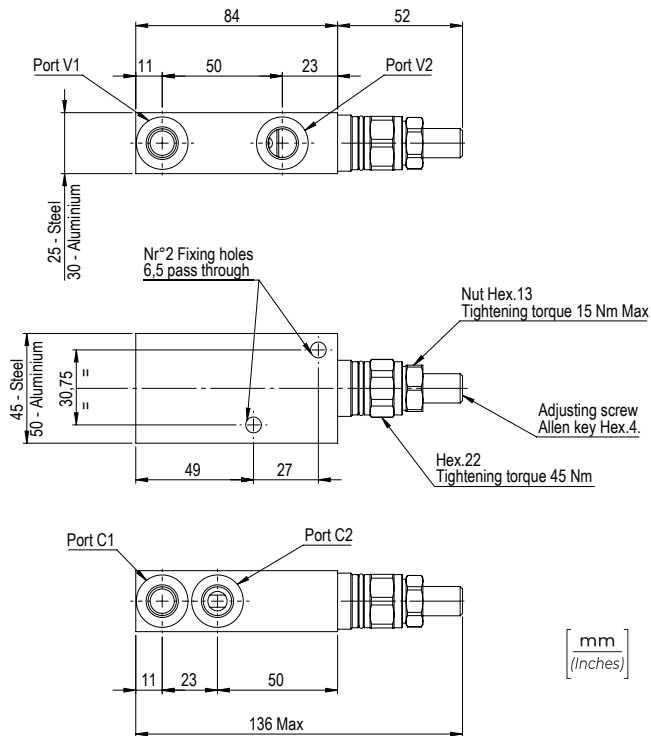
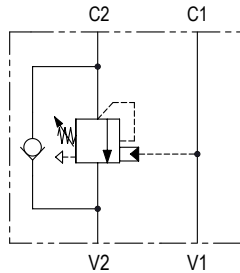


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE    | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|-----------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|
| <b>B03SN-L1</b> | <b>30</b> (7.9)                         | <b>350</b> (5075)                         | <b>0,7</b> (1.5.4)                      |

CODICE ORDINAZIONE  
ORDERING CODE

## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                         |                               |
|---------------------------------------------------------|-------------------------------|
| Olio idraulico - Mineral oil                            | ISO 6743/4 (DIN 51524)        |
| Viscosità olio - Oil viscosity                          | 15-250 mm²/s (15 to 250 cSt)  |
| Classe di contaminazione max<br>Max contamination index | ISO 4406:1999 Classe 18/16/13 |
| Temperatura dell'olio - Oil temperature                 | -20°C +80°C -4°F +176°F       |
| Temperatura ambiente - Environment temperature          | -20°C +50°C -4°F +122°F       |

È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)

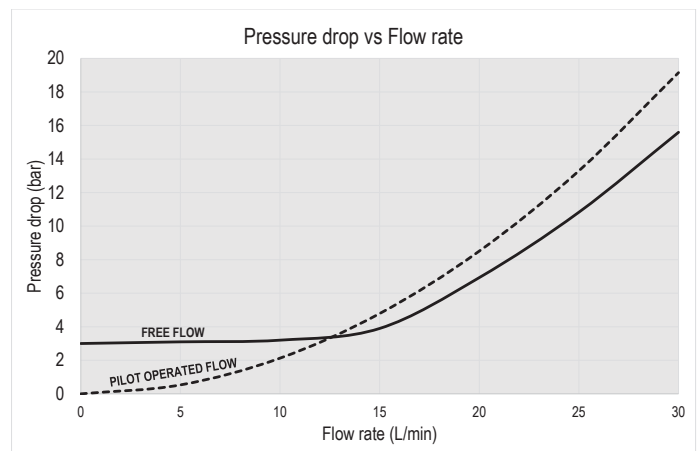
Trafilamento@46cSt & 200 bar 0,25 cm³/min - 5 gocce/min  
Leakage@46cSt & 200 bar 0,015 in³/min - 5 drops/min

| 01          | 02                                                                                                     | 03                                                                                                                                                                 | 04 | 05 | 06        | 07 | 08          |
|-------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|-----------|----|-------------|
| <b>B03S</b> | <b>C</b>                                                                                               |                                                                                                                                                                    |    |    | <b>L1</b> |    | <b>G140</b> |
| <b>01</b>   | VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO CHIUSO<br>(SINGLE COUNTERBALANCE VALVES FOR CLOSED CENTER) |                                                                                                                                                                    |    |    |           |    | <b>B03S</b> |
| <b>02</b>   | VERSIONE<br>(VERSION)                                                                                  | Compensata<br>(Compensated)                                                                                                                                        |    |    |           |    | <b>C</b>    |
| <b>03</b>   | CAMPO DI TARATURA<br>(SETTING RANGE)                                                                   | Campo di Taratura (setting range)<br><b>60 ÷ 210 bar</b> (870 ÷ 3045 PSI)<br>Taratura standard (Std. setting) *<br><b>210 bar @ 5 l/min</b> (3045 PSI @ 1.3 gpm)   |    |    |           |    | <b>1</b>    |
|             |                                                                                                        | Campo di Taratura (setting range)<br><b>100 ÷ 350 bar</b> (1450 ÷ 5075 PSI)<br>Taratura standard (Std. setting) *<br><b>350 bar @ 5 l/min</b> (5075 PSI @ 1.3 gpm) |    |    |           |    | <b>2</b>    |
| <b>04</b>   | RAPPORTO DI PILOTAGGIO<br>(PILOT RATIO)                                                                | Rp 4:1<br><b>56 bar/al giro (Taratura std. a 210 bar)</b><br>(797 PSI/turn -std. Setting at 210 bar)                                                               |    |    |           |    | <b>4</b>    |
|             |                                                                                                        | Rp 4:1<br><b>116 bar/al giro (Taratura std. a 350 bar)</b><br>(1785 PSI/turn - std. Setting at 350 bar)                                                            |    |    |           |    | <b>8</b>    |
|             |                                                                                                        | Rp 8:1<br><b>114 bar/al giro</b><br>(1653 PSI/turn)                                                                                                                |    |    |           |    | <b>A</b>    |
|             |                                                                                                        | Rp 11,5:1<br><b>153 bar/al giro</b><br>(2219 PSI/turn)                                                                                                             |    |    |           |    | <b>B</b>    |
| <b>05</b>   | GUARNIZIONI<br>(GASKETS)                                                                               | NBR                                                                                                                                                                |    |    |           |    | <b>V</b>    |
| <b>06</b>   | CORPO<br>(BODY)                                                                                        | Single Acting                                                                                                                                                      |    |    |           |    | <b>L1</b>   |
| <b>07</b>   | MATERIALE<br>(MATERIAL)                                                                                | Acciaio + Zincatura<br>(Steel + Zinc-plating)                                                                                                                      |    |    |           |    | <b>S</b>    |
|             |                                                                                                        | Acciaio + Zinco-nichel<br>(Steel + Zinc-nickel)                                                                                                                    |    |    |           |    | <b>K</b>    |
|             |                                                                                                        | Alluminio<br>(Aluminum)                                                                                                                                            |    |    |           |    | <b>A</b>    |
| <b>08</b>   | ATTACCHI<br>(PORTS)                                                                                    | BSPP 1/4                                                                                                                                                           |    |    |           |    | <b>G140</b> |

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300120**

\* PER TARATURE DIFFERENTI DALLO STD CONTATTARE UFFICIO COMMERCIALE  
(FOR DIFFERENT SETTING OPTIONS CONTACT OUR CUSTOMER CARE)

## PERFORMANCES

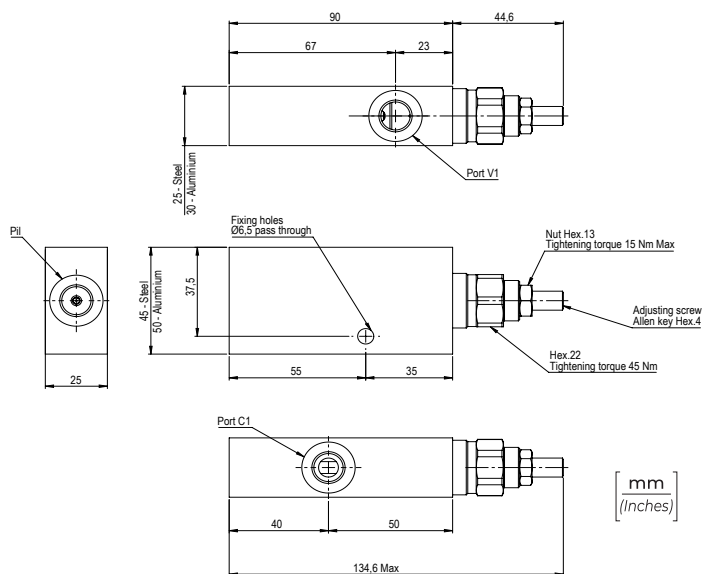
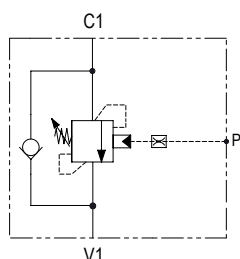


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE    | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|-----------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|
| <b>B03SC-L1</b> | <b>30</b> (7.9)                         | <b>350</b> (5075)                         | <b>0,7</b> (15.4)                       |

CODICE ORDINAZIONE  
ORDERING CODE

## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                         |                                           |
|---------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                            | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                          | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index | ISO 4406:1999 Classe 18/16/13             |
| Temperatura dell'olio - Oil temperature                 | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature          | -20°C +50°C -4°F +122°F                   |

È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)

Trafilamento@46cSt & 200 bar 0,25 cm<sup>3</sup>/min - 5 gocce/min  
Leakage@46cSt & 200 bar 0,015 in<sup>3</sup>/min - 5 drops/min

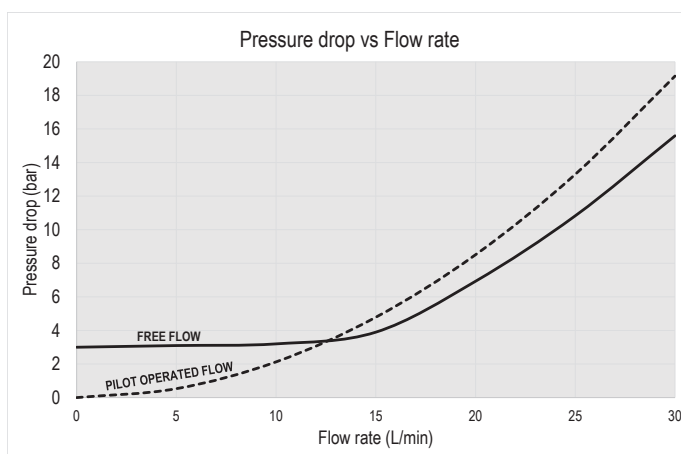
|      |    |    |    |    |    |    |      |
|------|----|----|----|----|----|----|------|
| 01   | 02 | 03 | 04 | 05 | 06 | 07 | 08   |
| B03S | N  |    |    |    | P1 |    | G140 |

|    |                                                                                                            |                                                                                                                                                                    |      |
|----|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 01 | VALVOLE DI BILANCIAMENTO SINGOLE<br>PER CENTRO APERTO<br>(SINGLE COUNTERBALANCE VALVES<br>FOR OPEN CENTER) |                                                                                                                                                                    | B03S |
| 02 | VERSIONE<br>(VERSION)                                                                                      | Non Compensata<br>(Not Compensated)                                                                                                                                | N    |
| 03 | CAMPO DI TARATURA<br>(SETTING RANGE)                                                                       | Campo di Taratura (setting range)<br><b>60 ÷ 210 bar</b> (870 ÷ 3045 PSI)<br>Taratura standard (Std. setting) *<br><b>210 bar @ 5 l/min</b> (3045 PSI @ 1.3 gpm)   | 1    |
|    |                                                                                                            | Campo di Taratura (setting range)<br><b>100 ÷ 350 bar</b> (1450 ÷ 5075 PSI)<br>Taratura standard (Std. setting) *<br><b>350 bar @ 5 l/min</b> (5075 PSI @ 1.3 gpm) | 2    |
| 04 | RAPPORTO DI PILOTAGGIO<br>(PILOT RATIO)                                                                    | Rp 4:1<br><b>56 bar/al giro (Taratura std. a 210 bar)</b><br>(797 PSI/turn - std. Setting at 210 bar)                                                              | 4    |
|    |                                                                                                            | Rp 4:1<br><b>116 bar/al giro (Taratura std. a 350 bar)</b><br>(1785 PSI/turn - std. Setting at 350 bar)                                                            |      |
|    |                                                                                                            | Rp 8:1<br><b>114 bar/al giro</b><br>(1653 PSI/turn)                                                                                                                | 8    |
|    |                                                                                                            | Rp 11,5:1<br><b>153 bar/al giro</b><br>(2219 PSI/turn)                                                                                                             | A    |
| 05 | GUARNIZIONI<br>(GASKETS)                                                                                   | NBR                                                                                                                                                                | B    |
|    |                                                                                                            | VITON                                                                                                                                                              | V    |
| 06 | CORPO<br>(BODY)                                                                                            | Single Acting with Pil                                                                                                                                             | P1   |
| 07 | MATERIALE<br>(MATERIAL)                                                                                    | Acciaio + Zincatura<br>(Steel + Zinc-plating)                                                                                                                      | S    |
|    |                                                                                                            | Acciaio + Zinco-nichel<br>(Steel + Zinc-nickel)                                                                                                                    | K    |
|    |                                                                                                            | Alluminio<br>(Aluminum)                                                                                                                                            | A    |
| 08 | ATTACCHI<br>(PORTS)                                                                                        | BSPP 1/4                                                                                                                                                           | G140 |

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300120**

\* PER TARATURE DIFFERENTI DALLO STD CONTATTARE UFFICIO COMMERCIALE  
(FOR DIFFERENT SETTING OPTIONS CONTACT OUR CUSTOMER CARE)

## PERFORMANCES

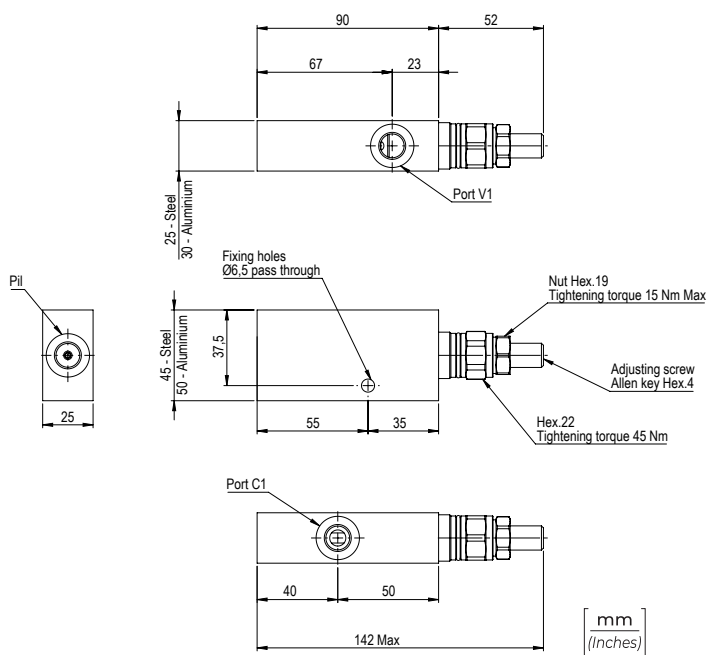
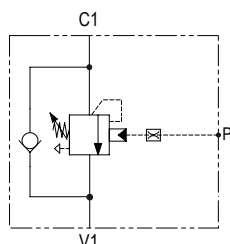


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|--------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|
| B03SN-P1     | 30 (7.9)                                | 350 (5075)                                | 0,7 (15.4)                              |

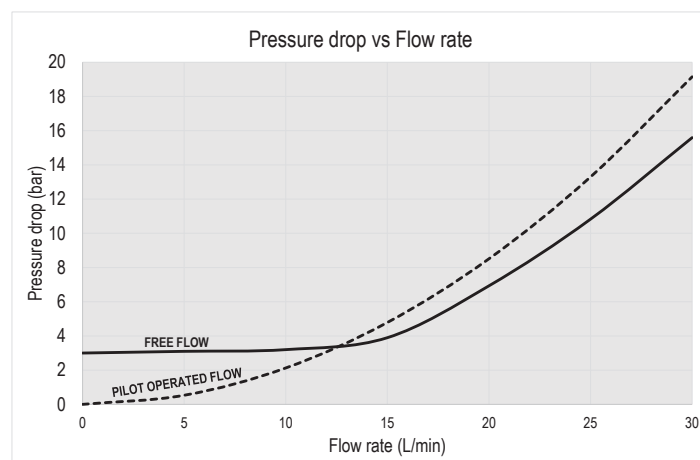
**CODICE ORDINAZIONE**  
ORDERING CODE

|             |          |    |    |    |           |    |             |
|-------------|----------|----|----|----|-----------|----|-------------|
| 01          | 02       | 03 | 04 | 05 | 06        | 07 | 08          |
| <b>B03S</b> | <b>C</b> |    |    |    | <b>P1</b> |    | <b>G140</b> |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT****DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |

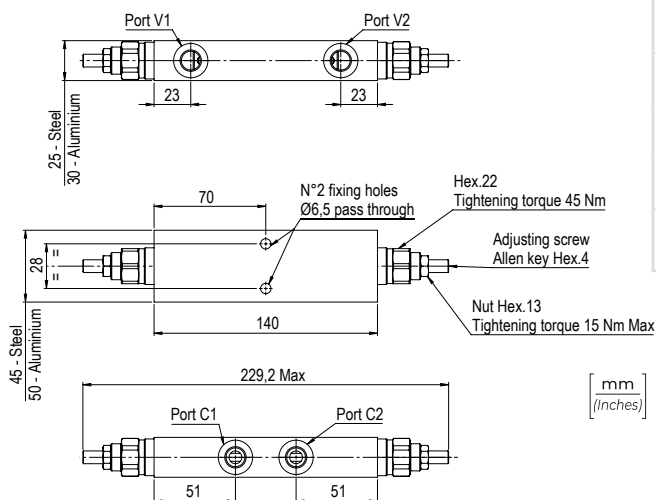
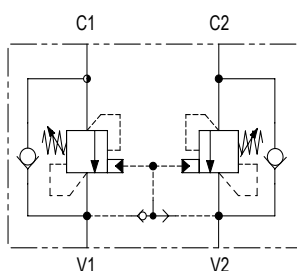
|    |                                                                                                        |                                                                                                                                                                    |      |
|----|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 01 | VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO CHIUSO<br>(SINGLE COUNTERBALANCE VALVES FOR CLOSED CENTER) |                                                                                                                                                                    | B03S |
| 02 | VERSIONE<br>(VERSION)                                                                                  | Compensata<br>(Compensated)                                                                                                                                        | C    |
| 03 | CAMPO DI TARATURA<br>(SETTING RANGE)                                                                   | Campo di Taratura (setting range)<br><b>60 ÷ 210 bar</b> (870 ÷ 3045 PSI)<br>Taratura standard (Std. setting) *<br><b>210 bar @ 5 l/min</b> (3045 PSI @ 1.3 gpm)   | 1    |
|    |                                                                                                        | Campo di Taratura (setting range)<br><b>100 ÷ 350 bar</b> (1450 ÷ 5075 PSI)<br>Taratura standard (Std. setting) *<br><b>350 bar @ 5 l/min</b> (5075 PSI @ 1.3 gpm) | 2    |
| 04 | RAPPORTO DI PILOTAGGIO<br>(PILOT RATIO)                                                                | Rp 4:1<br><b>56 bar/al giro (Taratura std. a 210 bar)</b><br>(797 PSI/turn - std. Setting at 210 bar)                                                              | 4    |
|    |                                                                                                        | Rp 4:1<br><b>116 bar/al giro (Taratura std. a 350 bar)</b><br>(1785 PSI/turn - std. Setting at 350 bar)                                                            |      |
|    |                                                                                                        | Rp 8:1<br><b>114 bar/al giro</b><br>(1653 PSI/turn)                                                                                                                | 8    |
|    |                                                                                                        | Rp 11,5:1<br><b>153 bar/al giro</b><br>(2219 PSI/turn)                                                                                                             | A    |
| 05 | GUARNIZIONI<br>(GASKETS)                                                                               | NBR                                                                                                                                                                | B    |
|    |                                                                                                        | VITON                                                                                                                                                              | V    |
| 06 | CORPO<br>(BODY)                                                                                        | Single Acting with Pil                                                                                                                                             | P1   |
| 07 | MATERIALE<br>(MATERIAL)                                                                                | Acciaio + Zincatura<br>(Steel + Zinc-plating)                                                                                                                      | S    |
|    |                                                                                                        | Acciaio + Zinco-nichel<br>(Steel + Zinc-nickel)                                                                                                                    | K    |
|    |                                                                                                        | Alluminio<br>(Aluminum)                                                                                                                                            | A    |
| 08 | ATTACCHI<br>(PORTS)                                                                                    | BSPP 1/4                                                                                                                                                           | G140 |

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300120**\* PER TARATURE DIFFERENTI DALLO STD CONTATTARE UFFICIO COMMERCIALE  
(FOR DIFFERENT SETTING OPTIONS CONTACT OUR CUSTOMER CARE)**PERFORMANCES****CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lb) |
|--------------|-----------------------------------------|-------------------------------------------|----------------------------------------|
| B03SC-P1     | 30 (7.9)                                | 350 (5075)                                | 0,7 (15.4)                             |

**CODICE ORDINAZIONE**  
ORDERING CODE

|             |          |    |    |    |           |    |             |
|-------------|----------|----|----|----|-----------|----|-------------|
| 01          | 02       | 03 | 04 | 05 | 06        | 07 | 08          |
| <b>B03D</b> | <b>N</b> |    |    |    | <b>L1</b> |    | <b>G140</b> |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT****DATI TECNICI / TECHNICAL DATA**

|                                                                |                               |
|----------------------------------------------------------------|-------------------------------|
| <b>Olio idraulico</b> - Mineral oil                            | ISO 6743/4 (DIN 51524)        |
| <b>Viscosità olio</b> - Oil viscosity                          | 15-250 mm²/s (15 to 250 cSt)  |
| <b>Classe di contaminazione max</b><br>Max contamination index | ISO 4406:1999 Classe 18/16/13 |
| <b>Temperatura dell'olio</b> - Oil temperature                 | -20°C +80°C -4°F +176°F       |
| <b>Temperatura ambiente</b> - Environment temperature          | -20°C +50°C -4°F +122°F       |

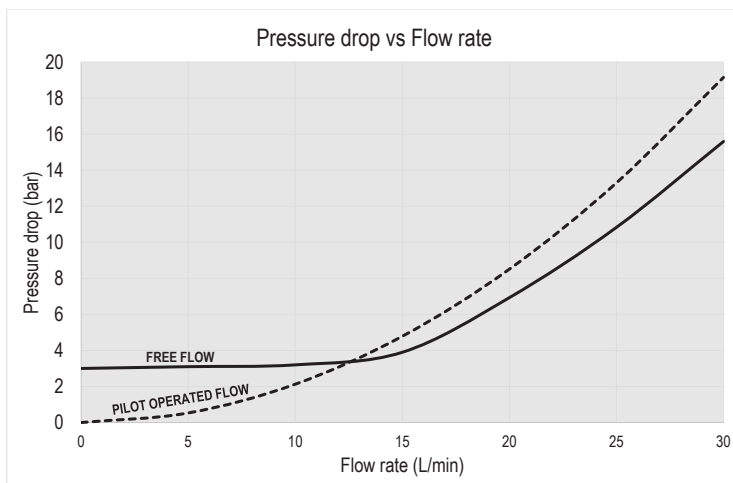
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)

|                                                                    |                                                           |
|--------------------------------------------------------------------|-----------------------------------------------------------|
| <b>Trafilamento@46cSt &amp; 200 bar</b><br>Leakage@46cSt & 200 bar | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |
|--------------------------------------------------------------------|-----------------------------------------------------------|

|           |                                                                                                            |                                                                                                                                                                                |
|-----------|------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>01</b> | VALVOLE DI BILANCIAMENTO SINGOLE<br>PER CENTRO APERTO<br>(SINGLE COUNTERBALANCE VALVES<br>FOR OPEN CENTER) | <b>B03D</b>                                                                                                                                                                    |
| <b>02</b> | VERSIONE<br>(VERSION)                                                                                      | Non Compensata<br>(Not Compensated)<br><b>N</b>                                                                                                                                |
| <b>03</b> | CAMPO DI TARATURA<br>(SETTING RANGE)                                                                       | Campo di Taratura (setting range)<br><b>60 ÷ 210 bar</b> (870 ÷ 3045 PSI)<br>Taratura standard (Std. setting) *<br><b>210 bar @ 5 l/min</b> (3045 PSI @ 1.3 gpm)<br><b>1</b>   |
|           |                                                                                                            | Campo di Taratura (setting range)<br><b>100 ÷ 350 bar</b> (1450 ÷ 5075 PSI)<br>Taratura standard (Std. setting) *<br><b>350 bar @ 5 l/min</b> (5075 PSI @ 1.3 gpm)<br><b>2</b> |
| <b>04</b> | RAPPORTO DI PILOTAGGIO<br>(PILOT RATIO)                                                                    | Rp 4:1<br><b>56 bar/al giro</b> (Taratura std. a 210 bar)<br>(797 PSI/turn - std. Setting at 210 bar)<br><b>4</b>                                                              |
|           |                                                                                                            | Rp 4:1<br><b>116 bar/al giro</b> (Taratura std. a 350 bar)<br>(1785 PSI/turn - std. Setting at 350 bar)                                                                        |
|           |                                                                                                            | Rp 8:1<br><b>114 bar/al giro</b><br>(1653 PSI/turn)<br><b>8</b>                                                                                                                |
|           |                                                                                                            | Rp 11,5:1<br><b>153 bar/al giro</b><br>(2219 PSI/turn)<br><b>A</b>                                                                                                             |
| <b>05</b> | GUARNIZIONI<br>(GASKETS)                                                                                   | NBR<br><b>B</b><br>VITON<br><b>V</b>                                                                                                                                           |
| <b>06</b> | CORPO<br>(BODY)                                                                                            | Double Acting<br><b>L1</b>                                                                                                                                                     |
| <b>07</b> | MATERIALE<br>(MATERIAL)                                                                                    | Acciaio + Zincatura<br>(Steel + Zinc-plating)<br><b>S</b>                                                                                                                      |
|           |                                                                                                            | Acciaio + Zinco-nichel<br>(Steel + Zinc-nickel)<br><b>K</b>                                                                                                                    |
|           |                                                                                                            | Alluminio<br>(Aluminum)<br><b>A</b>                                                                                                                                            |
| <b>08</b> | ATTACCHI<br>(PORTS)                                                                                        | BSPP 1/4<br><b>G140</b>                                                                                                                                                        |

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300037**

\* PER TARATURE DIFFERENTI DALLO STD CONTATTARE UFFICIO COMMERCIALE  
(FOR DIFFERENT SETTING OPTIONS CONTACT OUR CUSTOMER CARE)

**PERFORMANCES****CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

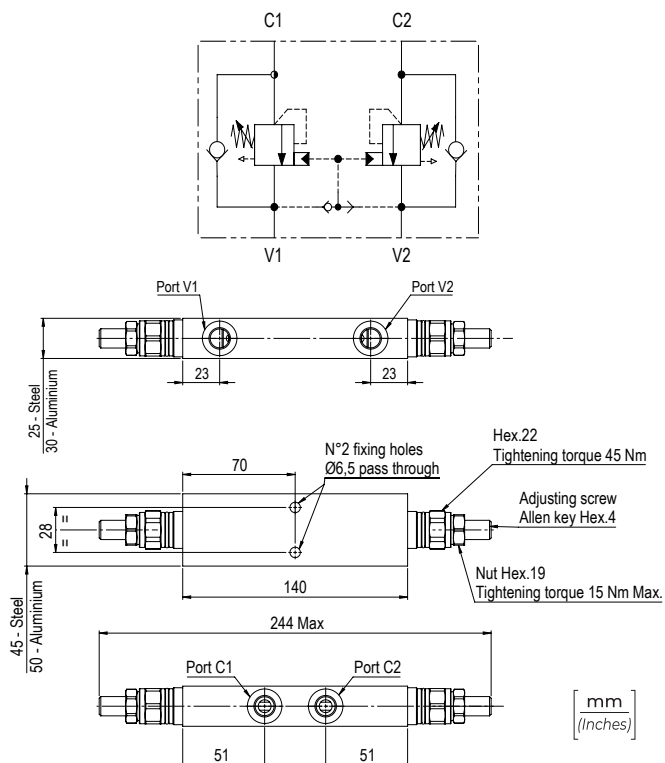
| TIPO<br>TYPE    | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lb) |
|-----------------|-----------------------------------------|-------------------------------------------|----------------------------------------|
| <b>B03DN-L1</b> | <b>30</b> (7.9)                         | <b>350</b> (5075)                         | <b>0,7</b> (15.4)                      |

CODICE ORDINAZIONE  
ORDERING CODE

|      |    |    |    |    |    |    |      |
|------|----|----|----|----|----|----|------|
| 01   | 02 | 03 | 04 | 05 | 06 | 07 | 08   |
| B03D | C  |    |    |    | L1 |    | G140 |



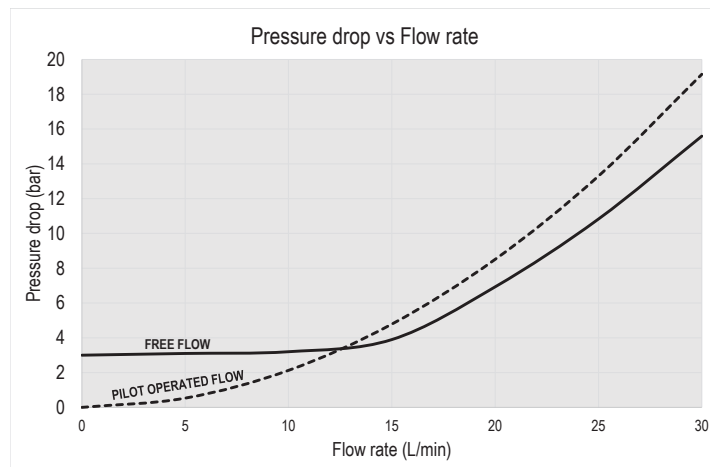
## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



|    |                                                                                                        |                                                                                                                                                                    |      |
|----|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 01 | VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO CHIUSO<br>(SINGLE COUNTERBALANCE VALVES FOR CLOSED CENTER) |                                                                                                                                                                    | B03D |
| 02 | VERSIONE<br>(VERSION)                                                                                  | Compensata<br>(Compensated)                                                                                                                                        | C    |
| 03 | CAMPO DI TARATURA<br>(SETTING RANGE)                                                                   | Campo di Taratura (setting range)<br><b>60 ÷ 210 bar</b> (870 ÷ 3045 PSI)<br>Taratura standard (Std. setting) *<br><b>210 bar @ 5 l/min</b> (3045 PSI @ 1.3 gpm)   | 1    |
|    |                                                                                                        | Campo di Taratura (setting range)<br><b>100 ÷ 350 bar</b> (1450 ÷ 5075 PSI)<br>Taratura standard (Std. setting) *<br><b>350 bar @ 5 l/min</b> (5075 PSI @ 1.3 gpm) | 2    |
| 04 | RAPPORTO DI PILOTAGGIO<br>(PILOT RATIO)                                                                | Rp 4:1<br><b>56 bar/al giro</b> (Taratura std. a 210 bar)<br>(797 PSI/turn - std. Setting at 210 bar)                                                              | 4    |
|    |                                                                                                        | Rp 4:1<br><b>116 bar/al giro</b> (Taratura std. a 350 bar)<br>(1785 PSI/turn - std. Setting at 350 bar)                                                            |      |
|    |                                                                                                        | Rp 8:1<br><b>114 bar/al giro</b><br>(1653 PSI/turn)                                                                                                                | 8    |
|    |                                                                                                        | Rp 11,5:1<br><b>153 bar/al giro</b><br>(2219 PSI/turn)                                                                                                             | A    |
| 05 | GUARNIZIONI<br>(GASKETS)                                                                               | NBR                                                                                                                                                                | B    |
|    |                                                                                                        | VITON                                                                                                                                                              | V    |
| 06 | CORPO<br>(BODY)                                                                                        | Double Acting                                                                                                                                                      | L1   |
| 07 | MATERIALE<br>(MATERIAL)                                                                                | Acciaio + Zincatura<br>(Steel + Zinc-plating)                                                                                                                      | S    |
|    |                                                                                                        | Acciaio + Zinco-nichel<br>(Steel + Zinc-nickel)                                                                                                                    | K    |
|    |                                                                                                        | Alluminio<br>(Aluminum)                                                                                                                                            | A    |
| 08 | ATTACCHI<br>(PORTS)                                                                                    | BSPP 1/4                                                                                                                                                           | G140 |

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300120**\* PER TARATURE DIFFERENTI DALLO STD CONTATTARE UFFICIO COMMERCIALE  
(FOR DIFFERENT SETTING OPTIONS CONTACT OUR CUSTOMER CARE)

## PERFORMANCES



## DATI TECNICI / TECHNICAL DATA

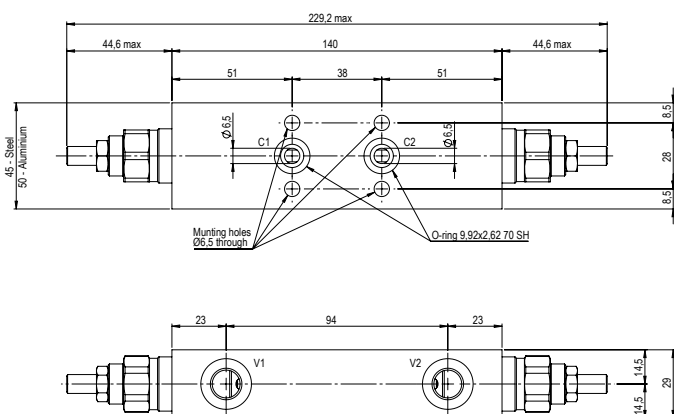
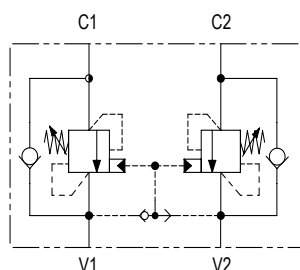
|                                                                                                                                                                                    |                                           |              |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------|--|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |              |  |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |              |  |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13             |              |  |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C                               | -4°F + 176°F |  |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C                               | -4°F + 122°F |  |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |              |  |
| Trafilamento@46cSt & 200 bar                                                                                                                                                       | 0,25 cm <sup>3</sup> /min - 5 gocce/min   |              |  |
| Leakage@46cSt & 200 bar                                                                                                                                                            | 0,015 in <sup>3</sup> /min - 5 drops/min  |              |  |

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

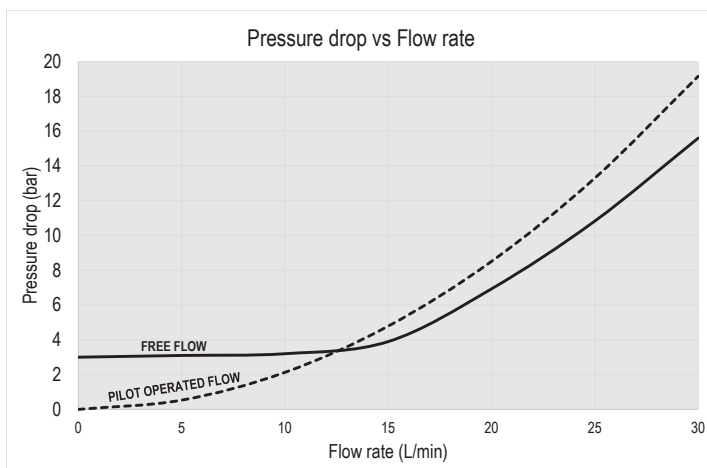
| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|--------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|
| B03DC-L1     | 30 (7.9)                                | 350 (5075)                                | 0,7 (15.4)                              |

**CODICE ORDINAZIONE**  
ORDERING CODE

|             |          |    |    |    |           |    |             |
|-------------|----------|----|----|----|-----------|----|-------------|
| 01          | 02       | 03 | 04 | 05 | 06        | 07 | 08          |
| <b>B03D</b> | <b>N</b> |    |    |    | <b>F2</b> |    | <b>G140</b> |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

|    |                                                                                                                                      |                                                                                                                                                                    |      |
|----|--------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 01 | VALVOLE DI BILANCIAMENTO SINGOLE<br>PER CENTRO APERTO FLANGIATE<br>(SINGLE COUNTERBALANCE VALVES<br>FOR OPEN CENTER FLANGED VERSION) |                                                                                                                                                                    | B03D |
| 02 | VERSIONE<br>(VERSION)                                                                                                                | Non Compensata<br>(Not Compensated)                                                                                                                                | N    |
| 03 | CAMPO DI TARATURA<br>(SETTING RANGE)                                                                                                 | Campo di Taratura (setting range)<br><b>60 ÷ 210 bar</b> (870 ÷ 3045 PSI)<br>Taratura standard (Std. setting) *<br><b>210 bar @ 5 l/min</b> (3045 PSI @ 1.3 gpm)   | 1    |
|    |                                                                                                                                      | Campo di Taratura (setting range)<br><b>100 ÷ 350 bar</b> (1450 ÷ 5075 PSI)<br>Taratura standard (Std. setting) *<br><b>350 bar @ 5 l/min</b> (5075 PSI @ 1.3 gpm) | 2    |
| 04 | RAPPORTO DI PILOTAGGIO<br>(PILOT RATIO)                                                                                              | Rp 4:1<br><b>56 bar/al giro (Taratura std. a 210 bar)</b><br>(797 PSI/turn - std. Setting at 210 bar)                                                              | 4    |
|    |                                                                                                                                      | Rp 4:1<br><b>116 bar/al giro (Taratura std. a 350 bar)</b><br>(1785 PSI/turn - std. Setting at 350 bar)                                                            |      |
|    |                                                                                                                                      | Rp 8:1<br><b>114 bar/al giro</b><br>(1653 PSI/turn)                                                                                                                | 8    |
|    |                                                                                                                                      | Rp 11,5:1<br><b>153 bar/al giro</b><br>(2219 PSI/turn)                                                                                                             | A    |
| 05 | GUARNIZIONI<br>(GASKETS)                                                                                                             | NBR                                                                                                                                                                | B    |
|    |                                                                                                                                      | VITON                                                                                                                                                              | V    |
| 06 | CORPO<br>(BODY)                                                                                                                      | Coaxial Flanged Ø15                                                                                                                                                | F2   |
| 07 | MATERIALE<br>(MATERIAL)                                                                                                              | Acciaio + Zincatura<br>(Steel + Zinc-plating)                                                                                                                      | S    |
|    |                                                                                                                                      | Acciaio + Zinco-nichel<br>(Steel + Zinc-nickel)                                                                                                                    | K    |
|    |                                                                                                                                      | Alluminio<br>(Aluminum)                                                                                                                                            | A    |
| 08 | ATTACCHI<br>(PORTS)                                                                                                                  | BSPP 1/4                                                                                                                                                           | G140 |

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300037**\* PER TARATURE DIFFERENTI DALLO STD CONTATTARE UFFICIO COMMERCIALE  
(FOR DIFFERENT SETTING OPTIONS CONTACT OUR CUSTOMER CARE)**PERFORMANCES****DATI TECNICI / TECHNICAL DATA**

|                                                         |                                           |
|---------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                            | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                          | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index | ISO 4406:1999 Classe 18/16/13             |
| Temperatura dell'olio - Oil temperature                 | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature          | -20°C +50°C -4°F +122°F                   |

È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)

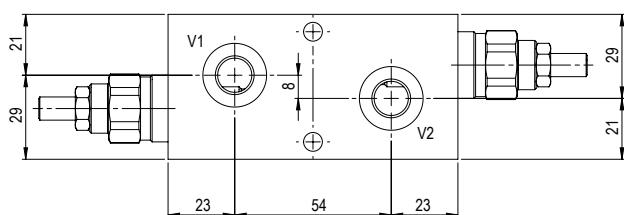
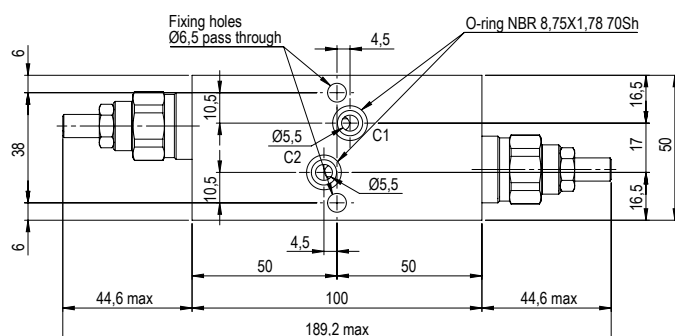
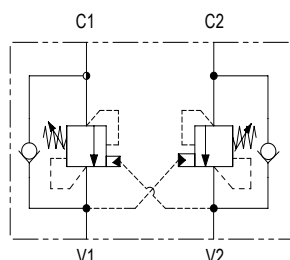
|                              |                                          |
|------------------------------|------------------------------------------|
| Trafilamento@46cSt & 200 bar | 0,25 cm <sup>3</sup> /min - 5 gocce/min  |
| Leakage@46cSt & 200 bar      | 0,015 in <sup>3</sup> /min - 5 drops/min |

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE    | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lb) |
|-----------------|-----------------------------------------|-------------------------------------------|----------------------------------------|
| <b>B03DN-F2</b> | <b>30</b> (7.9)                         | <b>350</b> (5075)                         | <b>0,7</b> (1.5.4)                     |

CODICE ORDINAZIONE  
ORDERING CODE

## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

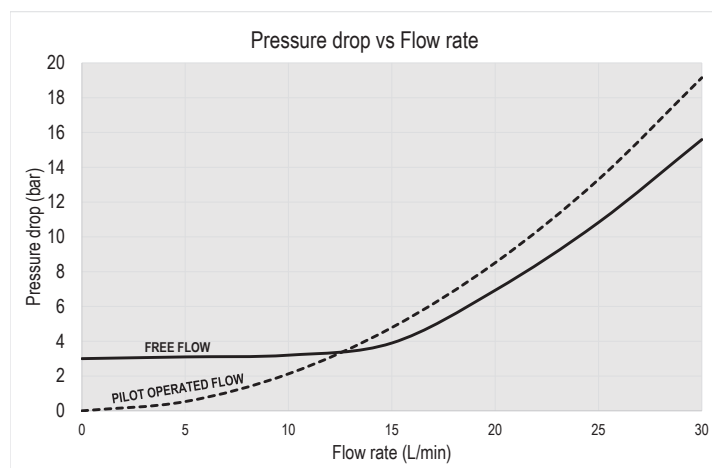
|                                                                                                                                                                                    |                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |

|             |          |    |    |    |           |    |             |
|-------------|----------|----|----|----|-----------|----|-------------|
| 01          | 02       | 03 | 04 | 05 | 06        | 07 | 08          |
| <b>B03S</b> | <b>N</b> |    |    |    | <b>F3</b> |    | <b>G140</b> |

|    |                                                                                                                                          |                                                                                                                                                                    |             |
|----|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 01 | VALVOLE DI BILANCIAMENTO SINGOLE<br>PER CENTRO APERTO - FLANGIATE<br>(SINGLE COUNTERBALANCE VALVES<br>FOR OPEN CENTER - FLANGED VERSION) |                                                                                                                                                                    | <b>B03S</b> |
| 02 | VERSIONE<br>(VERSION)                                                                                                                    | Non Compensata<br>(Not Compensated)                                                                                                                                | <b>N</b>    |
| 03 | CAMPO DI TARATURA<br>(SETTING RANGE)                                                                                                     | Campo di Taratura (setting range)<br><b>60 ÷ 210 bar</b> (870 ÷ 3045 PSI)<br>Taratura standard (Std. setting) *<br><b>210 bar @ 5 l/min</b> (3045 PSI @ 1.3 gpm)   | <b>1</b>    |
|    |                                                                                                                                          | Campo di Taratura (setting range)<br><b>100 ÷ 350 bar</b> (1450 ÷ 5075 PSI)<br>Taratura standard (Std. setting) *<br><b>350 bar @ 5 l/min</b> (5075 PSI @ 1.3 gpm) | <b>2</b>    |
| 04 | RAPPORTO DI PILOTAGGIO<br>(PILOT RATIO)                                                                                                  | Rp 4:1<br><b>56 bar/al giro</b> (Taratura std. a 210 bar)<br>(797 PSI/turn - std. Setting at 210 bar)                                                              | <b>4</b>    |
|    |                                                                                                                                          | Rp 4:1<br><b>116 bar/al giro</b> (Taratura std. a 350 bar)<br>(1785 PSI/turn - std. Setting at 350 bar)                                                            |             |
|    |                                                                                                                                          | Rp 8:1<br><b>114 bar/al giro</b><br>(1653 PSI/turn)                                                                                                                | <b>8</b>    |
| 05 | GUARNIZIONI<br>(GASKETS)                                                                                                                 | Rp 11,5:1<br><b>153 bar/al giro</b><br>(2219 PSI/turn)                                                                                                             | <b>A</b>    |
|    |                                                                                                                                          | NBR                                                                                                                                                                | <b>B</b>    |
| 06 | CORPO<br>(BODY)                                                                                                                          | Non Coaxial Flanged Ø15                                                                                                                                            | <b>F3</b>   |
| 07 | MATERIALE<br>(MATERIAL)                                                                                                                  | Acciaio + Zincatura<br>(Steel + Zinc-plating)                                                                                                                      | <b>S</b>    |
|    |                                                                                                                                          | Acciaio + Zinco-nichel<br>(Steel + Zinc-nickel)                                                                                                                    | <b>K</b>    |
| 08 | ATTACCHI<br>(PORTS)                                                                                                                      | Alluminio<br>(Aluminum)                                                                                                                                            | <b>A</b>    |
|    |                                                                                                                                          | BSPP 1/4                                                                                                                                                           | <b>G140</b> |

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300037**\* PER TARATURE DIFFERENTI DALLO STD CONTATTARE UFFICIO COMMERCIALE  
(FOR DIFFERENT SETTING OPTIONS CONTACT OUR CUSTOMER CARE)

## PERFORMANCES

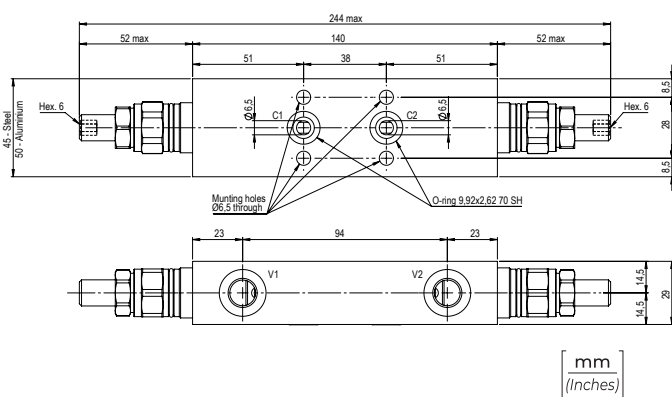
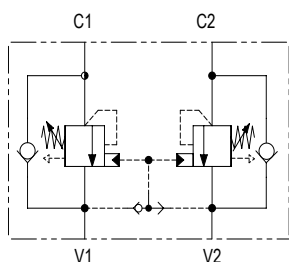


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE    | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|-----------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|
| <b>B03SN-F3</b> | <b>30</b> (7.9)                         | <b>350</b> (5075)                         | <b>0,7</b> (15.4)                       |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

**DATI TECNICI / TECHNICAL DATA**

|                                                                |                                      |              |                            |
|----------------------------------------------------------------|--------------------------------------|--------------|----------------------------|
| <b>Olio idraulico</b> - Mineral oil                            | <b>ISO 6743/4</b> (DIN 51524)        |              |                            |
| <b>Viscosità olio</b> - Oil viscosity                          | <b>15-250 mm²/s</b> (15 to 250 cSt)  |              |                            |
| <b>Classe di contaminazione max</b><br>Max contamination index | <b>ISO 4406:1999 Classe 18/16/13</b> |              |                            |
| <b>Temperatura dell'olio</b> - Oil temperature                 | <b>-20°C</b>                         | <b>+80°C</b> | <b>-4°F</b> + <b>176°F</b> |
| <b>Temperatura ambiente</b> - Environment temperature          | <b>-20°C</b>                         | <b>+50°C</b> | <b>-4°F</b> + <b>122°F</b> |

È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)

|                                         |                                    |
|-----------------------------------------|------------------------------------|
| <b>Trafilamento@46cSt &amp; 200 bar</b> | <b>0,25 cm³/min - 5 gocce/min</b>  |
| <b>Leakage@46cSt &amp; 200 bar</b>      | <b>0,015 in³/min - 5 drops/min</b> |

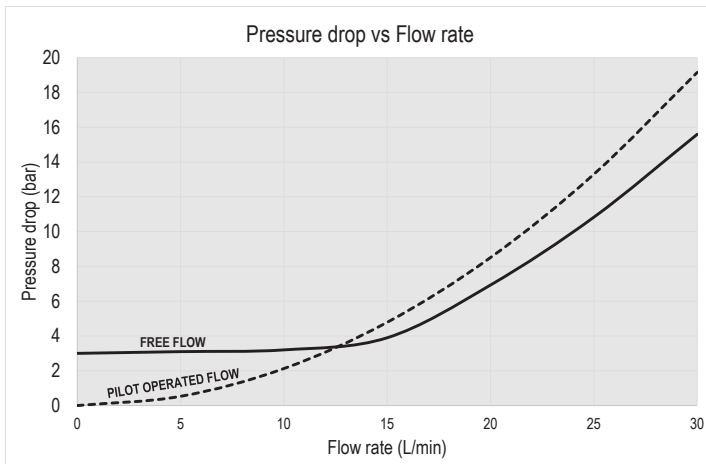
|      |    |    |    |    |    |    |      |
|------|----|----|----|----|----|----|------|
| 01   | 02 | 03 | 04 | 05 | 06 | 07 | 08   |
| B03D | C  |    |    |    | F2 |    | G140 |

|           |                                                                                                                                       |                                                                                                                                                                    |             |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| <b>01</b> | VALVOLE DI BILANCIAMENTO DOPPIE<br>PER CENTRO CHIUSO FLANGIATE<br>(DOUBLE COUNTERBALANCE VALVES<br>FOR CLOSED CENTER FLANGED VERSION) |                                                                                                                                                                    | <b>B03D</b> |
| <b>02</b> | VERSIONE<br>(VERSION)                                                                                                                 | Compensata<br>(Compensated)                                                                                                                                        | <b>C</b>    |
| <b>03</b> | CAMPO DI TARATURA<br>(SETTING RANGE)                                                                                                  | Campo di Taratura (setting range)<br><b>60 ÷ 210 bar</b> (870 ÷ 3045 PSI)<br>Taratura standard (Std. setting) *<br><b>210 bar @ 5 l/min</b> (3045 PSI @ 1.3 gpm)   | <b>1</b>    |
|           |                                                                                                                                       | Campo di Taratura (setting range)<br><b>100 ÷ 350 bar</b> (1450 ÷ 5075 PSI)<br>Taratura standard (Std. setting) *<br><b>350 bar @ 5 l/min</b> (5075 PSI @ 1.3 gpm) | <b>2</b>    |
| <b>04</b> | RAPPORTO DI PILOTAGGIO<br>(PILOT RATIO)                                                                                               | Rp 4:1<br><b>56 bar/al giro (Taratura std. a 210 bar)</b><br>(797 PSI/turn - std. Setting at 210 bar)                                                              | <b>4</b>    |
|           |                                                                                                                                       | Rp 4:1<br><b>116 bar/al giro (Taratura std. a 350 bar)</b><br>(1785 PSI/turn - std. Setting at 350 bar)                                                            |             |
|           |                                                                                                                                       | Rp 8:1<br><b>114 bar/al giro</b><br>(1653 PSI/turn)                                                                                                                | <b>8</b>    |
|           |                                                                                                                                       | Rp 11,5:1<br><b>153 bar/al giro</b><br>(2219 PSI/turn)                                                                                                             | <b>A</b>    |
| <b>05</b> | GUARNIZIONI<br>(GASKETS)                                                                                                              | NBR                                                                                                                                                                | <b>B</b>    |
|           |                                                                                                                                       | VITON                                                                                                                                                              | <b>V</b>    |
| <b>06</b> | CORPO<br>(BODY)                                                                                                                       | Coaxial Flanged Ø15                                                                                                                                                | <b>F2</b>   |
| <b>07</b> | MATERIALE<br>(MATERIAL)                                                                                                               | Acciaio + Zincatura<br>(Steel + Zinc-plating)                                                                                                                      | <b>S</b>    |
|           |                                                                                                                                       | Acciaio + Zinco-nichel<br>(Steel + Zinc-nickel)                                                                                                                    | <b>K</b>    |
|           |                                                                                                                                       | Alluminio<br>(Aluminum)                                                                                                                                            | <b>A</b>    |
| <b>08</b> | ATTACCHI<br>(PORTS)                                                                                                                   | BSPP 1/4                                                                                                                                                           | <b>G140</b> |

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300120**

\* PER TARATURE DIFFERENTI DALLO STD CONTATTARE UFFICIO COMMERCIALE  
(FOR DIFFERENT SETTING OPTIONS CONTACT OUR CUSTOMER CARE)

## PERFORMANCES



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

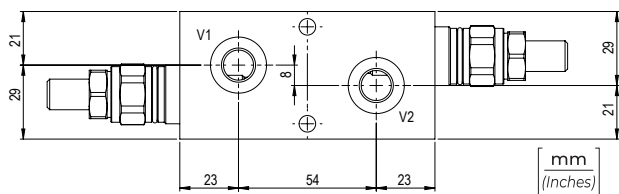
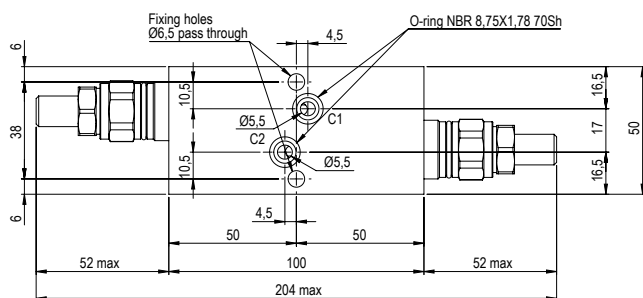
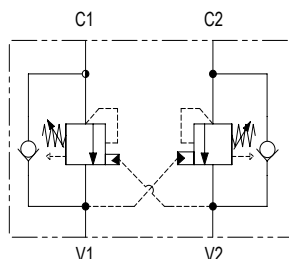
| TIPO<br>TYPE    | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lb) |
|-----------------|-----------------------------------------|-------------------------------------------|----------------------------------------|
| <b>B03DC-F2</b> | <b>30</b> (7.9)                         | <b>350</b> (5075)                         | <b>0,7</b> (15.4)                      |

CODICE ORDINAZIONE  
ORDERING CODE

|             |          |    |    |    |           |    |             |
|-------------|----------|----|----|----|-----------|----|-------------|
| 01          | 02       | 03 | 04 | 05 | 06        | 07 | 08          |
| <b>B03S</b> | <b>C</b> |    |    |    | <b>F3</b> |    | <b>G140</b> |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



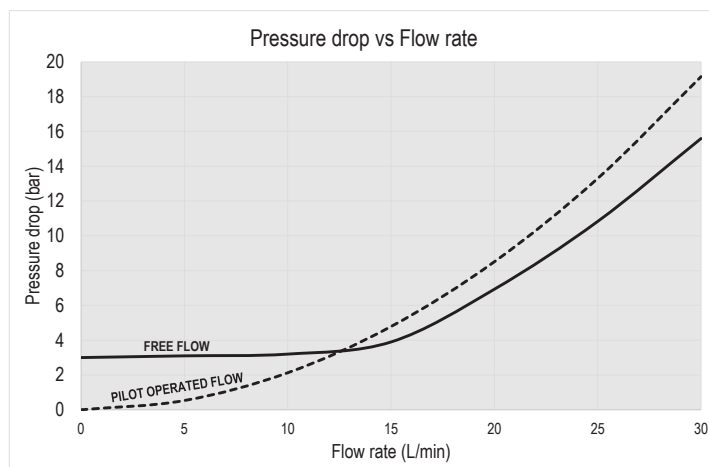
## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                                     |      |        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------|--------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                                              |      |        |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |      |        |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                                                       |      |        |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C                                                                         | -4°F | +176°F |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C                                                                         | -4°F | +122°F |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |      |        |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |      |        |

|    |                                                                                                                                       |                                                                                                                                                                    |      |
|----|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 01 | VALVOLE DI BILANCIAMENTO DOPPIE<br>PER CENTRO CHIUSO FLANGIATE<br>(DOUBLE COUNTERBALANCE VALVES<br>FOR CLOSED CENTER FLANGED VERSION) |                                                                                                                                                                    | B03S |
| 02 | VERSIONE<br>(VERSION)                                                                                                                 | Compensata<br>(Compensated)                                                                                                                                        | C    |
| 03 | CAMPO DI TARATURA<br>(SETTING RANGE)                                                                                                  | Campo di Taratura (setting range)<br><b>60 ÷ 210 bar</b> (870 ÷ 3045 PSI)<br>Taratura standard (Std. setting) *<br><b>210 bar @ 5 l/min</b> (3045 PSI @ 1.3 gpm)   | 1    |
|    |                                                                                                                                       | Campo di Taratura (setting range)<br><b>100 ÷ 350 bar</b> (1450 ÷ 5075 PSI)<br>Taratura standard (Std. setting) *<br><b>350 bar @ 5 l/min</b> (5075 PSI @ 1.3 gpm) | 2    |
| 04 | RAPPORTO DI PILOTAGGIO<br>(PILOT RATIO)                                                                                               | Rp 4:1<br><b>56 bar/al giro (Taratura std. a 210 bar)</b><br>(797 PSI/turn - std. Setting at 210 bar)                                                              | 4    |
|    |                                                                                                                                       | Rp 4:1<br><b>116 bar/al giro (Taratura std. a 350 bar)</b><br>(1785 PSI/turn - std. Setting at 350 bar)                                                            |      |
|    |                                                                                                                                       | Rp 8:1<br><b>114 bar/al giro</b><br>(1653 PSI/turn)                                                                                                                | 8    |
|    |                                                                                                                                       | Rp 11,5:1<br><b>153 bar/al giro</b><br>(2219 PSI/turn)                                                                                                             | A    |
| 05 | GUARNIZIONI<br>(GASKETS)                                                                                                              | NBR                                                                                                                                                                | B    |
|    |                                                                                                                                       | VITON                                                                                                                                                              | V    |
| 06 | CORPO<br>(BODY)                                                                                                                       | Non Coaxial Flanged Ø15                                                                                                                                            | F3   |
| 07 | MATERIALE<br>(MATERIAL)                                                                                                               | Acciaio + Zincatura<br>(Steel + Zinc-plating)                                                                                                                      | S    |
|    |                                                                                                                                       | Acciaio + Zinco-nichel<br>(Steel + Zinc-nickel)                                                                                                                    | K    |
|    |                                                                                                                                       | Alluminio<br>(Aluminum)                                                                                                                                            | A    |
| 08 | ATTACCHI<br>(PORTS)                                                                                                                   | BSPP 1/4                                                                                                                                                           | G140 |

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300120**\* PER TARATURE DIFFERENTI DALLO STD CONTATTARE UFFICIO COMMERCIALE  
(FOR DIFFERENT SETTING OPTIONS CONTACT OUR CUSTOMER CARE)

## PERFORMANCES

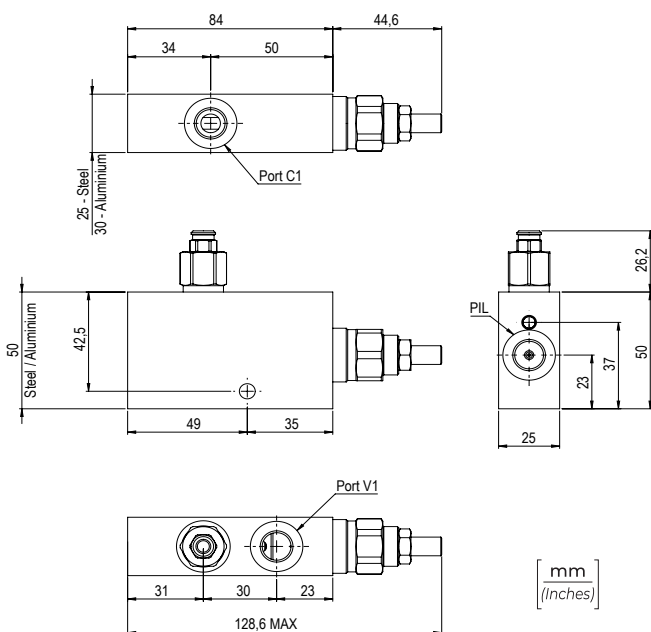
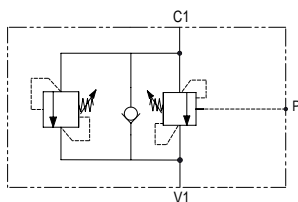


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

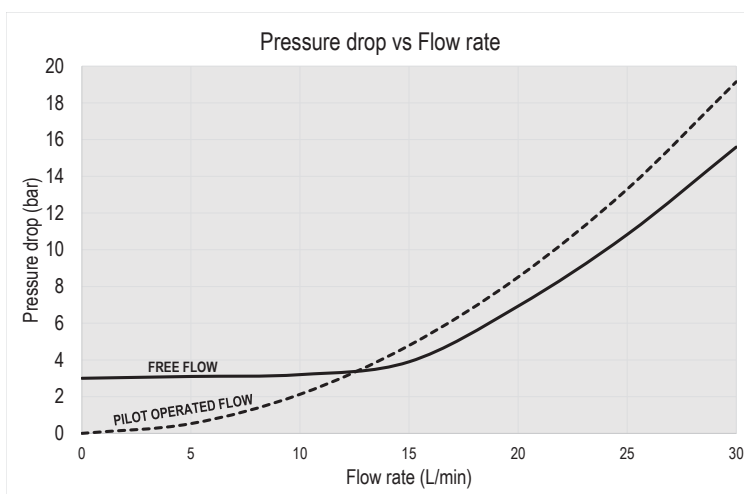
| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lb) |
|--------------|-----------------------------------------|-------------------------------------------|----------------------------------------|
| B03SC-F3     | 30 (7.9)                                | 350 (5075)                                | 0,7 (15.4)                             |

**CODICE ORDINAZIONE**  
ORDERING CODE

|             |          |    |    |    |           |    |             |
|-------------|----------|----|----|----|-----------|----|-------------|
| 01          | 02       | 03 | 04 | 05 | 06        | 07 | 08          |
| <b>B03S</b> | <b>N</b> |    |    |    | <b>PL</b> |    | <b>G140</b> |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

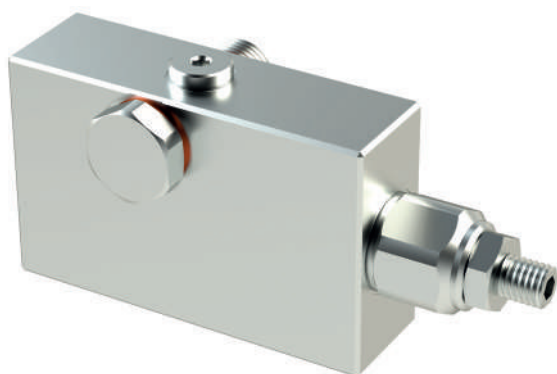
|           |                                                                                                      |                                                                                                                                                                    |
|-----------|------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>01</b> | VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO APERTO<br>(SINGLE COUNTERBALANCE VALVES FOR OPEN CENTER) | <b>B03S</b>                                                                                                                                                        |
| <b>02</b> | VERSIONE<br>(VERSION)                                                                                | Non Compensata<br>(Not Compensated)                                                                                                                                |
| <b>03</b> | CAMPO DI TARATURA<br>(SETTING RANGE)                                                                 | Campo di Taratura (setting range)<br><b>60 ÷ 210 bar</b> (870 ÷ 3045 PSI)<br>Taratura standard (Std. setting) *<br><b>210 bar @ 5 l/min</b> (3045 PSI @ 1.3 gpm)   |
|           |                                                                                                      | Campo di Taratura (setting range)<br><b>100 ÷ 350 bar</b> (1450 ÷ 5075 PSI)<br>Taratura standard (Std. setting) *<br><b>350 bar @ 5 l/min</b> (5075 PSI @ 1.3 gpm) |
| <b>04</b> | RAPPORTO DI PILOTAGGIO<br>(PILOT RATIO)                                                              | Rp 4:1<br><b>56 bar/al giro (Taratura std. a 210 bar)</b><br>(797 PSI/turn - std. Setting at 210 bar)                                                              |
|           |                                                                                                      | Rp 4:1<br><b>116 bar/al giro (Taratura std. a 350 bar)</b><br>(1785 PSI/turn - std. Setting at 350 bar)                                                            |
|           |                                                                                                      | Rp 8:1<br><b>114 bar/al giro</b><br>(1653 PSI/turn)                                                                                                                |
|           |                                                                                                      | Rp 11,5:1<br><b>153 bar/al giro</b><br>(2219 PSI/turn)                                                                                                             |
| <b>05</b> | GUARNIZIONI<br>(GASKETS)                                                                             | NBR                                                                                                                                                                |
|           |                                                                                                      | VITON                                                                                                                                                              |
| <b>06</b> | CORPO<br>(BODY)                                                                                      | Con Limitatrice di by-pass taratura std.<br>(With by-pass Relief std. setting)                                                                                     |
| <b>07</b> | MATERIALE<br>(MATERIAL)                                                                              | Acciaio + Zincatura<br>(Steel + Zinc-plating)                                                                                                                      |
|           |                                                                                                      | Acciaio + Zinco-nichel<br>(Steel + Zinc-nickel)                                                                                                                    |
|           |                                                                                                      | Alluminio<br>(Aluminum)                                                                                                                                            |
| <b>08</b> | ATTACCHI<br>(PORTS)                                                                                  | BSPP 1/4                                                                                                                                                           |

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300120**\* PER TARATURE DIFFERENTI DALLO STD CONTATTARE UFFICIO COMMERCIALE  
(FOR DIFFERENT SETTING OPTIONS CONTACT OUR CUSTOMER CARE)**PERFORMANCES****DATI TECNICI / TECHNICAL DATA**

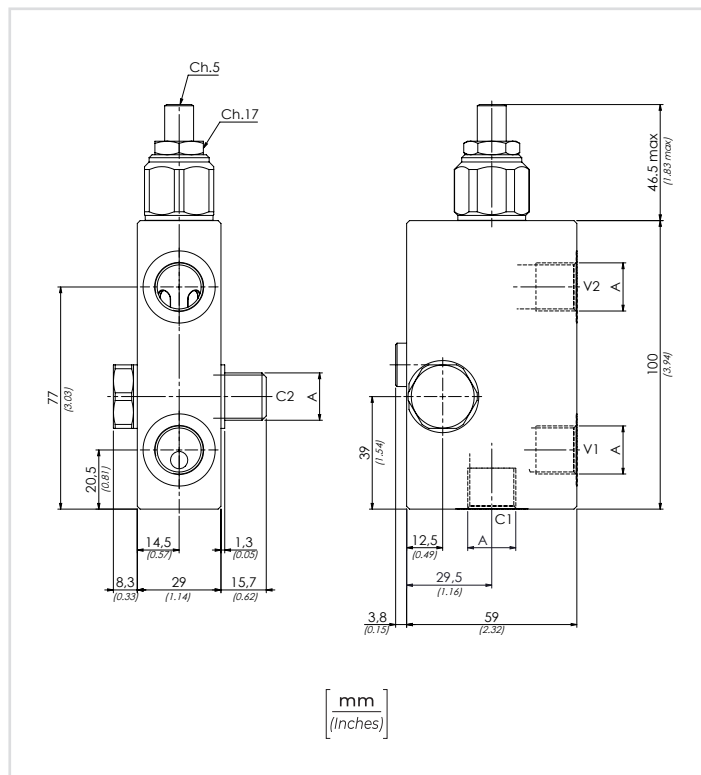
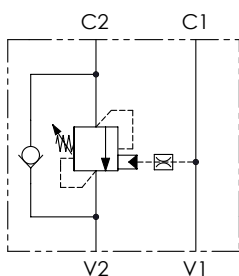
|                                                         |                               |
|---------------------------------------------------------|-------------------------------|
| Olio idraulico - Mineral oil                            | ISO 6743/4 (DIN 51524)        |
| Viscosità olio - Oil viscosity                          | 15-250 mm²/s (15 to 250 cSt)  |
| Classe di contaminazione max<br>Max contamination index | ISO 4406:1999 Classe 18/16/13 |
| Temperatura dell'olio - Oil temperature                 | -20°C +80°C -4°F +176°F       |
| Temperatura ambiente - Environment temperature          | -20°C +50°C -4°F +122°F       |

È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)Trafilamento@46cSt & 200 bar 0,25 cm³/min - 5 gocce/min  
Leakage@46cSt & 200 bar 0,015 in³/min - 5 drops/min**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE    | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lb) |
|-----------------|-----------------------------------------|-------------------------------------------|----------------------------------------|
| <b>B03SN-PI</b> | <b>30</b> (7.9)                         | <b>350</b> (5075)                         | <b>0,7</b> (15.4)                      |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                                              |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                                                       |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                                             |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                                             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |

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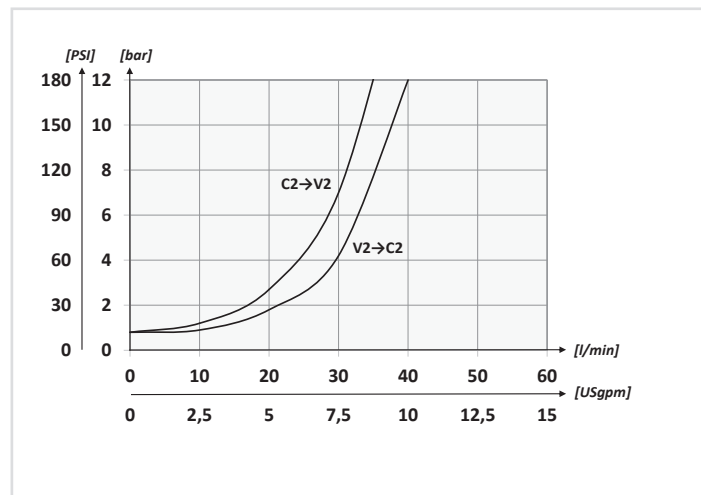
## CODICE ORDINAZIONE ORDERING CODE

|             |            |    |    |    |
|-------------|------------|----|----|----|
| 01          | 02         | 03 | 04 | 05 |
| <b>VBCB</b> | <b>380</b> |    |    |    |

|    |                                                                                                                             |                                                 |                                    |                                                                            |      |
|----|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|------------------------------------|----------------------------------------------------------------------------|------|
| 01 | VALVOLE DI BILANCIAMENTO SINGOLE A BULLONE PER CENTRO APERTO<br>(BOLT-FITTING SINGLE COUNTERBALANCE VALVES FOR OPEN CENTER) |                                                 |                                    |                                                                            | VBCB |
| 02 | DIMENSIONE<br>(SIZE)                                                                                                        | BSPP 3/8                                        |                                    |                                                                            | 380  |
| 03 | MOLLA<br>(SPRING)<br><br>30/210 bar<br>(435/3045 PSI)                                                                       | Rp 1:4.25                                       | 78 bar/al giro<br>(1131 PSI/turn)  | Taratura standard<br>(Std. setting)<br><br>Q=5 l/min 200 bar<br>(2900 PSI) | 1    |
|    |                                                                                                                             | Rp 1:8.75                                       | 160 bar/al giro<br>(2320 PSI/turn) |                                                                            |      |
|    | MOLLA<br>(SPRING)<br><br>60/350 bar<br>(870/5075 PSI)                                                                       | Rp 1:4.25                                       | 135 bar/al giro<br>(1958 PSI/turn) | Taratura standard<br>(Std. setting)<br><br>Q=5 l/min 350 bar<br>(5075 PSI) | 2    |
|    |                                                                                                                             | Rp 1:8.75                                       | 160 bar/al giro<br>(2320 PSI/turn) |                                                                            |      |
| 04 | MATERIALE<br>(MATERIAL)                                                                                                     | Acciaio + zincatura<br>(Steel + zinc-plating)   |                                    |                                                                            | S    |
|    |                                                                                                                             | Acciaio + zinco-nichel<br>(Steel + zinc-nickel) |                                    |                                                                            | K    |
| 05 | RAPPORTO DI PILOTAGGIO<br>(PILOT RATIO)                                                                                     | 1:4.25 Standard                                 |                                    |                                                                            | /    |
|    |                                                                                                                             | 1:8.75                                          |                                    |                                                                            | 8    |

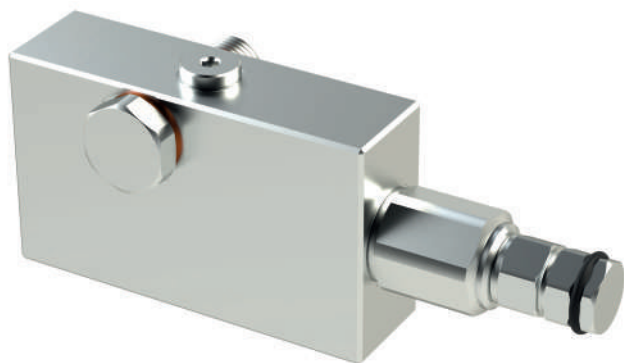
Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

## PERFORMANCES

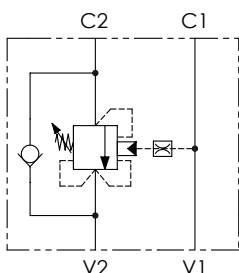


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt |
|--------------|----------|----------------------------------------|------------------------------------------|-------------------------------------------|
| VBCB380      | BSPP 3/8 | 40 (10.6)                              | 350 (5075)                               | 1,24 (2.73)                               |



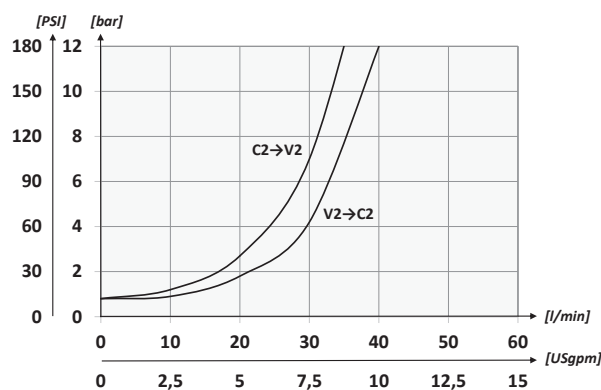
## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

CODICE ORDINAZIONE  
ORDERING CODE

| 01   | 02  | 03 | 04 | 05 |
|------|-----|----|----|----|
| VCCB | 380 |    | S  |    |

|    |                                                                                                                               |                                               |                                    |                                                                            |      |
|----|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|------------------------------------|----------------------------------------------------------------------------|------|
| 01 | VALVOLE DI BILANCIAMENTO SINGOLE A BULLONE PER CENTRO CHIUSO<br>(BOLT-FITTING SINGLE COUNTERBALANCE VALVES FOR CLOSED CENTER) |                                               |                                    |                                                                            | VCCB |
| 02 | DIMENSIONE<br>(SIZE)                                                                                                          | BSPP 3/8                                      |                                    |                                                                            | 380  |
| 03 | MOLLA<br>(SPRING)<br><br>30/210 bar<br>(435/3045 PSI)                                                                         | Rp 1:4.25                                     | 78 bar/al giro<br>(1131 PSI/turn)  | Taratura standard<br>(Std. setting)<br><br>Q=5 l/min 200 bar<br>(2900 PSI) | 1    |
|    |                                                                                                                               | Rp 1:8.75                                     | 160 bar/al giro<br>(2320 PSI/turn) |                                                                            |      |
|    | MOLLA<br>(SPRING)<br><br>60/350 bar<br>(870/5075 PSI)                                                                         | Rp 1:4.25                                     | 135 bar/al giro<br>(1958 PSI/turn) | Taratura standard<br>(Std. setting)<br><br>Q=5 l/min 350 bar<br>(5075 PSI) | 2    |
|    |                                                                                                                               | Rp 1:8.75                                     | 160 bar/al giro<br>(2320 PSI/turn) |                                                                            |      |
| 04 | MATERIALE<br>(MATERIAL)                                                                                                       | Acciaio + zincatura<br>(Steel + zinc-plating) |                                    |                                                                            | S    |
| 05 | RAPPORTO DI PILOTAGGIO<br>(PILOT RATIO)                                                                                       | 1:4.25 Standard                               |                                    |                                                                            | /    |
|    |                                                                                                                               | 1:8.75                                        |                                    |                                                                            | 8    |

## PERFORMANCES

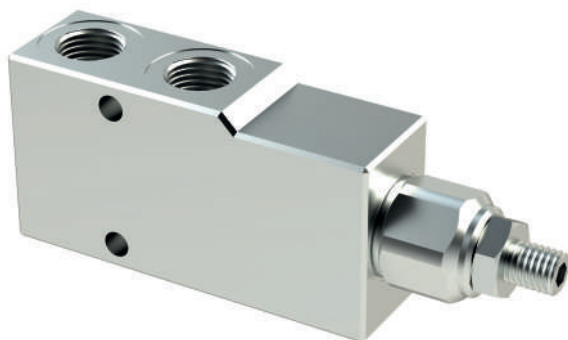


## DATI TECNICI / TECHNICAL DATA

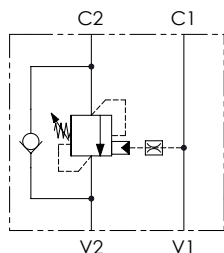
|                                                                                                                                                                                    |                                                           |      |        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|------|--------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                    |      |        |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |      |        |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                             |      |        |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C                                               | -4°F | +176°F |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C                                               | -4°F | +122°F |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |      |        |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |      |        |

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt |
|--------------|----------|----------------------------------------|------------------------------------------|-------------------------------------------|
| VCCB380      | BSPP 3/8 | 40 (10.6)                              | 350 (5075)                               | 1,24 (2.73)                               |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

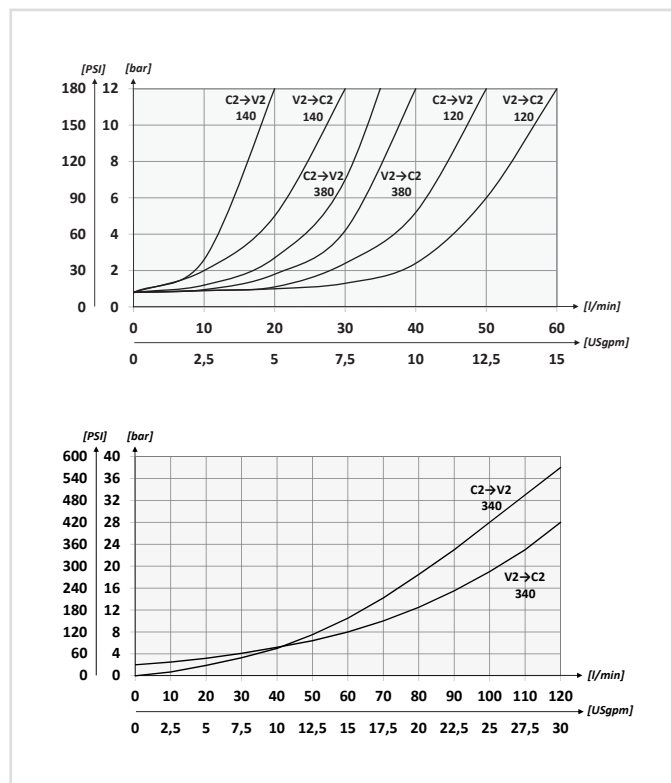
CODICE ORDINAZIONE  
ORDERING CODE

| 01          | 02 | 03 | 04 | 05 |
|-------------|----|----|----|----|
| <b>VBCL</b> |    |    |    |    |

| 01 | VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO APERTO<br>(SINGLE COUNTERBALANCE VALVES FOR OPEN CENTER) |                                                   |            |                                    |                                     | VBCL |
|----|------------------------------------------------------------------------------------------------------|---------------------------------------------------|------------|------------------------------------|-------------------------------------|------|
| 02 | DIMENSIONE<br>(SIZE)                                                                                 | BSPP 1/4                                          |            |                                    |                                     | 140  |
|    |                                                                                                      | BSPP 3/8                                          |            |                                    |                                     | 380  |
|    |                                                                                                      | BSPP 1/2                                          |            |                                    |                                     | 120  |
|    |                                                                                                      | BSPP 3/4                                          |            |                                    |                                     | 340  |
| 03 | MOLLA<br>(SPRING)<br><br>30/210 bar<br>(435/3045 PSI)                                                | Rp 1:4.25                                         | 140<br>380 | 78 bar/al giro<br>(1131 PSI/turn)  | Taratura standard<br>(Std. setting) | 1    |
|    |                                                                                                      | Rp 1:8.75                                         | 120        | 160 bar/al giro<br>(2320 PSI/turn) | Q=5 l/min 200 bar<br>(2900 PSI)     |      |
|    | MOLLA<br>(SPRING)<br><br>60/350 bar<br>(870/5075 PSI)                                                | Rp 1:4.25                                         | 140<br>380 | 135 bar/al giro<br>(1958 PSI/turn) | Taratura standard<br>(Std. setting) | 2    |
|    |                                                                                                      | Rp 1:8.75                                         | 120        | 160 bar/al giro<br>(2320 PSI/turn) | Q=5 l/min 350 bar<br>(5075 PSI)     |      |
|    | MOLLA<br>(SPRING)<br><br>60/350 bar<br>(870/5075 PSI)                                                | Rp 1:6.2                                          | 340        | 143 bar/al giro<br>(2074 PSI/turn) | Taratura standard<br>(Std. setting) |      |
|    |                                                                                                      | Rp 1:10.6                                         |            | 242bar/al giro<br>(3509 PSI/turn)  | Q=5 l/min 350 bar<br>(5075 PSI)     |      |
| 04 | MATERIALE<br>(MATERIAL)                                                                              | Acciaio + zincatura (Steel body + zinc-plating)   |            |                                    |                                     | S    |
|    |                                                                                                      | Acciaio + zinco-nichel (Steel body + zinc-nickel) |            |                                    |                                     | K    |
| 05 | RAPPORTO<br>DI PILOTAGGIO<br>(PILOT RATIO)                                                           | 140                                               | 380<br>120 | 1:4.25 Standard                    |                                     | /    |
|    |                                                                                                      | 1:8.75                                            |            | 8                                  |                                     |      |
|    |                                                                                                      | 340                                               | 1:6.2      |                                    | /                                   |      |
|    |                                                                                                      |                                                   | 1:10,6     |                                    | 11                                  |      |

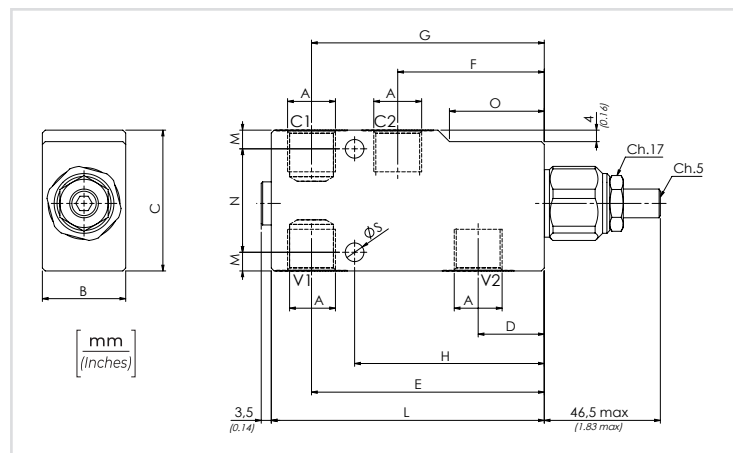
Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

## PERFORMANCES



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Oil hydraulic - Mineral oil                                                                                                                                                        | ISO 6743/4 (DIN 51524)                                                              |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                                                       |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                                             |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                                             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |

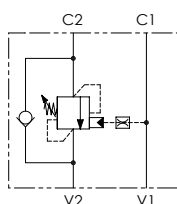


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

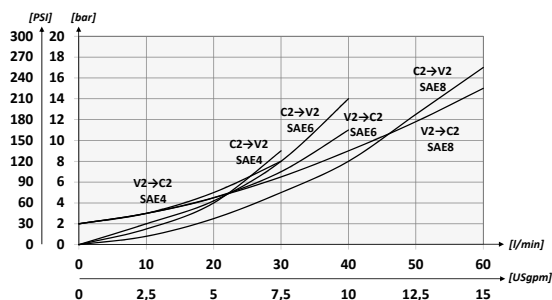
| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B            | C            | D            | E             | F            | G             | H              | L             | M             | N            | O            | S             | PESO APPROX (kg)<br>APPROX WEIGHT (lb) |
|--------------|----------|----------------------------------------|------------------------------------------|--------------|--------------|--------------|---------------|--------------|---------------|----------------|---------------|---------------|--------------|--------------|---------------|----------------------------------------|
| VBCL140      | BSPP 1/4 | 30 (7.9)                               | 350<br>(5075)                            | 29<br>(1.14) | 49<br>(1.93) | 23<br>(0.91) | 81<br>(3.19)  | 51<br>(2.01) | 81<br>(3.19)  | 66<br>(2.60)   | 95<br>(3.74)  | 6,5<br>(0.26) | 36<br>(1.42) | 33<br>(1.30) | 6,5<br>(0.26) | 0,98 (2.16)                            |
| VBCL380      | BSPP 3/8 | 40 (10.6)                              |                                          |              | 59<br>(2.32) | 21<br>(0.83) | 84<br>(3.30)  |              | 84<br>(3.31)  | 67,5<br>(2.66) | 100<br>(3.94) | 9,5<br>(0.37) | 40<br>(1.57) |              |               | 0,92 (2.02)                            |
| VBCL120      | BSPP 1/2 | 60 (15.9)                              |                                          |              | 69<br>(2.72) | 20<br>(0.79) | 120<br>(4.72) |              | 120<br>(4.72) | 96<br>(3.78)   | 140<br>(5.51) | 50<br>(1.97)  | 45<br>(1.77) |              |               | 1,09 (2.40)                            |
| VBCL340      | BSPP 3/4 | 120 (31.7)                             |                                          |              | 39<br>(1.54) | 20<br>(0.79) | 120<br>(4.72) |              | 120<br>(4.72) | 96<br>(3.78)   | 140<br>(5.51) | 50<br>(1.97)  | 45<br>(1.77) |              |               | 2,54 (5.59)                            |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



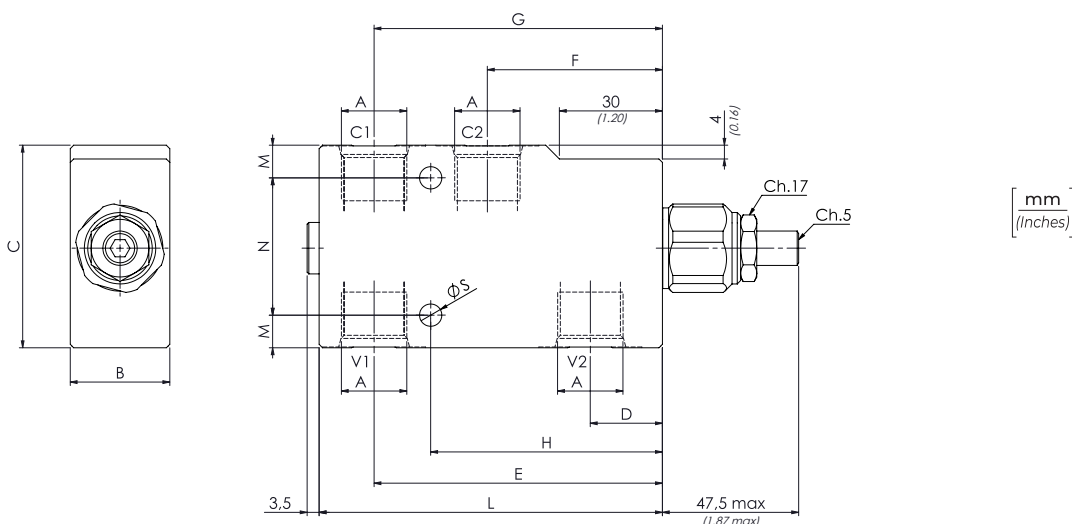
## PERFORMANCES



Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                                     |       |             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------|-------------|
| Oil idraulico - Mineral oil                                                                                                                                                        | ISO 6743/4 (DIN 51524)                                                              |       |             |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |       |             |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                                                       |       |             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C                                                                               | +80°C | -4°F +176°F |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C                                                                               | +50°C | -4°F +122°F |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |       |             |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |       |             |

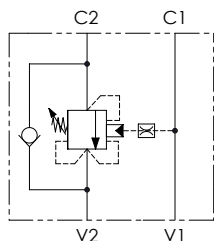


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

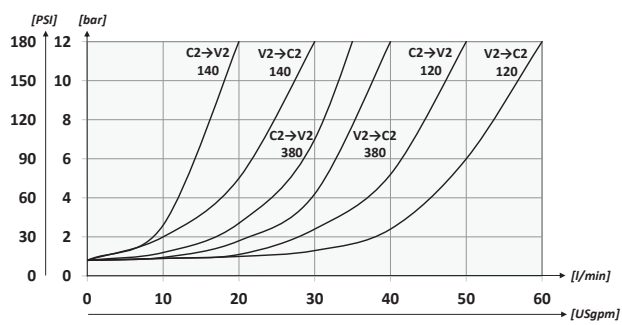
| TIPO<br>TYPE | A          | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B            | C            | D            | E            | F            | G            | H              | L             | M             | N            | O            | S             | PESO APPROX<br>APPROXWEIGHT<br>kg-lbt |
|--------------|------------|----------------------------------------|------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|---------------|---------------|--------------|--------------|---------------|---------------------------------------|
| VBCL4        | 7/16-20UNF | 30 (7.9)                               | 350<br>(5075)                            | 29<br>(1.14) | 49<br>(1.93) | 23<br>(0.91) | 81<br>(3.19) | 51<br>(2.01) | 81<br>(3.19) | 66<br>(2.60)   | 95<br>(3.74)  | 6,5<br>(0.26) | 36<br>(1.42) | 33<br>(1.30) | 6,5<br>(0.26) | 1 (2.20)                              |
| VBCL6        | 9/16-18UNF | 40 (10.6)                              |                                          |              | 59<br>(2.32) | 21<br>(0.83) | 84<br>(3.31) |              | 84<br>(3.31) | 67,5<br>(2.66) | 100<br>(3.94) | 9,5<br>(0.37) | 40<br>(1.57) |              |               | 0,97 (2.14)                           |
| VBCL8        | 3/4-16UNF  | 60 (15.9)                              |                                          |              |              |              |              |              |              |                |               |               |              |              |               | 1,16 (2.56)                           |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PERFORMANCES



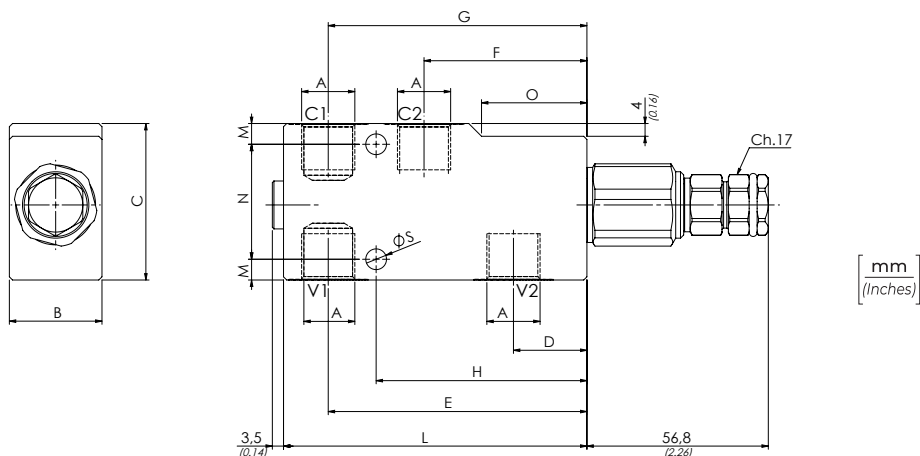
## CODICE ORDINAZIONE ORDERING CODE

|      |    |    |    |    |
|------|----|----|----|----|
| 01   | 02 | 03 | 04 | 05 |
| VCCL |    |    | S  |    |

|    |                                                                                                        |           |                                               |                                                                            |   |
|----|--------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------|----------------------------------------------------------------------------|---|
| 01 | VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO CHIUSO<br>(SINGLE COUNTERBALANCE VALVES FOR CLOSED CENTER) |           |                                               | VCCL                                                                       |   |
| 02 | DIMENSIONE<br>(SIZE)                                                                                   |           | BSP1 1/4                                      | 140                                                                        |   |
|    |                                                                                                        |           | BSP1 3/8                                      | 380                                                                        |   |
|    |                                                                                                        |           | BSP1 1/2                                      | 120                                                                        |   |
| 03 | MOLLA<br>(SPRING)<br><br>30/210 bar<br>(435/3045 PSI)                                                  | Rp 1:4.25 | 78 bar/al giro<br>(1131 PSI/turn)             | Taratura standard<br>(Std. setting)<br><br>Q=5 l/min 200 bar<br>(2900 PSI) | 1 |
|    |                                                                                                        | Rp 1:8.75 | 160 bar/al giro<br>(2320 PSI/turn)            |                                                                            |   |
|    | MOLLA<br>(SPRING)<br><br>60/350 bar<br>(870/5075 PSI)                                                  | Rp 1:4.25 | 135 bar/al giro<br>(1958 PSI/turn)            | Taratura standard<br>(Std. setting)<br><br>Q=5 l/min 350 bar<br>(5075 PSI) | 2 |
|    |                                                                                                        | Rp 1:8.75 | 160 bar/al giro<br>(2320 PSI/turn)            |                                                                            |   |
| 04 | MATERIALE<br>(MATERIAL)                                                                                |           | Acciaio + zincatura<br>(Steel + zinc-plating) |                                                                            | S |
| 05 | RAPPORTO<br>DI PILOTAGGIO<br>(PILOT RATIO)                                                             |           | 1:4.25 Standard                               |                                                                            | / |
|    |                                                                                                        |           | 1:8.75                                        |                                                                            | 8 |

## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                                              |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                                                       |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                                             |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                                             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |

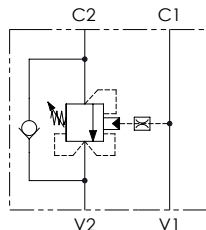


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

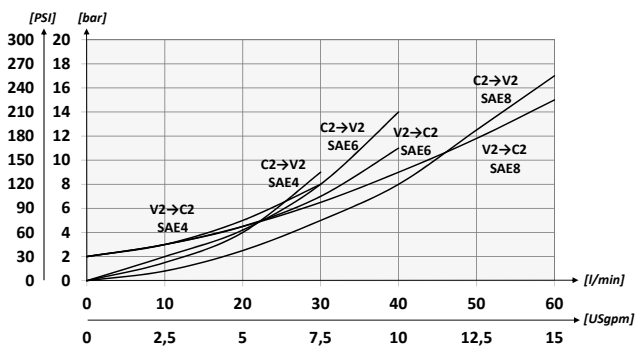
| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B            | C            | D            | E            | F            | G            | H              | L             | M             | N            | O            | S             | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt |
|--------------|----------|----------------------------------------|------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|---------------|---------------|--------------|--------------|---------------|-------------------------------------------|
| VCCL140      | BSPP 1/4 | 30 (7.9)                               | 350<br>(5075)                            | 29<br>(1.14) | 49<br>(1.93) | 23<br>(0.91) | 81<br>(3.19) | 51<br>(2.01) | 81<br>(3.19) | 66<br>(2.60)   | 95<br>(3.74)  | 6,5<br>(0.26) | 36<br>(1.42) | 33<br>(1.30) | 6,5<br>(0.26) | 1,02 (2.24)                               |
| VCCL380      | BSPP 3/8 | 40 (10.6)                              |                                          |              | 59<br>(2.32) | 21<br>(0.83) | 84<br>(3.30) |              | 84<br>(3.31) | 67,5<br>(2.66) | 100<br>(3.94) | 9,5<br>(0.37) | 40<br>(1.57) |              |               | 0,98 (2.16)                               |
| VCCL120      | BSPP 1/2 | 60 (15.9)                              |                                          |              |              |              |              |              |              |                |               |               |              |              |               | 1,15 (2.53)                               |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PERFORMANCES



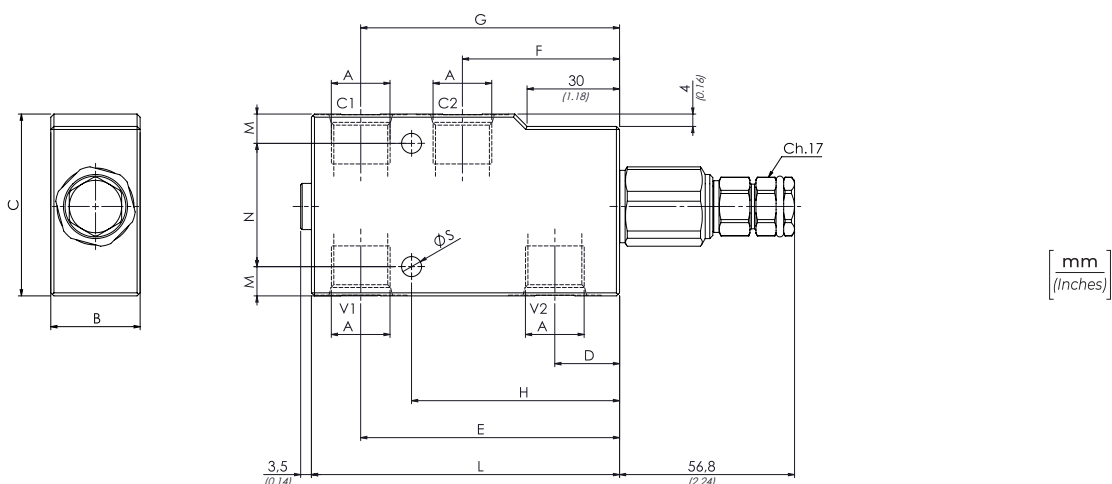
## CODICE ORDINAZIONE ORDERING CODE

| 01          | 02 | 03 | 04       | 05 |
|-------------|----|----|----------|----|
| <b>VCCL</b> |    |    | <b>S</b> |    |

|    |                                                                                                        |           |                                               |                                     |      |
|----|--------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------|-------------------------------------|------|
| 01 | VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO CHIUSO<br>(SINGLE COUNTERBALANCE VALVES FOR CLOSED CENTER) |           |                                               |                                     | VCCL |
| 02 | DIMENSIONE<br>(SIZE)                                                                                   |           | 7/16-20UNF                                    |                                     | 4    |
|    |                                                                                                        |           | 9/16-18UNF                                    |                                     | 6    |
|    |                                                                                                        |           | 3/4-16UNF                                     |                                     | 8    |
| 03 | MOLLA<br>(SPRING)                                                                                      | Rp 1:4.25 | 78 bar/al giro<br>(1131 PSI/turn)             | Taratura standard<br>(Std. setting) | 1    |
|    | 30/210 bar<br>(435/3045 PSI)                                                                           | Rp 1:8.75 | 160 bar/al giro<br>(2320 PSI/turn)            | Q=5 l/min 200 bar<br>(2900 PSI)     |      |
|    | MOLLA<br>(SPRING)                                                                                      | Rp 1:4.25 | 135 bar/al giro<br>(1958 PSI/turn)            | Taratura standard<br>(Std. setting) | 2    |
|    | 60/350 bar<br>(870/5075 PSI)                                                                           | Rp 1:8.75 | 160 bar/al giro<br>(2320 PSI/turn)            | Q=5 l/min 350 bar<br>(5075 PSI)     |      |
| 04 | MATERIALE<br>(MATERIAL)                                                                                |           | Acciaio + zincatura<br>(Steel + zinc-plating) |                                     | S    |
| 05 | RAPPORTO<br>DI PILOTAGGIO<br>(PILOT RATIO)                                                             |           | 1:4.25 Standard                               |                                     | /    |
|    |                                                                                                        |           | 1:8.75                                        |                                     | 8    |

## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                | <b>ISO 6743/4</b> (DIN 51524)                                                                 |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                              | <b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt)                                                |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                     | <b>ISO 4406:1999 Classe 18/16/13</b>                                                          |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                     | <b>-20°C +80°C</b> -4°F +176°F                                                                |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                              | <b>-20°C +50°C</b> -4°F +122°F                                                                |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                               |
| <b>Trafilamento@46cSt &amp; 200 bar</b><br>Leakage@46cSt & 200 bar                                                                                                                 | <b>0,25 cm<sup>3</sup>/min - 5 gocce/min</b><br><b>0,015 in<sup>3</sup>/min - 5 drops/min</b> |

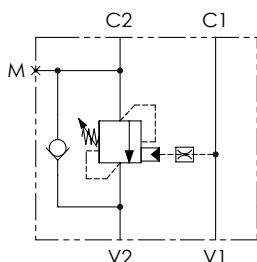


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

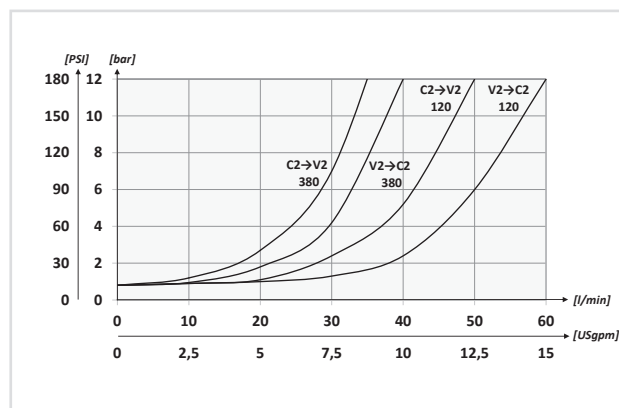
| TIPO<br>TYPE | A          | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B            | C            | D            | E            | F            | G            | H              | L             | M             | N            | O            | S             | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt |
|--------------|------------|----------------------------------------|------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|---------------|---------------|--------------|--------------|---------------|-------------------------------------------|
| VCCL4        | 7/16-20UNF | 30 (7.9)                               | 350<br>(5075)                            | 29<br>(1.14) | 49<br>(1.93) | 23<br>(0.91) | 81<br>(3.19) | 51<br>(2.01) | 81<br>(3.19) | 66<br>(2.60)   | 95<br>(3.74)  | 6,5<br>(0.26) | 36<br>(1.42) | 33<br>(1.30) | 6,5<br>(0.26) | 1,02 (2.24)                               |
| VCCL6        | 9/16-18UNF | 40 (10.6)                              |                                          |              | 59<br>(2.32) | 21<br>(0.83) | 84<br>(3.30) |              | 84<br>(3.31) | 67,5<br>(2.66) | 100<br>(3.94) | 9,5<br>(0.37) | 40<br>(1.57) |              |               | 0,98 (2.16)                               |
| VCCL8        | 3/4-16UNF  | 60 (15.9)                              |                                          |              |              |              |              |              |              |                |               |               |              |              |               | 1,15 (2.53)                               |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PERFORMANCES



## CODICE ORDINAZIONE ORDERING CODE

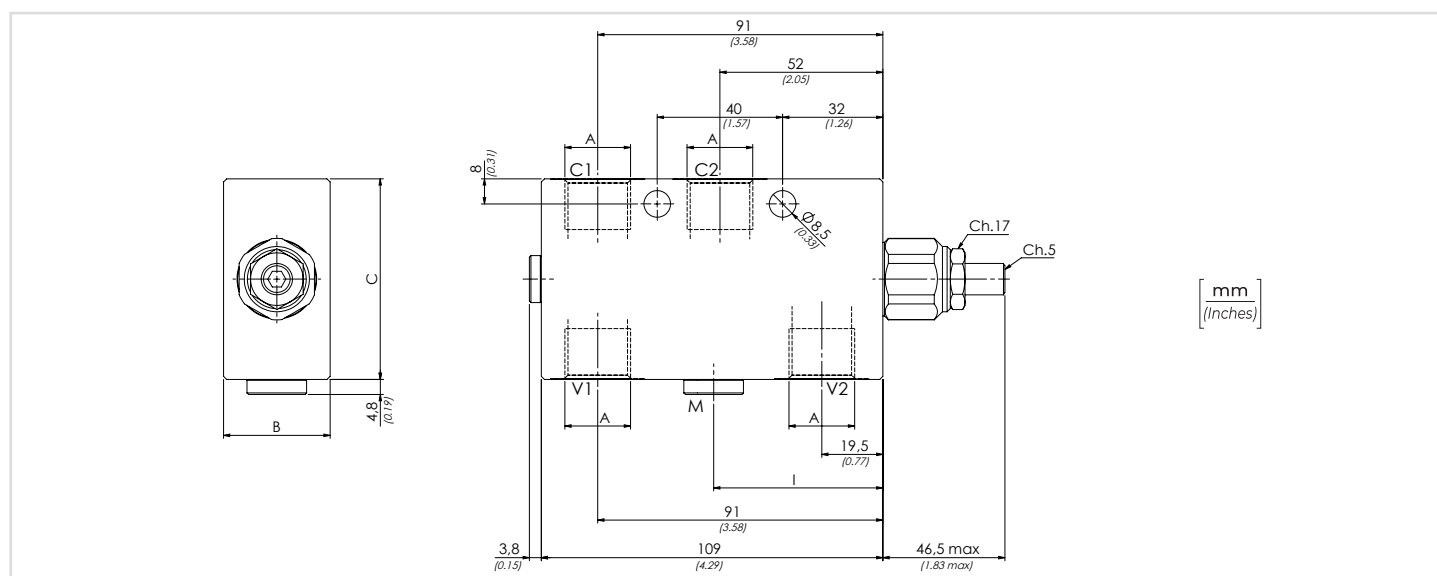
| 01          | 02 | 03 | 04 | 05 |
|-------------|----|----|----|----|
| <b>VBLP</b> |    |    |    |    |

|    |                                                                                                      |           |                                                 |                                     |      |
|----|------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------|-------------------------------------|------|
| 01 | VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO APERTO<br>(SINGLE COUNTERBALANCE VALVES FOR OPEN CENTER) |           |                                                 |                                     | VBLP |
| 02 | DIMENSIONE<br>(SIZE)                                                                                 |           | BSPP 3/8                                        |                                     | 380  |
|    |                                                                                                      |           | BSPP 1/2                                        |                                     | 120  |
| 03 | MOLLA<br>30/210 BAR<br><br>(SPRING<br>435/3045 PSI)                                                  | Rp 1:4.25 | 78 bar/al giro<br>(1131 PSI/turn)               | Taratura standard<br>(Std. setting) | 1    |
|    |                                                                                                      | Rp 1:8.75 | 160 bar/al giro<br>(2320 PSI/turn)              | Q=5 l/min 200 bar<br>(2900 PSI)     |      |
|    | MOLLA<br>60/350 BAR<br><br>(SPRING<br>870/5075 PSI)                                                  | Rp 1:4.25 | 135 bar/al giro<br>(1958 PSI/turn)              | Taratura standard<br>(Std. setting) | 2    |
|    |                                                                                                      | Rp 1:8.75 | 160 bar/al giro<br>(2320 PSI/turn)              | Q=5 l/min 350 bar<br>(5075 PSI)     |      |
| 04 | MATERIALE<br>(MATERIAL)                                                                              |           | Acciaio + zincatura<br>(Steel + zinc-plating)   |                                     | S    |
|    |                                                                                                      |           | Acciaio + zinco-nichel<br>(Steel + zinc-nickel) |                                     | K    |
| 05 | RAPPORTO<br>DI PILOTAGGIO<br>(PILOT RATIO)                                                           |           | 1:4.25 Standard                                 |                                     | /    |
|    |                                                                                                      |           | 1:8.75                                          |                                     | 8    |

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                                     |       |              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------|--------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                                              |       |              |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |       |              |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                                                       |       |              |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C                                                                               | +80°C | -4°F + 176°F |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C                                                                               | +50°C | -4°F + 122°F |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |       |              |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |       |              |

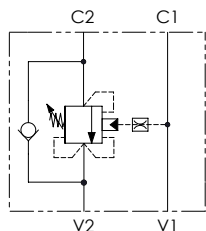


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

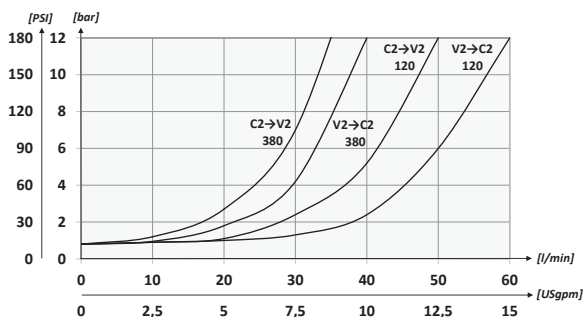
| TIPO<br>TYPE | A        | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | B         | C         | I         | M        | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|--------------|----------|-----------------------------------------|-------------------------------------------|-----------|-----------|-----------|----------|-----------------------------------------|
| VBLP380      | BSPP 3/8 | 40 (10.6)                               | 350 (5075)                                | 29 (1.14) | 54 (2.13) | /         | /        | 1,21 (2.63)                             |
| VBLP120      | BSPP 1/2 | 60 (15.9)                               |                                           | 34 (1.34) | 64 (2.52) | 54 (2.13) | BSPP 1/4 | 1,59 (3.46)                             |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PERFORMANCES



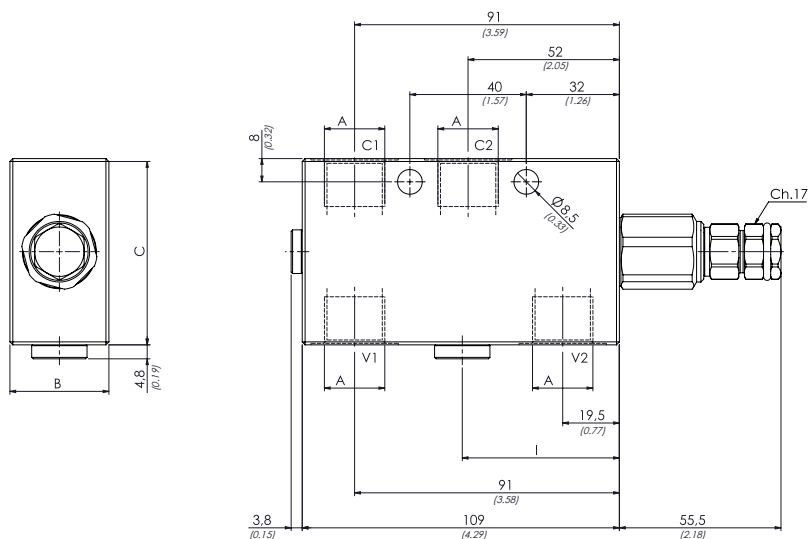
## CODICE ORDINAZIONE ORDERING CODE

| 01          | 02 | 03 | 04       | 05 |
|-------------|----|----|----------|----|
| <b>VCLP</b> |    |    | <b>S</b> |    |

|           |                                                                                                        |                                               |                                           |             |
|-----------|--------------------------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------------------------|-------------|
| <b>01</b> | VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO CHIUSO<br>(SINGLE COUNTERBALANCE VALVES FOR CLSOED CENTER) |                                               |                                           | <b>VCLP</b> |
| <b>02</b> | DIMENSIONE<br>(SIZE)                                                                                   | BSPP 3/8                                      |                                           | <b>380</b>  |
|           |                                                                                                        | BSPP 1/2                                      |                                           | <b>120</b>  |
| <b>03</b> | <b>MOLLA 30/210 BAR</b><br>(SPRING 435/3045 PSI)                                                       | Rp 1:4.25                                     | <b>78 bar/al giro</b><br>(1131 PSI/turn)  | <b>1</b>    |
|           |                                                                                                        | Rp 1:8.75                                     | <b>160 bar/al giro</b><br>(2320 PSI/turn) |             |
|           | <b>MOLLA 60/350 BAR</b><br>(SPRING 870/5075 PSI)                                                       | Rp 1:4.25                                     | <b>135 bar/al giro</b><br>(1958 PSI/turn) | <b>2</b>    |
|           |                                                                                                        | Rp 1:8.75                                     | <b>160 bar/al giro</b><br>(2320 PSI/turn) |             |
| <b>04</b> | MATERIALE<br>(MATERIAL)                                                                                | Acciaio + zincatura<br>(Steel + zinc-plating) |                                           | <b>S</b>    |
| <b>05</b> | RAPPORTO DI PILOTAGGIO<br>(PILOT RATIO)                                                                | 1:4.25 Standard                               |                                           | <b>/</b>    |
|           |                                                                                                        | 1:8.75                                        |                                           | <b>8</b>    |

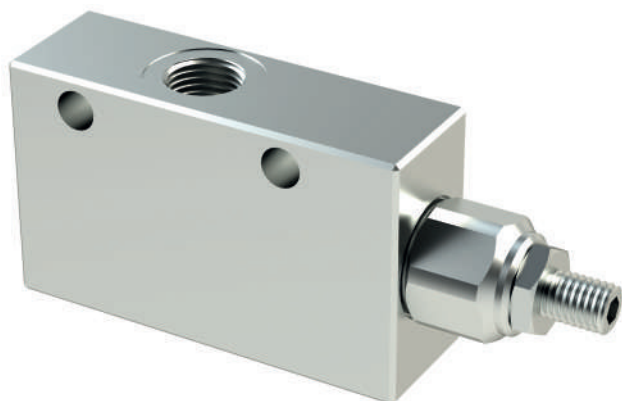
## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |

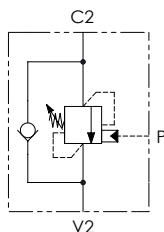


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

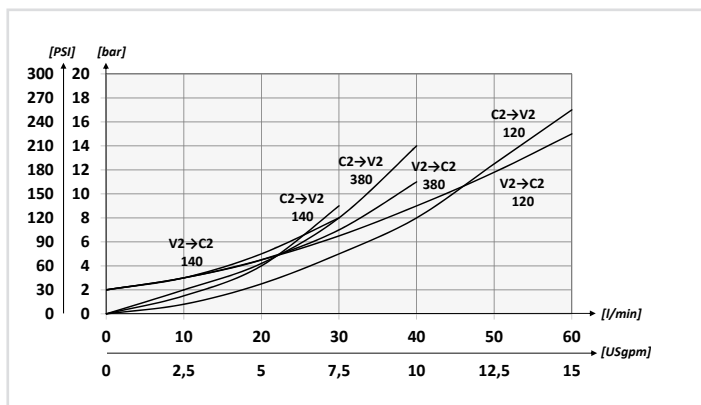
| TIPO<br>TYPE | A        | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | B         | C         | I         | M        | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|--------------|----------|-----------------------------------------|-------------------------------------------|-----------|-----------|-----------|----------|-----------------------------------------|
| VCLP380      | BSPP 3/8 | 40 (10.6)                               | 350 (5075)                                | 29 (1.14) | 54 (2.13) | /         | /        | 1,21 (2.63)                             |
| VCLP120      | BSPP 1/2 | 60 (15.9)                               |                                           | 34 (1.34) | 64 (2.52) | 54 (2.13) | BSPP 1/4 | 1,59 (3.46)                             |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



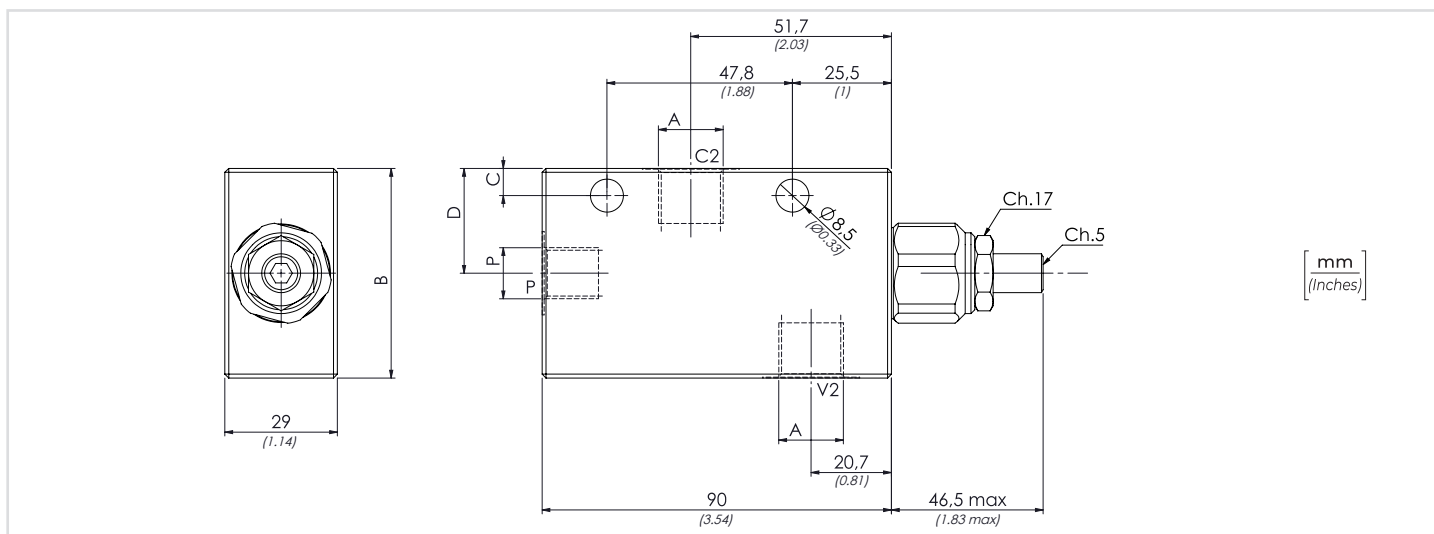
## PERFORMANCES



Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                | <b>ISO 6743/4</b> (DIN 51524)                                    |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                              | <b>15-250 mm²/s</b> (15 to 250 cSt)                              |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                     | <b>ISO 4406:1999 Classe 18/16/13</b>                             |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                     | <b>-20°C +80°C</b> -4°F +176°F                                   |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                              | <b>-20°C +50°C</b> -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                  |
| <b>Trafilamento@46cSt &amp; 200 bar</b><br>Leakage@46cSt & 200 bar                                                                                                                 | <b>0,25 cm³/min - 5 gocce/min</b><br>0,015 in³/min - 5 drops/min |

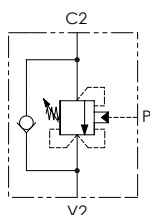


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

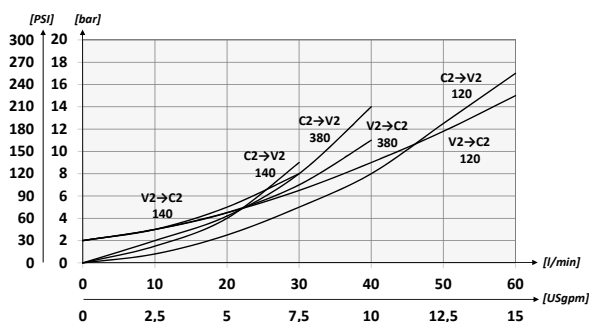
| TIPO<br>TYPE | A        | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | B         | C         | D         | A        | P        | PESO APPROX (kg)<br>APPROX WEIGHT (lb) |
|--------------|----------|-----------------------------------------|-------------------------------------------|-----------|-----------|-----------|----------|----------|----------------------------------------|
| VBCR140      | BSPP 1/4 | 30 (7.9)                                | 350 (5075)                                | 54 (2.13) | 7 (0.28)  | 27 (1.06) | BSPP 1/4 | BSPP 1/4 | 1,06 (2.33)                            |
| VBCR380      | BSPP 3/8 | 40 (10.6)                               |                                           | 64 (2.52) | 11 (0.43) | 32 (1.26) | BSPP 3/8 |          | 1,21 (2.63)                            |
| VBCR120      | BSPP 1/2 | 60 (15.9)                               |                                           |           |           |           | BSPP 1/2 |          | 1,59 (3.46)                            |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PERFORMANCES



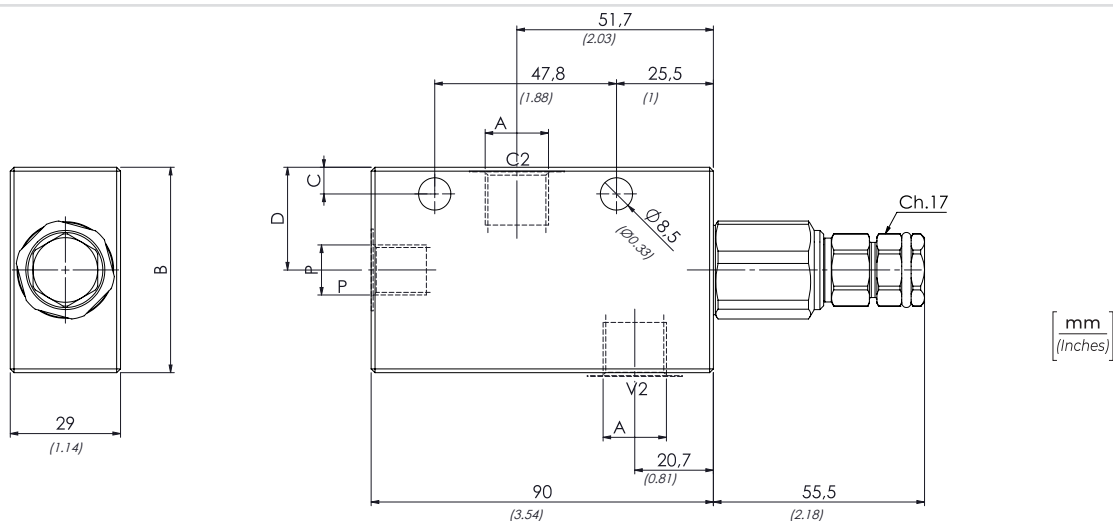
## CODICE ORDINAZIONE ORDERING CODE

| 01          | 02 | 03 | 04       | 05 |
|-------------|----|----|----------|----|
| <b>VCCR</b> |    |    | <b>S</b> |    |

|    |                                                                                                                                            |           |                                                    |                                                                            |      |
|----|--------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------|----------------------------------------------------------------------------|------|
| 01 | VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO CHIUSO - PILOTAGGIO ESTERNO<br>SINGLE COUNTERBALANCE VALVES FOR CLOSED CENTER - EXTERNAL PILOT |           |                                                    |                                                                            | VCCR |
| 02 | DIMENSIONE<br>(SIZE)                                                                                                                       |           | BSPP 1/4                                           |                                                                            | 140  |
|    |                                                                                                                                            |           | BSPP 3/8                                           |                                                                            | 380  |
|    |                                                                                                                                            |           | BSPP 1/2                                           |                                                                            | 120  |
| 03 | MOLLA<br>30/210 BAR<br><br>(SPRING<br>435/3045 PSI)                                                                                        | Rp 1:4.25 | 78 bar/al giro<br>(1131 PSI/turn)                  | Taratura standard<br>(Std. setting)<br><br>Q=5 l/min 200 bar<br>(2900 PSI) | 1    |
|    |                                                                                                                                            | Rp 1:8.75 | 160 bar/al giro<br>(2320 PSI/turn)                 |                                                                            |      |
|    | MOLLA<br>60/350 BAR<br><br>(SPRING<br>870/5075 PSI)                                                                                        | Rp 1:4.25 | 135 bar/al giro<br>(1958 PSI/turn)                 | Taratura standard<br>(Std. setting)<br><br>Q=5 l/min 350 bar<br>(5075 PSI) | 2    |
|    |                                                                                                                                            | Rp 1:8.75 | 160 bar/al giro<br>(2320 PSI/turn)                 |                                                                            |      |
| 04 | MATERIALE<br>(MATERIAL)                                                                                                                    |           | Acciaio + zincatura<br>(Steel body + zinc-plating) |                                                                            | S    |
| 05 | RAPPORTO<br>DI PILOTAGGIO<br>(PILOT RATIO)                                                                                                 |           | 1:4.25 Standard                                    |                                                                            | /    |
|    |                                                                                                                                            |           | 1:8.75                                             |                                                                            | 8    |

## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                | <b>ISO 6743/4</b> (DIN 51524)                                    |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                              | <b>15-250 mm²/s</b> (15 to 250 cSt)                              |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                     | <b>ISO 4406:1999 Classe 18/16/13</b>                             |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                     | <b>-20°C +80°C</b> -4°F +176°F                                   |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                              | <b>-20°C +50°C</b> -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                  |
| <b>Trafilamento@46cSt &amp; 200 bar</b><br>Leakage@46cSt & 200 bar                                                                                                                 | <b>0,25 cm³/min - 5 gocce/min</b><br>0,015 in³/min - 5 drops/min |

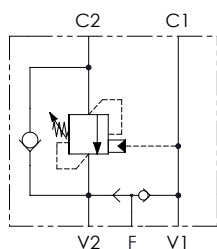


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | B         | C         | D         | A        | P        | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|--------------|----------|-----------------------------------------|-------------------------------------------|-----------|-----------|-----------|----------|----------|-----------------------------------------|
| VCCR140      | BSPP 1/4 | 30 (7.9)                                | 350 (5075)                                | 54 (2.13) | 7 (0.28)  | 27 (1.06) | BSPP 1/4 | BSPP 1/4 | 1,06 (2.33)                             |
| VCCR380      | BSPP 3/8 | 40 (10.6)                               |                                           | 64 (2.52) | 11 (0.43) | 32 (1.26) | BSPP 3/8 |          | 1,21 (2.63)                             |
| VCCR120      | BSPP 1/2 | 60 (15.9)                               |                                           |           |           |           | BSPP 1/2 |          | 1,59 (3.46)                             |



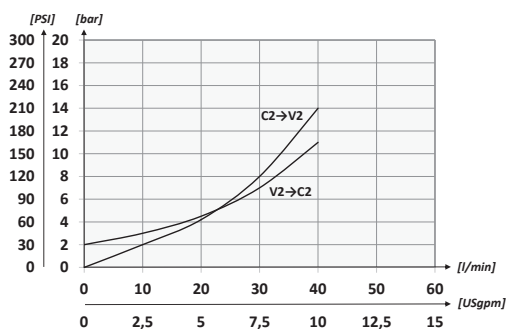
## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

CODICE ORDINAZIONE  
ORDERING CODE

|             |            |    |    |    |
|-------------|------------|----|----|----|
| 01          | 02         | 03 | 04 | 05 |
| <b>VBFP</b> | <b>380</b> |    |    |    |

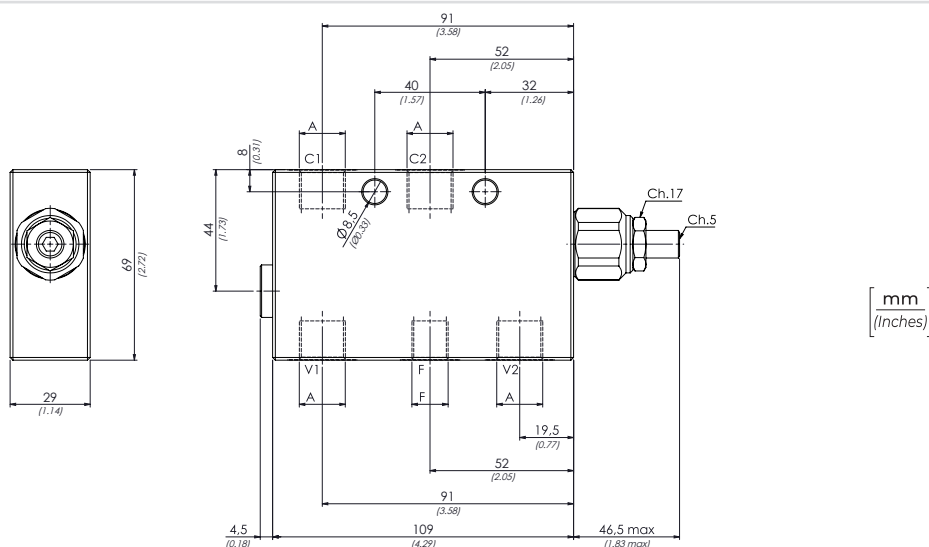
|           |                                                                                                                                              |                                                 |                                           |             |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------|-------------|
| <b>01</b> | VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO APERTO CON SBLOCCA FRENO<br>(SINGLE COUNTERBALANCE VALVES FOR OPEN CENTER WITH BRAKE UN-LOCKING) |                                                 |                                           | <b>VBFP</b> |
| <b>02</b> | DIMENSIONE<br>(SIZE)                                                                                                                         |                                                 | BSPP 3/8                                  | <b>380</b>  |
| <b>03</b> | <b>MOLLA 30/210 BAR</b><br>(SPRING 435/3045 PSI)                                                                                             | Rp 1:4.25                                       | <b>78 bar/al giro</b><br>(1131 PSI/turn)  | <b>1</b>    |
|           |                                                                                                                                              | Rp 1:8.75                                       | <b>160 bar/al giro</b><br>(2320 PSI/turn) |             |
| <b>03</b> | <b>MOLLA 60/350 BAR</b><br>(SPRING 870/5075 PSI)                                                                                             | Rp 1:4.25                                       | <b>135 bar/al giro</b><br>(1958 PSI/turn) | <b>2</b>    |
|           |                                                                                                                                              | Rp 1:8.75                                       | <b>160 bar/al giro</b><br>(2320 PSI/turn) |             |
| <b>04</b> | MATERIALE<br>(MATERIAL)                                                                                                                      | Acciaio + zincatura<br>(Steel + zinc-plating)   |                                           | <b>S</b>    |
|           |                                                                                                                                              | Acciaio + zinco-nichel<br>(Steel + zinc-nickel) |                                           | <b>K</b>    |
| <b>05</b> | RAPPORTO DI PILOTAGGIO<br>(PILOT RATIO)                                                                                                      |                                                 | 1:4.25 Standard                           | <b>/</b>    |

## PERFORMANCES

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                | <b>ISO 6743/4</b> (DIN 51524)                                    |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                              | <b>15-250 mm²/s</b> (15 to 250 cSt)                              |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                     | <b>ISO 4406:1999 Classe 18/16/13</b>                             |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                     | <b>-20°C +80°C</b> -4°F +176°F                                   |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                              | <b>-20°C +50°C</b> -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                  |
| <b>Trafilamento@46cSt &amp; 200 bar</b><br>Leakage@46cSt & 200 bar                                                                                                                 | <b>0,25 cm³/min - 5 gocce/min</b><br>0,015 in³/min - 5 drops/min |

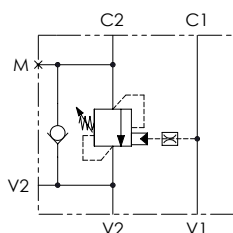


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE   | A               | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | A               | F               | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|----------------|-----------------|-----------------------------------------|-------------------------------------------|-----------------|-----------------|-----------------------------------------|
| <b>VBFP380</b> | <b>BSPP 3/8</b> | <b>40</b> (10.6)                        | <b>350</b> (5075)                         | <b>BSPP 3/8</b> | <b>BSPP 1/4</b> | <b>1,51</b> (3.33)                      |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



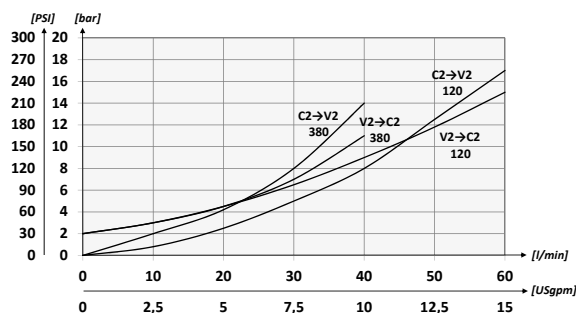
## CODICE ORDINAZIONE ORDERING CODE

| 01          | 02 | 03 | 04 | 05 |
|-------------|----|----|----|----|
| <b>VBLH</b> |    |    |    |    |

|    |                                                                                                                                                         |                                              |                                    |                                     |      |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------------|-------------------------------------|------|
| 01 | VALVOLE DI BILANCIAMENTO SINGOLE<br>PER CENTRO APERTO - FLANGIATE SINGOLE<br>(SINGLE COUNTERBALANCE VALVES<br>FOR OPEN CENTER - SINGLE FLANGED VERSION) |                                              |                                    |                                     | VBLH |
| 02 | DIMENSIONE<br>(SIZE)                                                                                                                                    |                                              | BSPP 3/8                           |                                     | 380  |
|    |                                                                                                                                                         |                                              | BSPP 1/2                           |                                     | 120  |
| 03 | MOLLA<br>(SPRING)                                                                                                                                       | Rp 1:4.25                                    | 78 bar/al giro<br>(1131 PSI/turn)  | Taratura standard<br>(Std. setting) | 1    |
|    | 30/210 bar<br>(435/3045 PSI)                                                                                                                            | Rp 1:8.75                                    | 160 bar/al giro<br>(2320 PSI/turn) | Q=5 l/min 200 bar<br>(2900 PSI)     |      |
|    | MOLLA<br>(SPRING)                                                                                                                                       | Rp 1:4.25                                    | 135 bar/al giro<br>(1958 PSI/turn) | Taratura standard<br>(Std. setting) | 2    |
|    | 60/350 bar<br>(870/5075 PSI)                                                                                                                            | Rp 1:8.75                                    | 160 bar/al giro<br>(2320 PSI/turn) | Q=5 l/min 350 bar<br>(5075 PSI)     |      |
| 04 | MATERIALE<br>(MATERIAL)                                                                                                                                 | Acciaio + zincatura (Steel + zinc-plating)   |                                    |                                     | S    |
|    |                                                                                                                                                         | Acciaio + zinco-nichel (Steel + zinc-nickel) |                                    |                                     | K    |
| 05 | RAPPORTO DI PILOTAGGIO<br>(PILOT RATIO)                                                                                                                 |                                              |                                    | 1:4.25 Standard                     | /    |
|    |                                                                                                                                                         |                                              |                                    | 1:8.75                              | 8    |

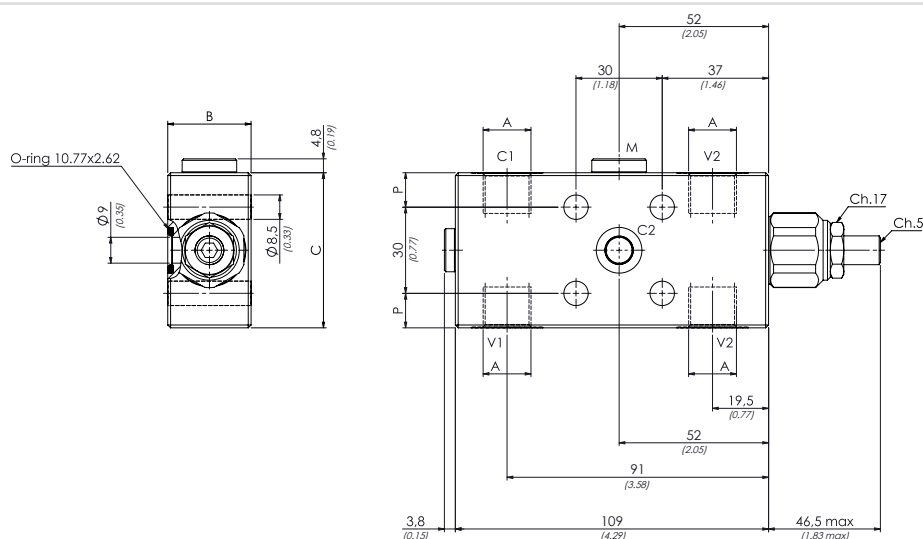
Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

## PERFORMANCES



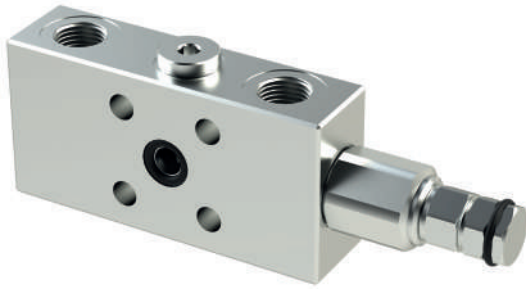
## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                | <b>ISO 6743/4</b> (DIN 51524)                                           |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                              | <b>15-250 mm²/s</b> (15 to 250 cSt)                                     |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                     | <b>ISO 4406:1999 Classe 18/16/13</b>                                    |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                     | <b>-20°C +80°C</b> -4°F +176°F                                          |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                              | <b>-20°C +50°C</b> -4°F +122°F                                          |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                         |
| <b>Trafilamento@46cSt &amp; 200 bar</b><br>Leakage@46cSt & 200 bar                                                                                                                 | <b>0,25 cm³/min - 5 gocce/min</b><br><b>0,015 in³/min - 5 drops/min</b> |

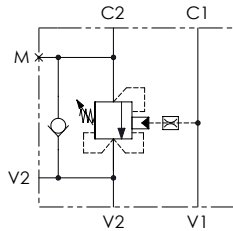


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | B         | C         | M        | P         | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|--------------|----------|-----------------------------------------|-------------------------------------------|-----------|-----------|----------|-----------|-----------------------------------------|
| VBLH380      | BSPP 3/8 | 40 (10.6)                               | 350 (5075)                                | 29 (1.14) | 54 (2.13) | BSPP 1/4 | 12 (0.47) | 1,18 (2.60)                             |
| VBLH120      | BSPP 1/2 | 60 (15.9)                               |                                           | 34 (1.34) | 64 (2.52) |          | 17 (0.67) | 1,57 (3.49)                             |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

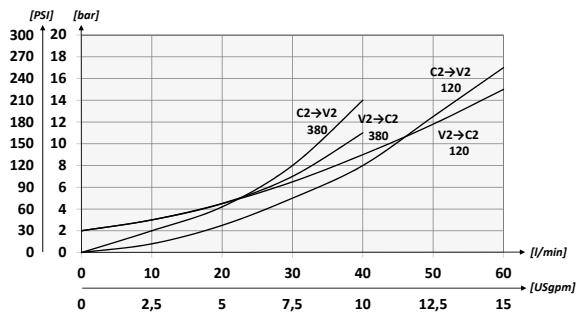


## CODICE ORDINAZIONE

|      |    |    |    |    |
|------|----|----|----|----|
| 01   | 02 | 03 | 04 | 05 |
| VCLH |    |    | S  |    |

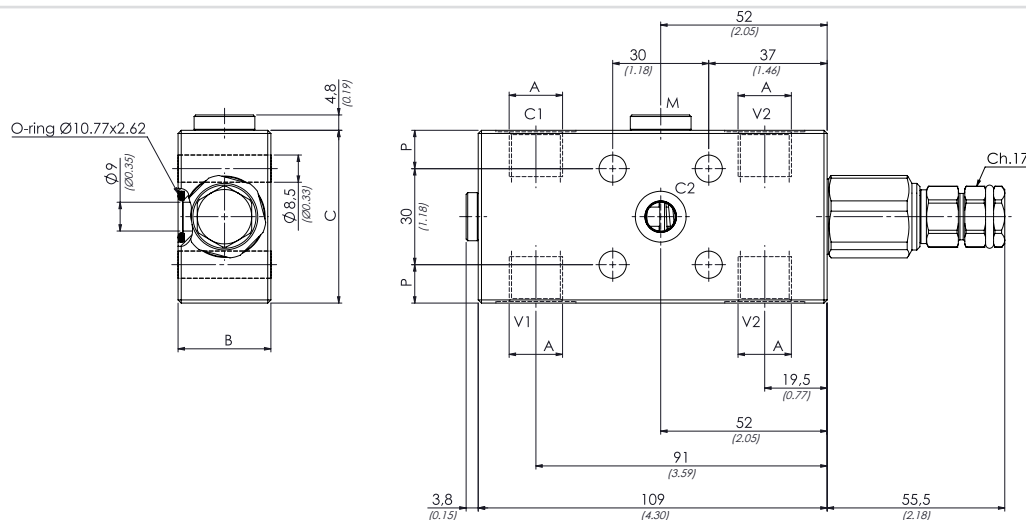
|    |                                                                                                                                                     |                                            |                                    |                                     |      |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|------------------------------------|-------------------------------------|------|
| 01 | VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO CHIUSO - FLANGIATE SINGOLE<br>(SINGLE COUNTERBALANCE VALVES FOR CLOSED CENTER - SINGLE FLANGED VERSION) |                                            |                                    |                                     | VCLH |
| 02 | DIMENSIONE<br>(SIZE)                                                                                                                                | BSPP 3/8                                   |                                    |                                     | 380  |
|    |                                                                                                                                                     | BSPP 1/2                                   |                                    |                                     | 120  |
| 03 | MOLLA (SPRING)<br>30/210 bar<br>(435/3045 PSI)                                                                                                      | Rp 1:4.25                                  | 78 bar/al giro<br>(1131 PSI/turn)  | Taratura standard<br>(Std. setting) | 1    |
|    |                                                                                                                                                     | Rp 1:8.75                                  | 160 bar/al giro<br>(2320 PSI/turn) | Q=5 l/min 200 bar<br>(2900 PSI)     |      |
|    | MOLLA (SPRING)<br>60/350 bar<br>(870/5075 PSI)                                                                                                      | Rp 1:4.25                                  | 135 bar/al giro<br>(1958 PSI/turn) | Taratura standard<br>(Std. setting) | 2    |
|    |                                                                                                                                                     | Rp 1:8.75                                  | 160 bar/al giro<br>(2320 PSI/turn) | Q=5 l/min 350 bar<br>(5075 PSI)     |      |
| 04 | MATERIALE<br>(MATERIAL)                                                                                                                             | Acciaio + zincatura (Steel + zinc-plating) |                                    |                                     | S    |
| 05 | RAPPORTO DI PILOTAGGIO<br>(PILOT RATIO)                                                                                                             | 1:4.25 Standard                            |                                    |                                     | /    |
|    |                                                                                                                                                     | 1:8.75                                     |                                    |                                     | 8    |

## PERFORMANCES



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |

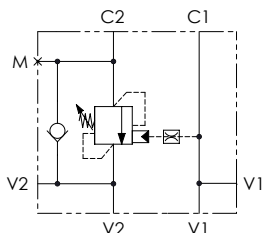


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | B         | C         | M        | P         | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|--------------|----------|-----------------------------------------|-------------------------------------------|-----------|-----------|----------|-----------|-----------------------------------------|
| VCLH380      | BSPP 3/8 | 40 (10.6)                               | 350 (5075)                                | 29 (1.14) | 54 (2.13) | BSPP 1/4 | 12 (0.47) | 1,23 (2.85)                             |
| VCLH120      | BSPP 1/2 | 60 (15.9)                               |                                           | 34 (1.34) | 64 (2.52) |          | 17 (0.67) | 1,62 (3.61)                             |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



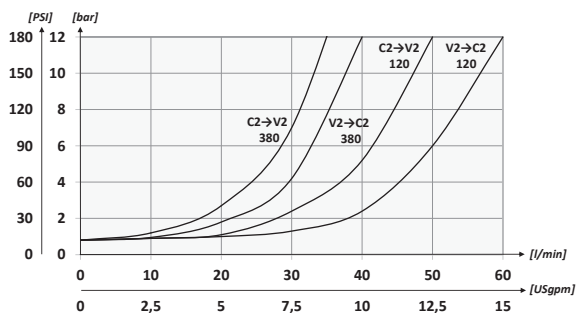
## CODICE ORDINAZIONE ORDERING CODE

| 01          | 02 | 03 | 04 | 05 |
|-------------|----|----|----|----|
| <b>VBLF</b> |    |    |    |    |

| 01 | VALVOLE DI BILANCIAMENTO SINGOLE<br>PER CENTRO APERTO - FLANGIATA DOPPIA<br>(SINGLE COUNTERBALANCE VALVES<br>FOR OPEN CENTER - DOUBLE FLANGED VERSION) |                                                 |                                    |                                     | VBLF |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|------------------------------------|-------------------------------------|------|
| 02 | DIMENSIONE<br>(SIZE)                                                                                                                                   | BSPP 3/8                                        |                                    | 380                                 |      |
|    |                                                                                                                                                        | BSPP 1/2                                        |                                    | 120                                 |      |
| 03 | MOLLA<br>(SPRING)                                                                                                                                      | Rp 1:4.25                                       | 78 bar/al giro<br>(1131 PSI/turn)  | Taratura standard<br>(Std. setting) | 1    |
|    |                                                                                                                                                        | Rp 1:8.75                                       | 160 bar/al giro<br>(2320 PSI/turn) | Q=5 l/min 200 bar<br>(2900 PSI)     |      |
|    | MOLLA<br>(SPRING)                                                                                                                                      | Rp 1:4.25                                       | 135 bar/al giro<br>(1958 PSI/turn) | Taratura standard<br>(Std. setting) | 2    |
|    |                                                                                                                                                        | Rp 1:8.75                                       | 160 bar/al giro<br>(2320 PSI/turn) | Q=5 l/min 350 bar<br>(5075 PSI)     |      |
| 04 | MATERIALE<br>(MATERIAL)                                                                                                                                | Acciaio + zincatura<br>(Steel + zinc-plating)   |                                    |                                     | S    |
|    |                                                                                                                                                        | Acciaio + zinco-nichel<br>(Steel + zinc-nickel) |                                    |                                     | K    |
| 05 | RAPPORTO<br>DI PILOTAGGIO<br>(PILOT RATIO)                                                                                                             | 1:4.25 Standard                                 |                                    |                                     | /    |
|    |                                                                                                                                                        | 1:8.75                                          |                                    |                                     | 8    |

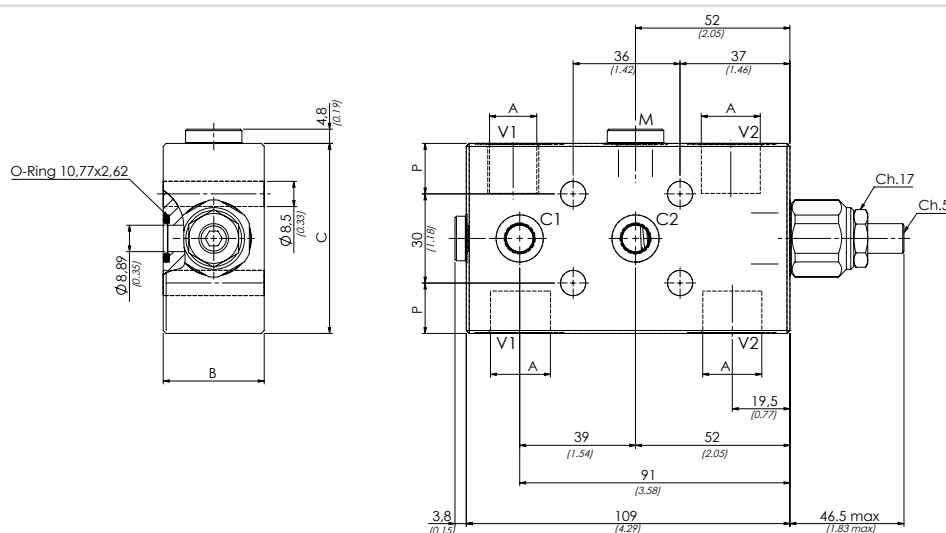
Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

## PERFORMANCES



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |

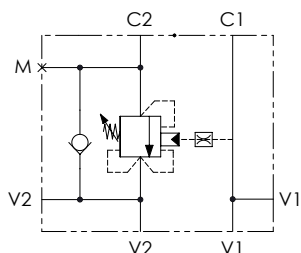


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

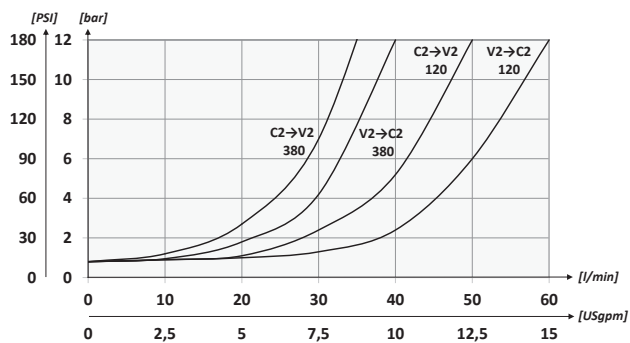
| TIPO<br>TYPE | A        | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | B         | C         | M        | P         | PESO APPROX (kg)<br>APPROX WEIGHT (lb) |
|--------------|----------|-----------------------------------------|-------------------------------------------|-----------|-----------|----------|-----------|----------------------------------------|
| VBLF380      | BSPP 3/8 | 40 (10.6)                               | 350 (5075)                                | 29 (1.14) | 54 (2.13) | BSPP 1/4 | 12 (0.47) | 1,17 (2.55)                            |
| VBLF120      | BSPP 1/2 | 60 (15.9)                               |                                           | 34 (1.34) | 64 (2.52) |          | 17 (0.67) | 1,55 (3.37)                            |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PERFORMANCES



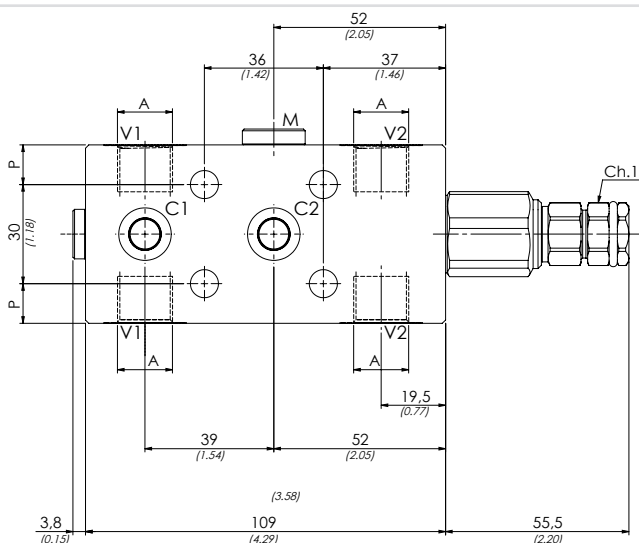
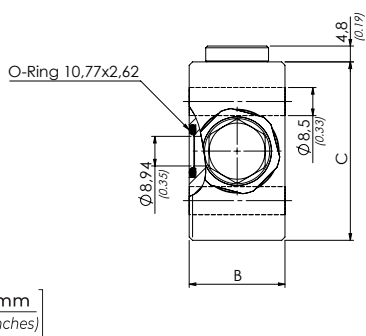
## CODICE ORDINAZIONE ORDERING CODE

|             |    |    |          |    |
|-------------|----|----|----------|----|
| 01          | 02 | 03 | 04       | 05 |
| <b>VCLF</b> |    |    | <b>S</b> |    |

|    |                                                                                                                                         |           |                                    |                                                                            |      |
|----|-----------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------------------------|----------------------------------------------------------------------------|------|
| 01 | VALVOLE DI BILANCIAMENTO SINGOLE PER CENTRO CHIUSO - FLANGIATE<br>(SINGLE COUNTERBALANCE VALVES<br>FOR CLOSED CENTER - FLANGED VERSION) |           |                                    |                                                                            | VCLF |
| 02 | DIMENSIONE (SIZE)                                                                                                                       |           | BSPP 3/8                           | 380                                                                        |      |
|    |                                                                                                                                         |           | BSPP 1/2                           | 120                                                                        |      |
| 03 | MOLLA<br>(SPRING)<br><br>30/210 bar<br>(435/3045 PSI)                                                                                   | Rp 1:4.25 | 78 bar/al giro<br>(1131 PSI/turn)  | Taratura standard<br>(Std. setting)<br><br>Q=5 l/min 200 bar<br>(2900 PSI) | 1    |
|    |                                                                                                                                         | Rp 1:8.75 | 160 bar/al giro<br>(2320 PSI/turn) |                                                                            |      |
|    | MOLLA<br>(SPRING)<br><br>60/350 bar<br>(870/5075 PSI)                                                                                   | Rp 1:4.25 | 135 bar/al giro<br>(1958 PSI/turn) | Taratura standard<br>(Std. setting)<br><br>Q=5 l/min 350 bar<br>(5075 PSI) | 2    |
|    |                                                                                                                                         | Rp 1:8.75 | 160 bar/al giro<br>(2320 PSI/turn) |                                                                            |      |
| 04 | MATERIALE (MATERIAL)                                                                                                                    |           |                                    | Acciaio + zincatura<br>(Steel + zinc-plating)                              | S    |
| 05 | RAPPORTO<br>DI PILOTAGGIO<br><br>(PILOT RATIO)                                                                                          |           | 1:4.25 Standard                    | /                                                                          |      |
|    |                                                                                                                                         |           | 1:8.75                             | 8                                                                          |      |

## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                                              |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                                                       |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                                             |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                                             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |

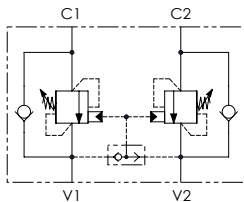


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

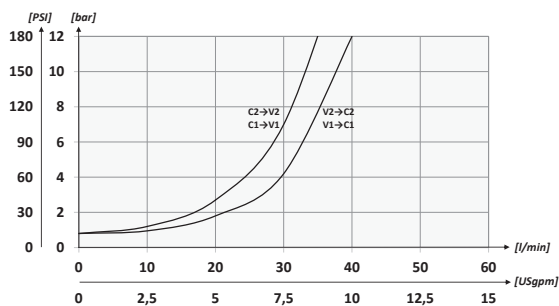
| TIPO<br>TYPE | A        | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | B         | C         | M        | P         | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|--------------|----------|-----------------------------------------|-------------------------------------------|-----------|-----------|----------|-----------|-----------------------------------------|
| VCLF380      | BSPP 3/8 | 40 (10.6)                               | 350 (5075)                                | 29 (1.14) | 54 (2.13) | BSPP 1/4 | 12 (0.47) | 1,22 (2.69)                             |
| VCLF120      | BSPP 1/2 | 60 (15.9)                               |                                           | 34 (1.34) | 64 (2.52) |          | 17 (0.67) | 1,60 (3.52)                             |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PERFORMANCES

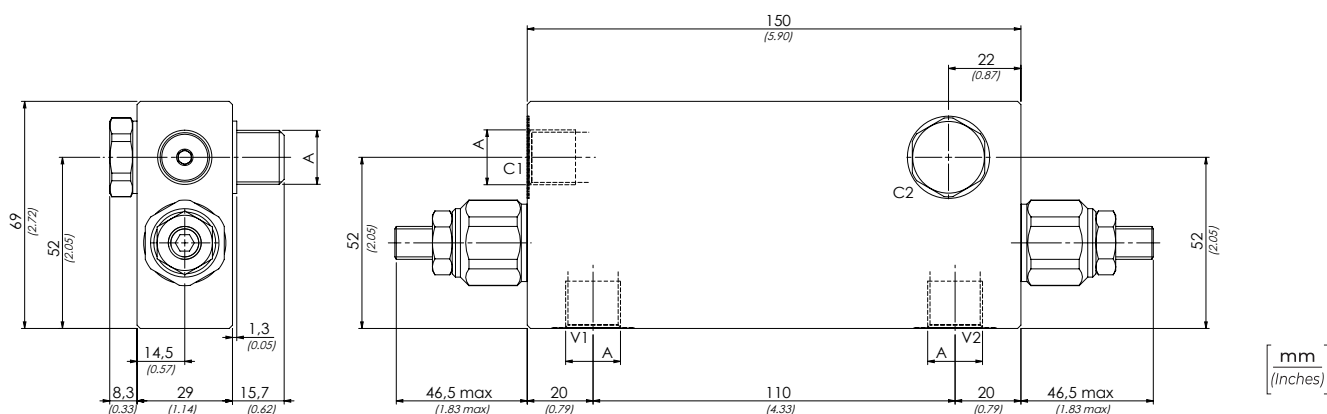


## CODICE ORDINAZIONE ORDERING CODE

|             |            |    |    |    |
|-------------|------------|----|----|----|
| 01          | 02         | 03 | 04 | 05 |
| <b>VBCA</b> | <b>380</b> |    |    |    |

|    |                                                                                                                             |                                                 |                                    |                                                                            |      |
|----|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|------------------------------------|----------------------------------------------------------------------------|------|
| 01 | VALVOLE DI BILANCIAMENTO SINGOLA A BULLONE PER CENTRO APERTO<br>(BOLT-FITTING SINGLE COUNTERBALANCE VALVES FOR OPEN CENTER) |                                                 |                                    |                                                                            | VBCA |
| 02 | DIMENSIONE<br>(SIZE)                                                                                                        | BSPP 3/8                                        |                                    |                                                                            | 380  |
| 03 | MOLLA<br>(SPRING)<br><br>30/210 bar<br>(435/3045 PSI)                                                                       | Rp 1:4.25                                       | 78 bar/al giro<br>(1131 PSI/turn)  | Taratura standard<br>(Std. setting)<br><br>Q=5 l/min 200 bar<br>(2900 PSI) | 1    |
|    |                                                                                                                             | Rp 1:8.75                                       | 160 bar/al giro<br>(2320 PSI/turn) |                                                                            |      |
| 03 | MOLLA<br>(SPRING)<br><br>60/350 bar<br>(870/5075 PSI)                                                                       | Rp 1:4.25                                       | 135 bar/al giro<br>(1958 PSI/turn) | Taratura standard<br>(Std. setting)<br><br>Q=5 l/min 350 bar<br>(5075 PSI) | 2    |
|    |                                                                                                                             | Rp 1:8.75                                       | 160 bar/al giro<br>(2320 PSI/turn) |                                                                            |      |
| 04 | MATERIALE<br>(MATERIAL)                                                                                                     | Acciaio + zincatura<br>(Steel + zinc-plating)   |                                    |                                                                            | S    |
|    |                                                                                                                             | Acciaio + zinco-nichel<br>(Steel + zinc-nickel) |                                    |                                                                            | K    |
| 05 | RAPPORTO DI PILOTAGGIO<br>(PILOT RATIO)                                                                                     | 1:4.25 Standard                                 |                                    |                                                                            | /    |
|    |                                                                                                                             | 1:8.75                                          |                                    |                                                                            | 8    |

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**



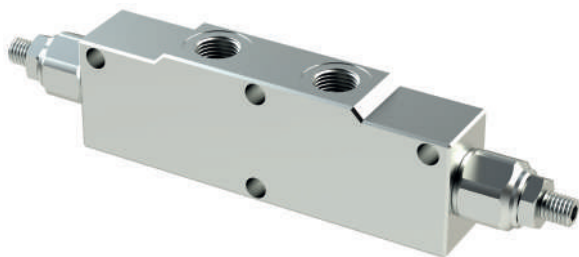
## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                                              |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                                                       |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                                             |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                                             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |

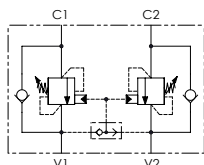
## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| CODICE<br>CODE | A               | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX (kg)<br>APPROX WEIGHT<br>(lb) |
|----------------|-----------------|----------------------------------------|------------------------------------------|-------------------------------------------|
| <b>VBCA380</b> | <b>BSPP 3/8</b> | <b>40 (10.6)</b>                       | <b>350 (5075)</b>                        | <b>2,32 (5.11)</b>                        |

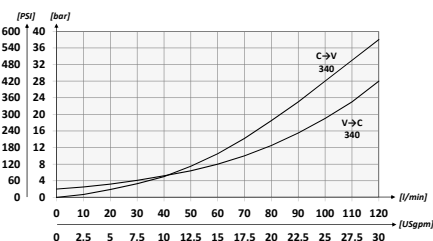
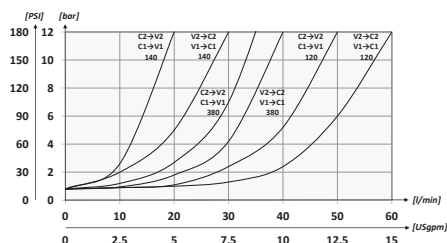
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OLEOWEB reserves the right to modify the products at any time and without notice: the technical data of the catalogue can consequently change.



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PERFORMANCES

CODICE ORDINAZIONE  
ORDERING CODE

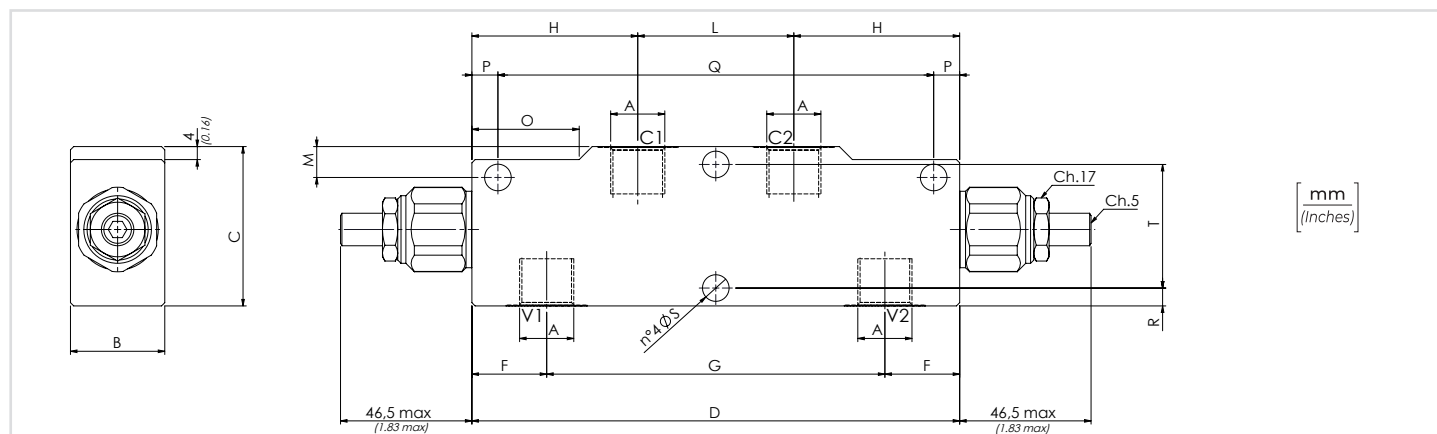
| 01   | 02 | 03 | 04 | 05 |
|------|----|----|----|----|
| VBCD |    |    |    |    |

| 01 | VALVOLE DI BILANCIAMENTO DOPPIE PER CENTRO APERTO<br>(DOUBLE COUNTERBALANCE VALVES FOR OPEN CENTER) |                              |                                             |                                    |                                     | VBCD |
|----|-----------------------------------------------------------------------------------------------------|------------------------------|---------------------------------------------|------------------------------------|-------------------------------------|------|
| 02 | DIMENSIONE<br>(SIZE)                                                                                |                              | BSPP 1/4                                    |                                    |                                     | 140  |
|    |                                                                                                     |                              | BSPP 3/8                                    |                                    |                                     | 380  |
|    |                                                                                                     |                              | BSPP 1/2                                    |                                    |                                     | 120  |
|    |                                                                                                     |                              | BSPP 3/4                                    |                                    |                                     | 340  |
|    |                                                                                                     |                              | BSPP 1                                      |                                    |                                     | 100  |
| 03 | MOLLA<br>(SPRING)                                                                                   | Rp 1:4.25                    | 140                                         | 78 bar/al giro<br>(1131 PSI/turn)  | Taratura standard<br>(Std. setting) | 1    |
|    | 30/210 bar<br>(435/3045 PSI)                                                                        | Rp 1:8.75                    | 380                                         | 160 bar/al giro<br>(2320 PSI/turn) | Q=5 l/min 200 bar<br>(2900 PSI)     |      |
|    | MOLLA<br>(SPRING)                                                                                   | Rp 1:4.25                    | 140                                         | 135 bar/al giro<br>(1958 PSI/turn) | Taratura standard<br>(Std. setting) | 2    |
|    |                                                                                                     | 60/350 bar<br>(870/5075 PSI) | Rp 1:8.75                                   | 380                                | 160 bar/al giro<br>(2320 PSI/turn)  |      |
|    | MOLLA<br>(SPRING)                                                                                   | Rp 1:6.2                     | 340                                         | 143 bar/al giro<br>(2074 PSI/turn) | Taratura standard<br>(Std. setting) |      |
|    |                                                                                                     | 60/350 bar<br>(870/5075 PSI) |                                             | Rp 1:10.6                          | 242bar/al giroa<br>(3509 PSI/turn)  |      |
| 04 | MATERIALE<br>(MATERIAL)                                                                             |                              | Acciaio + zincatura (Steel + zinc-plating)  |                                    |                                     | S    |
|    |                                                                                                     |                              | Aciaio + zinco-nichel (Steel + zinc-nickel) |                                    |                                     | K    |
| 05 | RAPPORTO<br>DI PILOTAGGIO<br>(PILOT RATIO)                                                          |                              | 140                                         | 1:4.25 Standard                    |                                     | /    |
|    |                                                                                                     |                              | 380                                         | 1:8.75                             |                                     | 8    |
|    |                                                                                                     |                              | 120                                         | 1:6.2                              |                                     | /    |
|    |                                                                                                     |                              | 340                                         | 1:10,6                             |                                     | 11   |

Opzione: Tappo piombatura - Optional: Tamper proof cap 81300095

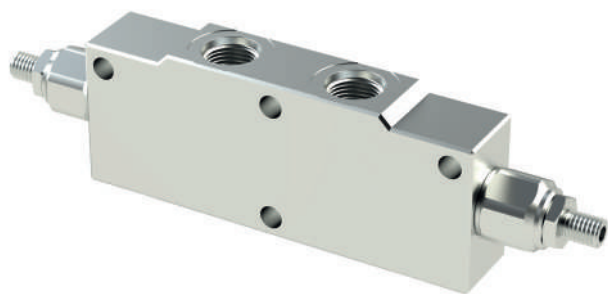
## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Olío idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                                              |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                                                       |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                                             |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                                             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |

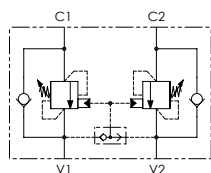


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

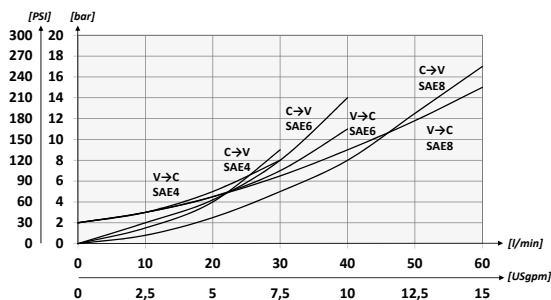
| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B            | C            | D             | F            | G             | H            | L            | M            | O            | P           | Q             | R              | S             | T            | Peso Approx<br>Approx weight<br>kg-lbt |
|--------------|----------|----------------------------------------|------------------------------------------|--------------|--------------|---------------|--------------|---------------|--------------|--------------|--------------|--------------|-------------|---------------|----------------|---------------|--------------|----------------------------------------|
| VBCD140      | BSPP 1/4 | 30 (7.9)                               | 350<br>(5075)                            | 29<br>(1.14) | 49<br>(1.93) | 150<br>(5.91) | 23<br>(0.91) | 104<br>(4.09) | 51<br>(2.01) | 48<br>(1.89) | 10<br>(0.39) | 33<br>(1.30) | 8<br>(0.31) | 134<br>(5.28) | 5,5<br>(0.22)  | 8,2<br>(0.32) | 38<br>(1.50) | 1,57 (3,46)                            |
| VBCD380      | BSPP 3/8 | 40 (10.6)                              |                                          |              | 59<br>(2.32) |               | 21<br>(0.83) | 108<br>(4.25) |              |              | 12<br>(0.47) |              |             |               | 7,5<br>(0.29)  |               | 43<br>(1.69) | 1,55 (3,41)                            |
| VBCD120      | BSPP 1/2 | 60 (15.9)                              |                                          |              | 39<br>(1.54) |               | 26<br>(1.02) | 158<br>(6.22) |              |              | 13<br>(0.51) |              |             |               | 8,5<br>(0.33)  |               | 52<br>(2.05) | 1,78 (3,92)                            |
| VBCD340      | BSPP 3/4 | 120 (31.7)                             |                                          |              | 49<br>(1.93) |               | 85<br>(3.34) | 210<br>(8.27) |              |              | 16<br>(0.63) |              |             |               | 12,5<br>(0.49) |               | 60<br>(2.36) | 4,5 (8,81)                             |
| VBCD100      | BSPP 1   | 150 (39.6)                             |                                          |              |              |               |              |               |              |              |              |              |             |               |                |               |              | 5,9 (13)                               |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



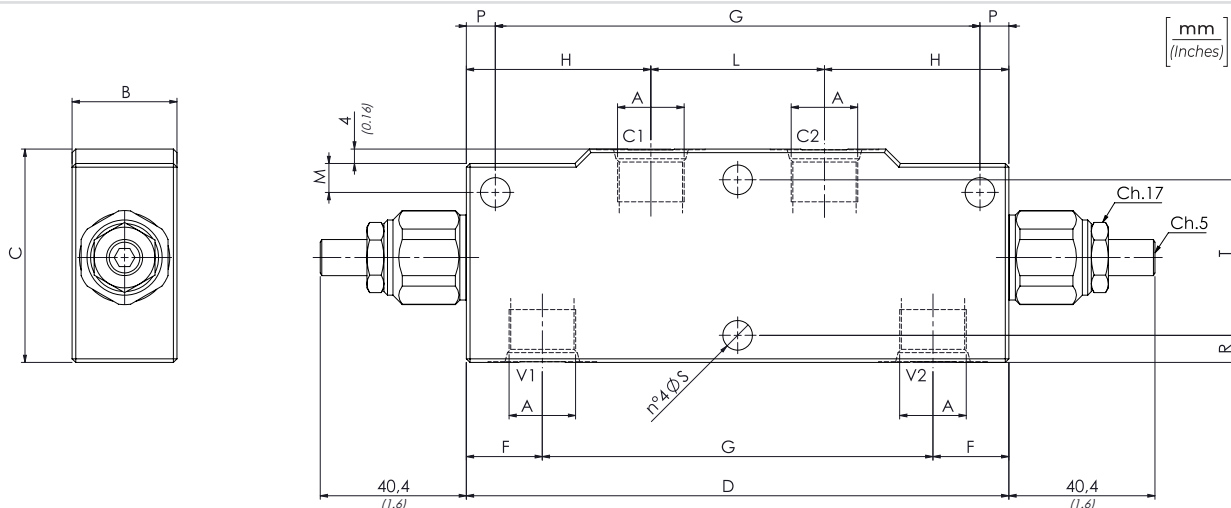
## PERFORMANCES



Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

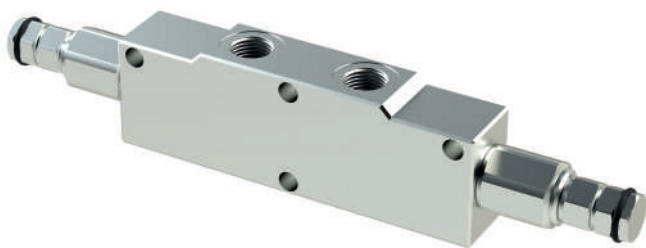
## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                                              |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                                                       |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                                             |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                                             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |

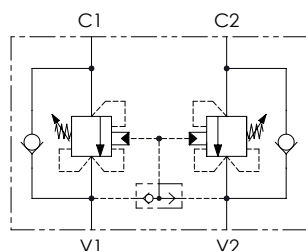


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

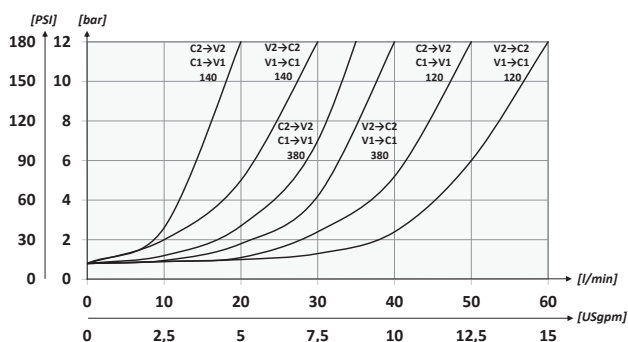
| TIPO<br>TYPE | A          | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B            | C            | D             | F             | G             | H            | L            | M             | O            | P           | R             | S             | T            | PESO APPROX<br>APPROXWEIGHT<br>kg-lbt |
|--------------|------------|----------------------------------------|------------------------------------------|--------------|--------------|---------------|---------------|---------------|--------------|--------------|---------------|--------------|-------------|---------------|---------------|--------------|---------------------------------------|
| VBCD4        | 7/16-20UNF | 30 (7.9)                               | 350 (5075)                               | 29<br>(1.14) | 49<br>(1.93) | 150<br>(5.91) | 23<br>(0.91)  | 104<br>(4.09) | 51<br>(2.01) | 48<br>(1.89) | 5,5<br>(0.22) | 33<br>(1.30) | 8<br>(0.31) | 5,5<br>(0.22) | 8,2<br>(0.32) | 38<br>(1.50) | 1,59 (3,50)                           |
| VBCD6        | 9/16-18UNF | 40 (10.6)                              |                                          |              | 59<br>(2.32) | 21<br>(0.83)  | 134<br>(5.27) |               |              |              | 8<br>(0.31)   |              |             | 7,5<br>(0.29) |               | 43<br>(1.69) | (1.30)                                |
| VBCD8        | 3/4-16UNF  | 60 (15.9)                              |                                          |              |              |               |               |               |              |              |               |              |             |               |               |              | 1,80 (3.97)                           |



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### PERFORMANCES



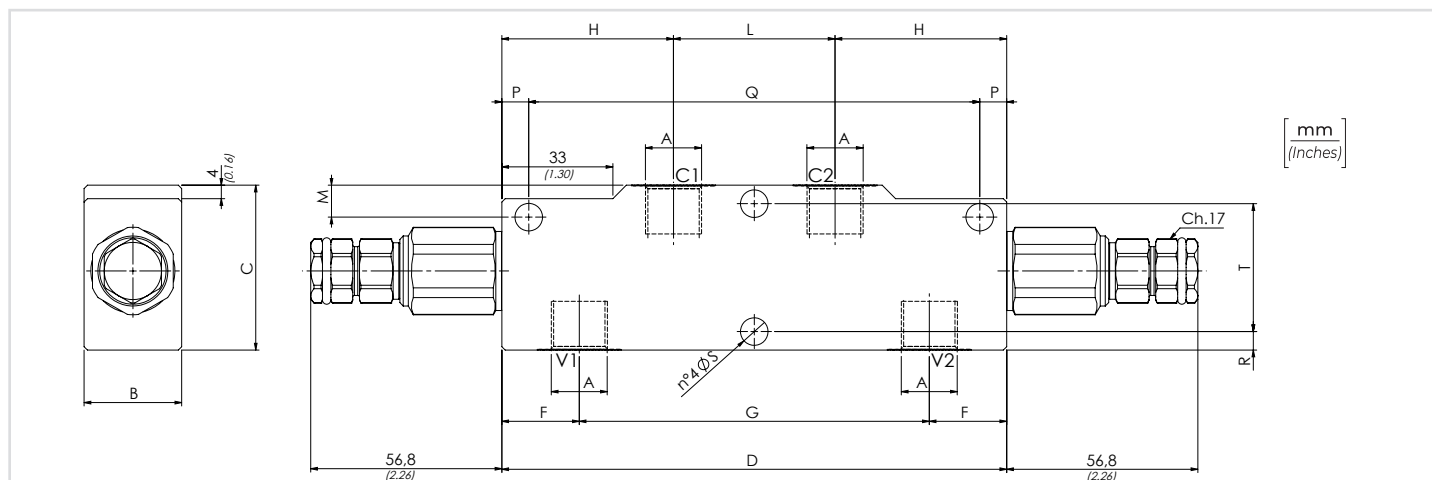
### CODICE ORDINAZIONE ORDERING CODE

|             |    |    |          |    |
|-------------|----|----|----------|----|
| 01          | 02 | 03 | 04       | 05 |
| <b>VBCC</b> |    |    | <b>S</b> |    |

|    |                                                                                                       |           |                                               |                                     |     |
|----|-------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------|-------------------------------------|-----|
| 01 | VALVOLE DI BILANCIAMENTO DOPPIE PER CENTRO CHIUSO<br>(DOUBLE COUNTERBALANCE VALVES FOR CLOSED CENTER) |           |                                               |                                     | VBC |
| 02 | DIMENSIONE<br>(SIZE)                                                                                  |           | BSPP 1/4                                      |                                     | 140 |
|    |                                                                                                       |           | BSPP 3/8                                      |                                     | 380 |
|    |                                                                                                       |           | BSPP 1/2                                      |                                     | 120 |
| 03 | MOLLA<br>(SPRING)                                                                                     | Rp 1:4.25 | 78 bar/al giro<br>(1131 PSI/turn)             | Taratura standard<br>(Std. setting) | 1   |
|    | 30/210 bar<br>(435/3045 PSI)                                                                          | Rp 1:8.75 | 160 bar/al giro<br>(2320 PSI/turn)            | Q=5 l/min 200 bar<br>(2900 PSI)     |     |
|    | MOLLA<br>(SPRING)                                                                                     | Rp 1:4.25 | 135 bar/al giro<br>(1958 PSI/turn)            | Taratura standard<br>(Std. setting) | 2   |
|    | 60/350 bar<br>(870/5075 PSI)                                                                          | Rp 1:8.75 | 160 bar/al giro<br>(2320 PSI/turn)            | Q=5 l/min 350 bar<br>(5075 PSI)     |     |
| 04 | MATERIALE (MATERIAL)                                                                                  |           | Acciaio + zincatura<br>(Steel + zinc-plating) |                                     | S   |
| 05 | RAPPORTO<br>DI PILOTAGGIO<br>(PILOT RATIO)                                                            |           | 1:4.25 Standard                               |                                     | /   |
|    |                                                                                                       |           | 1:8.75                                        |                                     | 8   |

### DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |

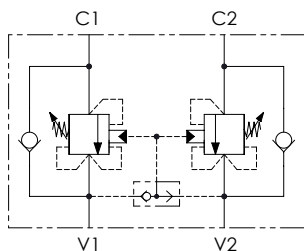


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

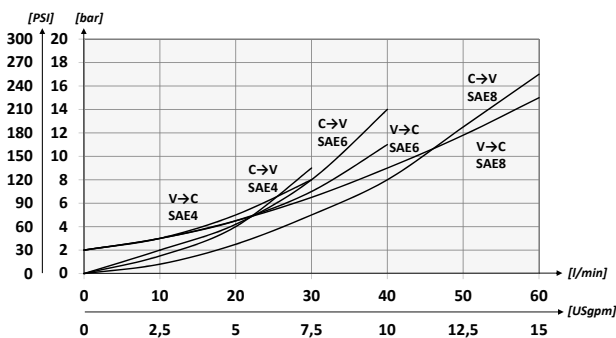
| TIPO<br>TYPE | A        | PORTATA<br>MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B            | C            | D             | F            | G             | H            | L            | M            | O            | P           | Q             | R             | S             | T            | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt |
|--------------|----------|-------------------------------------------|------------------------------------------|--------------|--------------|---------------|--------------|---------------|--------------|--------------|--------------|--------------|-------------|---------------|---------------|---------------|--------------|-------------------------------------------|
| VBCC140      | BSPP 1/4 | 30 (8)                                    | 350<br>(5075)                            | 29<br>(1.14) | 49<br>(1.93) | 150<br>(5.91) | 23<br>(0.91) | 104<br>(4.09) | 51<br>(2.01) | 48<br>(1.89) | 10<br>(0.39) | 33<br>(1.30) | 8<br>(0.31) | 134<br>(5.28) | 5,5<br>(0.22) | 8,2<br>(0.32) | 38<br>(1.50) | 1,68 (3.70)                               |
| VBCC380      | BSPP 3/8 | 40 (10.5)                                 |                                          |              | 59<br>(2.32) |               | 21<br>(0.83) | 108<br>(4.25) |              |              | 12<br>(0.47) |              |             |               | 7,5<br>(0.29) |               | 43<br>(1.69) | 1,66 (3.66)                               |
| VBCC120      | BSPP 1/2 | 60 (16)                                   |                                          |              |              |               |              |               |              |              |              |              |             |               |               |               |              | 1,89 (4.16)                               |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PERFORMANCES

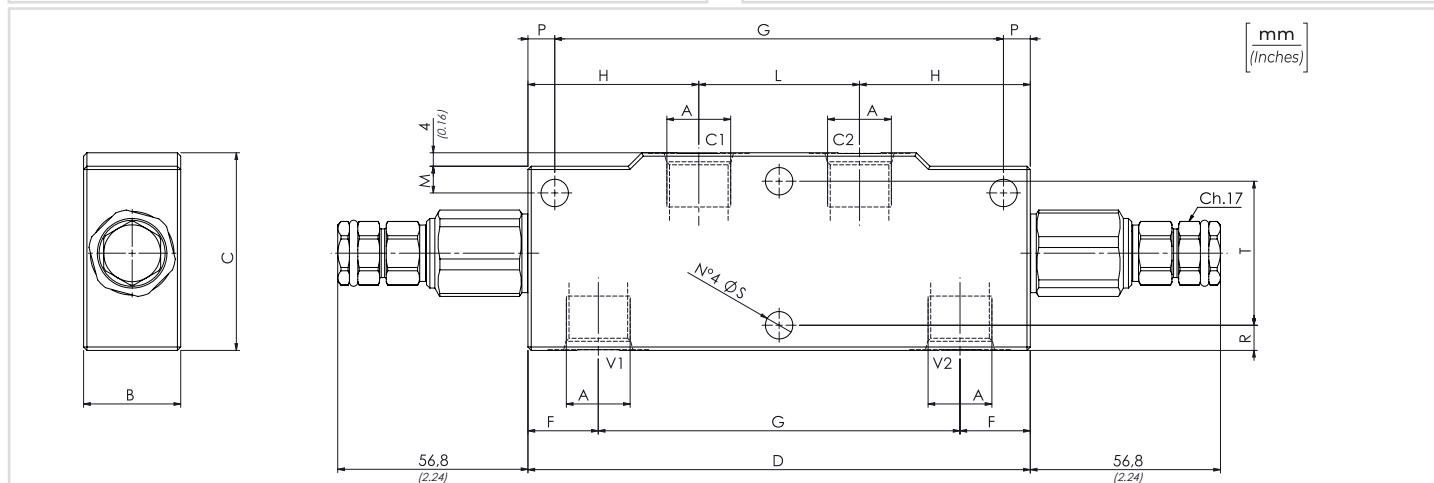
CODICE ORDINAZIONE  
ORDERING CODE

|             |    |    |          |    |
|-------------|----|----|----------|----|
| 01          | 02 | 03 | 04       | 05 |
| <b>VBCC</b> |    |    | <b>S</b> |    |

|    |                                                                                                       |                 |                                    |      |
|----|-------------------------------------------------------------------------------------------------------|-----------------|------------------------------------|------|
| 01 | VALVOLE DI BILANCIAMENTO DOPPIE PER CENTRO CHIUSO<br>(DOUBLE COUNTERBALANCE VALVES FOR CLOSED CENTER) |                 |                                    | VBCC |
| 02 | DIMENSIONE<br>(SIZE)                                                                                  | 7/16-20UNF      |                                    | 4    |
|    |                                                                                                       | 9/16-18UNF      |                                    | 6    |
|    |                                                                                                       | 3/4-16UNF       |                                    | 8    |
| 03 | MOLLA<br>(SPRING)                                                                                     | Rp 1:4.25       | 78 bar/al giro<br>(1131 PSI/turn)  | 1    |
|    |                                                                                                       | Rp 1:8.75       | 160 bar/al giro<br>(2320 PSI/turn) |      |
|    | MOLLA<br>(SPRING)                                                                                     | Rp 1:4.25       | 135 bar/al giro<br>(1958 PSI/turn) | 2    |
|    |                                                                                                       | Rp 1:8.75       | 160 bar/al giro<br>(2320 PSI/turn) |      |
| 04 | MATERIALE (MATERIAL)                                                                                  |                 |                                    | S    |
| 05 | RAPPORTO<br>DI PILOTAGGIO<br>(PILOT RATIO)                                                            | 1:4.25 Standard |                                    | /    |
|    |                                                                                                       | 1:8.75          |                                    | 8    |

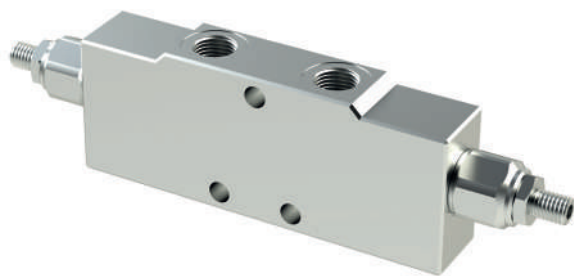
## DATI TECNICI / TECHNICAL DATA-

|                                                                                                                                                                                    |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                                              |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                                                       |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                                             |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                                             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |

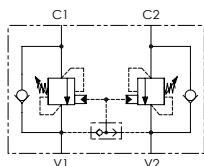


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

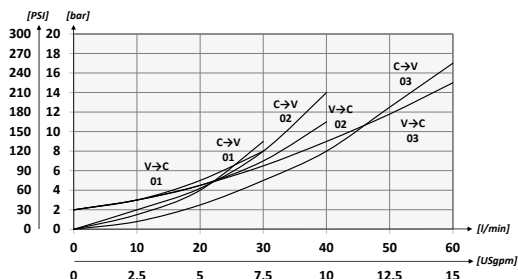
| TIPO<br>TYPE | A          | PORTATA<br>MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B            | C            | D             | F            | G             | H            | L            | M            | O            | P           | Q             | R             | S             | T            | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt |
|--------------|------------|-------------------------------------------|------------------------------------------|--------------|--------------|---------------|--------------|---------------|--------------|--------------|--------------|--------------|-------------|---------------|---------------|---------------|--------------|-------------------------------------------|
| VBCC4        | 7/16-20UNF | 30 (8)                                    | 350<br>(5075)                            | 29<br>(1.14) | 49<br>(1.93) | 150<br>(5.91) | 23<br>(0.91) | 104<br>(4.09) | 51<br>(2.01) | 48<br>(1.89) | 10<br>(0.39) | 33<br>(1.30) | 8<br>(0.31) | 134<br>(5.28) | 5,5<br>(0.22) | 8,2<br>(0.32) | 38<br>(1.50) | 1,68 (3.70)                               |
| VBCC6        | 9/16-18UNF | 40 (10.5)                                 |                                          |              | 59<br>(2.32) |               | 21<br>(0.83) | 108<br>(4.25) |              |              | 12<br>(0.47) |              |             |               | 7,5<br>(0.29) |               | 43<br>(1.69) | 1,66 (3.66)                               |
| VBCC8        | 3/4-16UNF  | 60 (16)                                   |                                          |              |              |               |              |               |              |              |              |              |             |               |               |               |              | 1,89 (4.16)                               |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PERFORMANCES



## CODICE ORDINAZIONE ORDERING CODE

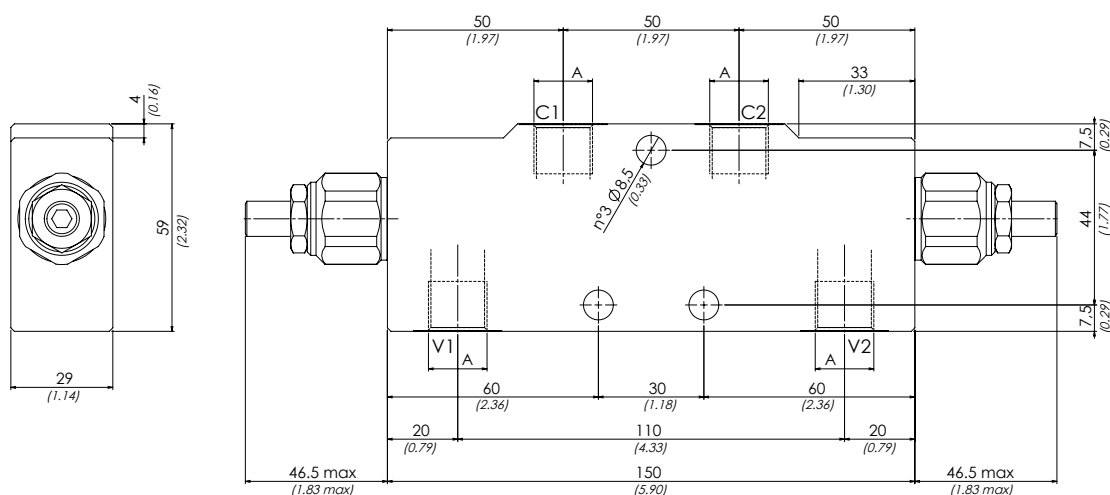
| 01            | 02 | 03 | 04 | 05 |
|---------------|----|----|----|----|
| <b>SOVBCD</b> |    |    |    |    |

| 01 | VALVOLE DI BILANCIAMENTO DOPPIE PER CENTRO APERTO<br>(DOUBLE COUNTERBALANCE VALVES FOR OPEN CENTER) |                                              |                                    | SOVBCD |
|----|-----------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------------|--------|
| 02 | DIMENSIONE<br>SIZE                                                                                  | BSPP 1/4                                     |                                    | 01     |
|    |                                                                                                     | BSPP 3/8                                     |                                    | 02     |
|    |                                                                                                     | BSPP 1/2                                     |                                    | 03     |
| 03 | MOLLA<br>SPRING                                                                                     | Rp 1:4.25                                    | 78 bar/al giro<br>(1131 PSI/turn)  | 1      |
|    |                                                                                                     | Rp 1:8.75                                    | 160 bar/al giro<br>(2320 PSI/turn) |        |
|    | MOLLA<br>SPRING                                                                                     | Rp 1:4.25                                    | 135 bar/al giro<br>(1958 PSI/turn) | 2      |
|    |                                                                                                     | Rp 1:8.75                                    | 160 bar/al giro<br>(2320 PSI/turn) |        |
| 04 | MATERIALE<br>MATERIAL                                                                               | Acciaio + zincatura / Steel + zinc-plating   |                                    | S      |
|    |                                                                                                     | Acciaio + zinco-nichel / Steel + zinc-nickel |                                    | K      |
| 05 | RAPPORTO<br>DI PILOTAGGIO<br>PILOT RATIO                                                            | 140                                          | 1:4.25 Standard                    | /      |
|    |                                                                                                     |                                              | 1:8.75                             | 8      |

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                                              |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                                                       |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                                             |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                                             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |

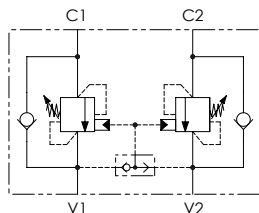


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | Peso Approx<br>Approx weight<br>kg-lbt |
|--------------|----------|----------------------------------------|------------------------------------------|----------------------------------------|
| SOVBCD01     | BSPP 1/4 | 30 (7.9)                               | 350<br>(5075)                            | 1,91 (4.21)                            |
| SOVBCD02     | BSPP 3/8 | 40 (10.6)                              |                                          | 1,86 (4.10)                            |
| SOVBCD03     | BSPP 1/2 | 60 (15.9)                              |                                          | 1,80 (3.77)                            |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



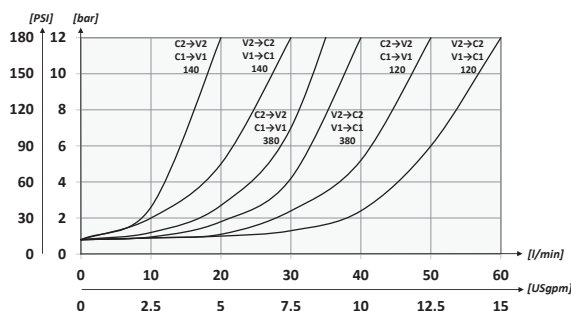
## CODICE ORDINAZIONE ORDERING CODE

|             |    |    |    |    |
|-------------|----|----|----|----|
| 01          | 02 | 03 | 04 | 05 |
| <b>VBCF</b> |    |    |    |    |

|           |                                                                                                                                   |           |                                                 |                                        |             |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------|----------------------------------------|-------------|
| <b>01</b> | VALVOLE DI BILANCIAMENTO DOPPIE PER CENTRO APERTO - FLANGIATE<br>(DOUBLE COUNTERBALANCE VALVES FOR OPEN CENTER - FLANGED VERSION) |           |                                                 |                                        | <b>VBCF</b> |
| <b>02</b> | DIMENSIONE<br>(SIZE)                                                                                                              |           | BSPP 1/4                                        |                                        | <b>140</b>  |
|           |                                                                                                                                   |           | BSPP 3/8                                        |                                        | <b>380</b>  |
|           |                                                                                                                                   |           | BSPP 1/2                                        |                                        | <b>120</b>  |
| <b>03</b> | MOLLA<br>(SPRING)                                                                                                                 | Rp 1:4.25 | <b>78 bar/al giro</b><br>(1131 PSI/turn)        | Taratura standard<br>(Std. setting)    | <b>1</b>    |
|           |                                                                                                                                   | Rp 1:8.75 | <b>160 bar/al giro</b><br>(2320 PSI/turn)       | <b>Q=5 l/min 200 bar</b><br>(2900 PSI) |             |
|           | MOLLA<br>(SPRING)                                                                                                                 | Rp 1:4.25 | <b>135 bar/al giro</b><br>(1958 PSI/turn)       | Taratura standard<br>(Std. setting)    | <b>2</b>    |
|           |                                                                                                                                   | Rp 1:8.75 | <b>160 bar/al giro</b><br>(2320 PSI/turn)       | <b>Q=5 l/min 350 bar</b><br>(5075 PSI) |             |
| <b>04</b> | MATERIALE<br>(MATERIAL)                                                                                                           |           | Acciaio + zincatura<br>(Steel + zinc-plating)   |                                        | <b>S</b>    |
|           |                                                                                                                                   |           | Acciaio + zinco-nichel<br>(Steel + zinc-nickel) |                                        | <b>K</b>    |
| <b>05</b> | RAPPORTO<br>DI PILOTAGGIO<br>(PILOT RATIO)                                                                                        |           | 1:4.25 Standard                                 |                                        | <b>/</b>    |
|           |                                                                                                                                   |           | 1:8.75                                          |                                        | <b>8</b>    |

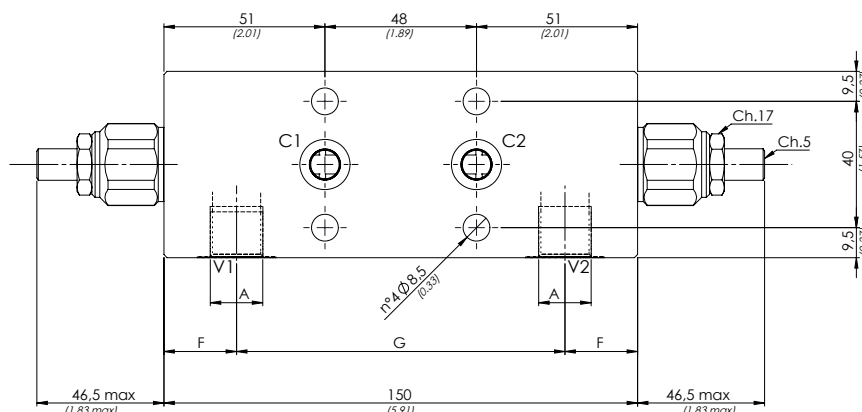
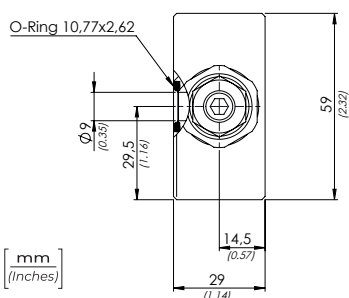
Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

## PERFORMANCES



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |

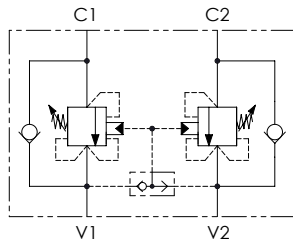


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

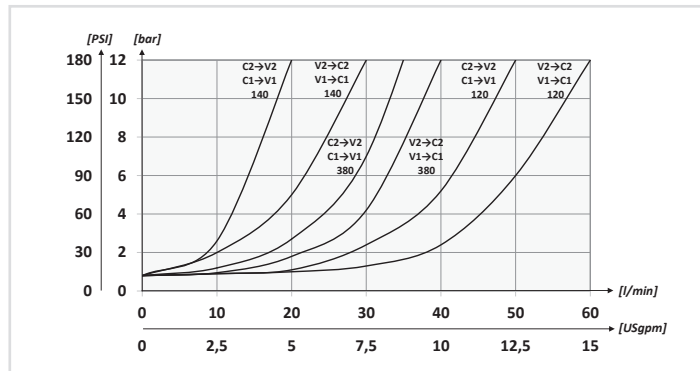
| TIPO<br>TYPE | A        | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | G          | F         | PESO APPROX (kg)<br>APPROX WEIGHT (lb) |
|--------------|----------|-----------------------------------------|-------------------------------------------|------------|-----------|----------------------------------------|
| VBCF140      | BSPP 1/4 | 40 (10.6)                               | 350 (5075)                                | 104 (4.09) | 23 (0.91) | 2,02 (4.45)                            |
| VBCF380      | BSPP 3/8 |                                         |                                           |            |           | 1,95 (4.30)                            |
| VBCF120      | BSPP 1/2 | 60 (15.9)                               |                                           | 108 (4.25) | 21 (0.83) | 1,92 (4.23)                            |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



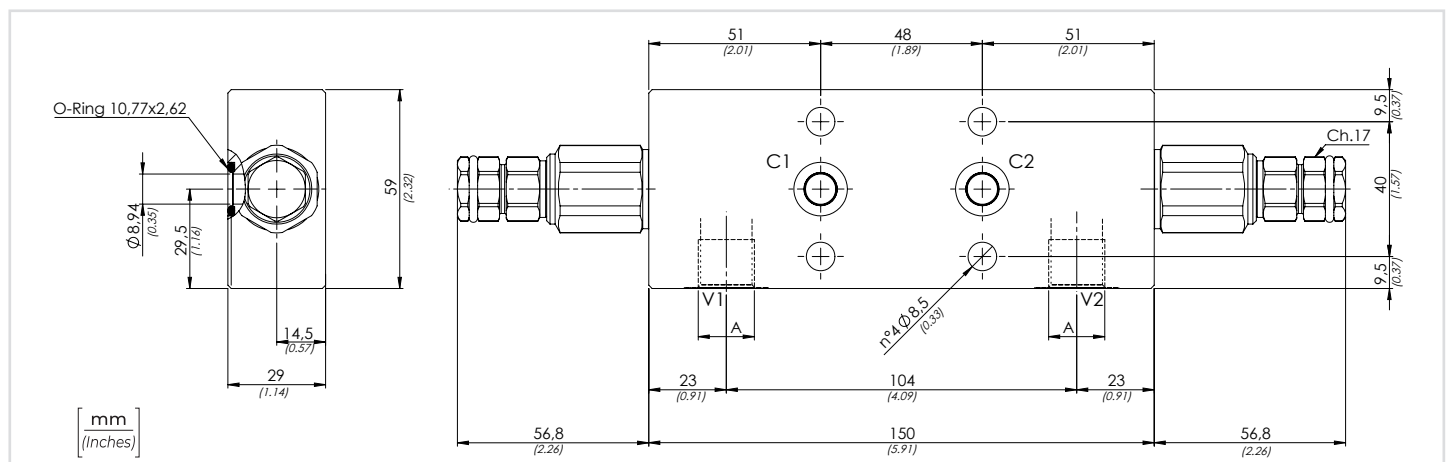
## PERFORMANCES



## CODICE ORDINAZIONE ORDERING CODE

| 01          | 02 | 03 | 04       | 05 |
|-------------|----|----|----------|----|
| <b>VBCM</b> |    |    | <b>S</b> |    |

|    |                                                                                                                                           |           |                                               |                                                                               |      |
|----|-------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------|-------------------------------------------------------------------------------|------|
| 01 | VALVOLE DI BILANCIAMENTO DOPPIE<br>PER CENTRO CHIUSO - FLANGIATE<br>(DOUBLE COUNTERBALANCE VALVES<br>FOR CLOSED CENTER - FLANGED VERSION) |           |                                               |                                                                               | VBCM |
| 02 | DIMENSIONE<br>(SIZE)                                                                                                                      |           | BSPP 1/4                                      |                                                                               | 140  |
|    |                                                                                                                                           |           | BSPP 3/8                                      |                                                                               | 380  |
|    |                                                                                                                                           |           | BSPP 1/2                                      |                                                                               | 120  |
| 03 | MOLLA<br>(SPRING)<br><b>30/210 bar</b><br>(435/3045 PSI)                                                                                  | Rp 1:4.25 | <b>78 bar/al giro</b><br>(1131 PSI/turn)      | Taratura standard<br>(Std. setting)<br><b>Q=5 l/min 200 bar</b><br>(2900 PSI) | 1    |
|    |                                                                                                                                           | Rp 1:8.75 | <b>160 bar/al giro</b><br>(2320 PSI/turn)     |                                                                               |      |
|    | MOLLA<br>(SPRING)<br><b>60/350 bar</b><br>(870/5075 PSI)                                                                                  | Rp 1:4.25 | <b>135 bar/al giro</b><br>(1958 PSI/turn)     | Taratura standard<br>(Std. setting)<br><b>Q=5 l/min 350 bar</b><br>(5075 PSI) | 2    |
|    |                                                                                                                                           | Rp 1:8.75 | <b>160 bar/al giro</b><br>(2320 PSI/turn)     |                                                                               |      |
| 04 | MATERIALE<br>(MATERIAL)                                                                                                                   |           | Acciaio + zincatura<br>(Steel + zinc-plating) |                                                                               | S    |
| 05 | RAPPORTO<br>DI PILOTAGGIO<br>(PILOT RATIO)                                                                                                |           | 1:4.25 Standard                               |                                                                               | /    |
|    |                                                                                                                                           |           | 1:8.75                                        |                                                                               | 8    |



## DATI TECNICI / TECHNICAL DATA

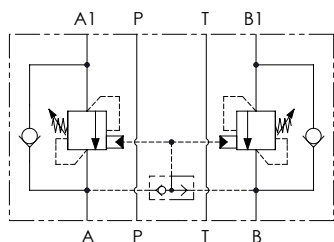
|                                                                                                                                                                                    |                                                           |       |             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-------|-------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                    |       |             |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |       |             |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                             |       |             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C                                                     | +80°C | -4°F +176°F |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C                                                     | +50°C | -4°F +122°F |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |       |             |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |       |             |

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt |
|--------------|----------|----------------------------------------|------------------------------------------|-------------------------------------------|
| VBCM140      | BSPP 1/4 | 40 (10.6)                              | 350 (5075)                               | 2,13 (4.69)                               |
| VBCM380      | BSPP 3/8 |                                        |                                          | 2,09 (4.60)                               |
| VBCM120      | BSPP 1/2 | 60 (15.9)                              |                                          | 2,06 (4.54)                               |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|----------------------------------------|------------------------------------------|----------------------------------------|
| VBCS06       | 40 (10.6)                              | 350 (5075)                               | 3,10 (6.80)                            |

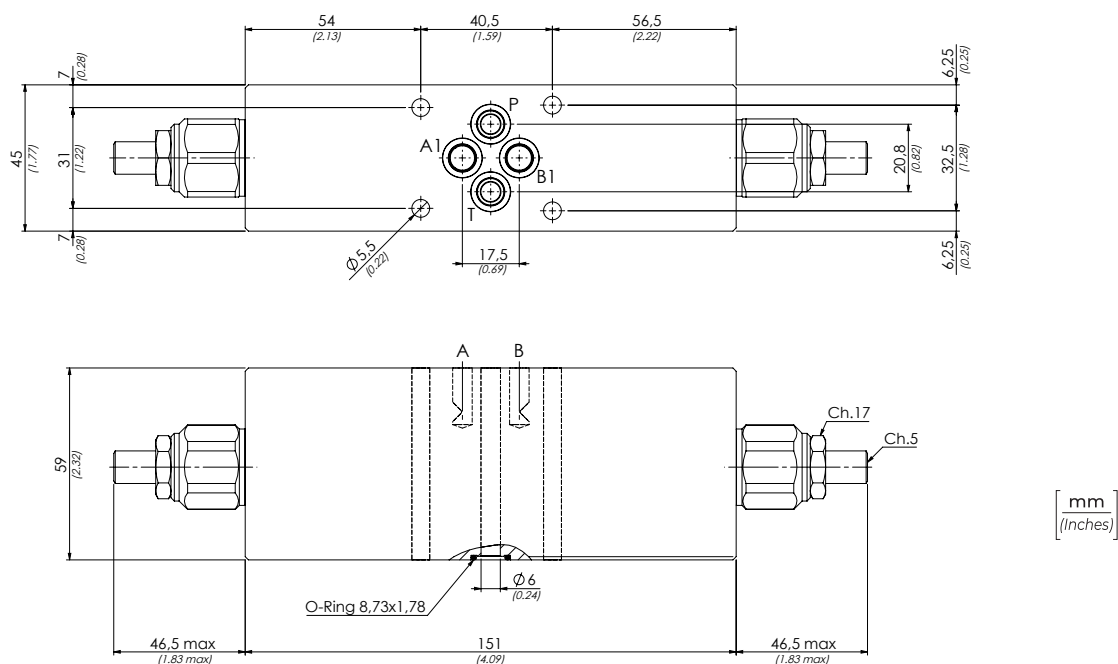
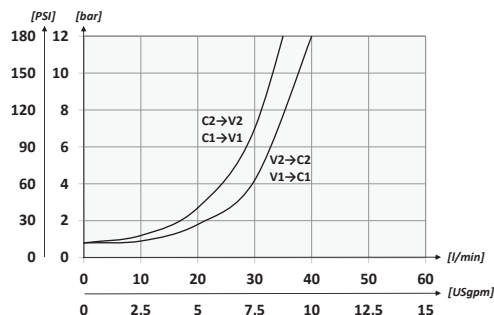
## CODICE ORDINAZIONE ORDERING CODE

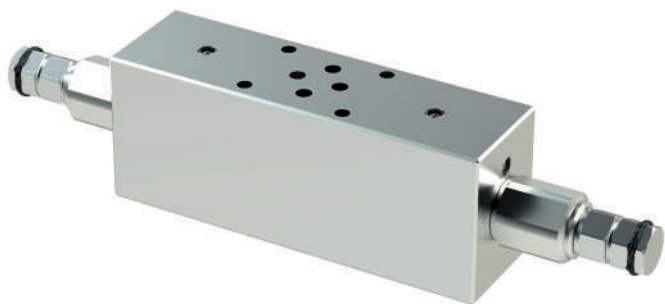
|               |    |          |    |    |
|---------------|----|----------|----|----|
| 01            | 02 | 03       | 04 | 05 |
| <b>VBCS06</b> |    | <b>S</b> |    |    |

| 01 | VALVOLE DI BILANCIAMENTO MODULARI CETOP3<br>DOPPIE PER CENTRO APERTO<br>(DOUBLE CETOP3 MODULAR COUNTERBALANCE VALVES<br>FOR OPEN CENTER) |           |                                               |                                     | VBCS06 |
|----|------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------|-------------------------------------|--------|
| 02 | MOLLA<br>(SPRING)<br>30/210 bar<br>(435/3045 PSI)                                                                                        | Rp 1:4.25 | 78 bar/al giro<br>(1131 PSI/turn)             | Taratura standard<br>(Std. setting) | 1      |
|    |                                                                                                                                          | Rp 1:8.75 | 160 bar/al giro<br>(2320 PSI/turn)            | Q=5 l/min 200 bar<br>(2900 PSI)     |        |
|    | MOLLA<br>(SPRING)<br>60/350 bar<br>(870/5075 PSI)                                                                                        | Rp 1:4.25 | 135 bar/al giro<br>(1958 PSI/turn)            | Taratura standard<br>(Std. setting) | 2      |
|    |                                                                                                                                          | Rp 1:8.75 | 160 bar/al giro<br>(2320 PSI/turn)            | Q=5 l/min 350 bar<br>(5075 PSI)     |        |
| 03 | MATERIALE (MATERIAL)                                                                                                                     |           | Acciaio + zincatura<br>(Steel + zinc-plating) |                                     | S      |
| 04 | RAPPORTO DI PILOTAGGIO<br>(PILOT RATIO)                                                                                                  |           | 1:4.25 Standard                               |                                     | /      |
|    |                                                                                                                                          |           | 1:8.75                                        |                                     | 8      |

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

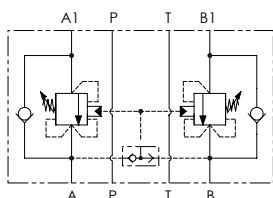
## PERFORMANCES



CODICE ORDINAZIONE  
ORDERING CODE

|        |    |    |    |    |
|--------|----|----|----|----|
| 01     | 02 | 03 | 04 | 05 |
| VBCT06 |    | S  |    |    |

## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                         |                               |
|---------------------------------------------------------|-------------------------------|
| Olio idraulico - Mineral oil                            | ISO 6743/4 (DIN 51524)        |
| Viscosità olio - Oil viscosity                          | 15-250 mm²/s (15 to 250 cSt)  |
| Classe di contaminazione max<br>Max contamination index | ISO 4406:1999 Classe 18/16/13 |
| Temperatura dell'olio - Oil temperature                 | -20°C +80°C -4°F +176°F       |
| Temperatura ambiente - Environment temperature          | -20°C +50°C -4°F +122°F       |

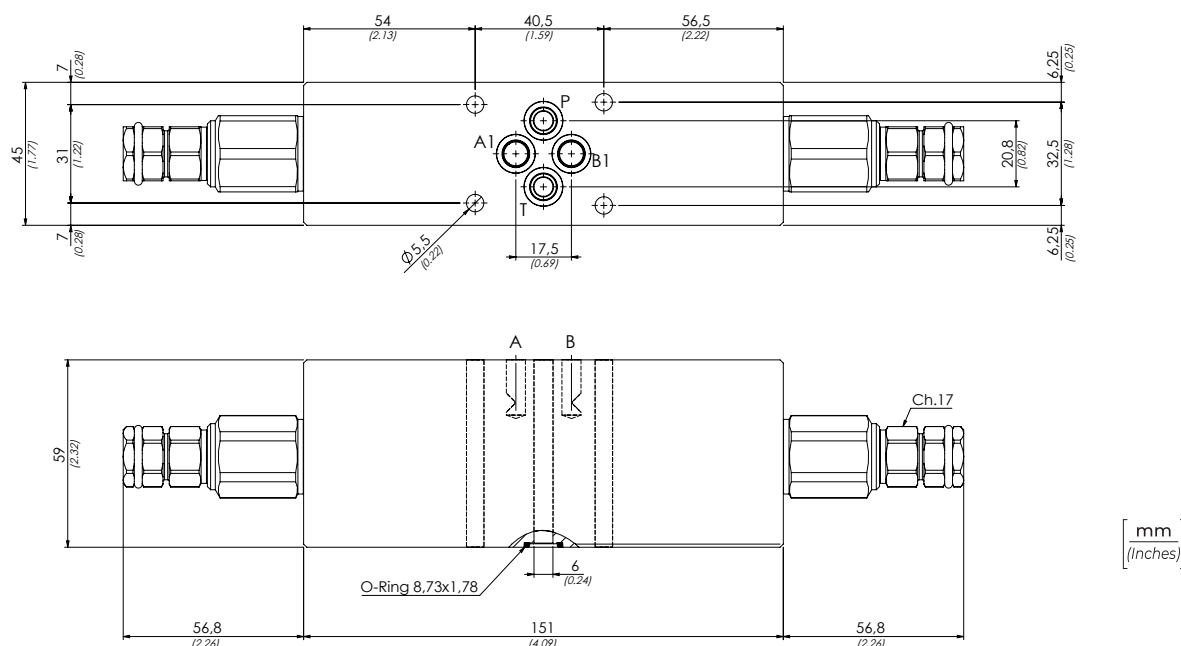
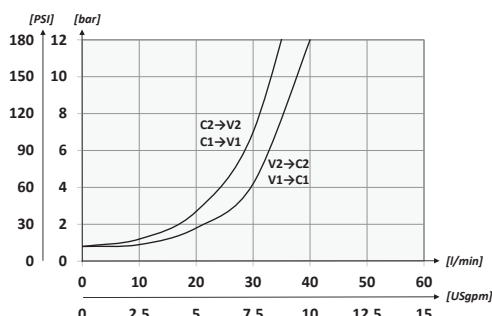
È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)

Trafilamento@46cSt & 200 bar 0,25 cm³/min - 5 gocce/min  
Leakage@46cSt & 200 bar 0,015 in³/min - 5 drops/min

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|----------------------------------------|------------------------------------------|----------------------------------------|
| VBCT06       | 40 (10.6)                              | 350 (5075)                               | 3,10 (6.9)                             |

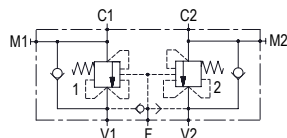
## PERFORMANCES



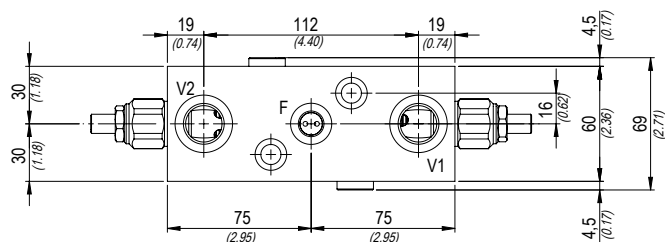
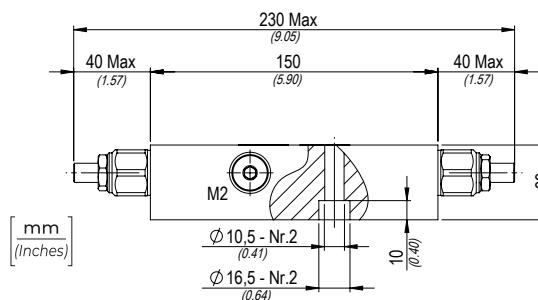
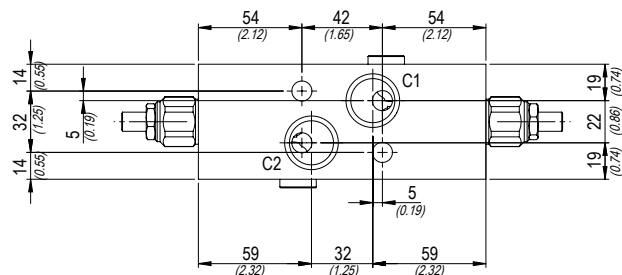
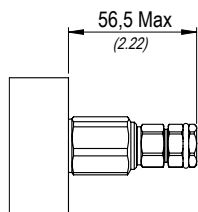
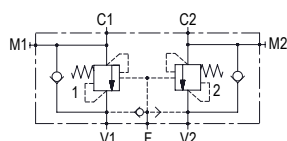
**CODICE ORDINAZIONE**  
**ORDERING CODE**



**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**SEMI-COMPENSATED VERSION**



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | DIMENSIONE ATTACCHI<br>DIMENSION PORTS |                               | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | Peso Approx<br>Approx weight<br>kg-lbt |
|--------------|----------------------------------------|-------------------------------|----------------------------------------|------------------------------------------|----------------------------------------|
| VBCFE        | V1 - V2<br>M1 - M2 - F<br>C1 - C2      | BSPP 1/2<br>BSPP 1/4<br>Ø10,5 | 60 (15.9)                              | 350 (5075)                               | 2,8 (6.17)                             |

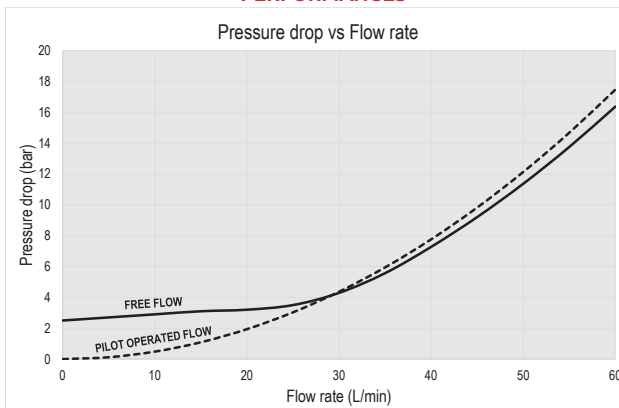
| 01    | 02                                                                                                    | 03        | 04                                                                  | 05                                                                         | 06    |
|-------|-------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------|----------------------------------------------------------------------------|-------|
| VBCFE | 120                                                                                                   |           |                                                                     |                                                                            |       |
| 01    | VALVOLE DI BILANCIAMENTO DOPPIE PER SBLOCCO FRENO<br>(DOUBLE COUNTERBALANCE VALVES FOR BRAKE RELEASE) |           |                                                                     |                                                                            | VBCFE |
| 02    | DIMENSIONE ATTACCHI<br>(PORTS DIMENSION)                                                              |           | BSPP 1/2                                                            |                                                                            | 120   |
| 03    | TIPOLOGIA<br>(TYPE)                                                                                   |           | Centro Aperto - Semi Compensta<br>(Open Center - Semicompensated)   |                                                                            | -     |
|       |                                                                                                       |           | Centro Chiuso - Non Compensata<br>(Closed Center - Not compensated) |                                                                            | C     |
| 04    | MOLLA<br>(SPRING)<br><br>30/210 bar<br>(435/3045 PSI)                                                 | Rp 1:4.25 | 78 bar/al giro<br>(1131 PSI/turn)                                   | Taratura standard<br>(Std. setting)<br><br>Q=5 l/min 200 bar<br>(2900 PSI) | 1     |
|       |                                                                                                       | Rp 1:8.75 | 160 bar/al giro<br>(2320 PSI/turn)                                  |                                                                            |       |
|       |                                                                                                       | Rp 1:11   | 153 bar/al giro<br>(2219 PSI/turn)                                  |                                                                            |       |
|       | MOLLA<br>(SPRING)<br><br>60/350 bar<br>(870/5075 PSI)                                                 | Rp 1:4.25 | 135 bar/al giro<br>(1958 PSI/turn)                                  | Taratura standard<br>(Std. setting)<br><br>Q=5 l/min 350 bar<br>(5075 PSI) | 2     |
|       |                                                                                                       | Rp 1:8.75 | 160 bar/al giro<br>(2320 PSI/turn)                                  |                                                                            |       |
|       |                                                                                                       |           |                                                                     |                                                                            |       |
| 05    | TRATTAMENTO SUPERFICIALE<br>(SURFACE TREATMENT)                                                       |           | Zincatura CRIII                                                     |                                                                            | S     |
|       |                                                                                                       |           | Zinco-Nichel                                                        |                                                                            | K     |
| 06    | RAPPORTO DI PILOTAGGIO<br>(PILOT RATIO)                                                               |           | 1:4                                                                 |                                                                            | 4     |
|       |                                                                                                       |           | 1:8.75                                                              |                                                                            | 8     |
|       |                                                                                                       |           | 1:11                                                                |                                                                            | 1     |

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

**DATI TECNICI / TECHNICAL DATA**

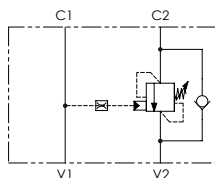
|                                                                                                                                                                                    |                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |

**PERFORMANCES**

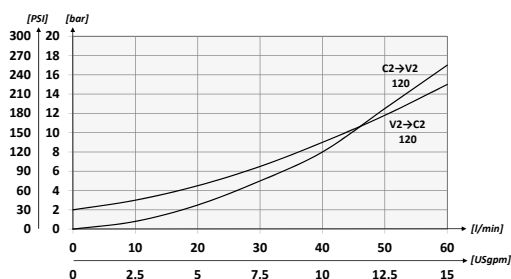




## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

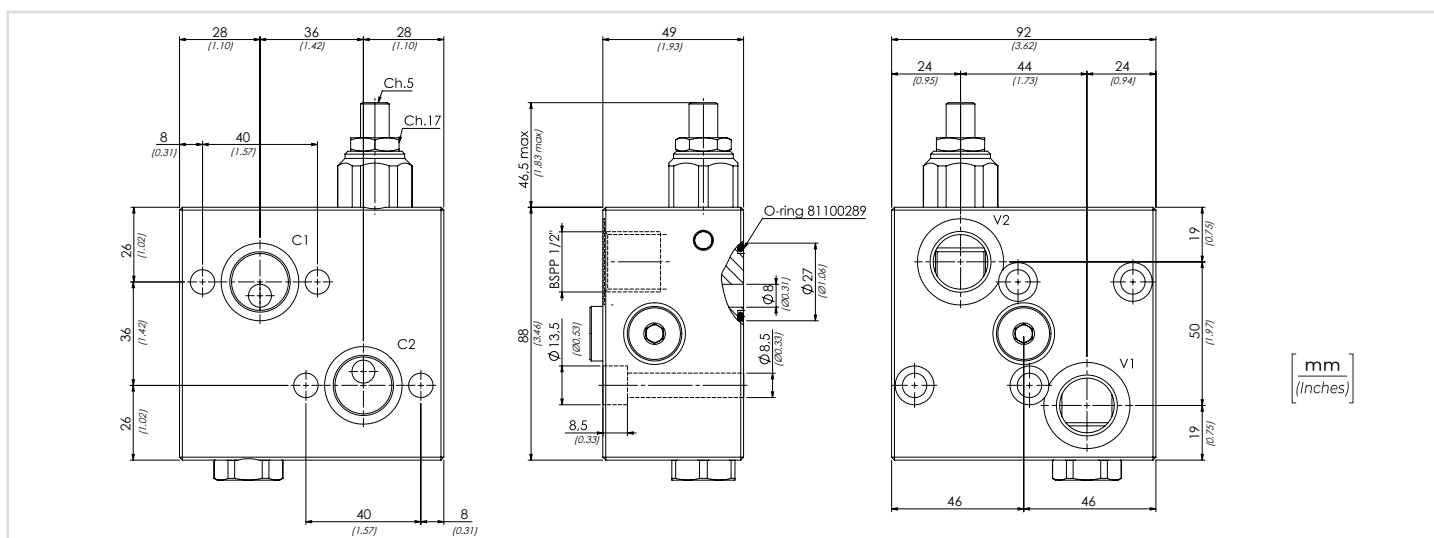


## PERFORMANCES



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                                              |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                                                       |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                                             |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                                             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |

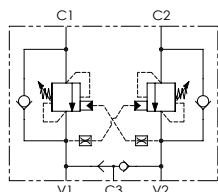


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX (kg)<br>APPROX WEIGHT (lb) |
|--------------|----------|-----------------------------------------|------------------------------------------|----------------------------------------|
| SCVB120      | BSPP 1/2 | 60 (15.9)                               | 350 (5075)                               | 2,81 (6.19)                            |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



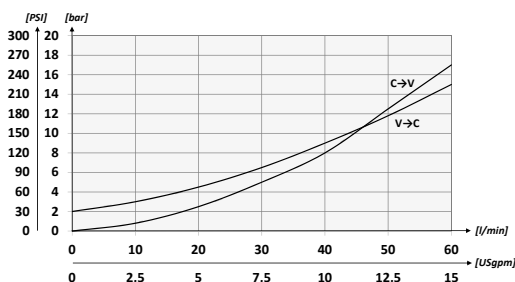
## CODICE ORDINAZIONE ORDERING CODE

|             |    |    |          |
|-------------|----|----|----------|
| 01          | 02 | 03 | 04       |
| <b>DCVB</b> |    |    | <b>S</b> |

|    |                                                                                                                     |                                               |                                           |             |
|----|---------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------------------------|-------------|
| 01 | VALVOLE DI BILANCIAMENTO DOPPIE PER CENTRO APERTO OMP-OMR<br>(DOUBLE COUNTERBALANCE VALVES FOR OPEN CENTER OMP-OMR) |                                               |                                           | <b>DCVB</b> |
| 02 | MOLLA<br>(SPRING)                                                                                                   | BSPP 1/2                                      |                                           | <b>120</b>  |
| 03 | MOLLA<br>(SPRING)<br><b>30/210 bar</b><br>(435/3045 PSI)                                                            | Rp 1:4.25                                     | <b>78 bar/al giro</b><br>(1131 PSI/turn)  | <b>1</b>    |
|    |                                                                                                                     | Rp 1:8.75                                     | <b>160 bar/al giro</b><br>(2320 PSI/turn) |             |
| 03 | MOLLA<br>(SPRING)<br><b>60/350 bar</b><br>(870/5075 PSI)                                                            | Rp 1:4.25                                     | <b>135 bar/al giro</b><br>(1958 PSI/turn) | <b>2</b>    |
|    |                                                                                                                     | Rp 1:8.75                                     | <b>160 bar/al giro</b><br>(2320 PSI/turn) |             |
| 04 | MATERIALE<br>(MATERIAL)                                                                                             | Acciaio + zincatura<br>(Steel + zinc-plating) |                                           | <b>S</b>    |

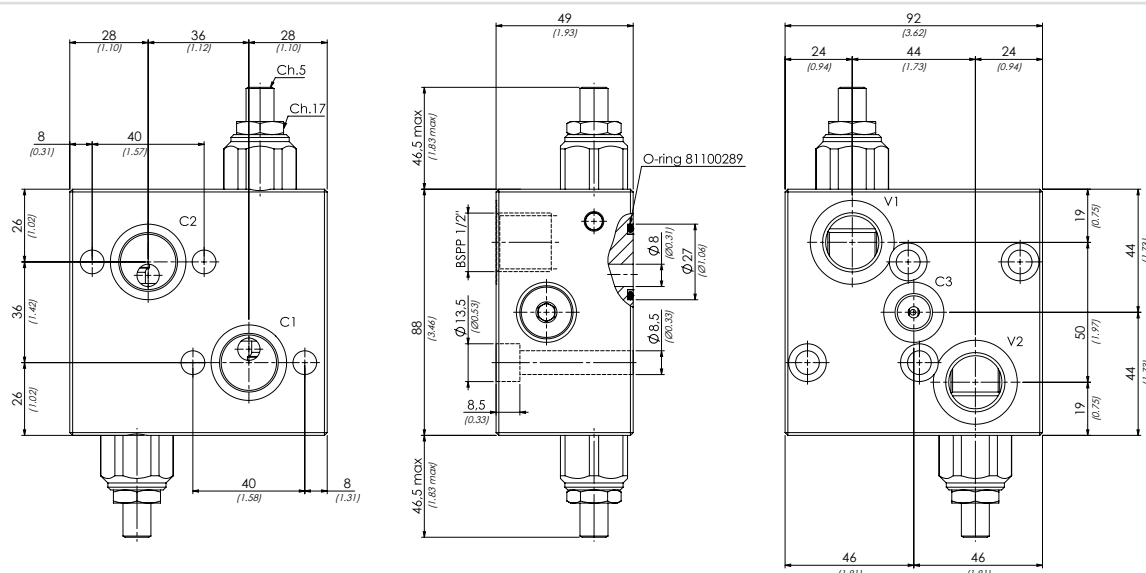
Opzione: Tappo piombatura - Optional: Tamper proof cap **81300095**

## PERFORMANCES



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | <b>ISO 6743/4 (DIN 51524)</b>                                     |
| Viscosità olio - Oil viscosity                                                                                                                                                     | <b>15-250 mm²/s (15 to 250 cSt)</b>                               |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | <b>ISO 4406:1999 Classe 18/16/13</b>                              |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | <b>-20°C +80°C -4°F +176°F</b>                                    |
| Temperatura ambiente - Environment temperature                                                                                                                                     | <b>-20°C +50°C -4°F +122°F</b>                                    |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                   |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | <b>0,25 cm³/min - 5 gocce/min<br/>0,015 in³/min - 5 drops/min</b> |



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE   | A               | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | Peso Approx<br>Approx weight<br>kg-lbt |
|----------------|-----------------|----------------------------------------|------------------------------------------|----------------------------------------|
| <b>DCVB120</b> | <b>BSPP 1/2</b> | <b>60 (15.9)</b>                       | <b>350 (5075)</b>                        | <b>2,8 (6.17)</b>                      |

## notes

notes

# VALVOLE ELETTRICHE

## ELECTRICAL VALVES

Valvole elettriche in cavità SAE a tenuta singola e doppia e a cursore. Bobine e connettori.

Solenoid valves in SAE cavities single or double sealing or spool type. Coils and connectors.





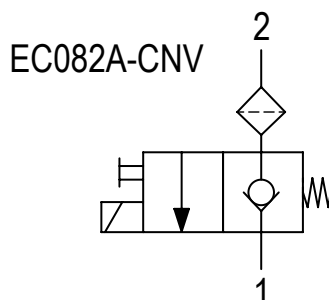
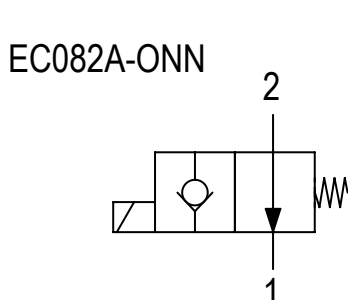
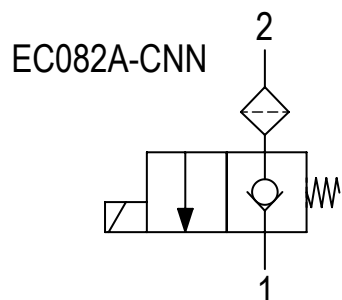
**CODICE ORDINAZIONE**  
ORDERING CODE

01  
**EC082A-**

02

|    |                                                                                                                         |                                                                 |                |
|----|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------|
| 01 | VALVOLE A COMANDO ELETTRICO SAE8 2 VIE/2 POSIZIONI DIRETTE<br>(2 WAYS/2 POSITIONS SAE8 ELECTRIC VALVES - DIRECT ACTING) |                                                                 | <b>EC082A-</b> |
| 02 | SCHEMA<br>(CIRCUIT)                                                                                                     | Normalmente chiusa<br>(Normally closed)                         | <b>CNN</b>     |
|    |                                                                                                                         | Normalmente aperta<br>(Normally open)                           | <b>ONN</b>     |
|    |                                                                                                                         | Normalmente chiusa + emergenza<br>(Normally closed + emergency) | <b>CNV</b>     |

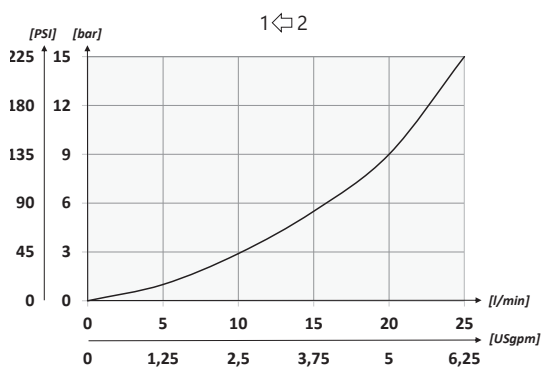
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

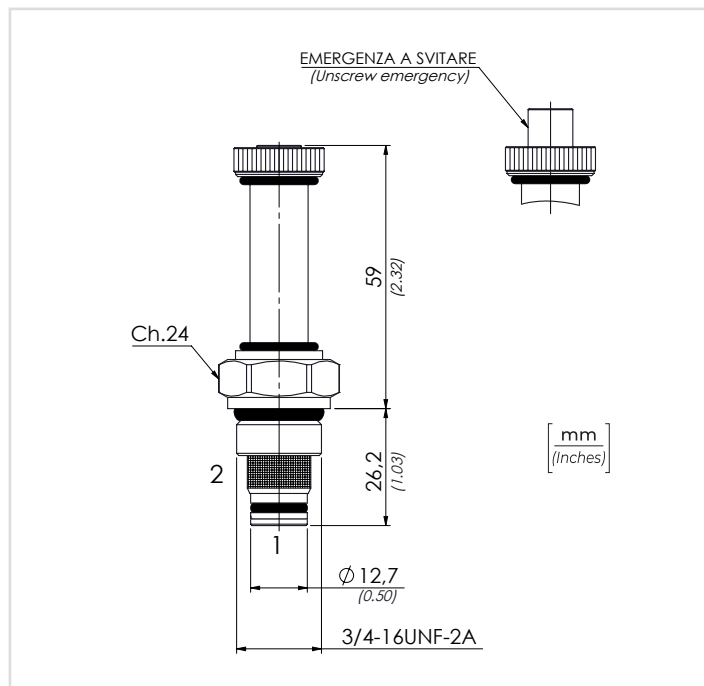
|                                                                                                                                                                                    |                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |

**PERFORMANCES**



Le prove sono state eseguite con solenoidi a temperatura di regime, sottoalimentati del 10% rispetto al valore nominale.

Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.



|         |                         |
|---------|-------------------------|
| CNN-CNV | BOBINA 18 W (18 W Coil) |
| ONN     | BOBINA 22 W (22 W Coil) |

BOBINA E CONNETTORE VEDI PG. 120-122  
COIL AND CONNECTOR SEE PG. 120-122

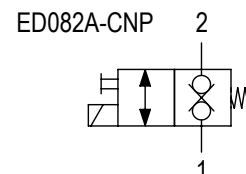
**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | A            | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|--------------|--------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------|
| EC082A       | 3/4-16UNF-2A | 22 (5.8)                                | 210 (3045)                                | 0,12 (0.26)                             | 30 (22)                                               | SAE 8/2          |

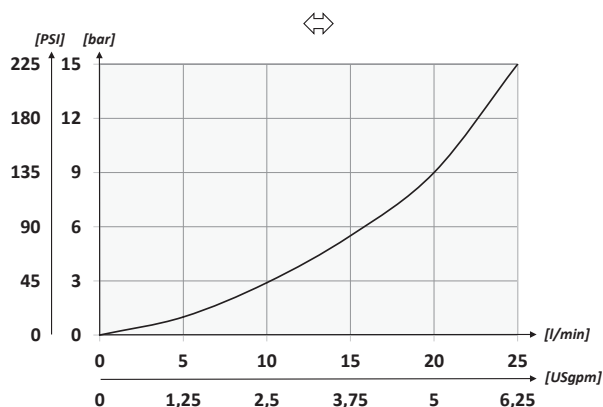
**CODICE ORDINAZIONE**  
ORDERING CODE

| 01             | 02         |
|----------------|------------|
| <b>ED082A-</b> | <b>CNP</b> |

|    |                                                                                                                                                            |                                                                 |         |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|---------|
| 01 | VALVOLE A COMANDO ELETTRICO SAE8<br>DOPPIA TENUTA 2 VIE/2 POSIZIONI DIRETTE<br>(2 WAYS/2 POSITIONS SAE8 DOUBLE SEALING<br>ELECTRIC VALVES - DIRECT ACTING) |                                                                 | ED082A- |
| 02 | SCHEMA<br>(CIRCUIT)                                                                                                                                        | Normalmente chiusa + emergenza<br>(Normally closed + emergency) | CNP     |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT****DATI TECNICI / TECHNICAL DATA**

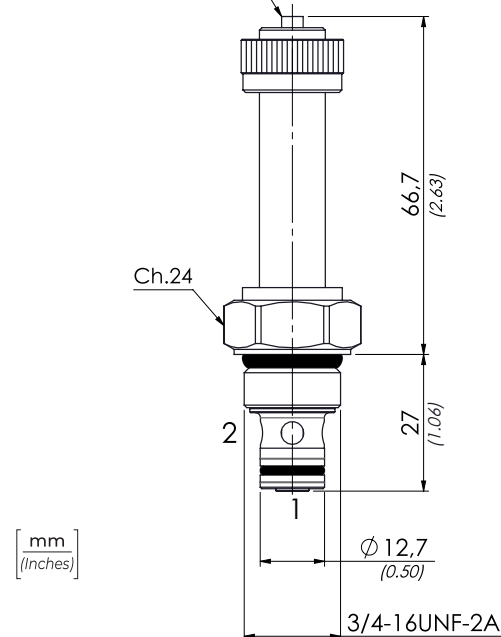
|                                                                                                                                                                                    |                                                           |             |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------|--|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                    |             |  |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |             |  |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                             |             |  |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C                                               | -4°F +176°F |  |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C                                               | -4°F +122°F |  |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |             |  |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |             |  |

**PERFORMANCES**

Le prove sono state eseguite con solenoidi a temperatura di regime, sottoalimentati del 10% rispetto al valore nominale.

Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.

EMERGENZA A PULSANTE  
(Push emergency)



BOBINA 22 W E CONNETTORE VEDI PG. 120-122  
22 W COIL AND CONNECTOR SEE PG. 120-122

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

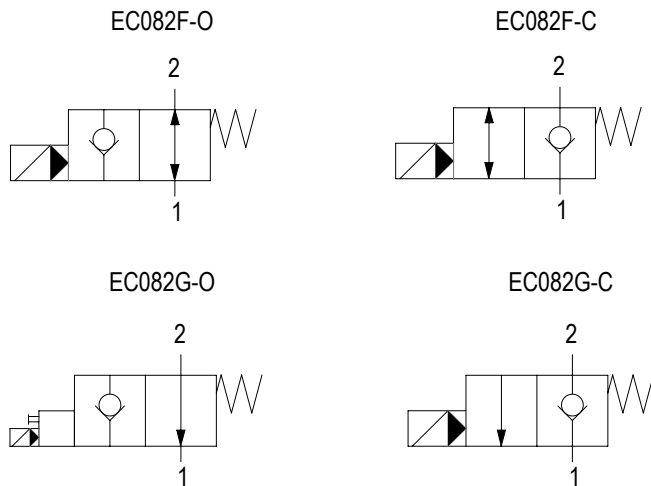
| TIPO<br>TYPE | A            | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|--------------|--------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------|
| ED082A-CNP   | 3/4-16UNF-2A | 22 (5.8)                                | 210 (3045)                                | 0,13 (0.28)                             | 30 (22)                                               | SAE 8/2          |

**CODICE ORDINAZIONE**  
ORDERING CODE

| 01            | 02 | 03 | 04 | 05 |
|---------------|----|----|----|----|
| <b>EC082-</b> |    |    |    |    |

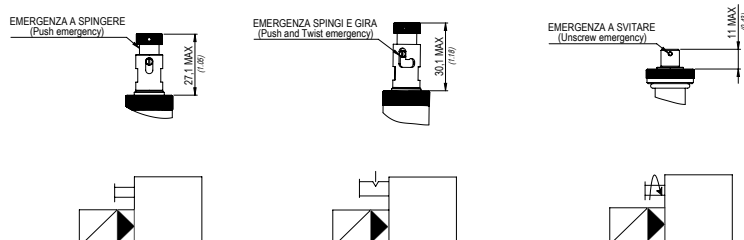


**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

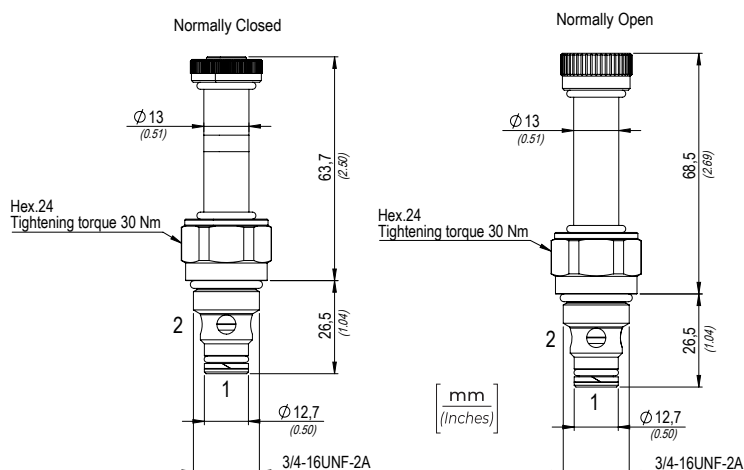
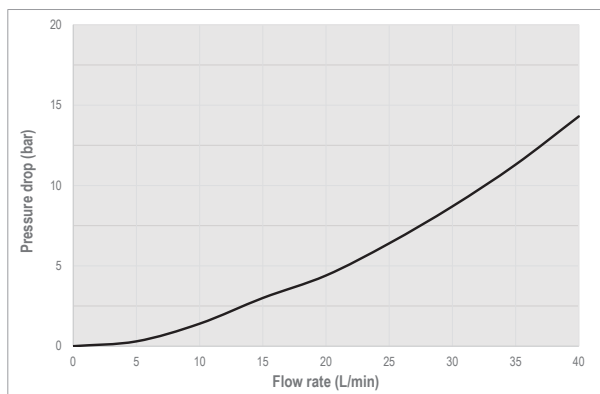


**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                | <b>ISO 6743/4</b> (DIN 51524)                                    |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                              | <b>15-250 mm²/s</b> (15 to 250 cSt)                              |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                     | <b>ISO 4406:1999 Classe 18/16/13</b>                             |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                     | <b>-20°C +80°C</b> -4°F +176°F                                   |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                              | <b>-20°C +50°C</b> -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                  |
| <b>Trafilamento@46cSt &amp; 200 bar</b><br>Leakage@46cSt & 200 bar                                                                                                                 | <b>0,25 cm³/min - 5 gocce/min</b><br>0,015 in³/min - 5 drops/min |



**PERFORMANCES**



Le prove sono state eseguite con solenoidi a temperatura di regime, sottoalimentati del 10% rispetto al valore nominale.

Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.

**BOBINA 22 W E CONNETTORE VEDI PG. 120-122**  
22 W COIL AND CONNECTOR SEE PG. 120-122

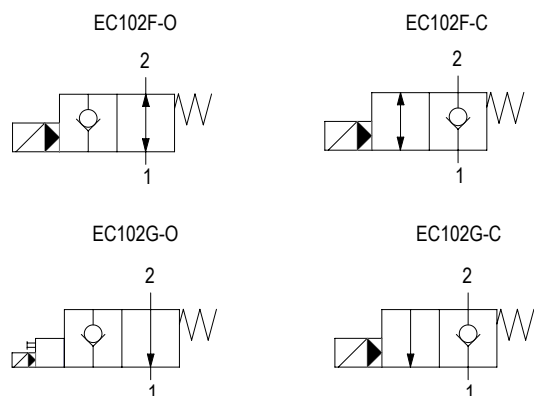
**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lb) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lb-ft | CAVITÀ<br>CAVITY |
|--------------|-----------------------------------------|-------------------------------------------|----------------------------------------|------------------------------------------------------|------------------|
| <b>EC082</b> | <b>40</b> (10.8)                        | <b>350</b> (5075)                         | <b>0,16</b> (0.35)                     | <b>30</b> (22)                                       | <b>SAE 8/2</b>   |

**CODICE ORDINAZIONE**  
**ORDERING CODE**



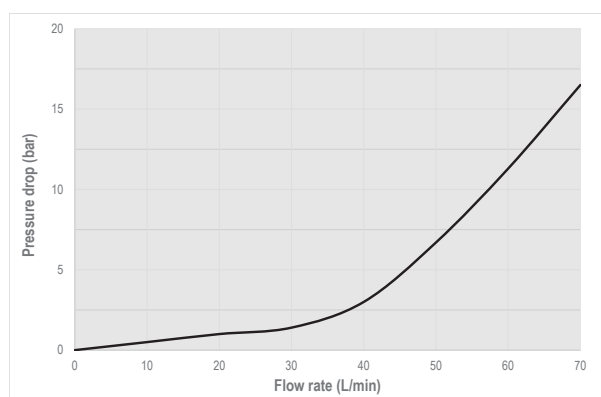
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |

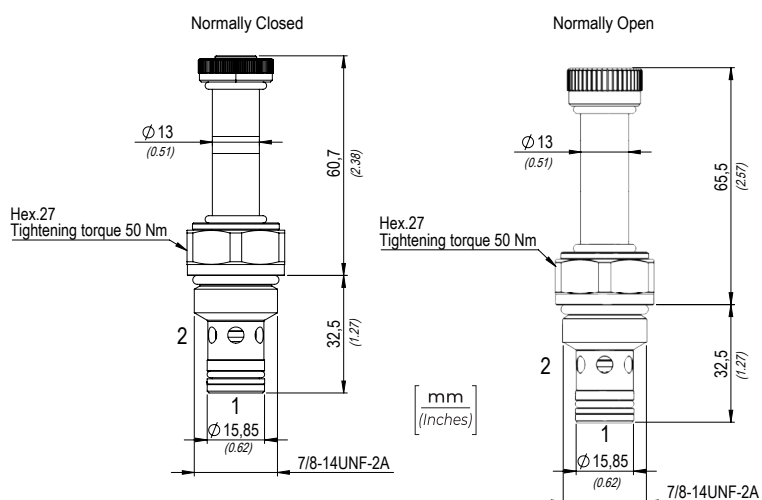
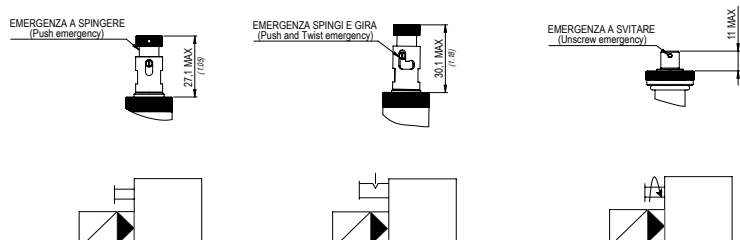
**PERFORMANCES**



Le prove sono state eseguite con solenoidi a temperatura di regime, sottoalimentati del 10% rispetto al valore nominale.

Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.

| 01            | 02                                                                                                                        | 03                                                                                       | 04       | 05            |
|---------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|----------|---------------|
| <b>EC102-</b> |                                                                                                                           |                                                                                          |          |               |
| <b>01</b>     | VALVOLE A COMANDO ELETTRICO SAE8 2 VIE/2 POSIZIONI PILOTATE<br>(2 WAYS/2 POSITIONS SAE8 ELECTRIC VALVES - PILOT OPERATED) |                                                                                          |          | <b>EC102-</b> |
| <b>02</b>     | ESECUZIONE<br>(EXECUTION)                                                                                                 | Unidirezionale<br>(Unidirectional)                                                       | <b>G</b> |               |
|               |                                                                                                                           | Bidirezionale<br>(Bidirectional)                                                         | <b>F</b> |               |
| <b>03</b>     | SCHEMA<br>(CIRCUIT)                                                                                                       | Normalmente chiusa<br>(Normally closed)                                                  | <b>C</b> |               |
|               |                                                                                                                           | Normalmente aperta<br>(Normally open)                                                    | <b>O</b> |               |
| <b>04</b>     | GUARNIZIONI<br>(GASKETS)                                                                                                  | NBR                                                                                      | <b>N</b> |               |
|               |                                                                                                                           | VITON                                                                                    | <b>V</b> |               |
| <b>05</b>     | EMERGENZA<br>(EMERGENCY)                                                                                                  | Nessuna<br>(None)                                                                        | <b>N</b> |               |
|               |                                                                                                                           | A Vite<br>(Screw)                                                                        | <b>V</b> |               |
|               |                                                                                                                           | A Spingere (Solo per normalmente aperta)<br>(Push) (Only for Normally open)              | <b>K</b> |               |
|               |                                                                                                                           | Spingi e Gira (Solo per normalmente aperta)<br>(Push and Twist) (Only for Normally open) | <b>T</b> |               |



**BOBINA 22 W E CONNETTORE VEDI PG. 120-122**  
22 W COIL AND CONNECTOR SEE PG. 120-122

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lb) | COPPIA DI SERRAGGIO (Nm)<br>TIGHTENING TORQUE (lb ft) | CAVITÀ<br>CAVITY |
|--------------|-----------------------------------------|-------------------------------------------|----------------------------------------|-------------------------------------------------------|------------------|
| <b>EC102</b> | <b>70</b> (18.5)                        | <b>350</b> (5075)                         | <b>0,19</b> (0.40)                     | <b>40</b> (30)                                        | <b>SAE 10/2</b>  |

**CODICE ORDINAZIONE**  
**ORDERING CODE**

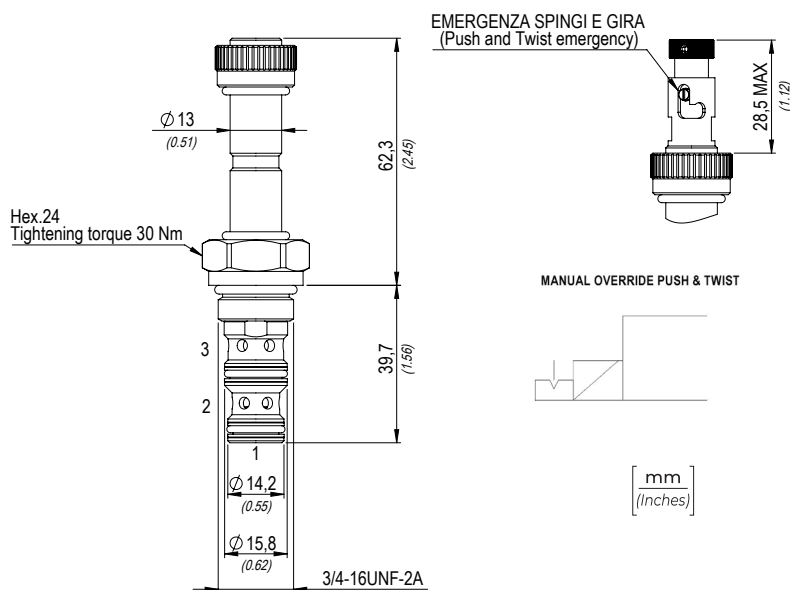
| 01             | 02 | 03 | 04 |
|----------------|----|----|----|
| <b>ES083F-</b> |    |    |    |



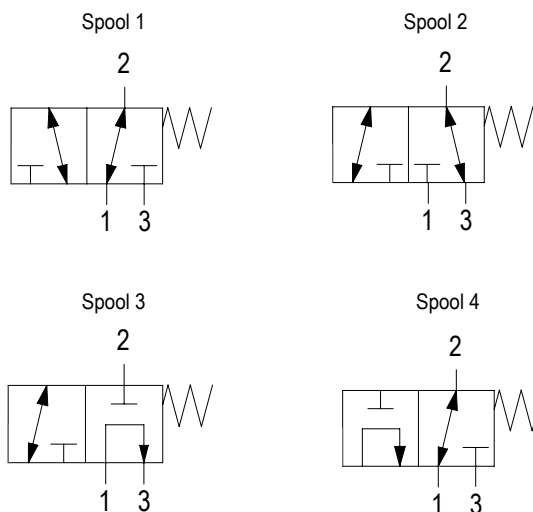
**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                | <b>ISO 6743/4</b> (DIN 51524)        |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                              | <b>15-250 mm²/s</b> (15 to 250 cSt)  |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                     | <b>ISO 4406:1999 Classe 18/16/13</b> |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                     | <b>-20°C +80°C</b> -4°F +176°F       |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                              | <b>-20°C +50°C</b> -4°F +122°F       |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                      |
| <b>Trafilamento@46cSt &amp; 200 bar</b>                                                                                                                                            | <b>40 ml/min</b>                     |
| <b>Leakage@46cSt &amp; 200 bar</b>                                                                                                                                                 | <b>2,44 in³/min</b>                  |

| 01        | VALVOLE A COMANDO ELETTRICO<br>A CURSORE SAE8 3 VIE/2 POSIZIONI DIRETTE<br>(3 WAYS/2 POSITIONS SAE8 ELECTRIC<br>SPOOL VALVES - DIRECT ACTING) |                                           | ES083F-  |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|----------|
| <b>02</b> | <b>CURSORE<br/>(SPOOL)</b>                                                                                                                    | <b>Spool 1</b>                            | <b>1</b> |
|           |                                                                                                                                               | <b>Spool 2</b>                            | <b>2</b> |
|           |                                                                                                                                               | <b>Spool 3</b>                            | <b>3</b> |
|           |                                                                                                                                               | <b>Spool 4</b>                            | <b>4</b> |
| <b>03</b> | <b>GUARNIZIONI<br/>(GASKETS)</b>                                                                                                              | <b>NBR</b>                                | <b>N</b> |
|           |                                                                                                                                               | <b>VITON</b>                              | <b>V</b> |
| <b>04</b> | <b>EMERGENZA<br/>(EMERGENCY)</b>                                                                                                              | <b>Nessuna<br/>(None)</b>                 | <b>N</b> |
|           |                                                                                                                                               | <b>Spingi e Gira<br/>(Push and Twist)</b> | <b>T</b> |



**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

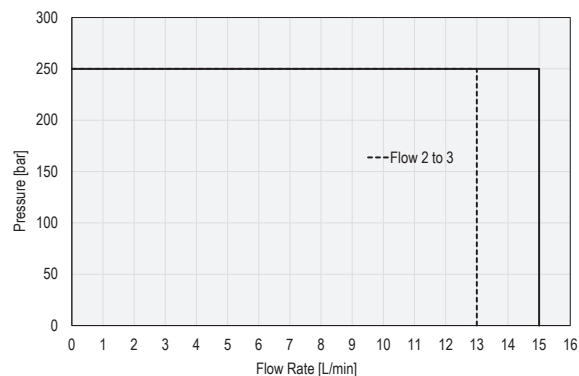
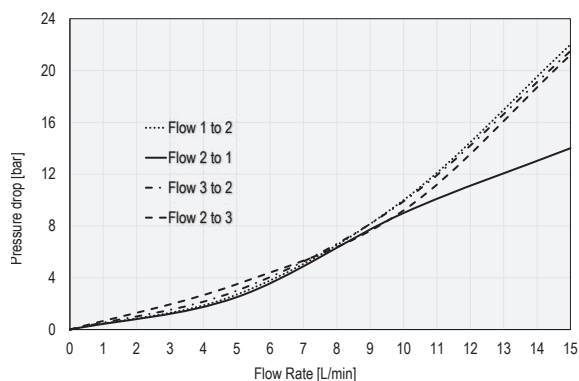


**BOBINA 22 W E CONNETTORE VEDI PG. 120-122**  
22 W COIL AND CONNECTOR SEE PG. 120-122

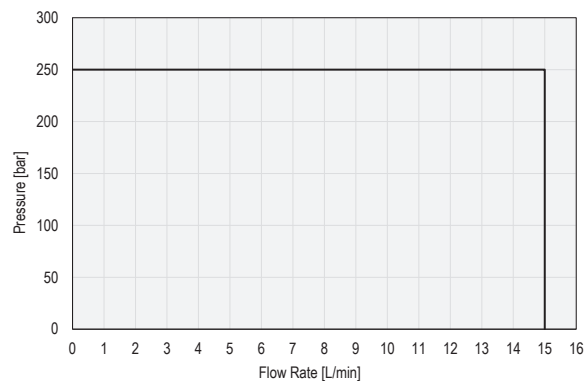
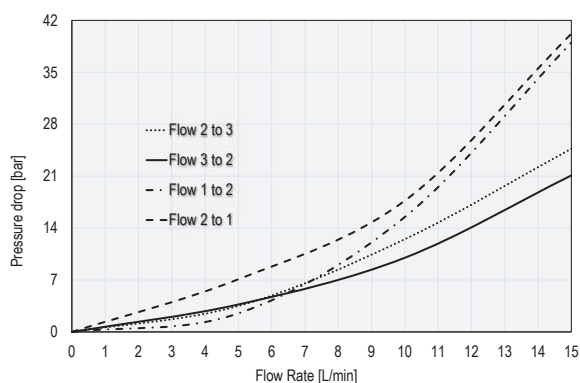
**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE  | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO (Nm)<br>TIGHTENING TORQUE (lbt ft) | CAVITÀ<br>CAVITY |
|---------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|--------------------------------------------------------|------------------|
| <b>ES083F</b> | <b>15 (3.2)</b>                         | <b>250 (3045)</b>                         | <b>0,15 (0.33)</b>                      | <b>30 (22)</b>                                         | <b>SAE 8/3</b>   |

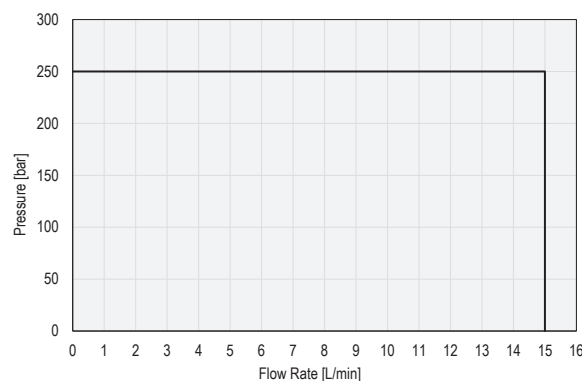
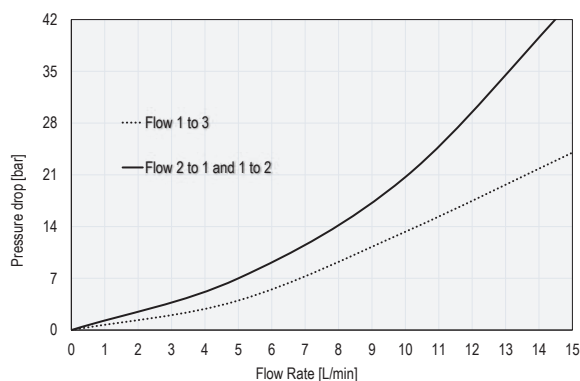
## Spool 1



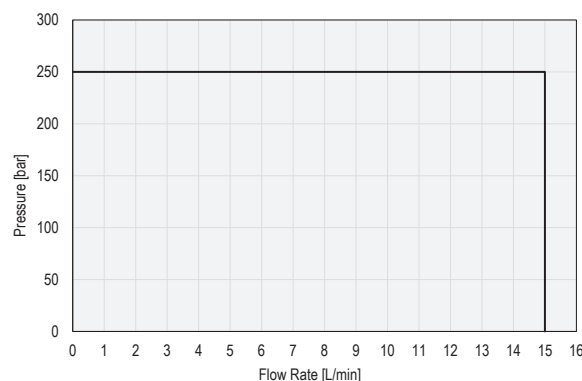
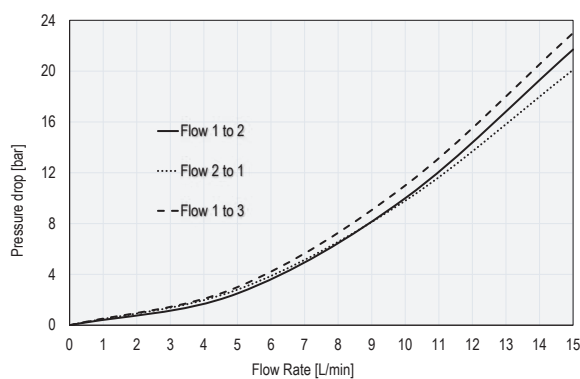
## Spool 2



## Spool 3



## Spool 4



Perdite di Carico - Pressure Drops

Limiti di Scambio - Switch Limits

NOTA : I rilievi di pressione sono stati misurati alle bocche del corpo codice 62200358.

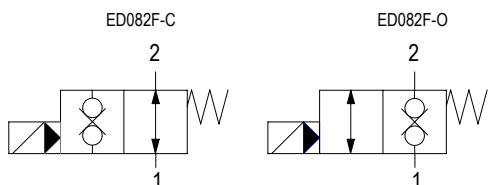
NOTE: The pressure measurements have been done at manifold ports code 62200358.

**CODICE ORDINAZIONE**  
ORDERING CODE01  
**ED082F-**

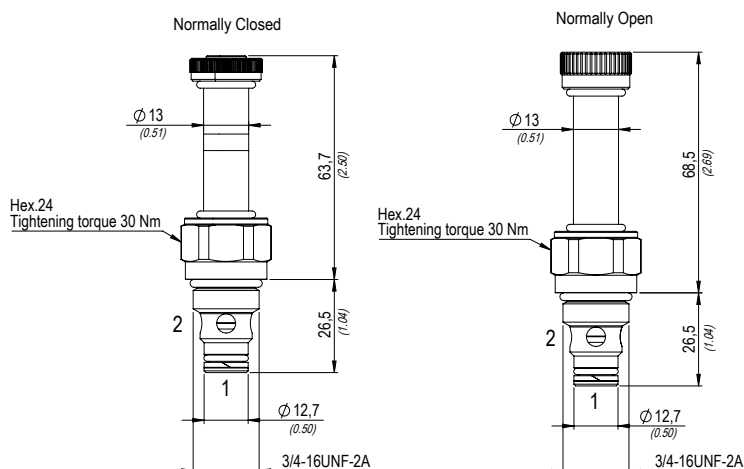
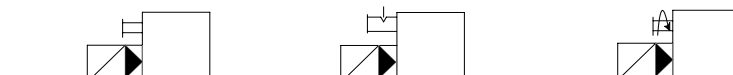
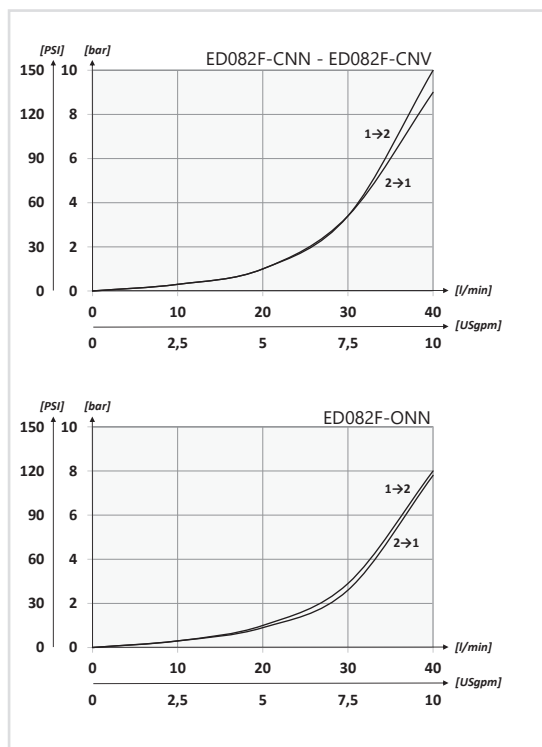
02

03

04

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT****DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                | <b>ISO 6743/4</b> (DIN 51524)                                     |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                              | <b>15-250 mm²/s</b> (15 to 250 cSt)                               |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                     | <b>ISO 4406:1999 Classe 18/16/13</b>                              |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                     | <b>-20°C +80°C</b> -4°F +176°F                                    |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                              | <b>-20°C +50°C</b> -4°F +122°F                                    |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                   |
| <b>Trafilamento massimo</b><br>Max leakage                                                                                                                                         | <b>0,50 cm³/min - 10 gocce/min</b><br>0,30 in³/min - 10 drops/min |

**PERFORMANCES**

Le prove sono state eseguite con solenoidi a temperatura di regime, sottoalimentati del 10% rispetto al valore nominale.

Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.

**BOBINA 22 W E CONNETTORE VEDI PG. 120-122**  
22 W COIL AND CONNECTOR SEE PG. 120-122

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

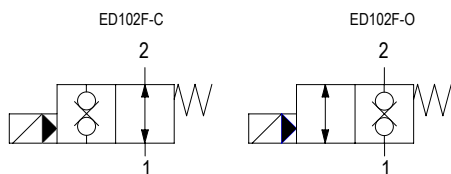
| TIPO<br>TYPE  | A                   | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPIA DI SERRAGGIO (Nm)<br>TIGHTENING TORQUE (lbt ft) | CAVITÀ<br>CAVITY |
|---------------|---------------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------|
| <b>ED082F</b> | <b>3/4-16UNF-2A</b> | <b>40</b> (10.8)                        | <b>350</b> (5075)                         | <b>0,16</b> (0.35)                      | <b>30</b> (22)                                        | <b>SAE 8/2</b>   |

CODICE ORDINAZIONE  
ORDERING CODE

| 01             | 02 | 03 | 04 |
|----------------|----|----|----|
| <b>ED102F-</b> |    |    |    |



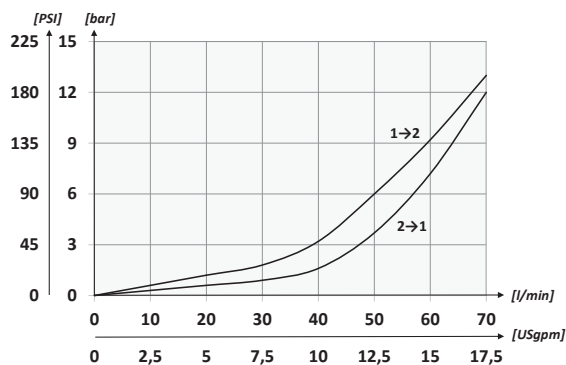
## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                     |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                               |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                              |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                    |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                    |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                            |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 0,50 cm³/min - 10 gocce/min<br>0,30 in³/min - 10 drops/min |

## PERFORMANCES



Le prove sono state eseguite con solenoidi a temperatura di regime, sottoalimentati del 10% rispetto al valore nominale.

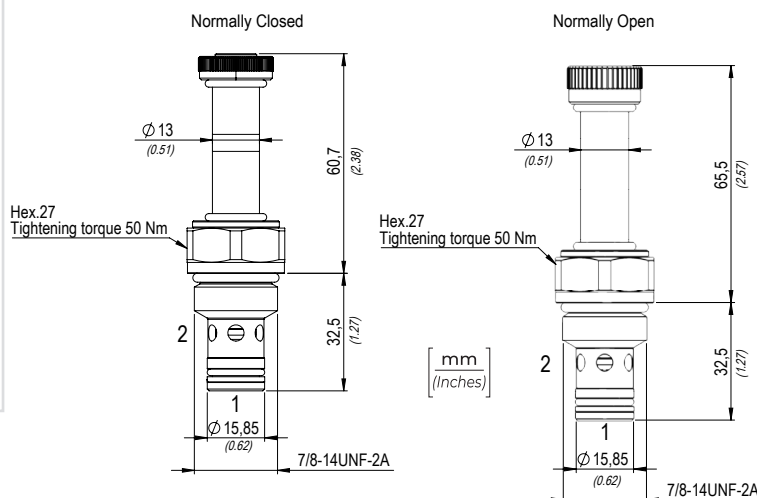
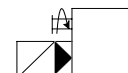
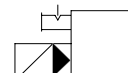
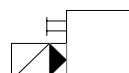
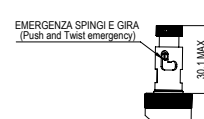
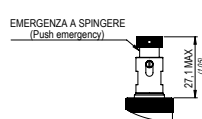
Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.

BOBINA 22 W E CONNETTORE VEDI PG. 120-122  
22 W COIL AND CONNECTOR SEE PG. 120-122

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| CODICE<br>CODE | A            | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lb) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lb ft | CAVITÀ<br>CAVITY |
|----------------|--------------|-----------------------------------------|-------------------------------------------|----------------------------------------|------------------------------------------------------|------------------|
| ED102F         | 7/8-14UNF-2A | 70 (18.5)                               | 350 (5075)                                | 0,19 (0.40)                            | 40 (30)                                              | SAE 10/2         |

| 01 | VALVOLE A COMANDO ELETTRICO SAE10 DOPPIA TENUTA 2 VIE/2 POSIZIONI PILOTATE<br>(2 WAYS/2 POSITIONS SAE10 DOUBLE SEALING ELECTRIC VALVES - PILOT OPERATED) |                                                                                          | ED102F- |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|---------|
| 02 | SCHEMA<br>(CIRCUIT)                                                                                                                                      | Normalmente chiusa<br>(Normally closed)                                                  | C       |
|    |                                                                                                                                                          | Normalmente aperta<br>(Normally open)                                                    | O       |
| 03 | GUARNIZIONI<br>(GASKETS)                                                                                                                                 | NBR                                                                                      | N       |
|    |                                                                                                                                                          | VITON                                                                                    | V       |
| 04 | EMERGENZA<br>(EMERGENCY)                                                                                                                                 | Nessuna<br>(None)                                                                        | N       |
|    |                                                                                                                                                          | A Vite<br>(Screw)                                                                        | V       |
|    |                                                                                                                                                          | A Spingere (Solo per Normalmente Aperta)<br>(Push - Only for Normally open)              | K       |
|    |                                                                                                                                                          | Spingi e Gira (Solo per Normalmente Aperta)<br>(Push and Twist - Only for Normally open) | T       |

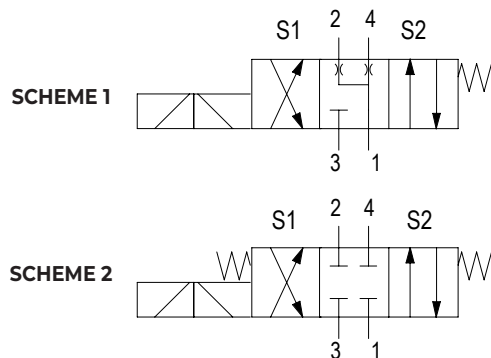


**CODICE ORDINAZIONE**  
ORDERING CODE

| 01            | 02 | 03 | 04 |
|---------------|----|----|----|
| <b>ES104F</b> |    |    |    |



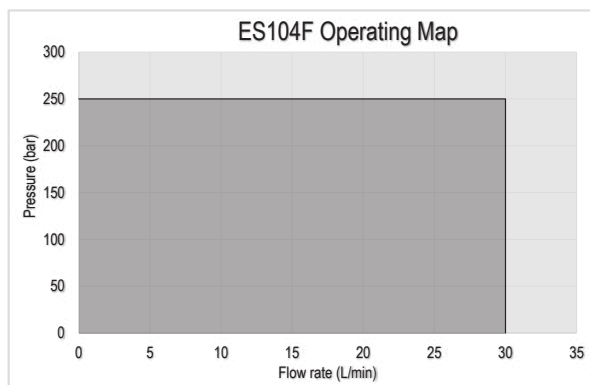
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                | <b>ISO 6743/4</b> (DIN 51524)        |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                              | <b>15-250 mm²/s</b> (15 to 250 cSt)  |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                     | <b>ISO 4406:1999 Classe 18/16/13</b> |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                     | <b>-20°C +80°C</b> -4°F +176°F       |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                              | <b>-20°C +50°C</b> -4°F +122°F       |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                      |
| <b>Trafilamento massimo</b><br>Max leakage                                                                                                                                         | <b>100 cm³/min</b><br>6,1 in³/min    |
| <b>Massima pressione @ Port 1</b><br>Max pressure @ Port 1                                                                                                                         | <b>20 bar</b><br>290 psi             |

**PERFORMANCES**



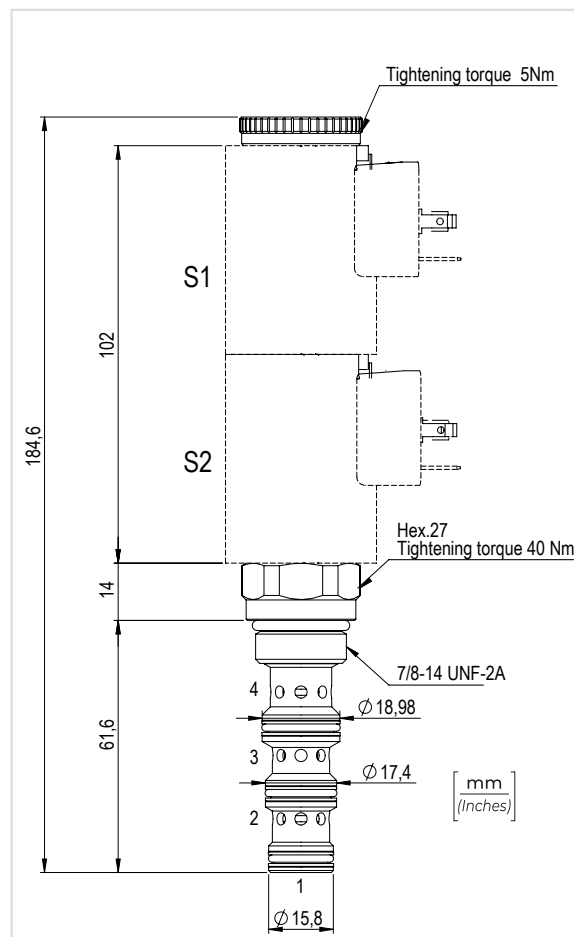
Le prove sono state eseguite con solenoidi a temperatura di regime, sottoalimentati del 10% rispetto al valore nominale.

Tests carried out with solenoids at their working temperature, with a supply voltage 10% below the nominal value.

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

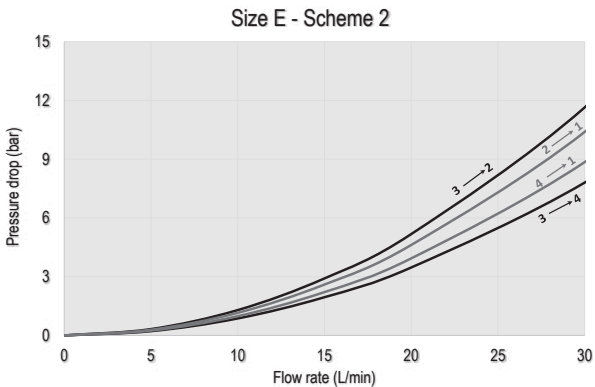
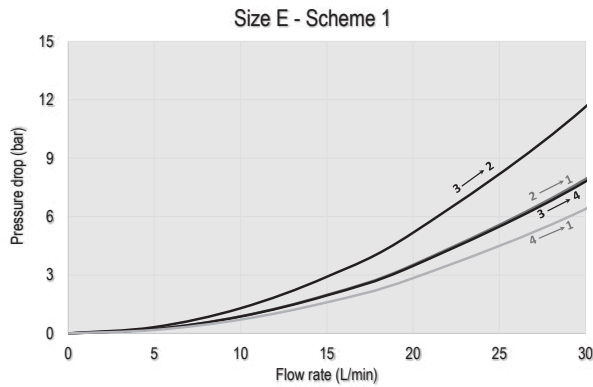
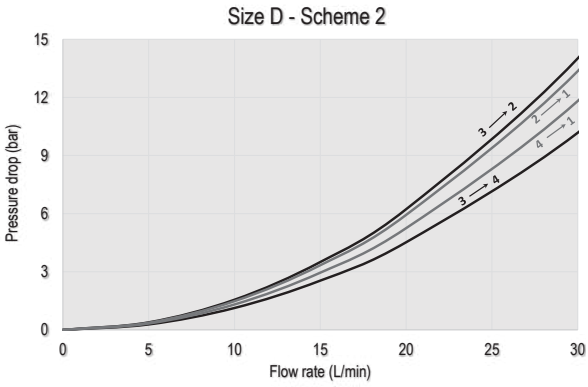
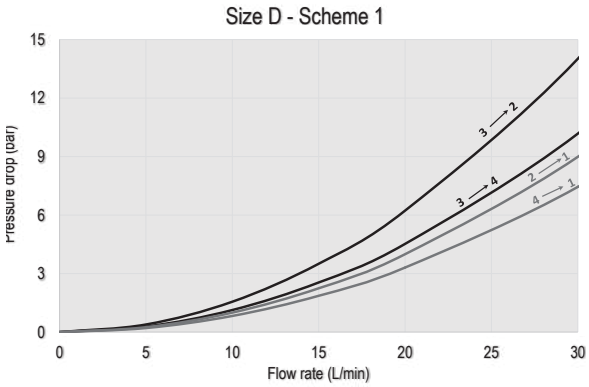
| CODICE<br>CODE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|----------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------|
| <b>ES104F</b>  | <b>30</b> (7.9)                         | <b>250</b> (3025)                         | <b>0,4</b> (8.8)                        | <b>40</b> (29.5)                                      | <b>SAE 10/4</b>  |

|           |                                                                                     |                                 |                |
|-----------|-------------------------------------------------------------------------------------|---------------------------------|----------------|
| <b>01</b> | VALVOLE A COMANDO ELETTRICO SAE10/4 ON-OFF<br>(4 WAYS SAE10 ON-OFF ELECTRIC VALVES) |                                 | <b>ES104F-</b> |
| <b>02</b> | SCHEMA<br>(CIRCUIT)                                                                 | A-B to tank in neutral position | <b>1</b>       |
|           |                                                                                     | A-B closed in neutral position  | <b>2</b>       |
| <b>03</b> | TAGLIA<br>(SIZE)                                                                    | 25 L/min (6.6 gpm)              | <b>D</b>       |
|           |                                                                                     | 30 L/min (7.9 gpm)              | <b>E</b>       |
| <b>04</b> | GUARNIZIONI<br>(GASKETS)                                                            | PTFE + NBR                      | <b>N</b>       |
|           |                                                                                     | PTFE + VITON                    | <b>V</b>       |



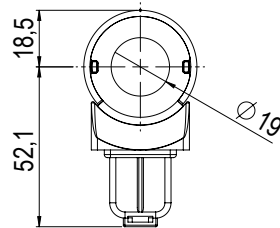
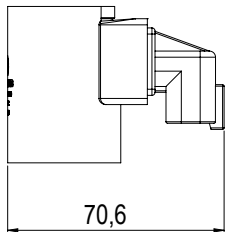
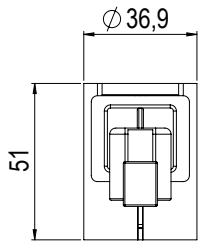
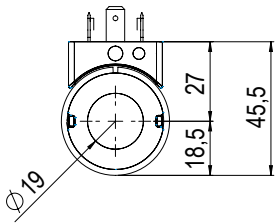
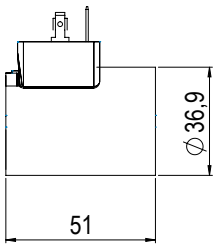
**BOBINA 24 W E CONNETTORE VEDI PG. 120-122**  
24 W COIL AND CONNECTOR SEE PG. 120-122

# ES104F CHARACTERISTICS



NOTA : I rilievi di pressione sono stati misurati con le cartucce in cavità standard

NOTE: The pressure measurements have been measured with cartridges in std cavity



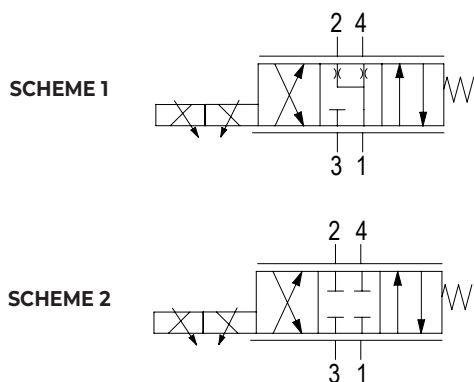
| ORDER CODE   | CONNECTIONS<br>TYPE | N O M I N A L<br>VOLTAGE | NOMINAL POWER | PROTECTION CLASS                        | INSULATION | RELATIVE INTERMITTANCE                               |
|--------------|---------------------|--------------------------|---------------|-----------------------------------------|------------|------------------------------------------------------|
| C012NDIN1900 | DIN 46350           | 12 VDC ±10%              | 24 W          | IP 65                                   | CLASS H    | ED 100%<br>with ambient temperature<br>-20 C° +40 C° |
| C024NDIN1900 |                     | 24 VDC ±10%              |               |                                         |            |                                                      |
| C012NDT41900 | DEUTSCH DT4         | 12 VDC ±10%              |               | IP 69K<br>with appropriate<br>connector |            |                                                      |
| C024NDT41900 |                     | 24 VDC ±10%              |               |                                         |            |                                                      |

**CODICE ORDINAZIONE**  
ORDERING CODE

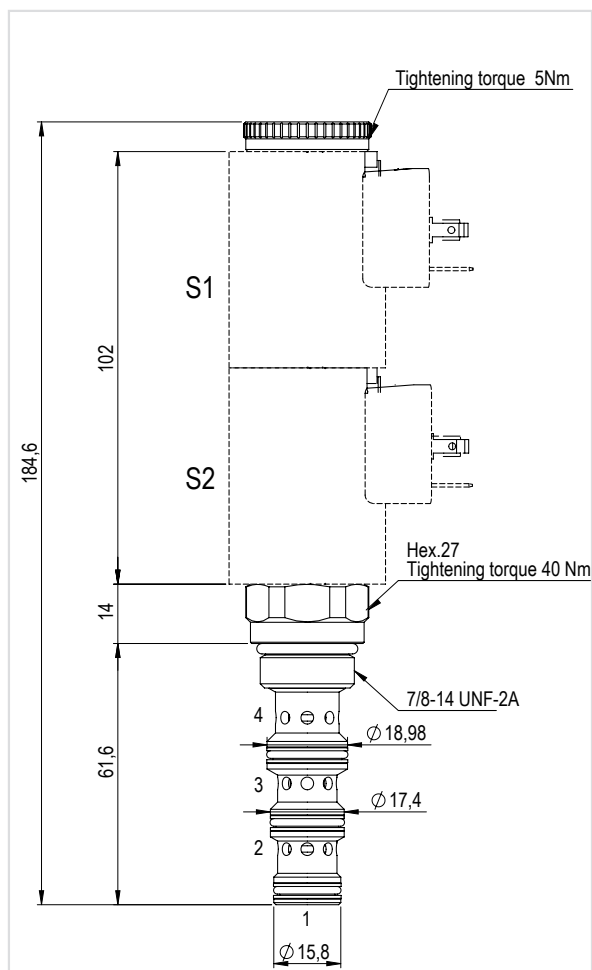
|               |    |    |    |
|---------------|----|----|----|
| 01            | 02 | 03 | 04 |
| <b>ES104P</b> |    |    |    |



**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



|           |                                                                                                                                                |                                 |                |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|----------------|
| <b>01</b> | VALVOLE SAE10/4 Elettro-proporzionale per il controllo direzionale del flusso<br>(ELECTRO-PROPORTIONAL FLOW DIRECTIONAL CONTROL VALVE SAE10/4) |                                 | <b>ES104P-</b> |
| <b>02</b> | SCHEMA<br>(CIRCUIT)                                                                                                                            | A-B to tank in neutral position | <b>1</b>       |
|           |                                                                                                                                                | A-B closed in neutral position  | <b>2</b>       |
| <b>03</b> | TAGLIA<br>(SIZE)                                                                                                                               | 5 L/min (1.3 gpm)               | <b>A</b>       |
|           |                                                                                                                                                | 10 L/min (2.6 gpm)              | <b>B</b>       |
|           |                                                                                                                                                | 15 L/min (3.9 gpm)              | <b>C</b>       |
|           |                                                                                                                                                | 25 L/min (6.6 gpm)              | <b>D</b>       |
|           |                                                                                                                                                | 30 L/min (7.9 gpm)              | <b>E</b>       |
| <b>04</b> | GUARNIZIONI<br>(GASKETS)                                                                                                                       | PTFE + NBR                      | <b>N</b>       |
|           |                                                                                                                                                | PTFE + VITON                    | <b>V</b>       |



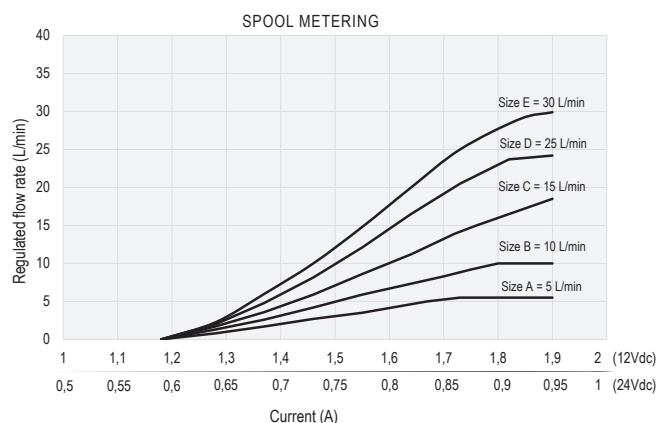
**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                           |                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| <b>Olio idraulico - Mineral oil</b>                                                                                                                                                       | <b>ISO 6743/4 (DIN 51524)</b>        |
| <b>Viscosità olio - Oil viscosity</b>                                                                                                                                                     | <b>15-250 mm²/s (15 to 250 cSt)</b>  |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                            | <b>ISO 4406:1999 Classe 18/16/13</b> |
| <b>Olio idraulico - Mineral oil</b>                                                                                                                                                       | <b>ISO 6743/4 (DIN 51524)</b>        |
| <b>Temperatura dell'olio - Oil temperature</b>                                                                                                                                            | <b>-20°C +80°C -4°F +176°F</b>       |
| <b>Temperatura ambiente - Environment temperature</b>                                                                                                                                     | <b>-20°C +50°C -4°F +122°F</b>       |
| <b>Trafilamento massimo - Max leakage</b>                                                                                                                                                 | <b>100 cm³/min - 6,1 in³/min</b>     |
| <b>Massima pressione @ Port 1</b><br>Max pressure @ Port 1                                                                                                                                | <b>20 bar</b><br><b>290 psi</b>      |
| <b>PWM</b>                                                                                                                                                                                | <b>120 Hz</b>                        |
| <b>Massima corrente at 12V - Max current at 12V</b>                                                                                                                                       | <b>1800mA</b>                        |
| <b>Massima corrente at 24V - Max current at 24V</b>                                                                                                                                       | <b>900mA</b>                         |
| <b>Isteresi - Hysteresis</b>                                                                                                                                                              | <b>5%</b>                            |
| <b>Limite applicazioni con Δp max from 3 to 4/2</b><br>Application limits with Δp max from 3 to 4/2                                                                                       | <b>15 bar</b><br><b>260 psi</b>      |
| <b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b><br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                      |

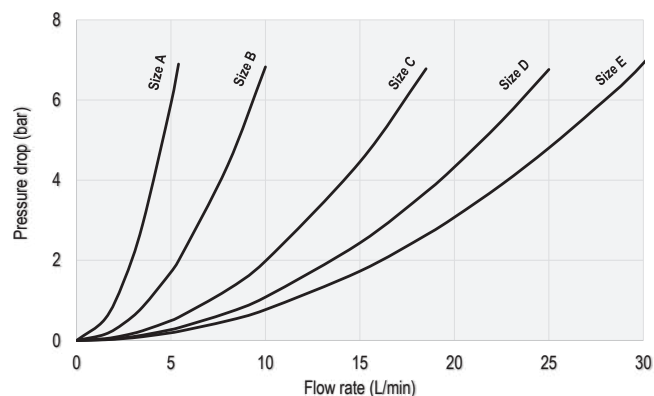
**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| CODICE<br>CODE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|----------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------|
| <b>ES104P</b>  | <b>30 (7.9)</b>                         | <b>250 (3025)</b>                         | <b>0,4 (8.8)</b>                        | <b>40 (29.5)</b>                                      | <b>SAE 10/4</b>  |

# ES104P CHARACTERISTICS



Graph flow/current with  $\Delta p$  from 3 to 4/2 of 7 bar



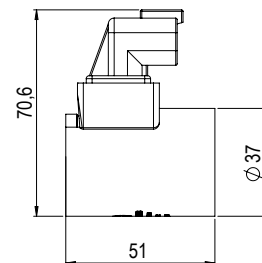
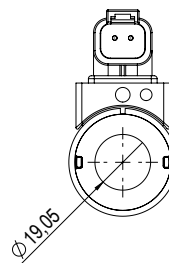
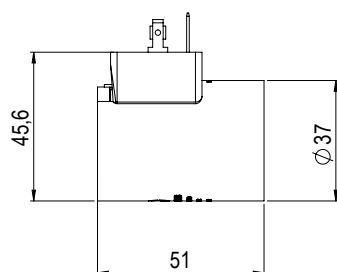
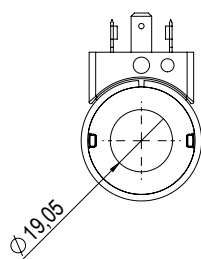
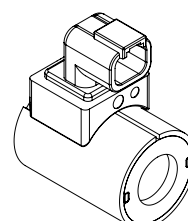
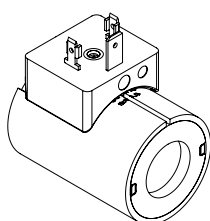
Pressure drop with energized coil from 3 to 4/2

## NOTE:

Flow regulation characteristics reported in the graph are referred to users 2 and 4 both, with 4 way operation and symmetrical flow (i.e. motor).

For valve applications where the asymmetrical flow is present, the performance may vary.

For more information, contact OLEOWEB customer care.

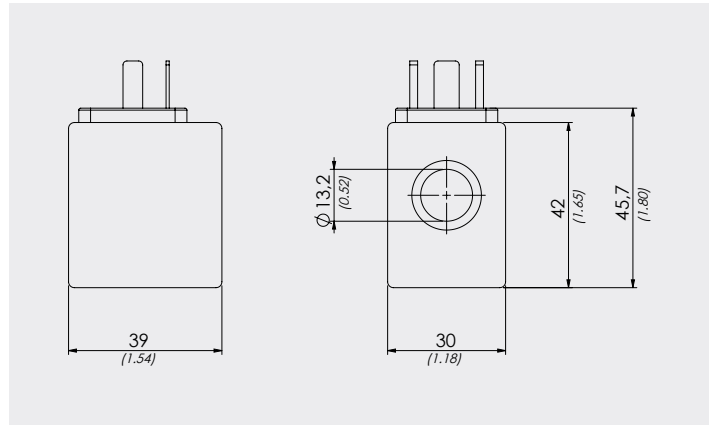


| ORDER CODE   | CONNECTION TYPE | NOMINAL VOLTAGE | MAXIMUM CURRENT | NOMINAL POWER | PROTECTION CLASS                     | INSULATION | RELATIVE INTERMITTANCE                               |
|--------------|-----------------|-----------------|-----------------|---------------|--------------------------------------|------------|------------------------------------------------------|
| C012PDIN1900 | DIN 46350       | 12 VDC          | 1,8 A           | 36 W          | IP 65                                | CLASS H    | ED 100%<br>with ambient temperature<br>-20 C° +40 C° |
| C024PDIN1900 |                 | 24 VDC          | 0,9 A           | 39,7 W        |                                      |            |                                                      |
| C012PDT41900 | DEUTSCH DT4     | 12 VDC          | 1,8 A           | 36 W          | IP 69K<br>with appropriate connector |            |                                                      |
| C024PDT41900 |                 | 24 VDC          | 0,9 A           | 39,7 W        |                                      |            |                                                      |

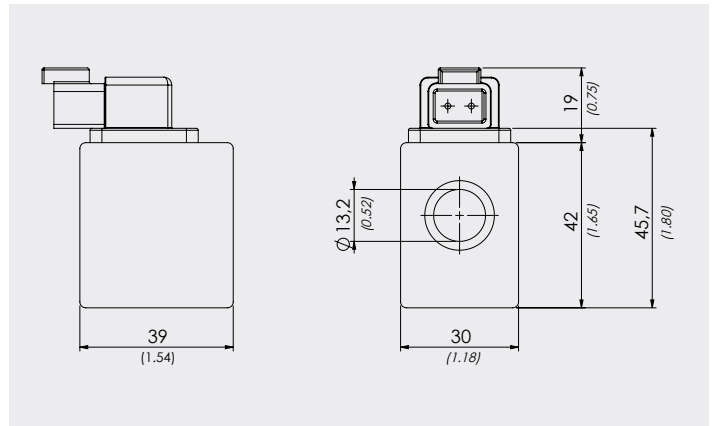
## EC - 18W

### DATI TECNICI - TECHNICAL DATA

|                                                                   |                          |
|-------------------------------------------------------------------|--------------------------|
| <b>POTENZA A 20°C</b><br>COIL POWER AT 20°C                       | <b>18 W</b>              |
| <b>CLASSE ISOLAMENTO DEL FILO</b><br>WIRE INSULATION CLASS        | <b>H+ (202°C)</b>        |
| <b>ED</b>                                                         | <b>100%</b>              |
| <b>POTENZA ASSORBITA IN CA</b><br>ABSORBED POWER IN AC            | <b>28 VA</b>             |
| <b>CAMPO DI TEMPERATURA AMBIENTE</b><br>RANGE AMBIENT TEMPERATURE | <b>-30°C / +50°C</b>     |
| <b>PESO</b><br>WEIGHT                                             | <b>0,19 Kg / 0,30 lb</b> |



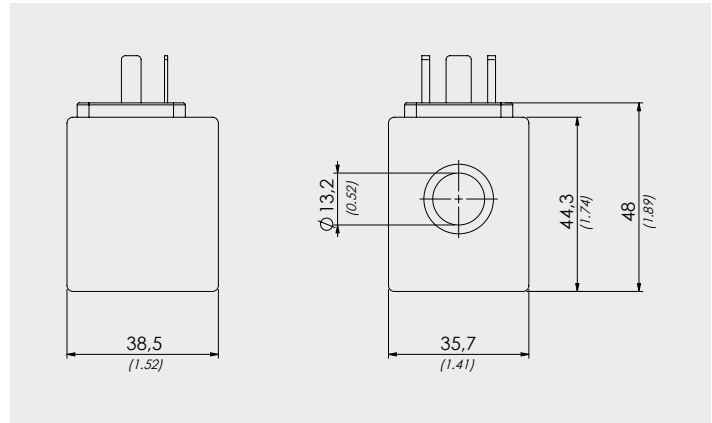
| TIPO<br>TYPE | CONNETTORE<br>CONNECTOR  | CLASSE<br>DI PROTEZIONE<br>PROTECTION<br>CLASS | TENSIONE<br>VOLTAGE |
|--------------|--------------------------|------------------------------------------------|---------------------|
| EC012DC      | DIN 43650<br>(+88100002) | IP65                                           | 12 V dc             |
| EC024DC      | DIN 43650<br>(+88100002) | IP65                                           | 24 V dc             |
| EC220RAC     | DIN 43650<br>(+88100003) | IP65                                           | 220 V 50-60 Hz      |
| EC012DEU     | Deutsch                  | IP69K                                          | 12 V dc             |
| EC024DEU     | Deutsch                  | IP69K                                          | 24 V dc             |



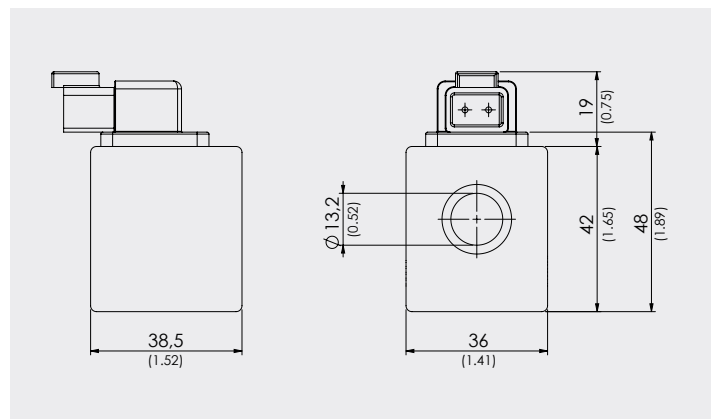
## EC36 - 22W

### DATI TECNICI - TECHNICAL DATA

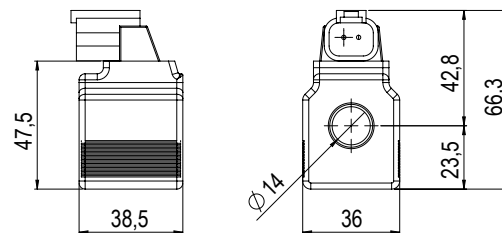
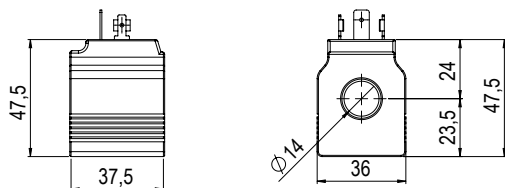
|                                                                   |                          |
|-------------------------------------------------------------------|--------------------------|
| <b>POTENZA A 20°C</b><br>COIL POWER AT 20°C                       | <b>22 W</b>              |
| <b>CLASSE ISOLAMENTO DEL FILO</b><br>WIRE INSULATION CLASS        | <b>H+ (202°C)</b>        |
| <b>ED</b>                                                         | <b>100%</b>              |
| <b>POTENZA ASSORBITA IN CA</b><br>ABSORBED POWER IN AC            | <b>28 VA</b>             |
| <b>CAMPO DI TEMPERATURA AMBIENTE</b><br>RANGE AMBIENT TEMPERATURE | <b>-30°C / +50°C</b>     |
| <b>PESO</b><br>WEIGHT                                             | <b>0,21 Kg / 0,46 lb</b> |



| TIPO<br>TYPE | CONNETTORE<br>CONNECTOR  | CLASSE<br>DI PROTEZIONE<br>PROTECTION<br>CLASS | TENSIONE<br>VOLTAGE |
|--------------|--------------------------|------------------------------------------------|---------------------|
| EC36012DC    | DIN 43650<br>(+88100002) | IP65                                           | 12 V dc             |
| EC36024DC    | DIN 43650<br>(+88100002) | IP65                                           | 24 V dc             |
| EC36220RAC   | DIN 43650<br>(+88100003) | IP65                                           | 220 V 50-60 Hz      |
| EC36012DEU   | Deutsch                  | IP69K                                          | 12 V dc             |
| EC36024DEU   | Deutsch                  | IP69K                                          | 24 V dc             |

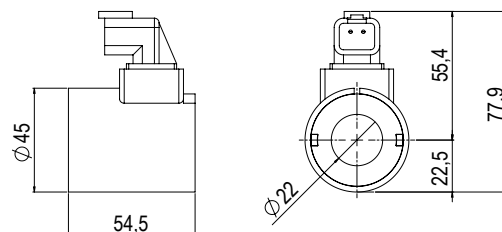
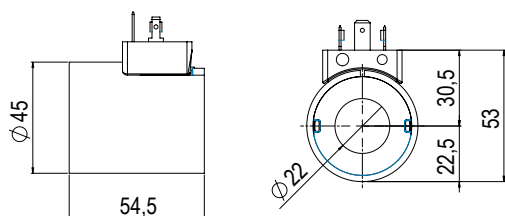


## COIL - Ø14

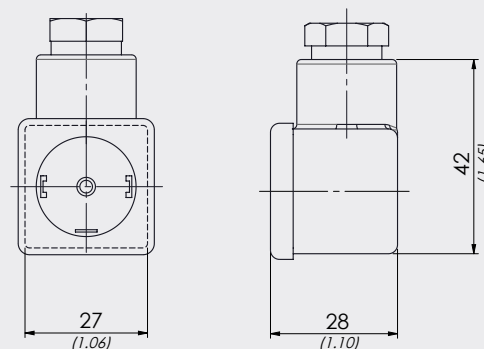
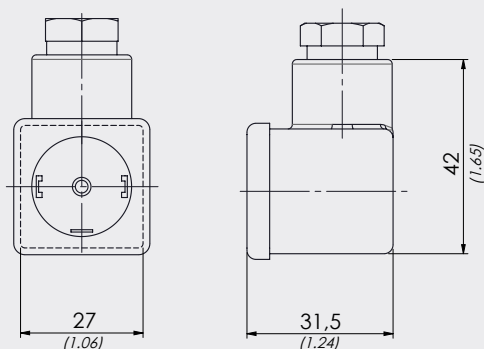


| ORDER CODE   | CONNECTIONS TYPE | NOMINAL VOLTAGE | NOMINAL POWER | PROTECTION CLASS | INSULATION | RELATIVE INTERMITTANCE |
|--------------|------------------|-----------------|---------------|------------------|------------|------------------------|
| C012NDIN1400 | DIN 46350        | 12 VDC          | 27 W          | IP 65            | CLASS H    | ED 100%                |
| C024NDIN1400 |                  | 24 VDC          |               |                  |            |                        |
| C012NDT41400 | DEUTSCH DT4      | 12 VDC          |               |                  |            |                        |
| C024NDT41400 |                  | 24 VDC          |               |                  |            |                        |

## COIL - Ø22



| ORDER CODE   | CONNECTIONS TYPE | N O M I N A L VOLTAGE | NOMINAL POWER | PROTECTION CLASS                           | INSULATION | RELATIVE INTERMITTANCE |
|--------------|------------------|-----------------------|---------------|--------------------------------------------|------------|------------------------|
| C012NDIN2200 | DIN 46350        | 12 VDC                | 40 W          | IP 65                                      | CLASS H    | ED 100%                |
| C024NDIN2200 |                  | 24 VDC                |               |                                            |            |                        |
| C012NDT42200 | DEUTSCH DT4      | 12 VDC                |               | IP 67<br>IP 69K with appropriate connector |            |                        |
| C024NDT42200 |                  | 24 VDC                |               |                                            |            |                        |



## CONNETTORE CON RADDRIZZATORE (CONNECTOR WITH RECTIFIER)

TIPO - TYPE: **88100003**

EN 175301-803

**CORRENTE NOMINALE CONTATTI**  
NOMINAL CURRENT

**10 A**

**CORRENTE MAX CONTATTI**  
MAX OPERATING CURRENT

**16 A**

**RESISTENZA CONTATTI**  
CONTACT RESISTANCE

**≤ 4m Ohm**

**SEZIONE MAX CONDUTTORI**  
MAX CONDUCTORS CROSS-SECTION

**1,5 mm<sup>2</sup>**

**PORTACONTATTI, DADO**  
CONTACT HOLDER

**PA**

**TIPO DI SERRACAPO**  
GLAND SIZE OPTIONS

**Pg09**

**DIAMETRO CAVO**  
CABLE DIAMETER

**6-8 mm**

**GRADO DI PROTEZIONE**  
PROTECTION CLASS

**IP 65 EN 60529**

**CLASSE DI ISOLAMENTO**  
INSULATION CLASS

**VDE 0110-1/89**

**GUARNIZIONE**  
SEALING MATERIAL

**NBR**

**TEMPERATURA DI ESERCIZIO**  
OPERATING TEMPERATURE

**-40C +90C**

**PESO APPROX**  
APPROX WEIGHT

**0,025 kg  
0.055 lb**

## CONNETTORE STANDARD (STANDARD CONNECTOR)

TIPO - TYPE: **88100002**

EN 175301-803

**TENSIONE NOMINALE**  
NOMINAL VOLTAGE

**AC - Max 250 V  
DC - Max 300 V**

**CORRENTE NOMINALE CONTATTI**  
NOMINAL CURRENT

**10 A**

**CORRENTE MAX CONTATTI**  
MAX OPERATING CURRENT

**16 A**

**RESISTENZA CONTATTI**  
CONTACT RESISTANCE

**≤ 4m Ohm**

**SEZIONE MAX CONDUTTORI**  
MAX CONDUCTORS CROSS-SECTION

**1,5 mm<sup>2</sup>**

**PROTEZIONE**  
HOUSING

**PA (+G)**

**TIPO DI SERRACAPO**  
GLAND SIZE OPTIONS

**Pg11**

**DIAMETRO CAVO**  
CABLE DIAMETER

**6-8 mm**

**GRADO DI PROTEZIONE**  
PROTECTION CLASS

**IP 65 EN 60529**

**CLASSE DI ISOLAMENTO**  
INSULATION CLASS

**VDE 0110-1/89**

**GUARNIZIONE**  
SEALING MATERIAL

**NBR**

**TEMPERATURA DI ESERCIZIO**  
OPERATING TEMPERATURE

**-40C +90C**

**PESO APPROX**  
APPROX WEIGHT

**0,020 kg  
0.044 lb**

## notes

## notes

# VALVOLE A CARTUCCIA

## CARTRIDGE VALVES

La famiglia delle valvole a cartuccia comprende: valvole unidirezionali a ritegno, valvole controllo di flusso compensate, valvole controllo di flusso unidirezionali e bidirezionali, pompe a mano, valvole di emergenza manuali e con pilotaggio pneumatico, divisori/riunificatori di flusso, valvole di ritegno pilotate, valvole selettive e valvole di massima.

Cartridge valves family includes: check valves, control pressure compensated valves, unidirectional and bidirectional flow control valves, hand pumps emergency valves, flow dividers combiners, single acting check valves, load shuttle valves and relief valves.

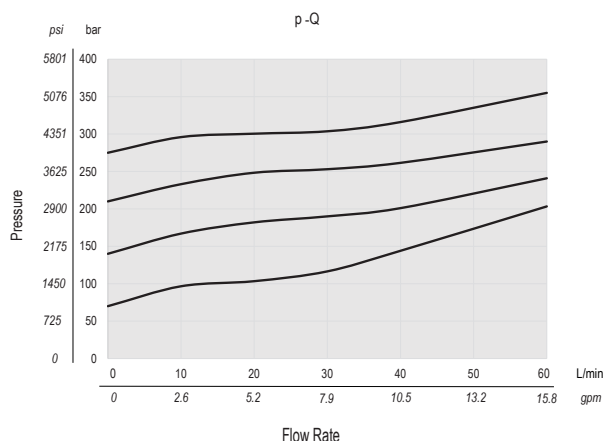
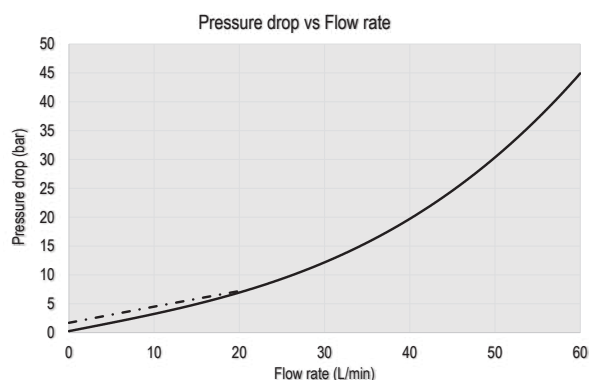


### CODICE ORDINAZIONE ORDERING CODE

|                |          |          |    |    |    |
|----------------|----------|----------|----|----|----|
| 01             | 02       | 03       | 04 | 05 | 06 |
| <b>OW11AS-</b> | <b>O</b> | <b>1</b> |    |    |    |



### PERFORMANCES



### DATI TECNICI / TECHNICAL DATA

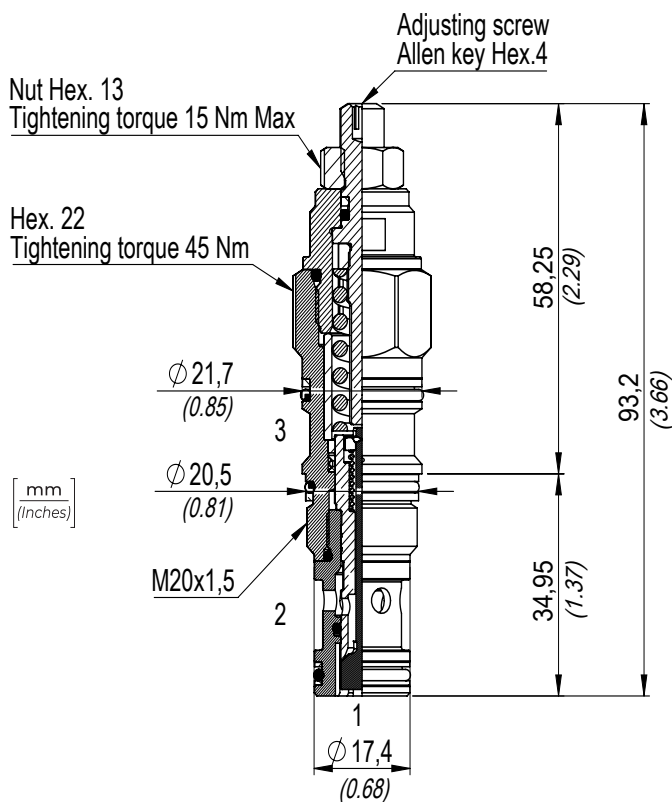
|                                                                                                                                                                                    |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Olío idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                                              |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                                                       |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                                             |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                                             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |

### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

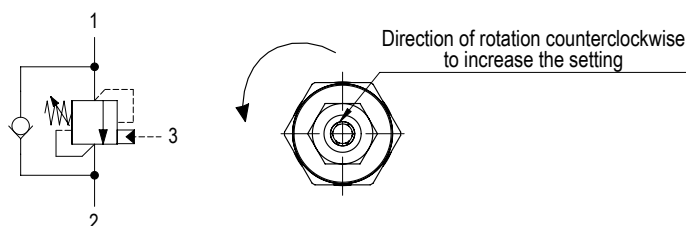
| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | CAVITÀ<br>CAVITY |
|--------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|------------------|
| OW11AS       | 60 (15.5)                               | 350 (5075)                                | 0,16 (0.13)                             | T-11A            |

| 01 | VALVOLA DI BILANCIAMENTO T-11A (T-11A COUNTERBALANCE VALVE) |                                                                                                           |  |  | OW11AS-          |
|----|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--|--|------------------|
| 02 | APPLICABILITÀ<br>(APPLICABILITY)                            | Centro Aperto<br>Open Centre                                                                              |  |  | O                |
| 03 | MOLLA (SPRING)                                              | Rp 3:1 - 70/280 bar - 59 bar/giro<br>(826PSI/turn)<br>Rp 4:1 - 100/350 bar - 59 bar/giro<br>(826PSI/turn) |  |  | 1                |
| 04 | RAPPORTO DI PILOTAGGIO<br>(PILOT RATIO)                     | 3:1<br>4:1                                                                                                |  |  | 3<br>4           |
| 05 | GUARNIZIONI<br>(GASKETS)                                    | HYTREL + NBR<br>PTFE + NBR<br>HYTREL + VITON<br>PTFE + VITON                                              |  |  | H<br>P<br>K<br>V |
| 06 | TRATTAMENTO SUPERFICIALE<br>(SURFACE TREATMENT)             | Zincatura CRIII<br>Zinco-Nichel                                                                           |  |  | S<br>K           |

Opzione: Tappo piombatura - Optional: Tamper proof cap **81300037**

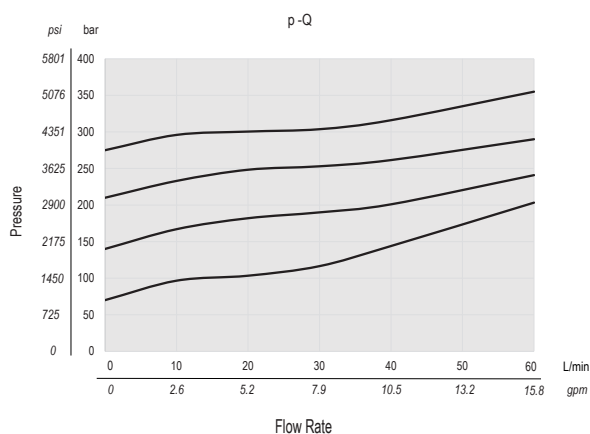
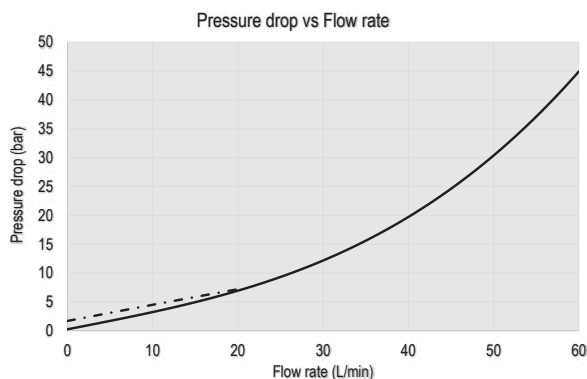


### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



**CODICE ORDINAZIONE**  
ORDERING CODE

| 01             | 02       | 03       | 04 | 05 | 06 |
|----------------|----------|----------|----|----|----|
| <b>OW103S-</b> | <b>O</b> | <b>1</b> |    |    |    |

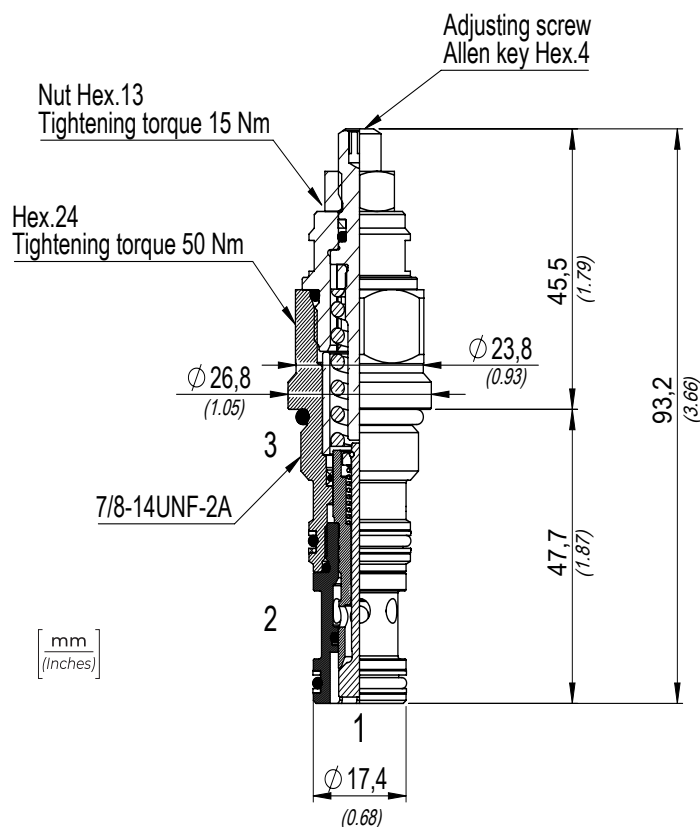
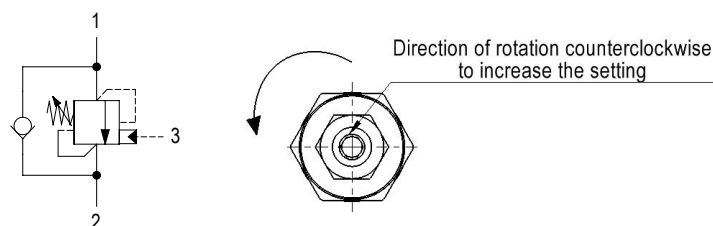
**PERFORMANCES****DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                                           |      |        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|------|--------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                | ISO 6743/4 (DIN 51524)                                    |      |        |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                              | 15-250 mm²/s (15 to 250 cSt)                              |      |        |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                     | ISO 4406:1999 Classe 18/16/13                             |      |        |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                     | -20°C +80°C                                               | -4°F | +176°F |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                              | -20°C +50°C                                               | -4°F | +122°F |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |      |        |
| <b>Trafilamento@46cSt &amp; 200 bar</b><br>Leakage@46cSt & 200 bar                                                                                                                 | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |      |        |

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE  | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lb) | CAVITÀ<br>CAVITY     |
|---------------|-----------------------------------------|-------------------------------------------|----------------------------------------|----------------------|
| <b>OW103S</b> | <b>60 (15.5)</b>                        | <b>350 (5075)</b>                         | <b>0,18 (0.16)</b>                     | <b>SAE10/3 SHORT</b> |

| 01        | VALVOLA DI BILANCIAMENTO SAE10/3 SHORT (SAE10/3 SHORT COUNTERBALANCE VALVE) |                                                                                                           |  |  | 06                   |
|-----------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--|--|----------------------|
| <b>02</b> | APPLICABILITÀ<br>(APPLICABILITY)                                            | Centro Aperto<br>Open Centre                                                                              |  |  | <b>O</b>             |
| <b>03</b> | MOLLA (SPRING)                                                              | Rp 3:1 - 70/280 bar - 59 bar/giro<br>(826PSI/turn)<br>Rp 4:1 - 100/350 bar - 59 bar/giro<br>(826PSI/turn) |  |  | <b>1</b>             |
| <b>04</b> | RAPPORTO DI PILOTAGGIO<br>(PILOT RATIO)                                     | 3:1<br>4:1                                                                                                |  |  | <b>3</b><br><b>4</b> |
|           | GUARNIZIONI<br>(GASKETS)                                                    | PTFE + NBR<br>PTFE + VITON                                                                                |  |  | <b>P</b><br><b>V</b> |
| <b>06</b> | TRATTAMENTO SUPERFICIALE<br>(SURFACE TREATMENT)                             | Zincatura CRIII<br>Zinco-Nichel                                                                           |  |  | <b>S</b><br><b>K</b> |

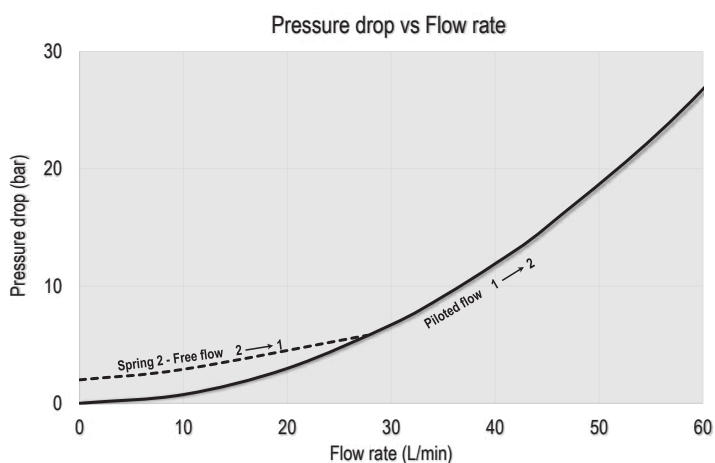
Opzione: Tappo piombatura - Optional: Tamper proof cap **81300037****SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

### CODICE ORDINAZIONE ORDERING CODE

|         |    |    |    |    |    |    |
|---------|----|----|----|----|----|----|
| 01      | 02 | 03 | 04 | 05 | 06 | 07 |
| POTIAS- | O  |    |    | G  |    |    |



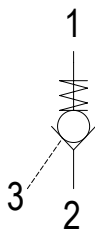
### PERFORMANCES



| 01 | VALVOLA DI BLOCCO PILOTATA T-11A (T-11A PILOT OPERATED CHECK VALVE) | POTIAS-                                                                                                       |
|----|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| 02 | OPERATIVITÀ (OPERATION)                                             | PILOTAGGIO AD APRIRE (PILOTING TO OPEN)                                                                       |
| 03 | PRESSIONE DI APERTURA (CRACKING PRESSURE)                           | 0,3 bar (30 PSI)<br>1 bar (30 PSI)<br>2 bar (30 PSI)<br>3,5 bar (43 PSI)<br>5 bar (43 PSI)<br>7 bar (101 PSI) |
| 04 | RAPPORTO DI PILOTAGGIO (PILOT RATIO)                                | 3:1 (3:1)                                                                                                     |
| 05 | GUARNIZIONI SU PISTONE * (SEALS PISTONS)                            | O-ring sul pistone di pilotaggio (PILOT PISTON WITH SEAL)                                                     |
| 06 | GUARNIZIONI (GASKETS)                                               | HYTREL + NBR<br>PTFE + NBR<br>HYTREL + VITON<br>PTFE + VITON                                                  |
| 07 | TRATTAMENTO SUPERFICIALE (SURFACE TREATMENT)                        | Zincatura CRIII<br>Zinco-Nichel                                                                               |

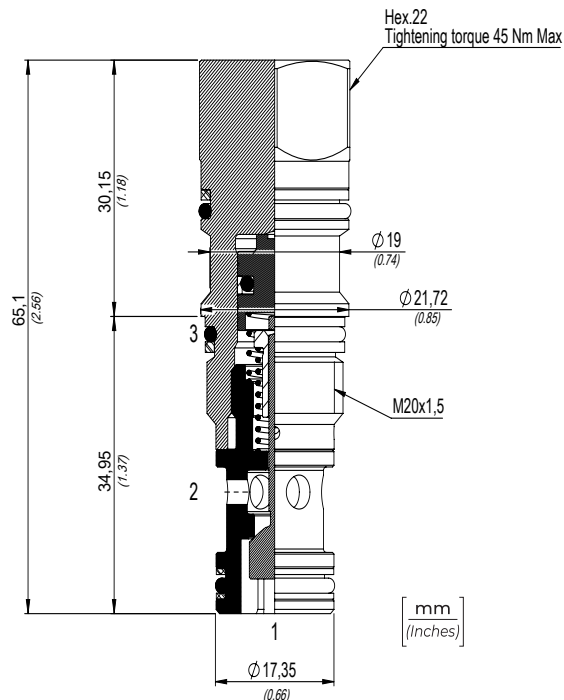
\* For option without O-ring on pilot piston contact our customer service

### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Olivo idraulico - Mineral oil                                                                                                                                                      | ISO 6743/4 (DIN 51524)                                                              |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                                                       |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                                             |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                                             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

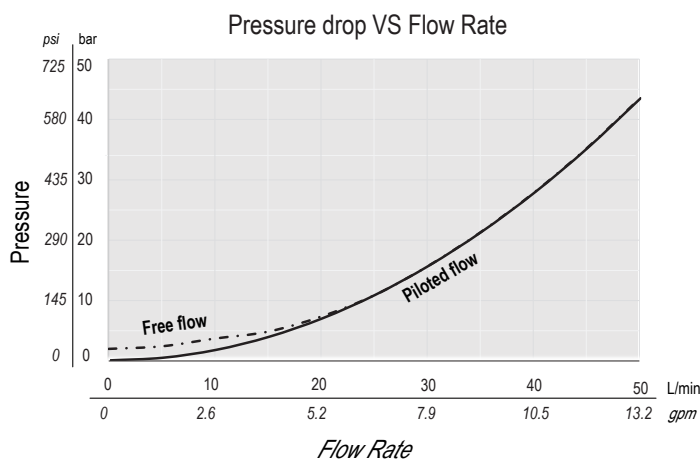
| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lb) | CAVITÀ<br>CAVITY |
|--------------|-----------------------------------------|-------------------------------------------|----------------------------------------|------------------|
| POTIAS       | 60 (15.5)                               | 350 (5075)                                | 0,13 (0.24)                            | T-11A            |

CODICE ORDINAZIONE  
ORDERING CODE

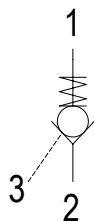
|         |    |    |    |    |    |    |
|---------|----|----|----|----|----|----|
| 01      | 02 | 03 | 04 | 05 | 06 | 07 |
| PO163S- | O  | 2  | 3  | G  |    |    |



## PERFORMANCES



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

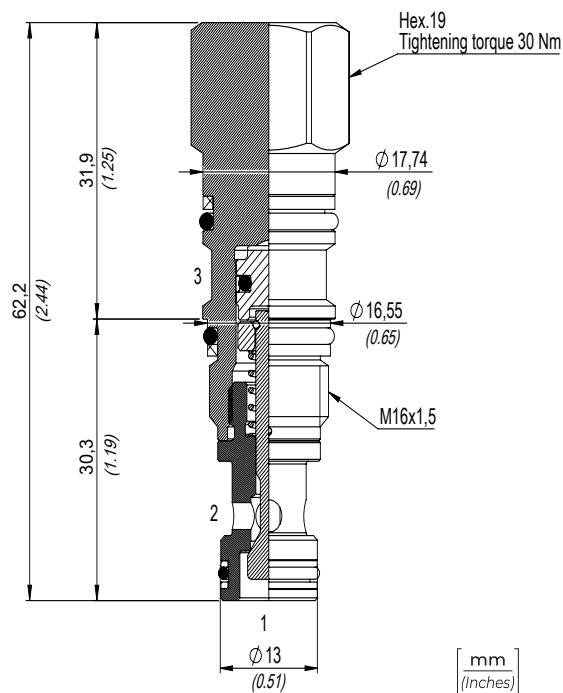


## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                           |      |        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|------|--------|
| Oilio idraulico - Mineral oil                                                                                                                                                      | ISO 6743/4 (DIN 51524)                                    |      |        |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |      |        |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 18/16/13                             |      |        |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C                                               | -4°F | +176°F |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C                                               | -4°F | +122°F |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |      |        |
| Trafilamento@46cSt & 200 bar<br>Leakage@46cSt & 200 bar                                                                                                                            | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |      |        |

| 01 | VALVOLA DI BLOCCO PILOTATA T-163A (T-163A PILOT OPERATED CHECK VALVE) |                                                              | PO163S- |
|----|-----------------------------------------------------------------------|--------------------------------------------------------------|---------|
| 02 | OPERATIVITÀ<br>(OPERATION)                                            | PILOTAGGIO AD APRIRE<br>(PILOTING TO OPEN)                   | O       |
| 03 | PRESSIONE DI APERTURA<br>(CRACKING PRESSURE)                          | 2 bar<br>(30 PSI)                                            | 2       |
| 04 | RAPPORTO DI PILOTAGGIO<br>(PILOT RATIO)                               | 3:1<br>(3:1)                                                 | 3       |
| 05 | GUARNIZIONI SU PISTONE *<br>(SEALS PISTONS)                           | O-ring sul pistone di pilotaggio<br>(PILOT PISTON WITH SEAL) | G       |
| 06 | GUARNIZIONI<br>(GASKETS)                                              | HYTREL + NBR                                                 | H       |
|    |                                                                       | PTFE + NBR                                                   | P       |
|    |                                                                       | HYTREL + VITON                                               | K       |
|    |                                                                       | PTFE + VITON                                                 | V       |
| 07 | TRATTAMENTO SUPERFICIALE<br>(SURFACE TREATMENT)                       | Zincatura CRIII                                              | S       |
|    |                                                                       | Zinco-Nichel                                                 | K       |

\* For option without O-ring on pilot piston contact our customer service



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

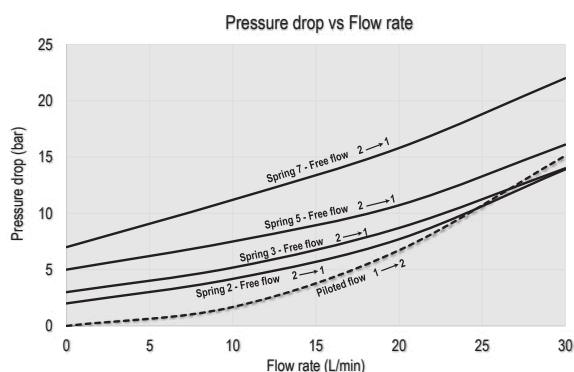
| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lb) | CAVITÀ<br>CAVITY |
|--------------|-----------------------------------------|-------------------------------------------|----------------------------------------|------------------|
| PO163S       | 30 (8)                                  | 350 (5075)                                | 0,08 (0.18)                            | T-163A           |

### CODICE ORDINAZIONE ORDERING CODE

|         |    |    |    |    |    |    |
|---------|----|----|----|----|----|----|
| 01      | 02 | 03 | 04 | 05 | 06 | 07 |
| PO083S- | O  |    |    | G  |    |    |



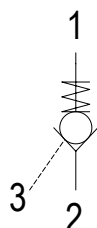
### PERFORMANCES



|    |                                                                                    |                                                              |        |
|----|------------------------------------------------------------------------------------|--------------------------------------------------------------|--------|
| 01 | VALVOLA DI BLOCCO PILOTATA SAE 8/3 SHORT (SAE8/3 SHORT PILOT OPERATED CHECK VALVE) |                                                              | PO163S |
| 02 | OPERATIVITÀ<br>(OPERATION)                                                         | PILOTAGGIO AD APRIRE<br>(PILOTING TO OPEN)                   | O      |
| 03 | PRESSIONE DI APERTURA<br>(CRACKING PRESSURE)                                       | 2 bar<br>(30 PSI)                                            | 2      |
|    |                                                                                    | 3 bar<br>(30 PSI)                                            | 3      |
|    |                                                                                    | 5 bar<br>(30 PSI)                                            | 5      |
|    |                                                                                    | 7 bar<br>(30 PSI)                                            | 7      |
| 04 | RAPPORTO DI PILOTAGGIO<br>(PILOT RATIO)                                            | 3:1<br>(3:1)                                                 | 3      |
| 05 | GUARNIZIONI SU PISTONE *<br>(SEALS PISTONS)                                        | O-ring sul pistone di pilotaggio<br>(PILOT PISTON WITH SEAL) | G      |
|    | GUARNIZIONI<br>(GASKETS)                                                           | PTFE + NBR                                                   | P      |
|    |                                                                                    | PTFE + VITON                                                 | V      |
| 07 | TRATTAMENTO SUPERFICIALE<br>(SURFACE TREATMENT)                                    | Zincatura CRIII                                              | S      |
|    |                                                                                    | Zinco-Nichel                                                 | K      |

\* For option without O-ring on pilot piston contact our customer service

### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

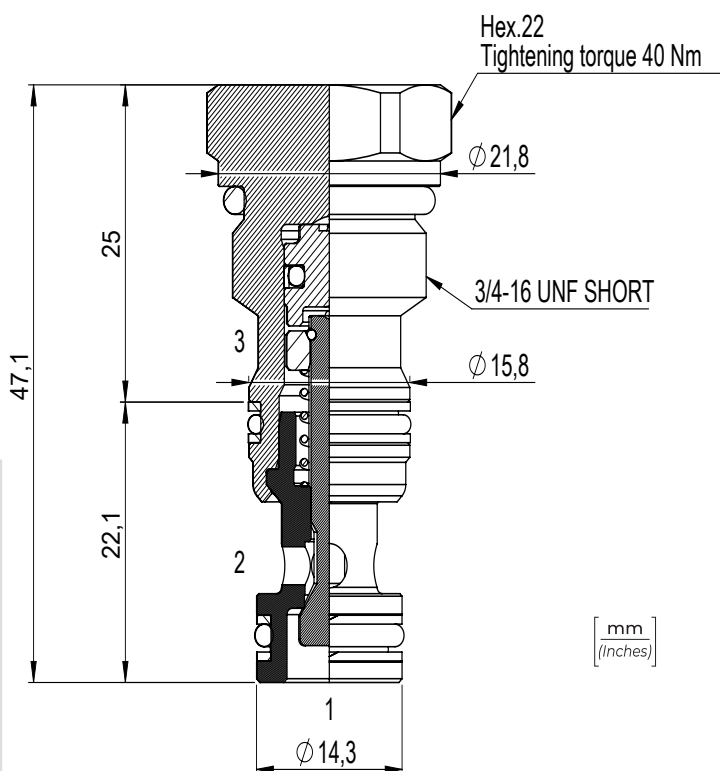


### DATI TECNICI / TECHNICAL DATA

|                                                         |                               |
|---------------------------------------------------------|-------------------------------|
| Olivo idraulico - Mineral oil                           | ISO 6743/4 (DIN 51524)        |
| Viscosità olio - Oil viscosity                          | 15-250 mm²/s (15 to 250 cSt)  |
| Classe di contaminazione max<br>Max contamination index | ISO 4406:1999 Classe 18/16/13 |
| Temperatura dell'olio - Oil temperature                 | -20°C +80°C -4°F +176°F       |
| Temperatura ambiente - Environment temperature          | -20°C +50°C -4°F +122°F       |

È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)

Trafilamento@46cSt & 200 bar 0,25 cm³/min - 5 gocce/min  
Leakage@46cSt & 200 bar 0,015 in³/min - 5 drops/min



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lb) | CAVITÀ<br>CAVITY |
|--------------|-----------------------------------------|-------------------------------------------|----------------------------------------|------------------|
| PO083S       | 30 (8)                                  | 350 (5075)                                | 0,08 (0.18)                            | SAE08/3 SHORT    |

CODICE ORDINAZIONE  
ORDERING CODE

|      |    |    |
|------|----|----|
| 01   | 02 | 03 |
| CUR6 |    |    |

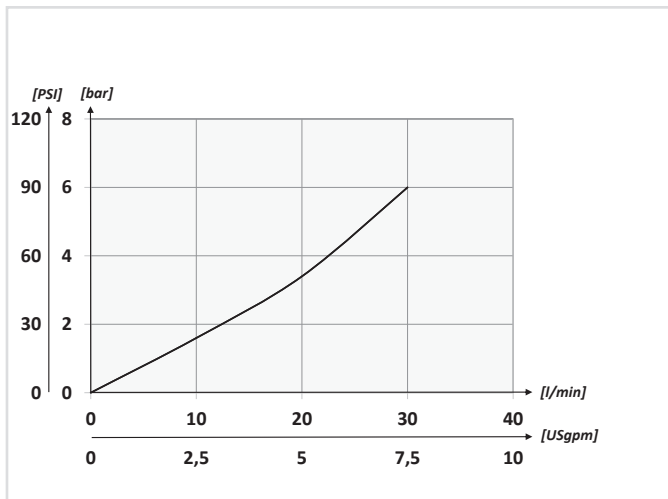


| 01 | VALVOLE UNIDIREZIONALI SAE8 (SAE8 CHECK VALVES) | CUR6                                                                       |
|----|-------------------------------------------------|----------------------------------------------------------------------------|
| 02 | TENUTA (SEALING)                                | Tenuta a sfera - solo molla 1 bar<br>(Ball sealing - only spring 14,5 PSI) |
|    |                                                 | Tenuta ad otturatore (Poppet sealing)                                      |
| 03 | MOLLA (SPRING)                                  | 1 bar (14.5 PSI)                                                           |
|    |                                                 | 3 bar (43.5 PSI)                                                           |
|    |                                                 | 4,5 bar (65.3 PSI)                                                         |

## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

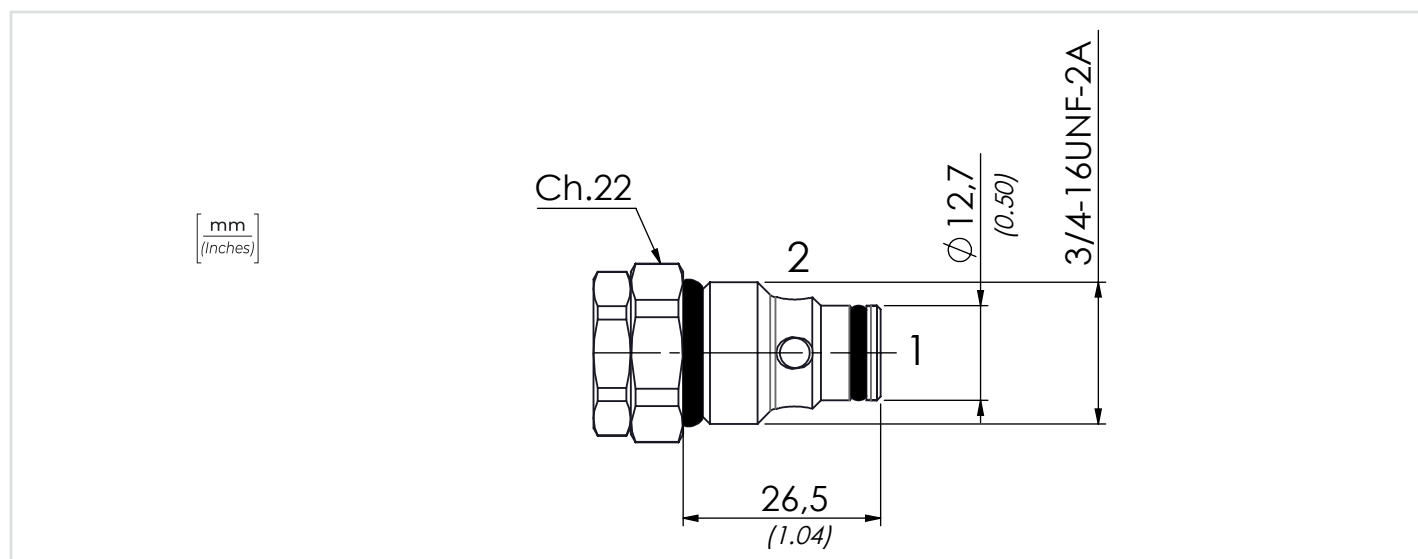


## PERFORMANCES



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Olío idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                                              |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14                                                       |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                                             |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                                             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

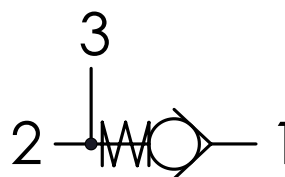
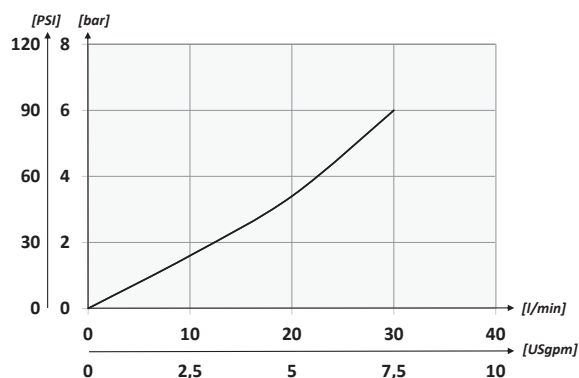
| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|--------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------|
| CUR6         | 25 (6.6)                                | 350 (5075)                                | 0,06 (0.13)                             | 25-30 (19-22)                                         | SAE8/2           |

**CODICE ORDINAZIONE**  
ORDERING CODE

|             |    |          |          |
|-------------|----|----------|----------|
| 01          | 02 | 03       | 04       |
| <b>CUR6</b> |    | <b>1</b> | <b>M</b> |

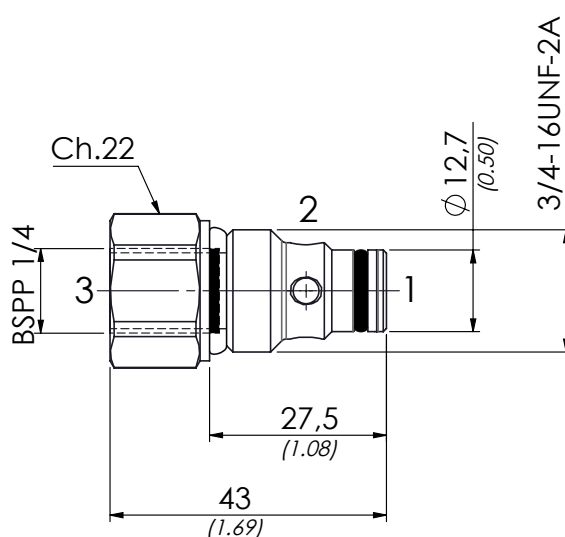


|           |                                                                                                   |                                      |             |
|-----------|---------------------------------------------------------------------------------------------------|--------------------------------------|-------------|
| <b>01</b> | VALVOLE UNIDIREZIONALI SAE8 CON ATTACCO MANOMETRO<br>(SAE8 CHECK VALVES WITH PRESSURE CONNECTION) |                                      | <b>CUR6</b> |
| <b>02</b> | TENUTA (SEALING)                                                                                  | Tenuta a sfera (Ball sealing)        | <b>SF</b>   |
|           |                                                                                                   | Tenuta a otturatore (Poppet sealing) | <b>SP</b>   |
| <b>03</b> | MOLLA (SPRING)                                                                                    | <b>1 bar (14.5 PSI)</b>              | <b>1</b>    |
| <b>04</b> | Con attacco manometro (With pressure connection)                                                  |                                      | <b>M</b>    |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT****PERFORMANCES****DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Olío idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                                              |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14                                                       |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                                             |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                                             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |

mm  
(Inches)

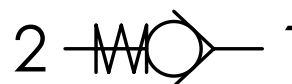
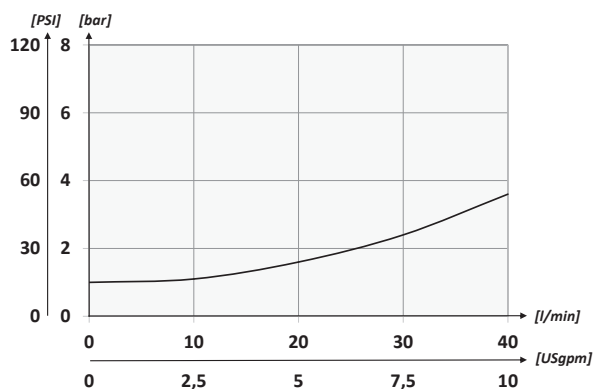
**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| CODICE<br>CODE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|----------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------|
| <b>CUR6M</b>   | <b>25 (6.6)</b>                         | <b>350 (5075)</b>                         | <b>0,07 (0.15)</b>                      | <b>25-30 (19-22)</b>                                  | <b>SAE8/2</b>    |

**CODICE ORDINAZIONE**  
ORDERING CODE

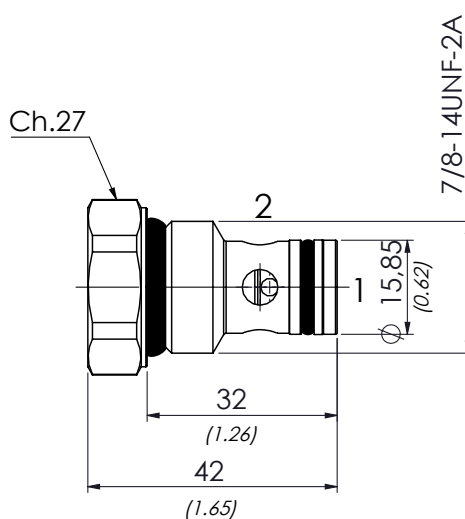
|               |           |    |
|---------------|-----------|----|
| 01            | 02        | 03 |
| <b>CUR10N</b> | <b>SP</b> |    |

|           |                                                          |                                       |               |
|-----------|----------------------------------------------------------|---------------------------------------|---------------|
| <b>01</b> | VALVOLE UNIDIREZIONALI SAE10/2<br>(SAE10/2 CHECK VALVES) |                                       | <b>CUR10N</b> |
| <b>02</b> | TENUTA (SEALING)                                         | Tenuta ad otturatore (Poppet sealing) | <b>SP</b>     |
| <b>03</b> | MOLLA (SPRING)                                           | <b>1 bar (14.5 PSI)</b>               | <b>1</b>      |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT****PERFORMANCES****DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                                                                    |                                      |               |              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------------|--------------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                                                                | <b>ISO 6743/4 (DIN 51524)</b>        |               |              |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                                                                              | <b>15-250 mm²/s (15 to 250 cSt)</b>  |               |              |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                                                                     | <b>ISO 4406:1999 Classe 19/17/14</b> |               |              |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                                                                     | <b>-20°C +80°C</b>                   | <b>-4°F +</b> | <b>176°F</b> |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                                                                              | <b>-20°C +50°C</b>                   | <b>-4°F +</b> | <b>122°F</b> |
| <b>È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)</b><br>A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm) |                                      |               |              |
| <b>Trafilamento massimo</b>                                                                                                                                                                                                        | <b>0,25 cm³/min - 5 gocce/min</b>    |               |              |

mm  
(Inches)

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE  | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lb) | CAVITÀ<br>CAVITY | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbf ft |
|---------------|-----------------------------------------|-------------------------------------------|----------------------------------------|------------------|-------------------------------------------------------|
| <b>CUR10N</b> | <b>40 (10.6)</b>                        | <b>350 (5075)</b>                         | <b>0,09 (0.22)</b>                     | <b>SAE10/2</b>   | <b>45-50 (33-37)</b>                                  |



**CODICE ORDINAZIONE**  
ORDERING CODE

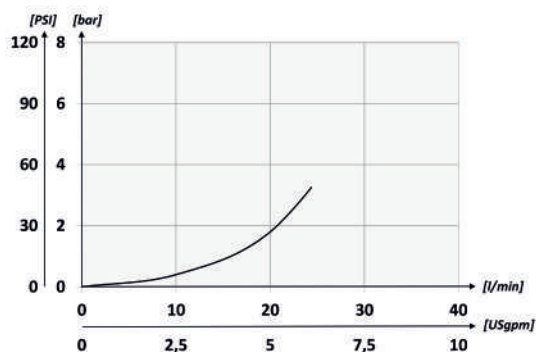
|                |    |          |
|----------------|----|----------|
| 01             | 02 | 03       |
| <b>CUR2015</b> |    | <b>1</b> |

|           |                                                          |                                       |                |
|-----------|----------------------------------------------------------|---------------------------------------|----------------|
| <b>01</b> | VALVOLE UNIDIREZIONALI M20X1,5<br>(M20X1,5 CHECK VALVES) |                                       | <b>CUR2015</b> |
| <b>02</b> | TENUTA<br>(SEALING)                                      | Tenuta a sfera (Ball sealing)         | <b>SF</b>      |
|           |                                                          | Tenuta ad otturatore (Poppet sealing) | <b>SP</b>      |
| <b>03</b> | MOLLA<br>(SPRING)                                        | 1 bar (14.5 PSI)                      | <b>1</b>       |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



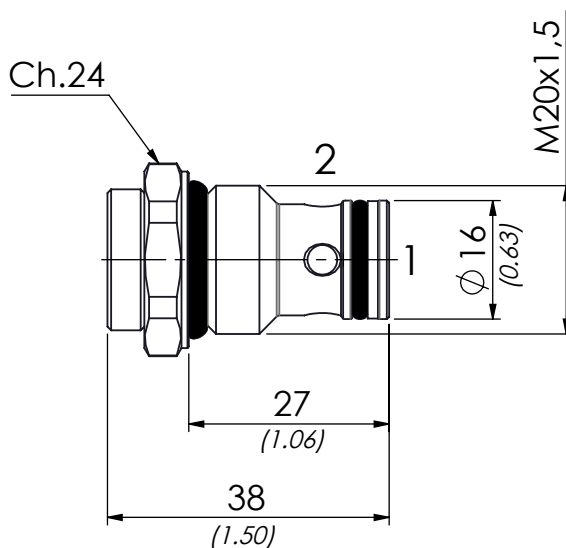
**PERFORMANCES**



**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                | <b>ISO 6743/4</b> (DIN 51524)                                    |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                              | <b>15-250 mm²/s</b> (15 to 250 cSt)                              |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                     | <b>ISO 4406:1999 Classe 19/17/14</b>                             |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                     | <b>-20°C +80°C</b> -4°F +176°F                                   |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                              | <b>-20°C +50°C</b> -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                  |
| <b>Trafilamento massimo</b><br>Max leakage                                                                                                                                         | <b>0,25 cm³/min - 5 gocce/min</b><br>0,015 in³/min - 5 drops/min |

$\left[ \frac{\text{mm}}{\text{(Inches)}} \right]$



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE   | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|----------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------|
| <b>CUR2015</b> | <b>25</b> (6.6)                         | <b>350</b> (5075)                         | <b>0,07</b> (0.15)                      | <b>25-30</b> (19-22)                                  | <b>C2015/2</b>   |

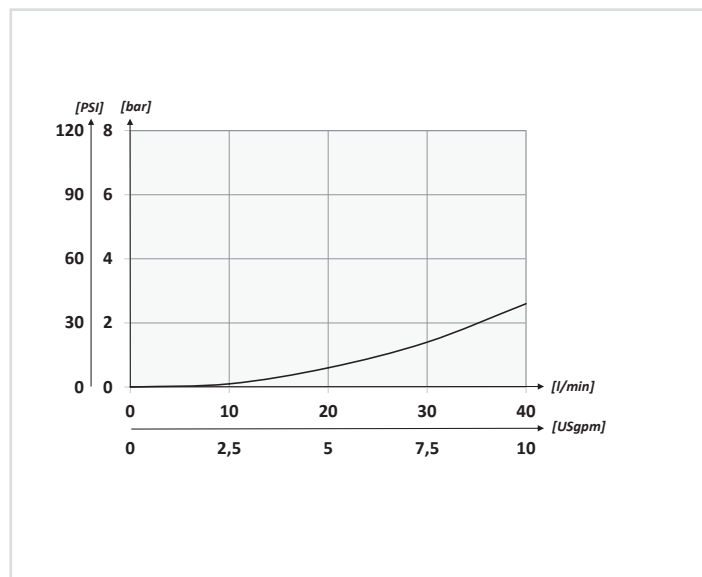


**CODICE ORDINAZIONE**  
ORDERING CODE

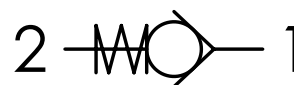
| 01             | 02 | 03 |
|----------------|----|----|
| <b>CUR2215</b> |    |    |

| 01 | VALVOLE UNIDIREZIONALI M22X1,5 (M22X1,5 CHECK VALVES) |                                                    | CUR2215 |
|----|-------------------------------------------------------|----------------------------------------------------|---------|
| 02 | TENUTA<br>(SEALING)                                   | Tenuta a sfera (Ball sealing)                      | SF      |
|    |                                                       | Tenuta ad otturatore (Poppet sealing)              | SP      |
| 03 | MOLLA<br>(SPRING)                                     | 1 bar (14.5 PSI)                                   | 1       |
|    |                                                       | 4,5 bar - solo otturatore (65.3 PSI - only poppet) | 4,5     |

**PERFORMANCES**

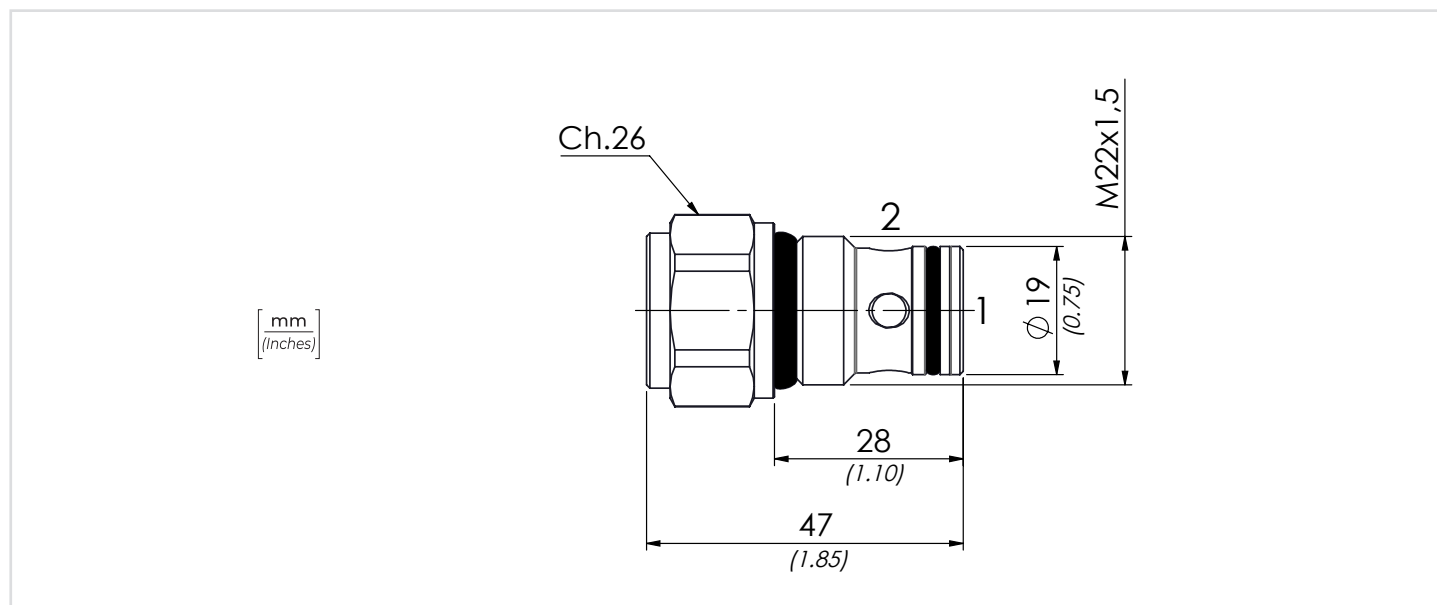


**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                                           |      |        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|------|--------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                    |      |        |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |      |        |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14                             |      |        |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C                                               | -4°F | +176°F |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C                                               | -4°F | +122°F |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |      |        |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |      |        |



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|--------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------|
| CUR2215      | 40 (10.6)                               | 350 (5075)                                | 0,11 (0.25)                             | 45-50 (33-37)                                         | C2215/2          |

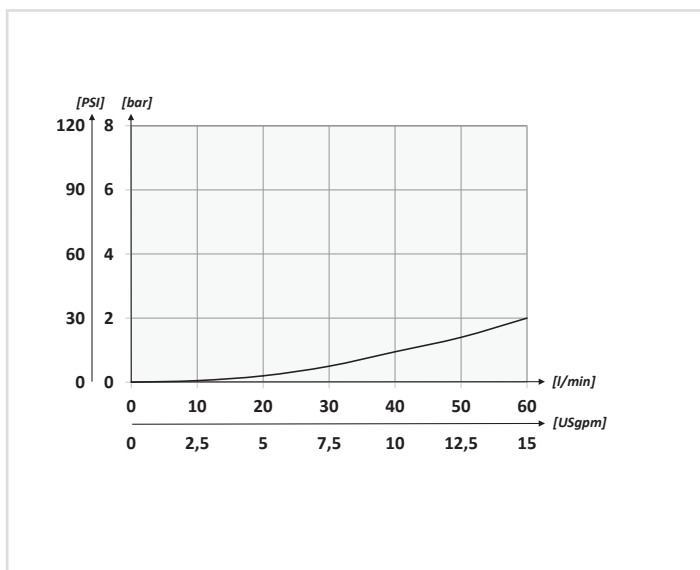


**CODICE ORDINAZIONE**  
ORDERING CODE

| 01             | 02        | 03 |
|----------------|-----------|----|
| <b>CUR2615</b> | <b>SP</b> |    |

| 01 | VALVOLE UNIDIREZIONALI M26X1,5<br>(M26X1,5 CHECK VALVES) |                                          | CUR2615 |
|----|----------------------------------------------------------|------------------------------------------|---------|
| 02 | TENUTA<br>(SEALING)                                      | Tenuta ad otturatore<br>(Poppet sealing) | SP      |
| 03 | MOLLA<br>(SPRING)                                        | 1 bar (14,5 PSI)                         | 1       |
|    |                                                          | 4,5 bar (65,3 PSI)                       | 4,5     |

**PERFORMANCES**

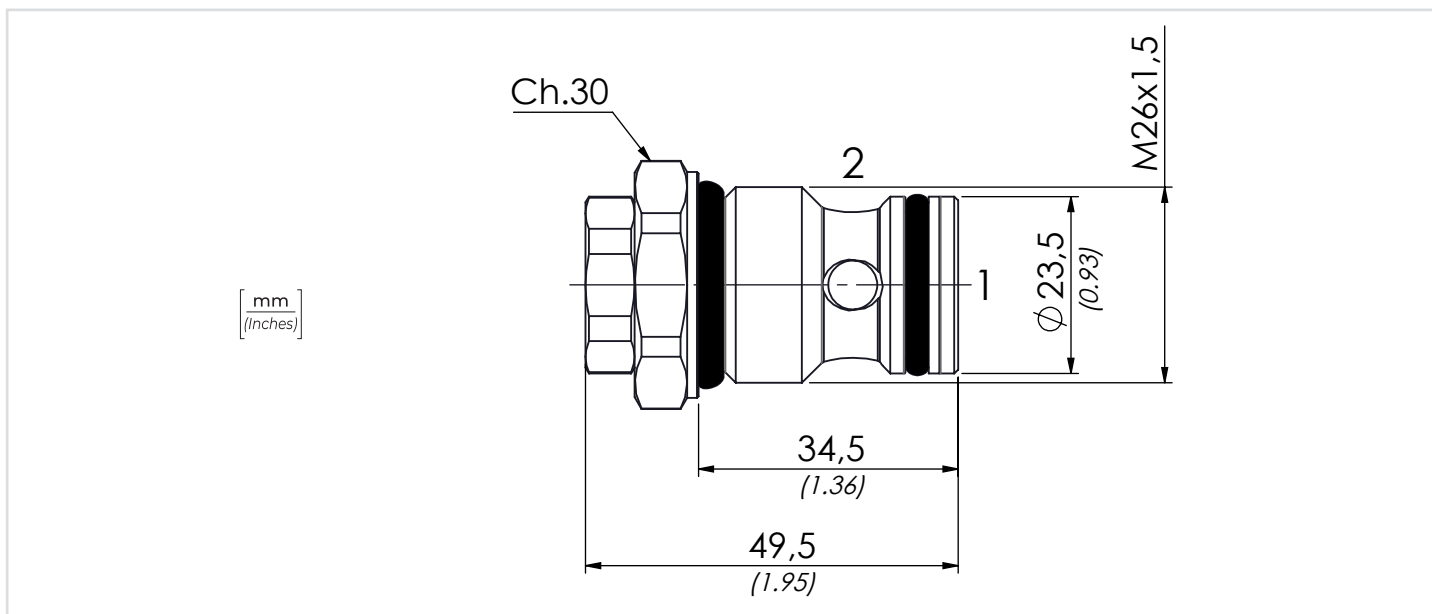


**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14                             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |

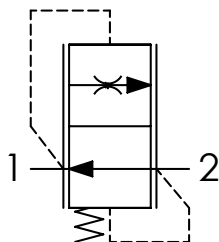


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|--------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------|
| CUR2615      | 60 (15.8)                               | 350 (5075)                                | 0,15 (0.33)                             | 55-60 (41-45)                                         | C2615/2          |



SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



**CODICE ORDINAZIONE**  
ORDERING CODE

01  
**VSC6**

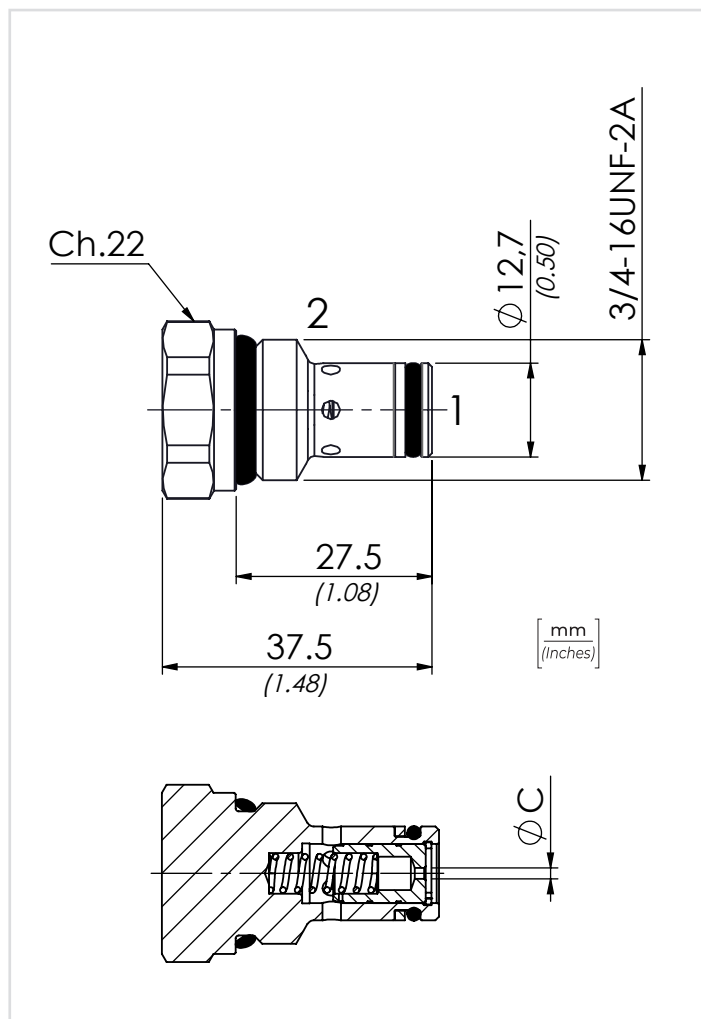
02

| 01 | VALVOLE CONTROLLO FLUSSO FISSE COMPENSATE SAE 8<br>(SAE 8 FIXED FLOW CONTROL VALVES - PRESSURE COMPENSATED) | VSC6                  |
|----|-------------------------------------------------------------------------------------------------------------|-----------------------|
| 02 | PORTATA CONTROLLATA<br>A 100 BAR ± 10%<br>(CONTROLLED FLOW AT<br>100 BAR ± 10 %)                            | 1 l/min (0.26 USgpm)  |
|    |                                                                                                             | 2 l/min (0.53 USgpm)  |
|    |                                                                                                             | 3 l/min (0.79 USgpm)  |
|    |                                                                                                             | 4 l/min (1.06 USgpm)  |
|    |                                                                                                             | 5 l/min (1.32 USgpm)  |
|    |                                                                                                             | 6 l/min (1.58 USgpm)  |
|    |                                                                                                             | 7 l/min (1.85 USgpm)  |
|    |                                                                                                             | 8 l/min (2.11 USgpm)  |
|    |                                                                                                             | 9 l/min (2.38 USgpm)  |
|    |                                                                                                             | 10 l/min (2.64 USgpm) |
|    |                                                                                                             | 11 l/min (2.90 USgpm) |
|    |                                                                                                             | 12 l/min (3.17 USgpm) |

## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)        |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)  |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14 |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F       |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F       |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                               |

| TIPO (TYPE) | Ø C         |
|-------------|-------------|
| VSC61       | 1 ( 0.04)   |
| VSC62       | 1,2 ( 0.05) |
| VSC63       | 1,5 ( 0.06) |
| VSC64       | 1,7 ( 0.07) |
| VSC65       | 1,9 ( 0.07) |
| VSC66       | 2,1 ( 0.08) |
| VSC67       | 2,3 ( 0.09) |
| VSC68       | 2,4 ( 0.09) |
| VSC69       | 2,7 ( 0.11) |
| VSC610      | 2,8 ( 0.11) |
| VSC611      | 3,1 ( 0.12) |
| VSC612      | 3,3 ( 0.13) |



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

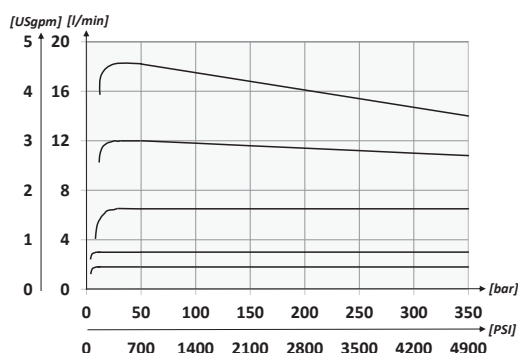
| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|--------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------|
| VSC6         | 12 (3.11)                               | 250 (3625)                                | 0,06 (0.15)                             | 25-30 (19-22)                                         | SAE8/2           |



**CODICE ORDINAZIONE**  
ORDERING CODE

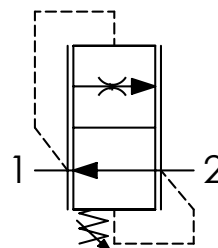
|             |    |    |
|-------------|----|----|
| 01          | 02 | 03 |
| <b>VCF6</b> |    |    |

**PERFORMANCES**



| 01 | VALVOLE CONTROLLO FLUSSO REGOLABILE COMPENSATE SAE 8<br>(SAE 8 ADJUSTABLE FLOW CONTROL VALVES - PRESSURE COMPENSATED) | VCF6                                                         |
|----|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|
| 02 | PORTATA CONTROLLATA<br>A 100 BAR $\pm 10\%$<br>(CONTROLLED FLOW AT<br>100 BAR $\pm 10\%$ )                            | 0,6-2,2 l/min (0.16-0.58 USgpm) <b>1</b>                     |
|    |                                                                                                                       | 0,8-3 l/min (0.21-0.79 USgpm) <b>2</b>                       |
|    |                                                                                                                       | 1,3-5,1 l/min (0.34-1.35 USgpm) <b>3</b>                     |
|    |                                                                                                                       | 1,9-6,8 l/min (0.50-1.80 USgpm) <b>4</b>                     |
|    |                                                                                                                       | 2,6-9,1 l/min (0.69-2.40 USgpm) <b>5</b>                     |
|    |                                                                                                                       | 4-14,4 l/min (1.06-3.08 USgpm) <b>6</b>                      |
|    |                                                                                                                       | 7,2-18 l/min (1.90-4.75 USgpm) <b>7</b>                      |
| 03 | REGOLAZIONE<br>(SETTING)                                                                                              | Chiave (Screw) <b>C</b>                                      |
|    |                                                                                                                       | Volantino (Handknob)<br>Tipo (Type) <b>12000354</b> <b>V</b> |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                           |                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                       | <b>ISO 6743/4</b> (DIN 51524)                  |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                                     | <b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt) |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                            | <b>ISO 4406:1999 Classe 19/17/14</b>           |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                            | <b>-20°C +80°C</b> -4°F +176°F                 |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                                     | <b>-20°C +50°C</b> -4°F +122°F                 |
| <b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b><br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                |

| TIPO (TYPE) | Ø C         |
|-------------|-------------|
| VCF61       | 0,9 ( 0.04) |
| VCF62       | 1 ( 0.04)   |
| VCF63       | 1,3 ( 0.05) |
| VCF64       | 1,5 ( 0.06) |
| VCF65       | 1,7 ( 0.07) |
| VCF66       | 2,2 ( 0.09) |
| VCF67       | 2,8 ( 0.11) |

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|--------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------|
| VCF6         | 18 (4.8)                                | 350 (5075)                                | 0,12 (0.26)                             | 25-30 (19-22)                                         | SAE8/2           |



**CODICE ORDINAZIONE**  
**ORDERING CODE**

01  
**VBF6**

02

|           |                                                                                           |             |
|-----------|-------------------------------------------------------------------------------------------|-------------|
| <b>01</b> | VALVOLE CONTROLLO FLUSSO BIDIREZIONALI SAE 8<br>(SAE 8 BIDIRECTIONAL FLOW CONTROL VALVES) | <b>VBF6</b> |
| <b>02</b> | Chiave (Screw)                                                                            | <b>C</b>    |
|           | Volantino (Handknob)                                                                      | <b>V</b>    |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

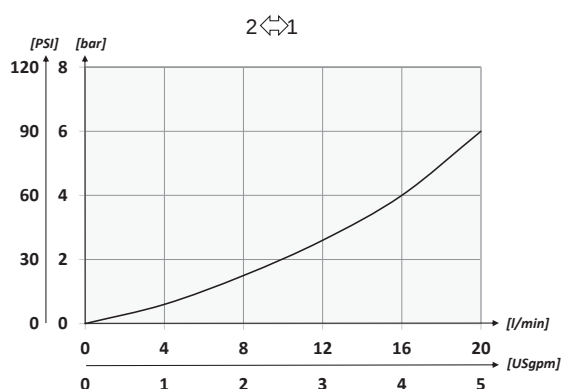


**DATI TECNICI / TECHNICAL DATA**

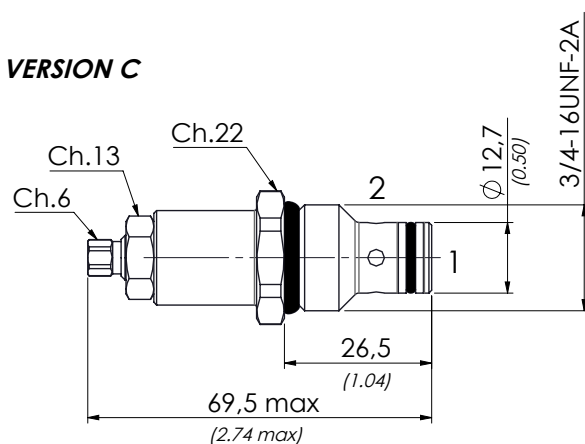
|                                                                |                                      |
|----------------------------------------------------------------|--------------------------------------|
| <b>Olio idraulico</b> - Mineral oil                            | <b>ISO 6743/4</b> (DIN 51524)        |
| <b>Viscosità olio</b> - Oil viscosity                          | <b>15-250 mm²/s</b> (15 to 250 cSt)  |
| <b>Classe di contaminazione max</b><br>Max contamination index | <b>ISO 4406:1999 Classe 19/17/14</b> |
| <b>Temperatura dell'olio</b> - Oil temperature                 | <b>-20°C +80°C</b> -4°F +176°F       |
| <b>Temperatura ambiente</b> - Environment temperature          | <b>-20°C +50°C</b> -4°F +122°F       |

È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)

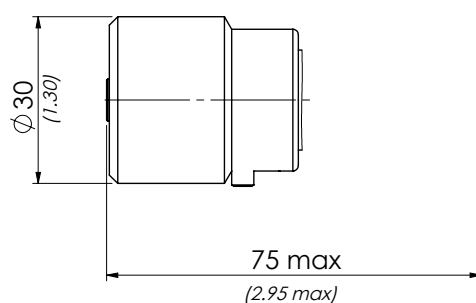
**PERFORMANCES**



**VERSION C**



**VERSION V**



[ mm ]  
[ inches ]

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|--------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------|
| <b>VBF6</b>  | <b>30</b> (7.9)                         | <b>350</b> (5075)                         | <b>0,09</b> (0.20)                      | <b>25-30</b> (19-22)                                  | <b>SAE8/2</b>    |



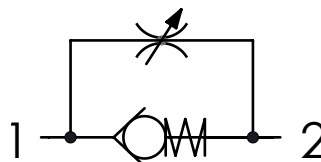
**CODICE ORDINAZIONE**  
ORDERING CODE

01  
**VRF6**

02

|    |                                                                                             |             |
|----|---------------------------------------------------------------------------------------------|-------------|
| 01 | VALVOLE CONTROLLO FLUSSO UNIDIREZIONALI SAE 8<br>(SAE 8 UNIDIRECTIONAL FLOW CONTROL VALVES) | <b>VRF6</b> |
| 02 | CHIAVE (SCREW)                                                                              | <b>C</b>    |
|    | Volantino (Handknob)<br>Tipo (Type) <b>12000275</b>                                         | <b>V</b>    |

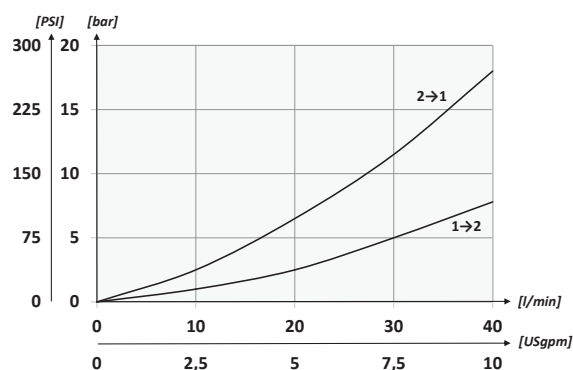
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



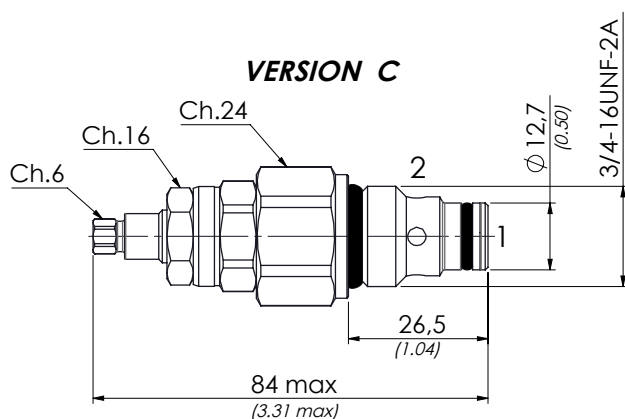
**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

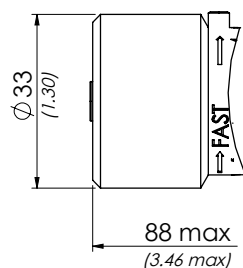
**PERFORMANCES**



**VERSION C**



**VERSION V**



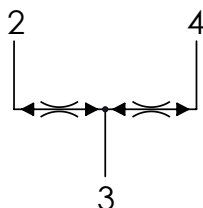
$\left[ \frac{\text{mm}}{\text{(Inches)}} \right]$

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|--------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------|
| <b>VRF6</b>  | <b>40</b> (10.6)                        | <b>350</b> (5075)                         | <b>0,13</b> (0.30)                      | <b>25-30</b> (19-22)                                  | <b>SAE8/2</b>    |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

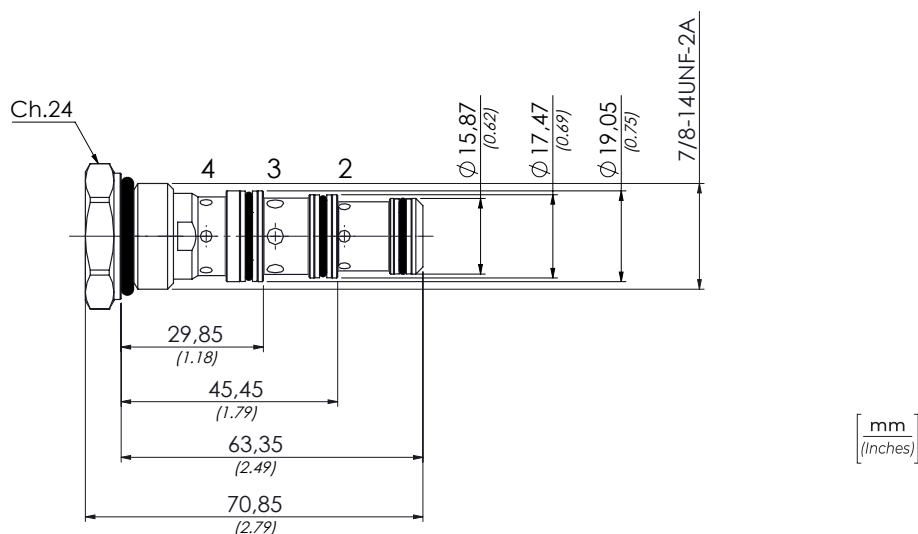
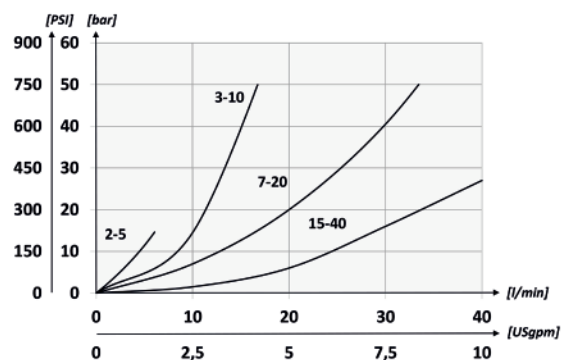
|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

## CODICE ORDINAZIONE ORDERING CODE

|             |           |    |
|-------------|-----------|----|
| 01          | 02        | 03 |
| <b>VDRF</b> | <b>10</b> |    |

|           |                                                                                                   |             |
|-----------|---------------------------------------------------------------------------------------------------|-------------|
| <b>01</b> | DIVISORE/RIUNIFICATORE DI FLUSSO A CARTUCCIA SAE 10<br>(SAE 10 CARTRIDGE FLOW DIVIDERS/COMBINERS) | <b>VDRF</b> |
| <b>02</b> | DIMENSIONE<br>(SIZE)                                                                              | <b>10</b>   |
| <b>03</b> | Campo di portata in ingresso (l/min)<br>Inlet flow range (USgpm)                                  | <b>1</b>    |
|           |                                                                                                   | <b>2</b>    |
|           |                                                                                                   | <b>3</b>    |
|           |                                                                                                   | <b>4</b>    |

## PERFORMANCES

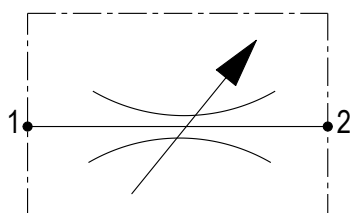


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

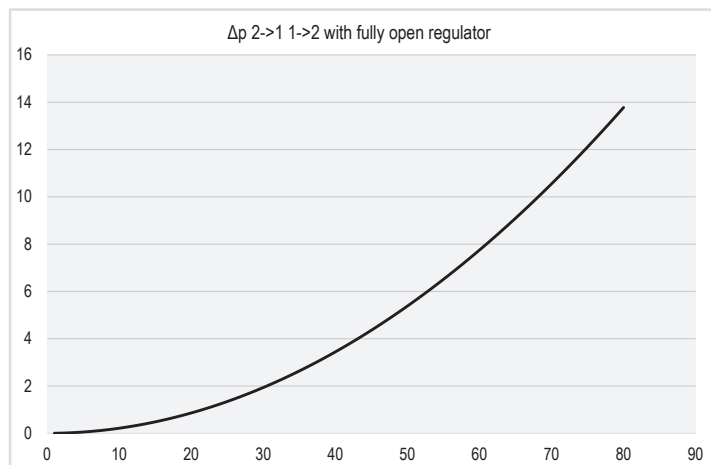
| TIPO<br>TYPE  | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lb) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|---------------|-----------------------------------------|-------------------------------------------|----------------------------------------|-------------------------------------------------------|------------------|
| <b>VDRF10</b> | <b>40 (10.6)</b>                        | <b>350 (5075)</b>                         | <b>0,12 (0.26)</b>                     | <b>30-35 (22-26)</b>                                  | <b>SAE10/4</b>   |

**CODICE ORDINAZIONE**  
ORDERING CODE

| 01           | 02       | 03 | 04 | 05       |
|--------------|----------|----|----|----------|
| <b>RB102</b> | <b>A</b> |    |    | <b>0</b> |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

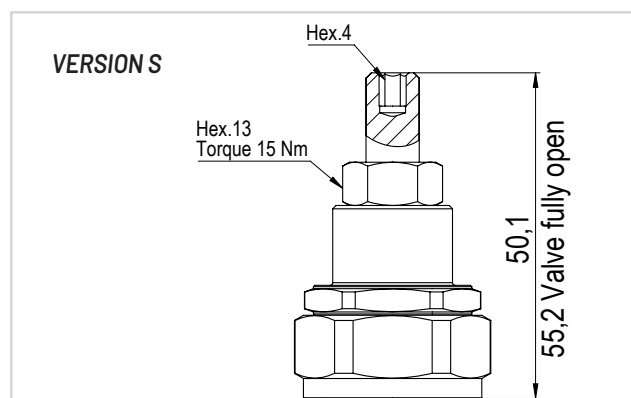
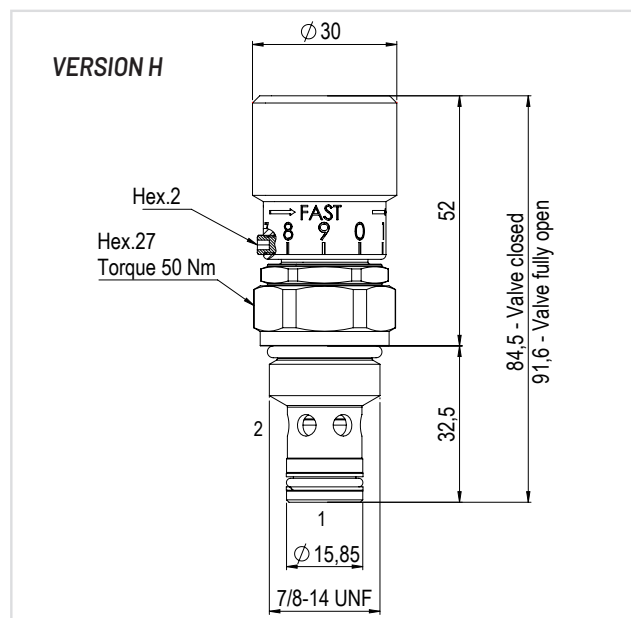
| 01 | STROZZATORE BIDIREZIONALE A CARTUCCIA SAE 10/2<br>(BIDIRECTIONAL CARTRIDGE FLOW RESTRICTOR SAE 10/2) |                        |          | <b>RB102</b> |
|----|------------------------------------------------------------------------------------------------------|------------------------|----------|--------------|
| 02 | VERSIONE<br>(TYPE)                                                                                   |                        |          | <b>A</b>     |
| 03 | REGOLAZIONE<br>(SETTING)                                                                             | VITE<br>(SCREW)        | <b>S</b> |              |
|    |                                                                                                      | VOLANTINO<br>(HANDOUT) | <b>H</b> |              |
| 04 | GUARNIZIONI<br>(GASKETS)                                                                             | NBR                    | <b>N</b> |              |
|    |                                                                                                      | VITON                  | <b>V</b> |              |
| 05 | EMPTY FIELD                                                                                          |                        |          | <b>0</b>     |

**PERFORMANCES****DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                | <b>ISO 6743/4</b> (DIN 51524)                  |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                              | <b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt) |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                     | <b>ISO 4406:1999 Classe 18/16/13</b>           |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                     | <b>-20°C +80°C</b> -4°F +176°F                 |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                              | <b>-20°C +50°C</b> -4°F +122°F                 |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                |

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|--------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------|
| <b>RB102</b> | <b>70</b> (18.4)                        | <b>350</b> (5075)                         | <b>0,2</b> (0.60)                       | <b>50</b> (36)                                        | <b>SAE10/2</b>   |

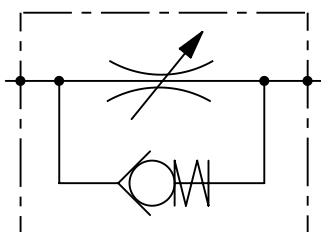


**CODICE ORDINAZIONE**  
ORDERING CODE

| 01           | 02 | 03 | 04 | 05       |
|--------------|----|----|----|----------|
| <b>RU102</b> |    |    |    | <b>0</b> |

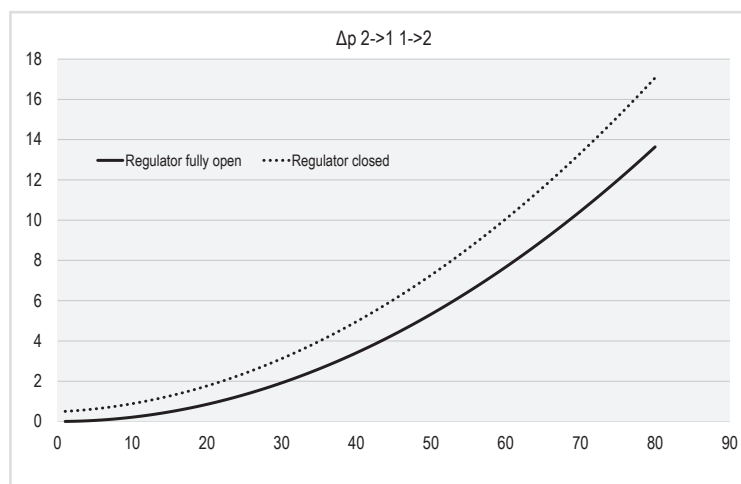


**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



| 01 | STROZZATORE UNIDIREZIONALE A CARTUCCIA SAE 10/2<br>(UNIDIRECTIONAL CARTRIDGE FLOW RESTRICTOR SAE 10/2) | RU102                           |
|----|--------------------------------------------------------------------------------------------------------|---------------------------------|
| 02 | VERSIONE<br>(TYPE)                                                                                     | SETTING 2 --> 1 <b>A</b>        |
|    |                                                                                                        | SETTING 1 --> 2 <b>B</b>        |
| 03 | REGOLAZIONE<br>(SETTING)                                                                               | VITE<br>(SCREW) <b>S</b>        |
|    |                                                                                                        | VOLANTINO<br>(HANDOUT) <b>H</b> |
| 04 | GUARNIZIONI<br>(GASKETS)                                                                               | NBR <b>N</b>                    |
|    |                                                                                                        | VITON <b>V</b>                  |
| 05 | EMPTY FIELD                                                                                            | - <b>0</b>                      |

**PERFORMANCES**

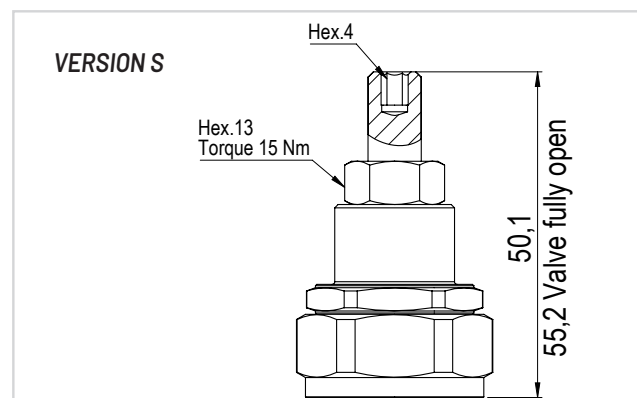
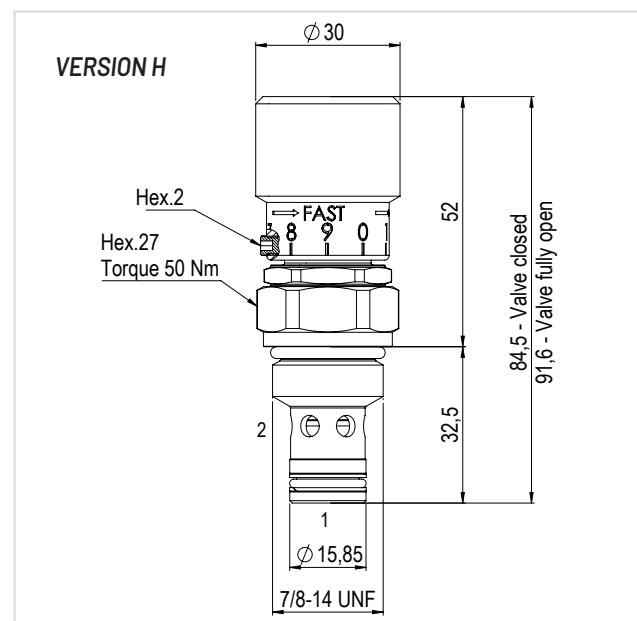


**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                                |                    |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|--------------------|--|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                | <b>ISO 6743/4</b> (DIN 51524)                  |                    |  |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                              | <b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt) |                    |  |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                     | <b>ISO 4406:1999 Classe 18/16/13</b>           |                    |  |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                     | <b>-20°C +80°C</b>                             | <b>-4°F +176°F</b> |  |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                              | <b>-20°C +50°C</b>                             | <b>-4°F +122°F</b> |  |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                |                    |  |

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|--------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------|
| <b>RU102</b> | <b>70</b> (18.4)                        | <b>350</b> (5075)                         | <b>0,2</b> (0.60)                       | <b>50</b> (36)                                        | <b>SAE10/2</b>   |

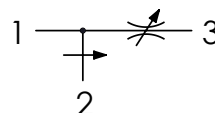
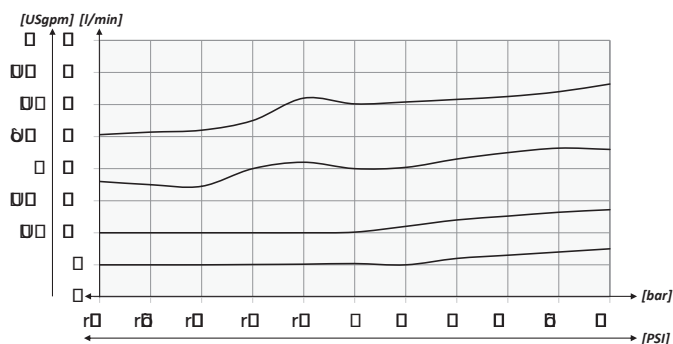


**CODICE ORDINAZIONE**  
ORDERING CODE

01

**CP10**

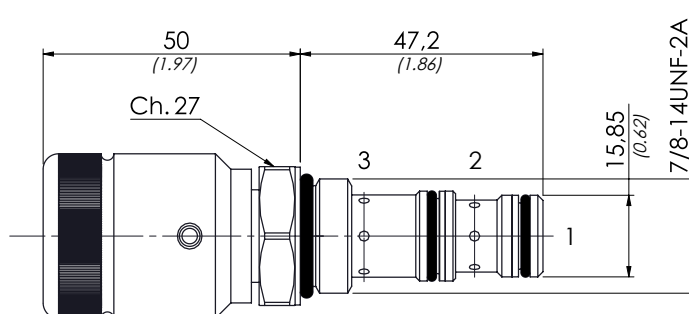
|           |                                                                                                                |             |
|-----------|----------------------------------------------------------------------------------------------------------------|-------------|
| <b>01</b> | VALVOLE REGOLATRICI DI FLUSSO 3 VIE SAE 10 - COMPENSATE<br>SAE 10 FLOW REGULATOR 3 WAYS - PRESSURE COMPENSATED | <b>CP10</b> |
|-----------|----------------------------------------------------------------------------------------------------------------|-------------|

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT****PERFORMANCES****PORTATA MASSIMA (L/MIN) - MAX FLOW (USGPM)**

50 l/min con 30 l/min in 3 (13,3 USgpm with 8 USgpm in 3)

**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                | <b>ISO 6743/4</b> (DIN 51524)                                    |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                              | <b>15-250 mm²/s</b> (15 to 250 cSt)                              |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                     | <b>ISO 4406:1999 Classe 19/17/14</b>                             |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                     | <b>-20°C +80°C</b> -4°F + 176°F                                  |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                              | <b>-20°C +50°C</b> -4°F + 122°F                                  |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                  |
| <b>Trafilamento massimo</b><br>Max leakage                                                                                                                                         | <b>0,25 cm³/min - 5 gocce/min</b><br>0,015 in³/min - 5 drops/min |



|          |
|----------|
| mm       |
| (Inches) |

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|--------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------|
| <b>CP10</b>  | <b>50</b> (13.26)                       | <b>350</b> (5075)                         | <b>0,20</b> (0.44)                      | <b>60-70</b> (45-52)                                  | <b>SAE10/3</b>   |



LA VALVOLA A COMANDO MANUALE VIENE FORNITA  
CON LEVA DI AZIONAMENTO L=190 mm

THE MANUAL OPERATED RELEASE VALVE  
IS SUPPLIED WITH ACTING LEVER 7,4 inch LENGHT

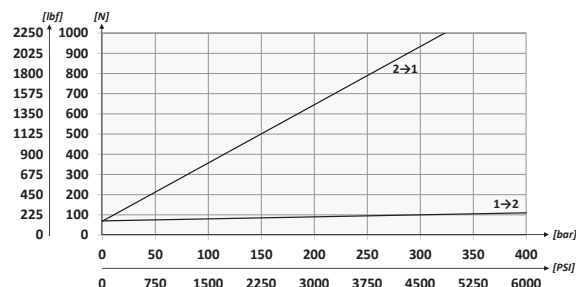
**CODICE ORDINAZIONE**  
ORDERING CODE

01  
**CM6**

02

| 01 | VALVOLE A COMANDO MANUALE<br>(MANUAL OPERATED RELEASE VALVES) | CM6 |
|----|---------------------------------------------------------------|-----|
| 02 | Senza microinterruttore (Without micro-switch)                | 0   |
|    | Con micro microinterruttore (With micro-switch)               | M   |

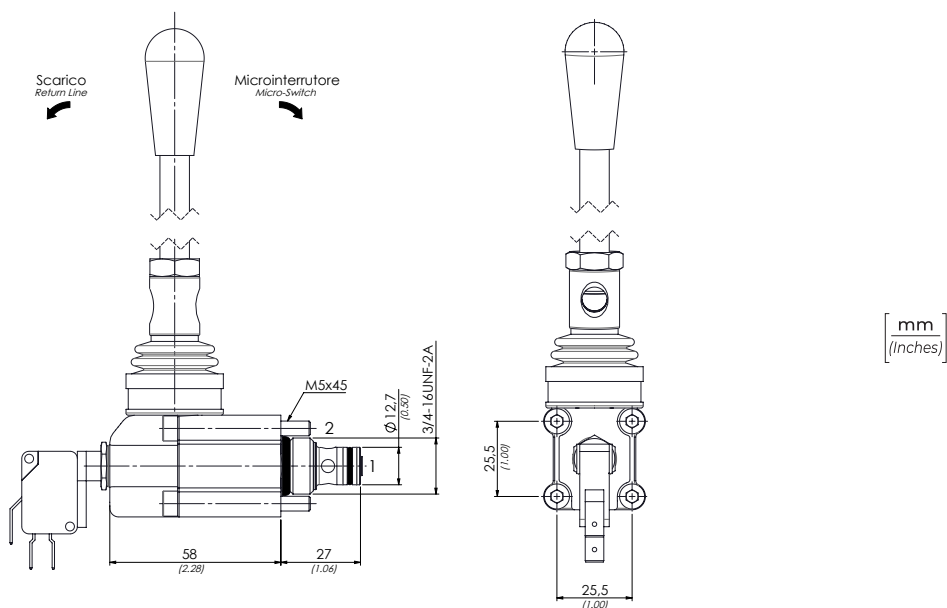
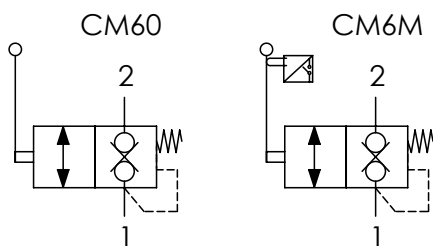
**PERFORMANCES**



**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                                              |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14                                                       |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                                             |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                                             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|--------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------|
| CM6          | 25 (6.6)                                | 320 (4640)                                | 0,41 (0,90)                             | 25-30 (19-22)                                         | SAE8/2           |



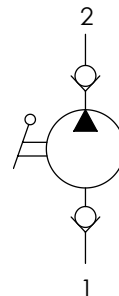
LA POMPA VIENE FORNITA CON LEVA DI AZIONAMENTO L=270 mm  
THE PUMP IS SUPPLIED WITH ACTING LEVER 10,5 inch LENGHT

## CODICE ORDINAZIONE ORDERING CODE

|            |    |          |
|------------|----|----------|
| 01         | 02 | 03       |
| <b>PME</b> |    | <b>L</b> |

| 01 | POMPE A MANO (CARTRIDGE HAND PUMPS) | PME |
|----|-------------------------------------|-----|
| 02 | Modello (Type)                      | 05  |
| 03 | Leva (Hand lever)                   | 06  |
|    |                                     | 07  |
|    |                                     | L   |

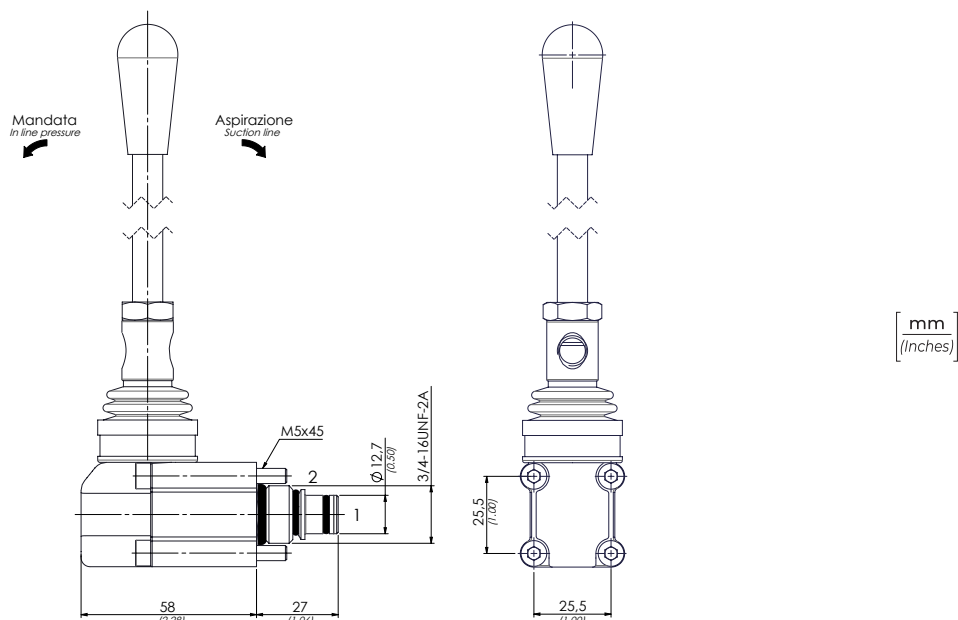
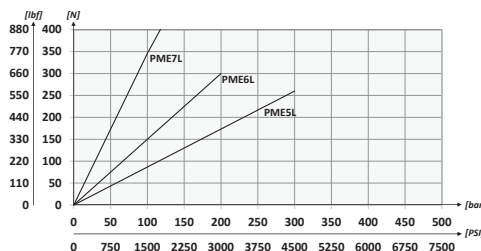
## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)                              |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14                             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                           |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 0,25 cm³/min - 5 gocce/min<br>0,015 in³/min - 5 drops/min |

## PERFORMANCES



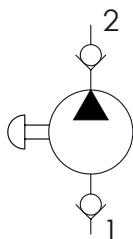
## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | CILINDRATA (cm³)<br>DISPLACEMENT (in³) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY     |
|--------------|----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|----------------------|
| PME5L        | 1 (0.06)                               | 300 (4350)                                | 0,46 (1.01)                             | 25-30 (19-22)                                         | SAE8/2 WITH FLANGE * |
| PME6L        | 2 (0.12)                               | 200 (2900)                                |                                         |                                                       |                      |
| PME7L        | 3 (0.18)                               | 120 (1740)                                |                                         |                                                       |                      |

\* BODY CODE: 62200023  
FOR MORE DETAILS SEE MANIFOLDS SECTION



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## CODICE ORDINAZIONE ORDERING CODE

01

**PME5P**

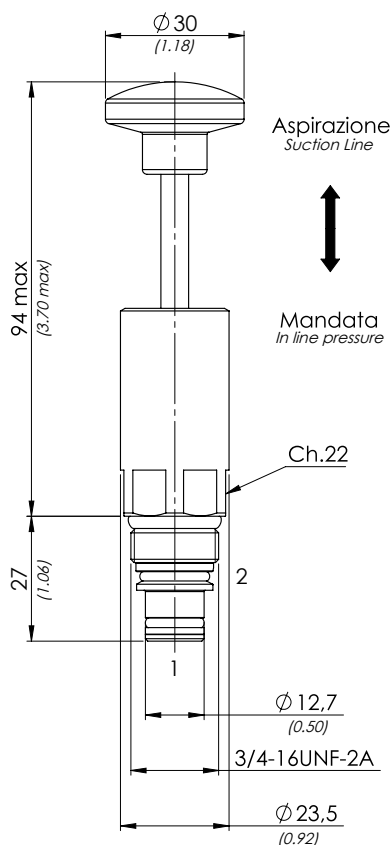
|    |                                     |       |
|----|-------------------------------------|-------|
| 01 | POMPE A MANO (CARTRIDGE HAND PUMPS) | PME5P |
|----|-------------------------------------|-------|

## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)        |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)  |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14 |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F       |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F       |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                               |

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | CILINDRATA (cm³)<br>DISPLACEMENT (in³) | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|--------------|----------------------------------------|------------------------------------------|----------------------------------------|-------------------------------------------------------|------------------|
| PME5P        | 1 (0.06)                               | 50 (725)                                 | 0,2 (0.44)                             | 34-41 (25-30)                                         | SAE8/2           |



[ mm  
(Inches) ]

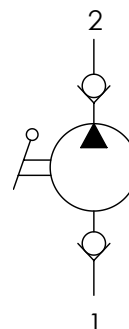


**CODICE ORDINAZIONE**  
ORDERING CODE

01  
**PME10**

|    |                                        |       |
|----|----------------------------------------|-------|
| 01 | POMPE A MANO<br>(CARTRIDGE HAND PUMPS) | PME10 |
|----|----------------------------------------|-------|

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



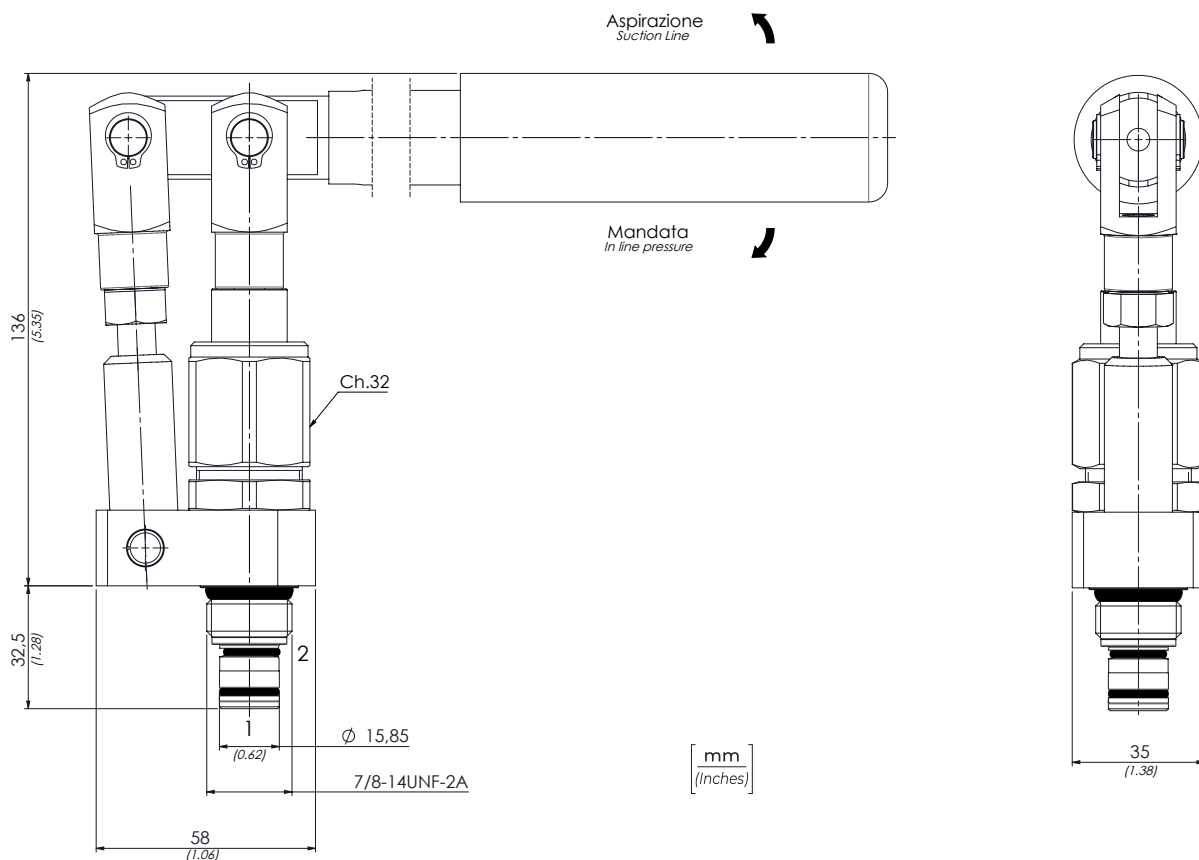
LA POMPA VIENE FORNITA CON LEVA DI AZIONAMENTO L=500 mm  
THE PUMP IS SUPPLIED WITH ACTING LEVER 19,6 inch LENGHT

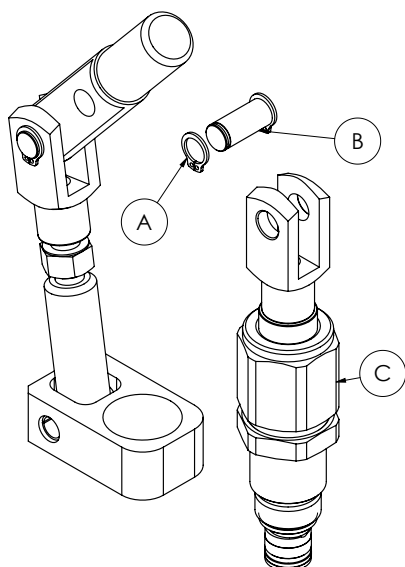
**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | CILINDRATA<br>(cm <sup>3</sup> )<br>DISPLACEMENT<br>(in <sup>3</sup> ) | PRESSIONE<br>MAX<br>MAX PRESSURE<br>bar-PSI | PESO<br>APPROX<br>APPROX WEIGHT<br>kg-lbt | COPPIA<br>DI SERRAGGIO<br>TIGHTENING<br>TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|--------------|------------------------------------------------------------------------|---------------------------------------------|-------------------------------------------|-------------------------------------------------------------|------------------|
| PME10        | 10 (0.6)                                                               | 200 (2900)                                  | 1,9 (4.20)                                | 41-47 (30-35)                                               | SAE10/2          |

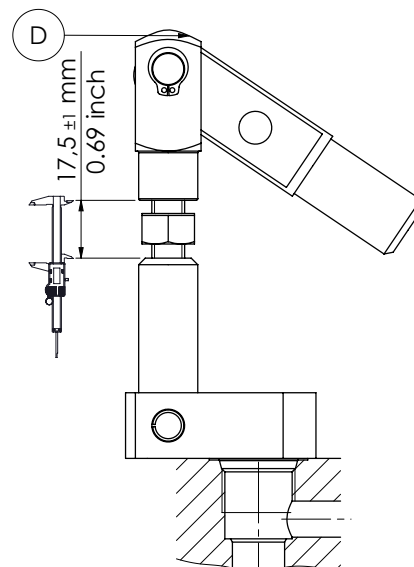




1

Smontare l'anello di arresto (A), sfilare la spina (B), togliere la valvola (C).

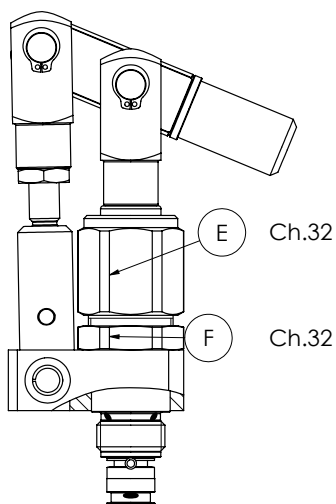
Disassemble the snap ring (A), get out the pin (B), remove the valve (C).



2

Posizionare la forcella (D) alla misura indicata; avvicinare il leverismo alla cavità della valvola.

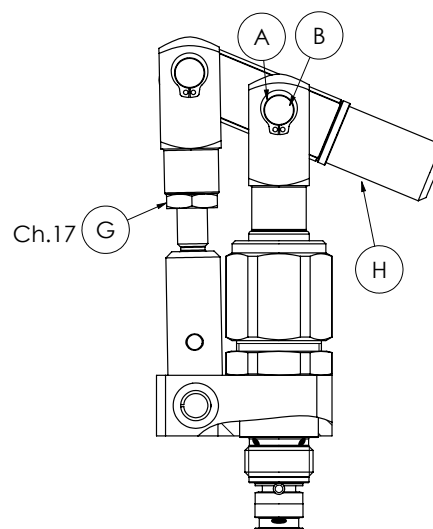
Position the fork (D) at shown dimension; put the lever kit close to the valve cavity.



3

Avvitare la cartuccia (E) nella cavità (41-47 Nm); stringere la ghiera (F)(41-47 Nm).

Screw the cartridge (E) in the cavity (30-35 lbft); tighten the lock nut (F)(30-35 lbft).



4

Posizionare la leva (H) verso il basso; montare la spina (B) e l'anello di arresto (A); serrare il dado (G) (33-53 Nm).

Place the lever (H) downward; assemble the pin (B) and the snap ring (A); tighten the nut (G) (45-72 lbft).

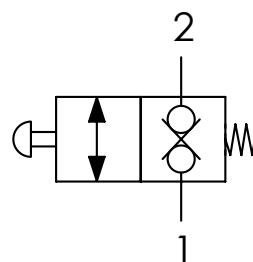


**CODICE ORDINAZIONE**  
ORDERING CODE

|            |    |
|------------|----|
| 01         | 02 |
| <b>VEM</b> |    |

| 01 | VALVOLE DI EMERGENZA MANUALE<br>(MANUAL EMERGENCY VALVES) |           | VEM |
|----|-----------------------------------------------------------|-----------|-----|
| 02 | DIMENSIONE<br>(SIZE)                                      | 3/4-16UNF | 6   |
|    |                                                           | 7/8-14UNF | 10  |

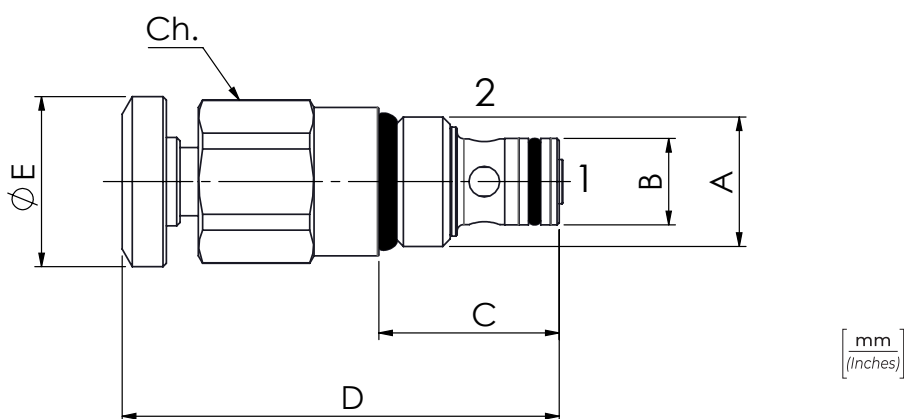
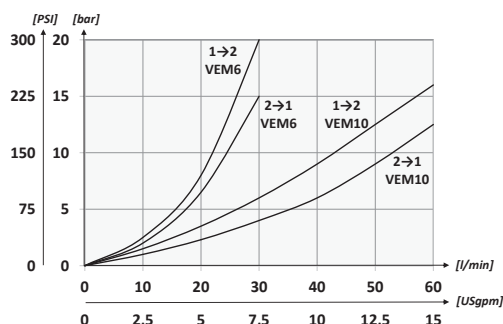
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                                                              |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)                                           |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14                                                       |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                                                             |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                                                             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                                     |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 0,25 cm <sup>3</sup> /min - 5 gocce/min<br>0,015 in <sup>3</sup> /min - 5 drops/min |

**PERFORMANCES**



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | A            | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B            | C           | D         | E         | Ch. | PESO APPROX (kg)<br>APPROX WEIGHT (lb) | COPPIA<br>DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | Cavità<br>Cavity |
|--------------|--------------|----------------------------------------|------------------------------------------|--------------|-------------|-----------|-----------|-----|----------------------------------------|----------------------------------------------------------|------------------|
| VEM6         | 3/4-16UNF-2A | 30 (7.9)                               | 320 (4640)                               | 12,7 (0.5)   | 26,5 (1.04) | 64 (2.51) | 25 (0.98) | 22  | 0,12 (0.27)                            | 25-30 (19-22)                                            | SAE8/2           |
| VEM10        | 7/8-14UNF-2A | 50 (13.2)                              |                                          | 15,80 (0.62) | 32,5 (1.28) | 76 (2.99) | 29 (1.14) | 27  | 0,20 (0.44)                            | 41-47 (30-35)                                            | SAE10/2          |



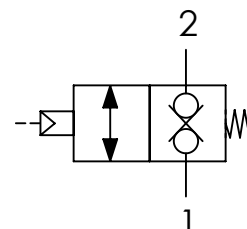
**CODICE ORDINAZIONE**  
ORDERING CODE

01

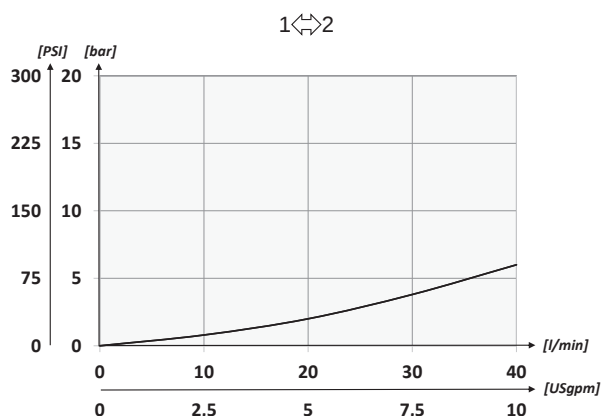
**VPN6**

|    |                                                       |      |
|----|-------------------------------------------------------|------|
| 01 | VALVOLE PNEUMATICHE SAE 8<br>(SAE 8 PNEUMATIC VALVES) | VPN6 |
|----|-------------------------------------------------------|------|

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

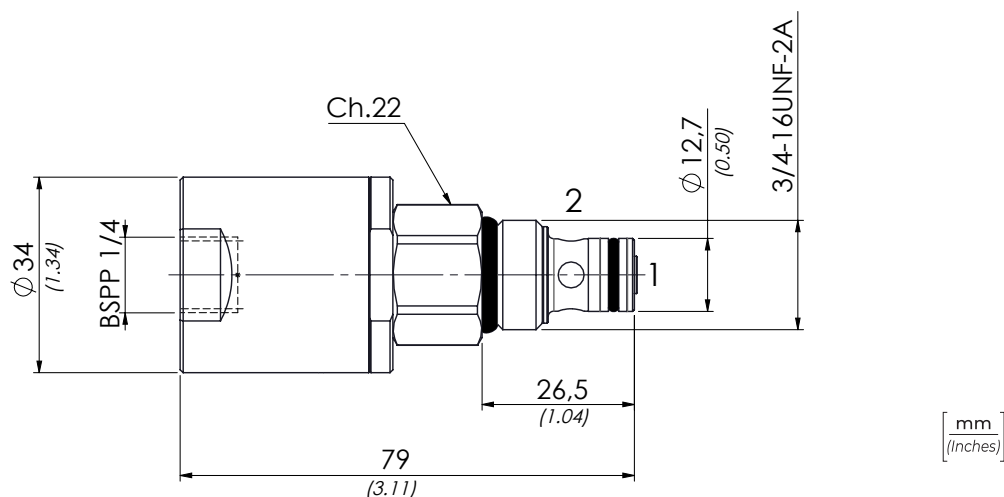


**PERFORMANCES**



**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                | <b>ISO 6743/4</b> (DIN 51524)                                    |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                              | <b>15-250 mm²/s</b> (15 to 250 cSt)                              |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                     | <b>ISO 4406:1999 Classe 19/17/14</b>                             |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                     | <b>-20°C +80°C</b> -4°F +176°F                                   |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                              | <b>-20°C +50°C</b> -4°F +122°F                                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                                  |
| <b>Trafilamento massimo</b><br>Max leakage                                                                                                                                         | <b>0,25 cm³/min - 5 gocce/min</b><br>0,015 in³/min - 5 drops/min |

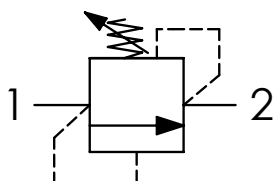


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

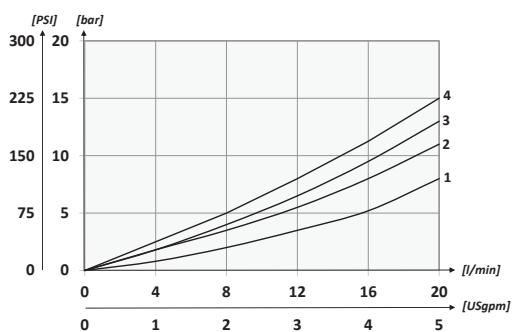
| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY | PRESSIONE DI PILOTAGGIO<br>PILOT PRESSURE<br>bar-PSI |
|--------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------|------------------------------------------------------|
| VPN6         | 30 (7.9)                                | 350 (5075)                                | 0,16 (0.35)                             | 25-30 (19-22)                                         | SAE8/2           | 4/15 (58/218)                                        |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PERFORMANCES



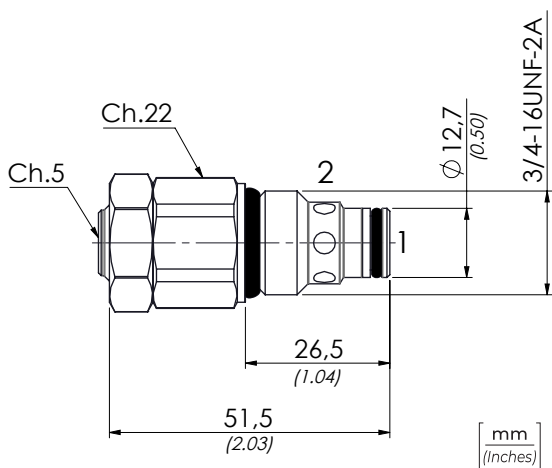
## CODICE ORDINAZIONE ORDERING CODE

| 01          | 02       | 03 | 04       |
|-------------|----------|----|----------|
| <b>VMD1</b> | <b>C</b> |    | <b>N</b> |

| 01 | VALVOLE LIMITATRICI DI PRESSIONE DIRETTE SAE 8<br>(SAE8 DIRECT ACTING PRESSURE RELIEF VALVES) |                                    | VMD1 |
|----|-----------------------------------------------------------------------------------------------|------------------------------------|------|
| 02 | REGOLAZIONE (SETTING)                                                                         | Chiave (Key)                       | C    |
| 03 | MOLLA (SPRING)<br>10/40 bar (145/580PSI)                                                      | 20 bar/al giro<br>(290 PSI/turn)   | 1    |
|    | MOLLA (SPRING)<br>20/110 bar (290/1595 PSI)                                                   | 40 bar/al giro<br>(580 PSI/turn)   | 2    |
|    | MOLLA (SPRING)<br>30/210 bar (435/3045 PSI)                                                   | 70 bar/al giro<br>(1015 PSI/turn)  | 3    |
|    | MOLLA (SPRING)<br>40/350 bar (580/5075 PSI)                                                   | 130 bar/al giro<br>(1885 PSI/turn) | 4    |
| 04 | Versione (Version)                                                                            |                                    | N    |

## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                               |             |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------|--|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)        |             |  |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)  |             |  |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14 |             |  |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C                   | -4°F +176°F |  |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C                   | -4°F +122°F |  |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                               |             |  |



## OPTION SAFETY CAP Cod. 12000380

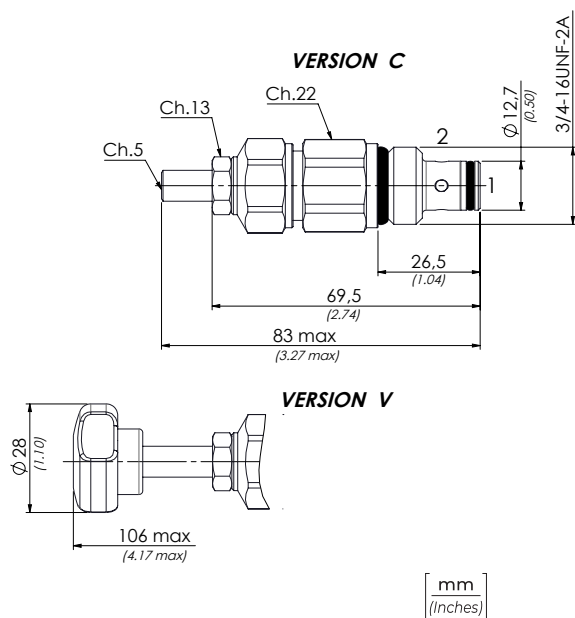
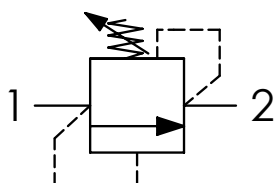


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|--------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------|
| VMD1N        | 20 (5.3)                                | 350 (5075)                                | 0,11 (0.24)                             | 25-30 (19-22)                                         | SAE8/2           |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

CODICE ORDINAZIONE  
ORDERING CODE

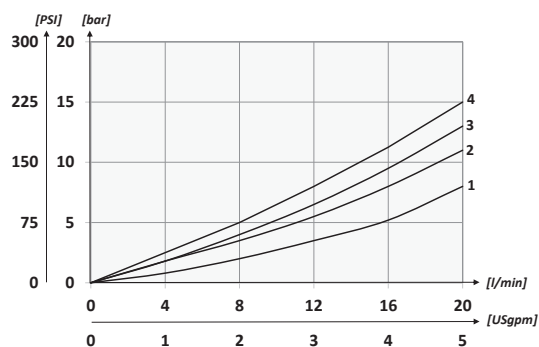
|              |    |    |
|--------------|----|----|
| 01           | 02 | 03 |
| <b>VMD10</b> |    |    |

| 01 | VALVOLE LIMITATRICI DI PRESSIONE DIRETTE SAE 8<br>(SAE8 DIRECT ACTING PRESSURE RELIEF VALVES) |                                                     |                                                                                    | VMD10    |
|----|-----------------------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------|----------|
| 02 | REGOLAZIONE<br>(SETTING)                                                                      | Chiave<br>(Hex socket screw)                        | Opzione:<br>Tappo piombatura<br>(Optional:<br>Tamper proof cap)<br><b>81300037</b> | <b>C</b> |
|    |                                                                                               | Volantino (Handknob)<br>Tipo (Type) <b>81300109</b> |                                                                                    | <b>V</b> |
| 03 | MOLLA (SPRING)<br><b>10/40 bar</b> (145/580 PSI)                                              | <b>12 bar/al giro</b><br>(174 PSI/turn)             |                                                                                    | <b>1</b> |
|    | MOLLA (SPRING)<br><b>20/110 bar</b> (290/1595 PSI)                                            | <b>37 bar/al giro</b><br>(537 PSI/turn)             |                                                                                    | <b>2</b> |
|    | MOLLA (SPRING)<br><b>30/210 bar</b> (435/3045 PSI)                                            | <b>67 bar/al giro</b><br>(972 PSI/turn)             |                                                                                    | <b>3</b> |
|    | MOLLA (SPRING)<br><b>40/350 bar</b> (580/5075 PSI)                                            | <b>131 bar/al giro</b><br>(1900 PSI/turn)           |                                                                                    | <b>4</b> |

## DATI TECNICI / TECHNICAL DATA

|                                                                                                                            |                                           |             |  |
|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------|--|
| Oilio idraulico - Mineral oil                                                                                              | ISO 6743/4 (DIN 51524)                    |             |  |
| Viscosità olio - Oil viscosity                                                                                             | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |             |  |
| Classe di contaminazione max<br>Max contamination index                                                                    | ISO 4406:1999 Classe 19/17/14             |             |  |
| Temperatura dell'olio - Oil temperature                                                                                    | -20°C +80°C                               | -4°F +176°F |  |
| Temperatura ambiente - Environment temperature                                                                             | -20°C +50°C                               | -4°F +122°F |  |
| È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm) |                                           |             |  |
| A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)                              |                                           |             |  |

## PERFORMANCES

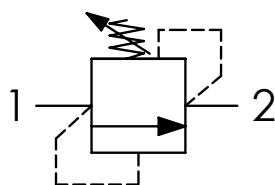


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|--------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------|
| VMD10        | 20 (5.3)                                | 350 (5075)                                | 0,14 (0.30)                             | 25-30 (19-22)                                         | SAE8/2           |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

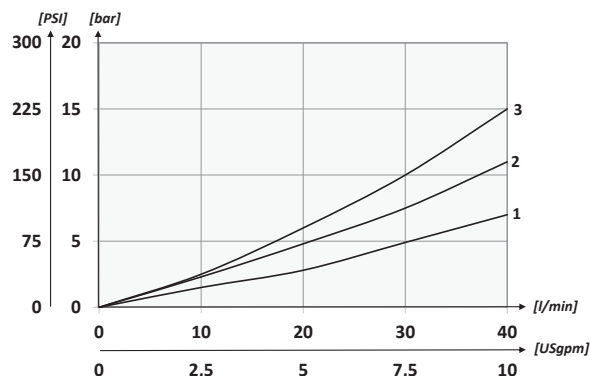


## CODICE ORDINAZIONE ORDERING CODE

| 01          | 02 | 03 |
|-------------|----|----|
| <b>VMD8</b> |    |    |

| 01 | VALVOLE LIMITATRICI DI PRESSIONE DIRETTE SAE 10<br>(SAE10 DIRECT ACTING PRESSURE RELIEF VALVES) |                                                        | VMD8                                                                               |
|----|-------------------------------------------------------------------------------------------------|--------------------------------------------------------|------------------------------------------------------------------------------------|
| 02 | REGOLAZIONE<br>(SETTING)                                                                        | Chiave<br>(Hex socket screw)                           | Opzione:<br>Tappo piombatura<br>(Optional:<br>Tamper proof cap)<br><b>81300095</b> |
|    |                                                                                                 | Volantino (Handknob)<br>Tipo (Type)<br><b>81300127</b> | <b>C</b><br><br><b>V</b>                                                           |
| 03 | MOLLA (SPRING)<br><b>10/90 bar</b> (145/1305 PSI)                                               | <b>20 bar/al giro</b><br>(290 PSI/turn)                | <b>1</b>                                                                           |
|    | MOLLA (SPRING)<br><b>20/210 bar</b> (290/3045 PSI)                                              | <b>48 bar/al giro</b><br>(696 PSI/turn)                | <b>2</b>                                                                           |
|    | MOLLA (SPRING)<br><b>70/350 bar</b> (1015/5075 PSI)                                             | <b>85 bar/al giro</b><br>(1233 PSI/turn)               | <b>3</b>                                                                           |

## PERFORMANCES



## DATI TECNICI / TECHNICAL DATA

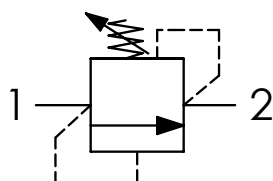
|                                                                                                                                                                                    |                               |              |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|--------------|--|
| Olío idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)        |              |  |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)  |              |  |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14 |              |  |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C                   | -4°F + 176°F |  |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C                   | -4°F + 122°F |  |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                               |              |  |

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|--------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------|
| VMD8         | 40 (10.6)                               | 350 (5075)                                | 0,17 (0.37)                             | 41-47 (30-35)                                         | SAE10/2          |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

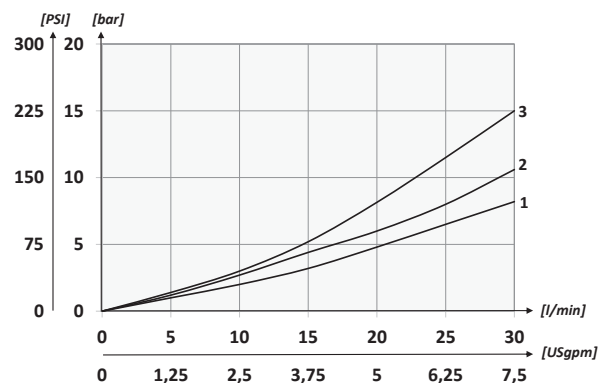


## CODICE ORDINAZIONE ORDERING CODE

| 01           | 02 | 03 |
|--------------|----|----|
| <b>VMD30</b> |    |    |

|           |                                                                                                    |                                                        |                                                                                    |
|-----------|----------------------------------------------------------------------------------------------------|--------------------------------------------------------|------------------------------------------------------------------------------------|
| <b>01</b> | VALVOLE LIMITATRICI DI PRESSIONE DIRETTE M20X1,5<br>(M20X1,5 DIRECT ACTING PRESSURE RELIEF VALVES) |                                                        | <b>VMD30</b>                                                                       |
| <b>02</b> | REGOLAZIONE<br>(SETTING)                                                                           | Chiave<br>(Hex socket screw)                           | Opzione:<br>Tappo piombatura<br>(Optional:<br>Tamper proof cap)<br><b>81300095</b> |
|           |                                                                                                    | Volantino (Handknob)<br>Tipo (Type)<br><b>81300109</b> | <b>C</b>                                                                           |
| <b>03</b> | MOLLA (SPRING)<br><b>10/90 bar</b> (145/1305 PSI)                                                  | <b>14 bar/al giro</b><br>(203 PSI/turn)                | <b>1</b>                                                                           |
|           | MOLLA (SPRING)<br><b>20/210 bar</b> (290/3045 PSI)                                                 | <b>39 bar/al giro</b><br>(566 PSI/turn)                | <b>2</b>                                                                           |
|           | MOLLA (SPRING)<br><b>70/350 bar</b> (1015/5075 PSI)                                                | <b>84 bar/al giro</b><br>(1218 PSI/turn)               | <b>3</b>                                                                           |

## PERFORMANCES



## DATI TECNICI / TECHNICAL DATA

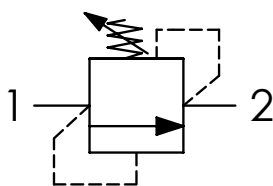
|                                                                                                                                                                                    |                               |       |             |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------|-------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)        |       |             |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)  |       |             |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14 |       |             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C                         | +80°C | -4°F +176°F |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C                         | +50°C | -4°F +122°F |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                               |       |             |

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|--------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------|
| <b>VMD30</b> | <b>30</b> (7.9)                         | <b>320</b> (4640)                         | <b>0,16</b> (0.35)                      | <b>25-30</b> (19-22)                                  | <b>C2015/30</b>  |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

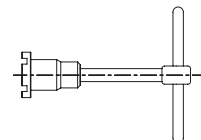


## CODICE ORDINAZIONE ORDERING CODE

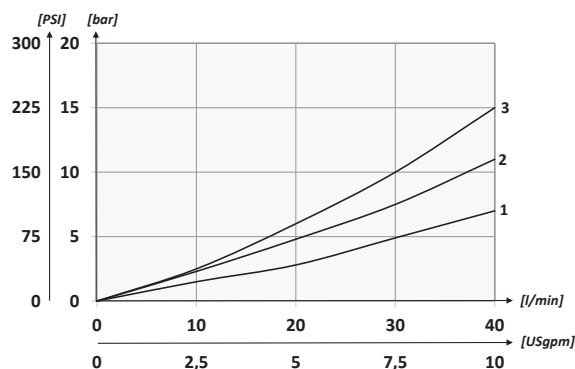
| 01            | 02 | 03 |
|---------------|----|----|
| <b>VMD40S</b> |    |    |

|           |                                                                                                    |                                                        |                                                                                    |
|-----------|----------------------------------------------------------------------------------------------------|--------------------------------------------------------|------------------------------------------------------------------------------------|
| <b>01</b> | VALVOLE LIMITATRICI DI PRESSIONE DIRETTE M20X1,5<br>(M20X1,5 DIRECT ACTING PRESSURE RELIEF VALVES) |                                                        | <b>VMD40S</b>                                                                      |
| <b>02</b> | REGOLAZIONE<br>(SETTING)                                                                           | Chiave<br>(Hex socket screw)                           | Opzione:<br>Tappo piombatura<br>(Optional:<br>Tammer proof cap)<br><b>81300037</b> |
|           |                                                                                                    | Volantino (Handknob)<br>Tipo (Type)<br><b>81300109</b> | <b>C</b><br><br><b>V</b>                                                           |
| <b>03</b> | MOLLA (SPRING)<br><b>10/90 bar</b> (145/1305 PSI)                                                  | <b>12 bar/al giro</b><br>(174 PSI/turn)                | <b>1</b>                                                                           |
|           | MOLLA (SPRING)<br><b>20/210 bar</b> (290/3045 PSI)                                                 | <b>33 bar/al giro</b><br>(479 PSI/turn)                | <b>2</b>                                                                           |
|           | MOLLA (SPRING)<br><b>70/350 bar</b> (1015/5075 PSI)                                                | <b>70 bar/al giro</b><br>(1015 PSI/turn)               | <b>3</b>                                                                           |

CHIAVE (TOOL)  
**61700008**



## PERFORMANCES



## DATI TECNICI / TECHNICAL DATA

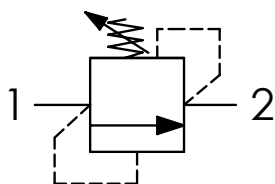
|                                                                                                                                                                                    |                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Olío idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)        |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)  |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14 |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F       |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F       |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                               |

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE  | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY    |
|---------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|---------------------|
| <b>VMD40S</b> | <b>40</b> (10.6)                        | <b>350</b> (5075)                         | <b>0,13</b> (0.29)                      | <b>M20 40/45</b> (30-34)                              | <b>C2015/1415/2</b> |
|               |                                         |                                           |                                         | <b>M14 10/15</b> (7-11)                               |                     |

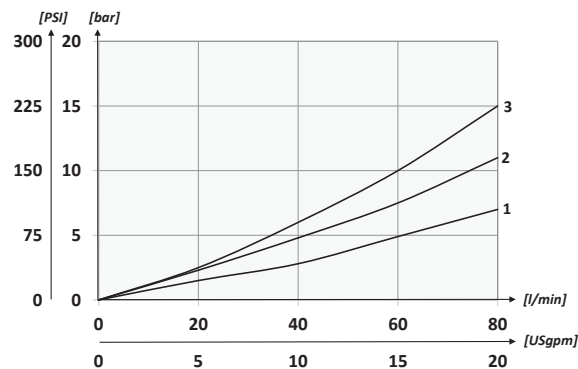


## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



| 01                                  |                                                                                                   | 02                                              | 03                                                                          |
|-------------------------------------|---------------------------------------------------------------------------------------------------|-------------------------------------------------|-----------------------------------------------------------------------------|
| CODICE ORDINAZIONE<br>ORDERING CODE |                                                                                                   | VMD90                                           |                                                                             |
| 01                                  | VALVOLE LIMITATRICI DI PRESSIONE DIRETTE M24X1,5<br>(M24X1,5 DIRECT ACTING PRESSURE RELIEF VALVE) |                                                 | VMD90                                                                       |
| 02                                  | REGOLAZIONE<br>(SETTING)                                                                          | Chiave<br>(Hex socket screw)                    | Opzione:<br>Tappo piombatura<br>(Optional:<br>Tamper proof cap)<br>81300095 |
|                                     |                                                                                                   | Volantino (Handknob)<br>Tipo (Type)<br>81300127 | C                                                                           |
| 03                                  | MOLLA (SPRING)<br>10/90 bar (145/1305 PSI)                                                        | 26 bar/al giro<br>(377 PSI/turn)                | 1                                                                           |
|                                     | MOLLA (SPRING)<br>20/210 bar (290/3045 PSI)                                                       | 41 bar/al giro<br>(595 PSI/turn)                | 2                                                                           |
|                                     | MOLLA (SPRING)<br>50/350 bar (725/5075 PSI)                                                       | 91 bar/al giro<br>(1320 PSI/turn)               | 3                                                                           |

## PERFORMANCES



## DATI TECNICI / TECHNICAL DATA

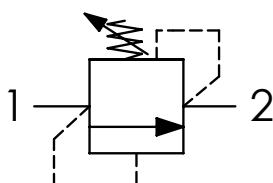
|                                                                                                                                                                                    |                               |      |        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|------|--------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)        |      |        |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)  |      |        |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14 |      |        |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C                   | -4°F | +176°F |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C                   | -4°F | +122°F |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                               |      |        |

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lb) | CILINDRATA (cm³)<br>DISPLACEMENT (in³) | CAVITÀ<br>CAVITY |
|--------------|-----------------------------------------|-------------------------------------------|----------------------------------------|----------------------------------------|------------------|
| VMD90        | 80 (21.1)                               | 350 (5075)                                | 0,25 (0.55)                            | 60-65 (45-49)                          | C2415/2          |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

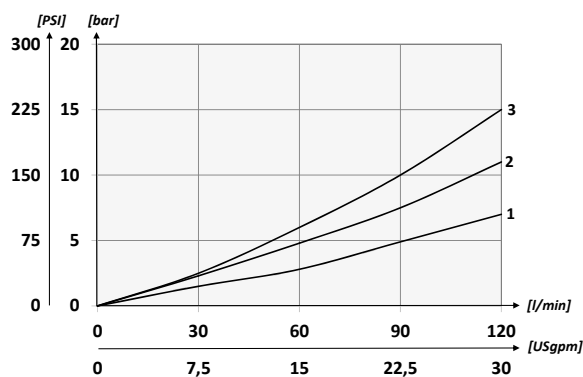


## CODICE ORDINAZIONE ORDERING CODE

| 01            | 02 | 03 |
|---------------|----|----|
| <b>VMD120</b> |    |    |

| 01 | VALVOLE LIMITATRICI DI PRESSIONE DIRETTE M28X1,5<br>(M28X1,5 DIRECT ACTING PRESSURE RELIEF VALVE) |                                                        | VMD120                                                                             |
|----|---------------------------------------------------------------------------------------------------|--------------------------------------------------------|------------------------------------------------------------------------------------|
| 02 | REGOLAZIONE<br>(SETTING)                                                                          | Chiave<br>(Hex socket screw)                           | Opzione:<br>Tappo piombatura<br>(Optional:<br>Tamper proof cap)<br><b>81300095</b> |
|    |                                                                                                   | Volantino (Handknob)<br>Tipo (Type)<br><b>81300127</b> | <b>C</b>                                                                           |
| 03 | MOLLA (SPRING)<br><b>10/100 bar</b> (145/1450 PSI)                                                | <b>21 bar/al giro</b><br>(305 PSI/turn)                | <b>1</b>                                                                           |
|    | MOLLA (SPRING)<br><b>20/250 bar</b> (290/3625 PSI)                                                | <b>48 bar/al giro</b><br>(696 PSI/turn)                | <b>2</b>                                                                           |
|    | Molla (SPRING)<br><b>40/350 bar</b> (580/5075 PSI)                                                | <b>55 bar/al giro</b><br>(798 PSI/turn)                | <b>3</b>                                                                           |

## PERFORMANCES



## DATI TECNICI / TECHNICAL DATA

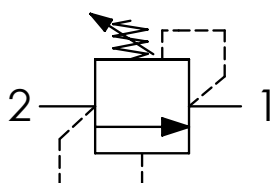
|                                                                                                                                                                                    |                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)        |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)  |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14 |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F       |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F       |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                               |

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | Cavità<br>Cavity |
|--------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|-------------------------------------------------------|------------------|
| VMD120       | 120 (31.7)                              | 350 (5075)                                | 0,32 (0.70)                             | 60-65 (45-49)                                         | C2815/2          |



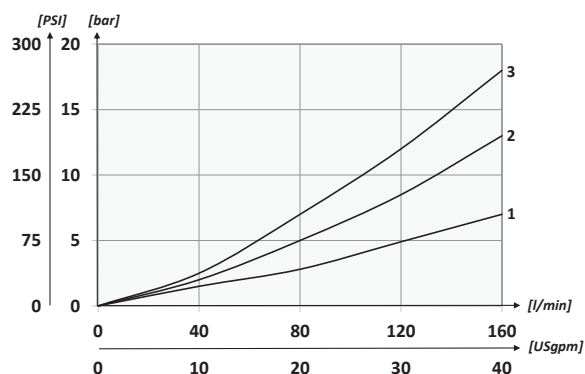
## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

CODICE ORDINAZIONE  
ORDERING CODE

|               |    |    |
|---------------|----|----|
| 01            | 02 | 03 |
| <b>VMD160</b> |    |    |

|           |                                                                                                                                  |                                                        |                                                                                  |
|-----------|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------------------------------|
| <b>01</b> | VALVOLE LIMITATRICI DI PRESSIONE DIRETTA DIRETTA AD AREA DIFFERENZIALE<br>DIRECT ACTING DIFFERENTIAL AREA PRESSURE RELIEF VALVES |                                                        | <b>VMD160</b>                                                                    |
| <b>02</b> | REGOLAZIONE<br>SETTING                                                                                                           | Chiave<br>Hex socket screw                             | Opzione:<br>Tappo piombatura<br>Optional:<br>Tamper proof cap<br><b>81300095</b> |
|           |                                                                                                                                  | Volantino - Handknob<br>Tipo - Type<br><b>81300127</b> |                                                                                  |
| <b>03</b> | MOLLA - SPRING<br><b>10/120 bar</b> (145/1740 PSI)                                                                               | <b>45 bar/al giro</b><br>(652.5 PSI/turn)              | <b>1</b>                                                                         |
|           | MOLLA - SPRING<br><b>100/250 bar</b> (1450/3625 PSI)                                                                             | <b>60 bar/al giro</b><br>(870 PSI/turn)                | <b>2</b>                                                                         |
|           | Molla - SPRING<br><b>190/350 bar</b> (2755/5075 PSI)                                                                             | <b>90 bar/al giro</b><br>(1305 PSI/turn)               | <b>3</b>                                                                         |

## PERFORMANCES



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                               |      |        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|------|--------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)        |      |        |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)  |      |        |
| Classe di contaminazione max con filtro<br>Max contamination index with filter                                                                                                     | ISO 4406:1999 Classe 19/17/14 |      |        |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C                   | -4°F | +176°F |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C                   | -4°F | +122°F |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                               |      |        |

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE  | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lb) | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | Cavità<br>Cavity |
|---------------|-----------------------------------------|-------------------------------------------|----------------------------------------|-------------------------------------------------------|------------------|
| <b>VMD160</b> | <b>160</b> (42.3)                       | <b>380</b> (5510)                         | <b>0,35</b> (0.77)                     | <b>60-65</b> (45-49)                                  | <b>SAE12/2</b>   |

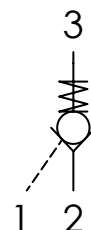


### CODICE ORDINAZIONE ORDERING CODE

|            |    |
|------------|----|
| 01         | 02 |
| <b>VPR</b> |    |

|           |                                                                                     |            |
|-----------|-------------------------------------------------------------------------------------|------------|
| <b>01</b> | VALVOLE DI BLOCCO PILOTATE A SEMPLICE EFFETTO<br>(SINGLE ACTING PILOT CHECK VALVES) | <b>VPR</b> |
| <b>02</b> | DIMENSIONE (SIZE)                                                                   | <b>08</b>  |
|           |                                                                                     | <b>10</b>  |

### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

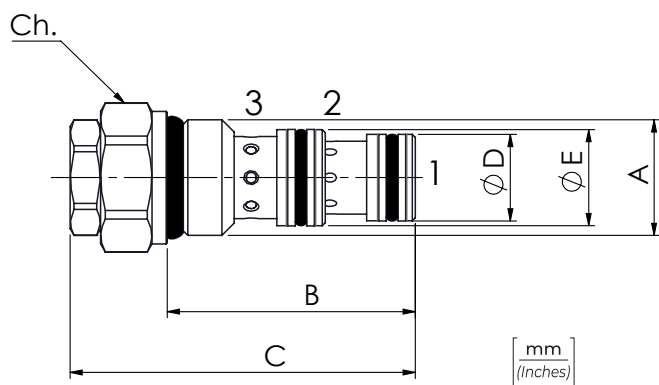
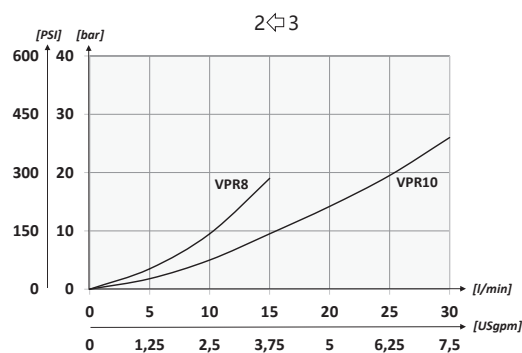
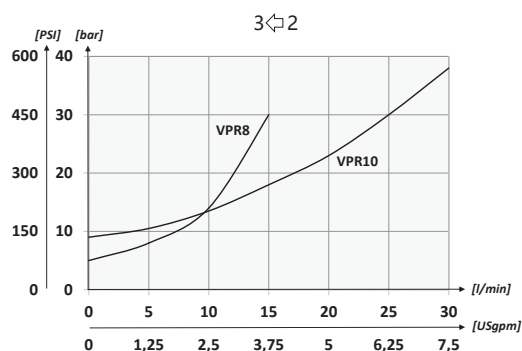


### DATI TECNICI / TECHNICAL DATA

|                                                         |                                           |
|---------------------------------------------------------|-------------------------------------------|
| Olivo idraulico - Mineral oil                           | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                          | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                 | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature          | -20°C +50°C -4°F +122°F                   |

È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)  
It is necessary a filter use to protect the valve (advised filtration 15 µm)

### PERFORMANCES



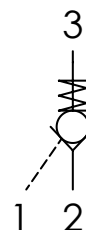
### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A           | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B         | C         | D           | E           | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt | COPPIA<br>DI SERRAGGIO<br>TIGHTENING<br>TORQUE<br>Nm-lbt ft | RAPPORTO<br>DI PILOTAGGIO<br>PILOT RATIO | CAVITÀ<br>CAVITY | Ch.<br>Key |
|--------------|-------------|----------------------------------------|------------------------------------------|-----------|-----------|-------------|-------------|-------------------------------------------|-------------------------------------------------------------|------------------------------------------|------------------|------------|
| VPR08        | 3/4-16UNF   | 15 (4)                                 | 350 (5075)                               | 41 (1.61) | 57 (2.24) | 14,2 (0.56) | 15,8 (0.62) | 0,09 (0.19)                               | 25-30 (19-22)                                               | 1:2.5                                    | SAE8/3           | 22         |
| VPR10        | 7/8 - 14UNF | 30 (7.9)                               |                                          | 47 (1.85) | 59 (2.32) | 15,8 (0.62) | 17,4 (0.69) | 0,11 (0.25)                               | 41-47 (30-35)                                               |                                          | SAE10/3          | 27         |

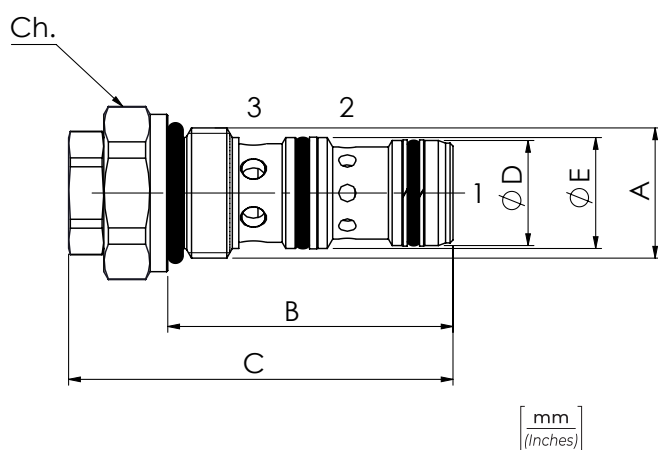
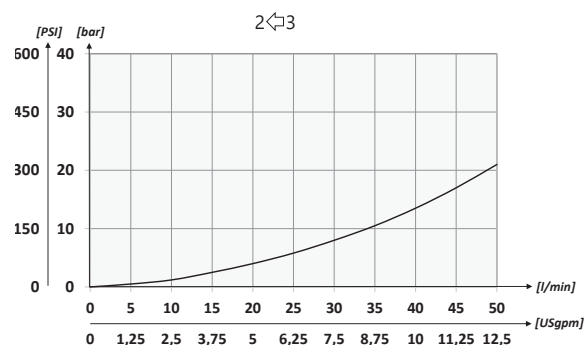
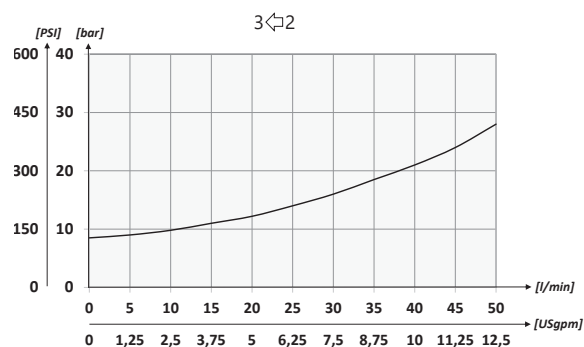
**CODICE ORDINAZIONE**  
ORDERING CODE

| 01         | 02        | 03        | 04 |
|------------|-----------|-----------|----|
| <b>VPR</b> | <b>22</b> | <b>SP</b> |    |

| 01 | VALVOLE DI BLOCCO PILOTATE M22X1,5 A SEMPLICE EFFETTO<br>(M22X1,5 SINGLE ACTING PILOT CHECK VALVES) |                                       | VPR |
|----|-----------------------------------------------------------------------------------------------------|---------------------------------------|-----|
| 02 | DIMENSIONE (SIZE)                                                                                   | M22x1,5                               | 22  |
| 03 | TENUTA (SEALING)                                                                                    | Tenuta ad otturatore (Poppet sealing) | SP  |
| 04 | MOLLA (SPRING)                                                                                      | 5 bar (72,5 PSI)                      | 5   |
|    |                                                                                                     | 8 bar (116 PSI)                       | 8   |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT****DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                           |             |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------|--|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                | ISO 6743/4 (DIN 51524)                    |             |  |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                              | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |             |  |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                     | ISO 4406:1999 Classe 19/17/14             |             |  |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                     | -20°C +80°C                               | -4°F +176°F |  |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                              | -20°C +50°C                               | -4°F +122°F |  |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |             |  |

**PERFORMANCES****CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | A       | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B           | C         | D           | E           | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt | COPPIA<br>DI SERRAGGIO<br>TIGHTENING<br>TORQUE<br>Nm-lbt ft | RAPPORTO<br>DI PILOTAGGIO<br>PILOT RATIO | CAVITÀ<br>CAVITY | Ch.<br>Key |
|--------------|---------|----------------------------------------|------------------------------------------|-------------|-----------|-------------|-------------|-------------------------------------------|-------------------------------------------------------------|------------------------------------------|------------------|------------|
| VPR22        | M22x1,5 | 50 (13,3)                              | 350 (5075)                               | 48,6 (1.91) | 62 (2.44) | 17,9 (0.70) | 18,9 (0.74) | 0,14 (0.30)                               | 44-50 (32-37)                                               | 1:2.5                                    | C2215/3          | 27         |

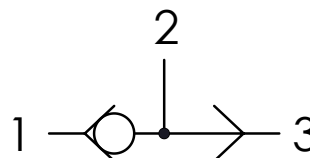


**CODICE ORDINAZIONE**  
ORDERING CODE

|           |    |
|-----------|----|
| 01        | 02 |
| <b>SV</b> |    |

|           |                                                 |                     |
|-----------|-------------------------------------------------|---------------------|
| <b>01</b> | VALVOLE SELETTRICI (LOAD SHUTTLE - BALL VALVES) | <b>SV</b>           |
| <b>02</b> | DIMENSIONE<br>(SIZE)                            | 3/4-16UNF <b>08</b> |
|           |                                                 | 7/8-14UNF <b>10</b> |

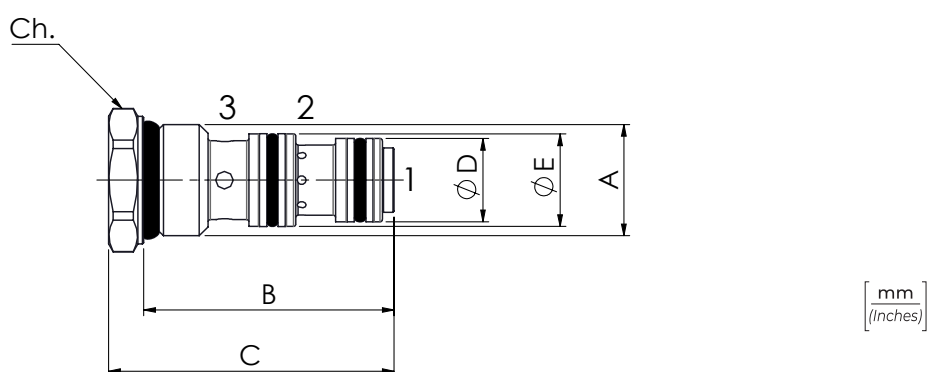
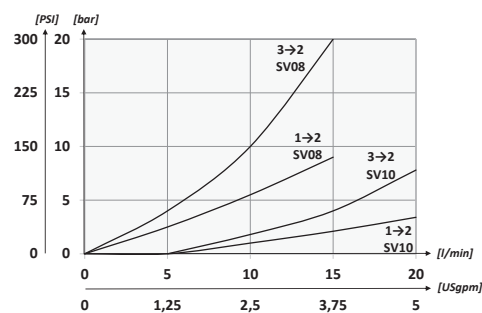
**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olío idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

**PERFORMANCES**



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

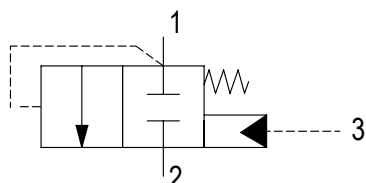
| TIPO<br>TYPE | A           | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | U         | V         | D           | E           | PESO APPROX<br>APPROXWEIGHT<br>kg-lbt | COPPIA<br>DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY | Ch.<br>Key |
|--------------|-------------|----------------------------------------|------------------------------------------|-----------|-----------|-------------|-------------|---------------------------------------|----------------------------------------------------------|------------------|------------|
| SV08         | 3/4-16UNF   | 15 (4)                                 | 350 (5075)                               | 41 (1.61) | 49 (1.93) | 14,2 (0.56) | 15,8 (0.62) | 0,07 (0.15)                           | 25-30 (19-22)                                            | SAE8/3           | 22         |
| SV10         | 7/8 - 14UNF | 30 (7.9)                               |                                          | 47 (1.85) | 55 (2.17) | 15,8 (0.62) | 17,4 (0.69) | 0,10 (0.22)                           | 41-47 (30-35)                                            | SAE10/3          | 27         |



**CODICE ORDINAZIONE**  
ORDERING CODE

| 01            | 02 | 03       | 04 |
|---------------|----|----------|----|
| <b>LE103A</b> |    | <b>P</b> |    |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

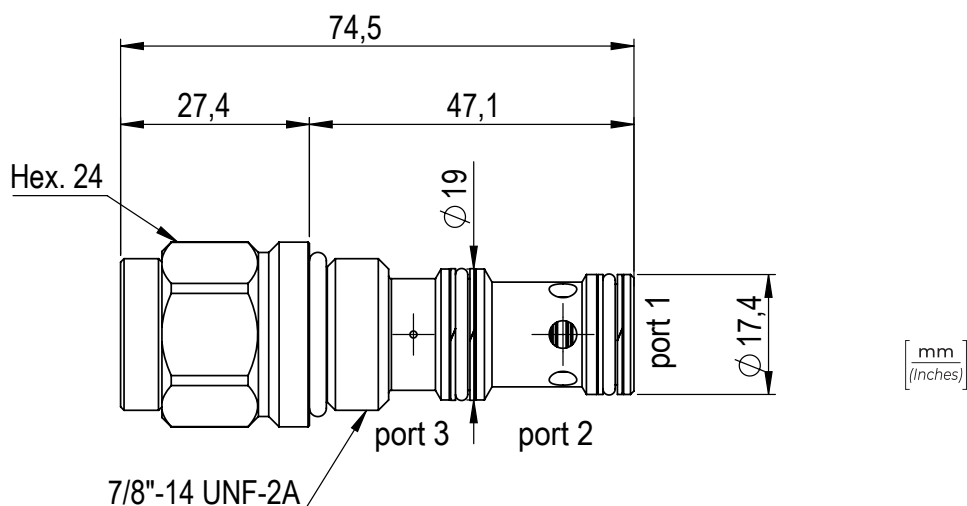
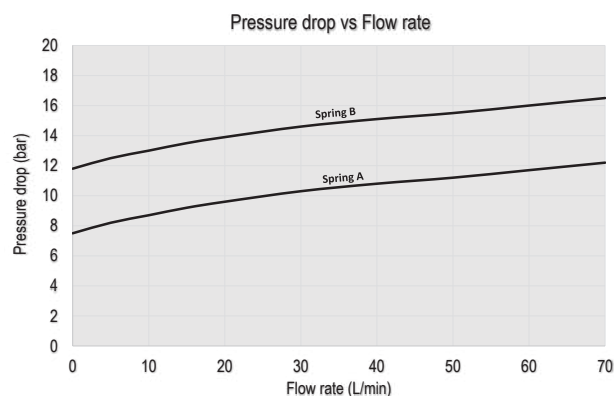


| 01 | COMPENSATORE IDRAULICO SAE 10/3 SHORT<br>(PRESSURE COMPENSATOR SAE 10/3 SHORT) |        | LE103A   |
|----|--------------------------------------------------------------------------------|--------|----------|
| 02 | PRESSIONE DI APERTURA<br>(CRACKING PRESSURE)                                   | 8 bar  | <b>A</b> |
|    |                                                                                | 12 bar | <b>B</b> |
| 03 | GUARNIZIONI<br>(GASKETS)                                                       | PTFE   | <b>P</b> |
| 04 | GUARNIZIONI<br>(GASKETS)                                                       | NBR    | <b>N</b> |
|    |                                                                                | VITON  | <b>V</b> |

**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                           |      |        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------|--------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                | ISO 6743/4 (DIN 51524)                    |      |        |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                              | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |      |        |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                     | ISO 4406:1999 Classe 19/17/14             |      |        |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                     | -20°C +80°C                               | -4°F | +176°F |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                              | -20°C +50°C                               | -4°F | +122°F |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |      |        |

**PERFORMANCES**



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROXWEIGHT<br>kg-lbt | COPPIA<br>DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | CAVITÀ<br>CAVITY |
|--------------|----------------------------------------|------------------------------------------|---------------------------------------|----------------------------------------------------------|------------------|
| LE103A       | 70 (18.4)                              | 350 (5075)                               | 0,16 (0.34)                           | 50 (40)                                                  | SAE10/3 SHORT    |

## notes

# BASI E BLOCCHI

## HYDRAULIC MANIFOLDS

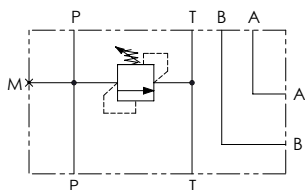
Basi CETOP in alluminio; singole CETOP 3 con porte laterali o posteriori; singole CETOP 5 o multiple con circuito in parallelo; con o senza valvola limitatrice di pressione.

Aluminium Cetop bases; single Cetop 3 with lateral or rear parts; single Cetop 5 on multiple stages with parallel circuit; with or without pressure relief valve.





## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

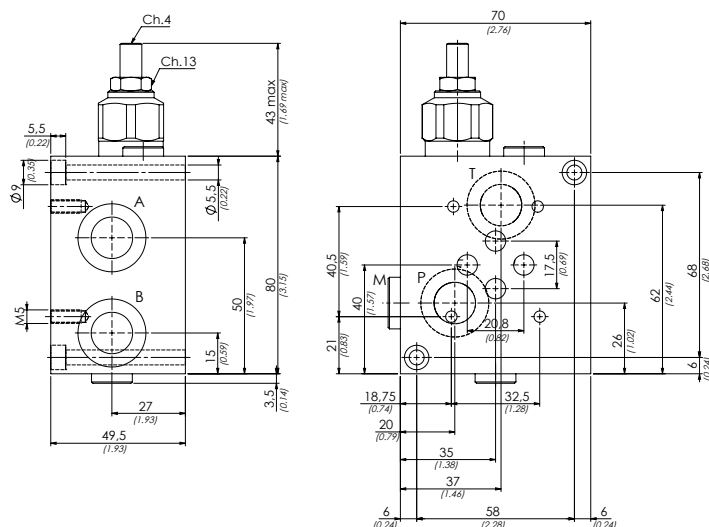
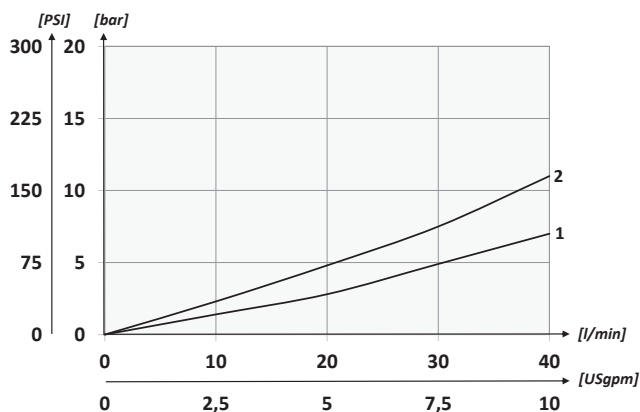
| TIPO<br>TYPE | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt | TIPO DI VALVOLA<br>TYPE OF VALVE |
|--------------|----------------------------------------|------------------------------------------|----------------------------------------|----------------------------------|
| BS3          | 40 (10.6)                              | 210 (3045)                               | 0,8 (1.76)                             | VMD40S                           |

## CODICE ORDINAZIONE ORDERING CODE

|            |    |    |
|------------|----|----|
| 01         | 02 | 03 |
| <b>BS3</b> |    |    |

|    |                                                                                                             |                                                 |
|----|-------------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| 01 | BASI SINGOLE CETOP3 IN ALLUMINIO - ATTACCHI LATERALI<br>(ALUMINIUM CETOP3 SINGLE MANIFOLDS - LATERAL PORTS) | <b>BS3</b>                                      |
| 02 | REGOLAZIONE<br>(SETTING)                                                                                    | Chiave<br>(Hex socket screw)                    |
|    |                                                                                                             | Volantino (Handknob)<br>Tipo (Type)<br>81300109 |
| 03 | MOLLA (SPRING)<br>10/90 bar (145/1305 PSI)                                                                  | 12 bar/al giro<br>(174 PSI/turn)                |
|    | MOLLA (SPRING)<br>20/210 bar (290/3045 PSI)                                                                 | 30 bar/al giro<br>(435 PSI/turn)                |

## PERFORMANCES



## ATTACCHI / PRESSURE DROPS

|         |          |
|---------|----------|
| P-T-A-B | BSPP 3/8 |
| M       | BSPP 1/4 |

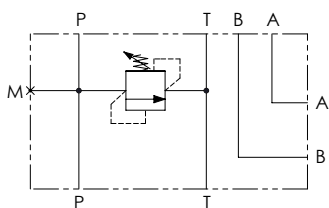
Il blocco in alluminio anodizzato nero può essere utilizzato per pressioni fino a 210 bar (3045 PSI)

Aluminium manifold black anodized can be suitable for pressures up to 210 bar (3045 PSI)

[ mm  
(inches) ]



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

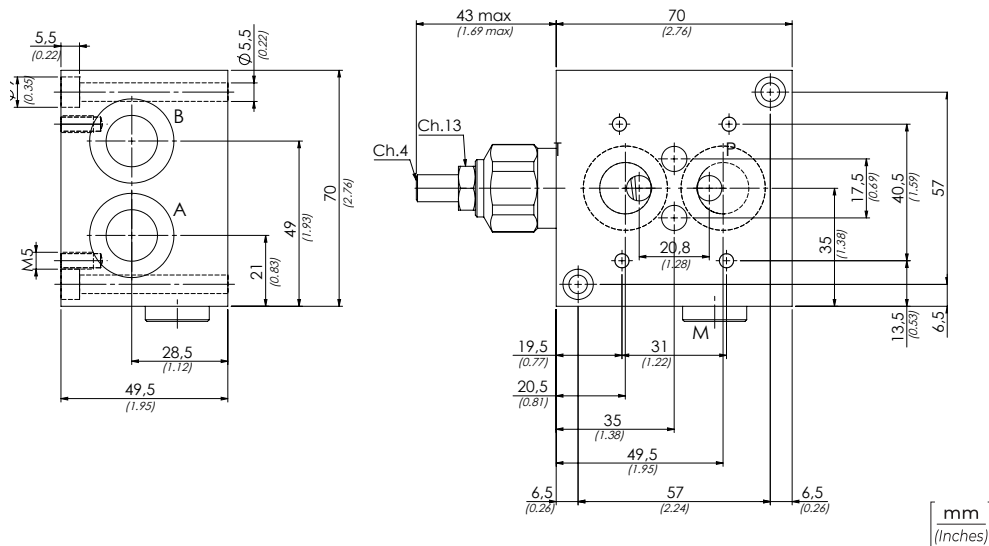
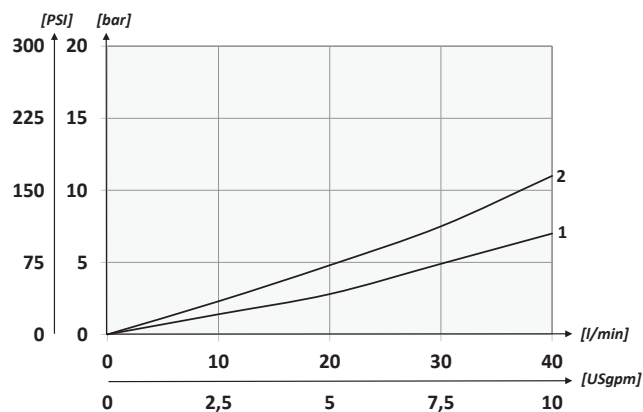
| TIPO<br>TYPE | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt | TIPO DI VALVOLA<br>TYPE OF VALVE |
|--------------|----------------------------------------|------------------------------------------|----------------------------------------|----------------------------------|
| BP3          | 40 (10.6)                              | 210 (3045)                               | 0,72 (1.58)                            | VMD40S                           |

CODICE ORDINAZIONE  
ORDERING CODE

|            |    |    |
|------------|----|----|
| 01         | 02 | 03 |
| <b>BP3</b> |    |    |

|    |                                                                                                          |                                                 |
|----|----------------------------------------------------------------------------------------------------------|-------------------------------------------------|
| 01 | BASI SINGOLE CETOP3 IN ALLUMINIO ATTACCHI POSTERIORI<br>(ALUMINIUM CETOP3 SINGLE MANIFOLDS - REAR PORTS) | BP3                                             |
| 02 | REGOLAZIONE<br>(SETTING)                                                                                 | Chiave<br>(Screw)                               |
|    |                                                                                                          | Volantino (Handknob)<br>Tipo (Type)<br>81300109 |
| 03 | MOLLA (SPRING)<br>10/90 bar (145/1305 PSI)                                                               | 1                                               |
|    |                                                                                                          | 2                                               |

## PERFORMANCES



## ATTACCHI - PRESSURE DROPS

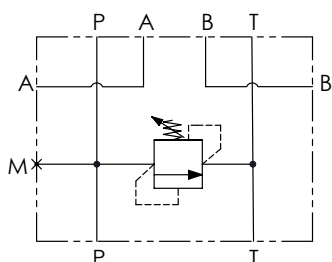
|         |          |
|---------|----------|
| P-T-A-B | BSPP 3/8 |
| M       | BSPP 1/4 |

Il blocco in alluminio anodizzato nero può essere utilizzato per pressioni fino a 210 bar (3045 PSI)

Aluminium manifold black anodized can be suitable for pressures up to 210 bar (3045 PSI)



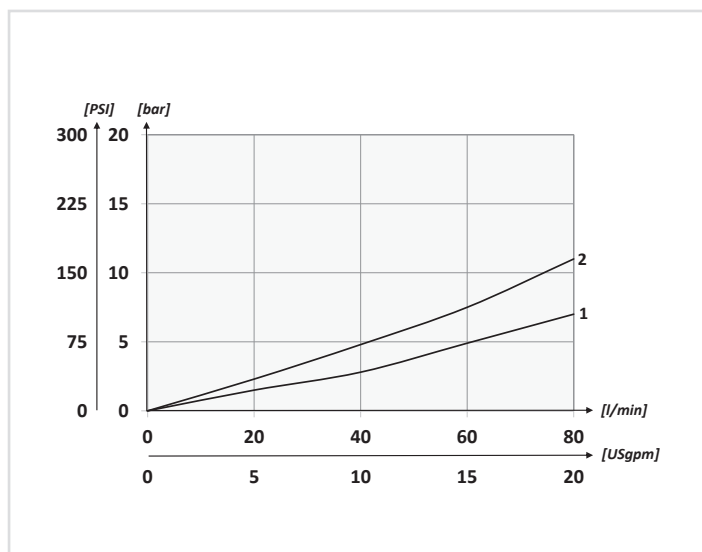
## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olío idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

## PERFORMANCES



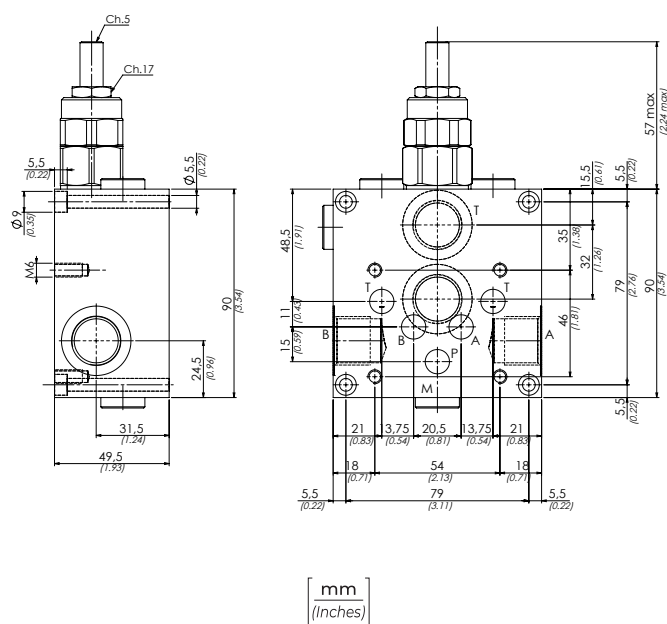
## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt | TIPO DI VALVOLA<br>TYPE OF VALVE |
|--------------|----------------------------------------|------------------------------------------|----------------------------------------|----------------------------------|
| BS5          | 80 (21.1)                              | 210 (3045)                               | 1,20 (2.64)                            | VMD90                            |

## CODICE ORDINAZIONE ORDERING CODE

| 01         | 02 | 03 |
|------------|----|----|
| <b>BS5</b> |    |    |

|           |                                                                         |                                         |
|-----------|-------------------------------------------------------------------------|-----------------------------------------|
| <b>01</b> | BASI SINGOLE CETOP5 IN ALLUMINIO<br>(ALUMINIUM CETOP5 SINGLE MANIFOLDS) | <b>BS5</b>                              |
| <b>02</b> | REGOLAZIONE<br>(SETTING)                                                | Chiave<br>(Screw)                       |
|           | Volantino (Handknob)<br>Tipo (Type)<br><b>81300023</b>                  | <b>C</b><br><br><b>V</b>                |
| <b>03</b> | MOLLA (SPRING)<br><b>10/100 bar</b> (145/1450 PSI)                      | <b>23 bar/al giro</b><br>(334 PSI/turn) |
|           | MOLLA (SPRING)<br><b>20/210 bar</b> (290/3045 PSI)                      | <b>40 bar/al giro</b><br>(580 PSI/turn) |

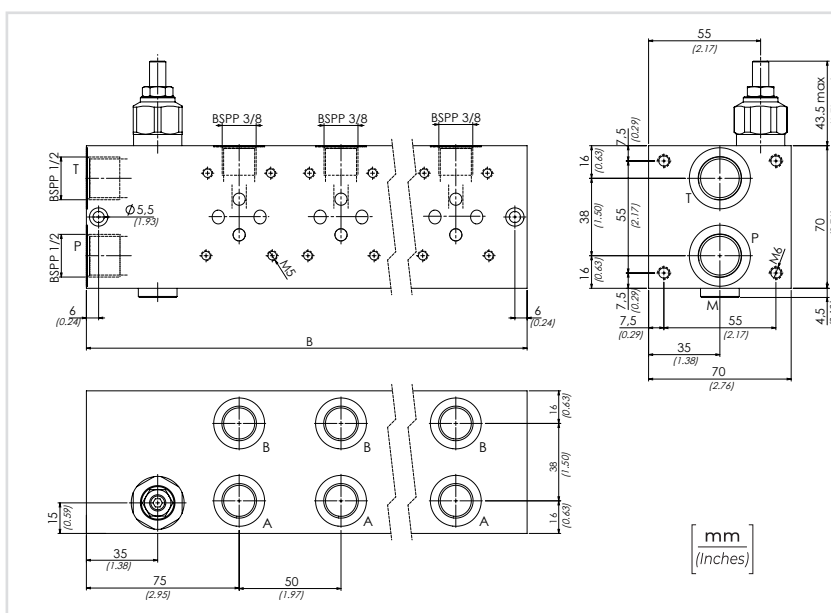
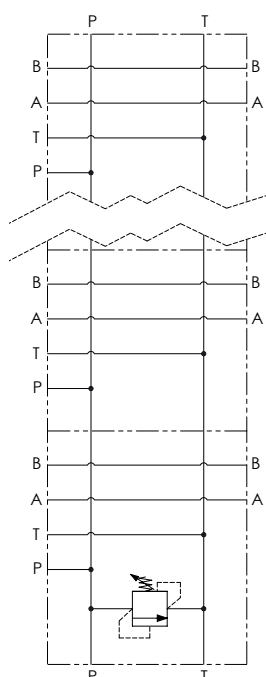


## ATTACCHI / PRESSURE DROPS

|                                                                                                                                                                                                                    |          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| P-T-A-B                                                                                                                                                                                                            | BSPP 1/2 |
| M                                                                                                                                                                                                                  | BSPP 1/4 |
| <p><b>Il blocco in alluminio anodizzato nero può essere utilizzato per pressioni fino a 210 bar (3045 PSI)</b></p> <p>Aluminium manifold black anodized can be suitable for pressures up to 210 bar (3045 PSI)</p> |          |



## SCHEMA IDRAULICO HYDRAULIC CIRCUIT



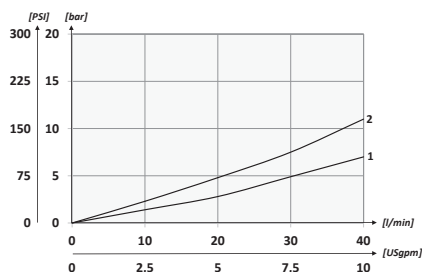
## ATTACCHI PRESSURE DROPS

|     |          |
|-----|----------|
| P-T | BSPP 1/2 |
| M   | BSPP 1/4 |
| A-B | BSPP 3/8 |

Il blocco in alluminio anodizzato nero può essere utilizzato per pressioni fino a 210 bar (3045 PSI)

Aluminium manifold black anodized can be suitable for pressures up to 210 bar (3045 PSI)

## PERFORMANCES

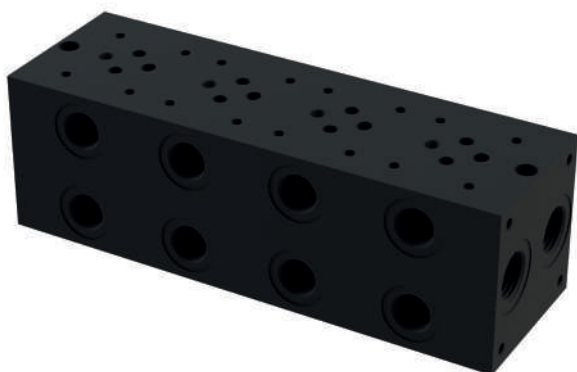


## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

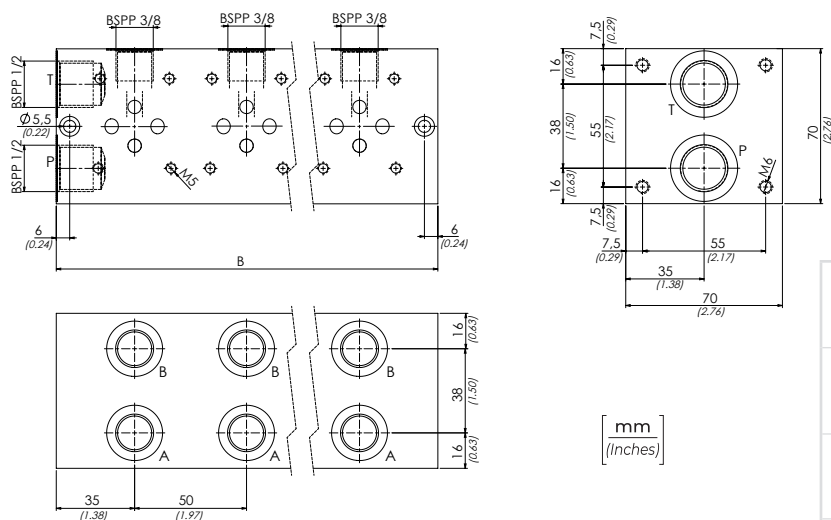
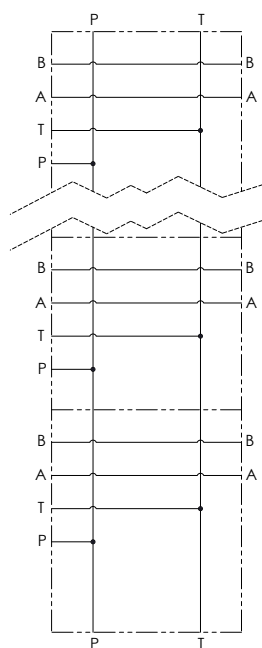
## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | N. DI STAZIONI<br>N. OF STATIONS | B           | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) | TIPO DI VALVOLA<br>TYPE OF VALVE |
|--------------|----------------------------------|-------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|----------------------------------|
| BM2-RV       | 2                                | 160 (6.30)  | 40 (10.6)                               | 210 (3045)                                | 2,1 (4.6)                               | VMD40S                           |
| BM3-RV       | 3                                | 210 (8.27)  |                                         |                                           | 2,7 (6)                                 |                                  |
| BM4-RV       | 4                                | 260 (10.24) |                                         |                                           | 3,3 (7.3)                               |                                  |
| BM5-RV       | 5                                | 310 (12.20) |                                         |                                           | 3,9 (8.6)                               |                                  |
| BM6-RV       | 6                                | 360 (14.17) |                                         |                                           | 4,5 (10)                                |                                  |
| BM7-RV       | 7                                | 410 (16.14) |                                         |                                           | 5,3 (11,7)                              |                                  |
| BM8-RV       | 8                                | 460 (18.11) |                                         |                                           | 5,9 (13)                                |                                  |

**CODICE ORDINAZIONE**  
ORDERING CODE

|           |    |          |
|-----------|----|----------|
| 01        | 02 | 03       |
| <b>BM</b> |    | <b>A</b> |

|           |                                                                                                                                                                           |           |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| <b>01</b> | BASI MULTIPLE IN PARALLELO IN ALLUMINIO<br>UTILIZZI LATERALI SENZA VALVOLA DI MASSIMA<br>(ALUMINIUM PARALLEL MULTIPLE MANIFOLDS<br>- LATERAL PORTS WITHOUT RELIEF VALVES) | <b>BM</b> |
| <b>02</b> | NUMERO DI STAZIONI<br>(NUMBER OF STATIONS)                                                                                                                                | <b>2</b>  |
|           |                                                                                                                                                                           | <b>3</b>  |
|           |                                                                                                                                                                           | <b>4</b>  |
|           |                                                                                                                                                                           | <b>5</b>  |
|           |                                                                                                                                                                           | <b>6</b>  |
|           |                                                                                                                                                                           | <b>7</b>  |
|           |                                                                                                                                                                           | <b>8</b>  |
| <b>03</b> | ALLUMINIO<br>(ALUMINIUM)                                                                                                                                                  | <b>A</b>  |

**SCHEMA IDRAULICO**  
HYDRAULIC CIRCUIT**ATTACCHI**  
PRESSURE DROPS

|            |                 |
|------------|-----------------|
| <b>P-T</b> | <b>BSPP 1/2</b> |
| <b>M</b>   | <b>BSPP 1/4</b> |
| <b>A-B</b> | <b>BSPP 3/8</b> |

**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                           |                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                       | <b>ISO 6743/4</b> (DIN 51524)                  |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                                     | <b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt) |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                            | <b>ISO 4406:1999 Classe 19/17/14</b>           |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                            | <b>-20°C +80°C</b> -4°F + 176°F                |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                                     | <b>-20°C +50°C</b> -4°F + 122°F                |
| <b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b><br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                |

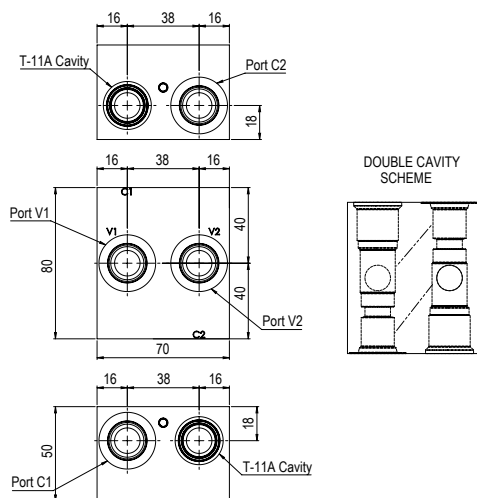
**Il blocco in alluminio anodizzato nero può essere utilizzato per pressioni fino a 210 bar (3045 PSI)**

Aluminium manifold black anodized can be suitable for pressures up to 210 bar (3045 PSI)

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

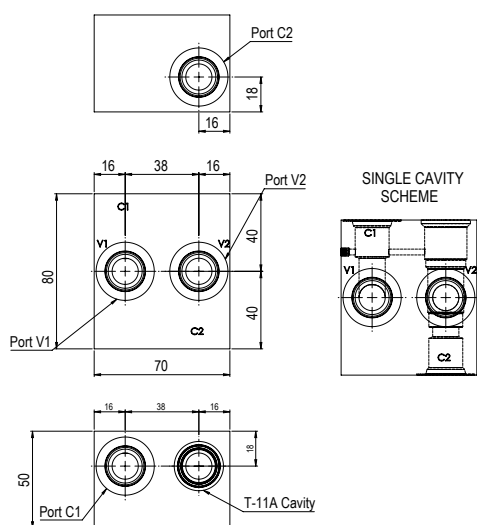
| TIPO<br>TYPE | N. DI STAZIONI<br>N. OF STATIONS | B                  | PORTATA MAX (l/min)<br>MAX FLOW (USgpm) | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|--------------|----------------------------------|--------------------|-----------------------------------------|-------------------------------------------|-----------------------------------------|
| <b>BM2</b>   | <b>2</b>                         | <b>120</b> (4.72)  | <b>40</b> (10.6)                        | <b>210</b> (3045)                         | <b>1,5</b> (3.30)                       |
| <b>BM3</b>   | <b>3</b>                         | <b>170</b> (6.69)  |                                         |                                           | <b>2,1</b> (4.62)                       |
| <b>BM4</b>   | <b>4</b>                         | <b>220</b> (8.66)  |                                         |                                           | <b>2,7</b> (5.95)                       |
| <b>BM5</b>   | <b>5</b>                         | <b>270</b> (10.63) |                                         |                                           | <b>3,3</b> (7.27)                       |
| <b>BM6</b>   | <b>6</b>                         | <b>320</b> (12.60) |                                         |                                           | <b>3,9</b> (8.59)                       |
| <b>BM7</b>   | <b>7</b>                         | <b>370</b> (14.57) |                                         |                                           | <b>4,6</b> (10.12)                      |
| <b>BM8</b>   | <b>8</b>                         | <b>320</b> (18.53) |                                         |                                           | <b>5,2</b> (11.44)                      |

## T-11A DOUBLE CAVITY - CROSS PILOTED



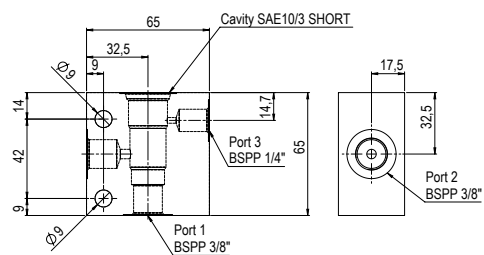
| CODICE - CODE | MATERIALE - MATERIAL  | PORTS    | PRESSIONE MAX (BAR)<br>MAX PRESSURE (PSI) | PESO APPROX (KG)<br>APPROX WEIGHT (LBT) |
|---------------|-----------------------|----------|-------------------------------------------|-----------------------------------------|
| 9COR08S08200  | Alluminio - Aluminium | SAE 08   | 210 (3045)                                | 0,44 (0.97)                             |
| 9COR08380200  |                       | BSPP 3/8 |                                           |                                         |
| 9COR08120200  |                       | BSPP 1/2 |                                           |                                         |

## T-11A SINGLE CAVITY - CROSS PILOTED



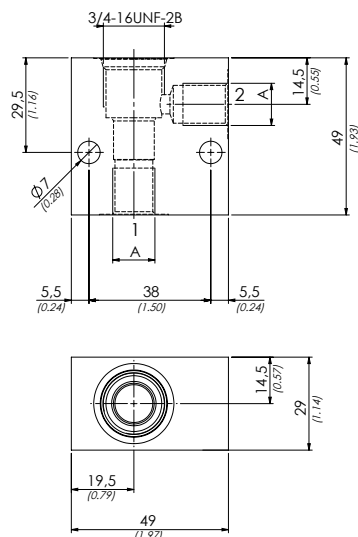
| CODICE - CODE | MATERIALE - MATERIAL  | PORTS    | PRESSIONE MAX (BAR)<br>MAX PRESSURE (PSI) | PESO APPROX (KG)<br>APPROX WEIGHT (LBT) |
|---------------|-----------------------|----------|-------------------------------------------|-----------------------------------------|
| 9COR08S08201  | Alluminio - Aluminium | SAE 08   | 210 (3045)                                | 0,44 (0.97)                             |
| 9COR08380201  |                       | BSPP 3/8 |                                           |                                         |
| 9COR08120201  |                       | BSPP 1/2 |                                           |                                         |

## SAE10/3 SHORT



| CODICE - CODE | MATERIALE - MATERIAL  | PORTS    | PRESSIONE MAX (BAR)<br>MAX PRESSURE (PSI) | PESO APPROX (KG)<br>APPROX WEIGHT (LBT) |
|---------------|-----------------------|----------|-------------------------------------------|-----------------------------------------|
| 9COS10314010  | Acciaio - Steel       | BSPP 3/8 | 350 (5075)                                | 0,3 (0.77)                              |
| 9COS10314020  | Alluminio - Aluminium |          | 210 (3045)                                |                                         |

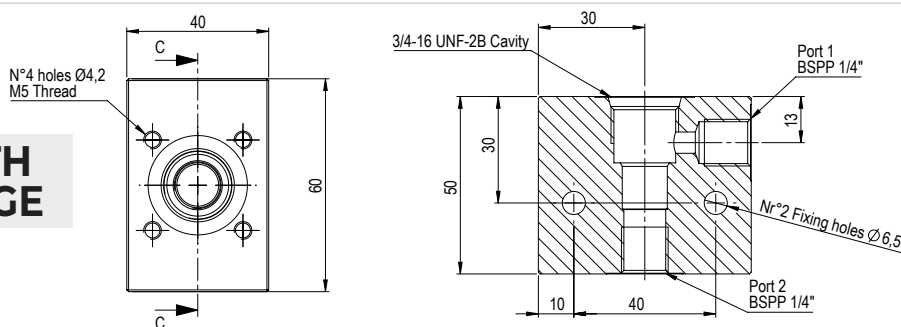
## SAE8/2



[ mm ]  
[ Inches ]

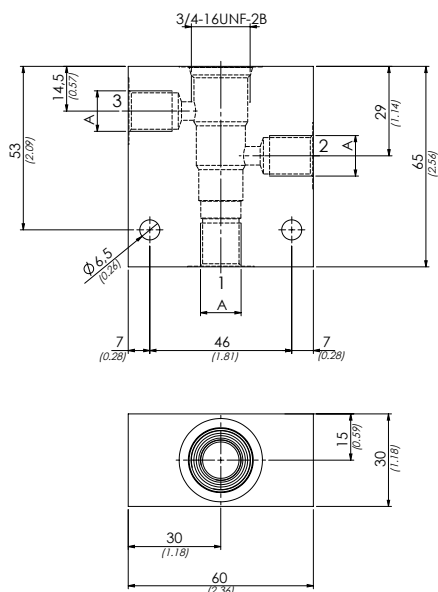
| CODICE - CODE | MATERIALE - MATERIAL  | TRATTAMENTO SUPERFICIALE<br>SURFACE TREATMENT | A        | PRESSIONE MAX (BAR)<br>MAX PRESSURE (PSI) | PESO APPROX (KG)<br>APPROX WEIGHT (LBT) |
|---------------|-----------------------|-----------------------------------------------|----------|-------------------------------------------|-----------------------------------------|
| 62200032      | Acciaio - Steel       | Zincatura - Zinc-plating                      | BSPP 1/4 | 350 (5075)                                | 0,44 (0.97)                             |
| 62200051      |                       |                                               | BSPP 3/8 |                                           | 0,43 (0.95)                             |
| 62200369      | Alluminio - Aluminium | Anodizzazione nera - Black anodized           | BSPP 1/4 | 210 (3045)                                | 0,17 (0,37)                             |
| 62200370      |                       |                                               | BSPP 3/8 |                                           | 0,16 (0,33)                             |

## SAE8/2 WITH PME6 FLANGE



| CODICE - CODE | MATERIALE - MATERIAL  | TRATTAMENTO SUPERFICIALE<br>SURFACE TREATMENT | A        | PRESSIONE MAX (BAR)<br>MAX PRESSURE (PSI) | PESO APPROX (KG)<br>APPROX WEIGHT (LBT) |
|---------------|-----------------------|-----------------------------------------------|----------|-------------------------------------------|-----------------------------------------|
| 62200023      | Alluminio - Aluminium | Anodizzazione nera - Black anodized           | BSPP 1/4 | 210 (3045)                                | 0,27 (0.60)                             |

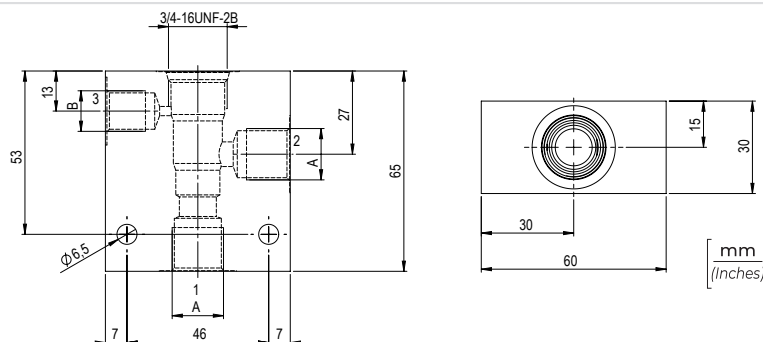
## SAE8/3



[ mm ]  
[ Inches ]

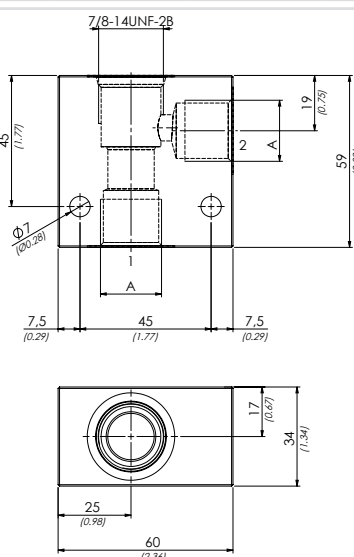
| CODICE - CODE | MATERIALE - MATERIAL  | TRATTAMENTO SUPERFICIALE<br>SURFACE TREATMENT | A        | PRESSIONE MAX (BAR)<br>MAX PRESSURE (PSI) | PESO APPROX (KG)<br>APPROX WEIGHT (LBT) |
|---------------|-----------------------|-----------------------------------------------|----------|-------------------------------------------|-----------------------------------------|
| 62200357      | Alluminio - Aluminium | Anodizzazione nera - Black anodized           | BSPP 1/4 | 210 (3045)                                | 0,28 (0.62)                             |
| 62200358      |                       |                                               | BSPP 3/8 |                                           | 0,27 (0.60)                             |

## SAE8/3 SHORT



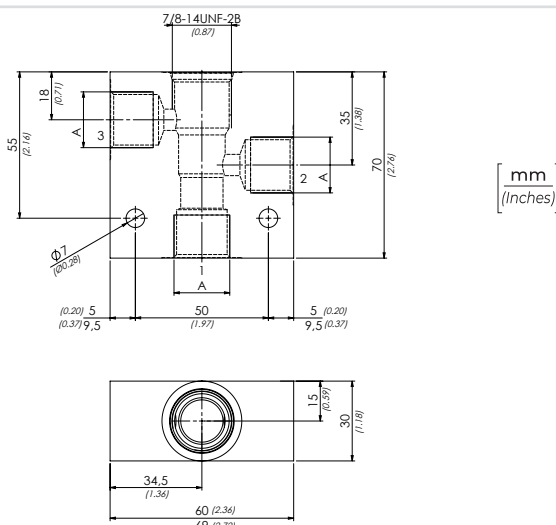
| CODICE - CODE | MATERIALE - MATERIAL  | TRATTAMENTO SUPERFICIALE<br>SURFACE TREATMENT | A        | B        | PRESSIONE MAX (BAR)<br>MAX PRESSURE (PSI) | PESO APPROX (KG)<br>APPROX WEIGHT (LBT) |
|---------------|-----------------------|-----------------------------------------------|----------|----------|-------------------------------------------|-----------------------------------------|
| 3COS08338020  | Alluminio - Aluminium | Anodizzazione nera - Black anodized           | BSPP 3/8 | BSPP 1/4 | 210 (3045)                                | 0,27 (0.60)                             |

## SAE10/2



| CODICE - CODE | MATERIALE - MATERIAL   | TRATTAMENTO SUPERFICIALE<br>SURFACE TREATMENT | A        | PRESSIONE MAX (BAR)<br>MAX PRESSURE (PSI) | PESO APPROX (KG)<br>APPROX WEIGHT (LBT) |
|---------------|------------------------|-----------------------------------------------|----------|-------------------------------------------|-----------------------------------------|
| 62200451      | Acciaio<br>Steel       | Zincatura<br>Zinc-plating                     | BSPP 3/8 | 350 (5075)                                | 0,77 (170)                              |
| 62200452      |                        |                                               | BSPP 1/2 |                                           | 0,73 (1.61)                             |
| 62200367      | Alluminio<br>Aluminium | Anodizzazione nera<br>Black anodized          | BSPP 3/8 | 210 (3045)                                | 0,29 (0.65)                             |
| 62200368      |                        |                                               | BSPP 1/2 |                                           | 0,28 (0.62)                             |

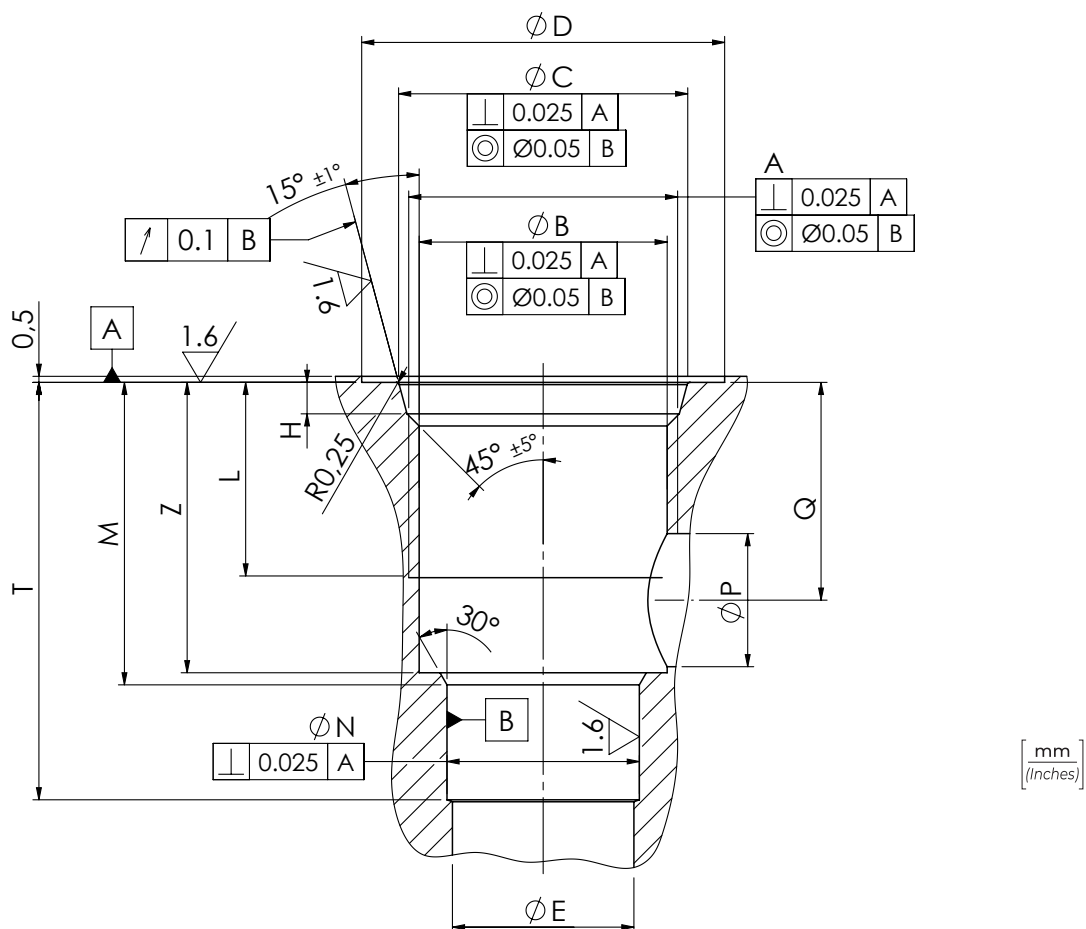
## SAE10/3



| CODICE - CODE | MATERIALE - MATERIAL   | TRATTAMENTO SUPERFICIALE<br>SURFACE TREATMENT | A        | PRESSIONE MAX (BAR)<br>MAX PRESSURE (PSI) | PESO APPROX (KG)<br>APPROX WEIGHT (LBT) |
|---------------|------------------------|-----------------------------------------------|----------|-------------------------------------------|-----------------------------------------|
| 62200373      | Alluminio<br>Aluminium | Anodizzazione<br>nera<br>Black anodized       | BSPP 3/8 | 210 (3045)                                | 0,26 (0.57)                             |
| 62200374      |                        |                                               | BSPP 1/2 |                                           | 0,31 (0.68?)                            |
| 62200023      |                        |                                               | BSPP 1/4 |                                           | 0,30 (0.66)                             |







## DIMENSIONI / DIMENSIONS

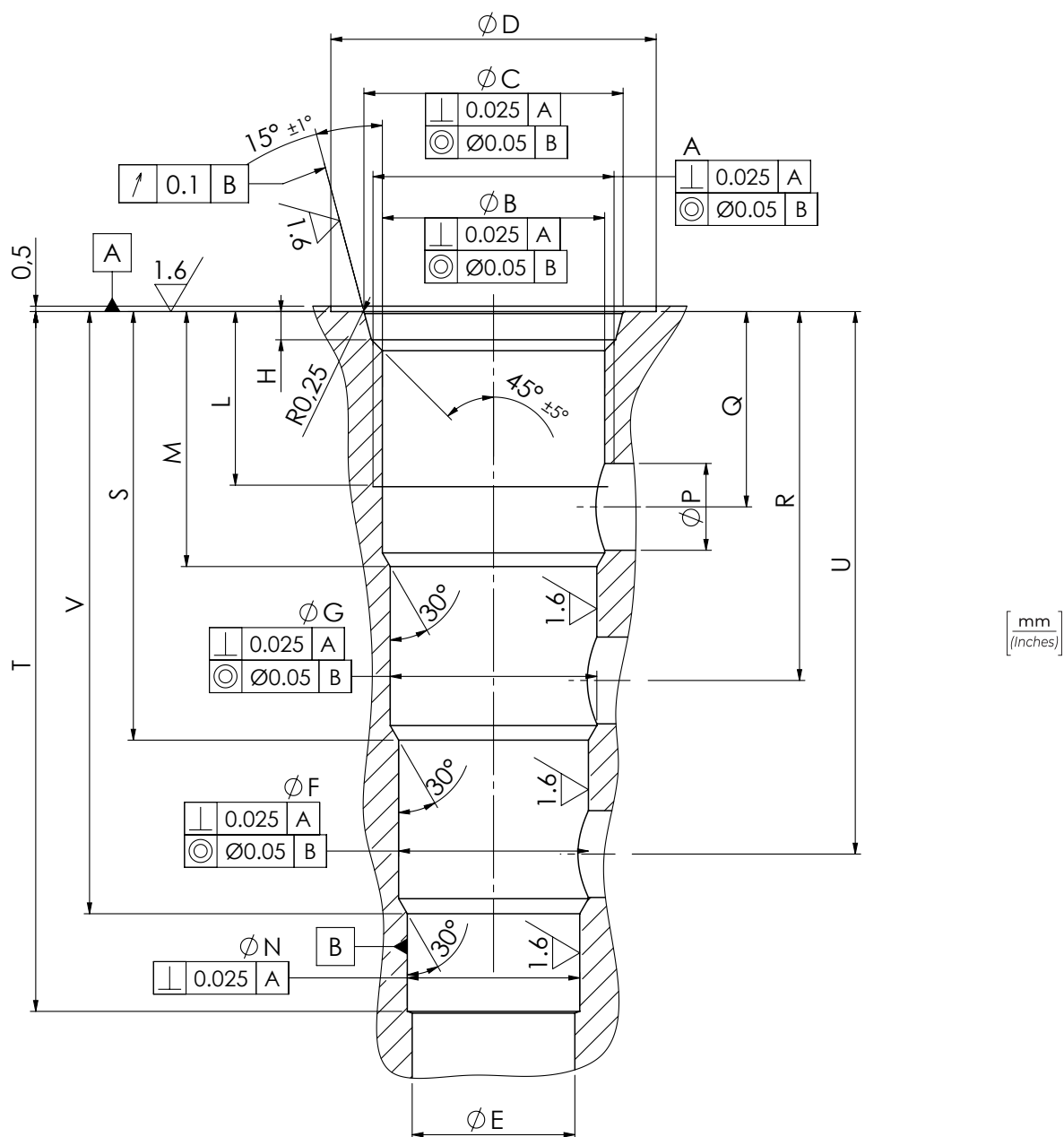
| TIPO<br>TYPE | A               | B<br>0<br>+ 0,1 | C<br>0<br>+ 0,1 | D<br>0<br>+ 0,5 | E<br>Ø max | H<br>0<br>+ 0,3 | L          | M<br>0<br>- 0,2 | N<br>0<br>+ 0,05 | P          | Q          | T<br>0<br>+ 0,5 | Z<br>0<br>+ 0,1 |
|--------------|-----------------|-----------------|-----------------|-----------------|------------|-----------------|------------|-----------------|------------------|------------|------------|-----------------|-----------------|
| SAE08/2      | 3/4-16UNF-2B    | 17,4<br>0.69    | 20,6<br>0.81    | 27<br>1.06      | 12<br>0.47 | 2,6<br>0.10     | 13<br>0.51 | 20,50<br>0.81   | 12,7<br>0.5      | 9<br>0.35  | 14<br>0.55 | 19,5<br>0.77    | 18,5<br>0.73    |
| SAE10/2      | 7/8-14UNF-2B    | 20,5<br>0.81    | 23,9<br>0.94    | 30<br>1.18      | 15<br>0.59 | 2,6<br>0.10     | 16<br>0.63 | 25,5<br>1.00    | 15,9<br>0.63     | 11<br>0.43 | 18<br>0.71 | 34,5<br>1.36    | 24<br>0.94      |
| SAE12/2      | 1-1/16-12UNF-2B | 24,9<br>0.98    | 29,2<br>1.15    | 38<br>1.50      | 19<br>0.75 | 3,3<br>0.13     | 20<br>0.79 | 36,5<br>1.44    | 22,2<br>0.87     | 14<br>0.55 | 26<br>1.02 | 48<br>1.89      | 35,5<br>1.40    |
| SAE16/2      | 1-5/16-12UNF-2B | 31,3<br>1.23    | 35,5<br>1.40    | 45<br>1.77      | 24<br>0.94 | 3,3<br>0.13     | 20<br>0.79 | 36<br>1.42      | 28,6<br>1.13     | 14<br>0.55 | 25<br>0.98 | 49<br>1.93      | 35<br>1.38      |



| TIPO<br>TYPE | A               | B<br>0<br>+ 0,1 | C<br>0<br>+ 0,1 | D<br>0<br>+ 0,5 | E<br>Ø max | F<br>0<br>+ 0,05 | H<br>0<br>+ 0,3 | L          | M<br>0<br>- 0,2 | N<br>0<br>+ 0,05 | P          | Q            | R          | T<br>0<br>+ 0,5 | V<br>± 0,1   |
|--------------|-----------------|-----------------|-----------------|-----------------|------------|------------------|-----------------|------------|-----------------|------------------|------------|--------------|------------|-----------------|--------------|
| SAE08/3      | 3/4-16UNF-2B    | 17,4<br>0.69    | 20,6<br>0.81    | 27<br>1.06      | 12<br>0.47 | 15,9<br>0.63     | 2,6<br>0.10     | 13<br>0.51 | 19,5<br>0.77    | 14,3<br>0.56     | 6<br>0.24  | 15<br>0.59   | 29<br>1.14 | 43<br>1.69      | 33,5<br>1.32 |
| SAE10/3      | 7/8-14UNF-2B    | 20,5<br>0.81    | 23,9<br>0.94    | 30<br>1.18      | 15<br>0.59 | 17,5<br>0.69     | 2,6<br>0.10     | 16<br>0.63 | 23,5<br>0.93    | 15,9<br>0.63     | 8<br>0.31  | 18<br>0.71   | 34<br>1.34 | 48,5<br>1.91    | 39,5<br>1.56 |
| SAE12/3      | 1-1/16-12UNF-2B | 24,9<br>0.98    | 29,2<br>1.15    | 38<br>1.50      | 19<br>0.75 | 23,8<br>0.94     | 3,3<br>0.13     | 20<br>0.79 | 36,5<br>1.44    | 22,2<br>0.87     | 14<br>0.55 | 28<br>1.10   | 53<br>2.09 | 73<br>2.87      | 61,5<br>2.42 |
| SAE16/3      | 1-5/16-12UNF-2B | 31,3<br>1.23    | 35,5<br>1.40    | 45<br>1.77      | 24<br>0.94 | 28,6<br>1.13     | 3,3<br>0.13     | 20<br>0.79 | 35,5<br>1.40    | 27<br>1.06       | 14<br>0.55 | 25,5<br>1,00 | 54<br>2.13 | 75<br>2.95      | 64<br>2.52   |



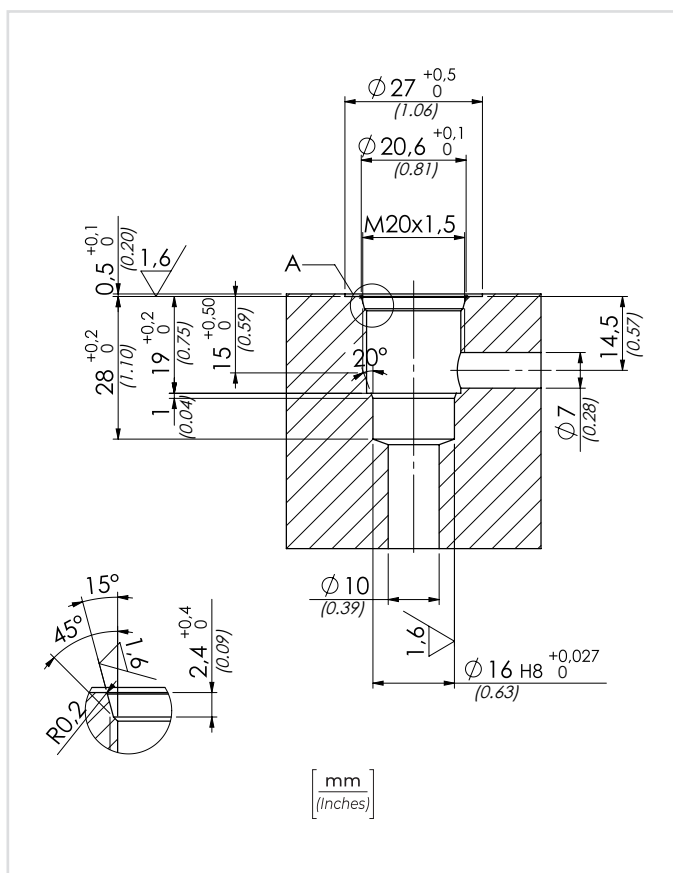




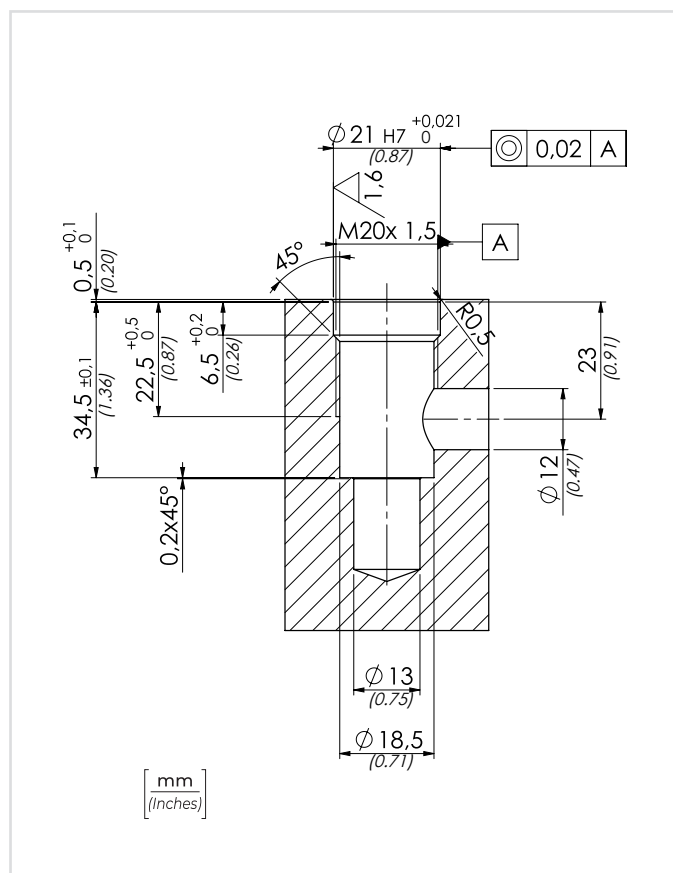
## DIMENSIONI / DIMENSIONS

| TIPO<br>TYPE | A               | B<br>0<br>+ 0,1 | C<br>0<br>+ 0,1 | D<br>0<br>+ 0,5 | E          | F<br>0<br>+ 0,05 | G<br>0<br>+ 0,05 | H<br>0<br>+ 0,3 | L          | M<br>0<br>- 0,2 | N<br>0<br>+ 0,05 | P          | Q          | R            | S<br>± 0,1   | T<br>0<br>+ 0,5 | U          | V<br>± 0,1   |
|--------------|-----------------|-----------------|-----------------|-----------------|------------|------------------|------------------|-----------------|------------|-----------------|------------------|------------|------------|--------------|--------------|-----------------|------------|--------------|
| SAE08/4      | 3/4-16UNF-2B    | 17,4<br>0.69    | 20,6<br>0.81    | 27<br>1.06      | 12<br>0.47 | 14,3<br>0.56     | 15,9<br>0.63     | 2,6<br>0.10     | 13<br>0.51 | 19,5<br>0.77    | 12,7<br>0.50     | 6<br>0.24  | 15<br>0.59 | 29<br>1.14   | 33,5<br>1.32 | 56<br>2.20      | 43<br>1.69 | 47,5<br>1.87 |
| SAE10/4      | 7/8-14UNF-2B    | 20,5<br>0.81    | 23,9<br>0.94    | 30<br>1.18      | 15<br>0.59 | 17,5<br>0.69     | 19,05<br>0.75    | 2,6<br>0.10     | 16<br>0.63 | 23,5<br>0.93    | 15,9<br>0.63     | 8<br>0.31  | 18<br>0.71 | 34<br>1.34   | 39,5<br>1.56 | 64,5<br>2.54    | 50<br>1.97 | 55,5<br>2.19 |
| SAE12/4      | 1-1/16-12UNF-2B | 24,9<br>0.98    | 29,2<br>1.15    | 38<br>1.50      | 19<br>0.75 | 22,2<br>0.87     | 23,8<br>0.94     | 3,3<br>0.13     | 20<br>0.79 | 36,5<br>1.44    | 20,6<br>0.81     | 14<br>0.55 | 28<br>1.1  | 53<br>2.09   | 61,5<br>2.42 | 99<br>3.90      | 78<br>3.07 | 87,5<br>3.44 |
| SAE16/4      | 1-5/16-12UNF-2B | 31,3<br>1.23    | 35,5<br>1.40    | 45<br>1.77      | 24<br>0.94 | 27<br>1.06       | 28,6<br>1.13     | 3,3<br>0.13     | 20<br>0.79 | 35,5<br>1.40    | 25,4<br>1.00     | 16<br>0.63 | 25<br>0.98 | 53,5<br>2.11 | 64<br>2.52   | 92,5<br>3.64    | 82<br>3.23 | 92,5<br>3.64 |

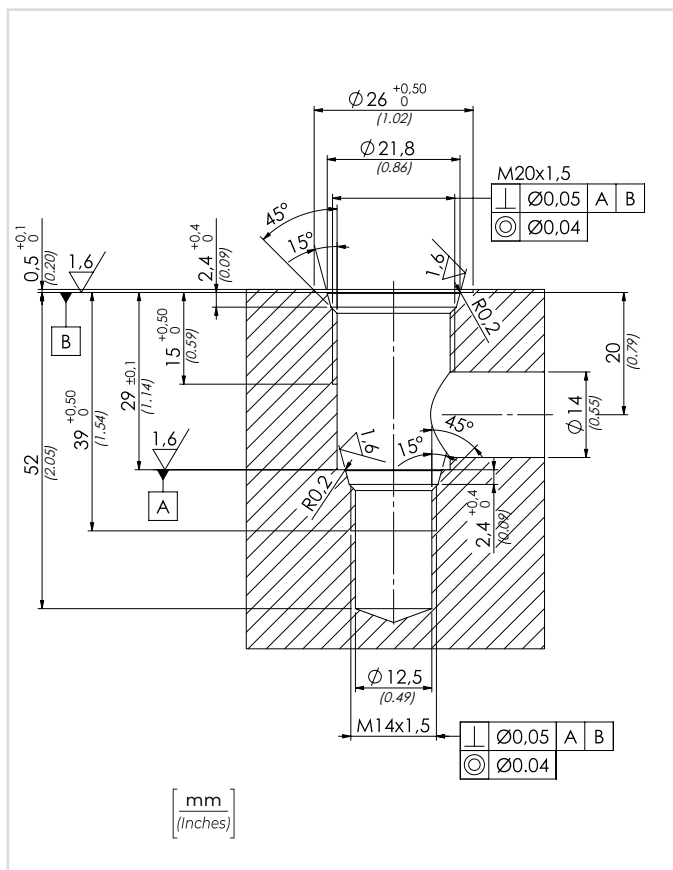
### C2015/2



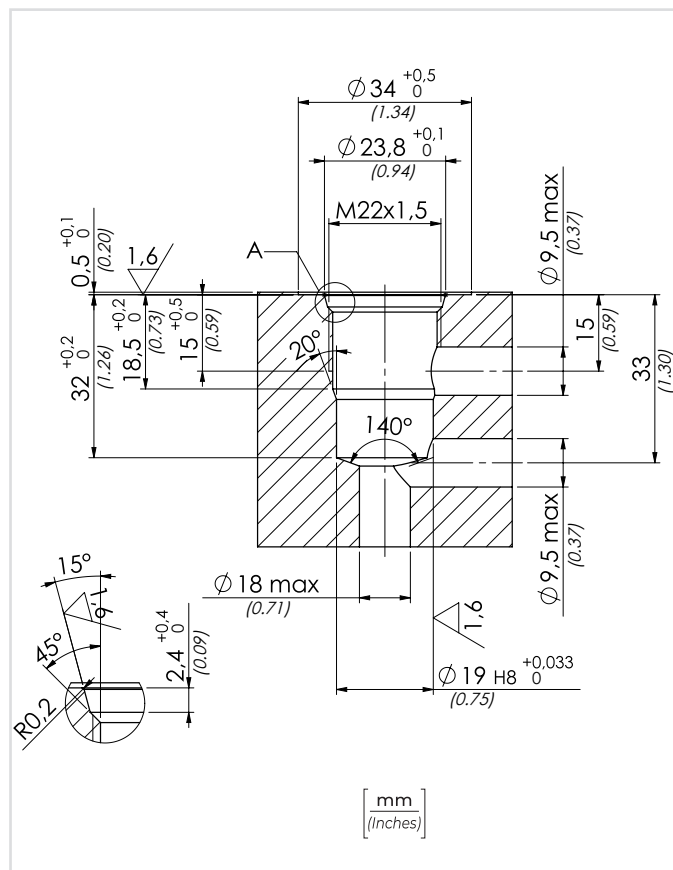
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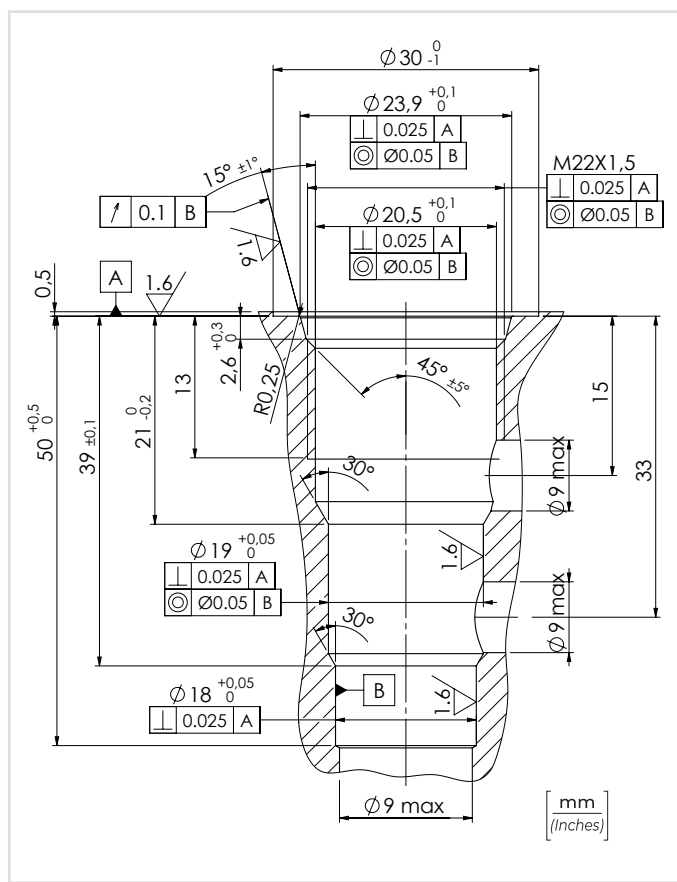
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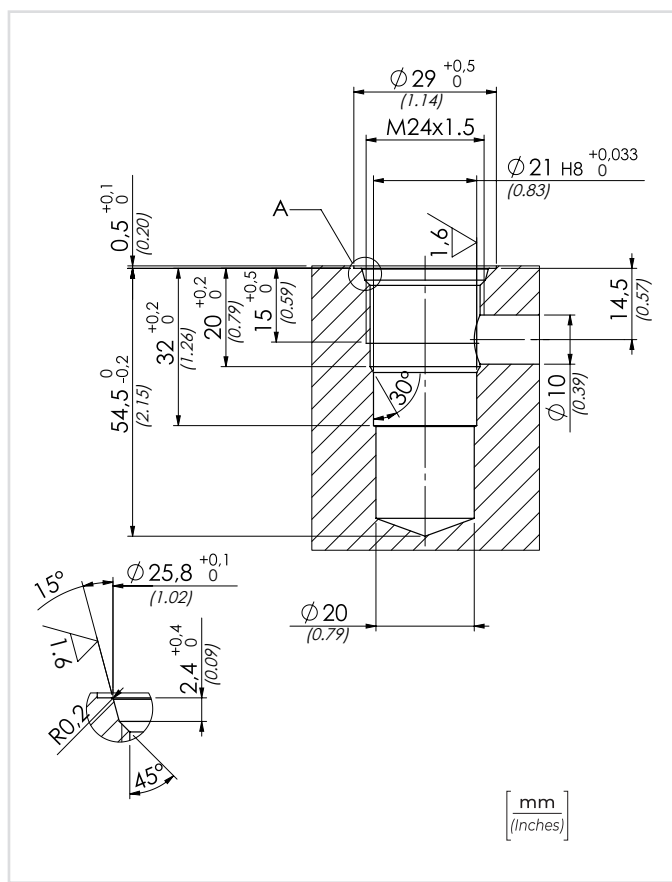
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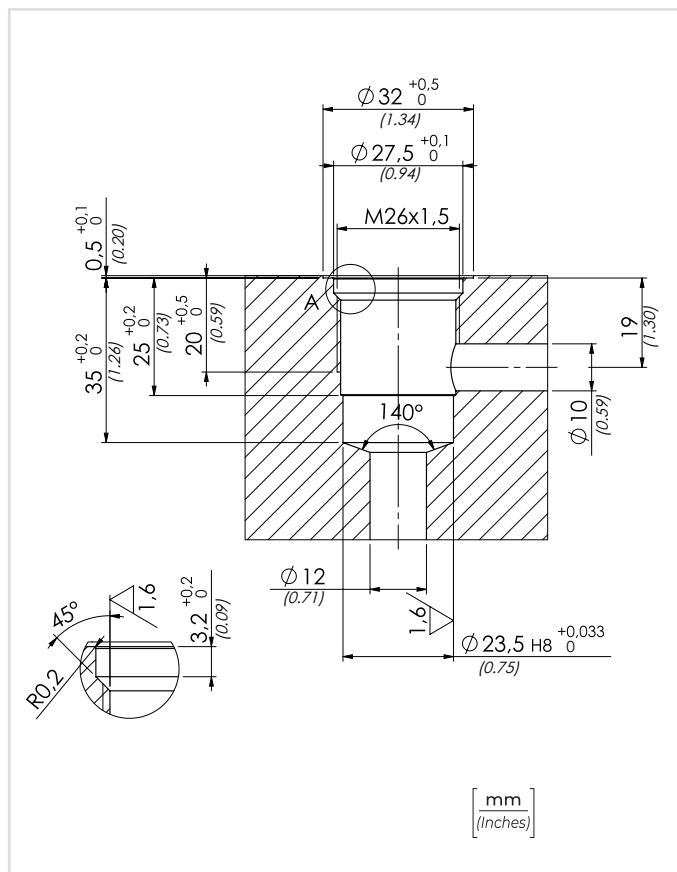
## C2215/3



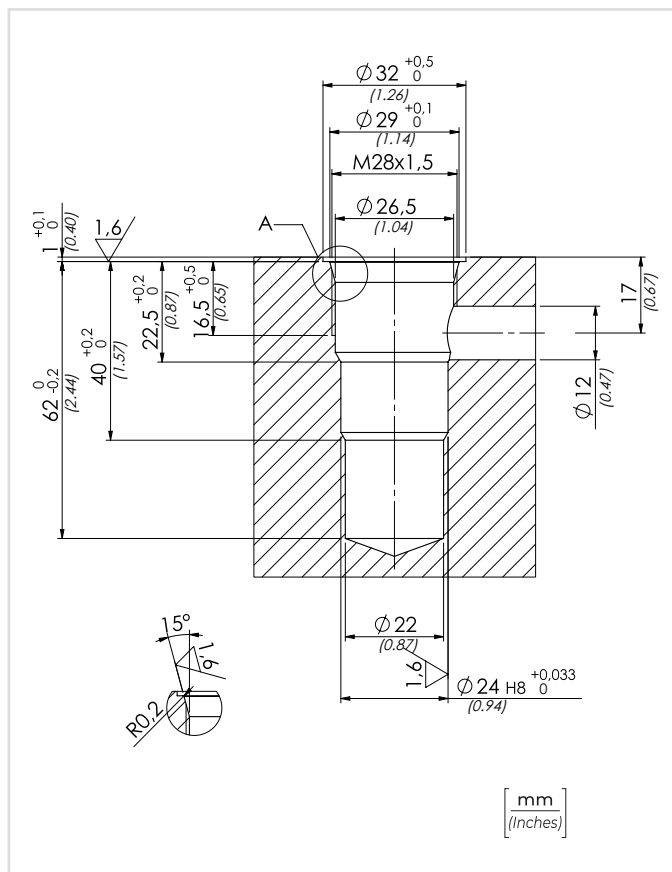
## C2415/2



## C2615/2



## C2815/2



## notes

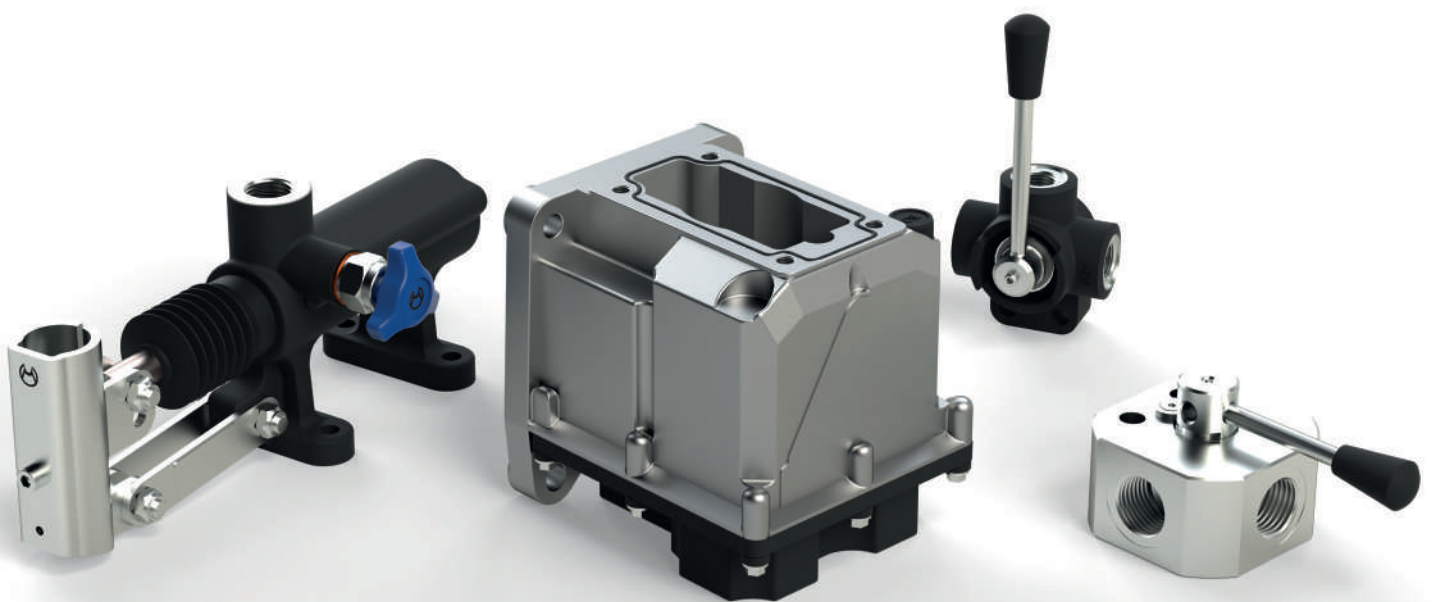
## notes

# POMPE E DEVIATORI

## HAND PUMPS AND FLOW DIVERTERS

Pompe oleodinamiche a mano in diversi layout e cilindrata, serbatoi in acciaio e alluminio, deviatori di flusso a 3 vie, a 4 vie, a 6 vie e a 8 vie.

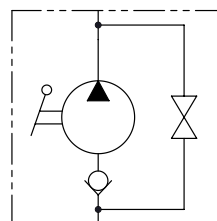
Hand pump with many layout and displacement, aluminium or steel tanks, flow diverters 3, 4, 6 and 8 ways.



**CODICE ORDINAZIONE**  
ORDERING CODE

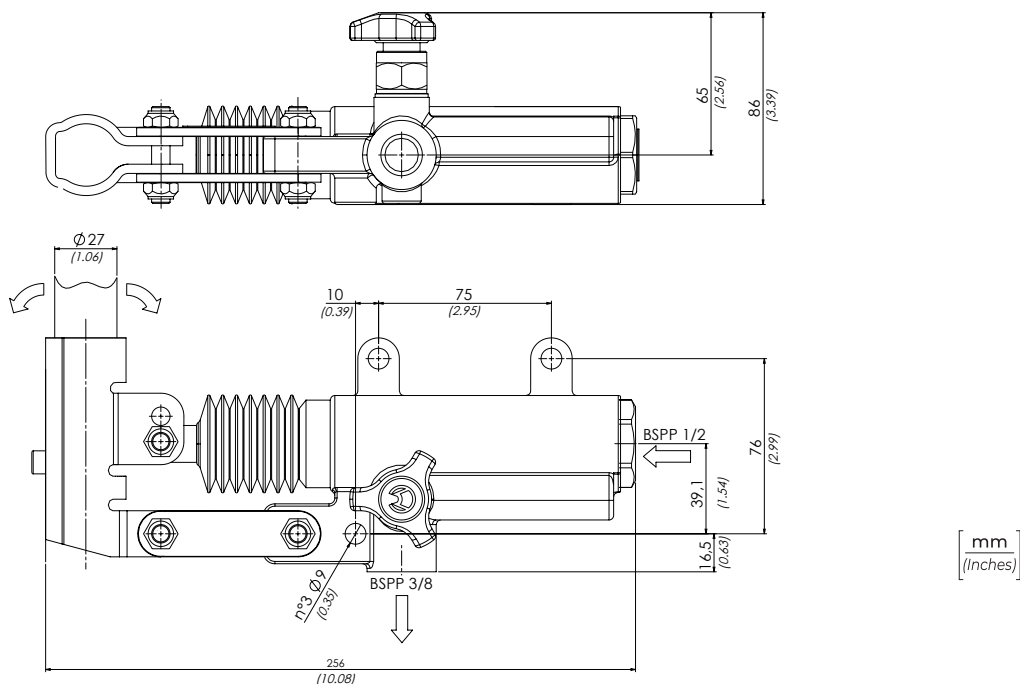
| 01          | 02 | 03 |
|-------------|----|----|
| <b>PM20</b> |    |    |

| 01 | POMPA A MANO SEMPLICE EFFETTO<br>DOUBLE PUMPING HAND PUMP FOR SINGLE ACTING CYLINDER |                                                                                                 | PM20       |
|----|--------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------|
| 02 | OPTIONAL                                                                             | Senza soffiello - Without rubber protection                                                     |            |
|    |                                                                                      | Con soffiello - With rubber protection                                                          | <b>P</b>   |
| 03 | OPTIONAL                                                                             | Senza rubinetto di scarico con valvola di massima<br>Without unloading valve With relief valves | <b>WRV</b> |
|    |                                                                                      | Senza rubinetto di scarico - Without unloading valve                                            | <b>W</b>   |
|    |                                                                                      | Con joystick - With joystick                                                                    | <b>J</b>   |
|    |                                                                                      | Con leva di scarico Ø 27 mm<br>With unloading lever Ø 1.06 inch                                 | <b>L</b>   |
|    |                                                                                      | Con rubinetto di scarico e valvola di massima<br>With drain valve and relief valve              | <b>RRV</b> |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

LA POMPA VIENE FORNITA CON LEVA DI AZIONAMENTO L=600 mm

THE PUMP IS SUPPLIED WITH ACTING LEVER 23,6 inch LONG

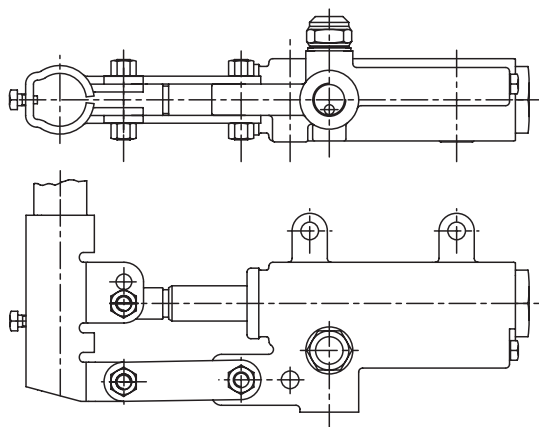
**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                            |                               |             |  |
|----------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------|--|
| Olio idraulico - Mineral oil                                                                                               | ISO 6743/4 (DIN 51524)        |             |  |
| Viscosità olio - Oil viscosity                                                                                             | 15-250 mm²/s (15 to 250 cSt)  |             |  |
| Classe di contaminazione max<br>Max contamination index                                                                    | ISO 4406:1999 Classe 19/17/14 |             |  |
| Temperatura dell'olio - Oil temperature                                                                                    | -20°C +80°C                   | -4°F +176°F |  |
| Temperatura ambiente - Environment temperature                                                                             | -20°C +50°C                   | -4°F +122°F |  |
| È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm) |                               |             |  |
| A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)                              |                               |             |  |

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

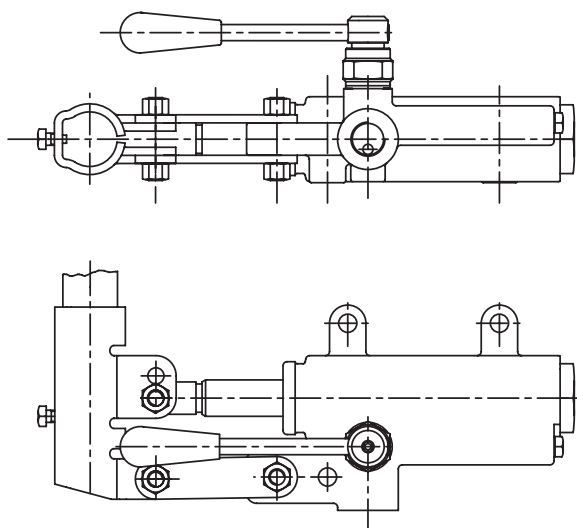
| TIPO<br>TYPE | CILINDRATA (cm³)<br>DISPLACEMENT (in³) | PRESSIONE OTTIMALE<br>OPTIMAL PRESSURE<br>bar-PSI | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|----------------------------------------|---------------------------------------------------|------------------------------------------|----------------------------------------|
| PM20         | 20 (1.22)                              | 150 (2175)                                        | 350 (5075)                               | 3,4 (7.5)                              |

## WRV

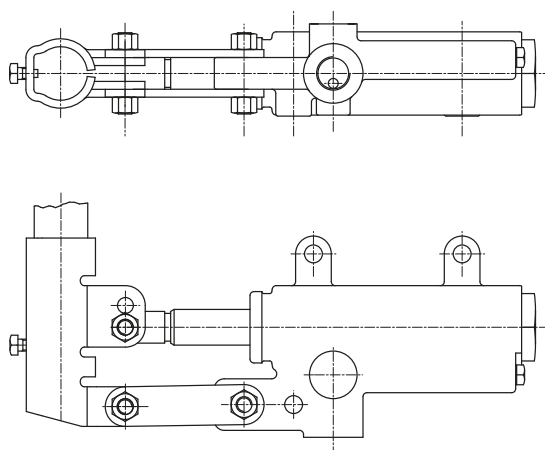


**Valvola di massima**      **Molla 40/350 bar**      **Taratura Standard 100 bar**  
Relief valve              Spring 580/5075 PSI      Standard Setting 1500 PSI

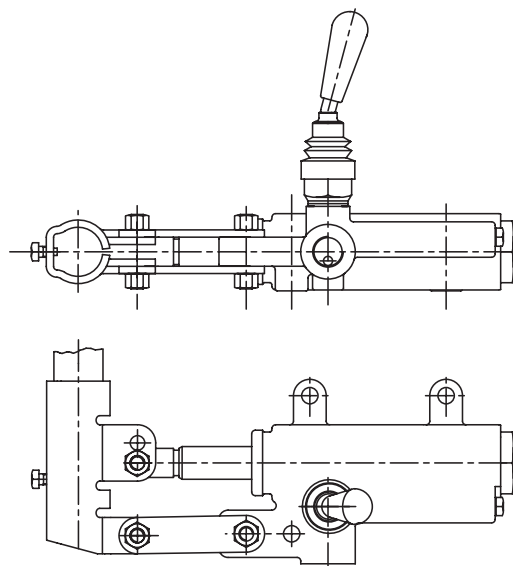
## L



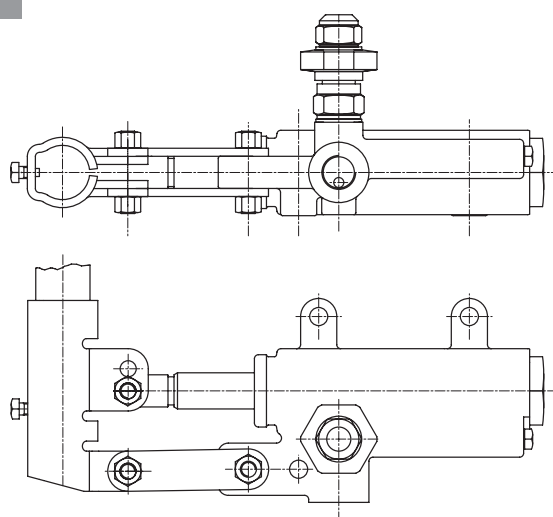
## W



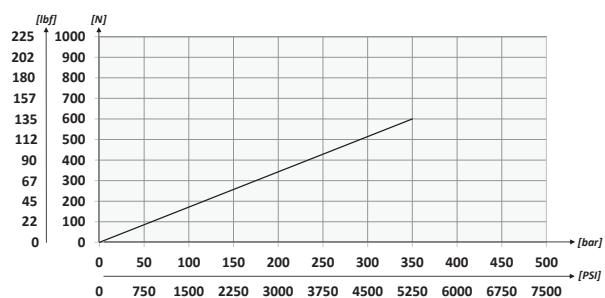
## J



## RRV



### **SFORZO ESERCITATO ALL'ESTREMITÀ DELLA LEVA** **EFFORT OPERATING AT THE END OF THE LEVER**





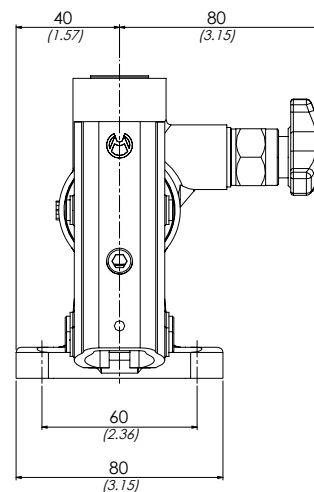
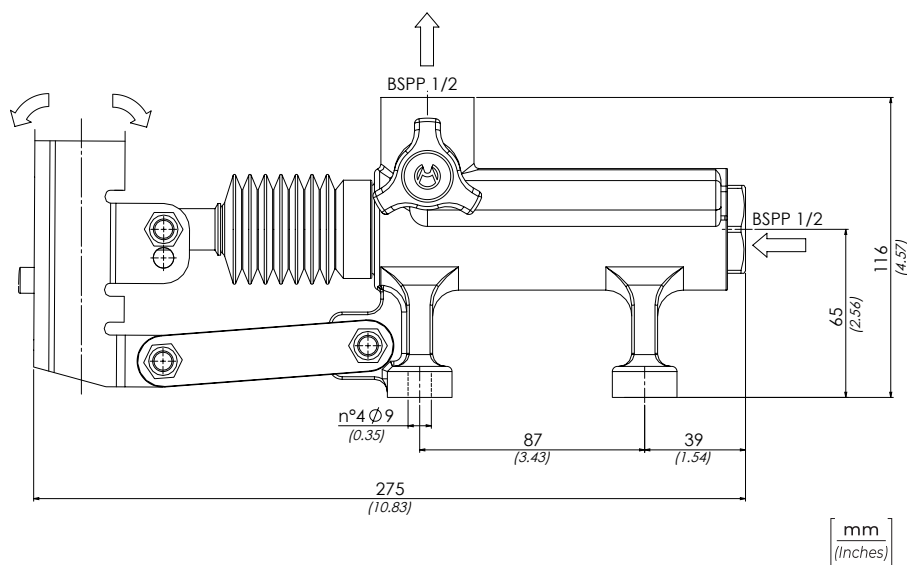
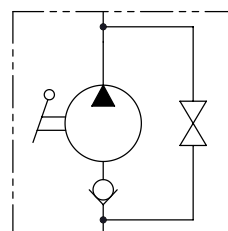
**CODICE ORDINAZIONE**  
ORDERING CODE

| 01          | 02 | 03 |
|-------------|----|----|
| <b>PM50</b> |    |    |

| 01 | POMPA A MANO DOPPIO POMPAGGIO PER CILINDRO A SEMPLICE EFFETTO<br>DOUBLE PUMPING FOR SINGLE ACTING CYLINDER |                                                                                                 | PM50       |
|----|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------|
| 02 | OPTIONAL                                                                                                   | Senza soffietto<br>Without rubber protection                                                    |            |
|    |                                                                                                            | Con soffietto<br>With rubber protection                                                         | <b>P</b>   |
| 03 | OPTIONAL                                                                                                   | Senza rubinetto di scarico con valvola di massima<br>Without unloading valve With relief valves | <b>WRV</b> |
|    |                                                                                                            | Senza rubinetto di scarico<br>Without unloading valve                                           | <b>W</b>   |
|    |                                                                                                            | Con joystick<br>With joystick                                                                   | <b>J</b>   |
|    |                                                                                                            | Con leva di scarico Ø 27 mm<br>With unloading lever Ø 1.06 inch                                 | <b>L</b>   |
|    |                                                                                                            | Con rubinetto di scarico e valvola di massima<br>With drain valve and relief valve              | <b>RRV</b> |

LA POMPA VIENE FORNITA CON LEVA DI AZIONAMENTO L=600 mm  
THE PUMP IS SUPPLIED WITH ACTING LEVER 23,6 inch LONG

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



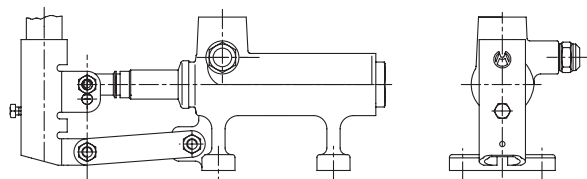
**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                                                             |                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                                                                | ISO 6743/4 (DIN 51524)        |
| Viscosità olio - Oil viscosity                                                                                                                                                                                              | 15-250 mm²/s (15 to 250 cSt)  |
| Classe di contaminazione max<br>Max contamination index                                                                                                                                                                     | ISO 4406:1999 Classe 19/17/14 |
| Temperatura dell'olio - Oil temperature                                                                                                                                                                                     | -20°C +80°C -4°F +176°F       |
| Temperatura ambiente - Environment temperature                                                                                                                                                                              | -20°C +50°C -4°F +122°F       |
| È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)<br>A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm) |                               |

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

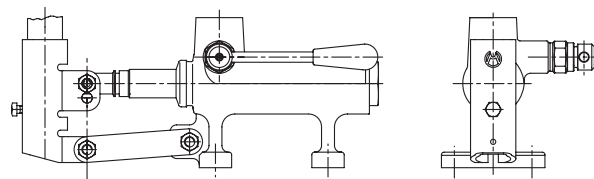
| TIPO<br>TYPE | CILINDRATA (cm³)<br>DISPLACEMENT (in³) | PRESSIONE OTTIMALE<br>OPTIMAL PRESSURE<br>bar-PSI | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|----------------------------------------|---------------------------------------------------|------------------------------------------|----------------------------------------|
| PM50         | 50 (3.05)                              | 80 (1160)                                         | 280 (4060)                               | 4,2 (9.25)                             |

## WRV

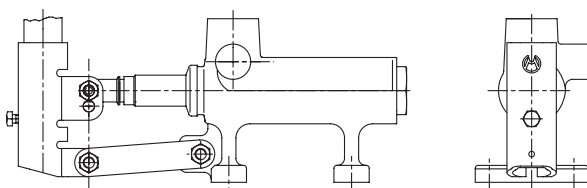


**Valvola di massima**      **Molla 40/350 bar**      **Taratura Standard 100 bar**  
Relief valve              Spring 580/5075 PSI      Standard Setting 1450 PSI

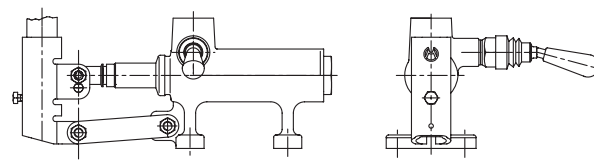
## L



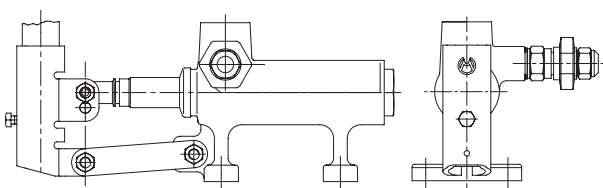
## W



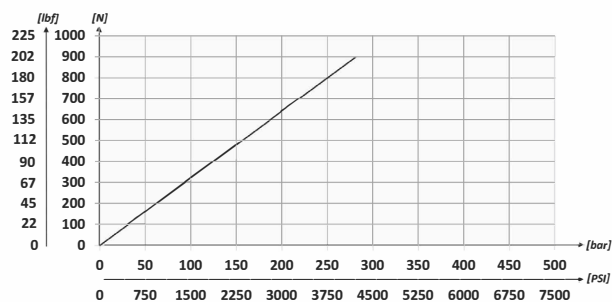
## J



## RRV



### **SFORZO ESERCITATO ALL'ESTREMITÀ DELLA LEVA** **EFFORT OPERATING AT THE END OF THE LEVER**



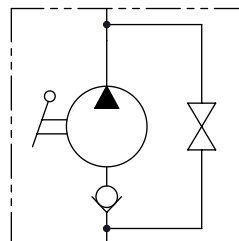


**CODICE ORDINAZIONE**  
ORDERING CODE

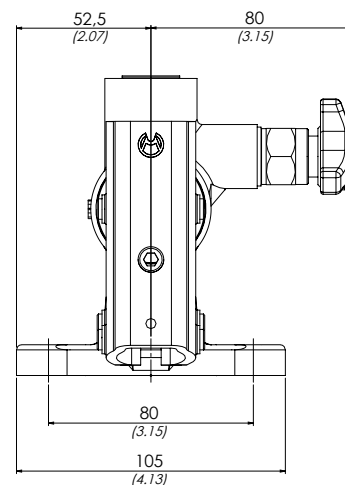
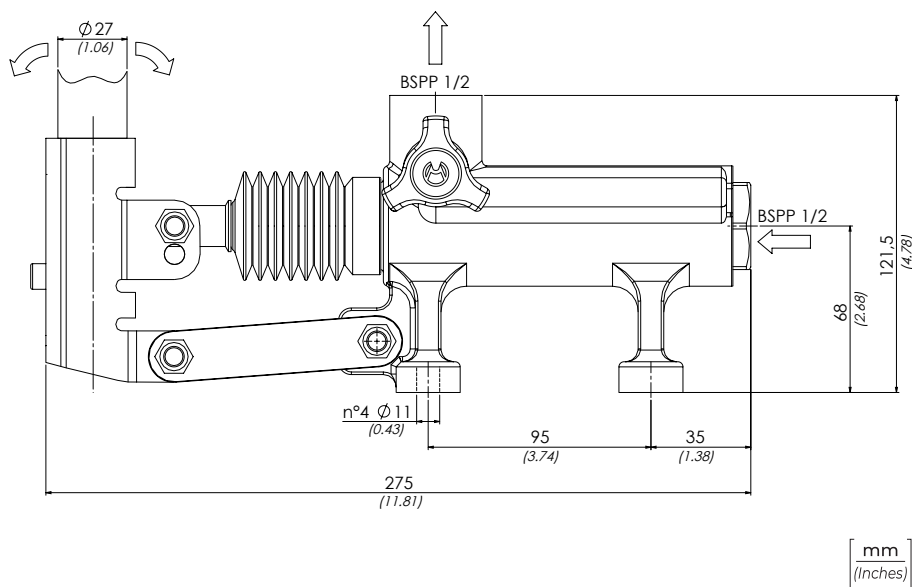
| 01          | 02 | 03 |
|-------------|----|----|
| <b>PM70</b> |    |    |

| 01 | POMPA A MANO DOPPIO POMPAGGIO PER CILINDRO A SEMPLICE EFFETTO<br>DOUBLE PUMPING HAND PUMPFOR SINGLE ACTING CYLINDER |                                                                                                 | PM70       |
|----|---------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------|
| 02 | OPTIONAL                                                                                                            | Senza soffietto - Without rubber protection                                                     |            |
|    |                                                                                                                     | Con soffietto - With rubber protection                                                          | <b>P</b>   |
| 03 | OPTIONAL                                                                                                            | Senza rubinetto di scarico con valvola di massima<br>Without unloading valve With relief valves | <b>WRV</b> |
|    |                                                                                                                     | Senza rubinetto di scarico - Without unloading valve                                            | <b>W</b>   |
|    |                                                                                                                     | Con joystick - With joystick                                                                    | <b>J</b>   |
|    |                                                                                                                     | Con leva di scarico Ø 27 mm<br>With unloading lever Ø 1.06 inch                                 | <b>L</b>   |
|    |                                                                                                                     | Con rubinetto di scarico e valvola di massima<br>With drain valve and relief valve              | <b>RRV</b> |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



LA POMPA VIENE FORNITA CON LEVA DI AZIONAMENTO L=600 mm  
THE PUMP IS SUPPLIED WITH ACTING LEVER 23,6 inch LONG



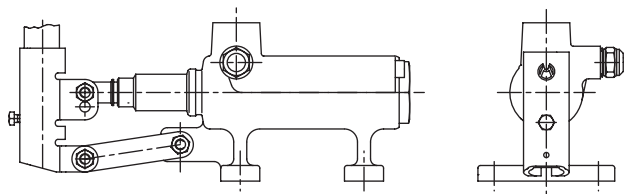
**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                                                             |                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                                                                | ISO 6743/4 (DIN 51524)        |
| Viscosità olio - Oil viscosity                                                                                                                                                                                              | 15-250 mm²/s (15 to 250 cSt)  |
| Classe di contaminazione max<br>Max contamination index                                                                                                                                                                     | ISO 4406:1999 Classe 19/17/14 |
| Temperatura dell'olio - Oil temperature                                                                                                                                                                                     | -20°C +80°C -4°F +176°F       |
| Temperatura ambiente - Environment temperature                                                                                                                                                                              | -20°C +50°C -4°F +122°F       |
| È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)<br>A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm) |                               |

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

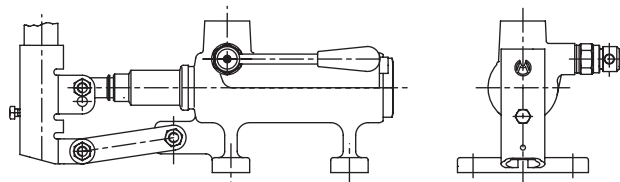
| TIPO<br>TYPE | CILINDRATA (cm³)<br>DISPLACEMENT (in³) | PRESSIONE OTTIMALE<br>OPTIMAL PRESSURE<br>bar-PSI | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|----------------------------------------|---------------------------------------------------|------------------------------------------|----------------------------------------|
| PM70         | 70 (4.27)                              | 50 (725)                                          | 200 (2900)                               | 5,6 (12.34)                            |

## WRV

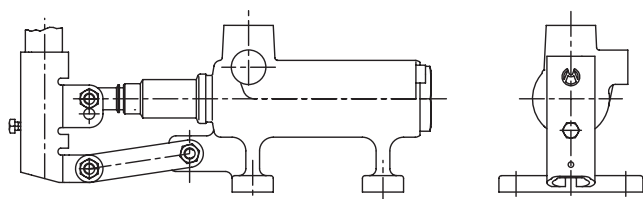


**Valvola di massima**      **Molla 40/350 bar**      **Taratura Standard 100 bar**  
Relief valve      Spring 580/5075 PSI      Standard Setting 1450 PSI

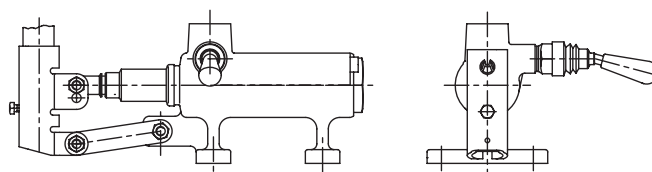
## L



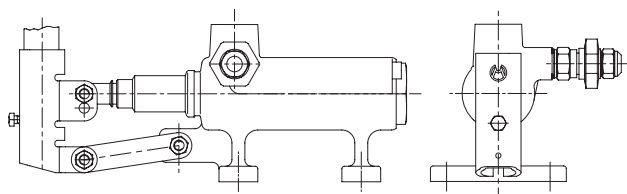
## W



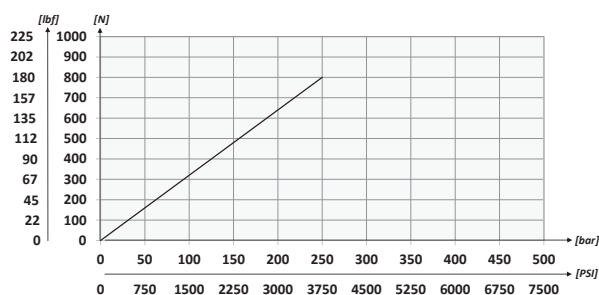
## J



## RRV



### **SFORZO ESERCITATO ALL'ESTREMITÀ DELLA LEVA** **EFFORT OPERATING AT THE END OF THE LEVER**

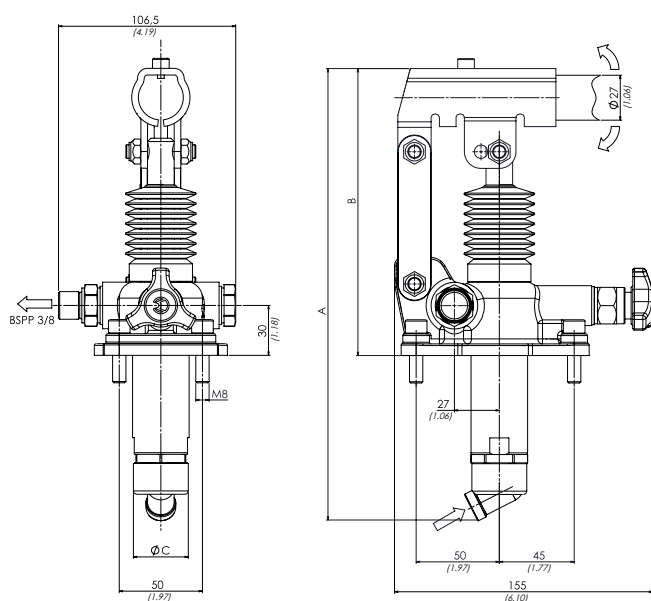
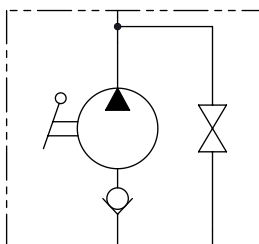




LA POMPA VIENE FORNITA CON GUARNIZIONE SAGOMATA  
+ VITI DI FISSAGGIO + LEVA DI AZIONAMENTO L=600 mm

THE PUMP IS SUPPLIED WITH SHAPED SEAL, FIXING SCREWS  
AND ACTING LEVER 23.6 inch LONG

#### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



[ mm ]  
[ inches ]

#### CODICE ORDINAZIONE ORDERING CODE

| 01         | 02 | 03 | 04 |
|------------|----|----|----|
| <b>PMS</b> |    |    |    |

|    |                                                                                                                      |                                                                                                 |               |              |     |
|----|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------------|--------------|-----|
| 01 | POMPA A MANO DOPPIO POMPAGGIO PER CILINDRO A SEMPLICE EFFETTO<br>DOUBLE PUMPING HAND PUMP FOR SINGLE ACTING CYLINDER |                                                                                                 |               |              | PMS |
| 02 | CILINDRATA<br>DISPLACEMENT                                                                                           | mm - inch                                                                                       |               |              |     |
|    |                                                                                                                      | A                                                                                               | B             | C            |     |
|    | 6 cm <sup>3</sup><br>(0.37 in <sup>3</sup> )                                                                         | 253<br>(9.96)                                                                                   | 166<br>(6.54) | 34<br>(1.34) | 6   |
|    | 12 cm <sup>3</sup><br>(0.73 in <sup>3</sup> )                                                                        | 253<br>(9.96)                                                                                   | 166<br>(6.54) | 34<br>(1.34) | 12  |
|    | 25 cm <sup>3</sup><br>(1.53 in <sup>3</sup> )                                                                        | 273<br>(10.75)                                                                                  | 172<br>(6.77) | 34<br>(1.34) | 25  |
|    | 45 cm <sup>3</sup><br>(2.75 in <sup>3</sup> )                                                                        | 283<br>(11.14)                                                                                  | 172<br>(6.77) | 40<br>(1.57) | 45  |
| 03 | OPTIONAL                                                                                                             | Senza soffietto - Without rubber protection                                                     |               |              |     |
|    |                                                                                                                      | Con soffietto - With rubber protection                                                          |               |              | P   |
| 04 | OPTIONAL                                                                                                             | Senza rubinetto di scarico con valvola di massima<br>Without unloading valve With relief valves |               |              | WRV |
|    |                                                                                                                      | Senza rubinetto di scarico<br>Without unloading valve                                           |               |              | W   |
|    |                                                                                                                      | Con joystick<br>With joystick                                                                   |               |              | J   |
|    |                                                                                                                      | Con leva di scarico Ø 27 mm<br>With unloading lever Ø 1.06 inch                                 |               |              | L   |
|    |                                                                                                                      | Con valvola di massima pressione<br>With relief valves                                          |               |              | RV  |
|    |                                                                                                                      | Con joystick e valvola di massima pressione<br>With joystick and relief valve                   |               |              | JRV |
|    |                                                                                                                      | Con leva di scarico e valvola di massima pressione<br>With unloading lever and relief valves    |               |              | LRV |

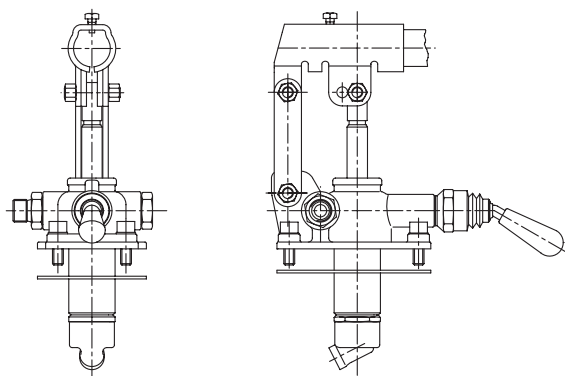
#### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | PRESSIONE OTTIMALE<br>OPTIMAL PRESSURE<br>bar-PSI | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|---------------------------------------------------|------------------------------------------|----------------------------------------|
| <b>PMS6</b>  | <b>420</b> (6090)                                 | <b>500</b> (7250)                        | <b>3,7</b> (8.15)                      |
| <b>PMS12</b> | <b>220</b> (3190)                                 | <b>380</b> (5510)                        |                                        |
| <b>PMS25</b> | <b>120</b> (1740)                                 | <b>350</b> (5075)                        |                                        |
| <b>PMS45</b> | <b>80</b> (1160)                                  | <b>280</b> (4060)                        |                                        |

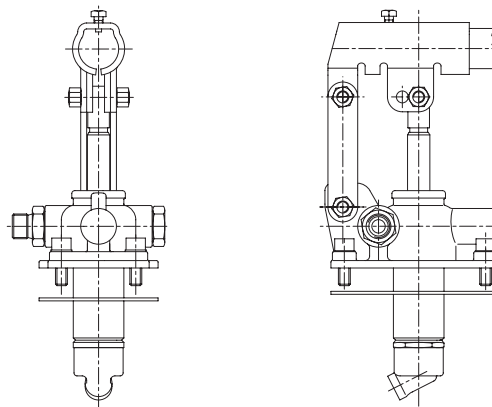
#### DATI TECNICI / TECHNICAL DATA

|                                                                                                                            |                                           |
|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                               | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                             | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                    | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                    | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                             | -20°C +50°C -4°F +122°F                   |
| È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm) |                                           |
| A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)                              |                                           |

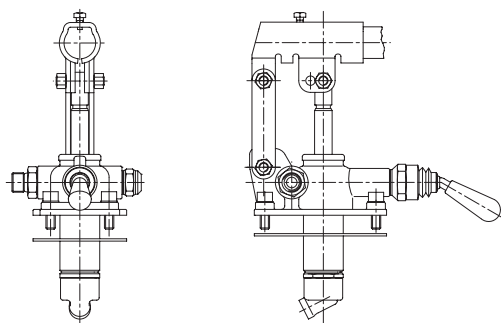
J



W

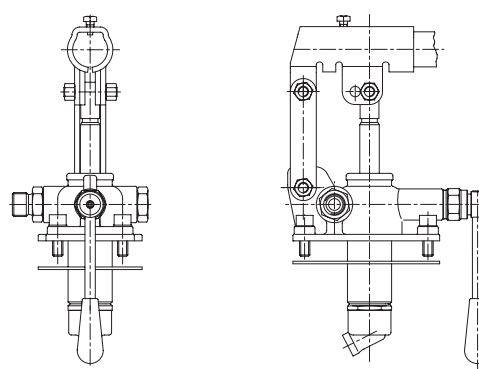


JRV

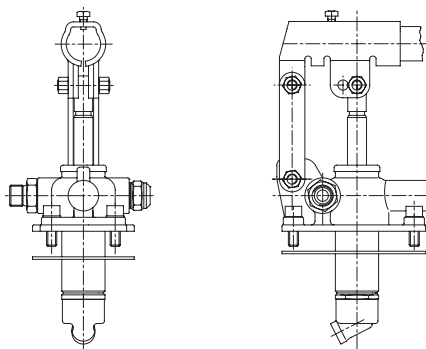


**Valvola di massima** **Molla 40/350 bar** **Taratura Standard 100 bar**  
Relief valve Spring 580/5075 PSI Standard Setting 1450 PSI

L

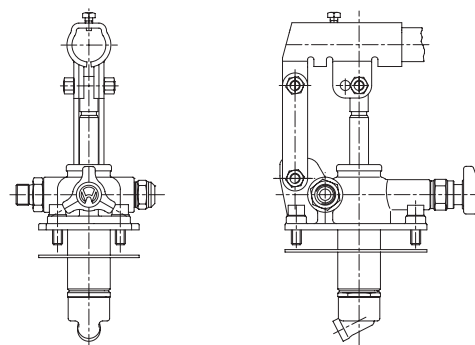


WRV



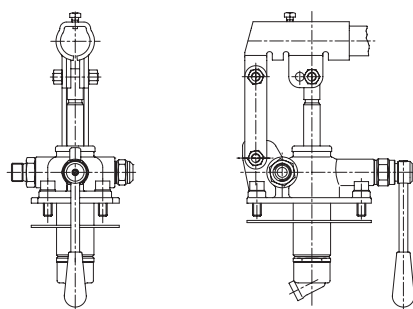
**Valvola di massima** **Molla 40/350 bar** **Taratura Standard 100 bar**  
Relief valve Spring 580/5075 PSI Standard Setting 1450 PSI

RV



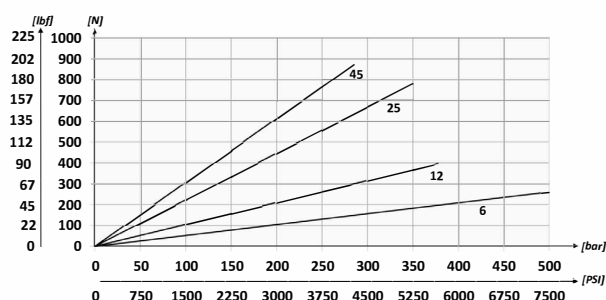
**Valvola di massima** **Molla 40/350 bar** **Taratura Standard 100 bar**  
Relief valve Spring 580/5075 PSI Standard Setting 1450 PSI

LRV



**Valvola di massima** **Molla 40/350 bar** **Taratura Standard 100 bar**  
Relief valve Spring 580/5075 PSI Standard Setting 1450 PSI

**SFORZO ESERCITATO ALL'ESTREMITÀ DELLA LEVA**  
EFFORT OPERATING AT THE END OF THE LEVER





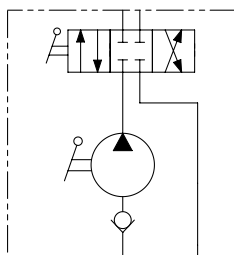
**CODICE ORDINAZIONE**  
ORDERING CODE

| 01         | 02 | 03 | 04 |
|------------|----|----|----|
| <b>PMI</b> |    |    |    |

| 01 | POMPA A MANO DOPPIO POMPAGGIO<br>PER CILINDRO A DOPPIO EFFETTO - CENTRO CHIUSO<br>DOUBLE PUMPING HAND PUMP<br>FOR DOUBLE ACTING CYLINDER - CLOSED CENTER |                                                                                              |            |           | PMI |
|----|----------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|------------|-----------|-----|
| 02 | CILINDRATA<br>DISPLACEMENT                                                                                                                               | mm - inch                                                                                    |            |           |     |
|    |                                                                                                                                                          | A                                                                                            | B          | C         |     |
|    | 6 cm <sup>3</sup> (0.37 in <sup>3</sup> )                                                                                                                | 253 (9.96)                                                                                   | 166 (6.54) | 34 (1.34) | 6   |
|    | 12 cm <sup>3</sup> (0.73 in <sup>3</sup> )                                                                                                               | 253 (9.96)                                                                                   | 166 (6.54) | 34 (1.34) | 12  |
|    | 25 cm <sup>3</sup> (1.53 in <sup>3</sup> )                                                                                                               | 273 (10.75)                                                                                  | 172 (6.77) | 34 (1.34) | 25  |
| 03 | OPTIONAL                                                                                                                                                 | Senza soffietto - Without rubber protection                                                  |            |           |     |
|    |                                                                                                                                                          | Con soffietto - With rubber protection                                                       |            |           | P   |
| 04 | OPTIONAL                                                                                                                                                 | Con leva di scarico Ø 27 mm<br>With unloading lever Ø 1.06 inch                              |            |           | L   |
|    |                                                                                                                                                          | Con valvola di massima pressione<br>With relief valves                                       |            |           | RV  |
|    |                                                                                                                                                          | Con leva di scarico e valvola di massima pressione<br>With unloading lever and relief valves |            |           | LRV |

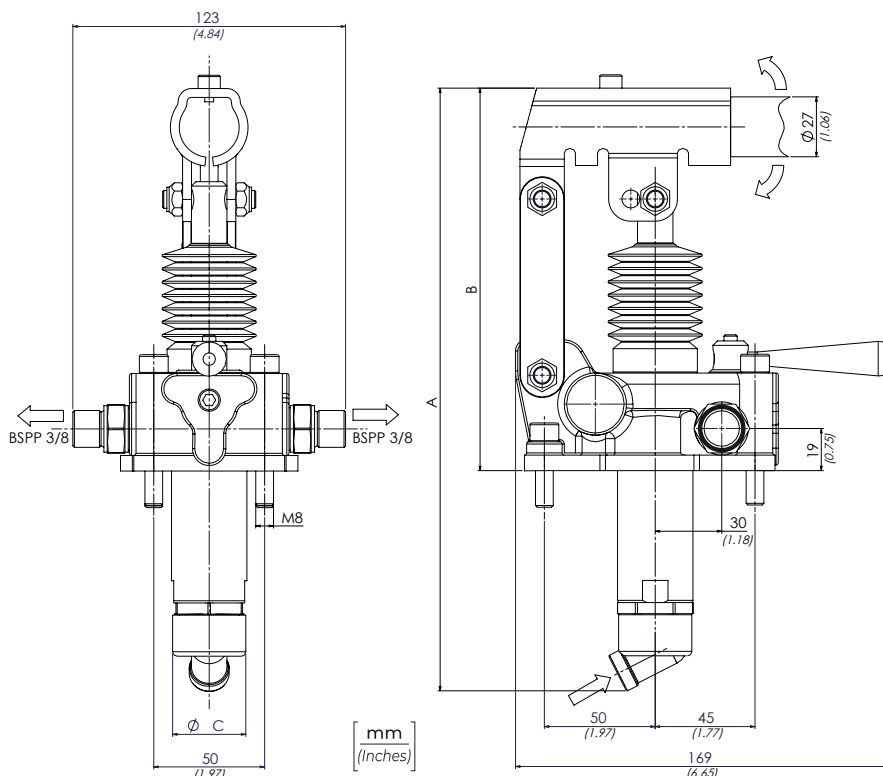
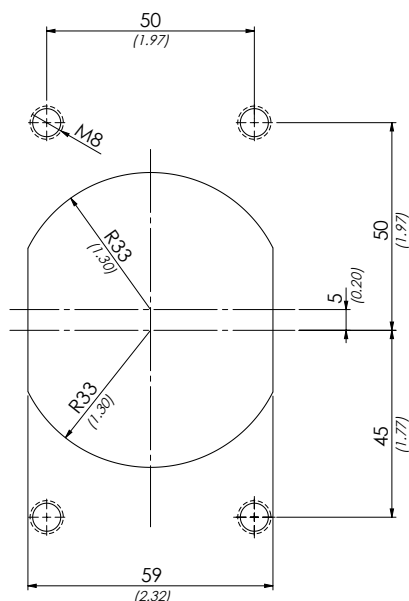
**LA POMPA VIENE FORNITA CON GUARNIZIONE SAGOMATA  
+ VITI DI FISSAGGIO + LEVA DI AZIONAMENTO L=600 mm**  
**THE PUMP IS SUPPLIED WITH SHAPED SEAL, FIXING SCREWS  
AND ACTING LEVER 23.6 inch LONG**

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

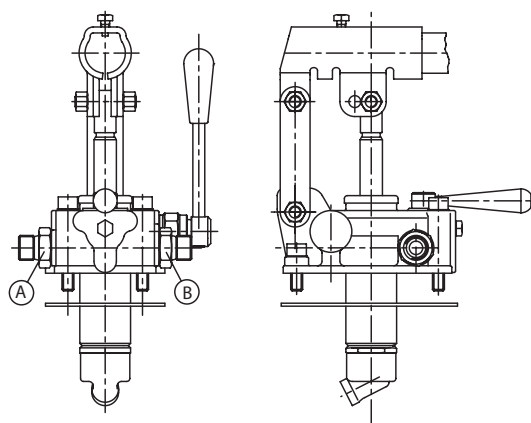


**DATI TECNICI / TECHNICAL DATA**

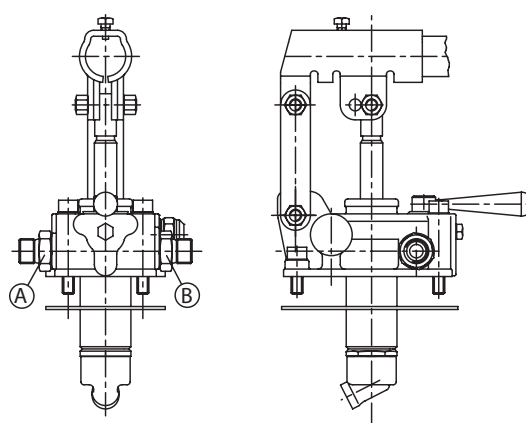
|                                                                                                                                   |                                                |
|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| <b>Olio idraulico - Mineral oil</b>                                                                                               | <b>ISO 6743/4 (DIN 51524)</b>                  |
| <b>Viscosità olio - Oil viscosity</b>                                                                                             | <b>15-250 mm<sup>2</sup>/s (15 to 250 cSt)</b> |
| <b>Classe di contaminazione max<br/>Max contamination index</b>                                                                   | <b>ISO 4406:1999 Classe 19/17/14</b>           |
| <b>Temperatura dell'olio - Oil temperature</b>                                                                                    | <b>-20°C +80°C -4°F +176°F</b>                 |
| <b>Temperatura ambiente - Environment temperature</b>                                                                             | <b>-20°C +50°C -4°F +122°F</b>                 |
| <b>È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)</b> |                                                |
| <b>A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)</b>                              |                                                |



L

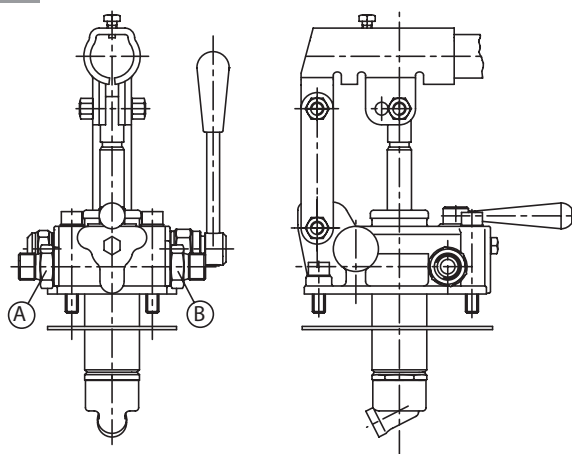


RV



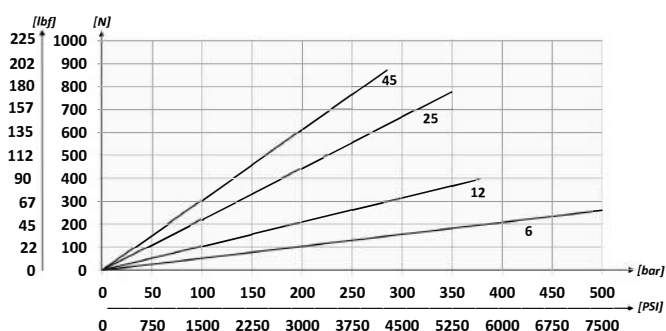
Valvola di massima      Molla 40/350 bar      Taratura Standard 100 bar  
Relief valve              Spring 580/5075 PSI      Standard Setting 1450 PSI

LRV



Valvola di massima      Molla 40/350 bar      Taratura Standard 100 bar  
Relief valve              Spring 580/5075 PSI      Standard Setting 1450 PSI

**SFORZO ESERCITATO ALL'ESTREMITÀ DELLA LEVA**  
EFFORT OPERATING AT THE END OF THE LEVER



#### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | PRESSIONE OTTIMALE<br>OPTIMAL PRESSURE<br>bar-PSI | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|---------------------------------------------------|-------------------------------------------|----------------------------------------|
| PMI6         | 420 (6090)                                        | 500 (7250)                                | 4,20 (9.25)                            |
| PMI12        | 220 (3190)                                        | 380 (5510)                                |                                        |
| PMI25        | 120 (1740)                                        | 350 (5075)                                |                                        |
| PMI45        | 80 (1160)                                         | 280 (4060)                                |                                        |



LA POMPA VIENE FORNITA CON GUARNIZIONE SAGOMATA  
+ VITI DI FISSAGGIO + LEVA DI AZIONAMENTO Ø 27 MM L=600 mm

THE PUMP IS SUPPLIED WITH SHAPED SEAL, FIXING SCREWS  
AND ACTING LEVER Ø 1,06 INCH 23 inch LONG

## CODICE ORDINAZIONE ORDERING CODE

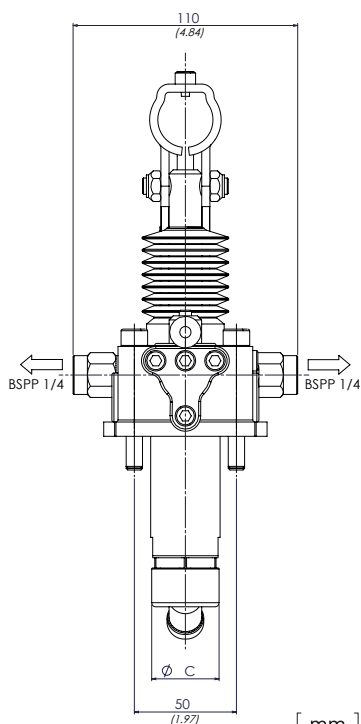
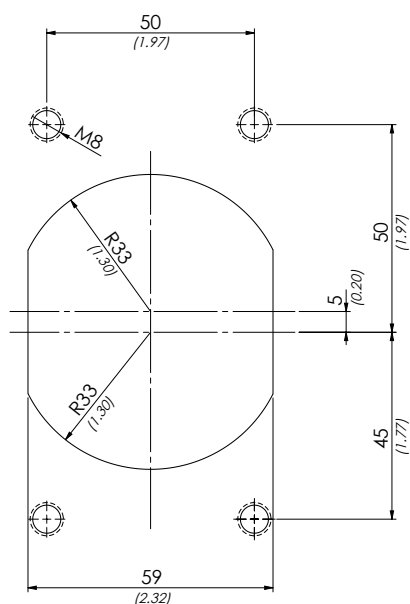
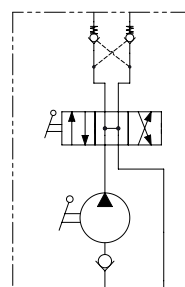
| 01         | 02 | 03 | 04 |
|------------|----|----|----|
| <b>PMT</b> |    |    |    |

| 01 | POMPA A MANO DOPPIO POMPAGGIO<br>PER CILINDRO A DOPPIO EFFETTO CON VALVOLE DI BLOCCO<br>DOUBLE PUMPING HAND PUMP<br>WITH CHECK VALVES FOR DOUBLE ACTING CYLINDER |                                                                            |            |           | PMT  |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|------------|-----------|------|
| 02 | CILINDRATA<br>DISPLACEMENT                                                                                                                                       | mm - inch                                                                  |            |           |      |
|    |                                                                                                                                                                  | A                                                                          | B          | C         |      |
|    | 6 cm <sup>3</sup> (0.37 in <sup>3</sup> )                                                                                                                        | 253 (9.96)                                                                 | 166 (6.54) | 34 (1.34) | 6    |
|    | 12 cm <sup>3</sup> (0.73 in <sup>3</sup> )                                                                                                                       | 253 (9.96)                                                                 | 166 (6.54) | 34 (1.34) | 12   |
|    | 25 cm <sup>3</sup> (1.53 in <sup>3</sup> )                                                                                                                       | 273 (10.75)                                                                | 172 (6.77) | 34 (1.34) | 25   |
|    | 45 cm <sup>3</sup> (2.75 in <sup>3</sup> )                                                                                                                       | 283 (11.14)                                                                | 172 (6.77) | 40 (1.57) | 45   |
| 03 | OPTIONAL                                                                                                                                                         | Senza soffietto - Without rubber protection                                |            |           |      |
|    |                                                                                                                                                                  | Con soffietto - With rubber protection                                     |            |           | P    |
| 04 | OPTIONAL                                                                                                                                                         | Con valvola di massima pressione su A e B<br>With relief valves on A and B |            |           | RVAB |
|    |                                                                                                                                                                  | Con valvola di massima pressione su B<br>With relief valves on B           |            |           | RVB  |

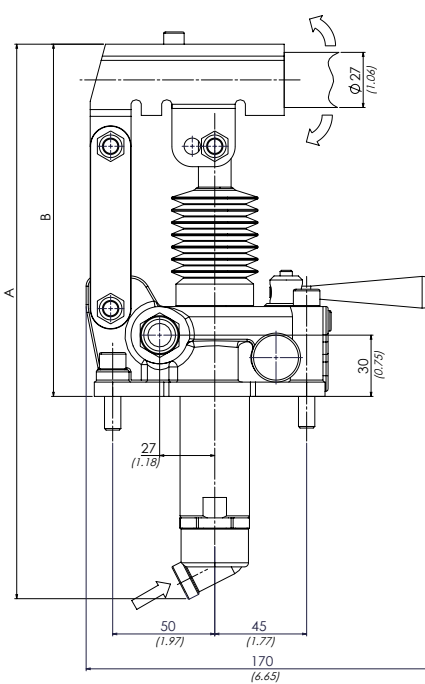
## DATI TECNICI / TECHNICAL DATA

|                                                                                                                            |                                           |
|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                               | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                             | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                    | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                    | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                             | -20°C +50°C -4°F +122°F                   |
| È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm) |                                           |
| A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm)                              |                                           |

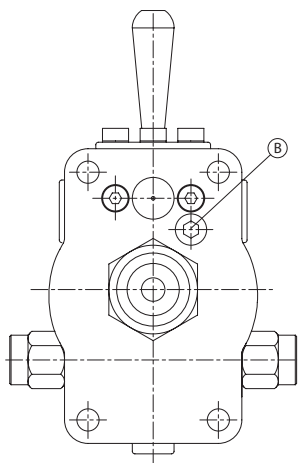
## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



mm  
(Inches)

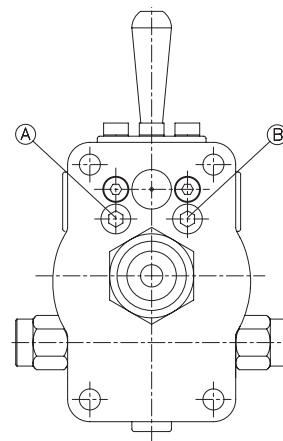


## RVB



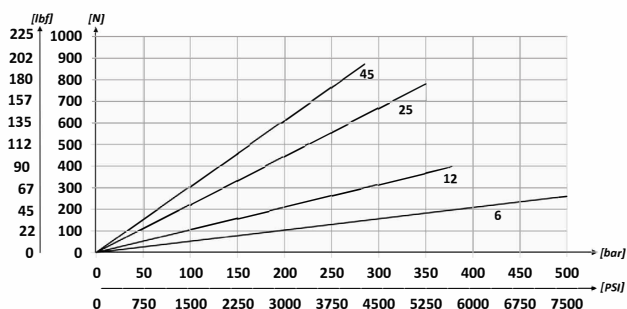
**Valvola di massima**      **Molla 40/350 bar**      **Taratura Standard 100 bar**  
**Relief valve**              **Spring 580/5075 PSI**      **Standard Setting 1450 PSI**

## RVAB



**Valvola di massima**      **Molla 40/350 bar**      **Taratura Standard 100 bar**  
**Relief valve**              **Spring 580/5075 PSI**      **Standard Setting 1450 PSI**

### SFORZO ESERCITATO ALL'ESTREMITÀ DELLA LEVA EFFORT OPERATING AT THE END OF THE LEVER



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | PRESSIONE OTTIMALE<br>OPTIMAL PRESSURE<br>bar-PSI | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|---------------------------------------------------|------------------------------------------|----------------------------------------|
| PMT6         | 420 (6090)                                        | 500 (7250)                               | 4,20 (9.25)                            |
| PMT12        | 220 (3190)                                        | 380 (5510)                               |                                        |
| PMT25        | 120 (1740)                                        | 350 (5075)                               |                                        |
| PMT45        | 80 (1160)                                         | 280 (4060)                               |                                        |



LA POMPA VIENE FORNITA CON GUARNIZIONE SAGOMATA  
+ VITI DI FISSAGGIO + LEVA DI AZIONAMENTO L=600 mm

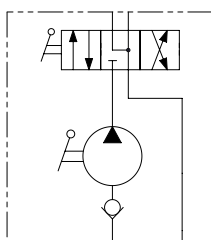
THE PUMP IS SUPPLIED WITH SHAPED SEAL, FIXING SCREWS  
AND ACTING LEVER 23.6 inch LONG

**CODICE ORDINAZIONE**  
ORDERING CODE

| 01         | 02 | 03 | 04 |
|------------|----|----|----|
| <b>PMA</b> |    |    |    |

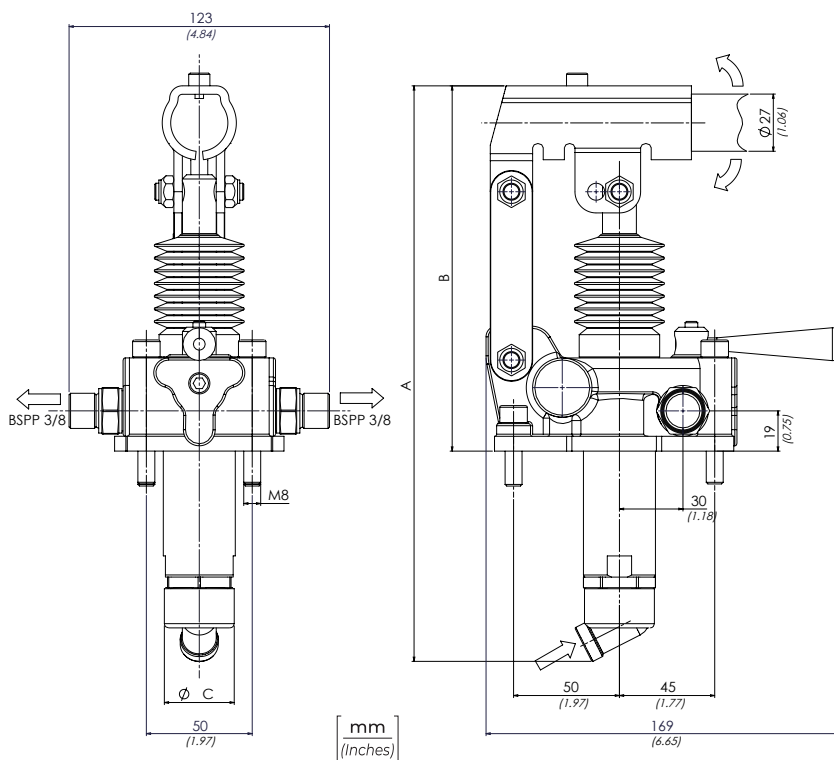
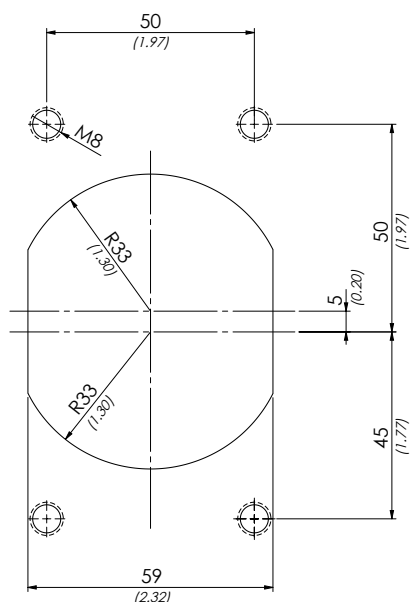
| 01 | POMPA A MANO DOPPIO POMPAGGIO<br>PER CILINDRO A DOPPIO EFFETTO - CENTRO APERTO<br>DOUBLE PUMPING HAND PUMP<br>FOR DOUBLE ACTING CYLINDER - OPEN CENTER |                                                                                              |            |           | PMA |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|------------|-----------|-----|
|    | CILINDRATA<br>DISPLACEMENT                                                                                                                             | mm - inch                                                                                    |            |           |     |
|    |                                                                                                                                                        | A                                                                                            | B          | C         |     |
|    | 6 cm <sup>3</sup> (0.37 in <sup>3</sup> )                                                                                                              | 253 (9.96)                                                                                   | 166 (6.54) | 34 (1.34) | 6   |
| 02 | 12 cm <sup>3</sup> (0.73 in <sup>3</sup> )                                                                                                             | 253 (9.96)                                                                                   | 166 (6.54) | 34 (1.34) | 12  |
|    | 25 cm <sup>3</sup> (1.53 in <sup>3</sup> )                                                                                                             | 273 (10.75)                                                                                  | 172 (6.77) | 34 (1.34) | 25  |
|    | 45 cm <sup>3</sup> (2.75 in <sup>3</sup> )                                                                                                             | 283 (11.14)                                                                                  | 172 (6.77) | 40 (1.57) | 45  |
| 03 | OPTIONAL                                                                                                                                               | Senza soffietto - Without rubber protection                                                  |            |           |     |
|    |                                                                                                                                                        | Con soffietto - With rubber protection                                                       |            |           | P   |
| 04 | OPTIONAL                                                                                                                                               | Con leva di scarico Ø 27 mm<br>With unloading lever Ø 1.06 inch                              |            |           | L   |
|    |                                                                                                                                                        | Con valvola di massima pressione su A e B<br>With relief valves on A and B                   |            |           | RV  |
|    |                                                                                                                                                        | Con leva di scarico e valvola di massima pressione<br>With unloading lever and relief valves |            |           | LRV |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

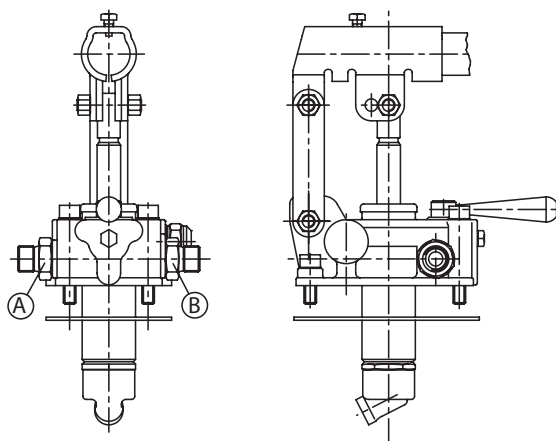


**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                                                             |                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                                                                | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                                                              | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                                                                     | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                                                                     | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                                                              | -20°C +50°C -4°F +122°F                   |
| È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)<br>A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm) |                                           |

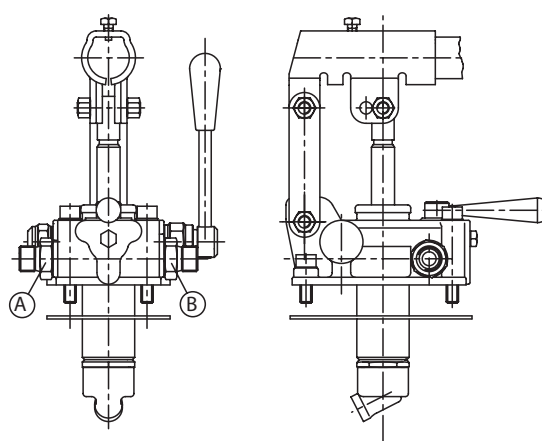


## RV



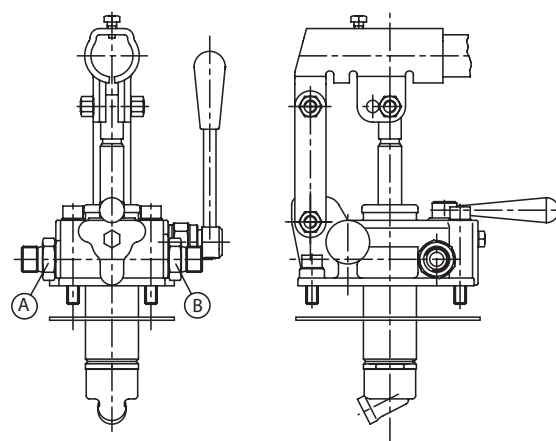
**Valvola di massima**  
Relief valve  
**Molla 40/350 bar**  
Spring 580/5075 PSI  
**Taratura Standard 100 bar**  
Standard Setting 1450 PSI

## LRV

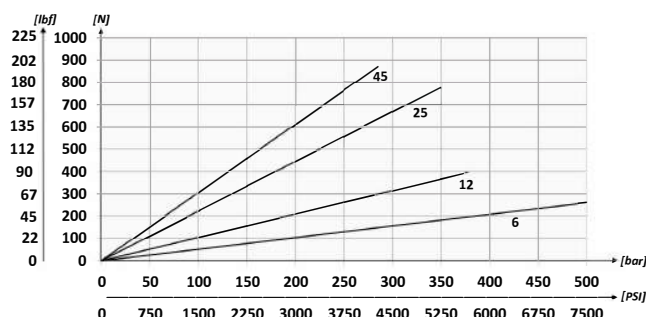


**Valvola di massima**  
Relief valve  
**Molla 40/350 bar**  
Spring 580/5075 PSI  
**Taratura Standard 100 bar**  
Standard Setting 1450 PSI

## L



### **SFORZO ESERCITATO ALL'ESTREMITÀ DELLA LEVA** EFFORT OPERATING AT THE END OF THE LEVER



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | PRESSIONE OTTIMALE<br>OPTIMAL PRESSURE<br>bar-PSI | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | PESO APPROX (kg)<br>APPROX WEIGHT (lb) |
|--------------|---------------------------------------------------|-------------------------------------------|----------------------------------------|
| PMA6         | 420 (6090)                                        | 500 (7250)                                | 4,20 (9.25)                            |
| PMA12        | 220 (3190)                                        | 380 (5510)                                |                                        |
| PMA25        | 120 (1740)                                        | 350 (5075)                                |                                        |
| PMA45        | 80 (1160)                                         | 280 (4060)                                |                                        |



**CODICE ORDINAZIONE**  
ORDERING CODE

| 01          | 02 | 03 | 04 |
|-------------|----|----|----|
| <b>PME1</b> |    |    |    |

|           |                                                                                                                                                  |                                                                                                                                                                                                                   |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>01</b> | POMPA A MANO SINGOLO POMPAGGIO VERSO IL BASSO PER CILINDRO A SEMPLICE EFFETTO<br>SINGLE DOWNWARD PUMPING<br>HAND PUMP FOR SINGLE ACTING CYLINDER | <b>PME1</b>                                                                                                                                                                                                       |
| <b>02</b> | CILINDRATA<br>DISPLACEMENT                                                                                                                       | 8 cm <sup>3</sup> (0.49 in <sup>3</sup> )<br>15 cm <sup>3</sup> (0.92 in <sup>3</sup> )                                                                                                                           |
| <b>03</b> | OPTIONAL                                                                                                                                         | Senza soffiello - Without rubber protection<br>Con soffiello - With rubber protection                                                                                                                             |
| <b>04</b> | OPTIONAL                                                                                                                                         | Senza rubinetto di scarico con valvola di massima<br>Without unloading valve With relief valves<br>Senza rubinetto di scarico - Without unloading valve<br>Con valvola di massima pressione<br>With relief valves |

LA POMPA VIENE FORNITA CON GUARNIZIONE SAGOMATA

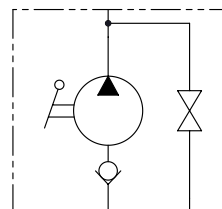
+ VITI DI FISSAGGIO

+ LEVA DI AZIONAMENTO Ø 20 MM L=500 mm

LA MANDATA LA SI OTTIENE SOLAMENTE  
AZIONANDO LA LEVA VERSO IL BASSO

THE PUMP IS SUPPLIED WITH SHAPED SEAL,  
FIXING SCREWS AND ACTING LEVER Ø 0.79 17,7 inch LONG.  
OIL FLOW LEVER ACTION DOWNWARDS ONLY

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

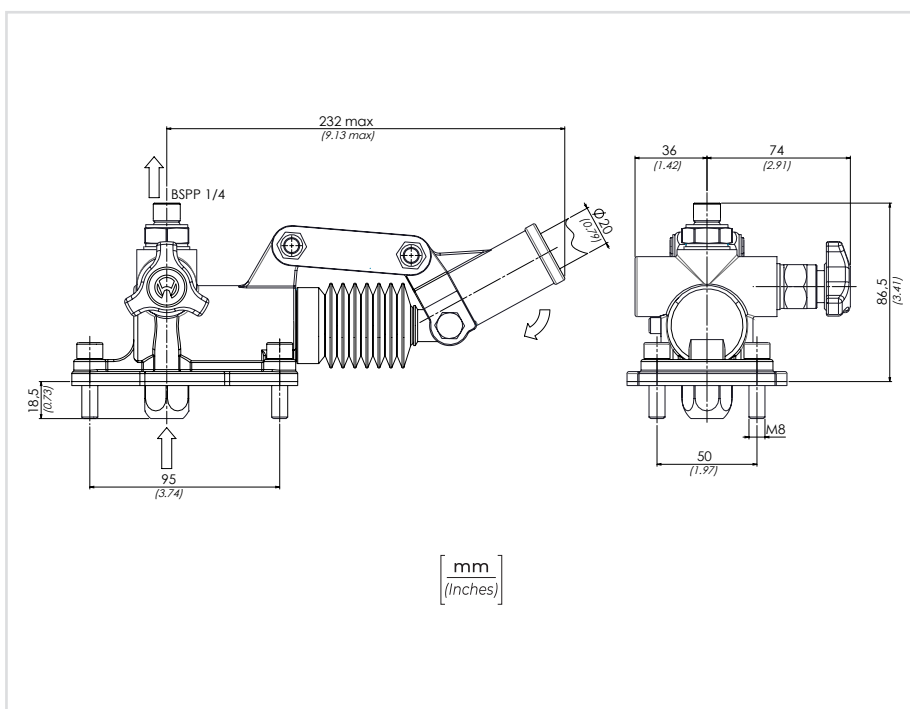
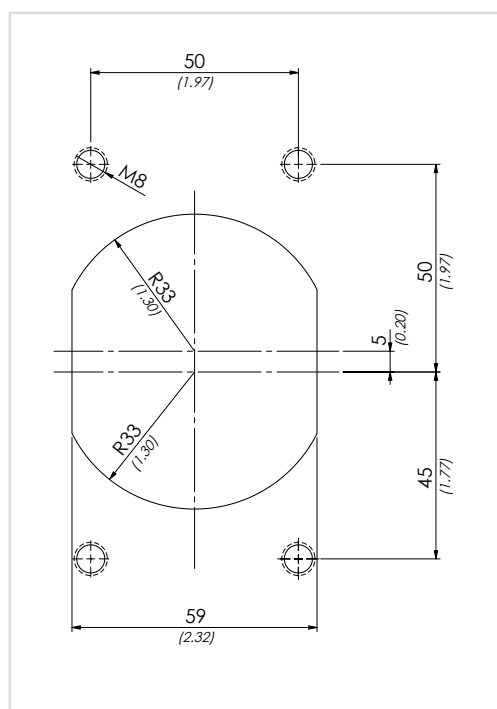


**DATI TECNICI / TECHNICAL DATA**

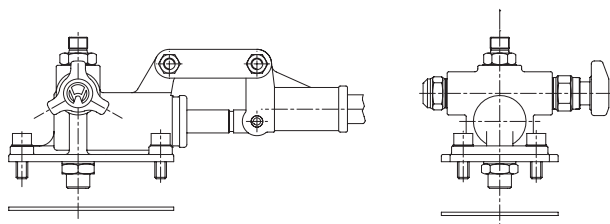
**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | PRESSIONE OTTIMALE<br>OPTIMAL PRESSURE<br>bar-PSI | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|---------------------------------------------------|------------------------------------------|----------------------------------------|
| PME18        | 180 (2610)                                        | 380 (5510)                               | 2,9 (6.39)                             |
| PME115       | 110 (1595)                                        | 350 (5075)                               |                                        |

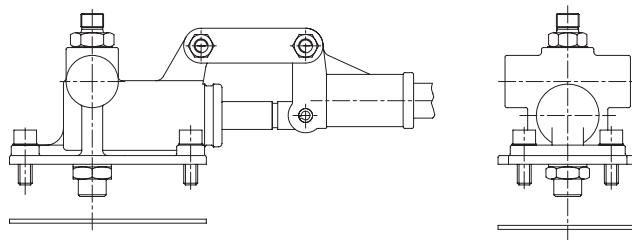
|                                                                                                                                                                                                                             |                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                                                                | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                                                              | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                                                                     | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                                                                     | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                                                              | -20°C +50°C -4°F +122°F                   |
| È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)<br>A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm) |                                           |



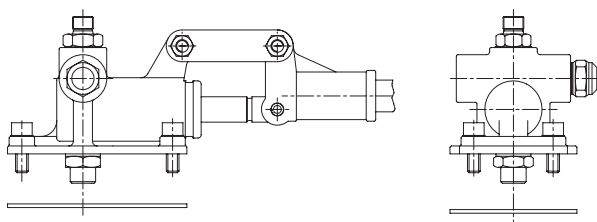
RW



W



WRV

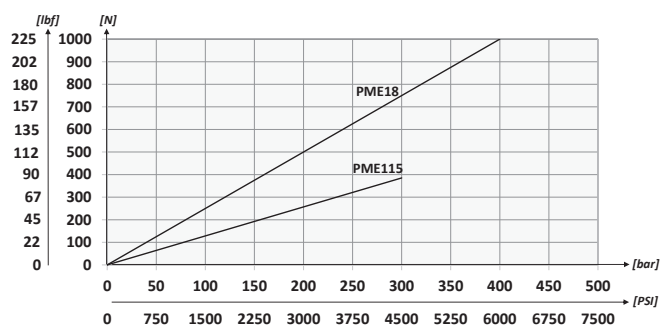


**Valvola di massima**  
Relief valve

**Molla 40/350 bar**  
Spring 580/5075 PSI

**Taratura Standard 100 bar**  
Standard Setting 1450 PSI

**SFORZO ESERCITATO ALL'ESTREMITÀ DELLA LEVA**  
EFFORT OPERATING AT THE END OF THE LEVER

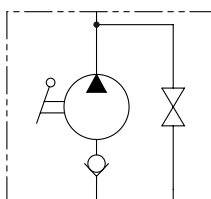




LA POMPA VIENE FORNITA CON GUARNIZIONE SAGOMATA  
+ VITI DI FISSAGGIO + LEVA DI AZIONAMENTO L=600 mm  
LA MANDATA LA SI OTTIENE SOLAMENTE AZIONANDO LA LEVA VERSO IL BASSO

THE PUMP IS SUPPLIED WITH SHAPED SEAL,  
FIXING SCREWS AND ACTING LEVER 23,6 inch LONG.  
OIL FLOW LEVER ACTION DOWNWARDS ONLY

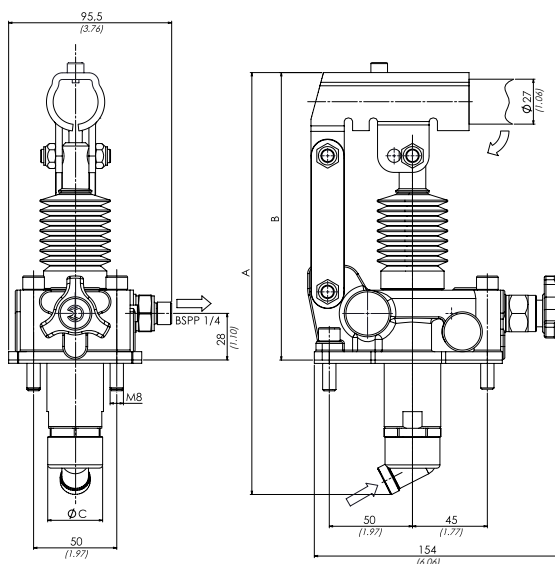
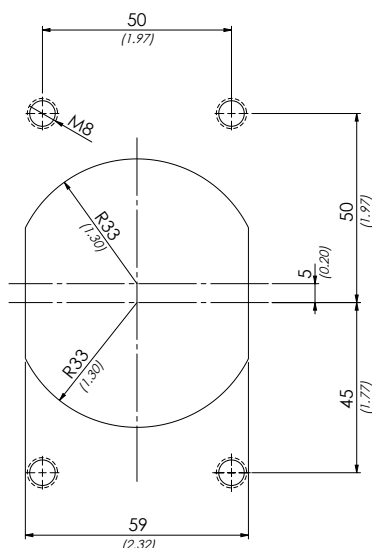
#### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



#### CODICE ORDINAZIONE ORDERING CODE

| 01          | 02 | 03 | 04 |
|-------------|----|----|----|
| <b>PME2</b> |    |    |    |

|    |                                                                                                                                                     |                                                                                                 |            |           |      |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|------------|-----------|------|
| 01 | POMPA A MANO SINGOLO POMPAGGIO<br>VERSO IL BASSO PER CILINDRO A SEMPLICE EFFETTO<br>SINGLE DOWNWARD PUMPING HAND PUMP<br>FOR SINGLE ACTING CYLINDER |                                                                                                 |            |           | PME2 |
| 02 | CILINDRATA<br>DISPLACEMENT                                                                                                                          | mm - inch                                                                                       |            |           |      |
|    |                                                                                                                                                     | A                                                                                               | B          | C         |      |
|    | 20 cm <sup>3</sup> (1.22 in <sup>3</sup> )                                                                                                          | 249 (9.80)                                                                                      | 167 (6.57) | 34 (1.33) | 20   |
|    | 30 cm <sup>3</sup> (1.83 in <sup>3</sup> )                                                                                                          | 252 (9.92)                                                                                      | 167 (6.57) | 34 (1.33) | 30   |
|    | 40 cm <sup>3</sup> (2.44 in <sup>3</sup> )                                                                                                          | 252 (9.92)                                                                                      | 167 (6.57) | 40 (1.57) | 40   |
| 03 | OPTIONAL                                                                                                                                            | Senza soffietto - Without rubber protection                                                     |            |           |      |
|    |                                                                                                                                                     | Con soffietto - With rubber protection                                                          |            |           | P    |
| 04 | OPTIONAL                                                                                                                                            | Senza rubinetto di scarico con valvola di massima<br>Without unloading valve With relief valves |            |           | WRV  |
|    |                                                                                                                                                     | Senza rubinetto di scarico<br>Without unloading valve                                           |            |           | W    |
|    |                                                                                                                                                     | Con leva di scarico - With unloading lever                                                      |            |           | L    |
|    |                                                                                                                                                     | Con valvola di massima pressione<br>With relief valves                                          |            |           | RV   |
|    |                                                                                                                                                     | Con leva di scarico e valvola di massima pressione<br>With unloading lever and relief valves    |            |           | LRV  |



[ mm ]  
[ inches ]

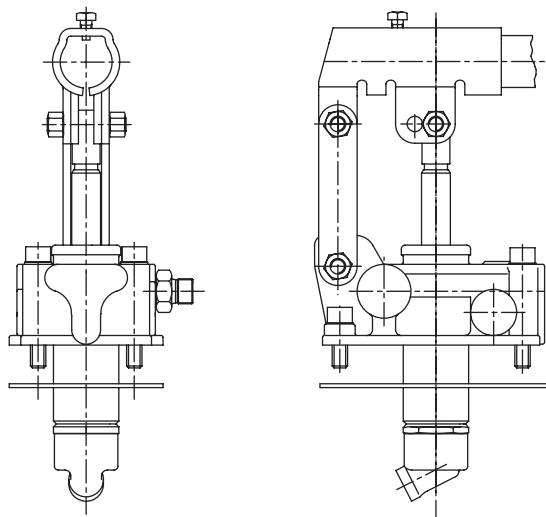
#### DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                                                             |                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                                                                | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                                                              | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                                                                     | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                                                                     | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                                                              | -20°C +50°C -4°F +122°F                   |
| È indispensabile la presenza di un filtro nel circuito idraulico per proteggere la valvola (filtrazione consigliata 15 µm)<br>A filter into the hydraulic circuit necessary to protect the valve (advised filtration 15 µm) |                                           |

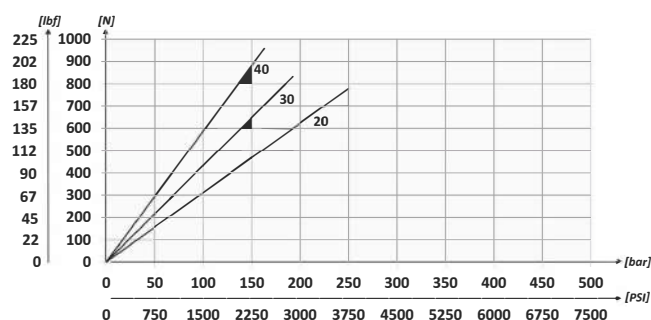
#### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | PRESSIONE OTTIMALE<br>OPTIMAL PRESSURE<br>bar-PSI | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|---------------------------------------------------|------------------------------------------|----------------------------------------|
| PME220       | 80 (1160)                                         | 240 (3480)                               | 4,2 (9.2)                              |
| PME230       | 60 (870)                                          | 185 (2683)                               |                                        |
| PME240       | 40 (580)                                          | 160 (2320)                               |                                        |

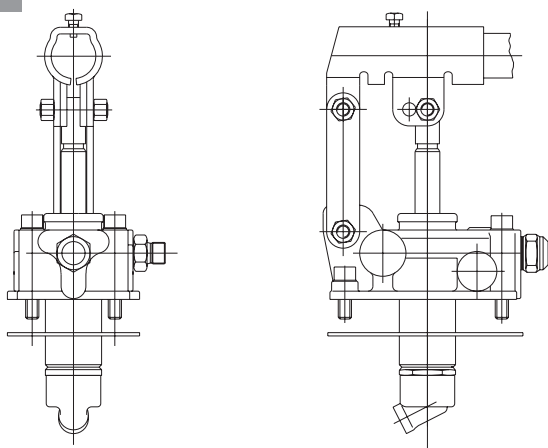
W



**SFORZO ESERCITATO ALL'ESTREMITÀ DELLA LEVA**  
**EFFORT OPERATING AT THE END OF THE LEVER**

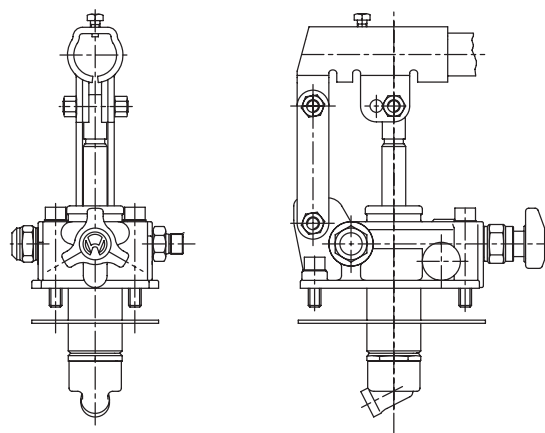


WRV



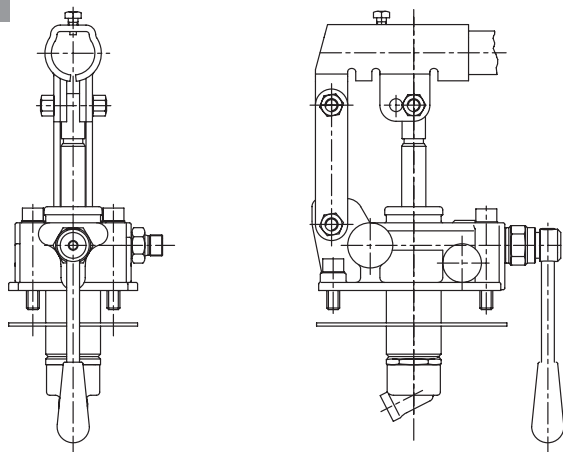
**Valvola di massima** **Molla 40/350 bar** **Taratura Standard 100 bar**  
Relief valve Spring 580/5075 PSI Standard Setting 1450 PSI

RV

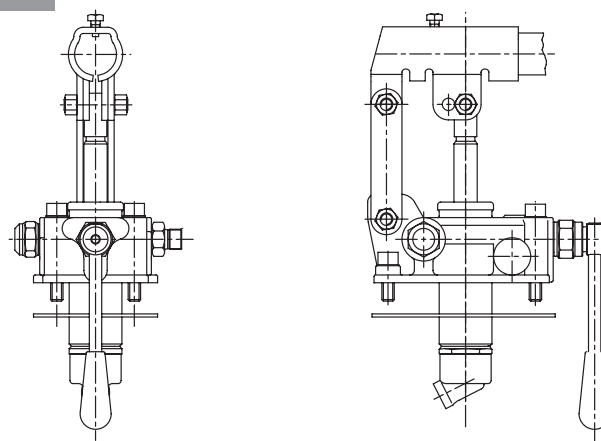


**Valvola di massima** **Molla 40/350 bar** **Taratura Standard 100 bar**  
Relief valve Spring 580/5075 PSI Standard Setting 1450 PSI

L



LRV



**Valvola di massima** **Molla 40/350 bar** **Taratura Standard 100 bar**  
Relief valve Spring 580/5075 PSI Standard Setting 1450 PSI



LA POMPA VIENE FORNITA CON GUARNIZIONE SAGOMATA  
+ VITI DI FISSAGGIO + LEVA DI AZIONAMENTO L=500 mm

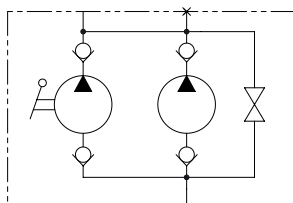
THE PUMP IS SUPPLIED WITH SHAPED SEAL, FIXING SCREWS  
AND ACTING LEVER 19.7 inch LONG

**CODICE ORDINAZIONE**  
ORDERING CODE

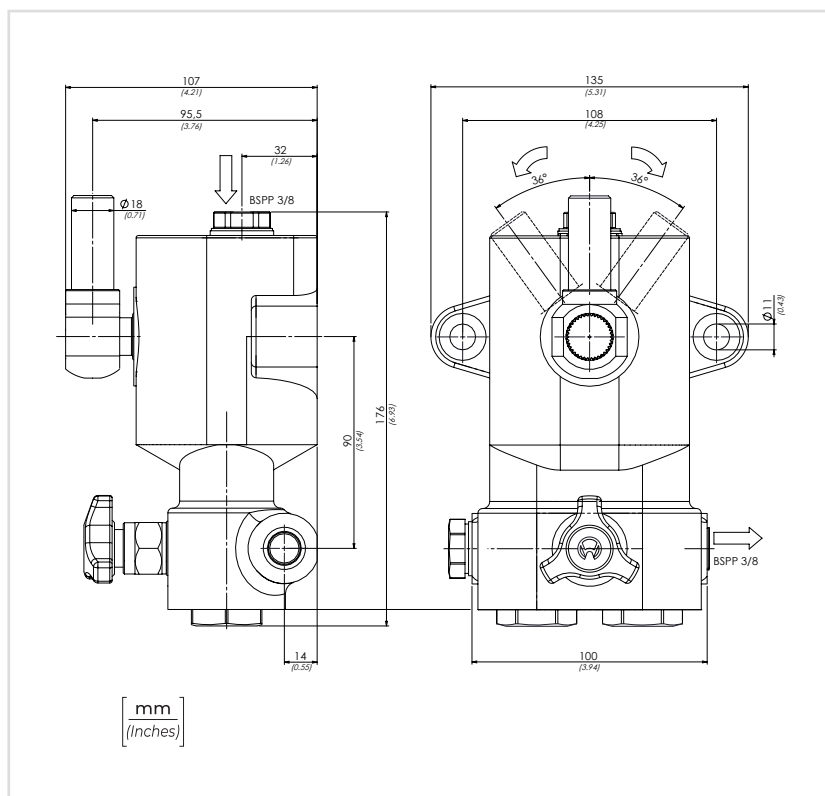
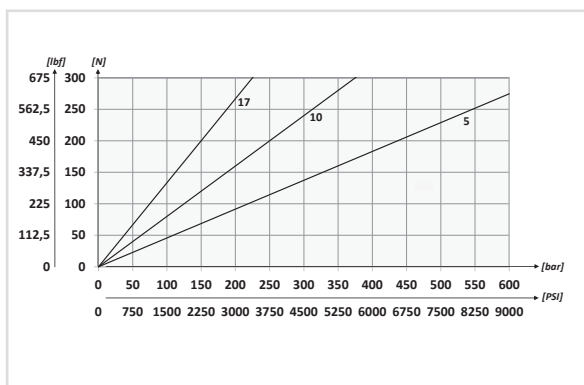
|            |    |    |
|------------|----|----|
| 01         | 02 | 03 |
| <b>PMD</b> |    |    |

|           |                                                                                                 |                                                                     |
|-----------|-------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|
| <b>01</b> | POMPA A MANO SEMPLICE EFFETTO DOPPIO POMPANTE<br>(SINGLE ACTING HAND PUMP WITH DOUBLE CYLINDER) | <b>PMD</b>                                                          |
| <b>02</b> | CILINDRATA<br>(DISPLACEMENT)                                                                    | <b>5</b>                                                            |
|           |                                                                                                 | <b>10</b>                                                           |
|           |                                                                                                 | <b>17</b>                                                           |
| <b>03</b> | OPTIONAL                                                                                        | Senza rubinetto di scarico<br>(Without unloading valve)<br><b>W</b> |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**SFORZO ESERCITATO ALL'ESTREMITÀ DELLA LEVA**  
EFFORT OPERATING AT THE END OF THE LEVER



**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)        |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)  |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14 |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F       |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F       |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                               |

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | PRESSIONE OTTIMALE<br>OPTIMAL PRESSURE<br>bar-PSI | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt | CILINDRATA (cm³)<br>DISPLACEMENT (in³) |
|--------------|---------------------------------------------------|------------------------------------------|----------------------------------------|----------------------------------------|
| PMD5         | 500 (7250)                                        | 500 (7250)                               | 5,7 (12.56)                            | 5 (0.31)                               |
| PMD10        | 250 (3625)                                        | 250 (3625)                               |                                        | 10 (0.61)                              |
| PMD17        | 150 (2175)                                        | 150 (2175)                               |                                        | 17 (1.04)                              |



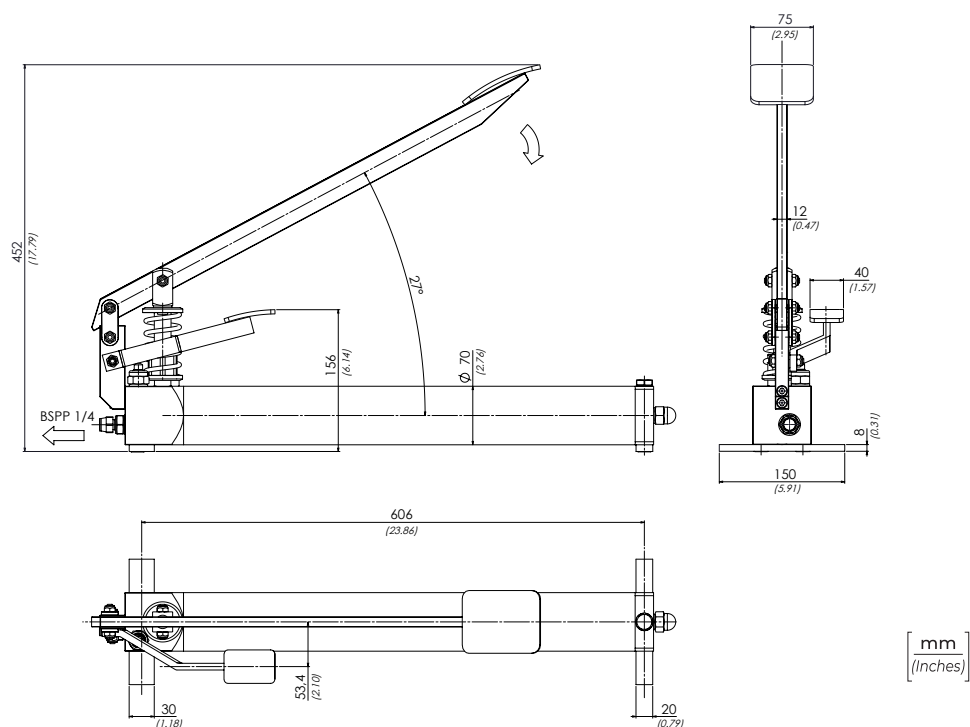
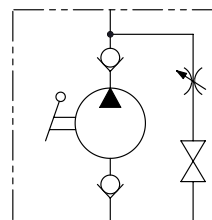
**CODICE ORDINAZIONE**  
ORDERING CODE

01

**PME3**

|                                          |                               |      |
|------------------------------------------|-------------------------------|------|
| 01                                       | POMPA A PEDALE<br>(FOOT PUMP) | PME3 |
| Serbatoio lt. 1,5<br>(Reservoir lt. 1.5) |                               |      |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



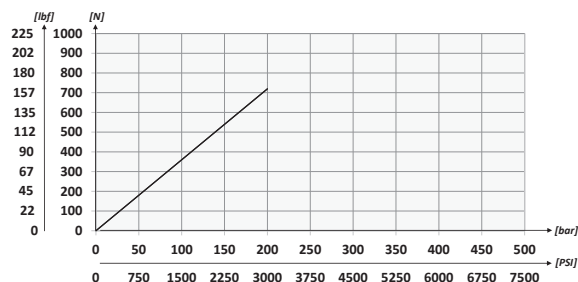
**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Olío idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)        |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)  |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14 |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F       |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F       |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                               |

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt | CILINDRATA (cm³)<br>DISPLACEMENT (in³) |
|--------------|------------------------------------------|----------------------------------------|----------------------------------------|
| PME3         | 220 (3190)                               | 10,40 (22.92)                          | 14 (0.85)                              |

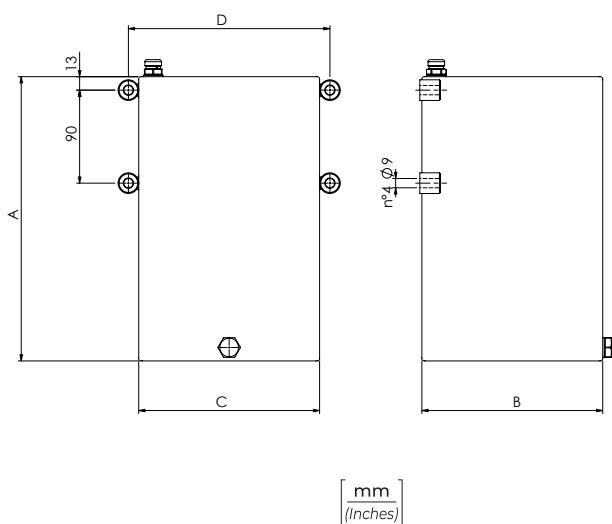
**SFORZO ESERCITATO ALL'ESTREMITÀ DELLA LEVA**  
EFFORT OPERATING AT THE END OF THE LEVER





SERBATOIO IN ACCIAIO, VERNICIATURA RAL9005 ANTIOILIO-NERO,  
IL SERBATOIO È COMPRENSIVO DI TAPPO SFIATO,  
TAPPO SCARICO E TUBO PESCAGGIO

STEEL RESERVOIR, RAL9005 BLACK OIL PROOF PAINTING, THE  
RESERVOIR IS INCLUDING THE BREATHER PLUGS AND DRAFT TUBE



01

**CODICE ORDINAZIONE**  
ORDERING CODE

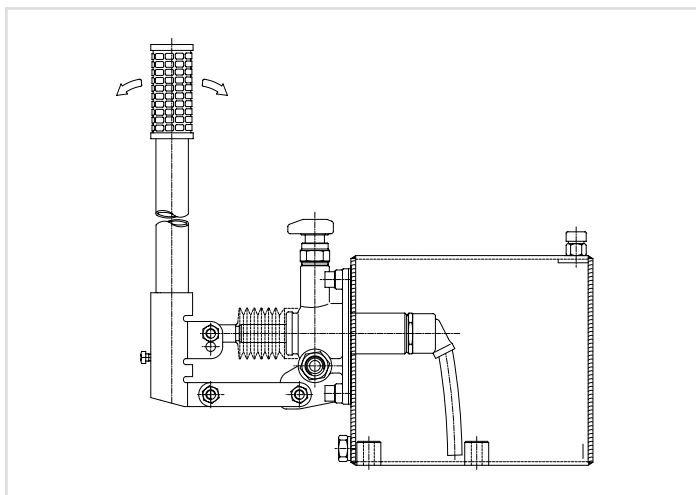
**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

|    | TIPO<br>TYPE | CAPACITÀ<br>CAPACITY           | A           | B          | C          | D          | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|----|--------------|--------------------------------|-------------|------------|------------|------------|-----------------------------------------|
| 01 | 17900001     | 1 Lt. - 6l in. <sup>3</sup>    | 120 (4.72)  | 150 (5.91) | 100 (3.94) | 120 (4.72) | 2,2 (5)                                 |
|    | 17900002     | 2 Lt. - 122 in. <sup>3</sup>   | 185 (7.28)  |            |            |            | 2,7 (6)                                 |
|    | 17900003     | 3 Lt. - 183 in. <sup>3</sup>   | 255 (10.04) |            |            |            | 3,5 (7,71)                              |
|    | 17900006     | 5 Lt. - 305 in. <sup>3</sup>   | 200 (7.87)  | 175 (6.89) |            | 195 (7.68) | 5 (10.9)                                |
|    | 17900004     | 7 Lt. - 427 in. <sup>3</sup>   | 275 (10.83) |            |            |            | 5,5 (12.1)                              |
|    | 17900005     | 10 Lt. - 610 in. <sup>3</sup>  | 380 (14.96) |            |            |            | 7,1 (15.39)                             |
|    | 17900014     | 13 Lt. - 793 in. <sup>3</sup>  | 485 (19.09) |            |            |            | 10,75 (23.7)                            |
|    | 17900015     | 15 Lt. - 915 in. <sup>3</sup>  | 600 (23.62) |            |            |            | 12,10 (26.67)                           |
|    | 17900016     | 20 Lt. - 1220 in. <sup>3</sup> | 780 (30.71) |            |            |            | 16 (35.26)                              |

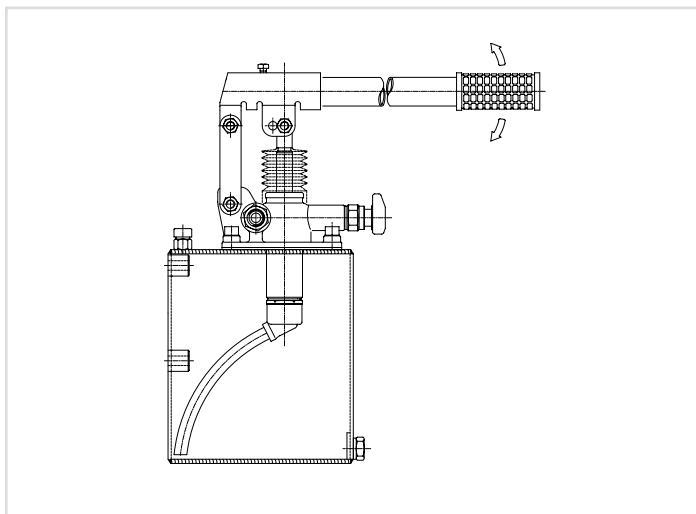
**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

**MONTAGGIO ORIZZONTALE / HORIZONTAL MOUNTING**



**MONTAGGIO VERTICALE / VERTICAL MOUNTING**





**TNA 1**



**TNA 2 - TNA 3 - TNA 5**

SERBATOIO IN ALLUMINIO, IL SERBATOIO È COMPRENSIVO DI TAPPO SFIATO, TAPPO SCARICO E TUBO PESCIAGGIO

ALUMINIUM RESERVOIR, THE RESERVOIR INCLUDES THE AIR BLEEDING PLUGS AND SUCTION TUBE

**CODICE ORDINAZIONE**  
ORDERING CODE

|            |    |
|------------|----|
| 01         | 02 |
| <b>TNA</b> |    |

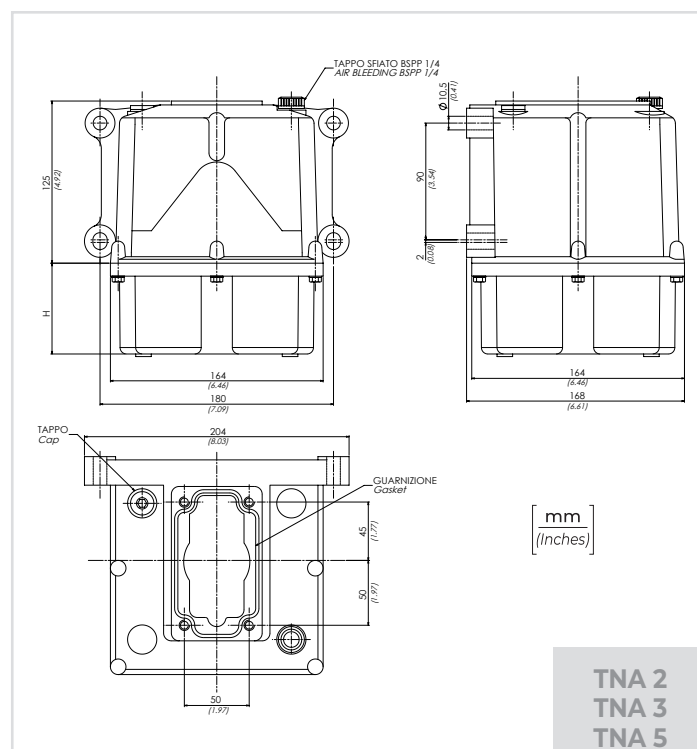
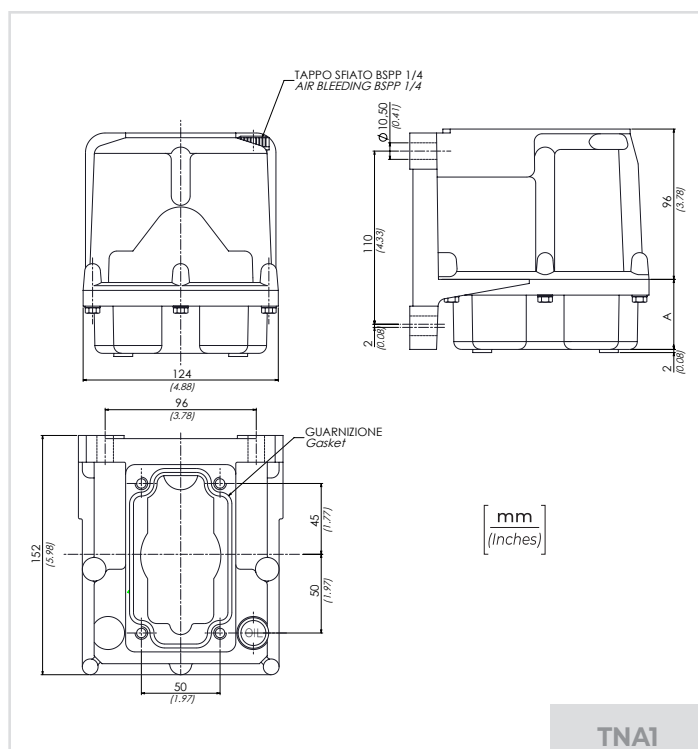
| 01 | SERBATOI IN ALLUMINIO (ALUMINIUM RESERVOIRS) | TNA                          |
|----|----------------------------------------------|------------------------------|
| 02 | CAPACITÀ<br>(CAPACITY)                       | 1 Lt. - 61 in. <sup>3</sup>  |
|    |                                              | 2 Lt. - 122 in. <sup>3</sup> |
|    |                                              | 3 Lt. - 183 in. <sup>3</sup> |
|    |                                              | 5 Lt. - 305 in. <sup>3</sup> |

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| Tipo<br>Type | Capacità<br>Capacity<br>Lt./in | A         | H          | Peso Approx (kg)<br>Approx weight (lb) |
|--------------|--------------------------------|-----------|------------|----------------------------------------|
| <b>TNA 1</b> | 1 Lt. - 61 in. <sup>3</sup>    | 40 (1.57) | /          | 1,1 (2.4)                              |
| <b>TNA 2</b> | 2 Lt. - 122 in. <sup>3</sup>   | /         | 25 (0.98)  | 1,5 (3.3)                              |
| <b>TNA 3</b> | 3 Lt. - 183 in. <sup>3</sup>   | /         | 70 (2.76)  | 1,6 (3.5)                              |
| <b>TNA 5</b> | 5 Lt. - 305 in. <sup>3</sup>   | /         | 180 (7.09) | 1,8 (4)                                |

## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                           |                                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                       | <b>ISO 6743/4</b> (DIN 51524)                  |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                                     | <b>15-250 mm<sup>2</sup>/s</b> (15 to 250 cSt) |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                            | <b>ISO 4406:1999 Classe 19/17/14</b>           |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                            | <b>-20°C +80°C</b> -4°F + 176°F                |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                                     | <b>-20°C +50°C</b> -4°F + 122°F                |
| <b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b><br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                |



## MONTAGGIO POMPA NEL SERBATOIO

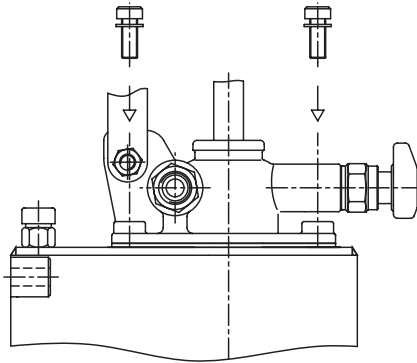
1

### Montaggio del tubo aspirazione



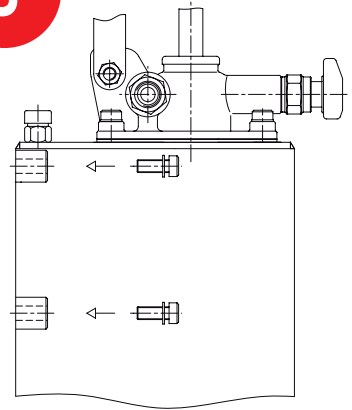
Introdurre il tubo di aspirazione nell'apposito raccordo.

2



Appoggiare la guarnizione in gomma sul serbatoio, posizionare la pompa, assemblare la pompa sul serbatoio mediante kit viti di fissaggio.

3

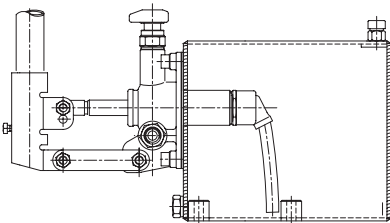


Collocare pompa e serbatoio nella posizione desiderata fissando con 4 viti.

Avvitare per minimo 20 mm.

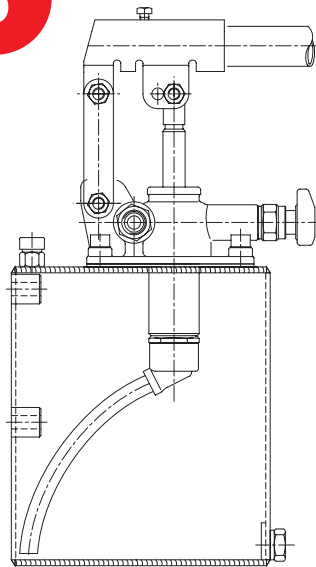
Collegare la mandata della pompa al circuito a semplice o doppio effetto.

4



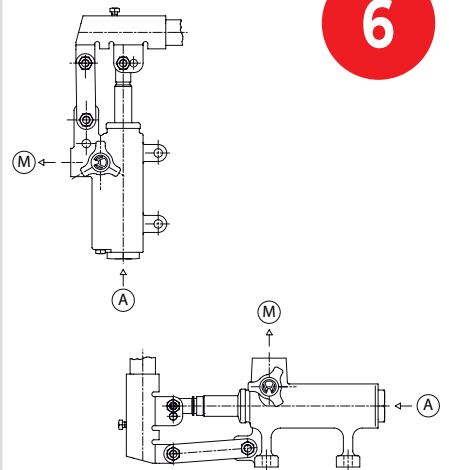
Montaggio orizzontale.

5



Montaggio verticale.

6



Posizionare la pompa in orizzontale o verticale fissandola con apposite viti. Collegare aspirazione (A) e mandata (M) della pompa al circuito.

## USO

Per un corretto funzionamento, dopo aver montato la pompa nel o sul serbatoio in modo appropriato, utilizzare esclusivamente olio idraulico a base minerale ISO6743/4 (DIN 51524), viscosità secondo i parametri ISO 3448 (DIN51519).

**Viscosità consigliata:** 46 mm<sup>2</sup>/s (cSt)

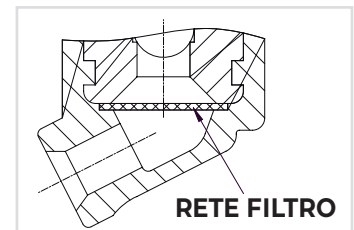
**Filtrazione consigliata:** 15 µm

**Classe di contaminazione:** 18/14 ISO4406  
(9 NAS 1638)

## MANUTENZIONE

Per un corretto funzionamento, si consiglia di seguire le seguenti procedure periodiche:

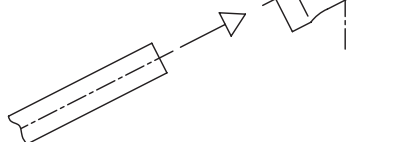
- PULIZIA DELLA RETE FILTRO
- SOSTITUZIONE OLIO



## MOUNTING OF PUMP INSIDE THE TANK

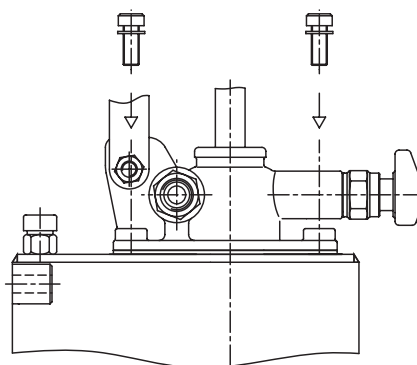
1

### Mounting the suction hose



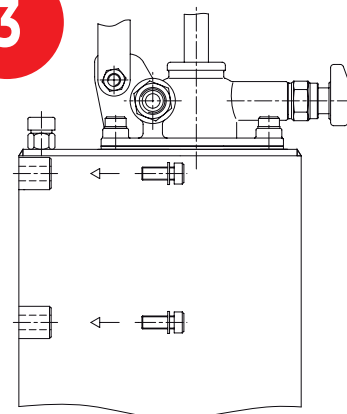
Insert the suction hose in the proper fitting.

2



Put the rubber seal on the tank, position the pump, assemble the pump to the tank by means of the fixing screws kit.

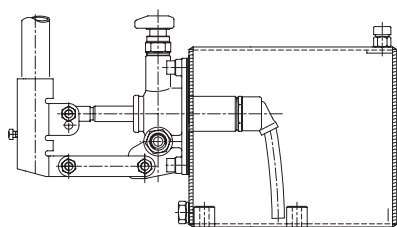
3



Place pump and tank in the position you need and fix them with nr.4 screws. You have to screw for at least 0.79 inch.

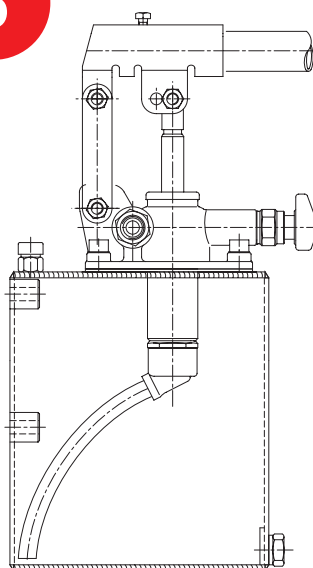
Connect pump delivery to the single or double acting circuit.

4



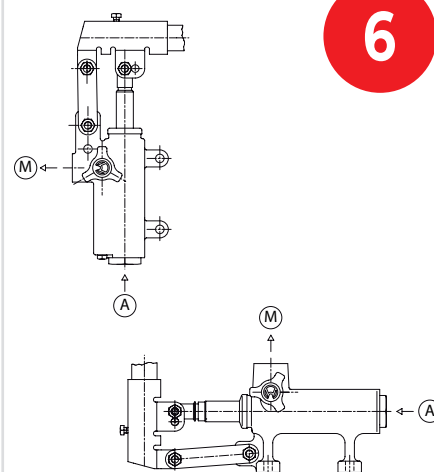
Horizontal mounting.

5



Vertical mounting.

6



Place pump horizontally or vertically and fix with proper screws.

Connect pump suction (A) and delivery (M) to the circuit.

## USE

For a good service of the pump, after having assembled the pump inside or on the tank in the proper way, please use only ISO6743/4 (DIN 51524), hydraulic mineral oil, viscosity according to ISO 3448 (DIN51519) standards.

**Advised viscosity:** 46 mm<sup>2</sup>/s (cSt)

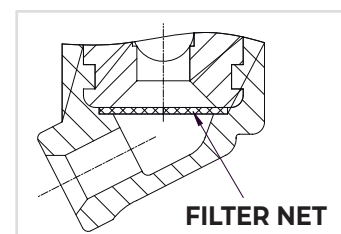
**Advised filtration:** 15 µm

**Contamination class:** 18/14 ISO4406  
(9 NAS 1638)

## MAINTENANCE

For a good service, we advise following periodical operations:

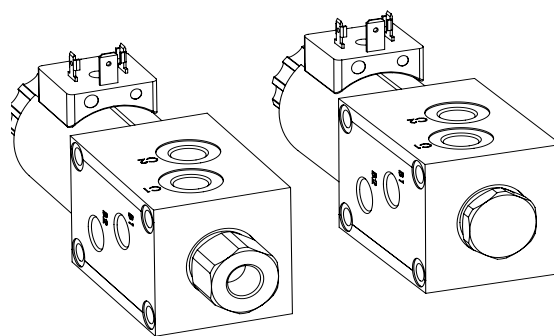
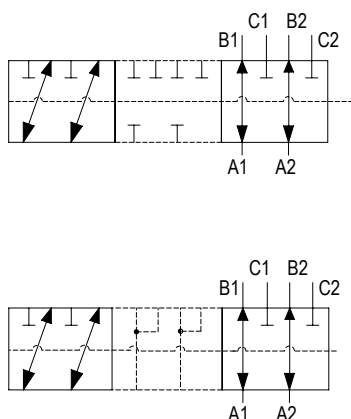
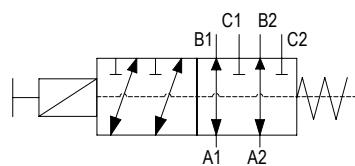
- FILTER NET CLEANING
- OIL REPLACEMENT



**FILTER NET**

## AVAILABLE TRANSIT POSITIONS

### HYDRAULIC CIRCUIT



WITH DRAIN

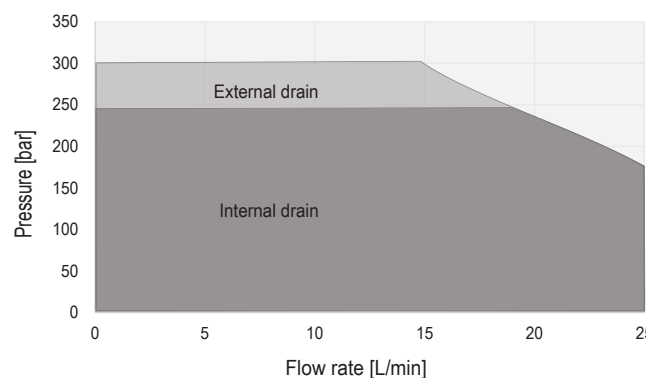
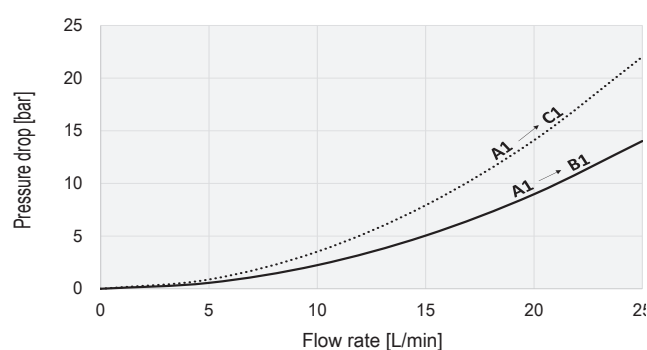
WITH PLUG

## TECHNICAL DATA

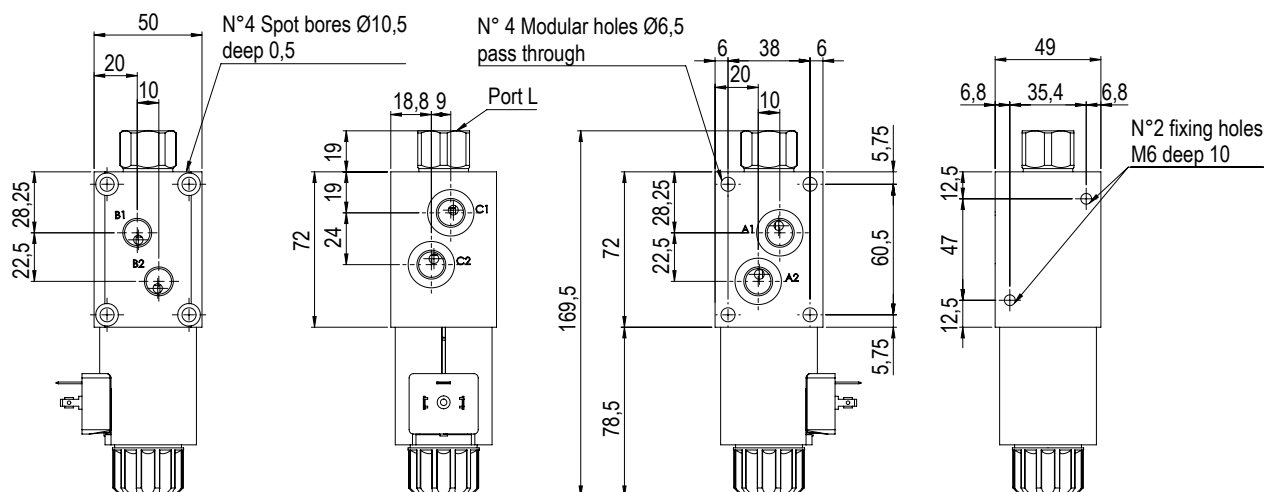
|                                      |                                      |              |
|--------------------------------------|--------------------------------------|--------------|
| Number ways available                | 6 - 8 - 10                           | ways         |
| Maximum Flow rate total              | 50                                   | L/min        |
| Maximum Flow rate on the single line | 25                                   | L/min        |
| Maximum Pressure with drainage       | 310                                  | bar          |
| Maximum Pressure without drainage    | 250                                  | bar          |
| Ports Dimension                      | BSPP 1/4"                            |              |
| Supply Voltage                       | 12 ( ±10% )                          | VDC          |
|                                      | 24 ( ±10% )                          | VDC          |
| Nominal Power                        | 40                                   | W            |
| Electrical connections Type          | DIN 46350                            |              |
|                                      | DEUTSCH DT4                          |              |
| Maximum Leakage @ 100 bar (per line) | 15 (referred to ISO-VG46 oil @ 40°C) | cm³/min      |
| Oil viscosity                        | 12 ÷ 400                             | mm²/s        |
| Viscosity operating range            | 15 ÷ 75                              | mm²/s        |
| Oil temperature                      | -20 ÷ 100                            | °C           |
| Max Contamination index              | ISO4406:1999 Class 18/16/13          |              |
| Ambient Temperature                  | -30 ÷ 50                             | °C           |
| Gaskets                              | NBR (standard)                       | -30 ÷ 130 °C |
|                                      | VITON                                | -20 ÷ 205 °C |
| Weight (single section)              | 1,4                                  | Kg           |

Measured with hydraulic fluid ISO-VG46 @ 40°C

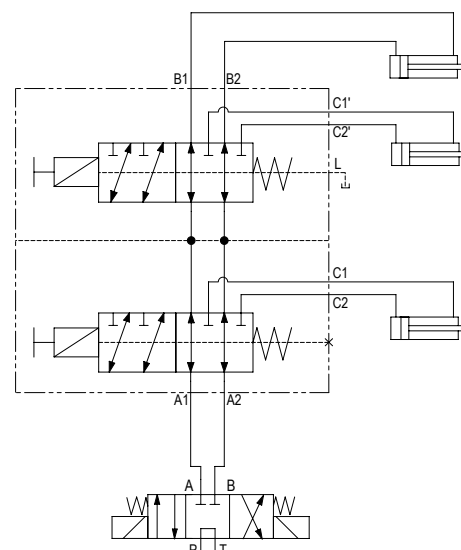
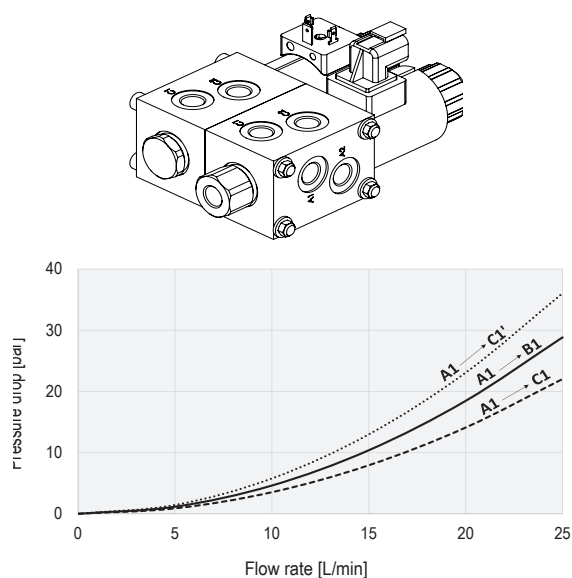
## PERFORMANCES



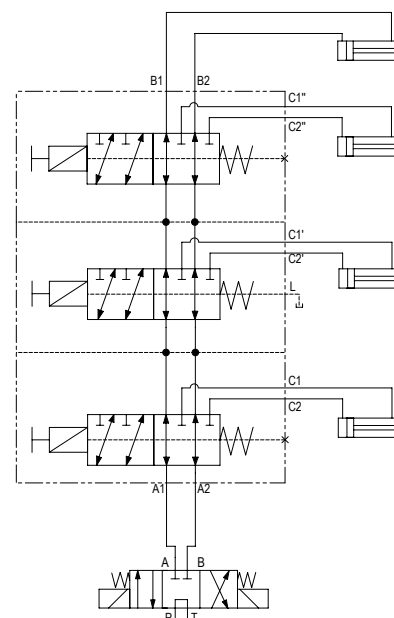
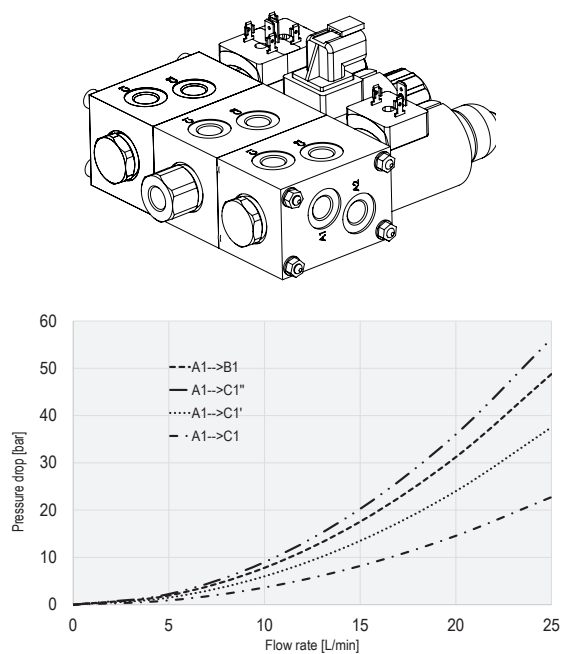
## OVERALL DIMENSIONS



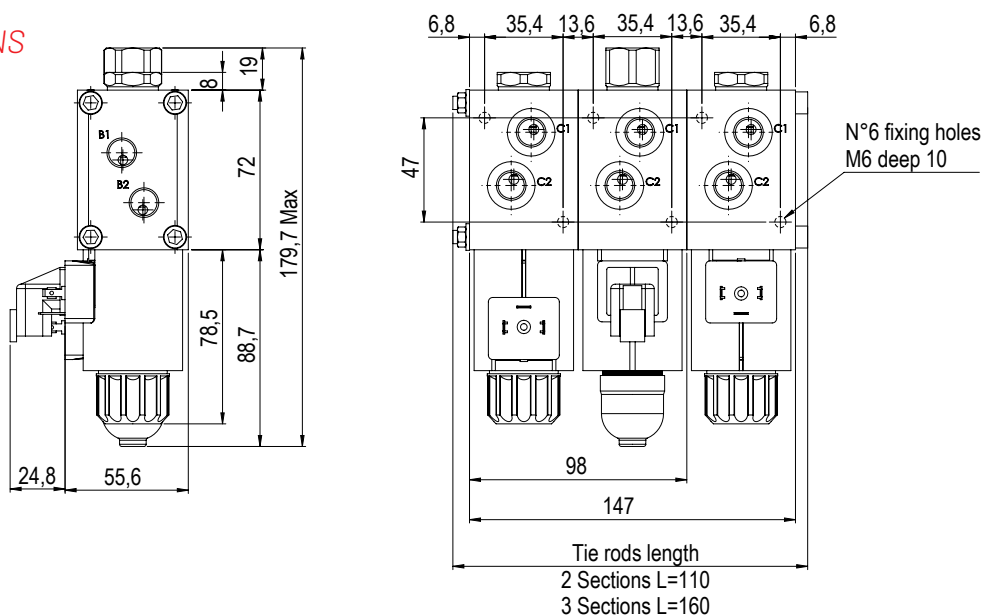
## 8 WAY



## 10 WAY

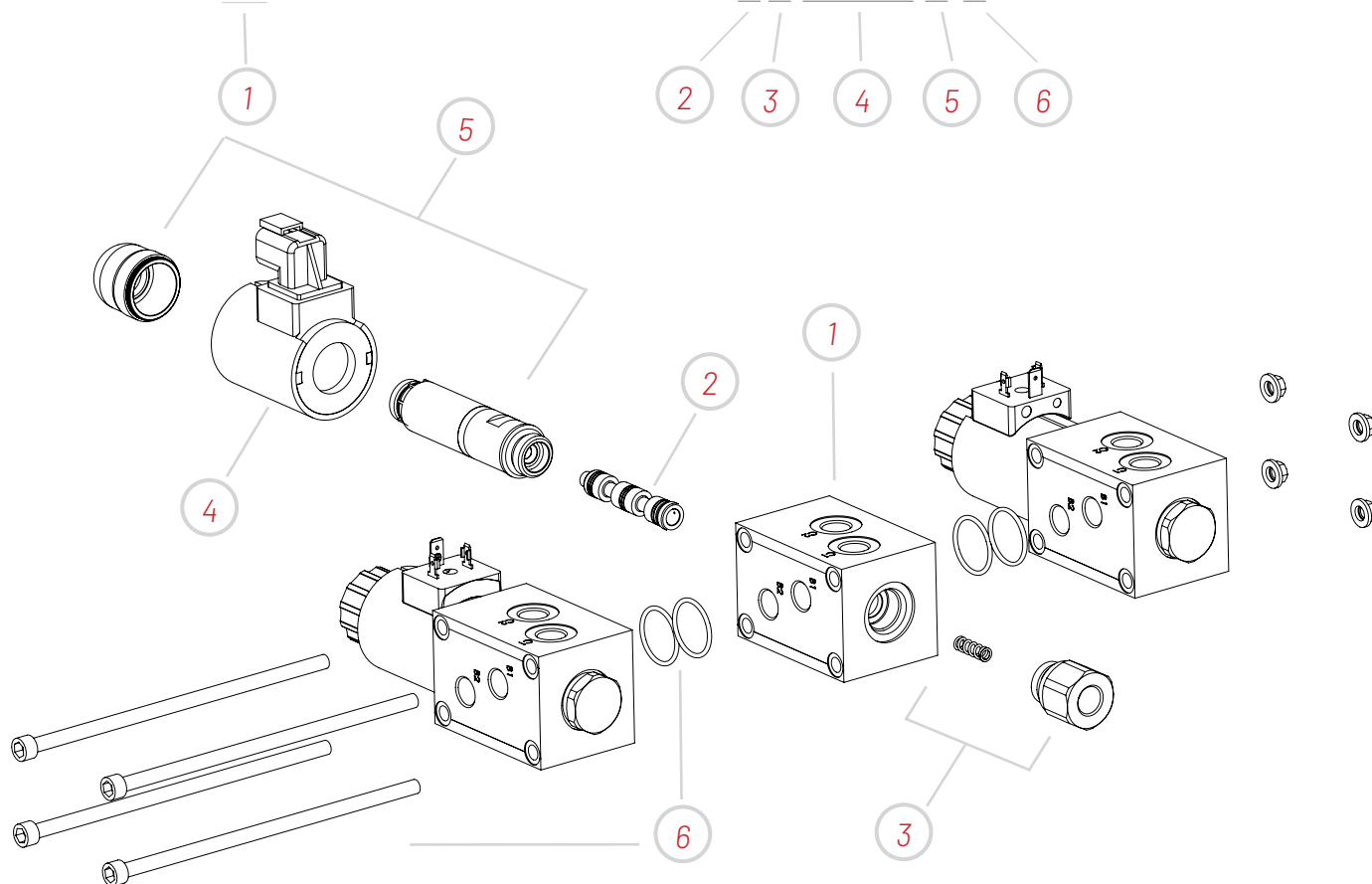


## OVERALL DIMENSIONS



## ORDERING CODE EXAMPLE

GENERAL / SECTION 1 / SECTION 2 / SECTION 3  
**EFD25A-10 / 1T24DNPN / 1L24DTKN / 2T24DNPN**



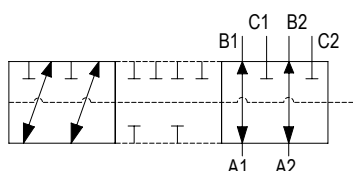
**6 WAY ORDERING CODE EXAMPLE: EFD25A-6/ 1L24DTKN**

**8 WAY ORDERING CODE EXAMPLE: EFD25A-8/ 1L24DTKN / 1L24DTKN**

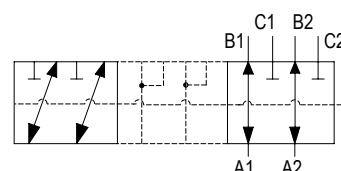
|   |                               | OPTIONS | DESCRIPTION                                   | SPARE PARTS CODE                              |
|---|-------------------------------|---------|-----------------------------------------------|-----------------------------------------------|
| 1 | WAYS NUMBER                   | 6       |                                               | -                                             |
|   |                               | 8       | Total number of ports                         | -                                             |
|   |                               | 10      |                                               | -                                             |
| 2 | SPOOL TYPE                    | 1       | Closed Transition                             | 3CUR03115700                                  |
|   |                               | 2       | Y Transition                                  | 3CUR03115701                                  |
| 3 | DRAIN                         | L       | Plug with external drain GAS BSPP 1/4 (NBR)   | 9TAP1M183000                                  |
|   |                               | T       | Plug for internal drain (NBR)                 | 9TAP1M183001                                  |
|   |                               | L       | Plug with external drain GAS BSPP 1/4 (VITON) | 9TAP1M183002                                  |
|   |                               | T       | Plug for internal drain (VITON)               | 9TAP1M183003                                  |
| 4 | COIL VOLTAGE AND CONNECTIONS  | 12DN    | 12VDC DIN46350                                | C012NDIN2200                                  |
|   |                               | 24DN    | 24VDC DIN46350                                | C024NDIN2200                                  |
|   |                               | 12DT    | 12VDC DEUTSCH DT4                             | C012NDT42200                                  |
|   |                               | 24DT    | 24VDC DEUTSCH DT4                             | C024NDT42200                                  |
| 5 | TYPE OF EMERGENCY             | K       | Covered Push Pin (For manual use)             | 9CAN22M18S00                                  |
|   |                               | P       | Push Pin                                      | 9CAN22M18S01                                  |
| 6 | TIE RODS KIT + FLANGE GASKETS | N       | NBR                                           | (8 WAY) 9FLA0981100N<br>(10 WAY) 9FLA0981600N |
|   |                               | V       | VITON                                         | (8 WAY) 9FLA0981100V<br>(10 WAY) 9FLA0981600V |

## CONFIGURATIONS AND SPARE PARTS

### 2 SPOOL TYPE

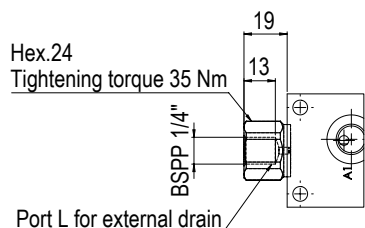


1 3CUR03115700

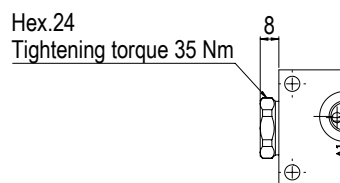


2 3CUR03115701

### 3 DRAIN



L 9TAP1M183000 - NBR  
9TAP1M183002 - VITON



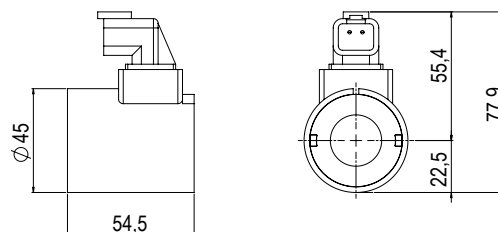
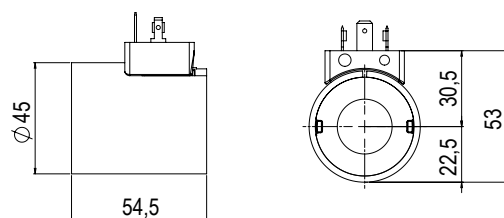
T 9TAP1M183001 - NBR  
9TAP1M183003 - VITON

### 4 COIL

DIN

DEUTSCH DT4

DN

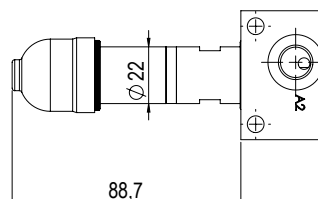


DT

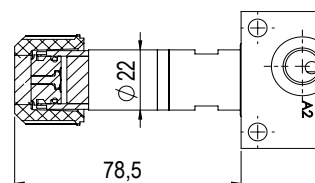
| ORDER CODE   | CONNECTIONS TYPE | NOMINAL VOLTAGE | NOMINAL POWER | PROTECTION CLASS                  | INSULATION | RELATIVE INTERMITTANCE |
|--------------|------------------|-----------------|---------------|-----------------------------------|------------|------------------------|
| C012NDIN2200 | DIN 46350        | 12 VDC          | 40 W          | IP 65                             | CLASS H    | ED 100%                |
| C024NDIN2200 |                  | 24 VDC          |               |                                   |            |                        |
| C012NDT42200 | DEUTSCH DT4      | 12 VDC          |               | IP 67                             |            |                        |
| C024NDT42200 |                  | 24 VDC          |               | IP 69K with appropriate connector |            |                        |

### 5 TYPE OF EMERGENCY

TIGHTENING TORQUE : 25Nm



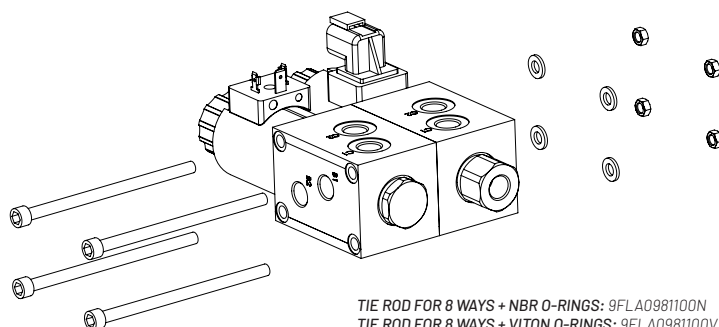
K PUSH FOR MANUAL OPERATION: 9CAN22M18S00



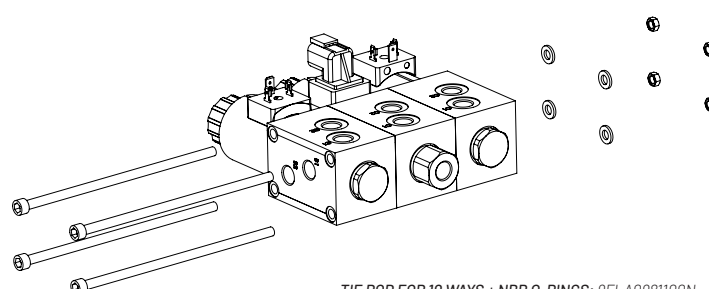
P PUSH PIN TYPE: 9CAN22M18S01

### 6 TIE RODS KIT + FLANGE GASKETS

NUTS AND WASHERS INCLUDED  
TIGHTENING TORQUE : 10Nm



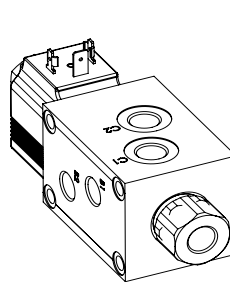
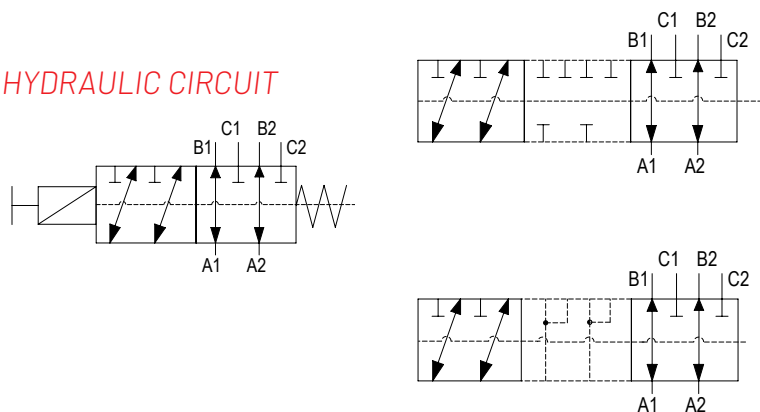
TIE ROD FOR 8 WAYS + NBR O-RINGS: 9FLA0981100N  
TIE ROD FOR 8 WAYS + VITON O-RINGS: 9FLA0981100V



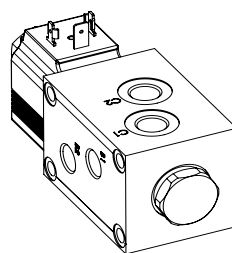
TIE ROD FOR 10 WAYS + NBR O-RINGS: 9FLA0981100N  
TIE ROD FOR 10 WAYS + VITON O-RINGS: 9FLA0981100V

## AVAILABLE TRANSIT POSITIONS

### HYDRAULIC CIRCUIT



EXTERNAL DRAIN



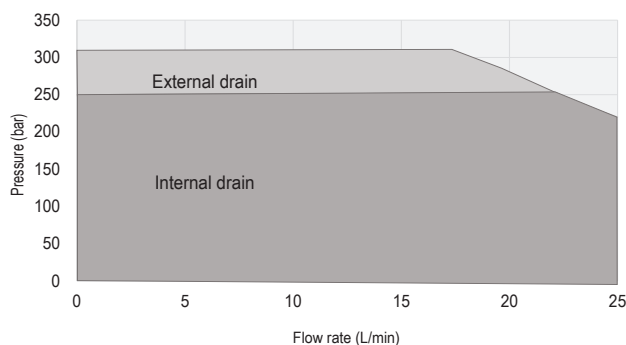
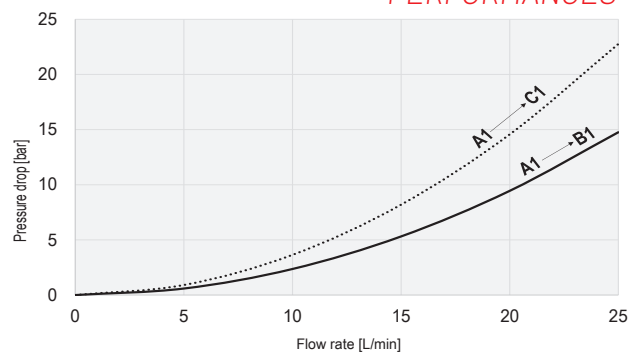
INTERNAL DRAIN

### TECHNICAL DATA

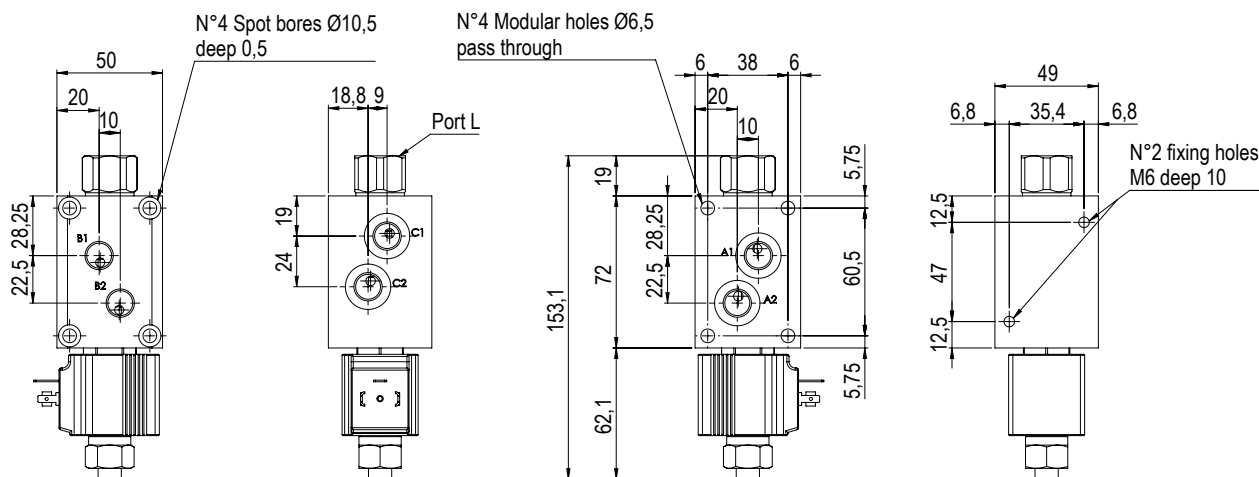
|                                      |                                      |                      |
|--------------------------------------|--------------------------------------|----------------------|
| Number ways available                | 6 - 8 - 10                           | ways                 |
| Maximum Flow rate total              | 25                                   | L/min                |
| Maximum Flow rate on the single line | 12,5                                 | L/min                |
| Maximum Pressure with drainage       | 310                                  | bar                  |
| Maximum Pressure without drainage    | 250                                  | bar                  |
| Ports Dimension                      | BSPP 1/4"                            |                      |
| Supply Voltage                       | 12 ( ±10% )                          | VDC                  |
|                                      | 24 ( ±10% )                          | VDC                  |
| Nominal Power                        | 27                                   | W                    |
| Electrical connections Type          | DIN 46350                            |                      |
|                                      | DEUTSCH DT4                          |                      |
| Maximum Leakage @ 100 bar (per line) | 15 (referred to ISO-VG46 oil @ 40°C) | cm <sup>3</sup> /min |
| Oil viscosity                        | 12 ÷ 400                             | mm <sup>2</sup> /s   |
| Viscosity operating range            | 15 ÷ 75                              | mm <sup>2</sup> /s   |
| Oil temperature                      | -20 ÷ 100                            | °C                   |
| Max Contamination index              | ISO4406:1999 Class 18/16/13          |                      |
| Ambient Temperature                  | -30 ÷ 50                             | °C                   |
| Gaskets                              | NBR (standard) -30 ÷ 130             | °C                   |
|                                      | VITON -20 ÷ 205                      | °C                   |
| Weight (single section)              | 1,3                                  | Kg                   |

Measured with hydraulic fluid ISO-VG46 @ 40°C

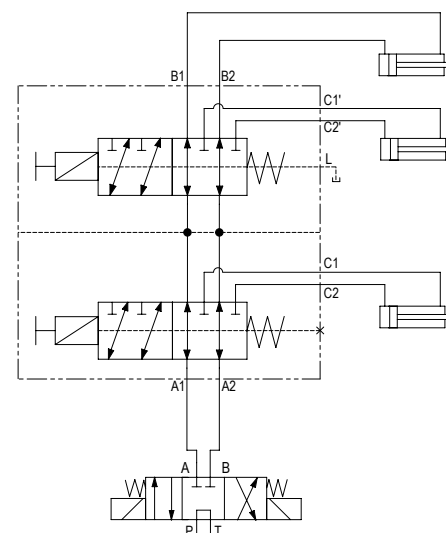
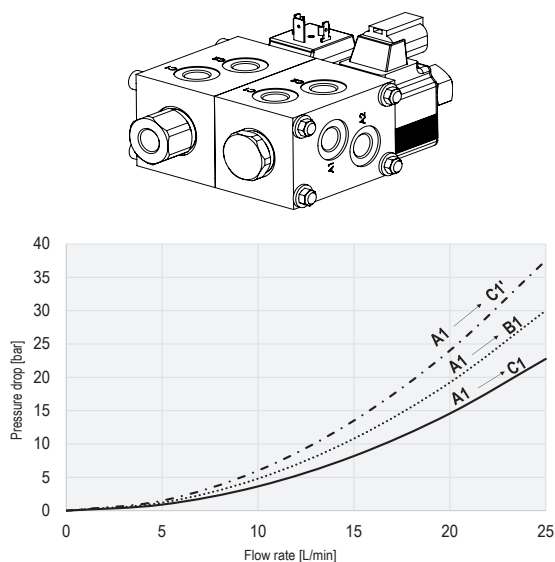
### PERFORMANCES



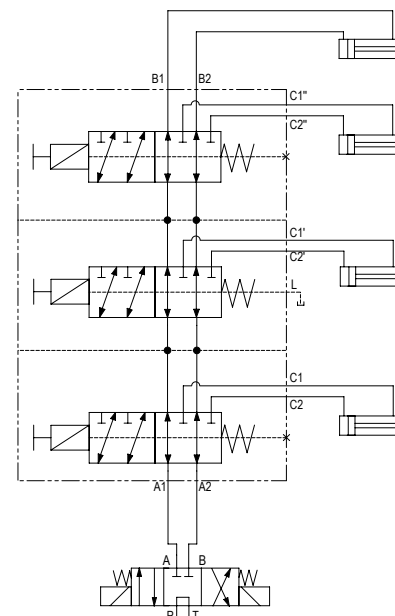
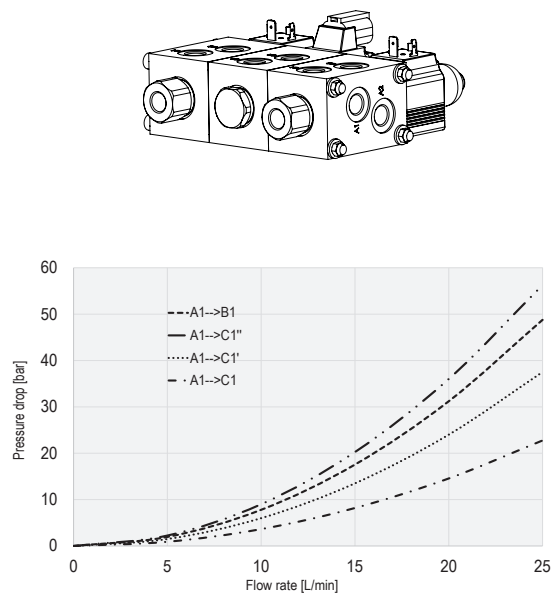
### OVERALL DIMENSIONS



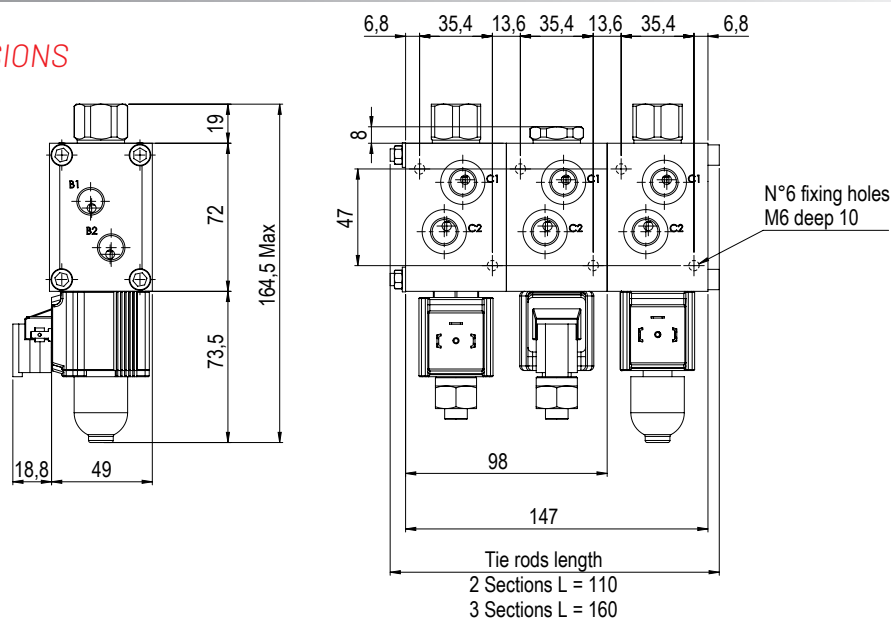
## 8 WAYS



## 10 WAYS



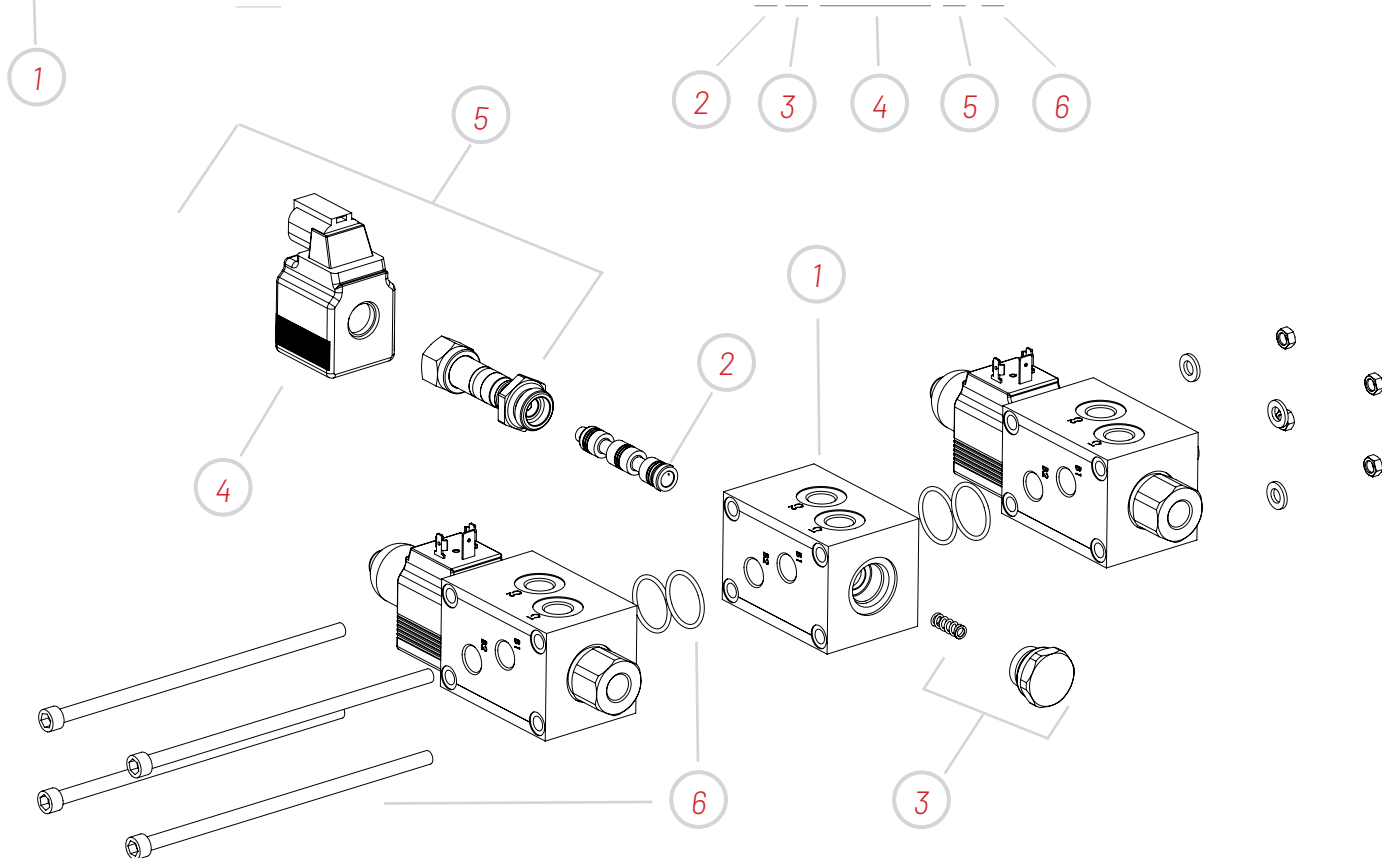
## OVERALL DIMENSIONS



## ORDERING CODE EXAMPLE

GENERAL                      SECTION 1                      SECTION 2                      SECTION 3

**EFD25B-10 / 1T24DNPN / 1L24DTKN / 2T24DNPN**



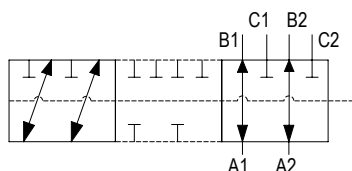
**6 WAY ORDERING CODE EXAMPLE: EFD25B-6/ 1L24DTKN**

**8 WAY ORDERING CODE EXAMPLE: EFD25B-8/ 1L24DTKN / 1L24DTKN**

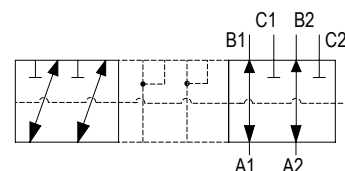
|   |                               | OPTIONS | DESCRIPTION                                   | SPARE PARTS CODE                              |
|---|-------------------------------|---------|-----------------------------------------------|-----------------------------------------------|
| 1 | WAYS NUMBER                   | 6       |                                               | -                                             |
|   |                               | 8       | Total number of ports                         | -                                             |
|   |                               | 10      |                                               | -                                             |
| 2 | SPOOL TYPE                    | 1       | Closed Transition                             | 3CUR03115700                                  |
|   |                               | 2       | Y Transition                                  | 3CUR03115701                                  |
| 3 | DRAIN                         | L       | Plug with external drain GAS BSPP 1/4 (NBR)   | 9TAP1M183004                                  |
|   |                               | T       | Plug for internal drain (NBR)                 | 9TAP1M183005                                  |
|   |                               | L       | Plug with external drain GAS BSPP 1/4 (VITON) | 9TAP1M183006                                  |
|   |                               | T       | Plug for internal drain (VITON)               | 9TAP1M183007                                  |
| 4 | COIL VOLTAGE AND CONNECTIONS  | 12DN    | 12VDC DIN46350                                | C012NDIN1400                                  |
|   |                               | 24DN    | 24VDC DIN46350                                | C024NDIN1400                                  |
|   |                               | 12DT    | 12VDC DEUTSCH DT4                             | C012NDT41400                                  |
|   |                               | 24DT    | 24VDC DEUTSCH DT4                             | C024NDT41400                                  |
| 5 | TYPE OF EMERGENCY             | P       | Push Pin                                      | 9CAN14M18S00                                  |
|   |                               | K       | Covered Push Pin (For manual use)             | 9CAN14M18S01                                  |
| 6 | TIE RODS KIT + FLANGE GASKETS | N       | NBR                                           | (8 WAY) 9FLA0981100N<br>(10 WAY) 9FLA0981600N |
|   |                               | V       | VITON                                         | (8 WAY) 9FLA0981100V<br>(10 WAY) 9FLA0981600V |

## CONFIGURATIONS AND SPARE PARTS

### 2 SPOOL TYPE

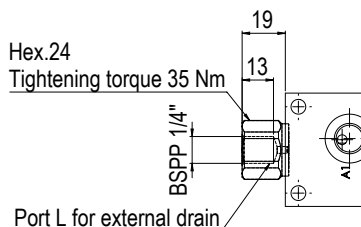


1 3CUR03115700

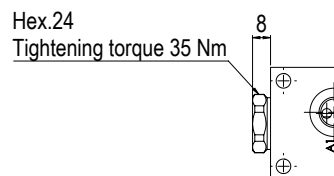


1 3CUR03115701

### 3 DRAIN



L 9TAP1M183004 - NBR  
9TAP1M183006 - VITON



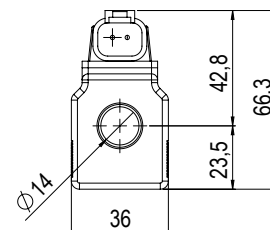
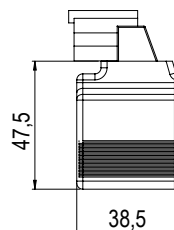
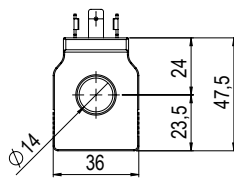
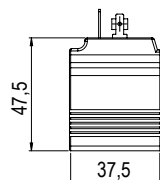
T 9TAP1M183005 - NBR  
9TAP1M183007 - VITON

### 4 COIL

DIN

DEUTSCH DT4

DN

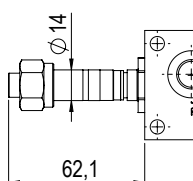


DT

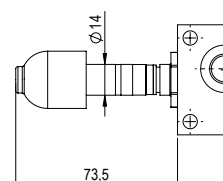
| ORDER CODE   | NOMINAL VOLTAGE | NOMINAL POWER | PROTECTION CLASS                           | INSULATION | RELATIVE INTERMITTANCE |
|--------------|-----------------|---------------|--------------------------------------------|------------|------------------------|
| C012NDIN1400 | 12 VDC          | 27 W          | IP 65                                      | CLASS H    | ED 100%                |
| C024NDIN1400 | 24 VDC          |               | IP 67<br>IP 69K with appropriate connector |            |                        |
| C012NDT41400 | 12 VDC          |               |                                            |            |                        |
| C024NDT41400 | 24 VDC          |               |                                            |            |                        |

### 5 TYPE OF EMERGENCY

TIGHTENING TORQUE : 25Nm



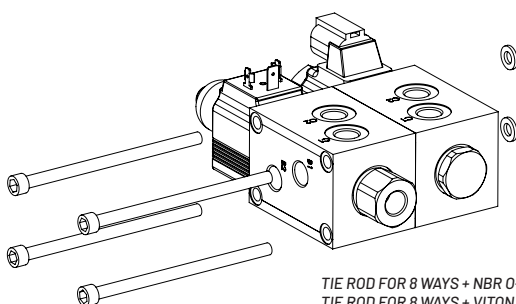
P PUSH PIN TYPE: 9CAN14M18S00



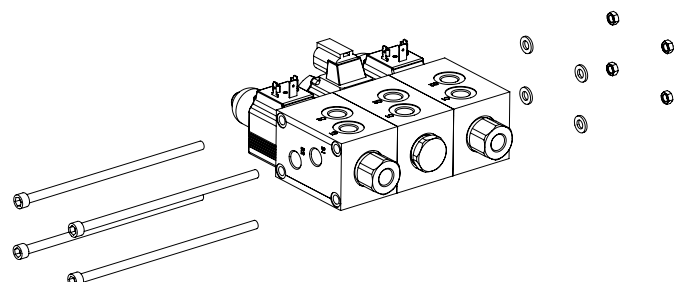
K PUSH FOR MANUAL OPERATION: 9CAN14M18S01

### 6 TIE RODS KIT + FLANGE GASKETS

NUTS AND WASHERS INCLUDED  
TIGHTENING TORQUE : 10Nm



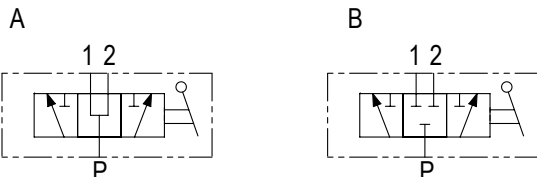
TIE ROD FOR 8 WAYS + NBR O-RINGS: 9FLA0981100N  
TIE ROD FOR 8 WAYS + VITON O-RINGS: 9FLA0981100V



TIE ROD FOR 10 WAYS + NBR O-RINGS: 9FLA0981100N  
TIE ROD FOR 10 WAYS + VITON O-RINGS: 9FLA0981100V



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



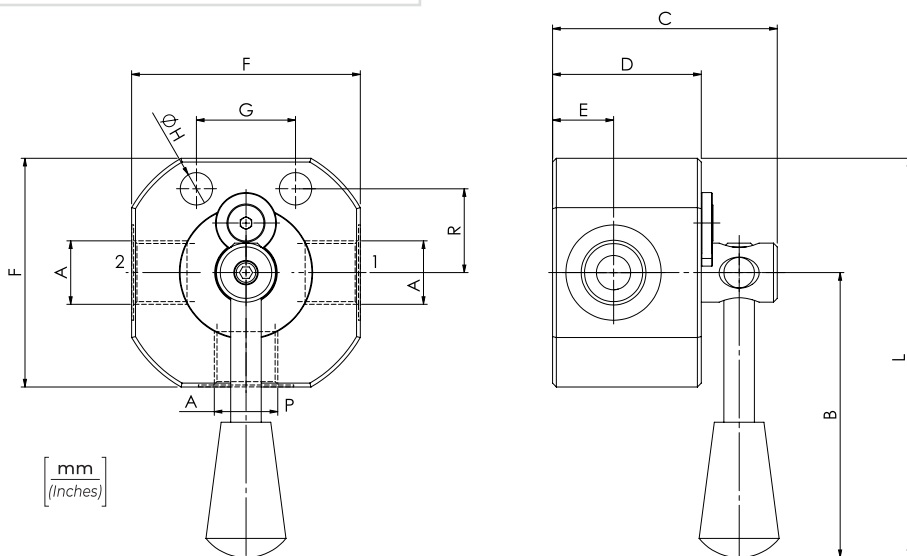
## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

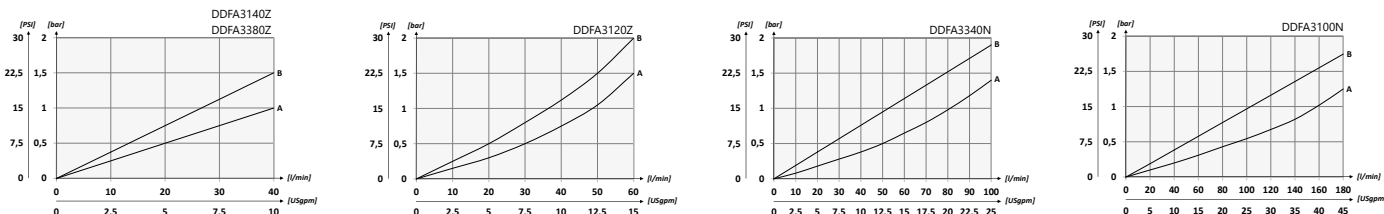
CODICE ORDINAZIONE  
ORDERING CODE

|              |    |    |    |
|--------------|----|----|----|
| 01           | 02 | 03 | 04 |
| <b>DDFA3</b> |    |    |    |

| 01 | DEVIATORI DI FLUSSO A 3 VIE ALTA PRESSIONE<br>(HIGH PRESSURE 3 WAYS FLOW DIVERTERS) |                               | DDFA3 |
|----|-------------------------------------------------------------------------------------|-------------------------------|-------|
| 02 | DIMENSIONE<br>(SIZE)                                                                | BSPP 1/4                      | 140   |
|    |                                                                                     | BSPP 3/8                      | 380   |
|    |                                                                                     | BSPP 1/2                      | 120   |
|    |                                                                                     | BSPP 3/4                      | 340   |
|    |                                                                                     | BSPP 1                        | 100   |
| 03 | ONLY FOR                                                                            | SIZE BSPP 140 - 380 - 120     | Z     |
|    |                                                                                     | SIZE BSPP 340 - 100           | N     |
| 04 | SCHEMA<br>(CIRCUIT)                                                                 | Centro aperto (Open centre)   | A     |
|    |                                                                                     | Centro chiuso (Closed centre) | B     |



## PERFORMANCES

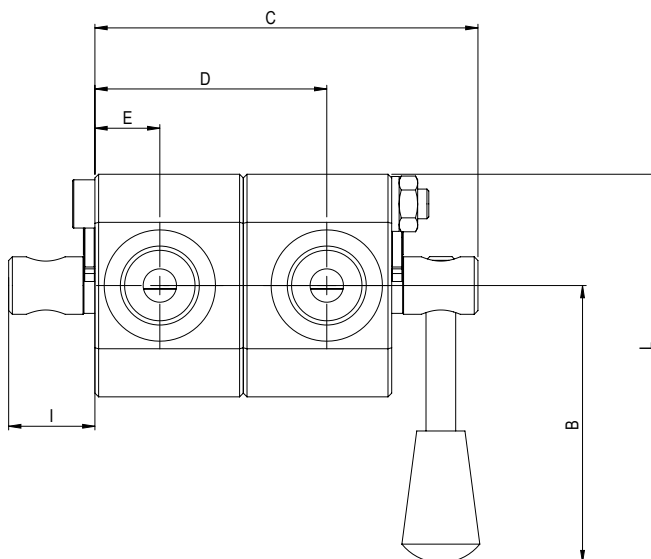
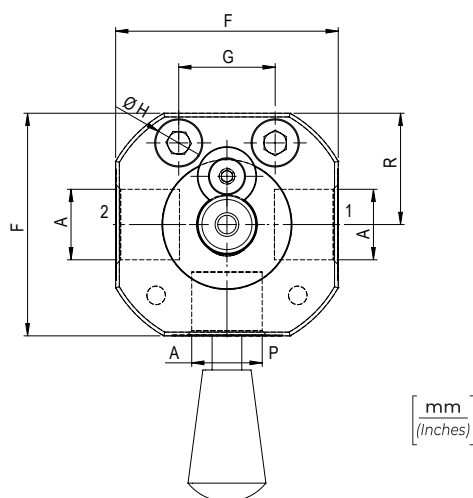
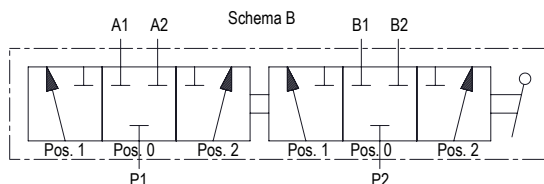
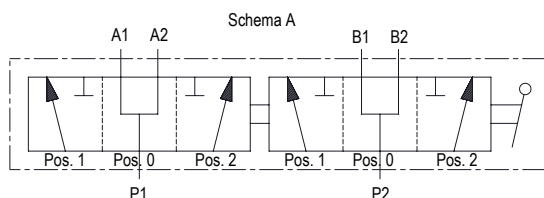


## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

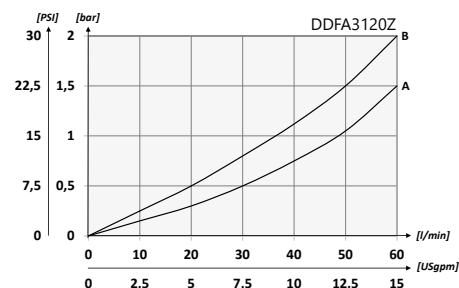
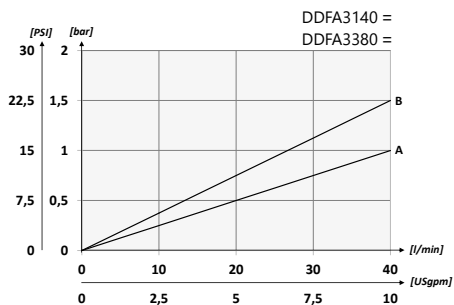
| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B         | C         | D         | E         | F         | G         | H          | L          | R         | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|----------|----------------------------------------|------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|------------|-----------|----------------------------------------|
| DDFA3140-Z   | BSPP 1/4 | 40 (10.6)                              | 500 (7250)                               | 80 (3.15) | 59 (2.32) | 39 (1.54) | 16 (0.63) | 60 (2.36) | 26 (1.02) | 8,5 (0.33) | 110 (4.33) | 22 (0.87) | 0.97 (2.13)                            |
| DDFA3380-Z   | BSPP 3/8 |                                        |                                          |           |           |           |           |           |           |            |            |           | 0.94 (2.07)                            |
| DDFA3120-Z   | BSPP 1/2 | 60 (15.8)                              |                                          |           |           |           |           |           |           |            |            |           | 0.90 (1.98)                            |
| DDFA3340-N   | BSPP 3/4 | 100 (26.4)                             |                                          |           |           |           |           |           |           |            |            |           | 2.24 (4.93)                            |
| DDFA3100-N   | BSPP 1   | 180 (47.5)                             |                                          |           |           |           |           |           |           |            |            |           | 2.33 (5.14)                            |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PERFORMANCES FOR STAGE



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B         | C         | D         | E         | F         | G         | H          | I         | L          | R         | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|----------|----------------------------------------|------------------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|------------|-----------|------------|-----------|----------------------------------------|
| DDFA6140-Z   | BSPP 1/4 | 40 For Stage (10.6)                    | 500 (7250)                               | 80 (3.15) | 59 (2.32) | 39 (1.54) | 16 (0.63) | 60 (2.36) | 26 (1.02) | 8,5 (0.33) | 23 (0.90) | 110 (4.33) | 22 (0.87) | 1.94 (4.43)                            |
| DDFA6380-Z   | BSPP 3/8 |                                        |                                          |           |           |           |           |           |           |            |           |            |           |                                        |
| DDFA6120-Z   | BSPP 1/2 | 60 For Stage (15.8)                    |                                          |           |           |           |           |           |           |            |           |            |           |                                        |

CODICE ORDINAZIONE  
ORDERING CODE

|       |    |    |    |
|-------|----|----|----|
| 01    | 02 | 03 | 04 |
| DDFA6 |    | Z  |    |

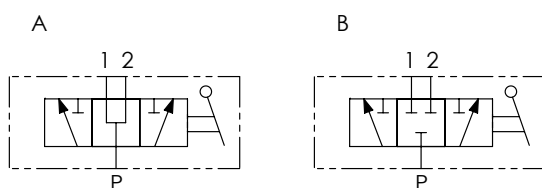
|    |                                                                                     |                               |       |
|----|-------------------------------------------------------------------------------------|-------------------------------|-------|
| 01 | DEVIATORI DI FLUSSO A 3 VIE ALTA PRESSIONE<br>(HIGH PRESSURE 3 WAYS FLOW DIVERTERS) |                               | DDFA6 |
| 02 | DIMENSIONE<br>(SIZE)                                                                | BSPP 1/4                      | 140   |
|    |                                                                                     | BSPP 3/8                      | 380   |
|    |                                                                                     | BSPP 1/2                      | 120   |
| 03 | ONLY FOR                                                                            | SIZE BSPP 140 - 380 - 120     | Z     |
| 04 | SCHEMA<br>(CIRCUIT)                                                                 | Centro aperto (Open centre)   | A     |
|    |                                                                                     | Centro chiuso (Closed centre) | B     |

## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)        |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)  |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14 |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F       |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F       |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                               |



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

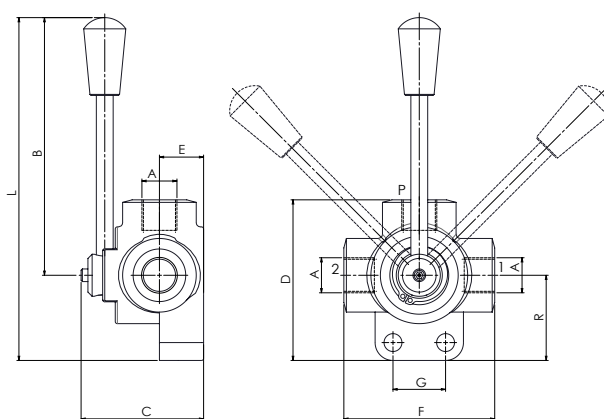
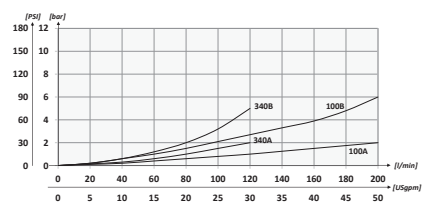
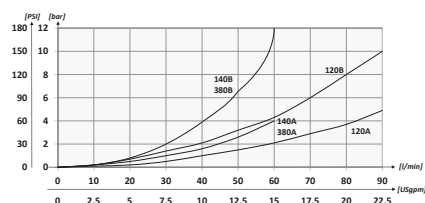
|                                                                                                                                                                                    |                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                              |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)           |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14                       |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                             |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                     |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 9cc/min @ 40 °C 200 bar<br>9cc/min @ 40° C 2900 PSI |

### CODICE ORDINAZIONE ORDERING CODE

|             |    |    |
|-------------|----|----|
| 01          | 02 | 03 |
| <b>DDF3</b> |    |    |

| 01 | DEVIATORI DI FLUSSO A 3 VIE<br>(3 WAYS FLOW DIVERTERS) |                                  | DDF3 |
|----|--------------------------------------------------------|----------------------------------|------|
| 02 | DIMENSIONE<br>(SIZE)                                   | BSPP 1/4                         | 140  |
|    |                                                        | BSPP 3/8                         | 380  |
|    |                                                        | BSPP 1/2                         | 120  |
|    |                                                        | BSPP 3/4                         | 340  |
|    |                                                        | BSPP 1                           | 100  |
| 03 | SCHEMA<br>(CIRCUIT)                                    | Centro aperto<br>(Open centre)   | A    |
|    |                                                        | Centro chiuso<br>(Closed centre) | B    |

### PERFORMANCES



[ mm ]  
[ inches ]

### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B          | C         | D           | E          | F         | G         | H           | L            | R            | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|----------|----------------------------------------|------------------------------------------|------------|-----------|-------------|------------|-----------|-----------|-------------|--------------|--------------|----------------------------------------|
| DDF3140      | BSPP 1/4 | 60 (15.8)                              | 350 (5075)                               | 115 (4.53) | 57 (2.24) | 75,5 (2.97) | 21 (0.83)  | 70 (2.76) | 25 (0.98) | 8,5 (0.33)  | 155,5 (6.12) | 32 (1.26)    | 0,8 (1.8)                              |
| DDF3380      | BSPP 3/8 |                                        |                                          |            |           |             |            |           |           |             |              |              |                                        |
| DDF3120      | BSPP 1/2 | 90 (23.8)                              |                                          |            | 63 (2.48) | 86 (3.39)   | 24 (0.94)  | 80 (3.15) | 32 (1.26) | 161 (6.34)  | 36 (1.42)    | 1,3 (2.8)    |                                        |
| DDF3340      | BSPP 3/4 | 120 (31.7)                             |                                          |            | 67 (2.64) | 98,5 (3.88) | 26 (1.02)  | 90 (3.54) |           | 10,5 (0.41) | 168,5 (6.63) | 42 (1.65)    | 1,7 (3.7)                              |
| DDF3100      | BSPP 1   | 200 (52.8)                             | 300 (4350)                               |            |           | 77 (3.03)   | 110 (4.33) | 31 (1.22) | 98 (3.86) |             |              | 176,5 (6.95) | 50 (1.97)                              |

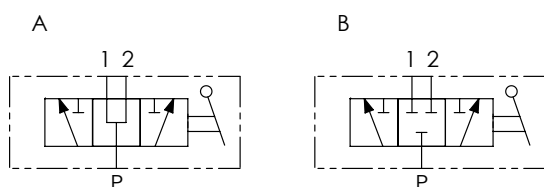


**CODICE ORDINAZIONE**  
ORDERING CODE

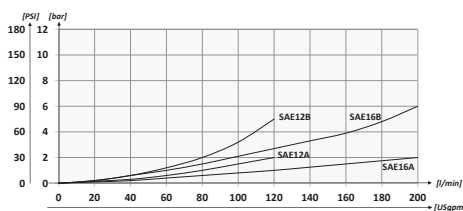
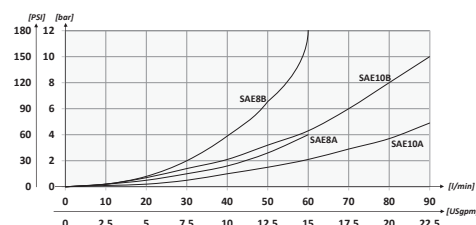
|                |    |    |
|----------------|----|----|
| 01             | 02 | 03 |
| <b>DDF3SAE</b> |    |    |

| 01 | DEVIATORI DI FLUSSO A 3 VIE<br>(3 WAYS FLOW DIVERTERS) |                                  | DDF3SAE |
|----|--------------------------------------------------------|----------------------------------|---------|
| 02 | DIMENSIONE<br>(SIZE)                                   | 3/4-16UNF                        | 8       |
|    |                                                        | 7/8-14UNF                        | 10      |
|    |                                                        | 1-1/16-12UN                      | 12      |
|    |                                                        | 1-5/16-12UN                      | 16      |
| 03 | SCHEMA<br>(CIRCUIT)                                    | Centro aperto<br>(Open centre)   | A       |
|    |                                                        | Centro chiuso<br>(Closed centre) | B       |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

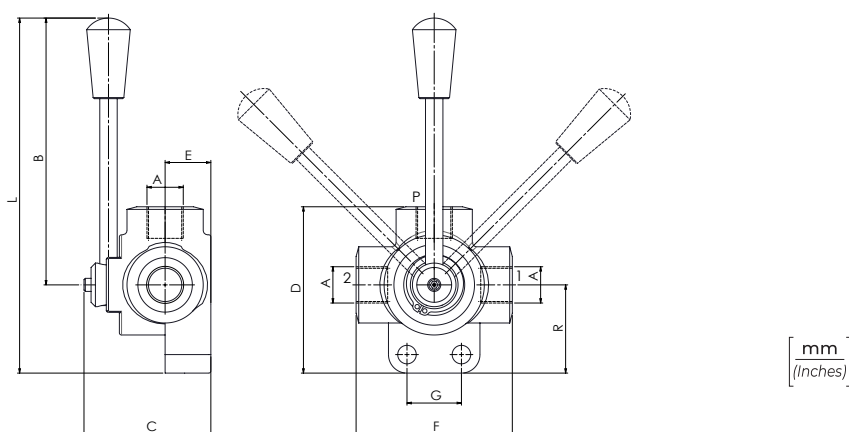


**PERFORMANCES**



**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                           |             |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------|--|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |             |  |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |             |  |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |             |  |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C                               | -4°F +176°F |  |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C                               | -4°F +122°F |  |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |             |  |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 9cc/min @ 40° C                           | 200 bar     |  |
|                                                                                                                                                                                    | 9cc/min @ 40°C                            | 2900 PSI    |  |

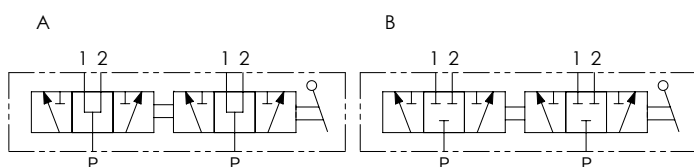


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | A           | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B             | C         | D           | E         | F         | G         | H           | L            | R         | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|-------------|----------------------------------------|------------------------------------------|---------------|-----------|-------------|-----------|-----------|-----------|-------------|--------------|-----------|----------------------------------------|
| DDF3SAE8     | 3/4-16UNF   | 60 (15.8)                              | 350 (5075)                               | 115<br>(4.53) | 57 (2.24) | 75,5 (2.97) | 21 (0.83) | 70 (2.76) | 25 (0.98) | 8,5 (0.33)  | 155,5 (6.12) | 32 (1.26) | 0,8 (1.8)                              |
| DDF3SAE10    | 7/8-14UNF   | 90 (23.8)                              |                                          |               | 63 (2.48) | 86 (3.39)   | 24 (0.94) | 80 (3.15) |           |             | 161 (6.34)   | 36 (1.42) | 1,3 (2.8)                              |
| DDF3SAE12    | 1-1/16-12UN | 120 (31.7)                             |                                          |               | 67 (2.64) | 98,5 (3.88) | 26 (1.02) | 90 (3.54) | 32 (1.26) | 10,5 (0.41) | 168,5 (6.63) | 42 (1.65) | 1,7 (3.7)                              |
| DDF3SAE16    | 1-5/16-12UN | 200 (52.8)                             | 300 (4350)                               |               | 77 (3.03) | 110 (4.33)  | 31 (1.22) | 98 (3.86) |           |             | 176,5 (6.95) | 50 (1.97) | 2,2 (5.5)                              |



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

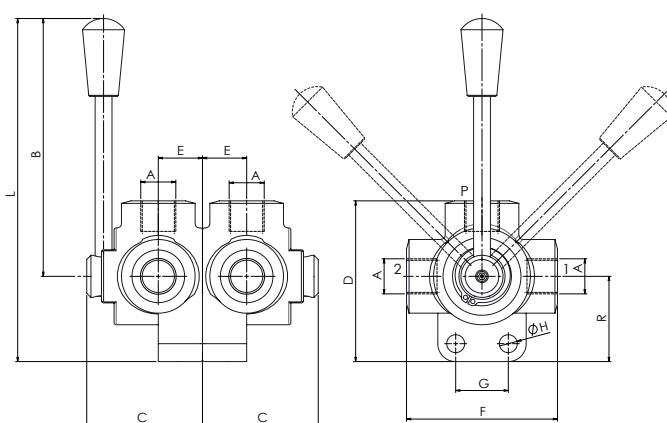
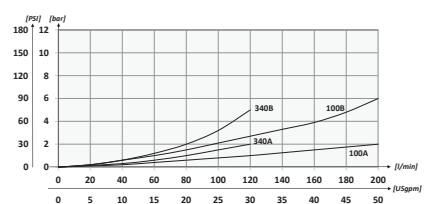
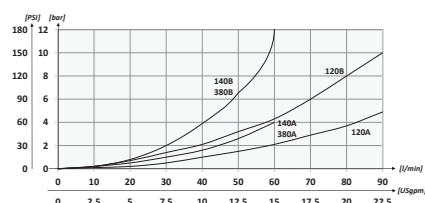
|                                                                                                                                                                                    |                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| Olío idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                              |
| Viscosità olío - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)           |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14                       |
| Temperatura dell'olío - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                             |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                             |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                     |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 9cc/min @ 40° C 200 bar<br>9cc/min @ 40° C 2900 PSI |

### CODICE ORDINAZIONE ORDERING CODE

| 01          | 02 | 03 |
|-------------|----|----|
| <b>DDF6</b> |    |    |

| 01 | DEVIATORI DI FLUSSO A 6 VIE<br>(6 WAYS FLOW DIVERTERS) | DDF6                             |
|----|--------------------------------------------------------|----------------------------------|
| 02 | DIMENSIONE<br>(SIZE)                                   | BSPP 1/4                         |
|    |                                                        | 140                              |
|    |                                                        | BSPP 3/8                         |
|    |                                                        | 380                              |
|    |                                                        | BSPP 1/2                         |
| 03 | SCHEMA<br>(CIRCUIT)                                    | BSPP 3/4                         |
|    |                                                        | 120                              |
|    |                                                        | BSPP 1                           |
|    |                                                        | 340                              |
|    |                                                        | 100                              |
| 03 | SCHEMA<br>(CIRCUIT)                                    | Centro aperto<br>(Open centre)   |
|    |                                                        | A                                |
| 03 | SCHEMA<br>(CIRCUIT)                                    | Centro chiuso<br>(Closed centre) |
|    |                                                        | B                                |

### PERFORMANCES



[ mm  
(Inches) ]

### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B          | C         | D           | E         | F         | G         | H           | L            | R         | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|----------|----------------------------------------|------------------------------------------|------------|-----------|-------------|-----------|-----------|-----------|-------------|--------------|-----------|----------------------------------------|
| DDF6140      | BSPP 1/4 | 60+60 (15.8+15.8)                      | 350 (5075)                               | 115 (4.53) | 57 (2.24) | 75,5 (2.97) | 21 (0.83) | 70 (2.76) | 25 (0.98) | 8,5 (0.33)  | 155,5 (6.12) | 32 (1.26) | 1,6 (3.52)                             |
| DDF6380      | BSPP 3/8 |                                        |                                          |            |           |             |           |           |           |             |              |           |                                        |
| DDF6120      | BSPP 1/2 | 90+90 (23.8+23.8)                      |                                          |            | 63 (2.48) | 86 (3.39)   | 24 (0.94) | 80 (3.15) | 32 (1.26) | 10,5 (0.41) | 161 (6.34)   | 36 (1.42) | 2,6 (5.7)                              |
| DDF6340      | BSPP 3/4 | 120+120 (31.7+31.7)                    |                                          |            | 67 (2.64) | 98,5 (3.88) | 26 (1.02) | 90 (3.54) |           |             | 168,5 (6.63) | 42 (1.65) | 3,4 (7.5)                              |
| DDF6100      | BSPP 1   | 200+200 (52.8+52.8)                    | 300 (4000)                               |            | 77 (3.03) | 110 (4.33)  | 31 (1.22) | 98 (3.86) |           |             | 176,5 (6.95) | 50 (1.97) | 5,3 (12)                               |

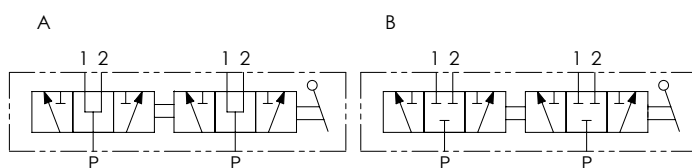


### CODICE ORDINAZIONE ORDERING CODE

| 01             | 02 | 03 |
|----------------|----|----|
| <b>DDF6SAE</b> |    |    |

| 01 | DEVIATORI DI FLUSSO A 6 VIE<br>(6 WAYS FLOW DIVERTERS) |                                  | DDF6SAE |
|----|--------------------------------------------------------|----------------------------------|---------|
| 02 | DIMENSIONE<br>(SIZE)                                   | 3/4-16UNF                        | 8       |
|    |                                                        | 7/8-14UNF                        | 10      |
|    |                                                        | 1-1/16-12UN                      | 12      |
|    |                                                        | 1-5/16-12UN                      | 16      |
| 03 | SCHEMA<br>(CIRCUIT)                                    | Centro aperto<br>(Open centre)   | A       |
|    |                                                        | Centro chiuso<br>(Closed centre) | B       |

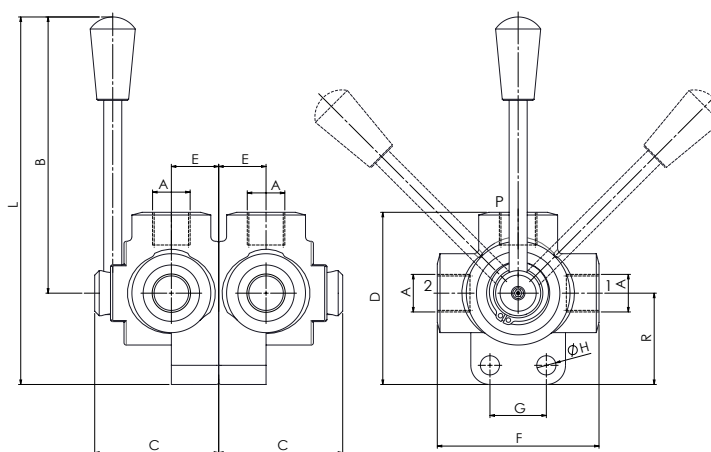
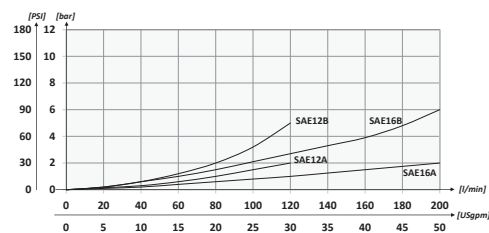
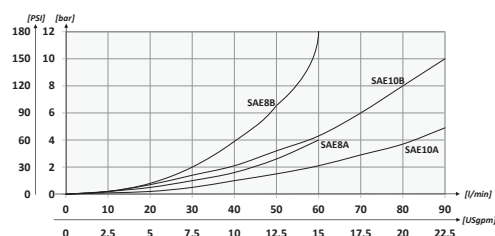
### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |             |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------|--|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                | ISO 6743/4 (DIN 51524)                    |             |  |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                              | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |             |  |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                     | ISO 4406:1999 Classe 19/17/14             |             |  |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                     | -20°C +80°C                               | -4°F +176°F |  |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                              | -20°C +50°C                               | -4°F +122°F |  |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |             |  |
| <b>Trafilamento massimo</b><br>Max leakage                                                                                                                                         | 9cc/min @ 40°C                            | 200 bar     |  |
|                                                                                                                                                                                    | 9cc/min @ 40°C                            | 2900 PSI    |  |

### PERFORMANCES

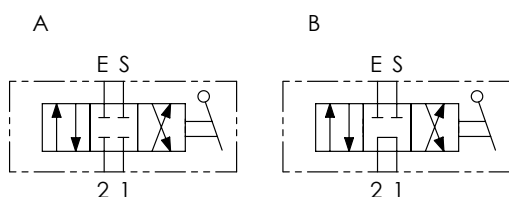


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A           | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B             | C         | D              | E         | F         | G         | H              | L            | R         | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|-------------|----------------------------------------|------------------------------------------|---------------|-----------|----------------|-----------|-----------|-----------|----------------|--------------|-----------|----------------------------------------|
| DDF6SAE8     | 3/4-16UNF   | 60+60 (15.8+15.8)                      | 350 (5075)                               | 115<br>(4.53) | 57 (2.24) | 75,5 (2.97)    | 21 (0.83) | 70 (2.76) | 25 (0.98) | 8,5<br>(0.33)  | 155,5 (6.12) | 32 (1.26) | 1,5 (3.3)                              |
| DDF6SAE10    | 7/8-14UNF   | 90+90 (23.8+23.8)                      |                                          |               | 63 (2.48) | 86 (3.38)      | 24 (0.95) | 80 (3.15) |           |                | 161 (6.34)   | 36 (1.42) | 2,6 (5.7)                              |
| DDF6SAE12    | 1-1/16-12UN | 120+120 (31.7+31.7)                    |                                          |               | 67 (2.64) | 98,5<br>(3.88) | 26 (1.02) | 90 (3.54) | 32 (1.26) | 10,5<br>(0.41) | 168,5 (6.63) | 42 (1.65) | 3,4 (7.5)                              |
| DDF6SAE16    | 1-5/16-12UN | 200+200 (52.8+52.8)                    | 300 (4000)                               |               | 77 (3.03) | 110 (4.33)     | 31 (1.22) | 98 (3.86) |           |                | 176,5 (6.95) | 50 (1.97) | 5,3 (12)                               |



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



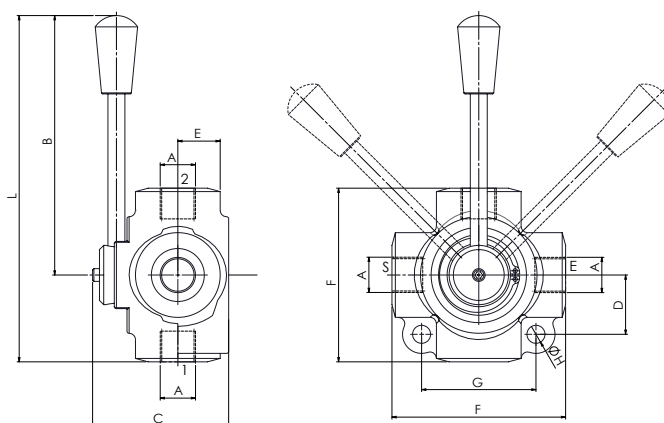
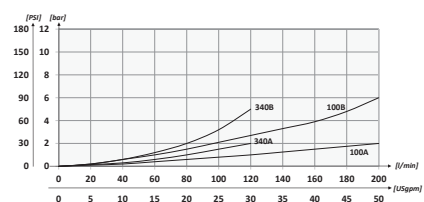
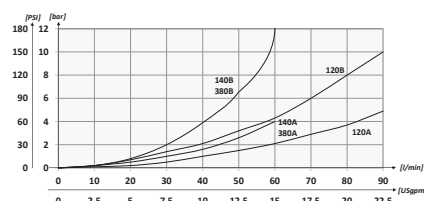
### DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                            |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)         |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14                     |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                           |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                           |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                   |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 9cc/min @ 40°C 200 bar<br>9cc/min @ 40°C 2900 PSI |

### CODICE ORDINAZIONE ORDERING CODE

| 01          | 02                                                     | 03                               |
|-------------|--------------------------------------------------------|----------------------------------|
| <b>IDF4</b> |                                                        |                                  |
| <b>01</b>   | DEVIATORI DI FLUSSO A 4 VIE<br>(4 WAYS FLOW DIVERTERS) |                                  |
| <b>02</b>   | DIMENSIONE<br>(SIZE)                                   | BSPP 1/4                         |
|             |                                                        | BSPP 3/8                         |
|             |                                                        | BSPP 1/2                         |
|             |                                                        | BSPP 3/4                         |
|             |                                                        | BSPP 1                           |
| <b>03</b>   | SCHEMA<br>(CIRCUIT)                                    | Centro chiuso<br>(Closed centre) |
|             |                                                        | Centro aperto<br>(Open centre)   |

### PERFORMANCES



### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B          | C         | D         | E         | F         | G         | H           | L          | PESO APPROX (kg)<br>APPROX WEIGHT (lb) |
|--------------|----------|----------------------------------------|------------------------------------------|------------|-----------|-----------|-----------|-----------|-----------|-------------|------------|----------------------------------------|
| IDF4140      | BSPP 1/4 | 60 (15.8)                              | 350 (5075)                               | 115 (4.53) | 63 (2.48) | 28 (1.10) | 24 (0.94) | 80 (3.15) | 54 (2.13) | 8,5 (0.33)  | 155 (6.10) | 1,3 (2.8)                              |
| IDF4380      | BSPP 3/8 |                                        |                                          |            |           |           |           |           |           |             |            |                                        |
| IDF4120      | BSPP 1/2 | 90 (23.8)                              |                                          |            |           |           |           |           |           |             |            |                                        |
| IDF4340      | BSPP 3/4 | 120 (31.7)                             |                                          |            |           |           |           |           | 74 (2.91) | 10,5 (0.41) | 162 (6.38) | 2,8 (6.1)                              |
| IDF4100      | BSPP 1   | 200 (52.8)                             | 300 (4350)                               |            | 77 (3.03) | 38 (1.50) | 31 (1.22) | 94 (3.70) |           |             |            |                                        |



**CODICE ORDINAZIONE**  
ORDERING CODE

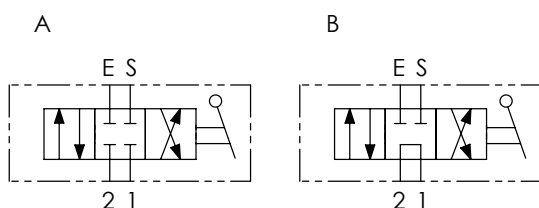
|                |    |    |
|----------------|----|----|
| 01             | 02 | 03 |
| <b>IDF4SAE</b> |    |    |

| 01 | DEVIATORI DI FLUSSO A 4 VIE (4 WAYS FLOW DIVERTERS) |                                  | IDF4SAE |
|----|-----------------------------------------------------|----------------------------------|---------|
| 02 | DIMENSIONE<br>(SIZE)                                | 3/4-16UNF                        | 8       |
|    |                                                     | 7/8-14UNF                        | 10      |
|    |                                                     | 1-1/16-12UN                      | 12      |
|    |                                                     | 1-5/16-12UN                      | 16      |
| 03 | SCHEMA<br>(CIRCUIT)                                 | Centro chiuso<br>(Closed centre) | A       |
|    |                                                     | Centro aperto<br>(Open centre)   | B       |

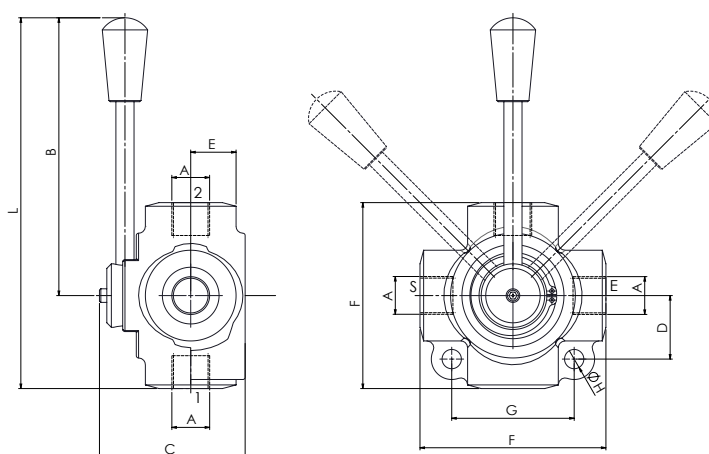
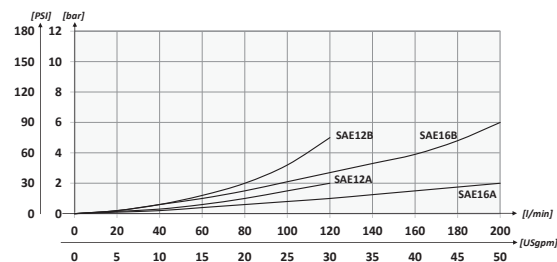
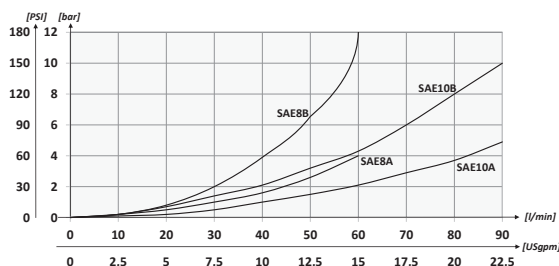
**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                      |                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-----------------------------------|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                | <b>ISO 6743/4</b> (DIN 51524)        |                                   |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                              | <b>15-250 mm²/s</b> (15 to 250 cSt)  |                                   |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                     | <b>ISO 4406:1999 Classe 19/17/14</b> |                                   |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                     | <b>-20°C +80°C</b>                   | <b>-4°F +176°F</b>                |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                              | <b>-20°C +50°C</b>                   | <b>-4°F +122°F</b>                |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                      |                                   |
| <b>Trafilamento massimo</b><br>Max leakage                                                                                                                                         | <b>9 cc/min @ 40°C</b>               | <b>200 bar</b><br><b>2900 PSI</b> |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**PERFORMANCES**



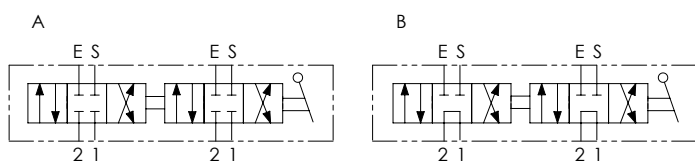
[ mm ]  
[ inches ]

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | A           | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B             | C         | D         | E         | F         | G         | H           | L          | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|-------------|----------------------------------------|------------------------------------------|---------------|-----------|-----------|-----------|-----------|-----------|-------------|------------|----------------------------------------|
| IDF4SAE8     | 3/4-16UNF   | 60 (15.8)                              | 350 (5075)                               | 115<br>(4.53) | 63 (2.48) | 28 (1.10) | 24 (0.94) | 80 (3.15) | 54 (2.13) | 8,5 (0.33)  | 155 (6.10) | 1,3 (2.8)                              |
| IDF4SAE10    | 7/8-14UNF   | 90 (23.8)                              |                                          |               |           |           |           |           |           |             |            |                                        |
| IDF4SAE12    | 1-1/16-12UN | 120 (31.7)                             |                                          |               |           |           |           |           |           |             |            |                                        |
| IDF4SAE16    | 1-5/16-12UN | 200 (52.8)                             | 300 (4350)                               |               | 77 (3.03) | 38 (1.50) | 31 (1.22) | 94 (3.70) | 74 (2.91) | 10,5 (0.41) | 162 (6.38) | 2 (4.4)                                |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## DATI TECNICI / TECHNICAL DATA

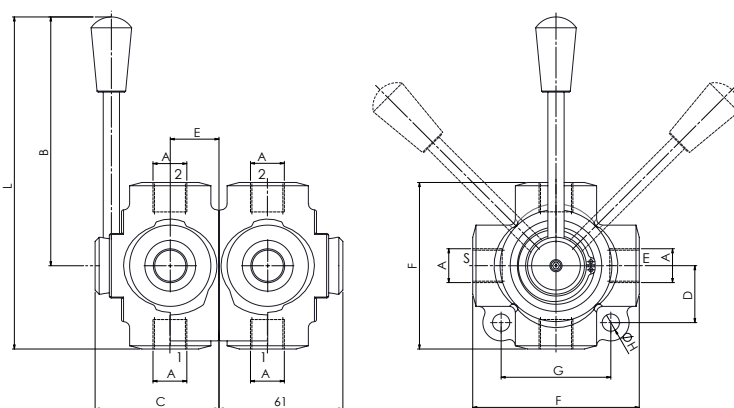
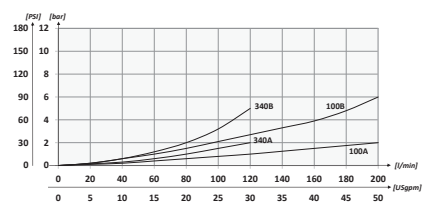
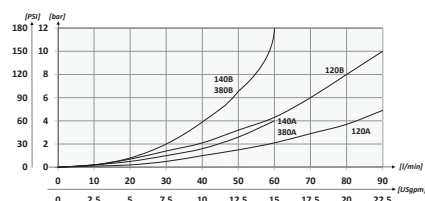
|                                                                                                                                                                                    |                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                             |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt)          |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14                      |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                            |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                            |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                                    |
| Trafilamento massimo<br>Max leakage                                                                                                                                                | 9cc/min @ 40°C. 200 bar<br>9cc/min @ 40°C 2900 PSI |

## CODICE ORDINAZIONE ORDERING CODE

|             |    |    |
|-------------|----|----|
| 01          | 02 | 03 |
| <b>IDF8</b> |    |    |

| 01 | DEVIATORI DI FLUSSO A 8 VIE<br>(8 WAYS FLOW DIVERTERS) | IDF8                             |
|----|--------------------------------------------------------|----------------------------------|
| 02 | DIMENSIONE<br>(SIZE)                                   | BSPP 1/4                         |
|    |                                                        | 140                              |
|    |                                                        | BSPP 3/8                         |
|    |                                                        | 380                              |
|    |                                                        | BSPP 1/2                         |
| 03 | SCHEMA<br>(CIRCUIT)                                    | BSPP 3/4                         |
|    |                                                        | 120                              |
|    |                                                        | BSPP 1                           |
|    |                                                        | 340                              |
|    |                                                        | 100                              |
| 03 | SCHEMA<br>(CIRCUIT)                                    | Centro chiuso<br>(Closed centre) |
|    |                                                        | A                                |
| 03 | SCHEMA<br>(CIRCUIT)                                    | Centro aperto<br>(Open centre)   |
|    |                                                        | B                                |

## PERFORMANCES



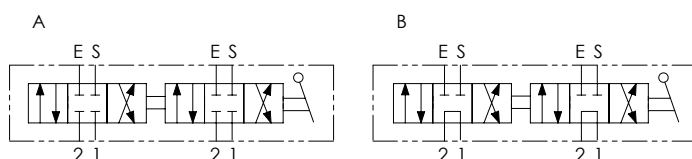
[ mm  
(Inches) ]

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

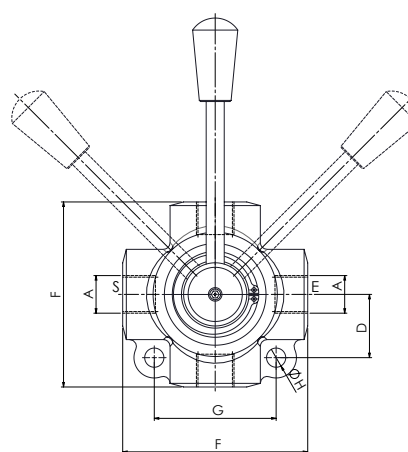
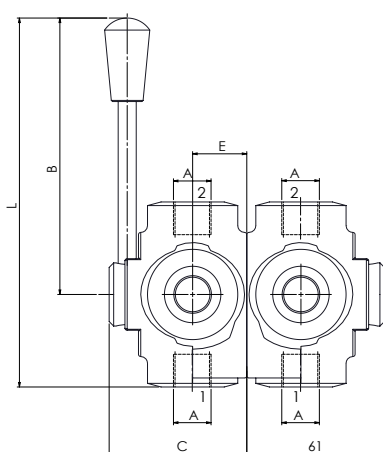
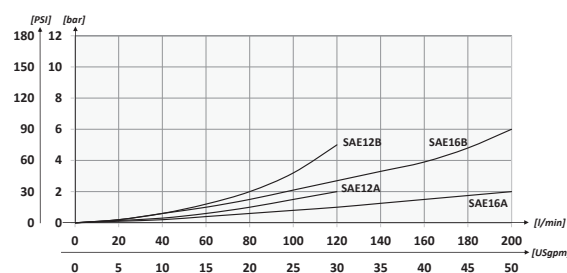
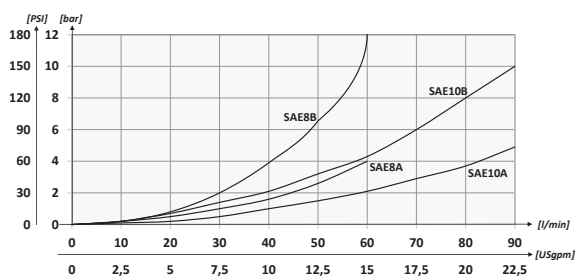
| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B             | C         | D         | E         | F         | G         | H           | L          | PESO APPROX (kg)<br>APPROX WEIGHT (lbft) |
|--------------|----------|----------------------------------------|------------------------------------------|---------------|-----------|-----------|-----------|-----------|-----------|-------------|------------|------------------------------------------|
| IDF8140      | BSPP 1/4 | 60+60 (15.8+15.8)                      | 350 (5075)                               | 115<br>(4.53) | 63 (2.48) | 28 (1.10) | 24 (0.94) | 80 (3.15) | 54 (2.13) | 8,5 (0.33)  | 155 (6.10) | 2,70 (5.86)                              |
| IDF8380      | BSPP 3/8 |                                        |                                          |               |           |           |           |           |           |             |            |                                          |
| IDF8120      | BSPP 1/2 | 90+90 (23.8+23.8)                      |                                          |               |           |           |           |           | 74 (2.91) | 10,5 (0.41) | 162 (6.38) | 2,52 (5.47)                              |
| IDF8340      | BSPP 3/4 | 120+120 (31.7+31.7)                    |                                          |               |           |           |           |           |           |             |            |                                          |
| IDF8100      | BSPP 1   | 200+200 (52.8+52.8)                    | 300 (4000)                               |               | 77 (3.03) | 38 (1.50) | 31 (1.22) | 94 (3.70) |           |             |            | 4 (8.8)                                  |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



## PERFORMANCES



[ mm ]  
[ inches ]

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A           | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B             | C         | D         | E         | F         | G         | H           | L          | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|-------------|----------------------------------------|------------------------------------------|---------------|-----------|-----------|-----------|-----------|-----------|-------------|------------|----------------------------------------|
| IDF8SAE8     | 3/4-16UNF   | 60+60 (15.8+15.8)                      | 350 (5075)                               | 115<br>(4.53) | 63 (2.48) | 28 (1.10) | 24 (0.94) | 80 (3.15) | 54 (2.13) | 8,5 (0.33)  | 155 (6.10) | 2,3 (5)                                |
| IDF8SAE10    | 7/8-14UNF   | 90+90 (23.8+23.8)                      |                                          |               |           |           |           |           |           |             |            | 2,1 (4.6)                              |
| IDF8SAE12    | 1-1/16-12UN | 120+120 (31.7+31.7)                    |                                          |               |           |           |           |           | 74 (2.91) |             |            | 4,3 (9.5)                              |
| IDF8SAE16    | 1-5/16-12UN | 200+200 (52.8+52.8)                    | 300 (4350)                               |               | 77 (3.03) | 38 (1.50) | 31 (1.22) | 94 (3.70) |           | 10,5 (0.41) | 162 (6.38) | 4 (8.8)                                |

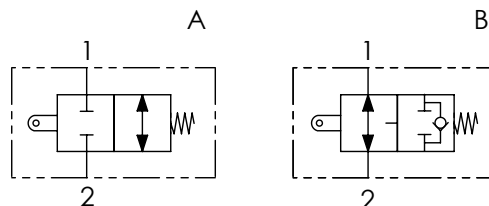


### CODICE ORDINAZIONE ORDERING CODE

| 01         | 02 | 03 |
|------------|----|----|
| <b>FCT</b> |    |    |

| 01 | VALVOLE DI FINE CORSA A TRAZIONE (TUG END - STROKE VALVES) | FCT                           |
|----|------------------------------------------------------------|-------------------------------|
| 02 | DIMENSIONE<br>(SIZE)                                       | BSPP 3/8                      |
|    |                                                            | BSPP 1/2                      |
|    |                                                            | BSPP 3/4                      |
|    |                                                            | BSPP 1                        |
| 03 | SCHEMA<br>(CIRCUIT)                                        | Centro chiuso (Closed centre) |
|    |                                                            | Centro aperto (Open centre)   |

### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT

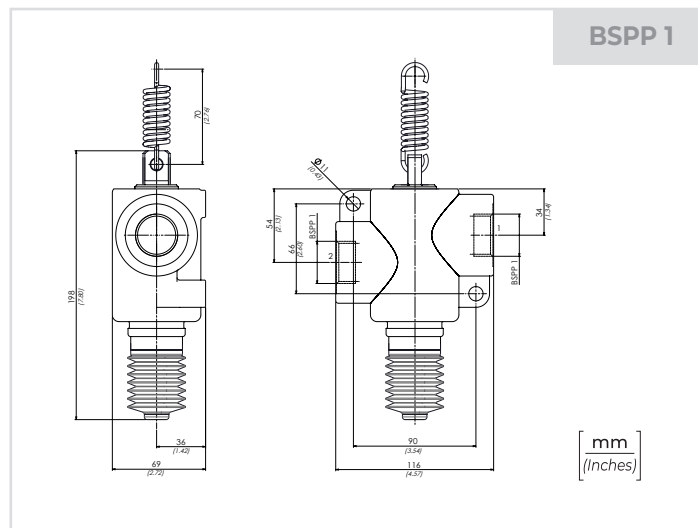
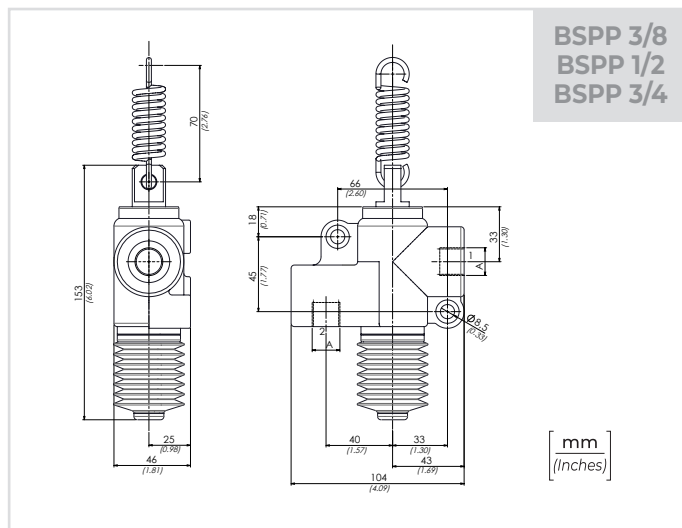


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

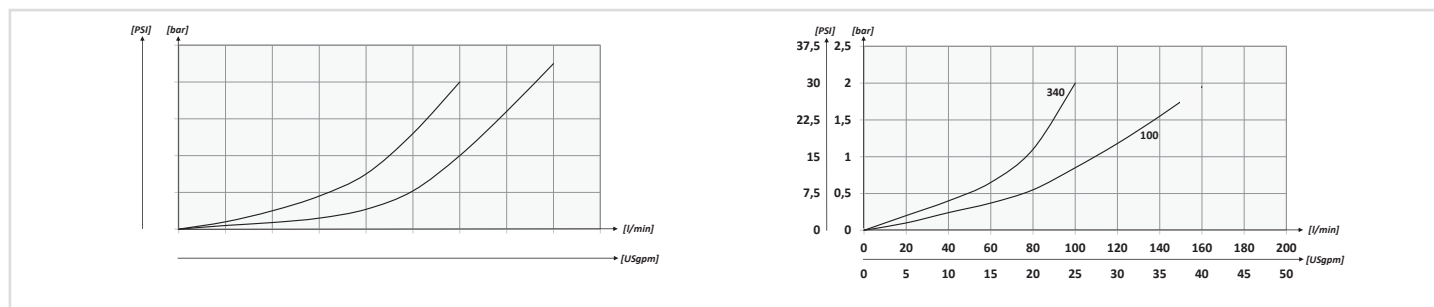
| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt |
|--------------|----------|----------------------------------------|------------------------------------------|-------------------------------------------|
| 380          | BSPP 3/8 | 60 (15.8)                              | 250 (3625)                               | 1,7 (3.7)                                 |
| 120          | BSPP 1/2 | 80 (21.1)                              |                                          | 1,8 (4)                                   |
| 340          | BSPP 3/4 | 100 (26.4)                             |                                          | 1,9 (4.1)                                 |
| 100          | BSPP 1   | 140 (37)                               | 200 (2900)                               | 2,5 (5.5)                                 |

### DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |



### PERFORMANCES



# COMPONENTI E ACCESSORI

## HYDRAULIC COMPONENTS

Valvole a sfera a 2, 3 e 4 vie, giunti girevoli, mini-prese di pressione ed esclusori manometro.

Ball valves 2, 3 or 4 ways, rotating couplings, pressure gauge shut-off valves and test couplings for pressure checking.



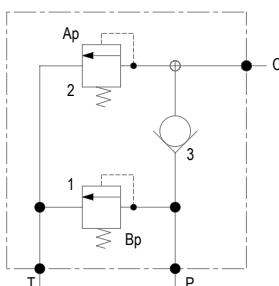
**CODICE ORDINAZIONE**  
ORDERING CODE

|               |            |          |          |          |          |           |
|---------------|------------|----------|----------|----------|----------|-----------|
| 01            | 02         | 03       | 04       | 05       | 06       | 07        |
| <b>VARA01</b> | <b>380</b> | <b>1</b> | <b>S</b> | <b>N</b> | <b>-</b> | <b>00</b> |



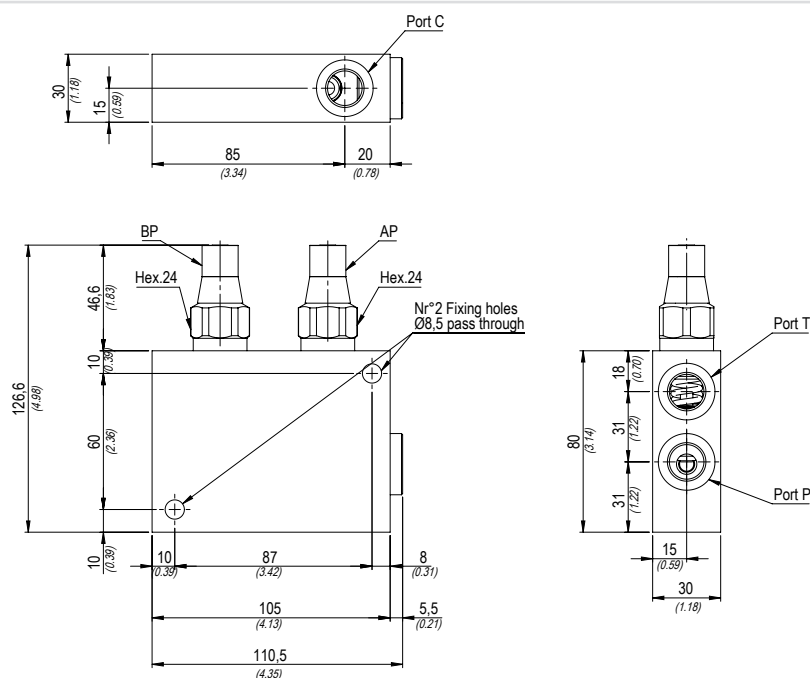
|           |                                                                                                               |                                                                                                                                                         |
|-----------|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>01</b> | BLOCCO PER CARICO ANTIURTO ARATRI E RIPUNTATORI NO-STOP<br>(LOADING AND SHOCKPROOF VALVE FOR NO-STOP PLOUGHS) | <b>VARA01</b>                                                                                                                                           |
| <b>02</b> | DIMENSIONE<br>(SIZE)                                                                                          | <b>BSPP 3/8"</b>                                                                                                                                        |
| <b>03</b> | MATERIALE<br>(MATERIAL)                                                                                       | <b>Acciaio</b><br>(Steel)                                                                                                                               |
| <b>04</b> | TRATTAMENTO SUPERFICIALE<br>(SURFACE TREATMENT)                                                               | <b>Zincatura CRII</b>                                                                                                                                   |
| <b>05</b> | GUARNIZIONI<br>(GASKETS)                                                                                      | <b>NBR</b>                                                                                                                                              |
| <b>06</b> |                                                                                                               | <b>-</b>                                                                                                                                                |
| <b>07</b> | TARATURA VMP<br>(VMP SETTING)                                                                                 | <b>AP Piombata 250 bar @ 5 L/min</b><br>(Plumbing AP 3625 PSI @ 1.3 gpm)<br><br><b>BP Piombata 80 bar @ 5 L/min</b><br>(Plumbing BP 1160 PSI @ 1.3 gpm) |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



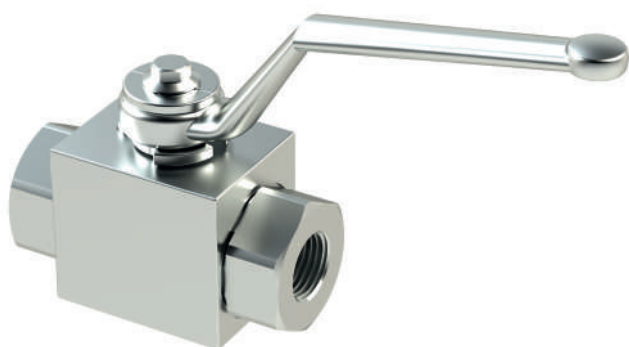
**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                           |                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| <b>Olio idraulico - Mineral oil</b>                                                                                                                                                       | <b>ISO 6743/4 (DIN 51524)</b>        |
| <b>Viscosità olio - Oil viscosity</b>                                                                                                                                                     | <b>15-250 mm²/s (15 to 250 cSt)</b>  |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                            | <b>ISO 4406:1999 Classe 19/17/15</b> |
| <b>Temperatura dell'olio - Oil temperature</b>                                                                                                                                            | <b>-20°C +80°C</b> -4°F +176°F       |
| <b>Temperatura ambiente - Environment temperature</b>                                                                                                                                     | <b>-20°C +50°C</b> -4°F +122°F       |
| <b>È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)</b><br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                      |



**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE           | DIMENSIONI<br>SIZE | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|------------------------|--------------------|----------------------------------------|------------------------------------------|----------------------------------------|
| <b>VARA013801SN-00</b> | <b>BSPP 3/8"</b>   | <b>40 (5075)</b>                       | <b>350 (5075)</b>                        | <b>1.8 (2.6)</b>                       |

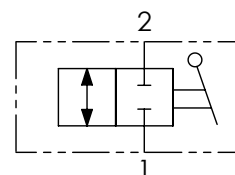


**CODICE ORDINAZIONE**  
ORDERING CODE

|             |    |    |
|-------------|----|----|
| 01          | 02 | 03 |
| <b>RAS2</b> |    |    |

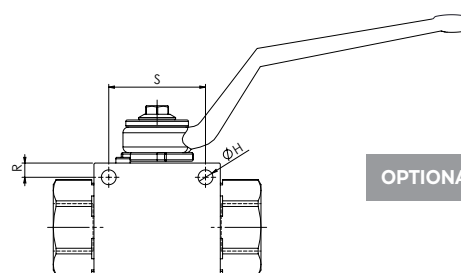
| 01 | VALVOLE A SFERA A 2 VIE (2 WAYS BALL VALVES) | RAS2                             |
|----|----------------------------------------------|----------------------------------|
| 02 | DIMENSIONE<br>(SIZE)                         | BSPP 1/8                         |
|    |                                              | BSPP 1/4                         |
|    |                                              | BSPP 3/8                         |
|    |                                              | BSPP 1/2                         |
|    |                                              | BSPP 3/4                         |
|    |                                              | BSPP 1                           |
|    |                                              | BSPP 1-1/4                       |
|    |                                              | BSPP 1-1/2                       |
| 03 | OPTIONAL                                     | Fori di fissaggio (Fixing ports) |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**

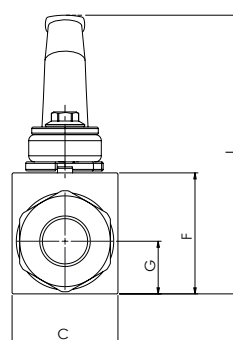
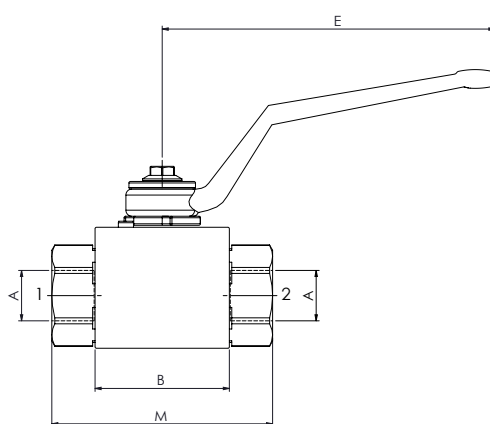


**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olío idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olío - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olío - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |



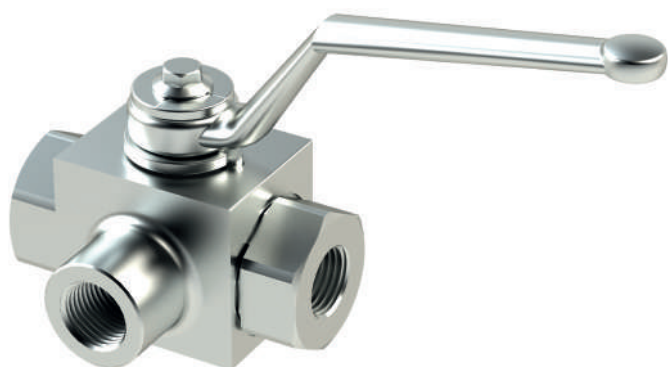
OPTIONAL



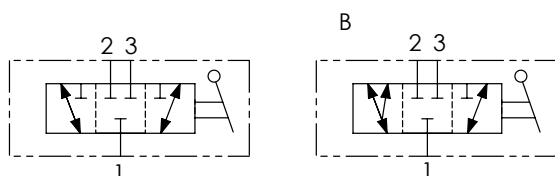
[ mm  
(Inches) ]

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | A          | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B           | C         | E          | F         | G           | H          | L            | M          | R          | S         | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|------------|----------------------------------------|------------------------------------------|-------------|-----------|------------|-----------|-------------|------------|--------------|------------|------------|-----------|----------------------------------------|
| RAS2180      | BSPP 1/8   | 15 (4)                                 | 500 (7250)                               | 42,4 (1.67) | 30 (1.18) | 110 (4.33) | 35 (1.38) | 14,5 (0.57) | 5,2 (0.20) | 91,5 (3.60)  | 71 (2.80)  | 4,5 (0.18) | 34 (1.34) | 0,5 (1.1)                              |
| RAS2140      | BSPP 1/4   | 25 (6.6)                               |                                          | 44,4 (1.75) | 35 (1.38) |            | 40 (1.57) | 17,5 (0.69) |            | 96,5 (3.80)  | 73 (2.87)  |            |           |                                        |
| RAS2380      | BSPP 3/8   | 35 (9.2)                               |                                          | 48,4 (1.91) | 37 (1.46) |            | 43 (1.69) | 18 (0.71)   |            | 99,5 (3.92)  | 83 (3.27)  |            |           |                                        |
| RAS2120      | BSPP 1/2   | 60 (15.8)                              |                                          | 62,5 (2.46) | 45 (1.77) |            | 55 (2.17) | 23,5 (0.93) |            | 106,5 (4.19) | 95 (3.74)  |            |           |                                        |
| RAS2340      | BSPP 3/4   | 100 (26.4)                             | 400 (5800)                               | 66,5 (2.62) | 55 (2.17) | 180 (7.09) | 65 (2.56) | 29,5 (1.16) | 6,2 (0.24) | 116,5 (4.59) | 120 (4.72) | 6 (0.24)   | 50 (1.97) | 2,5 (5.5)                              |
| RAS2100      | BSPP 1     | 150 (39.6)                             | 350 (5075)                               |             |           |            |           |             |            |              |            |            |           |                                        |
| RAS2114      | BSPP 1-1/4 |                                        |                                          |             |           |            |           |             |            |              |            |            |           |                                        |
| RAS2112      | BSPP 1-1/2 |                                        |                                          |             |           |            |           |             |            |              |            |            |           |                                        |



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



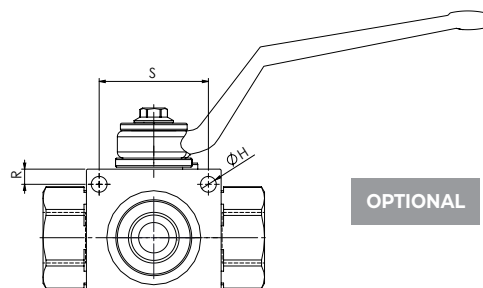
### CODICE ORDINAZIONE ORDERING CODE

| 01          | 02 | 03 | 04 |
|-------------|----|----|----|
| <b>RAS3</b> |    |    |    |

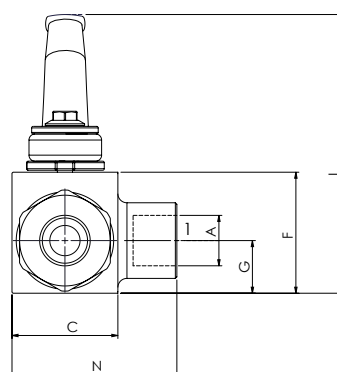
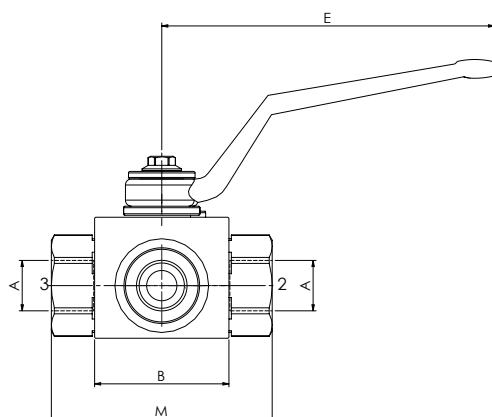
| 01 | VALVOLE A SFERA A 3 VIE<br>(3 WAYS BALL VALVES) |                                  | RAS3 |
|----|-------------------------------------------------|----------------------------------|------|
| 02 | DIMENSIONE<br>(SIZE)                            | BSPP 1/8                         | 180  |
|    |                                                 | BSPP 1/4                         | 140  |
|    |                                                 | BSPP 3/8                         | 380  |
|    |                                                 | BSPP 1/2                         | 120  |
|    |                                                 | BSPP 3/4                         | 340  |
|    |                                                 | BSPP 1                           | 100  |
|    |                                                 | BSPP 1-1/4                       | 114  |
|    |                                                 | BSPP 1-1/2                       | 112  |
| 03 | SCHEMA<br>(CIRCUIT)                             | STANDARD                         | /    |
|    |                                                 | SCHEMA B                         | B    |
| 04 | OPTIONAL                                        | Fori di fissaggio (Fixing ports) | P    |

### DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |      |        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------|--------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |      |        |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |      |        |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |      |        |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C                               | -4°F | +176°F |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C                               | -4°F | +122°F |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |      |        |



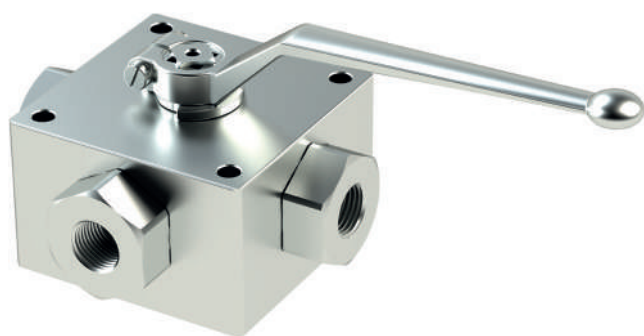
OPTIONAL



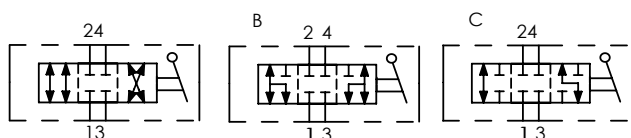
[ mm  
(inches) ]

### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A          | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B           | C         | E          | F         | G           | H          | L            | M          | N           | R          | S         | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |  |           |  |  |
|--------------|------------|----------------------------------------|------------------------------------------|-------------|-----------|------------|-----------|-------------|------------|--------------|------------|-------------|------------|-----------|----------------------------------------|--|-----------|--|--|
| RAS3180      | BSPP 1/8   | 15 (4)                                 | 400 (5800)                               | 42,4 (1.67) | 30 (1.18) | 110 (4.33) | 35 (1.38) | 14,5 (0.57) | 5,2 (0.20) | 91,5 (3.60)  | 71 (2.80)  | 48,5 (1.91) | 4,5 (0.18) | 34 (1.34) | 0,6 (1.3)                              |  |           |  |  |
| RAS3140      | BSPP 1/4   | 25 (6.6)                               |                                          | 44,4 (175)  | 35 (1.38) |            | 40 (1.57) | 17,5 (0.69) |            | 96,5 (3.80)  | 73 (2.87)  | 54,5 (2.15) | 5 (0.20)   | 36 (1.42) | 0,7 (1.5)                              |  |           |  |  |
| RAS3380      | BSPP 3/8   | 35 (9.2)                               |                                          |             |           |            | 43 (1.69) | 18 (0.71)   |            | 99,5 (3.92)  | 83 (3.27)  | 58,5 (2.30) |            |           | 0,8 (1.8)                              |  |           |  |  |
| RAS3120      | BSPP 1/2   | 60 (15.8)                              | 350 (5075)                               | 48,4 (1.91) | 37 (1.46) | 180 (7.09) | 55 (2.16) | 23,5 (0.93) | 6,2 (0.24) | 106,5 (4.19) | 95 (3.74)  | 75 (2.95)   | 6 (0.24)   | 50 (1.97) | 1,6 (3.5)                              |  |           |  |  |
| RAS3340      | BSPP 3/4   | 100 (26.4)                             |                                          | 62,5 (2.46) | 45 (1.77) |            | 65 (2.56) | 29,5 (1.16) |            | 116,5 (4.59) | 120 (4.72) | 87,5 (3.44) |            |           | 2,4 (5.3)                              |  |           |  |  |
| RAS3100      | BSPP 1     | 150 (89.6)                             |                                          | 66,5 (2.62) |           |            | 55 (2.17) |             |            | 124 (4.88)   |            |             |            |           |                                        |  | 2,6 (5.7) |  |  |
| RAS3114      | BSPP 1-1/4 |                                        |                                          |             |           |            |           |             |            |              |            |             |            |           |                                        |  | 2,8 (6)   |  |  |
| RAS3112      | BSPP 1-1/2 |                                        |                                          |             |           |            |           |             |            |              |            |             |            |           |                                        |  |           |  |  |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



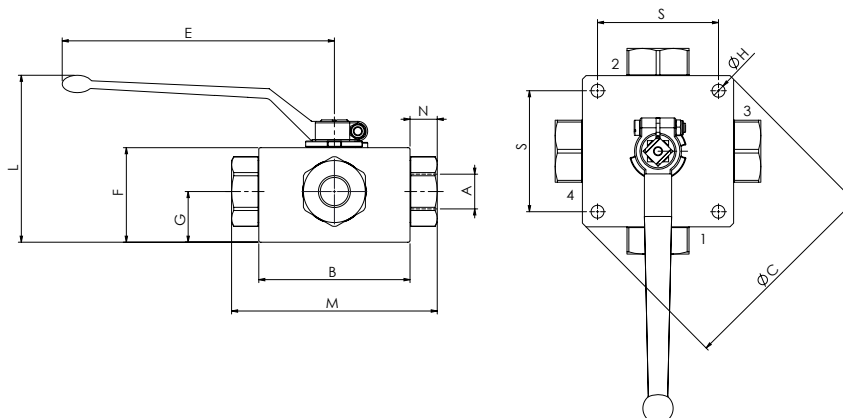
## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                               |             |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------|--|
| Olivo idraulico - Mineral oil                                                                                                                                                      | ISO 6743/4 (DIN 51524)        |             |  |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)  |             |  |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14 |             |  |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C                   | -4°F +176°F |  |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C                   | -4°F +122°F |  |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                               |             |  |

## CODICE ORDINAZIONE ORDERING CODE

|             |    |    |          |
|-------------|----|----|----------|
| 01          | 02 | 03 | 04       |
| <b>RAS4</b> |    |    | <b>P</b> |

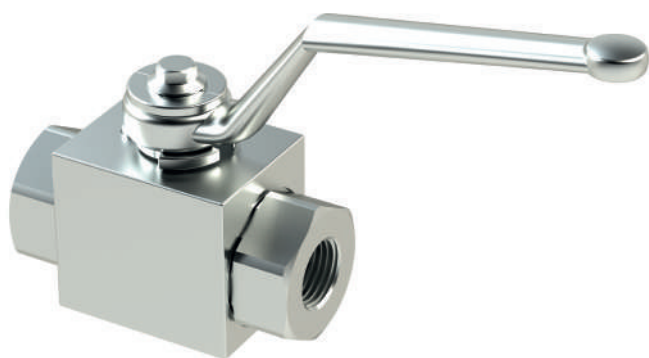
| 01 | VALVOLE A SFERA A 4 VIE<br>(4 WAYS BALL VALVES) |                                  | RAS4 |
|----|-------------------------------------------------|----------------------------------|------|
| 02 | DIMENSIONE<br>(SIZE)                            | BSPP 1/4                         | 140  |
|    |                                                 | BSPP 3/8                         | 380  |
|    |                                                 | BSPP 1/2                         | 120  |
|    |                                                 | BSPP 3/4                         | 340  |
|    |                                                 | BSPP 1                           | 100  |
|    |                                                 | BSPP 1-1/4                       | 114  |
|    |                                                 | BSPP 1-1/2                       | 112  |
| 03 | SCHEMA<br>(CIRCUIT)                             | STANDARD                         | /    |
|    |                                                 | SCHEMA B                         | B    |
|    |                                                 | SCHEMA C                         | C    |
| 04 | STANDARD                                        | Fori di fissaggio (Fixing ports) | P    |



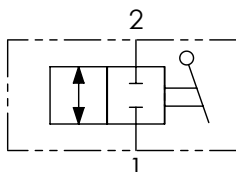
[ mm ]  
[ inches ]

## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A          | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B          | C             | E           | F         | G             | H             | L           | M          | N           | S           | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt |
|--------------|------------|----------------------------------------|------------------------------------------|------------|---------------|-------------|-----------|---------------|---------------|-------------|------------|-------------|-------------|-------------------------------------------|
| RAS4140      | BSPP 1/4   | 25 (6.6)                               | 500 (7250)                               | 70 (2.76)  | /             | 110 (4.33)  | 42 (1.65) | 21,5 (0.85)   | 6,5<br>(0.26) | 97,5 (3.84) | 100 (3.94) | 15,5 (0.61) | 55 (2.17)   | 1,80 (3.96)                               |
| RAS4380      | BSPP 3/8   | 35 (9.2)                               | 400 (5800)                               | 80 (3.15)  |               | 180 (7.09)  | 53 (2.09) | 28,5 (1.12)   |               | 101 (3.98)  | 115 (4.53) |             | 65 (2.56)   | 3 (6.60)                                  |
| RAS4120      | BSPP 1/2   | 60 (15.8)                              | 350 (5075)                               | 100 (3.94) |               | 62 (2.44)   | 33 (1.30) | 8,5<br>(0.33) | 110 (4.33)    | 136 (5.35)  | 17 (0.67)  | 80 (3.15)   | 5,2 (11.44) |                                           |
| RAS4340      | BSPP 3/4   | 100 (26.4)                             |                                          | 113 (4.45) |               | 68 (2.68)   | 36 (1.42) |               | 116,5 (4.59)  | 156 (6.14)  | 21 (0.83)  | 6,9 (15.18) |             |                                           |
| RAS4100      | BSPP 1     | 150 (89.6)                             |                                          | 118 (4.65) | 138<br>(5.43) | 300 (11.81) | 82 (3.23) | 47,5 (1.87)   | 130,5 (5.14)  | 181 (7.13)  | 24 (0.94)  | 85 (3.35)   | 9 (19.80)   |                                           |
| RAS4114      | BSPP 1-1/4 |                                        |                                          |            |               |             |           |               |               |             |            |             | 9,2 (20.24) |                                           |
| RAS4112      | BSPP 1-1/2 |                                        |                                          |            |               |             |           |               |               |             |            |             |             |                                           |



SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



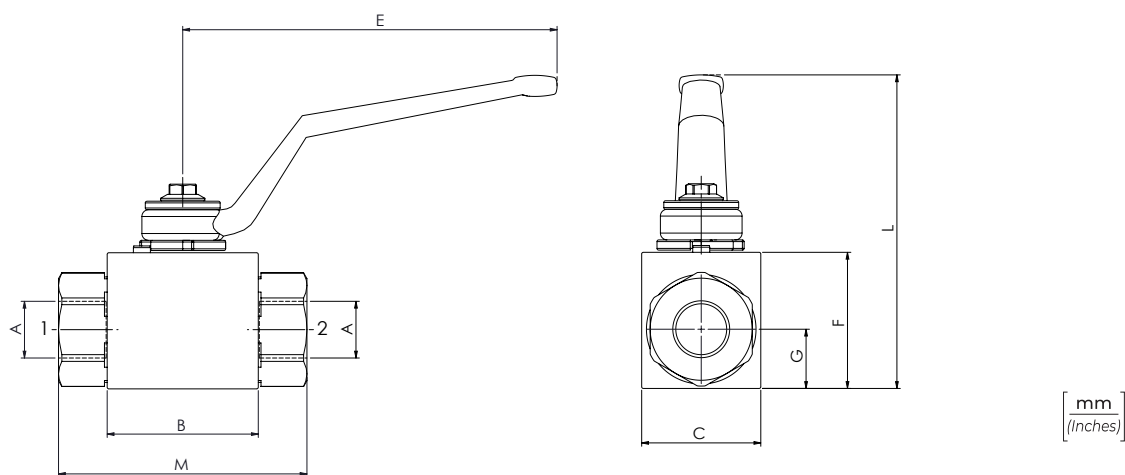
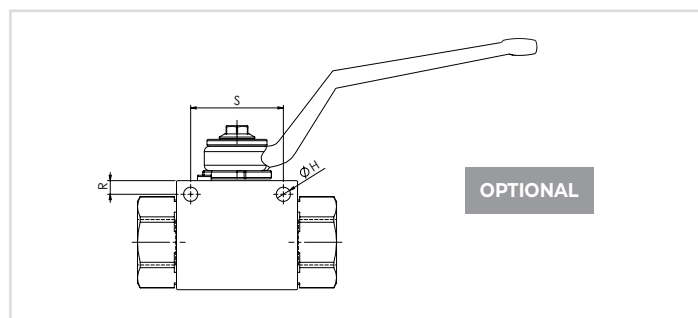
**CODICE ORDINAZIONE**  
ORDERING CODE

| 01          | 02 | 03         | 04 |
|-------------|----|------------|----|
| <b>RAS2</b> |    | <b>NPT</b> |    |

| 01 | VALVOLE A SFERA A 2 VIE (2 WAYS BALL VALVES) | RAS2                             |
|----|----------------------------------------------|----------------------------------|
| 02 | DIMENSIONE<br>(SIZE)                         | NPT 1/8                          |
|    |                                              | NPT 1/4                          |
|    |                                              | NPT 3/8                          |
|    |                                              | NPT 1/2                          |
|    |                                              | NPT 3/4                          |
|    |                                              | NPT 1                            |
|    |                                              | NPT 1-1/4                        |
|    |                                              | NPT 1-1/2                        |
| 03 | FILETTATURA (THREAD)                         | NPT                              |
| 04 | OPTIONAL                                     | Fori di fissaggio (Fixing ports) |

**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olío idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

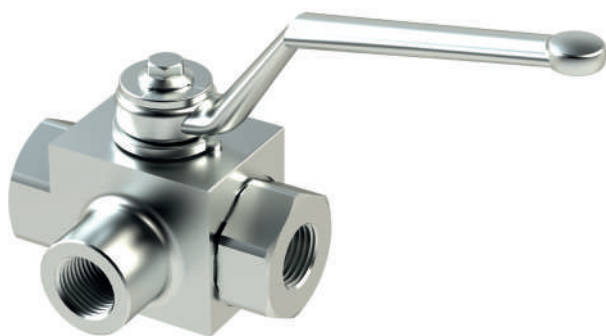


**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

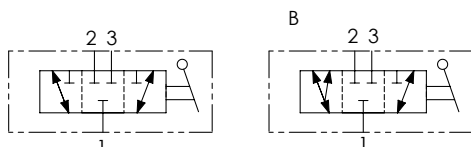
| TIPO<br>TYPE | A         | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B           | C         | E          | F         | G           | H          | L            | M          | R          | S         | PESO APPROX<br>APPROX WEIGHT<br>kg-lbt |
|--------------|-----------|----------------------------------------|------------------------------------------|-------------|-----------|------------|-----------|-------------|------------|--------------|------------|------------|-----------|----------------------------------------|
| RAS2180NPT   | NPT 1/8   | 15 (4)                                 | 500 (7250)                               | 42,4 (1.67) | 30 (1.18) | 110 (4.33) | 35 (1.38) | 14,5 (0.57) | 5,2 (0.20) | 91,5 (3.60)  | 71 (2.80)  | 4,5 (0.18) | 34 (1.34) | 0,5 (1.1)                              |
| RAS2140NPT   | NPT 1/4   | 25 (6.6)                               |                                          | 44,4 (1.75) | 35 (1.38) |            | 40 (1.57) | 17,5 (0.69) |            | 96,5 (3.80)  | 73 (2.87)  |            |           | 0,7 (1.5)                              |
| RAS2380NPT   | NPT 3/8   | 35 (9.2)                               |                                          | 48,4 (1.91) | 37 (1.46) |            | 43 (1.69) | 18 (0.71)   |            | 99,5 (3.92)  | 83 (3.27)  | 5 (0.20)   | 36 (1.42) | 0,8 (1.8)                              |
| RAS2120NPT   | NPT 1/2   | 60 (15.8)                              |                                          | 62,5 (2.46) | 45 (1.77) |            | 55 (2.17) | 23,5 (0.93) |            | 106,5 (4.19) | 95 (3.74)  |            |           | 1,5 (3.3)                              |
| RAS2340NPT   | NPT 3/4   | 100 (26.4)                             | 400 (5800)                               |             |           | 180 (7.09) |           |             | 6,2 (0.24) |              | 112 (4.41) | 6 (0.24)   | 50 (1.97) |                                        |
| RAS2100NPT   | NPT 1     |                                        |                                          |             |           |            | 65 (2.56) | 29,5 (1.16) |            | 116,5 (4.59) | 120 (4.72) |            |           | 2,3 (5)                                |
| RAS2114NPT   | NPT 1-1/4 | 150 (39.6)                             | 350 (5075)                               | 66,5 (2.62) | 55 (2.17) |            |           |             |            |              |            |            |           |                                        |
| RAS2112NPT   | NPT 1-1/2 |                                        |                                          |             |           |            |           |             |            |              | 124 (4.88) |            |           | 2,5 (5.5)                              |

# RAS3-NPT

## VALVOLE A SFERA A 3 VIE 3 WAYS BALL VALVES



### SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



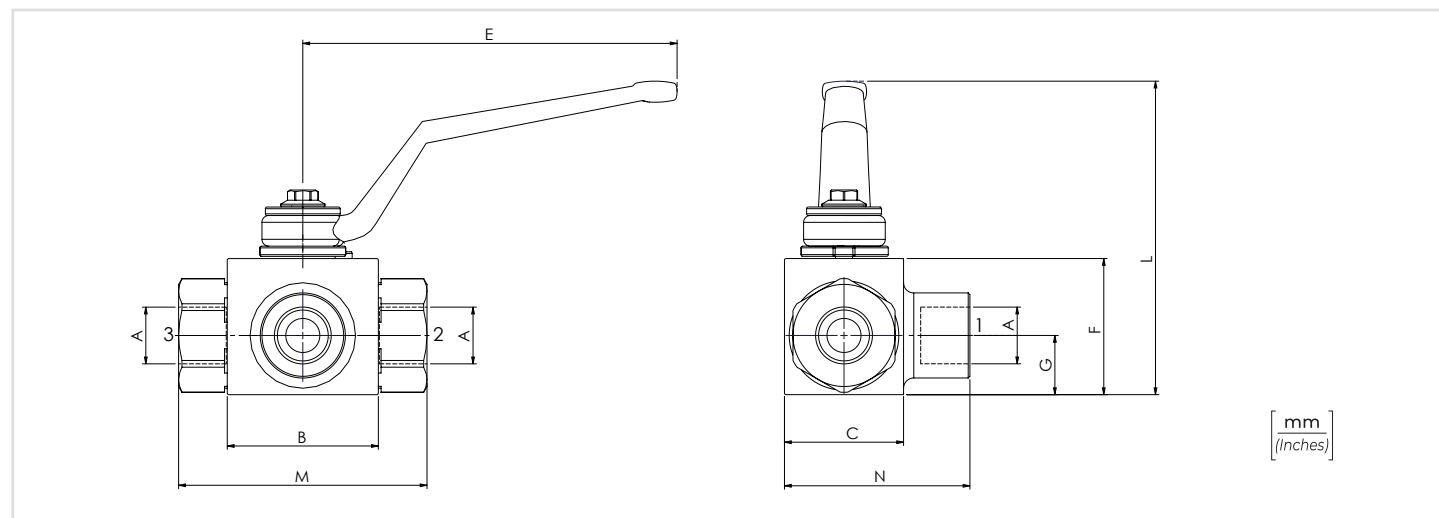
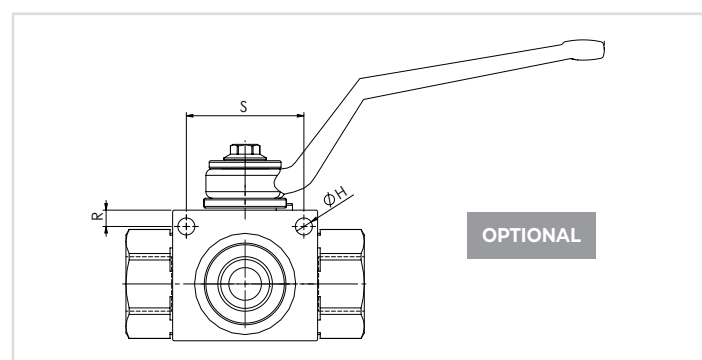
### CODICE ORDINAZIONE ORDERING CODE

| 01          | 02 | 03         | 04 | 05 |
|-------------|----|------------|----|----|
| <b>RAS3</b> |    | <b>NPT</b> |    |    |

| 01 | VALVOLE A SFERA A 3 VIE (3 WAYS BALL VALVES) | RAS3                             |
|----|----------------------------------------------|----------------------------------|
| 02 | DIMENSIONE<br>(SIZE)                         | NPT 1/8                          |
|    |                                              | NPT 1/4                          |
|    |                                              | NPT 3/8                          |
|    |                                              | NPT 1/2                          |
|    |                                              | NPT 3/4                          |
|    |                                              | NPT 1                            |
|    |                                              | NPT 1-1/4                        |
|    |                                              | NPT 1-1/2                        |
| 03 | FILETTATURA (THREAD)                         | NPT                              |
| 04 | SCHEMA<br>(CIRCUIT)                          | Standard                         |
|    |                                              | Schema B                         |
| 05 | OPTIONAL                                     | Fori di fissaggio (Fixing ports) |

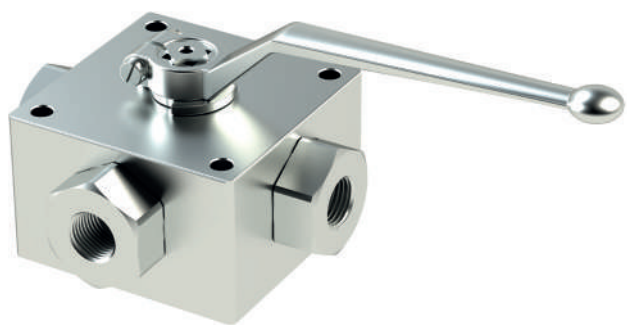
### DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                               |             |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------|--|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)        |             |  |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)  |             |  |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14 |             |  |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C                   | -4°F +176°F |  |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C                   | -4°F +122°F |  |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                               |             |  |

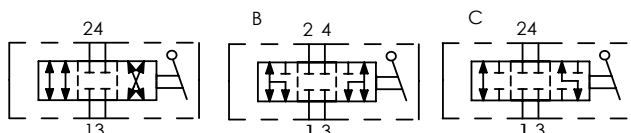


### CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A         | PORTATA<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B           | C         | E             | F            | G           | H             | L            | M          | N              | R          | S         | PESO<br>APPROX<br>APPROX<br>WEIGHT<br>kg-lbt |           |           |
|--------------|-----------|------------------------------------|------------------------------------------|-------------|-----------|---------------|--------------|-------------|---------------|--------------|------------|----------------|------------|-----------|----------------------------------------------|-----------|-----------|
| RAS3180NPT   | NPT 1/8   | 15 (4)                             | 400 (5800)                               | 42,4 (1.67) | 30 (1.18) | 110<br>(4.33) | 35 (1.38)    | 14,5 (0.57) | 5,2<br>(0.20) | 91,5 (3.60)  | 71 (2.80)  | 48,5 (1.91)    | 4,5 (0.18) | 34 (1.34) | 0,6 (1.3)                                    |           |           |
| RAS3140NPT   | NPT 1/4   | 25 (6.6)                           |                                          |             |           |               |              |             |               |              |            |                |            |           |                                              |           |           |
| RAS3380NPT   | NPT 3/8   | 35 (9.2)                           |                                          | 44,4 (1.75) | 35 (1.38) |               | 40 (1.57)    | 17,5(0.69)  |               | 96,5 (3.80)  | 73 (2.87)  | 54,5 (2.15)    | 5 (0.20)   | 36 (1.42) | 0,7(1.5)                                     |           |           |
| RAS3120NPT   | NPT 1/2   | 60 (15.8)                          |                                          | 48,4 (1.91) | 37 (1.46) |               | 43 (1.69)    | 18 (0.71)   |               | 99,5 (3.92)  | 83 (3.27)  | 58,5<br>(2.30) | 6 (0.24)   | 50 (1.97) | 0,8 (1.8)                                    |           |           |
| RAS3340NPT   | NPT 3/4   | 100 (26.4)                         | 62,5<br>(2.46)                           | 45 (1.77)   | 55 (2.16) | 23,5 (0.93)   | 106,5 (4.19) | 95 (3.74)   | 75 (2.95)     | 1,6 (3.5)    |            |                |            |           |                                              |           |           |
| RAS3100NPT   | NPT 1     | 150 (89.6)                         | 350 (5075)                               | 66,5 (2.62) | 55 (2.17) | 180<br>(7.09) | 65 (2.56)    | 29,5 (1.16) | 6,2<br>(0.24) |              | 112 (4.41) | 87,5<br>(3.44) |            |           | 6 (0.24)                                     | 50 (1.97) | 2,4 (5.3) |
| RAS3114NPT   | NPT 1-1/4 |                                    |                                          |             |           |               |              |             |               | 116,5 (4.59) | 120 (4.72) |                | 2,6 (5.7)  |           |                                              |           |           |
| RAS3112NPT   | NPT 1-1/2 |                                    |                                          |             |           |               |              |             |               | 124 (4.88)   | 2,8 (6)    |                |            |           |                                              |           |           |



## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



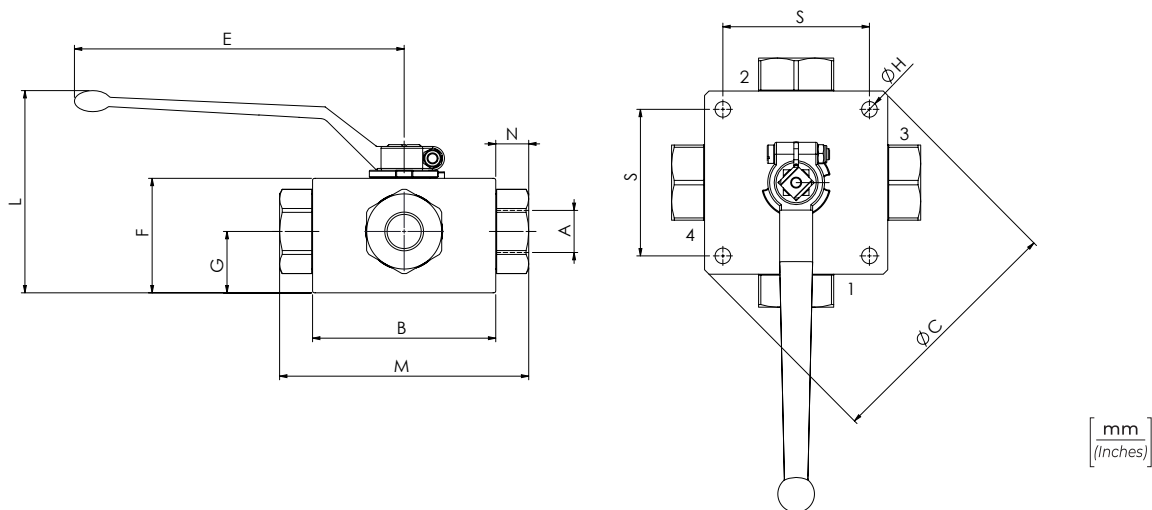
## DATI TECNICI / TECHNICAL DATA

|                                                                                                                                                                                    |                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Olío idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F                   |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F                   |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |

## CODICE ORDINAZIONE ORDERING CODE

|             |    |            |    |          |
|-------------|----|------------|----|----------|
| 01          | 02 | 03         | 04 | 05       |
| <b>RAS4</b> |    | <b>NPT</b> |    | <b>P</b> |

| 01 | VALVOLE A SFERA A 4 VIE<br>(4 WAYS BALL VALVES) |                                  |  | RAS4 |
|----|-------------------------------------------------|----------------------------------|--|------|
| 02 | DIMENSIONE<br>(SIZE)                            | NPT 1/4                          |  | 140  |
|    |                                                 | NPT 3/8                          |  | 380  |
|    |                                                 | NPT 1/2                          |  | 120  |
|    |                                                 | NPT 3/4                          |  | 340  |
|    |                                                 | NPT 1                            |  | 100  |
|    |                                                 | NPT 1-1/4                        |  | 114  |
|    |                                                 | NPT 1-1/2                        |  | 112  |
| 03 | FILETTATURA<br>(THREAD)                         | NPT                              |  | NPT  |
| 04 | SCHEMA<br>(CIRCUIT)                             | Standard                         |  | /    |
|    |                                                 | Schema B                         |  | B    |
|    |                                                 | Schema C                         |  | C    |
| 05 | STANDARD                                        | Fori di fissaggio (Fixing ports) |  | P    |



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A         | PORTATA<br>MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | B          | C             | E           | F         | G             | H             | L           | M          | N           | S           | PESO<br>APPROX<br>APPROX<br>WEIGHT<br>kg-lbt |
|--------------|-----------|-------------------------------------------|------------------------------------------|------------|---------------|-------------|-----------|---------------|---------------|-------------|------------|-------------|-------------|----------------------------------------------|
| RAS4140NPT   | NPT 1/4   | 25 (6.6)                                  | 500 (7250)                               | 70 (2.76)  | /             | 110 (4.33)  | 42 (1.65) | 21,5 (0.85)   | 6,5<br>(0.26) | 97,5 (3.84) | 100 (3.94) | 15,5 (0.61) | 55 (2.17)   | 1,80 (3.96)                                  |
| RAS4380NPT   | NPT 3/8   | 35 (9.2)                                  | 400 (5800)                               | 80 (3.15)  |               | 180 (7.09)  | 53 (2.09) | 28,5 (1.12)   |               | 101 (3.98)  | 115 (4.53) |             | 65 (2.56)   | 3 (6.60)                                     |
| RAS4120NPT   | NPT 1/2   | 60 (15.8)                                 | 350 (5075)                               | 100 (3.94) |               | 62 (2.44)   | 33 (1.30) | 8,5<br>(0.33) | 110 (4.33)    | 136 (5.35)  | 17 (0.67)  | 80 (3.15)   | 5,2 (11.44) |                                              |
| RAS4340NPT   | NPT 3/4   | 100 (26.4)                                |                                          | 113 (4.45) |               | 68 (2.68)   | 36 (1.42) |               | 116,5 (4.59)  | 156 (6.14)  | 21 (0.83)  | 6,9 (15.18) |             |                                              |
| RAS4100NPT   | NPT 1     | 150 (89.6)                                |                                          | 118 (4.65) | 138<br>(5.43) | 300 (11.81) | 82 (3.23) | 47,5 (1.87)   | 130,5 (5.14)  | 181 (7.13)  | 24 (0.94)  | 85 (3.35)   | 9 (19.80)   |                                              |
| RAS4114NPT   | NPT 1-1/4 |                                           |                                          |            |               |             |           |               |               |             |            |             | 9,2 (20.24) |                                              |
| RAS4112NPT   | NPT 1-1/2 |                                           |                                          |            |               |             |           |               |               |             |            |             |             |                                              |



## DATI TECNICI / TECHNICAL DATA

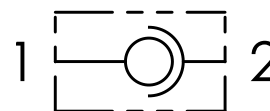
|                                                                                                                                                                                    |                                      |                     |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------------------|--|
| <b>Olio idraulico</b> - Mineral oil                                                                                                                                                | <b>ISO 6743/4 (DIN 51524)</b>        |                     |  |
| <b>Viscosità olio</b> - Oil viscosity                                                                                                                                              | <b>15-250 mm²/s (15 to 250 cSt)</b>  |                     |  |
| <b>Classe di contaminazione max</b><br>Max contamination index                                                                                                                     | <b>ISO 4406:1999 Classe 19/17/14</b> |                     |  |
| <b>Temperatura dell'olio</b> - Oil temperature                                                                                                                                     | <b>-20°C +80°C</b>                   | <b>-4°F + 176°F</b> |  |
| <b>Temperatura ambiente</b> - Environment temperature                                                                                                                              | <b>-20°C +50°C</b>                   | <b>-4°F + 122°F</b> |  |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                      |                     |  |

**CODICE ORDINAZIONE**  
ORDERING CODE

|             |    |
|-------------|----|
| 01          | 02 |
| <b>GGIL</b> |    |

| 01 | GIUNTI GIREVOLI IN LINEA<br>(IN-LINE ROTATING COUPLINGS) |          | GGIL |
|----|----------------------------------------------------------|----------|------|
| 02 | DIMENSIONE<br>(SIZE)                                     | BSPP 1/4 | 140  |
|    |                                                          | BSPP 3/8 | 380  |
|    |                                                          | BSPP 1/2 | 120  |
|    |                                                          | BSPP 3/4 | 340  |
|    |                                                          | BSPP 1   | 100  |

## SCHEMA IDRAULICO / HYDRAULIC CIRCUIT



### COPPIE DI SERRAGGIO RACCORDO TIGHTENING TORQUES FOR STUD

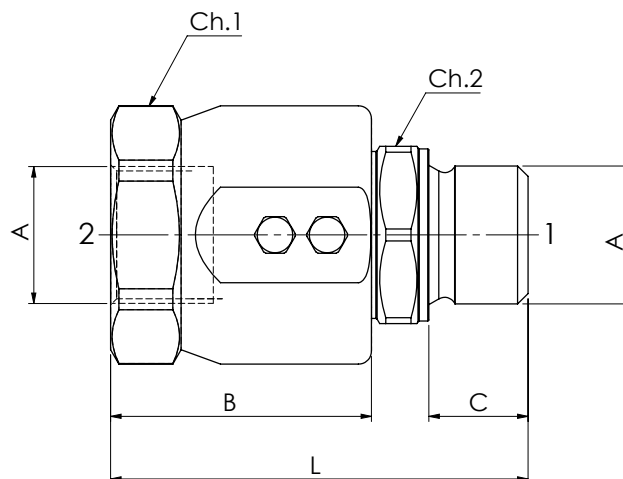
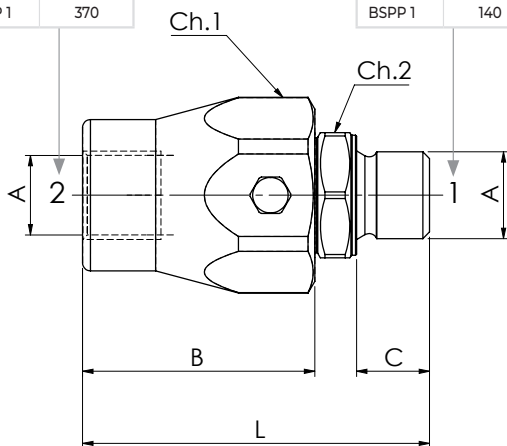
| ②        | Nm  |
|----------|-----|
| BSPP 1/4 | 40  |
| BSPP 3/8 | 90  |
| BSPP 1/2 | 120 |
| BSPP 3/4 | 210 |
| BSPP 1   | 370 |

**GGIL140  
GGIL380  
GGIL120**

### COPPIE DI SERRAGGIO FEMMINA GIREVOLE 60° 60° FEMALE SWIVEL ENDS TIGHTENING TORQUE VALUES

| ①        | Nm  |
|----------|-----|
| BSPP 1/4 | 20  |
| BSPP 3/8 | 35  |
| BSPP 1/2 | 60  |
| BSPP 3/4 | 115 |
| BSPP 1   | 140 |

**GGIL340  
GGIL100**



## CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS

| TIPO<br>TYPE | A        | PORTATA<br>MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PRESSIONE MAX<br>IN ROTAZIONE<br>MAX ROTATION<br>PRESSURE<br>bar-PSI | VELOCITÀ MAX DI<br>ROTAZIONE<br>MAX ROTATION SPEED<br>rev-min | B         | C         | Ch. 1 | Ch. 2 | L         | PESO APPROX<br>APPROX<br>WEIGHT<br>kg-lbt |
|--------------|----------|-------------------------------------------|------------------------------------------|----------------------------------------------------------------------|---------------------------------------------------------------|-----------|-----------|-------|-------|-----------|-------------------------------------------|
| GGIL140      | BSPP 1/4 | 25 (6.6)                                  | 400 (5800)                               | 200 (2900)                                                           | 212                                                           | 42 (1.65) | 11 (0.43) | 30    | 19    | 61 (2.40) | 0,21 (0.46)                               |
| GGIL380      | BSPP 3/8 | 35 (9.2)                                  |                                          |                                                                      | 173                                                           | 44 (1.73) | 14 (0.55) | 34    | 24    | 66 (2.60) | 0,27 (0.60)                               |
| GGIL120      | BSPP 1/2 | 60 (15.8)                                 | 300 (4350)                               | 150 (2175)                                                           | 160                                                           | 47 (1.85) | 15 (0.59) | 36    | 27    | 71 (2.80) | 0,34 (0.75)                               |
| GGIL340      | BSPP 3/4 | 100 (26.4)                                |                                          |                                                                      | 120                                                           | 50 (1.97) | 19 (0.75) | 45    | 34    | 80 (3.15) | 0,66 (1.45)                               |
| GGIL100      | BSPP 1   | 180 (47.5)                                |                                          | 100 (1450)                                                           | 100                                                           | 57 (2.24) | 21 (0.83) | 50    | 41    | 90 (3.54) | 0,90 (1.98)                               |



**CODICE ORDINAZIONE**  
ORDERING CODE

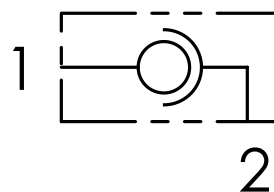
|             |    |
|-------------|----|
| 01          | 02 |
| <b>GG90</b> |    |

| 01 | GIUNTI GIREVOLI A 90°<br>(90° ROTATING COUPLINGS) |          | GG90 |
|----|---------------------------------------------------|----------|------|
| 02 | DIMENSIONE<br>(SIZE)                              | BSPP 1/4 | 140  |
|    |                                                   | BSPP 3/8 | 380  |
|    |                                                   | BSPP 1/2 | 120  |
|    |                                                   | BSPP 3/4 | 340  |
|    |                                                   | BSPP 1   | 100  |

**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Olío idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)        |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm²/s (15 to 250 cSt)  |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14 |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C -4°F +176°F       |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C -4°F +122°F       |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                               |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**COPPIE DI SERRAGGIO  
RACCORDO**  
TIGHTENING TORQUES  
FOR STUD

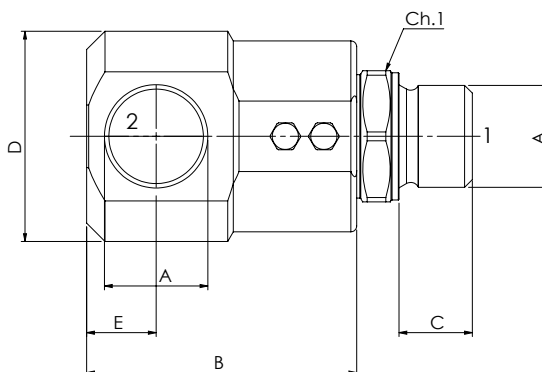
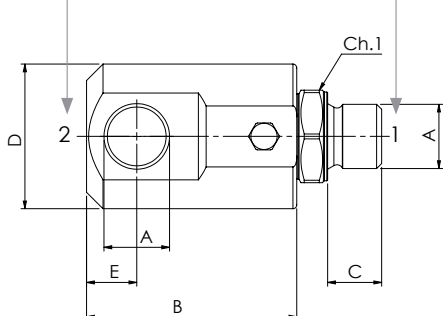
| ②        | Nm  |
|----------|-----|
| BSPP 1/4 | 40  |
| BSPP 3/8 | 90  |
| BSPP 1/2 | 120 |
| BSPP 3/4 | 210 |
| BSPP 1   | 370 |

**COPPIE DI SERRAGGIO  
FEMMINA GIREVOLE 60°**  
60° FEMALE SWIVEL  
ENDS TIGHTENING  
TORQUE VALUES

| ①        | Nm  |
|----------|-----|
| BSPP 1/4 | 20  |
| BSPP 3/8 | 35  |
| BSPP 1/2 | 60  |
| BSPP 3/4 | 115 |
| BSPP 1   | 140 |

**GG90140  
GG90380  
GG90120**

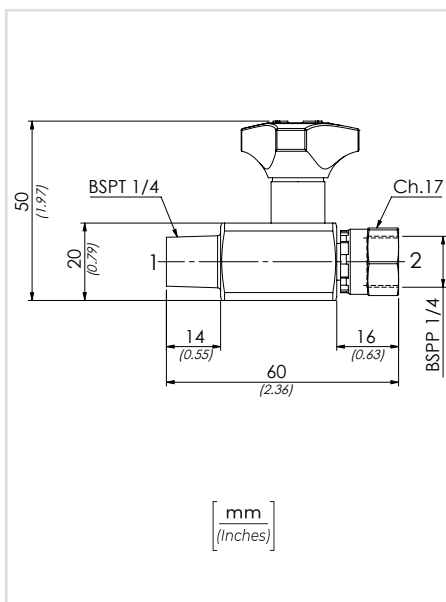
**GG90340  
GG90100**



[ mm  
(Inches) ]

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | A        | PORTATA MAX<br>MAX FLOW<br>l/min-USgpm | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | PRESSIONE MAX<br>IN ROTAZIONE<br>MAX ROTATION<br>PRESSURE<br>bar-PSI | VELOCITÀ MAX<br>DI ROTAZIONE<br>MAX ROTATION<br>SPEED<br>rev-min | B         | C         | D           | E         | L          | Ch. 1 | Peso Approx<br>Approx weight<br>kg-lbt |
|--------------|----------|----------------------------------------|------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------|-----------|-----------|-------------|-----------|------------|-------|----------------------------------------|
| GG90140      | BSPP 1/4 | 25 (6.6)                               | 400 (5800)                               | 200 (2900)                                                           | 212                                                              | 50 (1.97) | 11 (0.43) | 33,5 (1.32) | 11 (0.43) | 69 (2.71)  | 19    | 0,31 (0.68)                            |
| GG90380      | BSPP 3/8 | 35 (9.2)                               |                                          |                                                                      | 173                                                              | 54 (2.13) | 14 (0.55) | 37,5 (1.48) | 13 (0.51) | 76 (2.99)  | 24    | 0,41 (0.90)                            |
| GG90120      | BSPP 1/2 | 60 (15.8)                              | 300 (4350)                               | 150 (2175)                                                           | 160                                                              | 63 (2.48) | 15 (0.59) | 39,5 (1.56) | 14 (0.55) | 87 (3.43)  | 27    | 0,52 (1.15)                            |
| GG90340      | BSPP 3/4 | 100 (26.4)                             |                                          |                                                                      | 120                                                              | 70 (2.76) | 19 (0.75) | 54,5 (2.15) | 18 (0.71) | 100 (3.94) | 34    | 0,96 (2.11)                            |
| GG90100      | BSPP 1   | 180 (47.5)                             |                                          | 100 (1450)                                                           | 100                                                              | 80 (3.15) | 21 (0.83) | 59 (2.32)   | 25 (0.98) | 113 (4.45) | 41    | 1,25 (2.75)                            |



**CODICE ORDINAZIONE**  
ORDERING CODE

**SOV1400**

**DATI TECNICI / TECHNICAL DATA**

**Olio idraulico** ISO 6743/4  
Mineral oil DIN 51524

**Viscosità olio** 15-250 mm<sup>2</sup>/s  
Oil viscosity 45 to 2000 ssu (15 to 250 cSt)

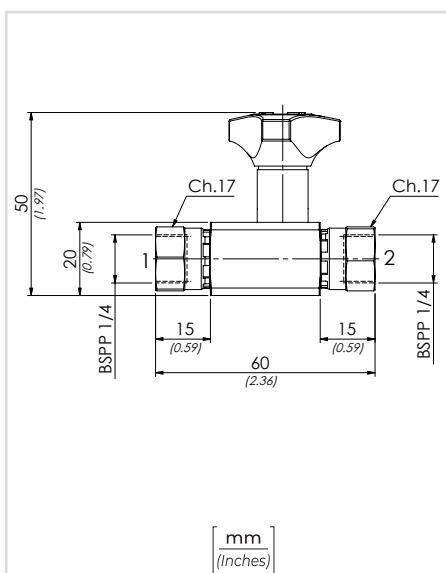
**Classe di contaminazione max**  
Max contamination index  
ISO 4406:1999 - Classe 19/17/14

**Temperatura dell'olio** -20°C +80°C  
Oil temperature -4°F +176°F

**Temperatura ambiente** -20°C +50°C  
Environment temperature -4°F +122°F

**Pressione max (bar)** 400  
Max pressure (PSI) (5800)

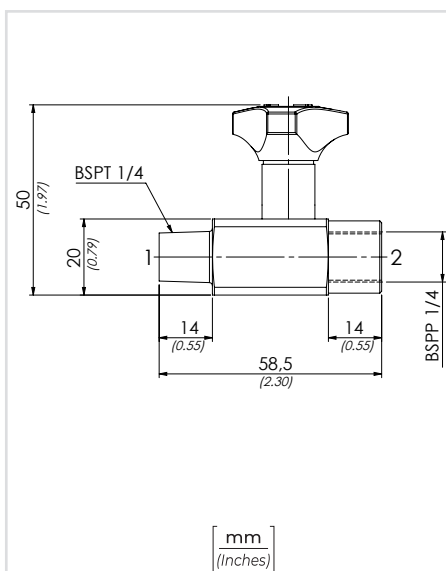
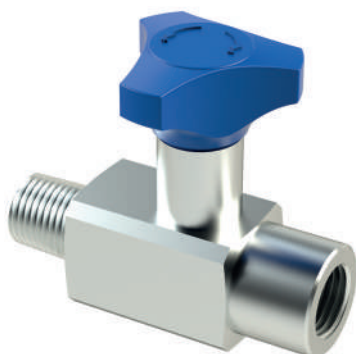
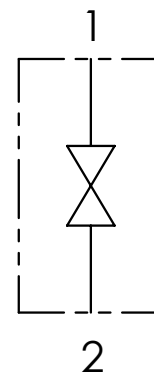
**Peso Approx (kg)** 0,15  
Approx weight (lb) (0.33)



**CODICE ORDINAZIONE**  
ORDERING CODE

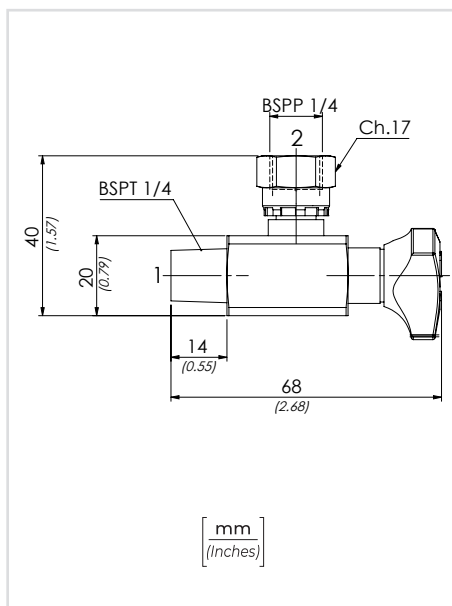
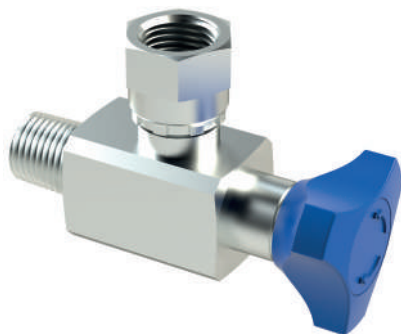
**SOV1400FF**

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**CODICE ORDINAZIONE**  
ORDERING CODE

**SOV1400MF**



**CODICE ORDINAZIONE**  
ORDERING CODE

**SOV1490**

**DATI TECNICI / TECHNICAL DATA**

**Olio idraulico** ISO 6743/4  
Mineral oil DIN 51524

**Viscosità olio** 15-250 mm²/s  
Oil viscosity 45 to 2000 ssu (15 to 250 cSt)

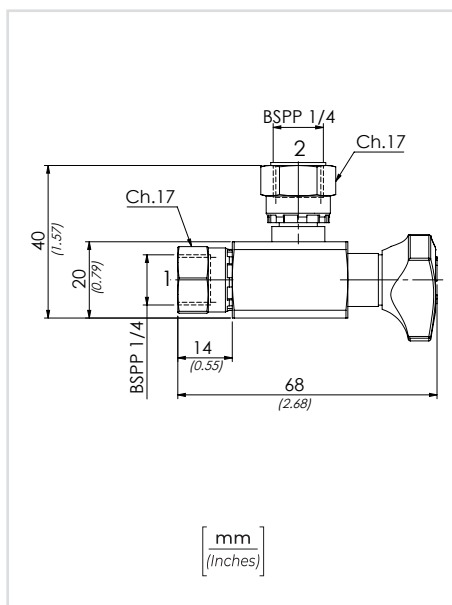
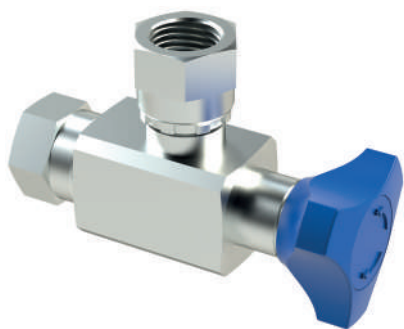
**Classe di contaminazione max**  
Max contamination index  
ISO 4406:1999 - Classe 19/17/14

**Temperatura dell'olio** -20°C +80°C  
Oil temperature -4°F +176°F

**Temperatura ambiente** -20°C +50°C  
Environment temperature -4°F +122°F

**Pressione max (bar)** 400  
Max pressure (PSI) (5800)

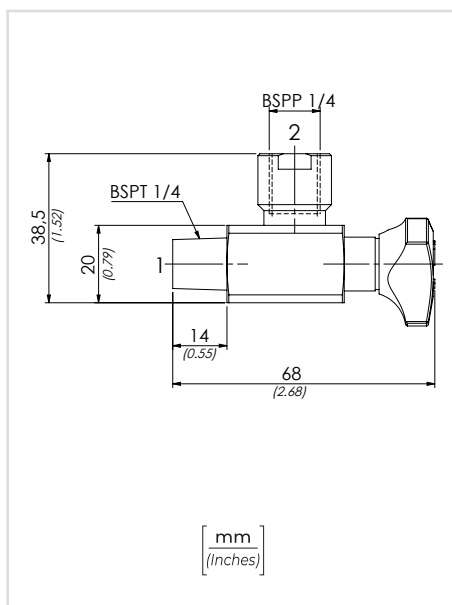
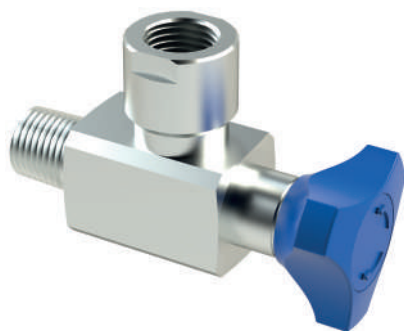
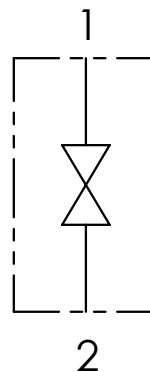
**Peso Approx (kg)** 0,15  
Approx weight (lb) (0,33)



**CODICE ORDINAZIONE**  
ORDERING CODE

**SOV1490FF**

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**CODICE ORDINAZIONE**  
ORDERING CODE

**SOV1490MF**



**CODICE ORDINAZIONE**  
ORDERING CODE

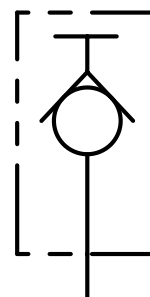
|            |    |
|------------|----|
| 01         | 02 |
| <b>MNP</b> |    |

| 01 | MINIPRESE PROVA PRESSIONE<br>(TEST COUPLINGS FOR PRESSURE CHECKING) |          | MNP |
|----|---------------------------------------------------------------------|----------|-----|
| 02 | DIMENSIONE<br>(SIZE)                                                | BSPP 1/8 | 180 |
|    |                                                                     | BSPP 1/4 | 140 |
|    |                                                                     | BSPP 3/8 | 380 |
|    |                                                                     | BSPP 1/2 | 120 |

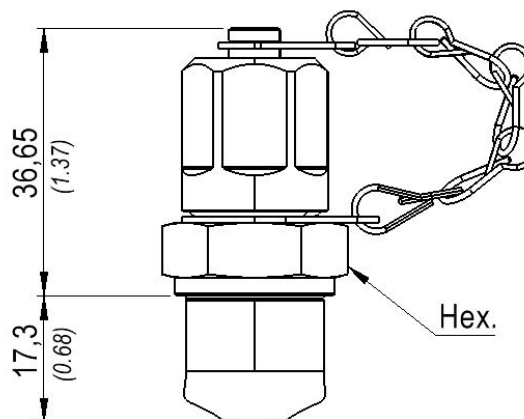
**DATI TECNICI / TECHNICAL DATA**

|                                                                                                                                                                                    |                                           |      |        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------|--------|
| Olio idraulico - Mineral oil                                                                                                                                                       | ISO 6743/4 (DIN 51524)                    |      |        |
| Viscosità olio - Oil viscosity                                                                                                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |      |        |
| Classe di contaminazione max<br>Max contamination index                                                                                                                            | ISO 4406:1999 Classe 19/17/14             |      |        |
| Temperatura dell'olio - Oil temperature                                                                                                                                            | -20°C +80°C                               | -4°F | +176°F |
| Temperatura ambiente - Environment temperature                                                                                                                                     | -20°C +50°C                               | -4°F | +122°F |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm)<br>It is necessary a filter use to protect the valve (advised filtration 15 µm) |                                           |      |        |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**MINIPRESE**  
**TEST COUPLINGS**  
**M16X2**



$\left[ \frac{\text{mm}}{\text{(Inches)}} \right]$

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| TIPO<br>TYPE | A        | PRESSIONE MAX<br>MAX PRESSURE<br>bar-PSI | Hex.<br>mm | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|--------------|----------|------------------------------------------|------------|-------------------------------------------------------|-----------------------------------------|
| MNP180       | BSPP 1/8 | 630 (9135)                               | 17         | 20 (14.6)                                             | 0,07 (0.16)                             |
| MNP140       | BSPP 1/4 |                                          | 19         | 30 (22)                                               | 0,08 (0.18)                             |
| MNP380       | BSPP 3/8 |                                          | 22         | 60 (44)                                               | 0,10 (0.22)                             |
| MNP120       | BSPP 1/2 |                                          | 27         | 80 (58.6)                                             | 0,13 (0.29)                             |



**CODICE ORDINAZIONE**  
ORDERING CODE

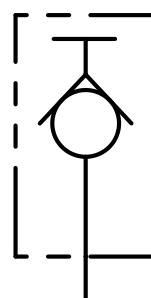
|            |    |
|------------|----|
| 01         | 02 |
| <b>MNP</b> |    |

| 01 | MINIPRESE PROVA PRESSIONE<br>(TEST COUPLINGS FOR PRESSURE CHECKING) |          | MNP         |
|----|---------------------------------------------------------------------|----------|-------------|
| 02 | DIMENSIONE<br>(SIZE)                                                | NPTF 1/8 | <b>180N</b> |
|    |                                                                     | NPTF 1/4 | <b>140N</b> |
|    |                                                                     | NPTF 3/8 | <b>380N</b> |
|    |                                                                     | NPTF 1/2 | <b>120N</b> |

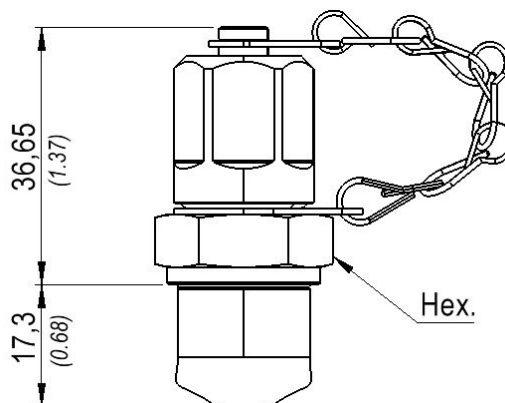
**DATI TECNICI / TECHNICAL DATA**

|                                                                                                    |                                           |      |        |
|----------------------------------------------------------------------------------------------------|-------------------------------------------|------|--------|
| Olio idraulico - Mineral oil                                                                       | ISO 6743/4 (DIN 51524)                    |      |        |
| Viscosità olio - Oil viscosity                                                                     | 15-250 mm <sup>2</sup> /s (15 to 250 cSt) |      |        |
| Classe di contaminazione max<br>Max contamination index                                            | ISO 4406:1999 Classe 19/17/14             |      |        |
| Temperatura dell'olio - Oil temperature                                                            | -20°C +80°C                               | -4°F | +176°F |
| Temperatura ambiente - Environment temperature                                                     | -20°C +50°C                               | -4°F | +122°F |
| È indispensabile l'utilizzo di un filtro per proteggere la valvola (filtrazione consigliata 15 µm) |                                           |      |        |

**SCHEMA IDRAULICO / HYDRAULIC CIRCUIT**



**MINIPRESE**  
TEST COUPLINGS  
**M16X2**



$\left[ \begin{array}{c} \text{mm} \\ (\text{Inches}) \end{array} \right]$

**CARATTERISTICHE TECNICHE / TECHNICAL CHARACTERISTICS**

| CODICE<br>CODE | A        | PRESSIONE MAX (bar)<br>MAX PRESSURE (PSI) | Hex.<br>mm | COPPIA DI SERRAGGIO<br>TIGHTENING TORQUE<br>Nm-lbt ft | PESO APPROX (kg)<br>APPROX WEIGHT (lbt) |
|----------------|----------|-------------------------------------------|------------|-------------------------------------------------------|-----------------------------------------|
| MNP180N        | NPTF 1/8 | 630 (9135)                                | 17         | 20 (14.6)                                             | 0,07 (0.16)                             |
| MNP140N        | NPTF 1/4 |                                           | 19         | 30 (22)                                               | 0,08 (0.18)                             |
| MNP380N        | NPTF 3/8 |                                           | 22         | 60 (44)                                               | 0,10 (0.22)                             |
| MNP120N        | NPTF 1/2 |                                           | 27         | 80 (58.6)                                             | 0,13 (0.29)                             |

## notes

## notes

### MACCHINARI AGRICOLI AGRICULTURE AND SERVICE



**ARATRI**  
PLOUGHS



**FRESATRICI**  
ROTARY TILLERS



**AUTOMEZZI  
RACCOLTA RIFIUTI**  
WASTE MACHINES



**ERPICI ROTANTI**  
POWER HARROWS



**MACCHINARI  
FORESTALI**  
FOREST MACHINES



**TRINCIATRICI**  
MULCHERS



**ROTOPRESSE**  
ROUND BALERS



**MACCHINARI  
DA SEMINA**  
SEEDING MACHINES



**BRACCI  
DECESPUGLIATORI**  
BOOM MOWERS



**MACCHINARI  
SPARGISALE**  
SALT SPREADERS



**ATOMIZZATORI**  
SPRAYERS

## MACCHINARI INDUSTRIALI INDUSTRIAL AND SERVICE MACHINERIES



**SMONTAGOMME**  
 TIRE CHANGERS



**PRESSE**  
 PRESSES



**INSTALLAZIONI INDUSTRIALI**  
 INDUSTRIAL INSTALLATIONS



**NASTRI INDUSTRIALI**  
 INDUSTRIAL TAPES



**INSTALLAZIONI SOLARI ED EOLICHE**  
 SOLAR AND WIND INSTALLATIONS

## MACCHINARI MOVIMENTAZIONE TERRA E COSTRUZIONI EARTH MOVING AND CONSTRUCTION MACHINERIES



**GRU MOBILI**  
 MOBILE CRANES



**MINI PALE**  
 SKID LOADERS



**RUSPE**  
 DOZERS



**TRASPORTI INERTI**  
 MINI DUMPERS



**ESCAVATORI  
 E MINI-ESCAVATORI**  
 EXCAVATORS  
 AND MINI-EXCAVATORS



**MACCHINARI  
 PER ASFALTI**  
 ASPHALT MACHINES



**CARICATORI  
 CINGOLATI**  
 CRAWLER CARRIES



**ACCESSORI**  
 ATTACHMENTS

## MACCHINARI PER TRASPORTO E SOLLEVAMENTO LIFTING AND TRANSPORT MACHINERIES



**MINI GRU**  
MINI CRANES



**CARRELLI ELEVATORI**  
FORKLIFTS



**MINI ELVEVATORI**  
MINI PICKERS



**SCARRABILI MULTIBENNA**  
SKIP LOADERS



**SOLLEVATORI POSTERIORI**  
TAIL LIFTS



**SOLLEVATORI PER AUTO**  
CAR LIFTERS



**GRU PER CAMION**  
TRUCK CRANES



**SCARRABILI A GANCIO**  
HOOK LOADERS

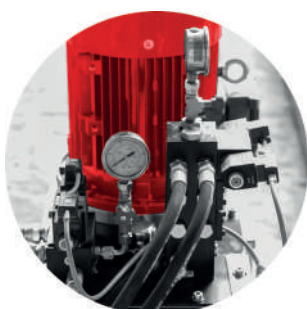


**PIATTAFORME AEREE**  
AERIAL PLATFORMS

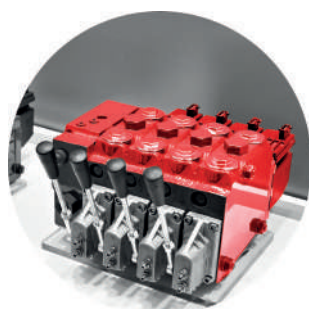


**UTENSILI**  
TOOLS

## COMPONENTI IDRAULICI HYDRAULIC COMPONENTS



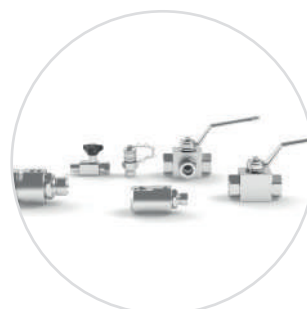
**MINI CENTRALINE**  
MINI-POWER PACKS



**DISTRIBUTORI IDRAULICI**  
DCVS



**IMPIANTI IDRAULICI**  
HYDRAULIC SYSTEMS



**RICAMBI**  
SPARE PARTS

