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PROCESS AUTOMATION TECHNOLOGY

CATALOGUE

Process automation technology Catalogue

Stainless steel and aluminum
components and systems:
valves and solenoid valves, components for
air treatment and accessories
for applications in the process industry



Pneumax

Smart Technologies and Human Competence

Founded in 1976, **Pneumax S.p.A.** is today one of the leading, international manufacturers of components and systems for automation. It is at the fore front of a group comprised of **26 companies**, with **over 850 employees worldwide**.

Ongoing investment in research and development has allowed **Pneumax** to continually expand its range of standard products and customised solutions, adding to the well-established pneumatic technology, a range of electric drive actuators and fluid control components.

The desire to provide the service and specific application skills has led to the creation of 3 business units, dedicated to Industrial Automation, Process Automation and Automotive sector.



**Pneumatic
technology**



**Electric
actuation**



**Fluid
control**

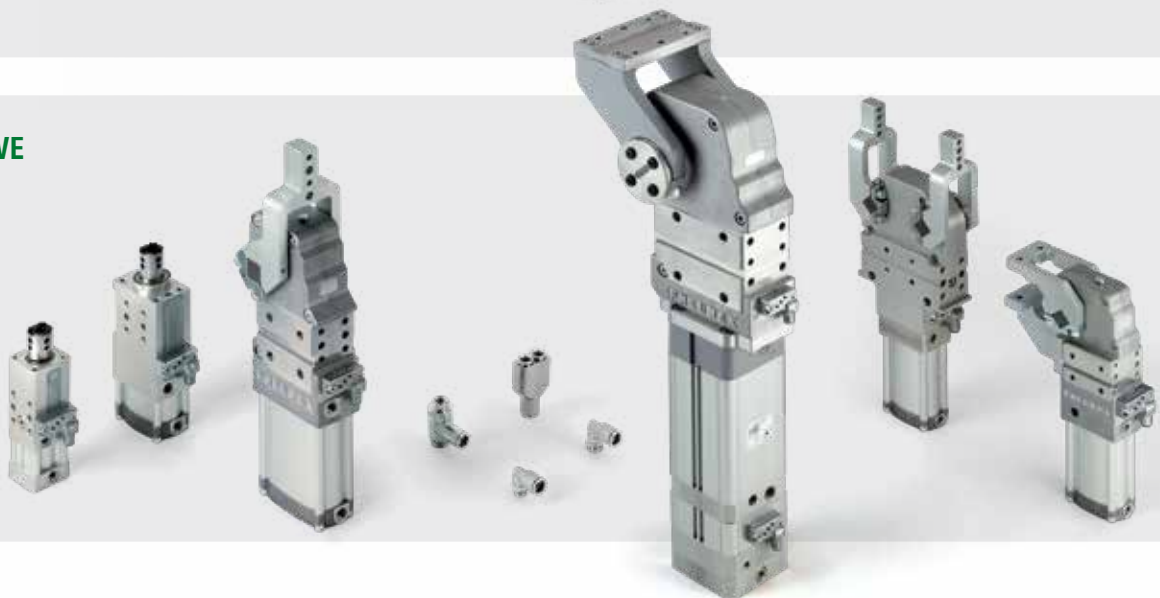


INDUSTRIAL AUTOMATION

PROCESS AUTOMATION TECHNOLOGY



AUTOMOTIVE



The ability to provide various technologies and solutions for each of our clients applications is the main objective of the Company, making Pneumax the ideal strategic partner.

What defines us is the “**Pneumax Business Attitude**”, born out of the capacity to combine industry sectors, technology and our application skills via the clients collaboration with our business and product specialists. The most effective solutions are studied around the TCO (Total cost of ownership) related to the entire life cycle of the product.

This represents the main Pneumax distinguishing factor.



Process automation technology

A wide range of standard components and customized solutions

Pneumax S.p.A. offers a wide range of engineered solutions and components for the process automation industry. These have been designed to meet the latest industry standards and customer specifications. Long term performance and reliability are never compromised at Pneumax, a trustworthy partner to achieve full customer satisfaction for severe service and harsh environmental applications.

Pneumax products are designed and engineered in compliance with the latest international standards, following sophisticated and reliable prototyping as well as rigorous testing procedures to provide efficient and cost effective solutions. The combination of the latest technology and manufacturing experience allow Pneumax to add more products to their extensive portfolio with a wide range of components and services.



STANDARD PRODUCTS

Stainless steel and aluminium components

CUSTOMISED SOLUTIONS

Manifold and integrated systems





Application sectors

- Petrochemical
- Oil & gas
- Power generation
- Water treatment



Air treatment

Air service unit



Series Airplus - aluminium	8
Filter	9
Filter regulator	14
Regulator	20



Series flow plus	43
Volume booster	44
Volume filter booster	50



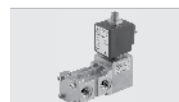
Series 1700 Steel line	26
Filter	28
Filter regulator	32
Regulator	37

Air distribution

Spool type valves and solenoid valves (Steel Line)



Series SL - P	56				
	3/2	57		3/2	67
Version 1/4"	5/2	62	Version 1/2"	5/2	70
	5/3	66		5/3	71
			Version 3/4"	3/2	72
				5/2	72
			Version 1"	3/2	74
				5/2	74



Series SL - C2 (IP65)		76			
Version 1/4"	3/2	77	Version 1/4"	5/2	78



Series SL - CA (IP66)		79			
Version 1/4"	3/2	80	Version 1/2"	3/2	84
	5/2	82		5/2	86



Series SL - CB (Exd IP66)		87			
Version 1/4"	3/2	88	Version 1/2"	3/2	92
	5/2	90		5/2	94



Series SL - CC (Exi IP65)		95			
Version 1/4"	3/2	96	Version 1/2"	3/2	100
	5/2	98		5/2	102



Series SL - CM (Exi IP66)		103			
Version 1/4"	3/2	104	Version 1/2"	3/2	108
	5/2	106		5/2	110



Series SL - U (Exd IP66)	111	
Version 1/4" (3/2)	Stand alone	112
	Manifold	114



Accessories for series Steel line valves	115
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Spool type valves and solenoid valves (Aluminium)



Series SA - S

126

Version 1/4"	3/2	127	Version 1/2"	3/2	133	Version 1"	3/2	135
	5/2	130		5/2	134		5/2	136



Accessories for series SA - S 137 valves

Valves and solenoid valves poppet system



Series SA - P

140

Version 1/2"	3/2	141	Version 1"	3/2	142
	3/4"	141		1 1/2"	142

Valves and solenoid valves with "Namur" interface



Series 514 High performance 143



Series 515 High performance 149



Solenoid coils and accessories 153



Series Airplus - aluminium



- Modular system
- Compact and linear design
- Maximum flexibility and reliability
- Plug-n-play connection thru couplig flanges
- Available in 3 sizes with connections from 1/4" to 1"
- ATEX certification (II 2GD)

Construction and working characteristics

Pneumax AIRPLUS air treatment units have been designed and developed to increase reliability, modularity and user-friendly operation and installation. This range of filters, regulators and filter regulators are constructed using a light weight aluminum body which ensures strength whilst at the same time making them suitable for a wide range of applications in temperatures from -40 to +80°C.

The filters operated in pressures up to 12 bar with filtration available from 5 to 50 microns.

Pneumax Airplus air treatment units can be integrated with safety elements that comply with EN ISO 13849-1 and CE marking according to CE Machinery Directive, Annex V.

AIRPLUS air treatment units are available in 3 different sizes, with connections from 1/4 "to 1" BSP and NPT and flow rates performances up to 8000Nl/min.

Instruction for installation and operation

The FRL unit should be installed as close as possible to the 'point of use'. The air flow direction should follow the direction indicated on the individual modules, following threaded connections (IN and OUT). Units fitted with a with bowl should be mounted vertically with the bowl facing down.

All units should be operated in accordance to the specified pressure and temperature ranges and should never exceed 0.2 Hz max frequency whether pulsing inlet pressure occur.

Fittings shall be mounted according to the maximum torque specified.

Maintenance

To carry out maintenance which involves the removal of the caps or supports above the body and where the retaining screws are present, it is necessary to remove the cover plates beforehand. If you attempt to dis-assemble the caps or supports without removing the cover plates and retaining screws, the integrity and function of the device could be compromised.

Bowls, plugs and supports are assembled with a bayonet type mechanism. In order to remove them, rotate anti-clockwise until the mechanical stop is reached and then remove from the body (for the bowls firstly press down the green safety button).

Bowls and transparent parts can be cleaned with water and neutral soap. Do not use solvents or alcohol.

Filtering elements (present in filters and filter regulators) made of HDPE can be regenerated by washing and blowing them.

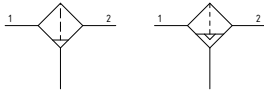
In order to remove them it is necessary to remove the bowl unscrew the filter element and replace it with a new one or clean it.

Lubricator oil recharge might be performed during normal operation (apart Size 1) depressurizing the bowl thru dedicated plug.

Pneumax suggest refilling oil directly into the bowl.

No others maintenance operation shall be carried out by client itself, due to complexity of the assembly and Pneumax dedicated post-maintenance testing activities.

Filters (F)



- ▶ Double filter action: air flow centrifugation and filter element
- ▶ Available in 3 sizes with flow rates up to 14000 NI/min and connections from 1/4" to 1"
- ▶ Filtering cartridge made of HDPE available in three different filtration grades (5µm, 20µm, 50µm)
- ▶ Filter cartridge can be regenerated by washing / blowing it or replaced
- ▶ Bowl assembly via bayonet type quick coupling mechanism with safety button
- ▶ Semi-automatic, automatic or manual metal drain
- ▶ Atex certification (II 2GD)
- ▶ Inlet pressures up to 20 bar

Note

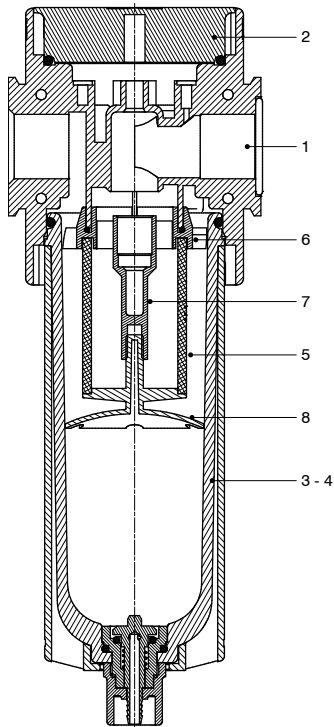
In order to ensure that any fluid discharged by the auto drain assembly is adequately drained away, it is recommended you use a 6mm fitting and tube.

Technical characteristics				
Size		Size 2	Size 3	Size 4
Body and connections type		Aluminium body, integrated aluminium connections		
Protection and bowl type		Metal protection - PC bowl Metal protection - PA bowl Metal bowl (blind metal bowl)		
IN / OUT connections	P and L version	G3/8" - 1/4" NPT	G1/2" - 1/2" NPT	G1" - 1" NPT
Assembly configuration		Stand alone		Panel mounted
Assembly positions		Vertical ±5°		
Filter pore size		5 µm 20 µm 50 µm		
Bowl capacity		34 cm³	68 cm³	90 cm³
Condensation drain		Semi-automatic Automatic Manual metal		
Max. fittings torque IN / OUT connections		G1/4" metal: 20Nm G3/8" metal: 25Nm	G3/8" metal: 25Nm G1/2" metal: 30Nm	G1" metal: 35Nm

Operational characteristics						
Size	Size 2	Size 3	Size 4	Size 2	Size 3	Size 4
Condensation drain	Semi-automatic / Manual metal			Automatic		
Maximum working pressure	20 bar (only with body and metal bowl)			16 bar (only with body and metal bowl)		
Minimum working pressure	0,5 bar			0,5 bar		
Working temperature	-5°C ... +50°C (technopolymer bowl) -30°C ... +80°C (only for P version and metal bowl) -40°C ... +80°C (only for L version and metal bowl)			-35°C ... +70°C		

Weights			
Size	Size 2	Size 3	Size 4
Aluminium body version, aluminium bowl protection and technopolymer bowl	344 g	514 g	1306 g
Aluminium body version and aluminium bowl	389 g	587 g	1330 g

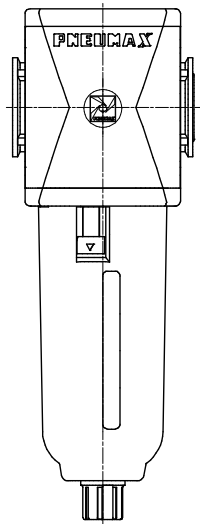
Materials



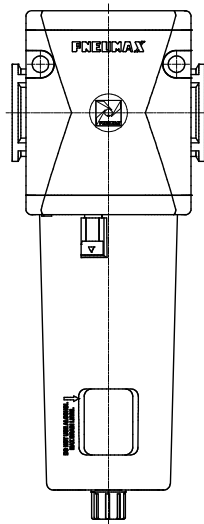
Filter		
1	Body	Polyamide Die-cast aluminium
2	Upper plug	Polyamide
3	Technopolymer bowl	Polycarbonate Polyamide
4	Metal bowl Bowl protection	Die-cast aluminium Die-cast aluminium
5	Filtering element	Polyethylene
6	Baffle	Acetal resin
7	Spool support	Acetal resin
8	Filtering element support	Acetal resin

Design

Size 2 - Size 3
 Protection / Metal bowl



Size 4
 All versions





Order codes

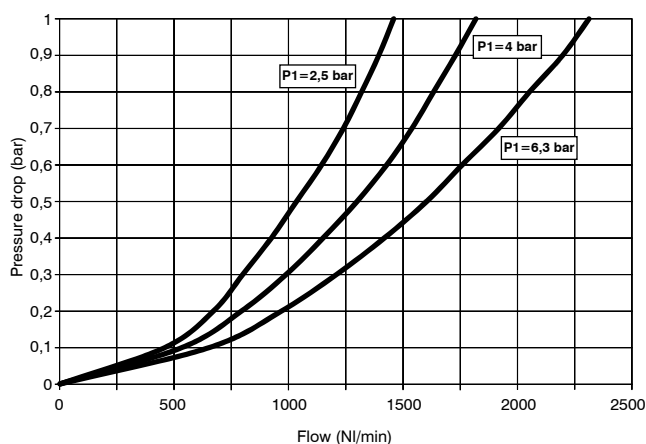
Version		P	17	3B	F	B	S	T
P	Aluminum body							
L	Aluminum body, low temperature							
Size and connections								
2B	Size 2 - G3/8"							
2C	Size 2 - 1/4" NPT							
3B	Size 3 - G1/2"							
3C	Size 3 - 1/2" NPT							
4B	Size 4 - G1"							
4C	Size 4 - 1" NPT							
Filter pore size								
A	5 µm							
B	20 µm							
C	50 µm							
Condensation drain								
	Semi-automatic drain							
M	Manual drain AISI 316							
S	Automatic drain							
Bowl options								
P	Metal protection - PC bowl							
R	Metal protection - PA bowl							
T	Metal bowl							

Example : P173BFBST : Size 3 filter G1/2" 20 µm, automatic drain and metal bowl

Flow charts

Flow rate chart

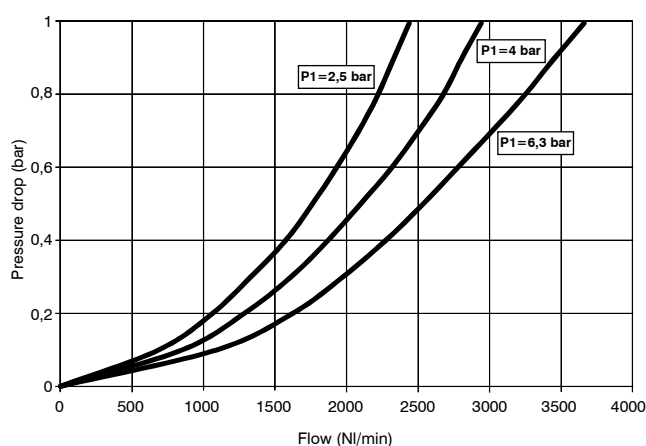
Size 2



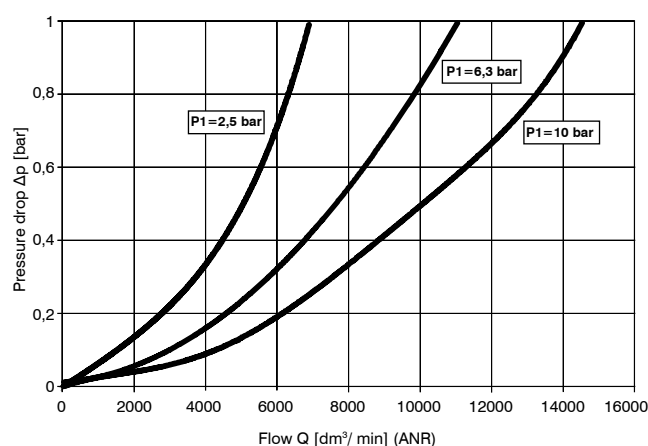
Flow rate chart

Size 3

Size 4

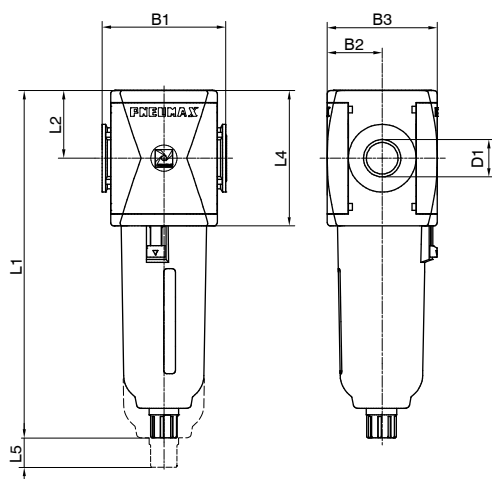


Flow rate chart

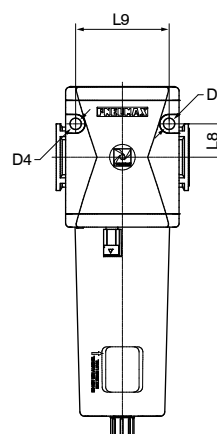


Dimensions

Semi-automatic drain version



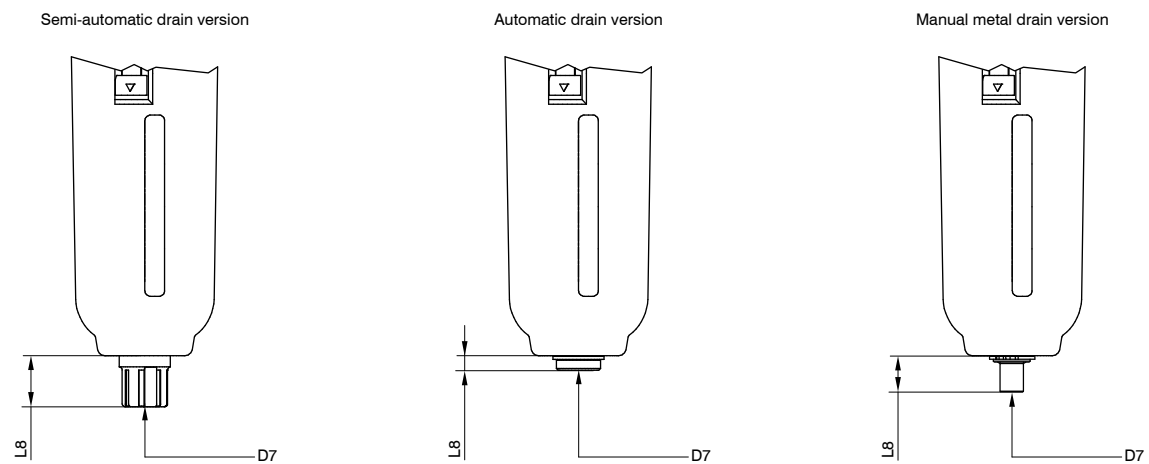
Fixing holes dimension detail (only for size 4)



Model	B1	B2	B3	D1	D4	L1 - Bowl material		L2	L4	L5	L8	L9
						Technopolymer	Metal					
#172..	62	28,5	57	G3/8" 1/4" NPT	/	169,5 - 164,5*	171,5 - 166,5*	34	68	50	/	/
#173..	73	32,5	65	G1/2" 1/2" NPT	/	207,5 - 202,5*	209,5 - 204,5*	40	80	65	/	/
#174..	99	44	88	G1" 1" NPT	8,5	262 - 257,5*	264,5 - 259,5*	52,5	105	103	25	70

* = With manual metal drain

Variable dimensions

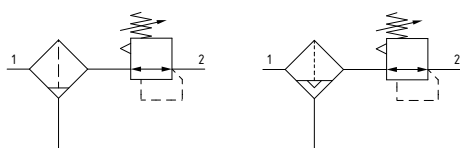


Model	L8 - Bowl material		D7
	Technopolymer	Metal	
Semi-automatic drain	16	18	Plastic hose connector
Automatic drain	2	4,5	G1/8"
Manual metal drain	11	13	○ 5

Filter regulators (E)



- ▶ Filter - diaphragm pressure regulator with relieving
- ▶ Available in 3 sizes with flow rates up to 8000 NI/min and connections from 1/4" to 1"
- ▶ Low hysteresis rolling diaphragm and balanced spool
- ▶ Filtering element made of HDPE available in 3 different filtration grades (5µm, 20µm and 50µm)
- ▶ Bowl assembly via bayonet type quick coupling mechanism with safety button
- ▶ Semi-automatic, automatic or manual metal drain
- ▶ Available in four pressure ranges up to 12 bar
- ▶ Fitted with panel mounting locking ring
- ▶ Atex certification (II 2GD)
- ▶ Inlet pressures up to 20 bar



Note

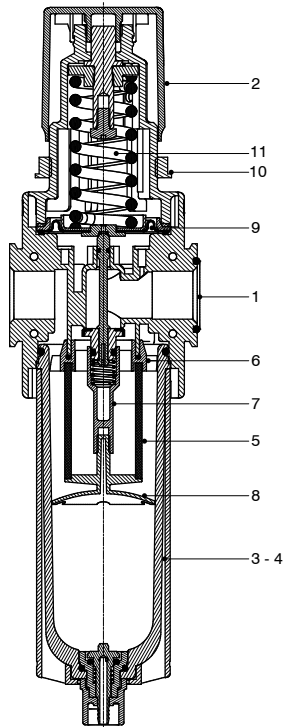
For installations where a more accurate and constant pressure is required, the unit should be installed as close as possible to the point of use. In order to ensure that any fluid discharged by the auto drain assembly is adequately drained away, it is recommended you use a 6mm fitting and tube.

Technical characteristics				
Size		Size 2	Size 3	Size 4
Body and connections type		Aluminium body, integrated aluminium connections		
Protection and bowl type		Metal protection - PC bowl Metal protection - PA bowl Metal bowl (blind metal bowl)		
IN / OUT connections	P and L version	G3/8" - 1/4" NPT	G1/2" - 1/2" NPT	G1" - 1" NPT
Assembly configuration		Stand alone Panel mounting With fixing bracket		Panel mounted
Assembly positions		Vertical ±5°		
Filter pore size		5 µm 20 µm 50 µm		
Pressure range		0-2 bar 0-4 bar 0-8 bar 0-12 bar		
Bowl capacity		34 cm³	68 cm³	90 cm³
Condensation drain		Semi-automatic Automatic Manual metal		
Regulation		Manual push and lock with pressure Manual lockable with accessories		
Pressure measurement		G1/8" - 1/8" NPT pressure gauge connection port (only for versions with IN / OUT NPT connections)		
Max. fittings torque IN / OUT connections		G3/8" metal: 25Nm	G1/2" metal: 30Nm	G1" metal: 35Nm
Max. fitting torque pressure gauge connection port		G1/8" metal: 15Nm		

Operational characteristics						
Size	Size 2	Size 3	Size 4	Size 2	Size 3	Size 4
Condensation drain	Semi-automatic / Manual metal			Automatic		
Maximum working pressure	20 bar (only with body and metal bowl)			16 bar (only with body and metal bowl)		
Minimum working pressure	0,5 bar			0,5 bar		
Working temperature	-5°C ... +50°C (technopolymer bowl) -30°C ... +80°C (only for P version and metal bowl) -40°C ... +80°C (only for L version and metal bowl)			-35°C ... +70°C		

Weights			
Size	Size 2	Size 3	Size 4
Aluminium body version, aluminium bowl protection and technopolymer bowl	510 g	730 g	1600 g
Aluminium body version and aluminium bowl	560 g	790 g	1620 g

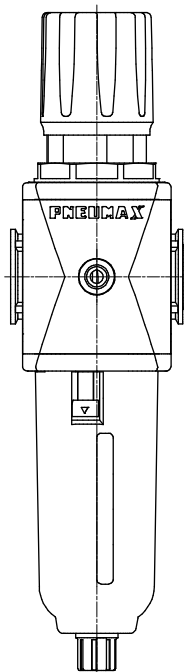
Materials



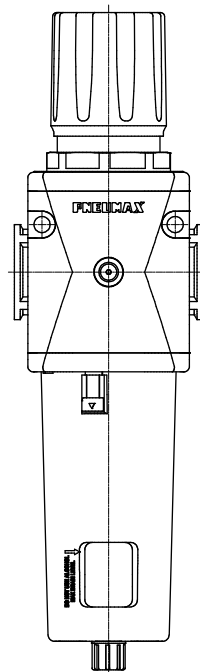
Filter regulator		
1	Body	Die-cast aluminium
2	Adjusting knob	Polyamide
3	Technopolymer bowl	Polycarbonate Polyamide
4	Metal bowl Bowl protection	Die-cast aluminium Die-cast aluminium
5	Filtering element	Polyethylene
6	Baffle	Acetal resin
7	Spool support	Acetal resin
8	Filtering element support	Acetal resin
9	Diaphragm	NBR
10	Panel mounting locking ring	Polyamide
11	Adjusting spring	Steel

Design

Size 2 - Size 3
 Protection / Metal bowl



Size 4
 All versions





Order codes

AIR TREATMENT

Version	
P	Aluminum body
L	Aluminum body, low temperature

Size and connections	
2B	Size 2 - G3/8"
2C	Size 2 - 1/4" NPT
3B	Size 3 - G1/2"
3C	Size 3 - 1/2" NPT
4B	Size 4 - G1"
4C	Size 4 - 1" NPT

Filter pore size	
A	5 µm
B	20 µm
C	50 µm

Pressure range	
A	0 - 2 bar
B	0 - 4 bar
C	0 - 8 bar
D	0 - 12 bar

Condensation drain	
	Semi-automatic drain
M	Manual drain AISI 316
S	Automatic drain

Relieving options	
	With relieving
L	Without relieving

Knob options	
	Non-lockable version
K	Lockable version
U	Lockable version with universal key

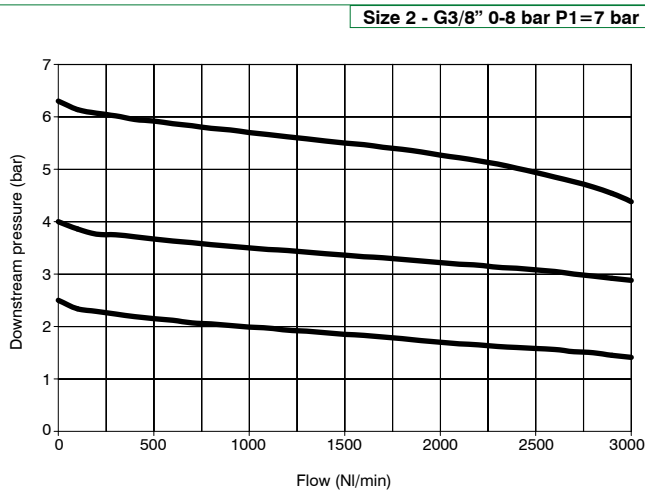
Bowl options	
P	Metal protection - PC bowl
R	Metal protection - PA bowl
T	Metal bowl

Order code example: P 17 3B E B D S [] [] T

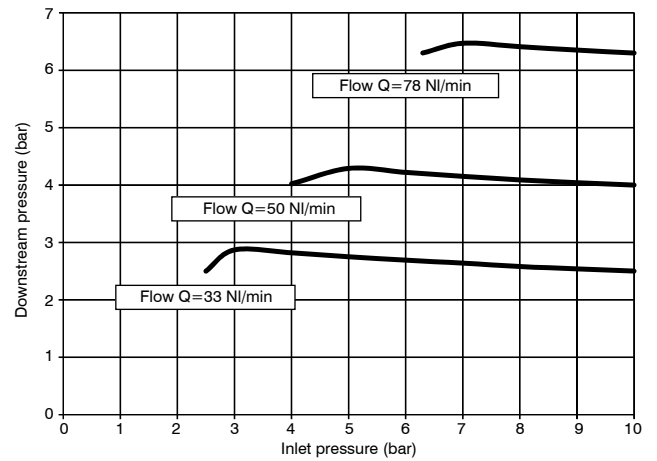
Example : P173BEBDST : Size 3 filter regulator G1/2" 20 µm 0 - 12 bar, automatic drain and metal bowl

Flow charts

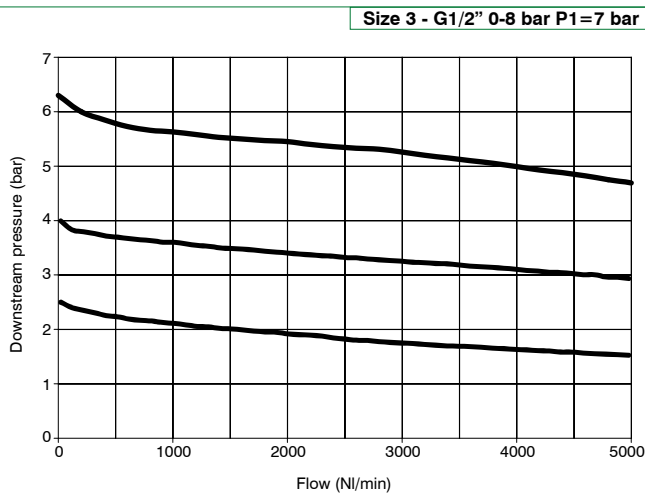
Flow rate chart



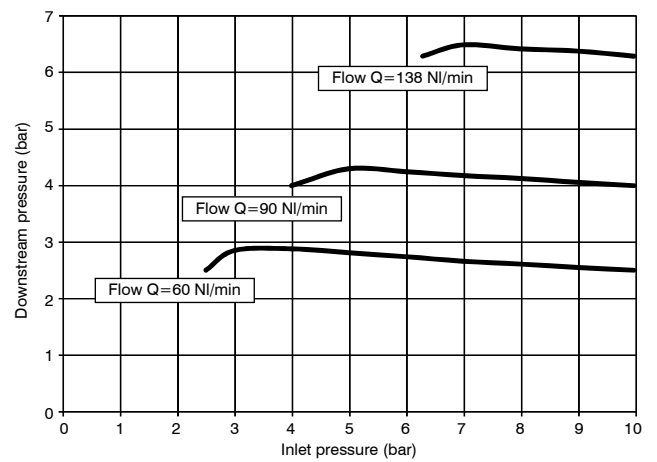
Adjustment characteristic



Flow rate chart



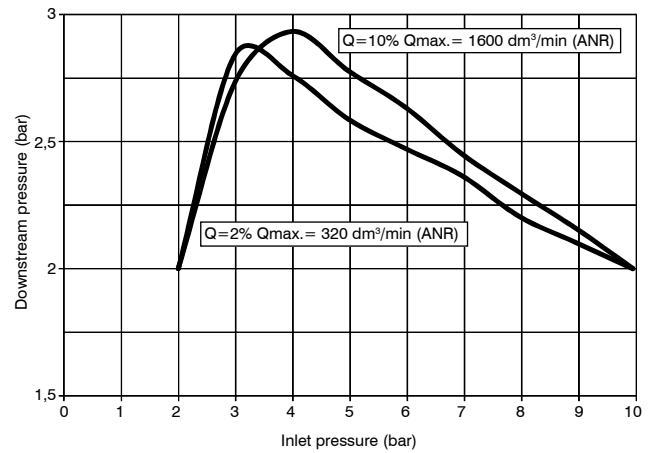
Adjustment characteristic



Flow rate chart

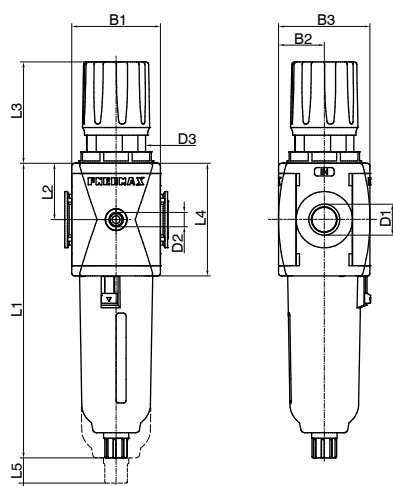


Adjustment characteristic

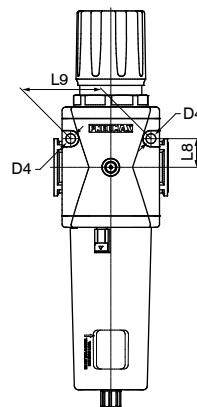


Dimensions

Semi-automatic drain version



Fixing holes dimension detail
(only for size 4)

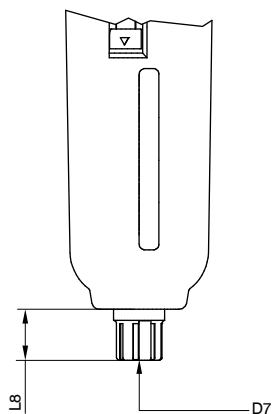


Model	B1	B2	B3	D1	D2	D3	D4	L1 - Bowl material		L2	L3	L4	L5	L8	L9
								Technopolymer	Metal						
#172..	62	28,5	57	G3/8" 1/4" NPT	G1/8" 1/8" NPT	M42x1,5	/	169,5 - 164,5*	171,5 - 166,5*	34	71,8	68	50	/	/
#173..	73	32,5	65	G1/2" 1/2" NPT	G1/8" 1/8" NPT	M42x1,5	/	207,5 - 202,5*	209,5 - 204,5*	40	72,8	80	65	/	/
#174..	99	44	88	G1" 1" NPT	G1/8" 1/8" NPT	M54x1,5	8,5	262 - 257,5*	264,5 - 259,5*	52,5	87,5	105	103	25	70

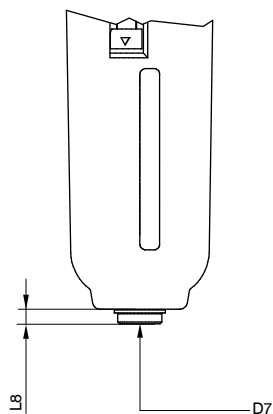
* = With manual metal drain

Variable dimensions

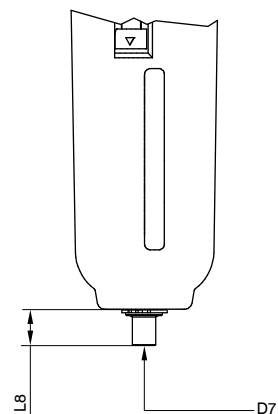
Semi-automatic drain version



Automatic drain version



Manual metal drain version

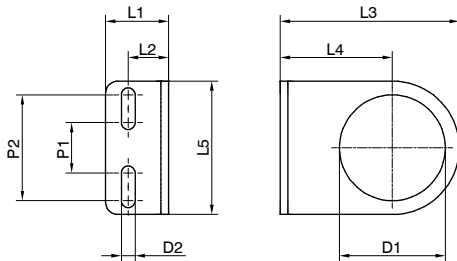


Model	L8 - Bowl material		D7
	Technopolymer	Metal	
Semi-automatic drain	16	18	Plastic hose connector
Automatic drain	2	4,5	G1/8"
Manual metal drain	11	13	○ 5

► **Fixing bracket**

T172 50

Size	
T172	Size 2 - Size 3

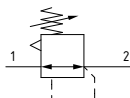


Model	L1	L2	L3	L4	L5	D1	D2	P1	P2
T17250	25	16	71	44,5	53	42	5,5	20	42

Regulators (R)



- ▶ Diaphragm pressure regulator with relieving
- ▶ Available in 3 sizes with flow rates up to 8000 NI/min and connections from 1/4" to 1"
- ▶ Low hysteresis rolling diaphragm and balanced spool
- ▶ Available in four pressure ranges up to 12 bar
- ▶ Fitted with panel mounting locking ring
- ▶ Atex certification (II 2GD)
- ▶ Inlet pressures up to 20 bar



Note

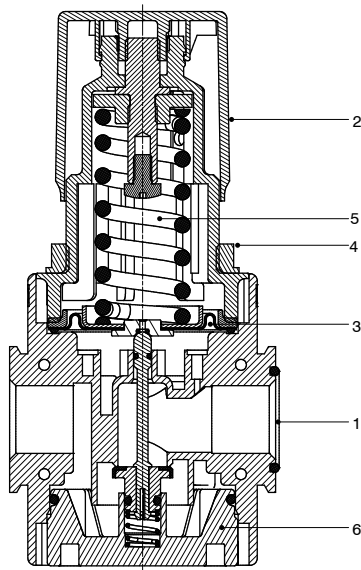
For installations where a more accurate and constant pressure is required, the unit should be installed as close as possible to the point of use.

Technical characteristics				
Size		Size 2	Size 3	Size 4
Body and connections type		Aluminium body, integrated aluminium connections		
IN / OUT connections	P and L version	G3/8" - 1/4" NPT	G1/2" - 1/2" NPT	G1" - 1" NPT
Assembly configuration		Stand alone Panel mounting With fixing bracket		Panel mounted
Assembly positions		Indifferent		
Pressure range		0-2 bar 0-4 bar 0-8 bar 0-12 bar		
Regulation		Manual push and lock with pressure Manual lockable with accessories		
Pressure measurement		G1/8" - 1/8" NPT pressure gauge connection port (only for versions with IN / OUT NPT connections)		
Max. fittings torque IN / OUT connections		G3/8" metal: 25Nm	G1/2" metal: 30Nm	G1" metal: 35Nm
Max. fitting torque pressure gauge connection port		G1/8" metal: 15Nm		

Operational characteristics			
Size	Size 2	Size 3	Size 4
Maximum working pressure	20 bar		
Minimum working pressure	0.5 bar		
Working temperature	-30°C ... +80°C (only for P version) -40°C ... +80°C (only for L version)		

Weights			
Size	Size 2	Size 3	Size 4
Aluminium body version	400 g	560 g	1260 g

Materials

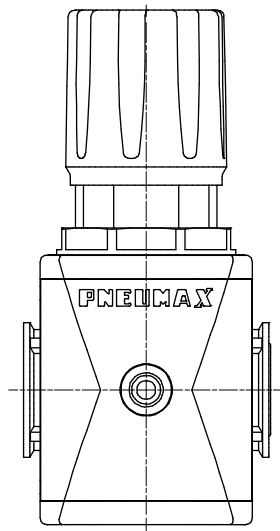


Regulator		
1	Body	Polyamide Die-cast aluminium
2	Adjusting knob	Polyamide
3	Diaphragm	NBR
4	Panel mounting locking ring	Polyamide
5	Adjusting spring	Steel
6	Rear end cap	Polyamide / Die-cast aluminium

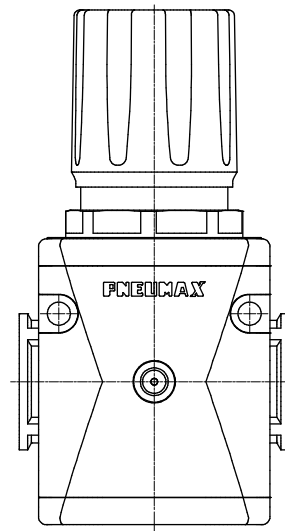
AIR TREATMENT

Design

Size 2 - Size 3



Size 4
 All versions





Order codes

AIR TREATMENT

P 17 3B R D

Version	
P	Aluminum body
L	Aluminum body, low temperature

Size and connections	
2B	Size 2 - G3/8"
2C	Size 2 - 1/4" NPT
3B	Size 3 - G1/2"
3C	Size 3 - 1/2" NPT
4B	Size 4 - G1"
4C	Size 4 - 1" NPT

Pressure range	
A	0 - 2 bar
B	0 - 4 bar
C	0 - 8 bar
D	0 - 12 bar

Relieving options	
	With relieving
L	Without relieving

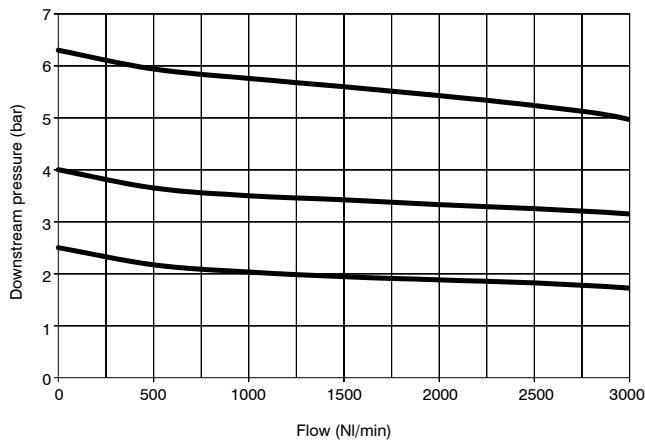
Knob options	
	Non-lockable version
K	Lockable version
U	Lockable version with universal key

Example : P173BRD : Size 3 regulator G1/2" 0 - 12 bar

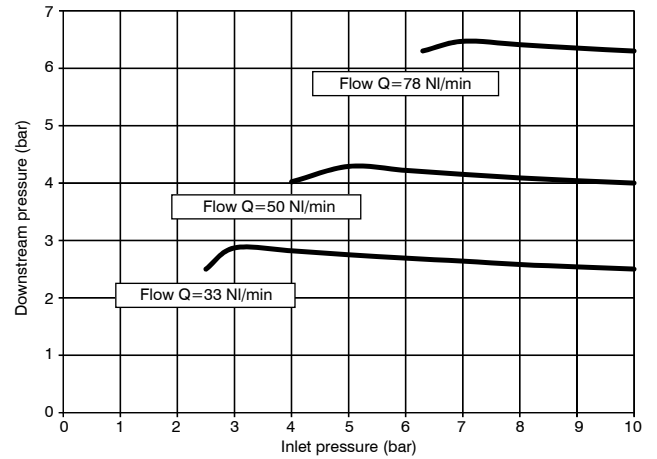
Flow charts

Flow rate chart

Size 2 - G3/8" 0-8 bar P1=7 bar

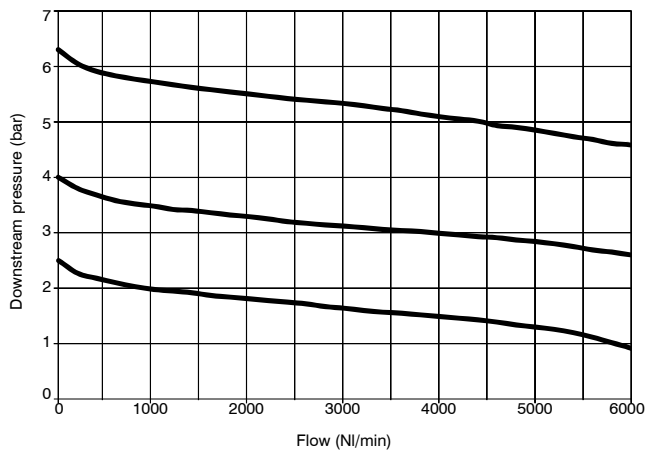


Adjustment characteristic

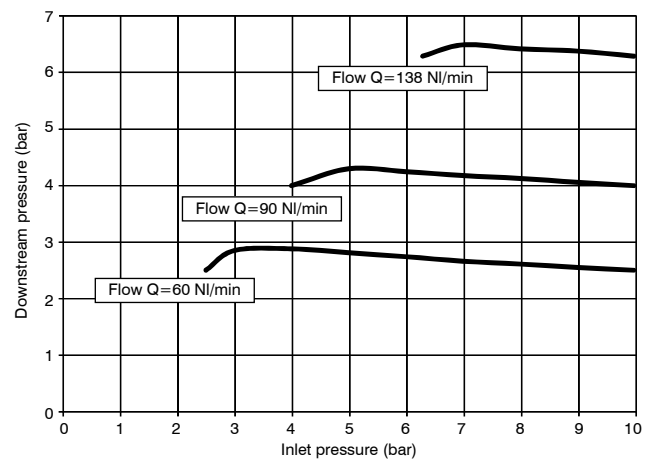


Flow rate chart

Size 3 - G1/2" 0-8 bar P1=7 bar

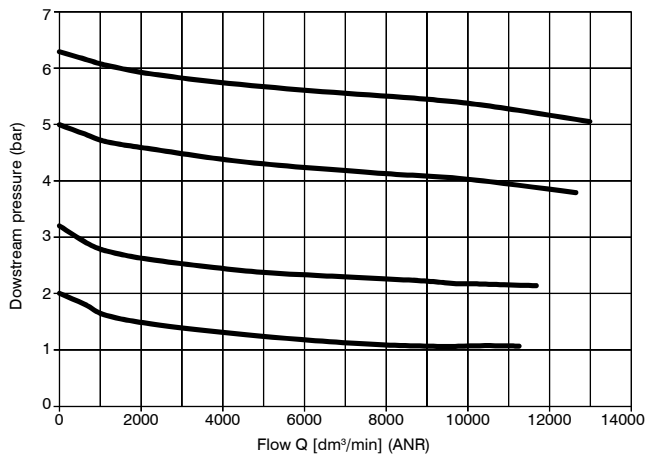


Adjustment characteristic

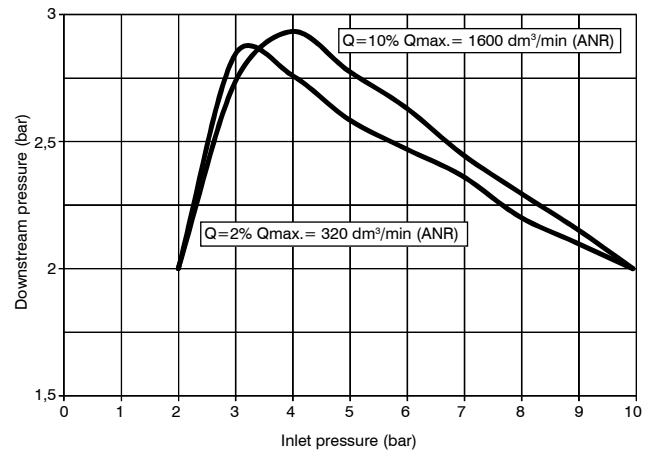


Flow rate chart

Size 4 - G1" 0-8 bar P1=10 bar



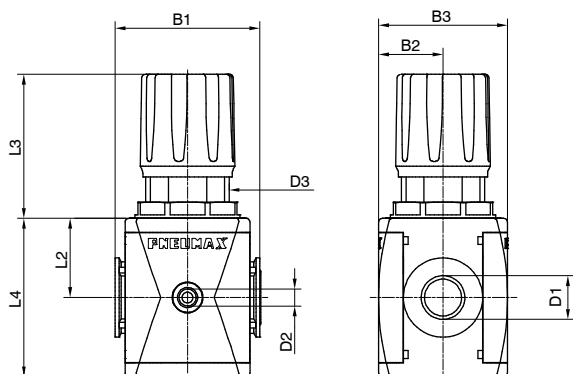
Adjustment characteristic



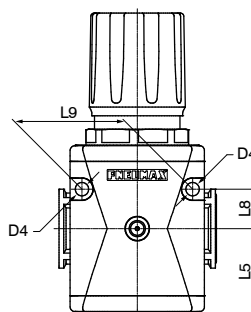


Dimensions

Pressure gauge connection port version



Fixing holes dimension detail
(only for size 4)

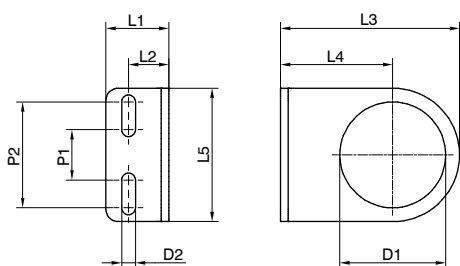


Model	B1	B2	B3	D1	D2	D3	D4	L2	L3	L4	L5	L8	L9
#172..	62	28,5	57	G3/8" 1/4" NPT	G1/8" 1/8" NPT	M42x1,5	/	34	71,8	68	/	/	/
#173..	73	32,5	65	G1/2" 1/2" NPT	G1/8" 1/8" NPT	M42x1,5	/	40	72,8	80	/	/	/
#174..	99	44	88	G1" 1" NPT	G1/8" 1/8" NPT	M54x1,5	8,5	52,5	87,5	105	54,5	25	70

Fixing bracket

T172 50

Size	
T172	Size 2 - Size 3



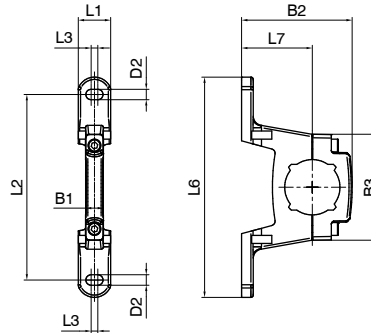
Model	L1	L2	L3	L4	L5	D1	D2	P1	P2
T17250	25	16	71	44,5	53	42	5,5	20	42

Quick coupling flanges

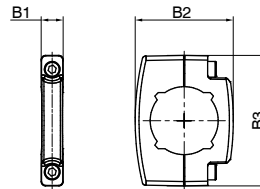
Pneumax Airplus quick coupling flanges series allow both module rapid fixing and panel mounted configuration. Due to its design, Pneumax connection flanges allow user-friendly maintenance activities with no need of entire manifold disassembling procedure. Two types of flange are available: X type flange for assembling the modules together, and Y type flange suitable for panel mounted also. Both types are made of die-cast aluminium.

Aluminium flanges

Flange Y



Flange X



Model	B1	B2	B3	D2	L1	L2	L3	L4	L5	L6	L7
N172Y	9,7	64,6	55,6	Ø5,2	18	95	6,8	/	86,5	117,9	40,5
N172X		55,6		/	/	/	/	96,5	72,5	/	/
N173Y	9,7	75,5	56	Ø5,2	18	110	6,8	/	98,3	133	44,5
N173X		62		/	/	/	/	112,8	85	/	/
N174Y	13,7	106,5	102	Ø8,5	25	148	6,5	/	133,5	175	64
N174X		85		/	/	/	/	153,5	112	/	/

Series 1700 Steel line



- Wide working temperature range
- Available in 3 sizes with connections from 1/4" to 1"
- ATEX certification (II 2G or II 2D), SIL, EAC
- Clean profile versions available

General

The stainless steel SS1700 air treatment series has been engineered and developed to approach specifically the OIL & GAS industry and more widely for all the severe service applications that require excellent corrosion resistance due to chemical and/or harsh environmental condition.

All external and internal parts (except for the automatic drain version) are AISI 316L stainless steel material in compliance with NACE standard MR0175/ISO 15156/1. The product range includes FILTER, with filtration elements up to 3 filtration degree ($5\mu\text{m}$ - $20\mu\text{m}$ - $50\mu\text{m}$), available in AISI316 stainless steel or HDPE (high density polyethylene), and manual or automatic condensed exhaust; The PRESSURE REGULATOR is supplied with low hysteresis rolling diaphragm and an over-pressure exhaust valve (RELIEVING), available in 4 different adjustment ranges from 0 to 12 bar. As a last the FILTER REGULATOR range, which combines the features of a filter and pressure regulator into a one single device. "CLEAN PROFILE" version is available for all the sizes, featuring a glossy finish on the external surface. The over-pressure exhaust hole (RELIEVING) has a 1/8" NPT threading, and it is protected by an AISI 316 sintered filter series. Note: for CLEAN PROFILE series this is a simple unthread hole.

Instructions for installation and use

Product shall be installed reducing the distance from inlet point. Check and install the device following the flow direction (clearly marked with an arrow stamped on the body). Vertical position installation with condensed exhaust tap pointing downward is recommended.

Devices must be used in compliance with pressure and temperature operating range. To set the pressure there is an adjustable knob, located on the top of the device. Pneumax recommend selection of pressure regulator adjusting range option in line with client required performance. The condensed exhaust action for the manual drain version shall be performed only in the absence of pressure. To discharge liquid, turn the tap clockwise until the discharge of liquid is triggered, then tighten it all the way.

Construction and operational characteristics			
Size	Size 2	Size 3	Size 4
Body, bowl and adjustment mechanism	AISI 316L stainless steel		
Caseback regulator	AISI 316L stainless steel		
Adjustment screw, locking nut and fastening screws	AISI 316L stainless steel (stainless steel A4-70)		
Internal components	AISI 316L stainless steel		
Filtering elements	AISI 316L stainless steel or HDPE (High density polyethylene)		
Springs	AISI 316L stainless steel		
Seals	NBR (standard versions and automatic drain) NBR for low temperatures (L versions) FPM - HNBR (H versions) EPDM-FDA (EF versions) Silicone - PU (Z version)		
Automatic drain	Brass, stainless steel AISI 304 and AISI 302, sintered bronze Acetal resin, NBR, FPM		

Operating range			
Size	Size 2	Size 3	Size 4
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous Inert gases Natural gases		
Working temperature (°C)	-30 ... +80 (standard version) -50 ... +80 (low temperature L version) -60 ... +80 (low temperature version -60 °C Z) -5 ... +150 (high temperature H version) -35 ... +70 (automatic drain S version and reduced orifice automatic drain SR version) -40 ... +100 (EPDM-FDA version)		
Maximum working pressure (bar)	20 (standard, low and high temperature versions) 16 (automatic drain version) 10 (reduced orifice automatic drain version)		

Maintenance



Filtration elements and filter regulator are reusable through blowing and/or washing and is made of stainless steel or HDPE (high density polyethylene). To replace, remove the cup, loosen the set screw of the support and replace the filter element with a new one or refurbished one. Replace the regulator diaphragm whenever the performance is compromised or if there is a continuous discharge from the relieving hole (over-pressure exhaust). Fully discharge the adjustment spring before removing the adjustment mechanism. For other maintenance activities, due to complexity of assembly and requirement for dedicated **PNEUMAX** testing activities, it is strongly recommended to contact the manufacturer.

Certifications available

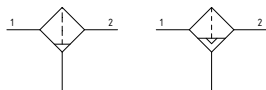



 II 2G Ex h IIC T5...T3 Gb X
 II 2D Ex h IIC T100°C...T200°C Db X

 : Suitable up to SIL 3
  : TR CU 012/2011



- ▶ Body, bowl and internal components in AISI 316L stainless steel
- ▶ A4 (AISI 316) stainless steel fixing screws
- ▶ Manual or automatic drain
- ▶ ATEX certification (II 2G or II 2D), EAC
- ▶ Filter cartridge available in AISI 316 stainless steel or HDPE
- ▶ Clean profile versions available
- ▶ Versions with 1/8" NPT pressure gauge connection available



Note

The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended.

Important note for automatic drain

For inlet pressure from 0 to 10 bar use the reduced automatic drain (SR version)
For inlet pressure from 10 to 16 bar use the STD automatic drain (S version)

Technical characteristics			
Size	Size 2	Size 3	Size 4
Type	Rough finishing Clean profile (bowl)		
IN / OUT connections	G1/4" 1/4" NPT 3/8" NPT	G1/2" 1/2" NPT 1/4" NPT	G1" 1" NPT 3/4" NPT
Assembly configuration	Stand alone		
Assembly position	Vertical		
Filter pore size	5 µm 20 µm 50 µm		
Max. bowl capacity (cm³)	15	25	78
Condensation drain	Manual Automatic		

Operational characteristics						
Size	Size 2	Size 3	Size 4	Size 2	Size 3	Size 4
Condensation drain	Manual condensation drain			Automatic condensation drain		
Maximum working pressure (bar)	20 (standard version)			16 (automatic drain version) 10 (reduced orifice automatic drain version)		
Minimum working pressure (bar)	/			0,5		
Working temperature (°C)	-30 ... +80 (standard version) -50 ... +80 (low temperature L version) -60 ... +80 (low temperature version -60 °C Z) -5 ... +150 (high temperature H version) -40 ... +100 (EPDM-FDA version)			-35 ... +70 (automatic drain S version and reduced orifice automatic drain SR version)		

Weights			
Size	Size 2	Size 3	Size 4
Standard version (g)	1088	1903	4655
Automatic drain version / Reduced orifice automatic drain version (g)	1175	2070	4692

Order codes

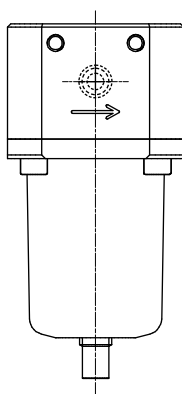
S	S	17	2B	F	B	S	G
Version							
S	Rough finishing						
F	Clean profile						
Size and connections							
2A	Size 2 - 1/4" NPT						
2B	Size 2 - 3/8" NPT						
2C	Size 2 - G1/4"						
3A	Size 3 - 1/4" NPT						
3B	Size 3 - 1/2" NPT						
3D	Size 3 - G1/2"						
4A	Size 4 - 3/4" NPT						
4B	Size 4 - 1" NPT						
4D	Size 4 - G1"						
Filter pore size							
A	5 μm - 316 stainless steel						
B	20 μm - 316 stainless steel						
C	50 μm - 316 stainless steel						
D	5 μm - HDPE						
E	20 μm - HDPE						
F	50 μm - HDPE						
Options							
	Standard						
L	Low temperature						
Z	Low temperature (-60 °C)						
H	High temperature						
S	Automatic drain						
SR	Reduced orifice automatic drain version						
EF	EPDM-FDA						
Body options							
	Standard						
G	with pressure gauge connection port						

Example: SS172BFBSG

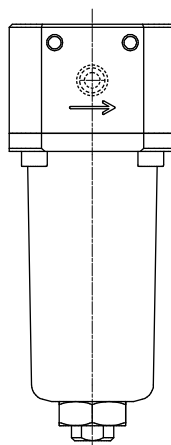
Size 2 filter, rough finishing, 3/8" NPT connection, filter pore size 20 μ m - 316 stainless steel, automatic drain with pressure gauge connection port.

Design

Size 2 - Size 3 - Size 4
Manual drain

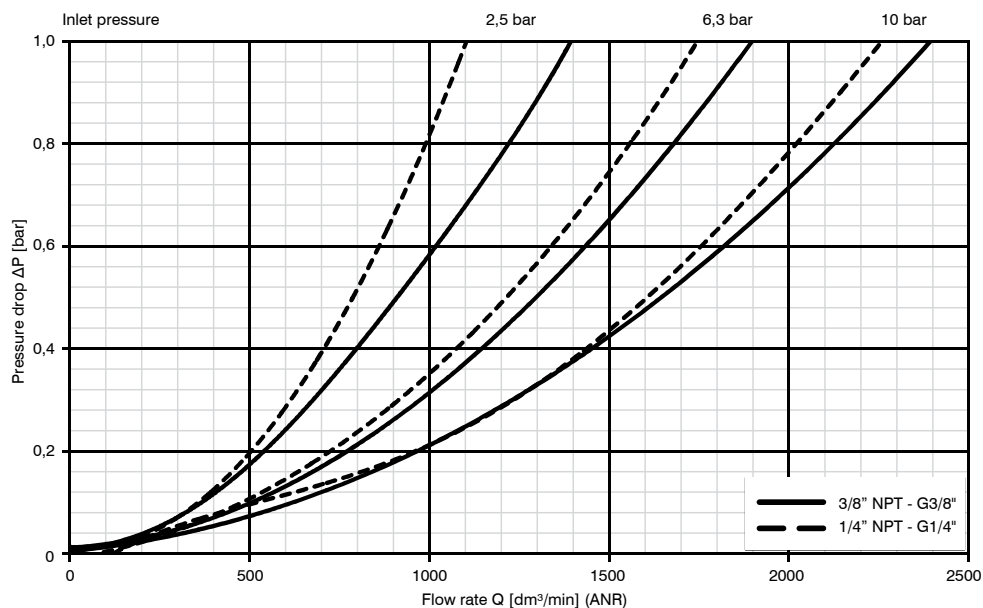


Size 2 - Size 3 - Size 4
Automatic drain



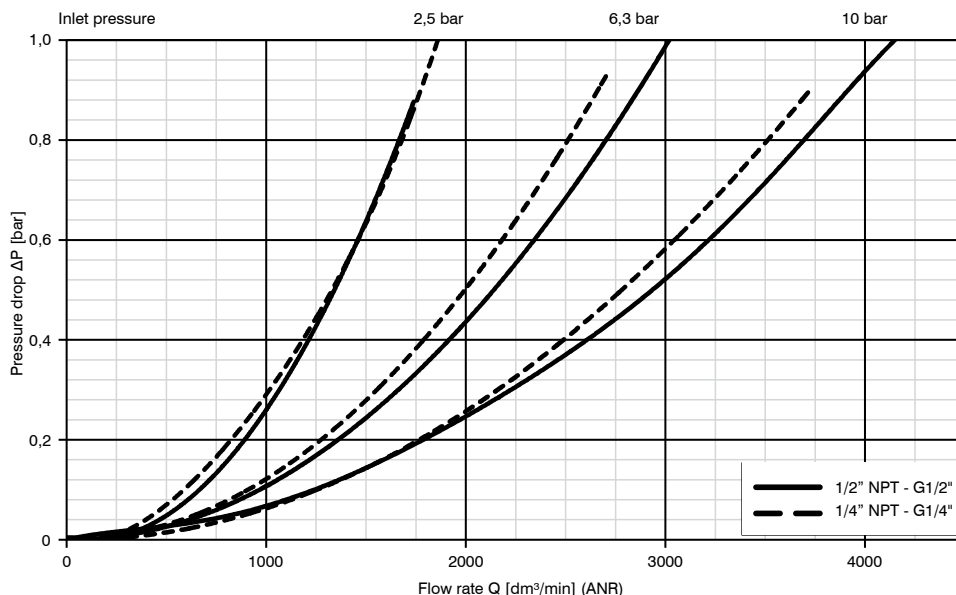
Characteristic curves

Flow rate curves



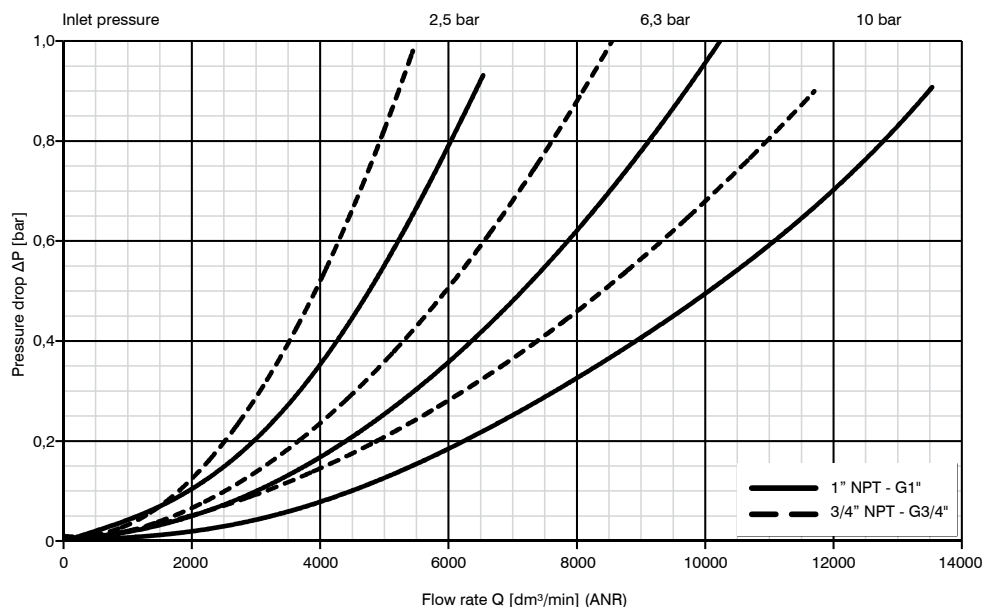
Size 2

Flow rate curves



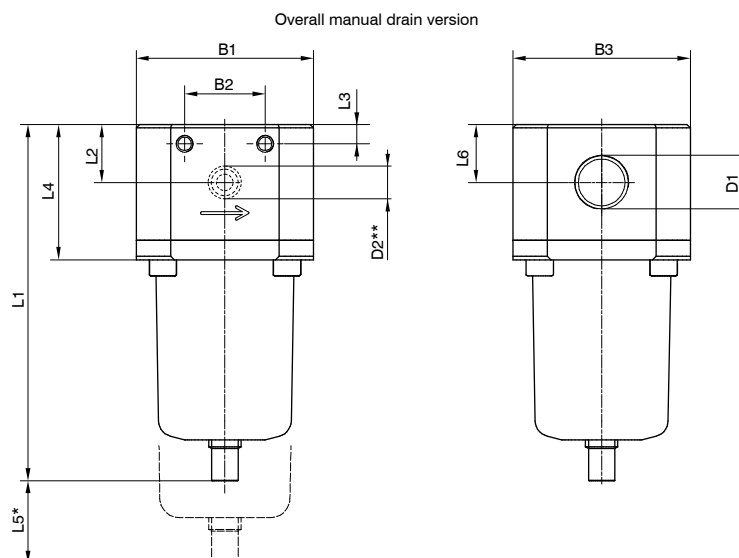
Size 3

Flow rate curves



Size 4

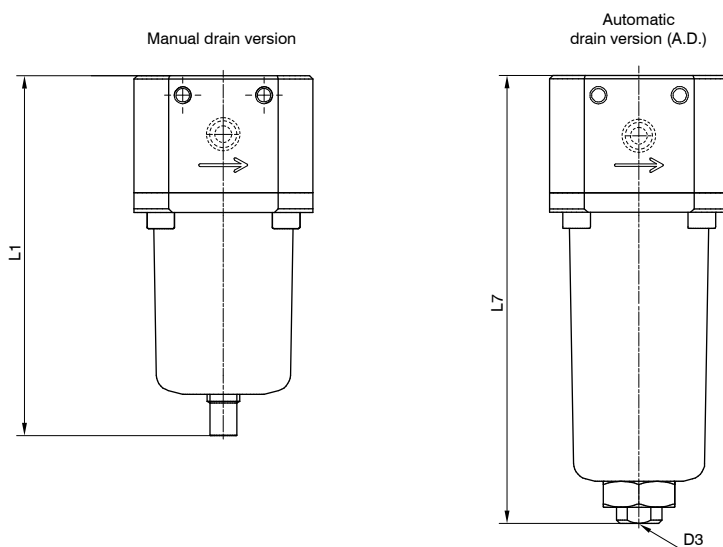
Dimensions



* = BOWL REMOVAL MAXIMUM HEIGHT
** = ONLY FOR VERSION WITH PRESSURE GAUGE CONNECTION PORT

Model	B1	B2	B3	D1	D2	L1	L2	L3	L4	L5	L6
#172...	55	25	55	G1/4" 1/4" NPT 3/8" NPT	1/8" NPT	111	18	6	42	45	18
#173...	71	22	71	G1/2" 1/2" NPT 1/4" NPT	1/8" NPT	124	20	5,5	48	65	20
#174...	92	36	92	G1" 1" NPT 3/4" NPT	1/8" NPT	198,5	32,5	10	73,5	80	32,5

Variable dimensions

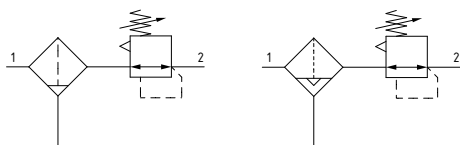


Model	L1	L7	D3
#172...	111	138	1/8" NPT
#173...	124	160	1/8" NPT
#174...	198,5	207,5	1/8" NPT

Filter regulators



- ▶ Filter-pressure regulator diaphragm with over-pressure drain (Relieving)
- ▶ Body, adjustment mechanism, back plate and caseback internal components in AISI 316L stainless steel
- ▶ AISI 316 stainless steel adjustment springs
- ▶ Fixing screws, adjustment screw and locking nut in inox A4 (AISI 316)
- ▶ Clean profile versions available
- ▶ Filter cartridge available in AISI 316 stainless steel or HDPE
- ▶ Low hysteresis rolling diaphragm
- ▶ Balanced system
- ▶ Manual or automatic drain
- ▶ ATEX certification (II 2GD), SIL, EAC



Note

The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended.

Important note for automatic drain

For inlet pressure from 0 to 10 bar use the reduced automatic drain (SR version)

For inlet pressure from 10 to 16 bar use the STD automatic drain (S version)

Technical characteristics

Size	Size 2	Size 3	Size 4
Type	Rough finishing Clean profile (Bowl and adjustment mechanism)		
IN / OUT connections	1/4" NPT 3/8" NPT G1/4"	1/4" NPT 1/2" NPT G1/2"	3/4" NPT 1" NPT G1"
Assembly configuration	Stand alone		
Assembly position	Vertical		
Filter pore size	5 µm 20 µm 50 µm		
Pressure range (bar)	0-2 0-4 0-8 0-12		0-2 0-4 0-7 0-10
Max. bowl capacity (cm³)	34	68	90
Condensation drain	Manual Automatic		
Regulation	Manual		
Pressure measurement	1/8" NPT pressure gauge connection port		

Operational characteristics

Size	Size 2	Size 3	Size 4
Condensation drain	Manual condensation drain		Automatic condensation drain
Maximum working pressure (bar)	20 (standard version)		16 (automatic drain version) 10 (reduced orifice automatic drain version)
Minimum working pressure (bar)	/		0,5
Working temperature (C°)	-30 ... +80 (standard version) -50 ... +80 (low temperature L version) -60 ... +80 (low temperature version -60 °C Z) -5 ... +150 (high temperature H version) -40 ... +100 (EPDM-FDA version)		-35 ... +70 (automatic drain S version and reduced orifice automatic drain SR version)

Weight

Size	Size 2	Size 3	Size 4
Standard version (g)	1492	2557	6253
Automatic drain version / Reduced orifice automatic drain version (g)	1579	2723	6290

Order codes

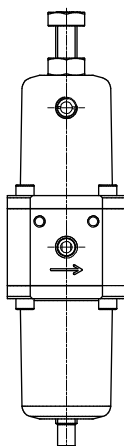
		S	S	17	3B	E	B	B	N	L
Version										
S	Rough finishing									
F	Clean profile									
M	Modular assembly version (only for size 2 and size 3)									
Size and connections										
2A	Size 2 - 1/4" NPT									
2B	Size 2 - 3/8" NPT									
2C	Size 2 - G1/4"									
3A	Size 3 - 1/4" NPT									
3B	Size 3 - 1/2" NPT									
3D	Size 3 - G1/2"									
4A	Size 4 - 3/4" NPT									
4B	Size 4 - 1" NPT									
4D	Size 4 - G1"									
Filter pore size										
A	5 μ m - 316 stainless steel									
B	20 μ m - 316 stainless steel									
C	50 μ m - 316 stainless steel									
D	5 μ m - HDPE									
E	20 μ m - HDPE									
F	50 μ m - HDPE									
Pressure range										
A	0 - 2 bar									
B	0 - 4 bar									
C	0 - 8 bar (0 - 7 bar for size 4)									
D	0 - 12 bar (0 - 10 bar for size 4)									
Type										
	Standard									
N	Without relieving									
Options										
	Standard									
L	Low temperature									
Z	Low temperature (-60 °C)									
H	High temperature									
S	Automatic drain									
SR	Reduced orifice automatic drain version									
EF	EPDM-FDA									

Example: SS173BEBBNL

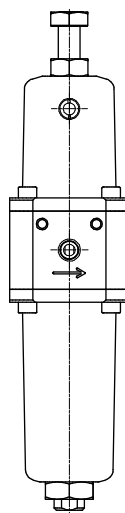
Size 3 filter regulator, rough finishing, 1/2" NPT connection, filter pore size 20 μ m - 316 stainless steel, pressure range 0 - 4 bar, without relieving, low temperature version.

Design

Size 2 - Size 3 - Size 4
Manual drain



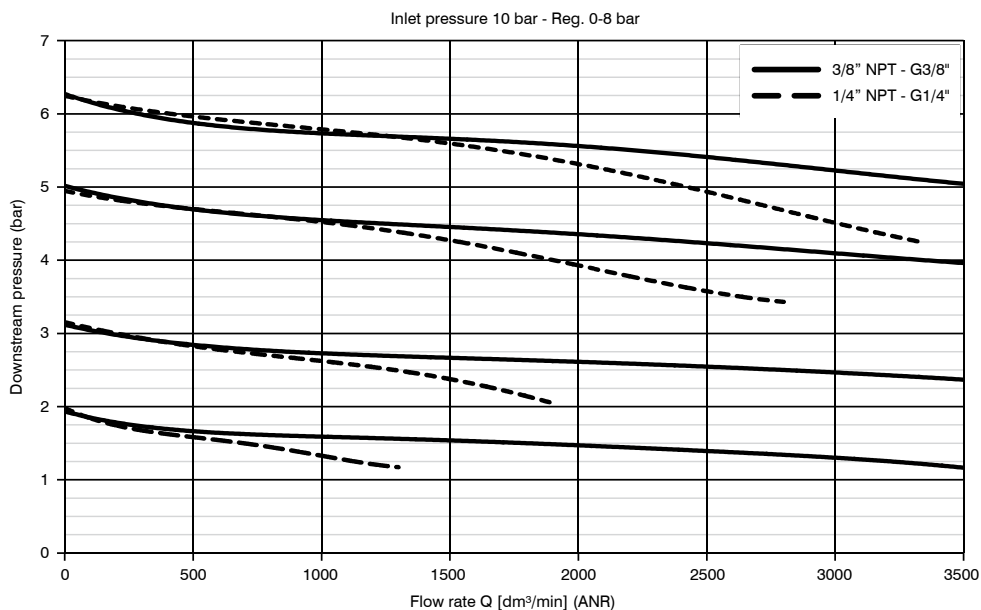
Size 2 - Size 3 - Size 4
Automatic drain





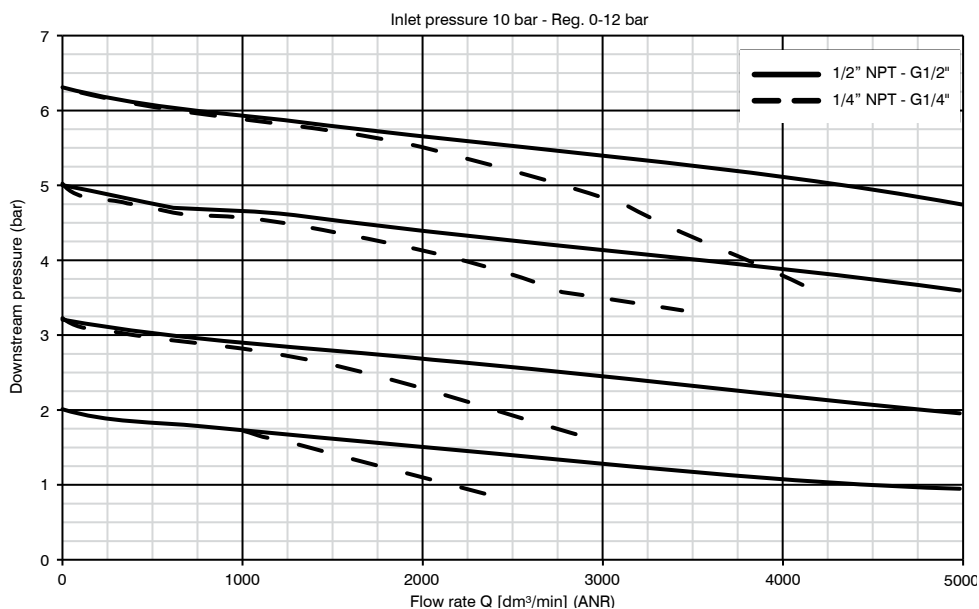
Characteristic curves

Flow rate curves



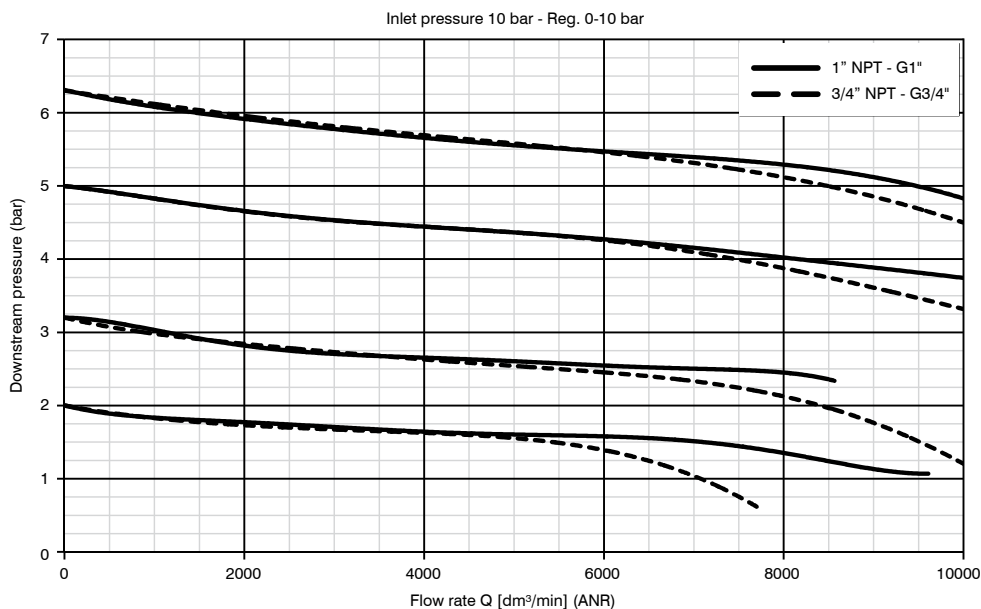
Size 2

Flow rate curves



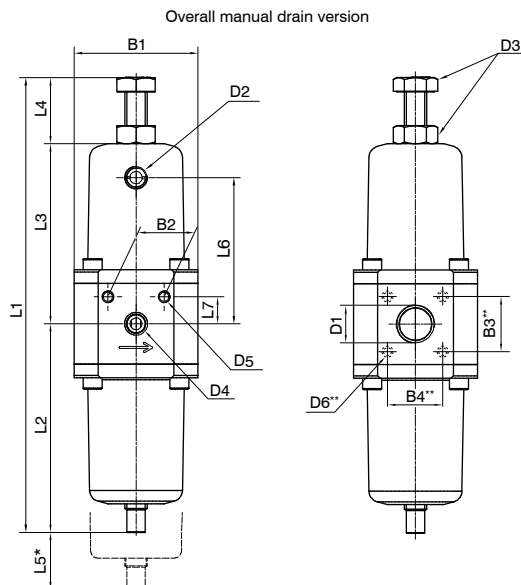
Size 3

Flow rate curves



Size 4

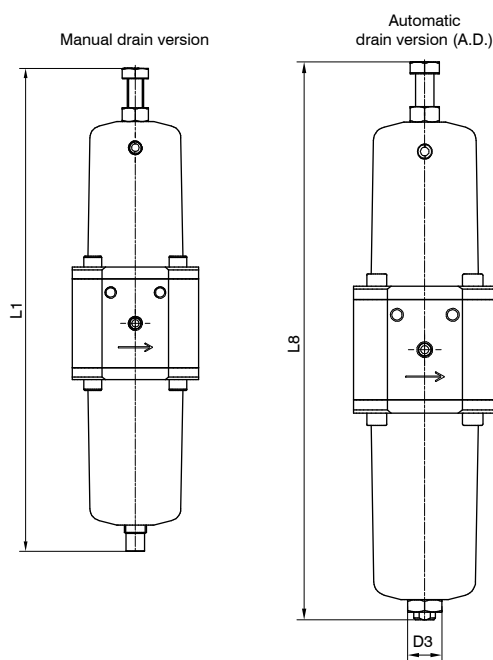
Dimensions



* = BOWL REMOVAL MAXIMUM HEIGHT
 ** = ONLY FOR M VERSION

Model	B1	B2	B3	B4	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5	L6	L7
#172...	55	25	25	25	1/4" NPT 3/8" NPT G1/4"	1/8" NPT	Ch.17	1/8" NPT	M5 2 front holes 2 rear holes	M4 4 holes IN side 4 holes OUT side	202,5	93	80	29,5	45	65	12
#173...	71	22	31,5	31,5	1/4" NPT 1/2" NPT G1/2"	1/8" NPT	Ch.17	1/8" NPT	M6 2 front holes 2 rear holes	M5 4 holes IN side 4 holes OUT side	223,5	104	91	28,5	65	76	14,5
#174...	92	36	/	/	3/4" NPT 1" NPT G1"	1/8" NPT	Ch.19	1/8" NPT	M8 2 front holes 2 rear holes	/	352,5	166	147	39,5	80	128	22,5

Variable dimensions

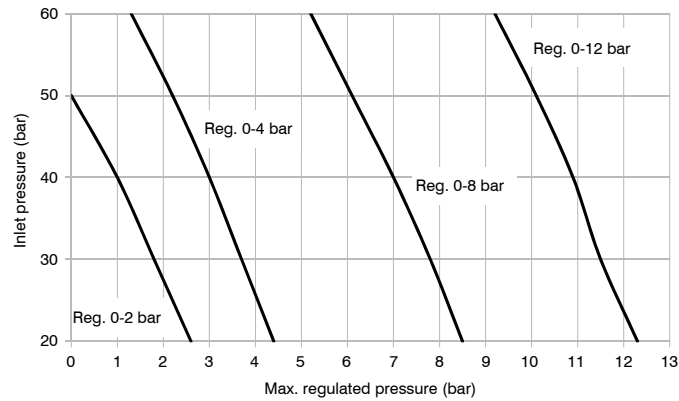


Model	L1	L8	D3
#172...	202,5	229,5	1/8" NPT
#173...	223,5	259,5	1/8" NPT
#174...	352,5	361	1/8" NPT

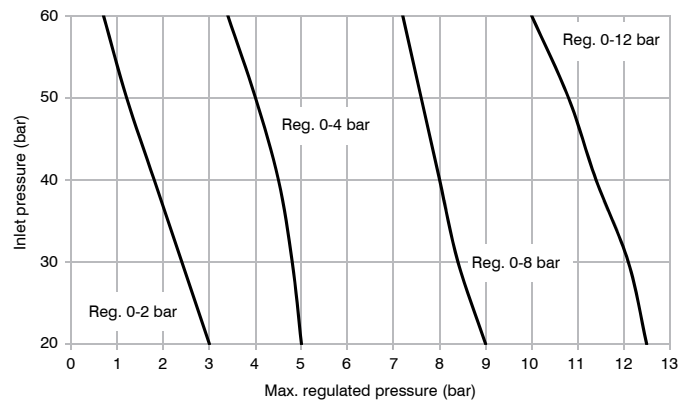


Inlet pressure notes

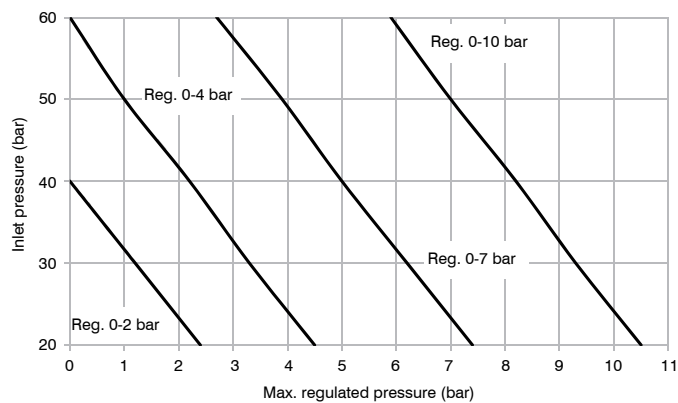
Pressure regulator Stainless steel line have been designed to withstand a **60 bar** maximum inlet pressure. **Maximum regulated outlet pressure is 20 bar**. For performance details please refer to diagram alongside.



Size 2



Size 3

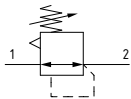


Size 4

Regulators



- ▶ Pressure regulator diaphragm with over-pressure drain (Relieving)
- ▶ Body, adjustment mechanism, back plate and caseback internal components in AISI 316L stainless steel
- ▶ AISI 316 stainless steel adjustment springs
- ▶ Fixing screws, adjustment screw and locking nut in inox A4 (AISI 316)
- ▶ Clean profile versions available
- ▶ Low hysteresis rolling diaphragm
- ▶ Balanced system
- ▶ ATEX certification (II 2GD), SIL, EAC



Note

The pressure must be always regulating while increasing. For a more precise regulation and higher sensibility, the use of a regulator with a pressure range as close as possible to the regulated pressure is recommended.

Technical characteristics			
Size	Size 2	Size 3	Size 4
Type	Rough finishing Clean profile (Back plate and adjustment mechanism)		
IN / OUT connections	1/4" NPT 3/8" NPT G1/4"	1/4" NPT 1/2" NPT G1/2"	3/4" NPT 1" NPT G1"
Assembly configuration	Stand alone		
Assembly position	Indifferent		
Pressure range (bar)	0-2 0-4 0-8 0-12		
Regulation	Manual		
Pressure measurement	1/8" NPT pressure gauge connection port		

Operational characteristics			
Size	Size 2	Size 3	Size 4
Maximum working pressure (bar)	20		
Minimum working pressure (bar)	0,5		
Working temperature (°C)	-30 ... +80 (standard version) -50 ... +80 (low temperature L version) -60 ... +80 (low temperature version -60 °C Z) -5 ... +150 (high temperature H version) -40 ... +100 (EPDM-FDA version)		

Weights			
Size	Size 2	Size 3	Size 4
Weight (g)	1283	2270	5400



Order codes

AIR TREATMENT

S **S** 17 **3B** R **B** **N** **L**

Version	
S	Rough finishing
F	Clean profile

Size and connections	
2A	Size 2 - 1/4" NPT
2B	Size 2 - 3/8" NPT
2C	Size 2 - G1/4"
3A	Size 3 - 1/4" NPT
3B	Size 3 - 1/2" NPT
3D	Size 3 - G1/2"
4A	Size 4 - 3/4" NPT
4B	Size 4 - 1" NPT
4D	Size 4 - G1"

Pressure range	
A	0 - 2 bar
B	0 - 4 bar
C	0 - 8 bar (0 - 7 bar for size 4)
D	0 - 12 bar (0 - 10 bar for size 4)

Type	
	Standard
N	without relieving

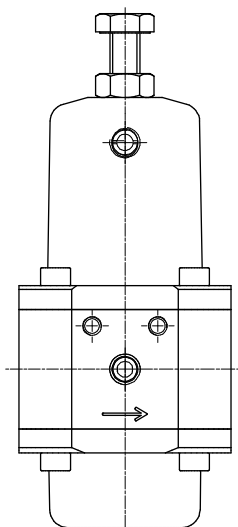
Options	
	Standard
L	Low temperature
Z	Low temperature (-60 °C)
H	High temperature
EF	EPDM-FDA

Example: SS173BRBNL

Size 3 regulator, rough finishing, 1/2" NPT connection, pressure range 0 - 4 bar, without relieving, low temperature version.

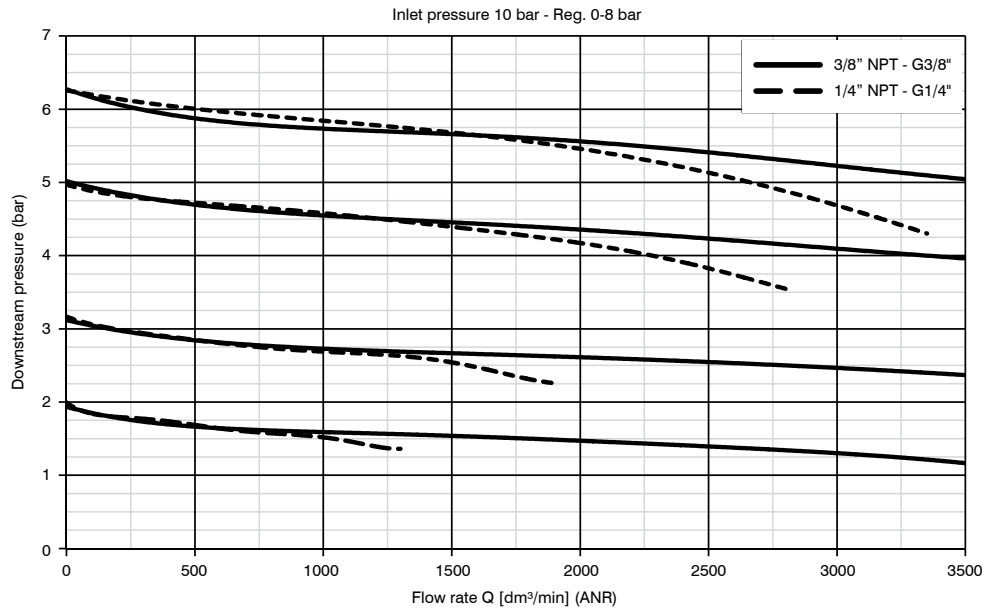
Design

Size 2 - Size 3 - Size 4



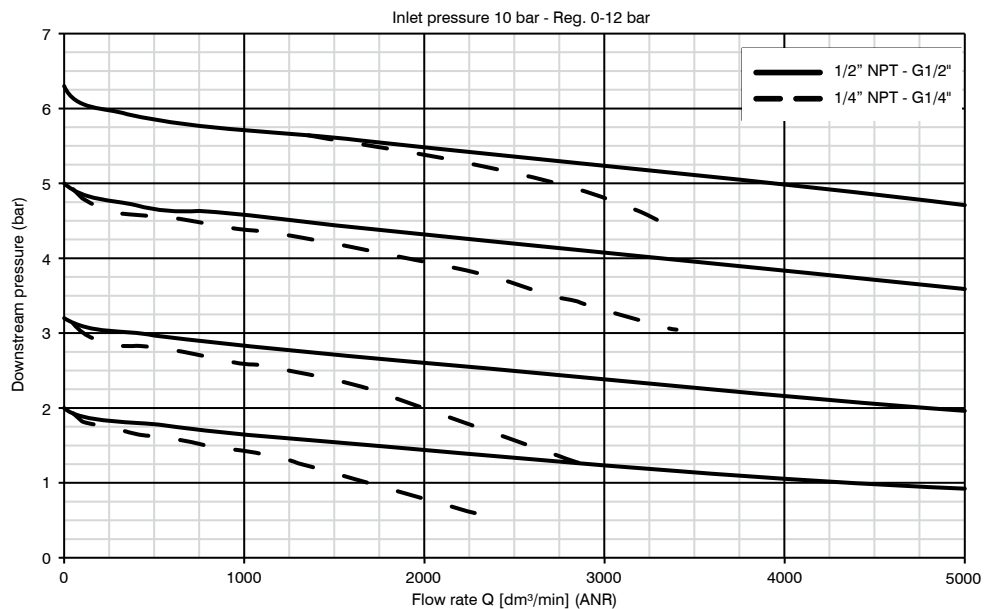
Characteristic curves

Flow rate curves



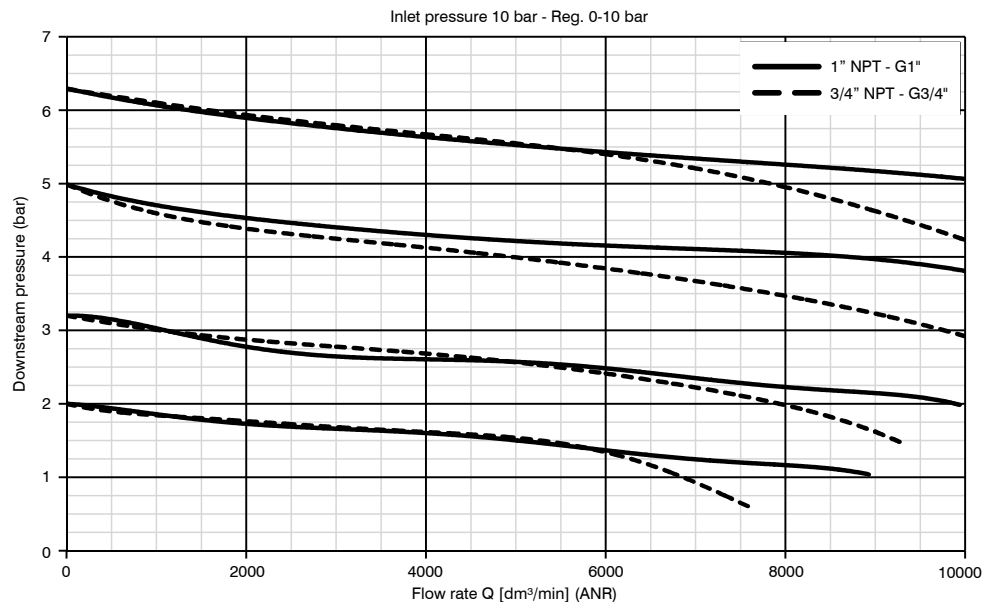
Size 2

Flow rate curves



Size 3

Flow rate curves

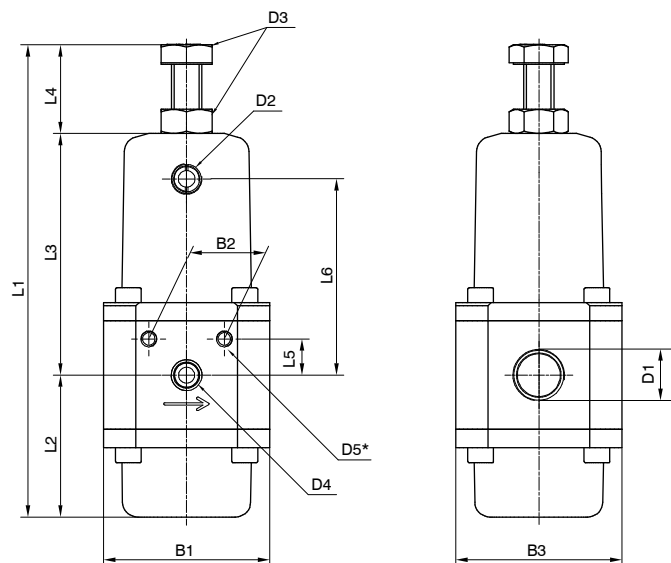


Size 4



Dimensions

AIR TREATMENT



*THREADED HOLES ON BOTH SIDES

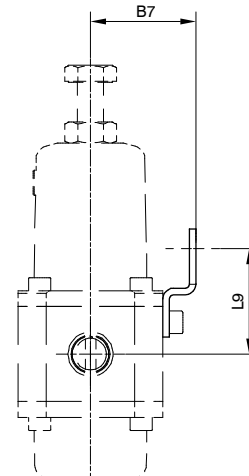
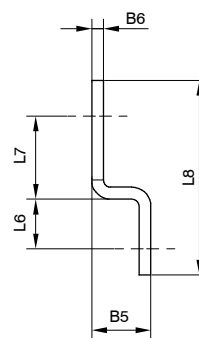
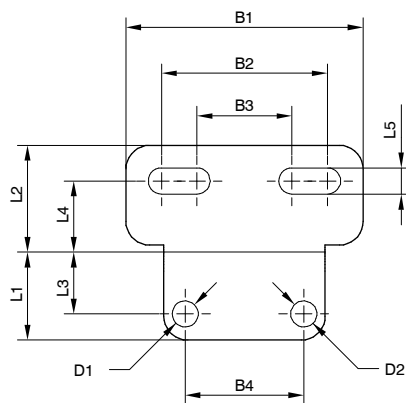
Model	B1	B2	B3	D1	D2	D3	D4	D5	L1	L2	L3	L4	L5	L6
#172...	55	25	55	1/4" NPT 3/8" NPT G1/4"	1/8" NPT	Ch.17	1/8" NPT	M5 2 front holes 2 rear holes	156,5	47	80	29,5	12	65
#173...	71	22	71	1/4" NPT 1/2" NPT G1/2"	1/8" NPT	Ch.17	1/8" NPT	M6 2 front holes 2 rear holes	172,5	53	91	28,5	14,5	76,5
#174...	92	36	92	3/4" NPT 1" NPT G1"	1/8" NPT	Ch.19	1/8" NPT	M8 2 front holes 2 rear holes	260,5	74	147	39,5	22,5	128

Fixing bracket

SS174 50



Size	
SS172	Size 2
SS173	Size 3
SS174	Size 4



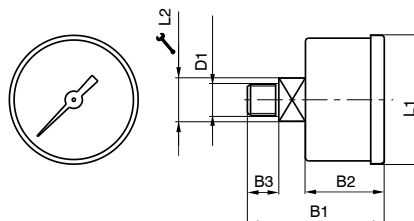
Model	B1	B2	B3	B4	B5	B6	B7	D1	D2	L1	L2	L3	L4	L5	L6	L7	L8	L9
SS17250	50	35	20	25	12,5	2,5	40	Ø5,5	Ø5,5	18,5	22,5	13	15	5,5	10,5	17,5	41	40
SS17350	60	45	20	22	14,5	3	50	Ø6,5	Ø6,5	14	24,5	/	16,5	6,5	11	19,5	44,5	45
SS17450	80	60	40	36	16	4	62	Ø8,5	Ø8,5	24	31	/	/	8,5	11	25	55	58,5

Pressure gauge

SS17070A A



Scale	
A	0 - 4 bar
B	0 - 12 bar

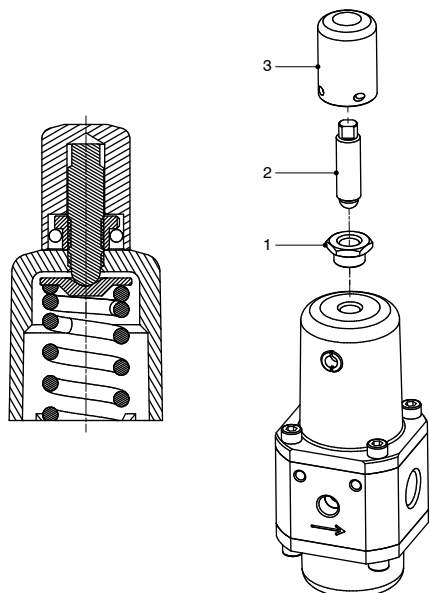


Model	B1	B2	B3	D1	L1	L2
SS17070AA SS17070AB	40	25	10	1/8" NPT	42,5	11

Tamper-proof kit

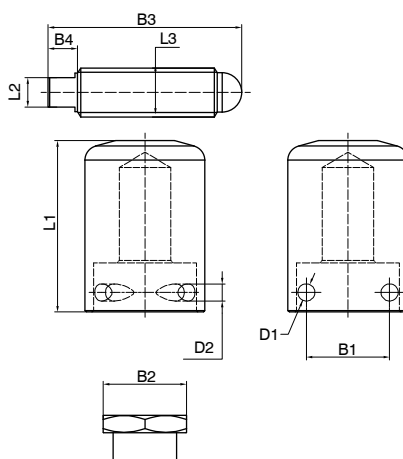
SS174 55

Size	
SS172	Size 2 - Size 3
SS174	Size 4



To use, replace the standard adjustment screw and nut with the screw and nut supplied in the kit. Assemble the screw and nut as shown (see adjacent drawing), adjust until the desired P_2 value is reached, lock the nut and insert the cap that can be locked with wire or padlock.

Tamper-proof kit	
1	Adjustment screw
2	Locking nut
3	Tamper-proof cap



Model	B1	B2	B3	B4	D1	D2	L1	L2	L3
SS17255	17	Ch.17	39,5	6	Ø3,5	Ø3,5	35	Ch. 6	M10x1,5
SS17455	19	Ch. 20	56,5	6,5	Ø3,5	Ø3,5	45	Ch. 7	M12x1,75

Series Flowplus



General

The **Pneumax** Flowplus range of high-capacity volume boosters are available in both Aluminium or Stainless Steel with the option of a standard version or a version with a built in filter (stainless steel). The Flowplus range has been designed to meet the needs of those more demanding applications within the Oil & Gas industry, applications which require high performance in tough environment conditions. With a high flow exhaust ratio, the **Pneumax** Flowplus volume boosters offer high performance and reliability for process and industrial automation applications..

Both stainless steel and aluminum versions are corrosion and wear resistant, due to the same stainless steel trim type selection, with a wide range of sealing materials for extended operating temperature applications (to extreme low temperature up to high temperature application).

The **Pneumax** booster operates with a 1:1 signal to output relay, capable to provide fast response, delivering high air volume for fast actuator movement and increased stroking speed for both control and on/off valves actuators.

As a standard, an adjustable integrated by-pass valve device is available, to reduce or avoid (thru fully closed position in case of on-off application) excessive actuator overshoot or over-damping.

In addition, in order to precisely adjust actuator travel speed, the **Pneumax** booster can be supplied with integral flow regulators, controlling the air supply, exhaust or both. The stainless steel version is also available with a built in filter (5, 20 & 50 μm) with either HDPE or stainless steel filter element. These filter elements can be regenerated by cleaning with a suitable detergent.

Operating principle

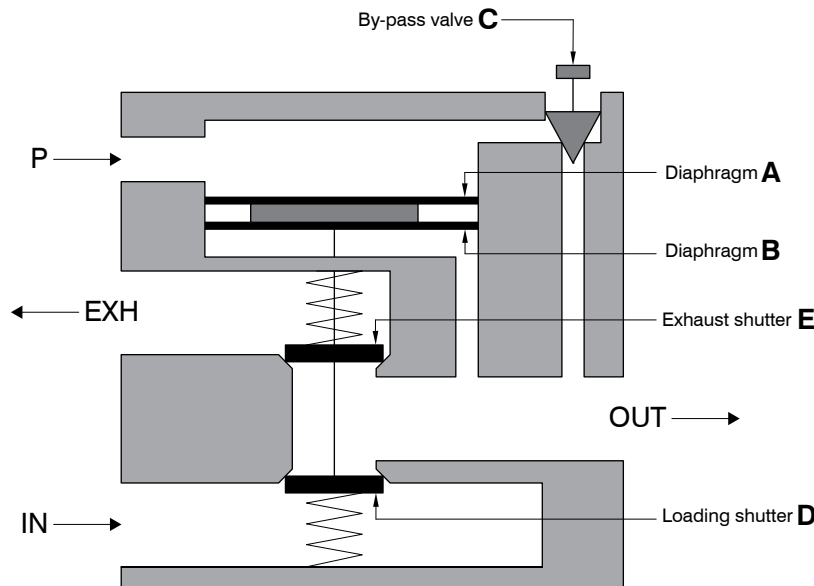
The device is pneumatic operated thru inlet port. When a pressure signal from 2 to 8 bar is applied to the pilot port **P**, the main valve assembly opens the loading shutter **D** to allow the passage of a high volumetric flow from the inlet port to the outlet port. When the system detects that the outlet pressure is equal to the pilot signal pressure, and consequently the forces acting on the membranes **A** and **B** are equivalent, the main valve moves to the de-energized position, i.e. with the shutters **D** and **E** closed.

This condition is maintained until there is a change in signal pressure or a change in outlet pressure value. If the outlet pressure figure is higher than the pilot signal pressure, the main valve group opens the shutter of drain **E** to exhaust. If the system detects an outlet pressure lower than the pilot signal, the main valve opens to restore the outlet at correct pressure.

The signal input and output ports are connected by an integrated and adjustable by-pass valve **C**.

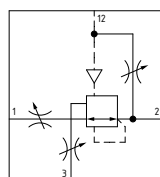
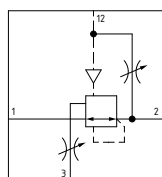
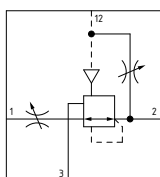
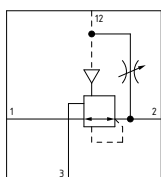
The adjustment, in addition to control the sensitivity of the system to changes in the pilot signal, ensures the exact equalization between the input signal and the supply occurs output.

This allows that low volume signal provide a output high volume with a signal to output pressure ratio of 1:1.





- ▶ Available in 2 sizes with connections from 1/4" NPT to 1" NPT
- ▶ Available in aluminium with epoxy coating paint or in stainless steel AISI 316L
- ▶ Stainless steel AISI 316L versions according to NACE MR0175/ISO 15156
- ▶ Compact and linear design
- ▶ Robust and reliable construction
- ▶ Double hysteresis rolling membrane system
- ▶ High stability and repeatability
- ▶ High flow rate performances
- ▶ Wide temperature range application
- ▶ 1:1 ratio between pilot pressure and outlet pressure
- ▶ Integrated by-pass valve for reliable adjustment of the system sensitivity
- ▶ Uni and bi-directional flow regulators available
- ▶ Atex certification II 2GD, SIL and TR CU 012/2011



Technical characteristics		
Size	Size 3	Size 4
Type	Aluminium with epoxy coating paint Stainless steel AISI 316L	
IN / OUT / EXH connections	1/4" NPT - 1/2" NPT	3/4" NPT - 1" NPT
Pilot connection	1/4" NPT	

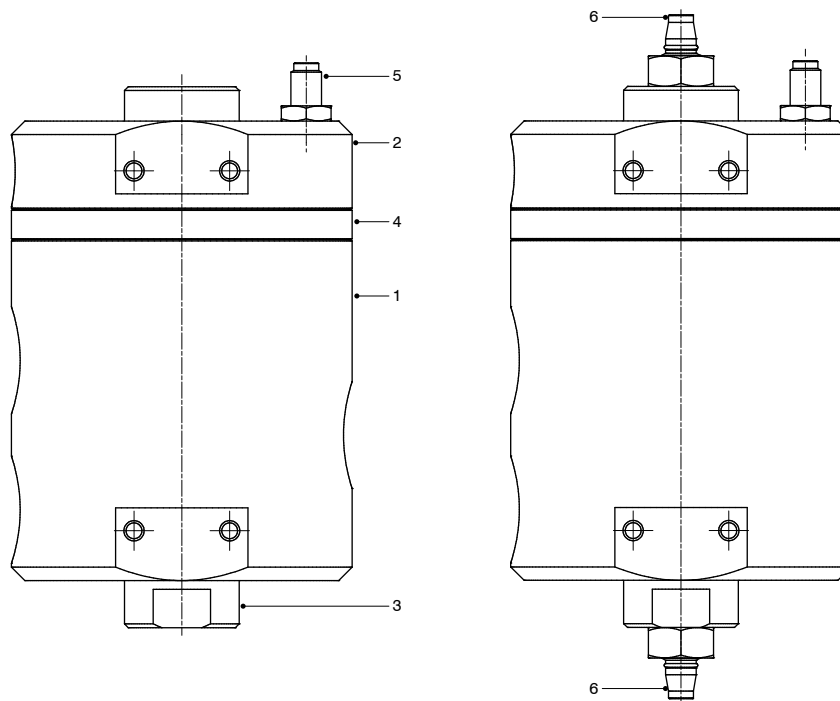
Operational characteristics		
Size	Size 3	Size 4
Fluid	Dry and clean air Inert gas Natural gas	
Maximum working pressure	13 bar	
Minimum working pressure	2 bar	
Maximum signal pressure	8 bar	
Minimum signal pressure	2 bar	
Working temperature and seals	-30°C ... +80°C - NBR seals (Standard version) -50°C ... +80°C - NBR LT seals (L version) -60°C ... +80°C - PUR - SILICONE seals (Z version) -5°C ... +150°C - FPM - HNBR seals (H version) -40°C ... +100°C - EPDM-FDA seals (EF version)	
Signal pressure / outlet pressure ratio	1:1 ± 5%	
Assembly configuration	Stand alone With fixing bracket	
Assembly positions	Indifferent	

Flow capacity Cv table				
Size	Size 3		Size 4	
Connessione	1/4" NPT	1/2" NPT	3/4" NPT	1" NPT
Output	2,5	4,2	7	9,4
Exhaust	2,5	4,2	7	9,4

Weights				
Size	Size 3		Size 4	
Connessione	1/4" NPT	1/2" NPT	3/4" NPT	1" NPT
Aluminium version without flow regulators	2040 g	2010 g	4470 g	4380 g
Aluminium version with uni-directional flow control regulator	2098 g	2070 g	4478 g	4394 g
Aluminium version with bi-directional flow control regulators	2122 g	2094 g	4515 g	4433 g
Stainless steel AISI 316L version without flow regulators	5460 g	5344 g	11532 g	11308 g
Stainless steel AISI 316L with uni-directional flow control regulator	5476 g	5360 g	11560 g	11336 g
Stainless steel AISI 316L with bi-directional flow control regulators	5491 g	5375 g	11574 g	11350 g

Materials

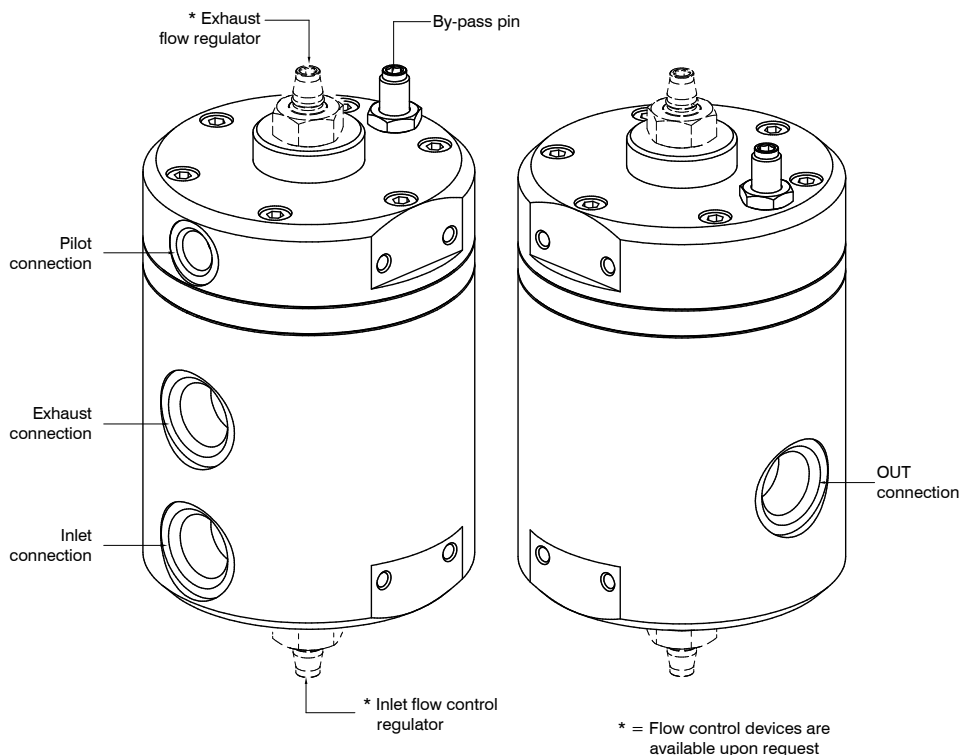
The Pneumax volume booster is manufactured in two versions, one being aluminium, which is epoxy coated and the other being AISI 316L stainless steel. Both are highly resistant to corrosion and wear. The integral components which come into contact with the media are manufactured in 316L stainless steel.



Volume booster		
1	Body	Aluminium with epoxy coating paint Stainless steel AISI 316L
2	Piloting operator	Aluminium with epoxy coating paint Stainless steel AISI 316L
3	Rear end cap	Aluminium with epoxy coating paint Stainless steel AISI 316L
4	Intermediate body	Aluminium with epoxy coating paint Stainless steel AISI 316L
5	By-pass valve	Stainless steel AISI 316L
6	Adjusting pins	Stainless steel AISI 316L
7	Springs	Stainless steel AISI 316
8	Fixing screws and nuts	Stainless steel A4-70
9	Diaphragm and seals	NBR NBR-LT HNBR FPM SILICONE

Design

The Pneumax volume booster is fitted with a by-pass valve as standard and can be supplied with or without a flow regulator. The flow regulator can be either Uni-directional or Bi-directional.

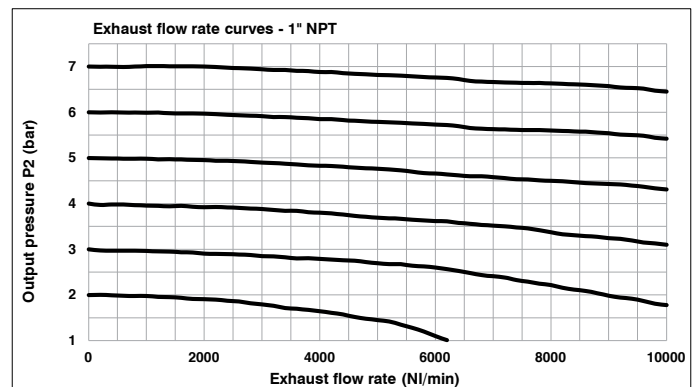
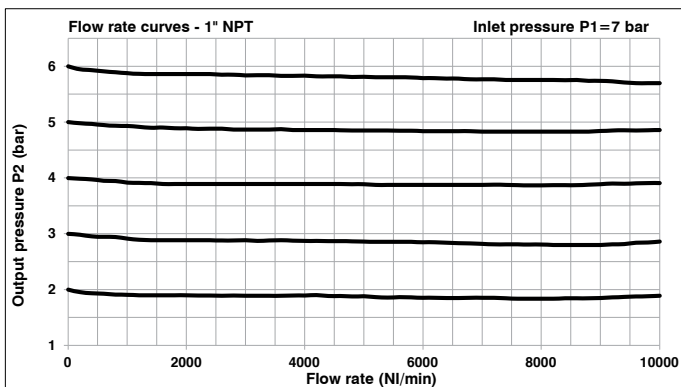
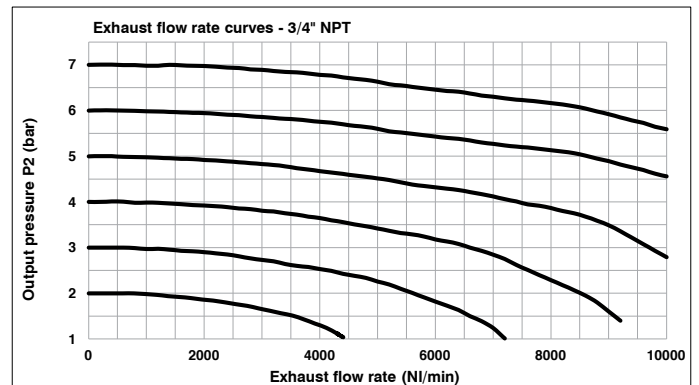
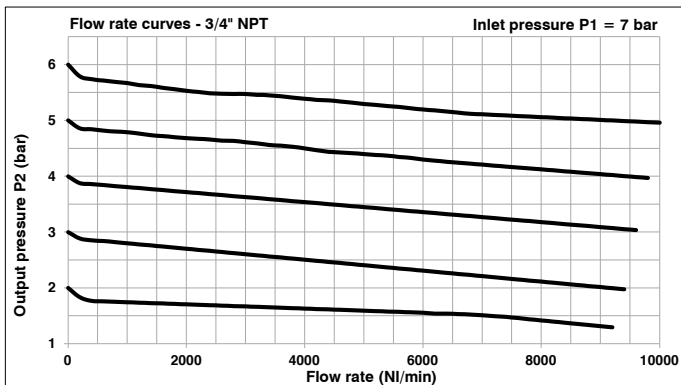
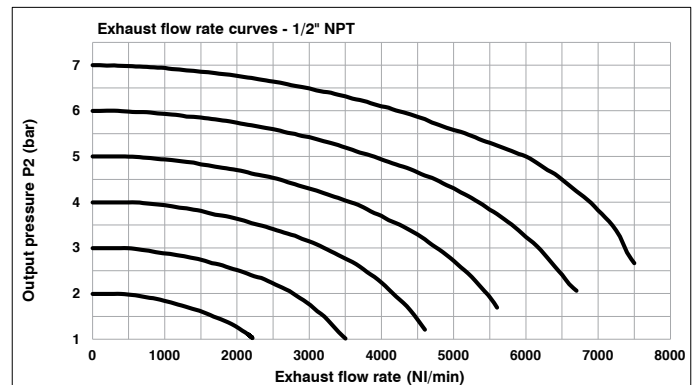
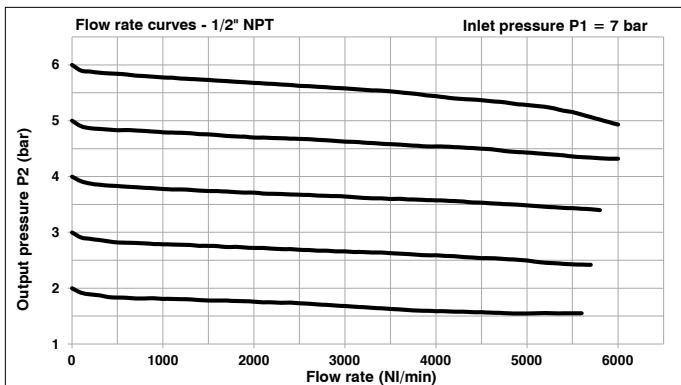
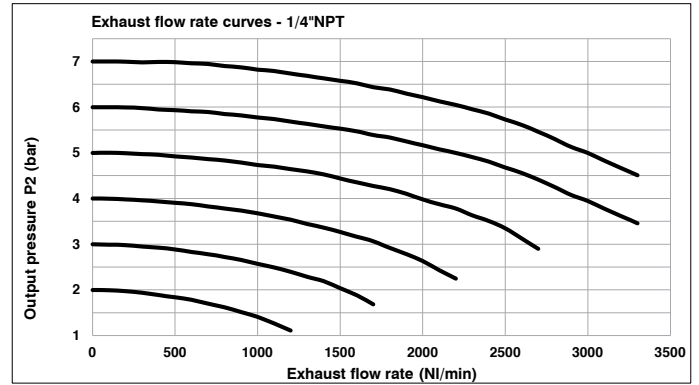
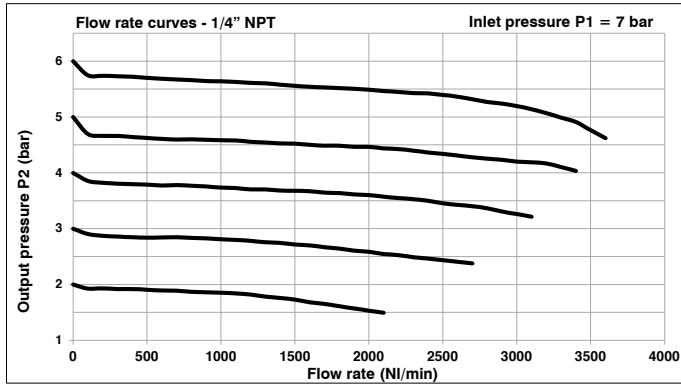


Order codes

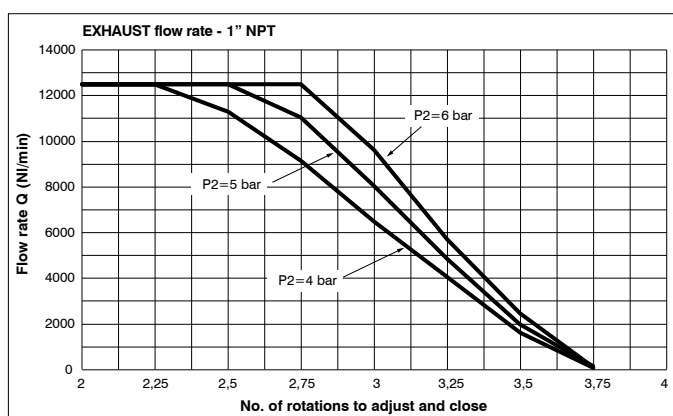
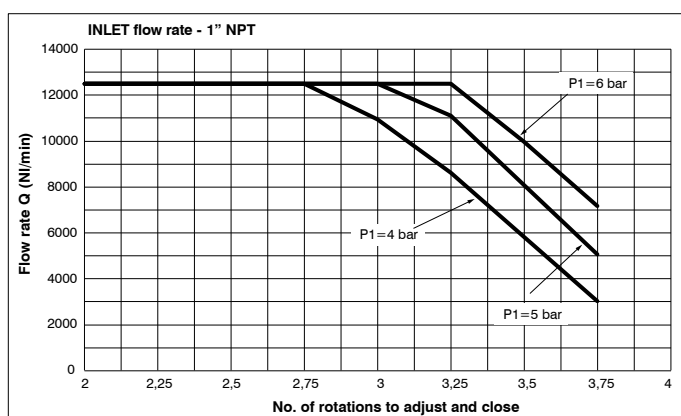
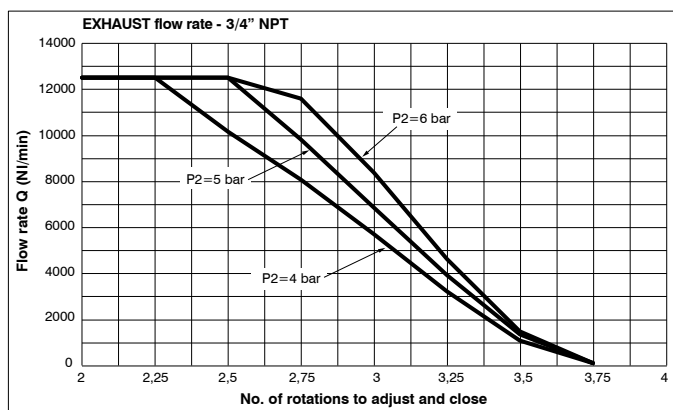
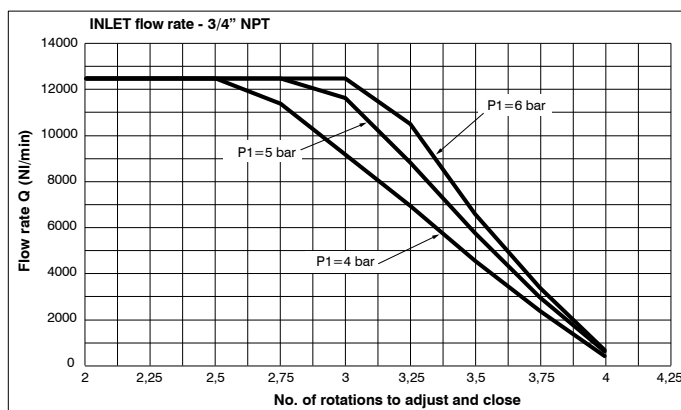
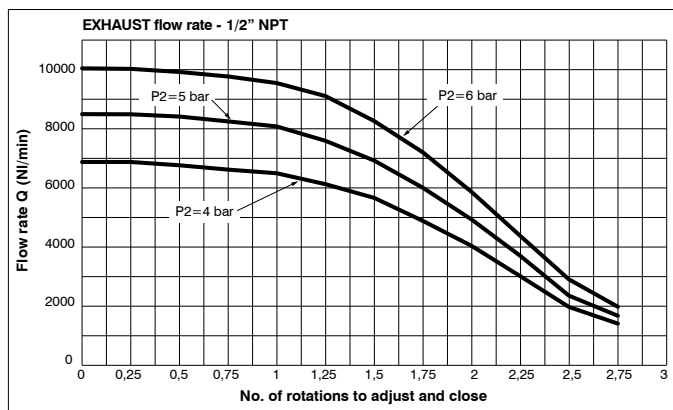
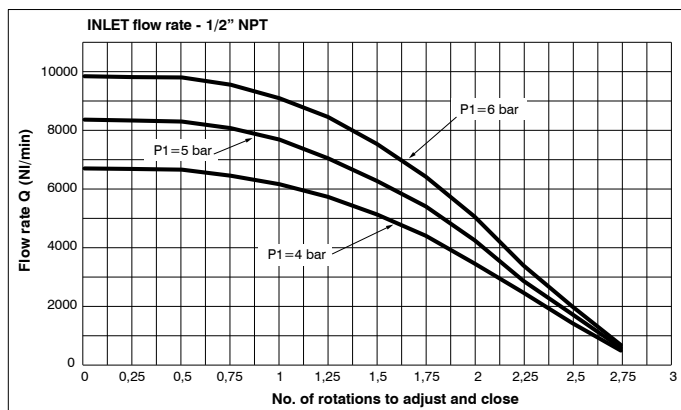
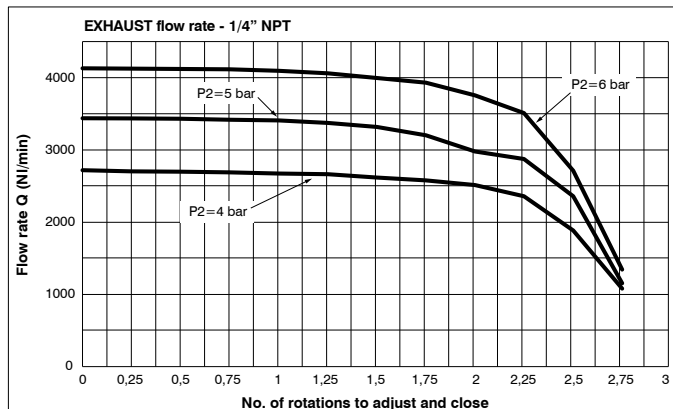
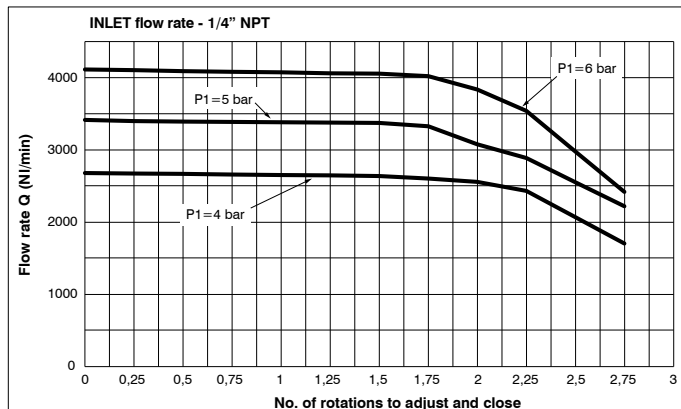
Version		SA	17	3B	VB	R2	L
SA	Aluminium with epoxy coating paint						
SS	Stainless steel AISI 316L						
Size and connections							
3A	Size 3 - 1/4" NPT						
3B	Size 3 - 1/2" NPT						
4A	Size 4 - 3/4" NPT						
4B	Size 4 - 1" NPT						
Flow regulators options							
	without flow regulators						
RS	with exhaust flow regulator						
RM	with inlet flow control regulator						
R2	with bi-directional flow control regulators						
Temperature options							
	Standard (-30°C ... +80°C)						
L	Low temperature (-50°C ... +80°C)						
Z	Low temperature (-60°C ... +80°C)						
H	High temperature (-5°C ... +150°C)						
EF	EPDM-FDA (-40°C ... +100°C)						

Example : SA173BVBR2L : Size 3 Volume booster, 1/2"NPT ports, Bi-directional flow control regulator, suitable for low temperature.

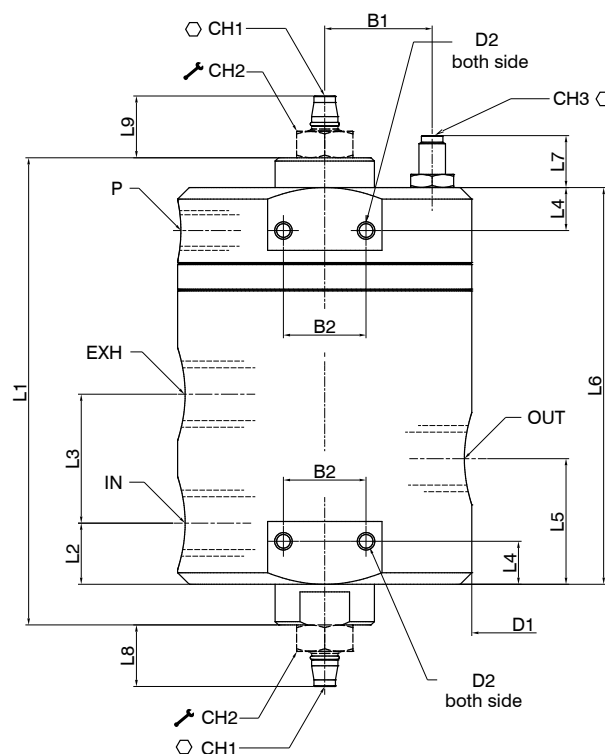
Characteristic curves (without flow regulators)



Characteristic curves (with flow regulators)



Dimensions



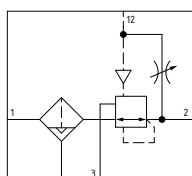
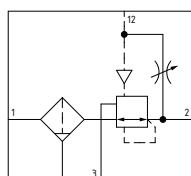
Model	B1	B2	D1	D2 (both side)	L1	L2	L3	L4	L5	L6	L7	L8	L9	IN - OUT - EXH	P	CH1 ⬡	CH2 ⚙	CH3 ⬡			
SA173...	32,5	25	89	M5	141,5	18,5	39	13	38	120	15,5	/	/	1/4" NPT 1/2" NPT	1/4" NPT	4	17	4			
SS173...	33,5																				
SA173...R#	32,5											19	19								
SS173...R#	33,5																				
SA174...	41	22	109	M6	205	27,5	63,5	14	59,5	175	15,5	/	/	3/4" NPT 1" NPT			1/4" NPT		4	19	4
SS174...	43																				
SA174...R#	41											24,5	26,5								
SS174...R#	43																				



Volume filter booster



- ▶ Available in 2 sizes with connections from 1/4" NPT to 1" NPT
- ▶ Available in stainless steel AISI 316
- ▶ In compliance with NACE standard MR0175/ISO 15156
- ▶ Compact and linear design
- ▶ Robust and reliable construction
- ▶ Double hysteresis rolling membrane system
- ▶ High stability and repeatability
- ▶ High flow rate performances
- ▶ Wide temperature range application
- ▶ 1:1 ratio between pilot pressure and outlet pressure
- ▶ Integrated by-pass valve for reliable adjustment of the system sensitivity
- ▶ 5 - 20 - 50 μ m filter cartridge available in AISI 316 stainless steel or HDPE
- ▶ Manual or automatic drain
- ▶ Atex certification II 2GD, SIL and TR CU 012/2011



Operational characteristics	Size	
	Size 3	Size 4
Type	Stainless steel AISI 316L	
IN / OUT / EXH connections	1/4" NPT - 1/2" NPT	3/4" NPT - 1" NPT
Pilot connection	1/4" NPT	

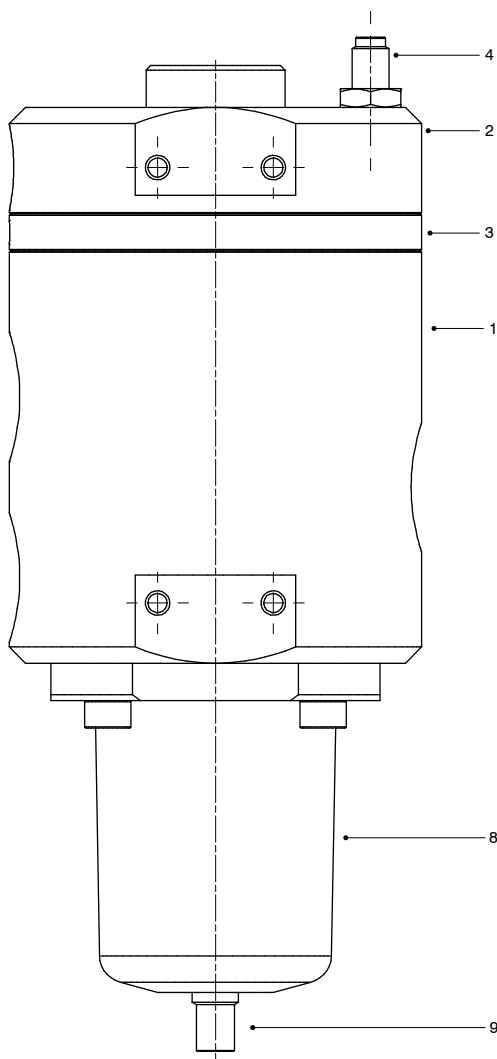
Operational characteristics	Size	
	Size 3	Size 4
Fluid	Compressed air Inert gases Natural gases	
Maximum working pressure	13 bar	
Minimum working pressure	2 bar	
Maximum pressure range	8 bar	
Minimum pressure range	2 bar	
Operating temperature and seals	-30°C ... +80°C - Seals NBR (Standard Version) -50°C ... +80°C - Seals NBR LT (L Version) -60°C ... +80°C - Seals PUR - SILICONE (Z Version) -5°C ... +150°C - Seals FPM - HNBR (H Version) -5°C ... +70°C Automatic drain (S Version) -40°C ... +100°C - EPDM-FDA seals (EF Version)	
Signal pressure / outlet pressure ratio	1:1 $\pm$ 5%	
Assembly configuration	Stand alone With fixing bracket	
Assembly positions	Vertical $\pm$ 5°	
Filter pore size	5 μ m Stainless steel AISI 316 or HDPE (High density polyethylene) 20 μ m Stainless steel AISI 316 or HDPE (High density polyethylene) 50 μ m Stainless steel AISI 316 or HDPE (High density polyethylene)	
Max. bowl capacity	25 cm ³	78 cm ³
Condensation drain	Manual Automatic	

Flow capacity Cv table	Filter pore size	Size			
		Size 3		Size 4	
		1/4" NPT	1/2" NPT	3/4" NPT	1" NPT
Output	5 μ m	2,12	3,6	5,9	8
	20 μ m	2,18	3,75	6,15	8,3
	50 μ m	2,25	3,83	6,3	8,5
Exhaust	5 μ m	2,5	4,2	7	9,4
	20 μ m				
	50 μ m				

Weights	Size			
	Size 3		Size 4	
	1/4" NPT	1/2" NPT	3/4" NPT	1" NPT
AISI 316L stainless steel version without flow regulators	6460 g	6344 g	12532 g	12308 g

Materials

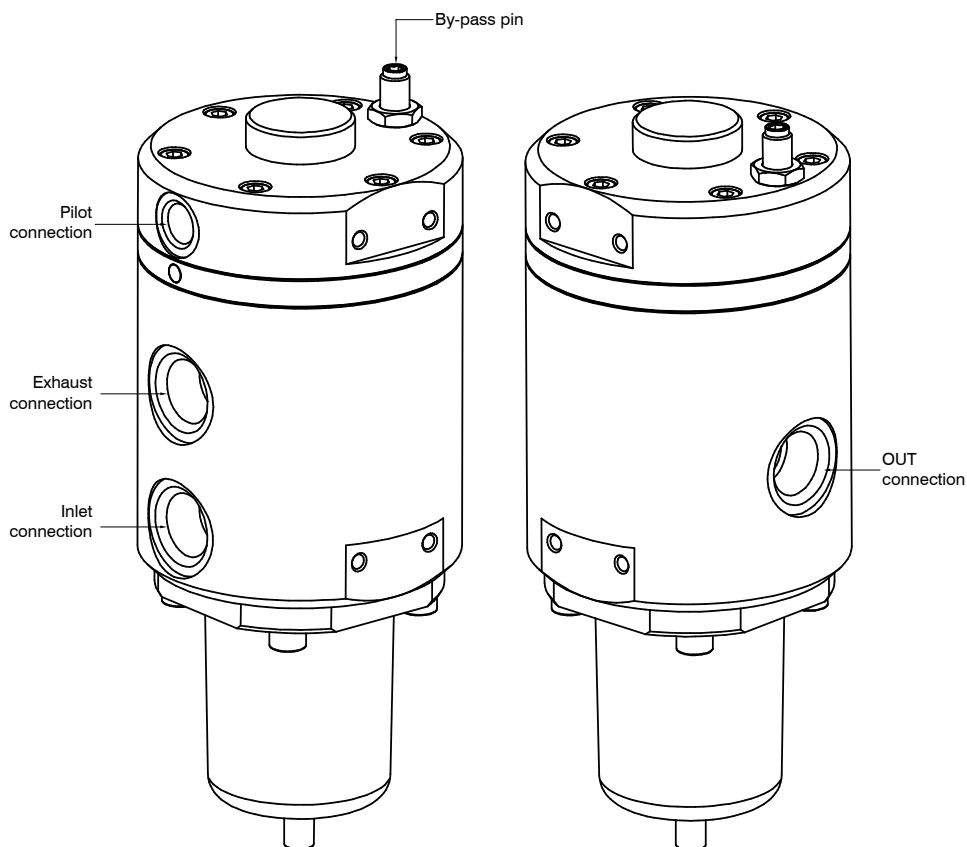
The Volume filter booster is only available in 316L stainless steel. The integral components which come into contact with the media are manufactured in 316L stainless steel. The filter elements are available in both HDPE and 316 stainless steel.



Volume filter booster		
1	Body	Stainless steel AISI 316L
2	Piloting operator	Stainless steel AISI 316L
3	Intermediate body	Stainless steel AISI 316L
4	By-pass valve	Stainless steel AISI 316L
5	Springs	Stainless steel AISI 316
6	Fixing screws and nuts	Stainless steel A4-70
7	Diaphragm and seals	NBR NBR-LT HNBR FPM SILICONE
8	Bowl	Stainless steel AISI 316L
9	Manual drain	Stainless steel AISI 316L
	Automatic drain	POM NBR Brass Stainless steel AISI 316L

Design

The Volume filter booster is fitted with the by-pass valve as standard. Flow regulators are not available.



Order codes

SS 17 3B VFB A L

Version	
SS	Stainless steel AISI 316L

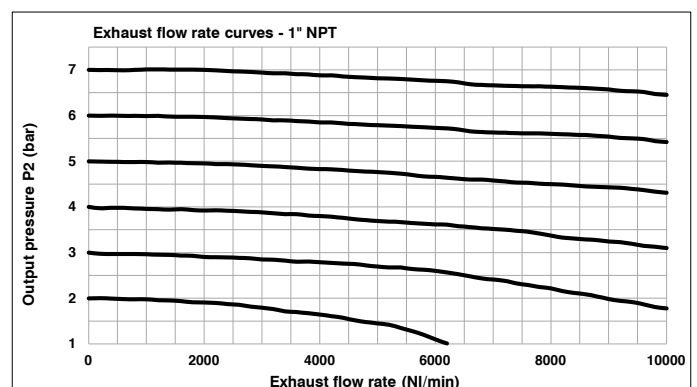
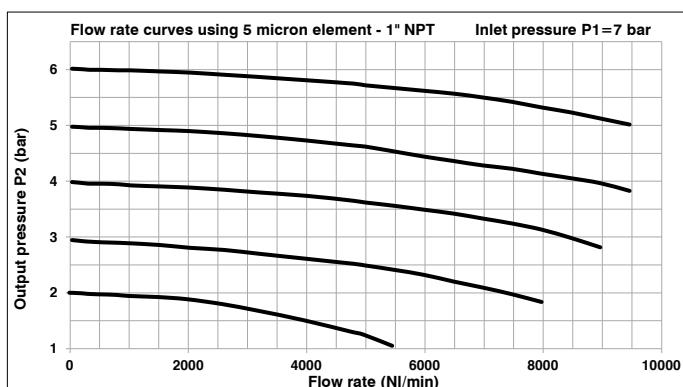
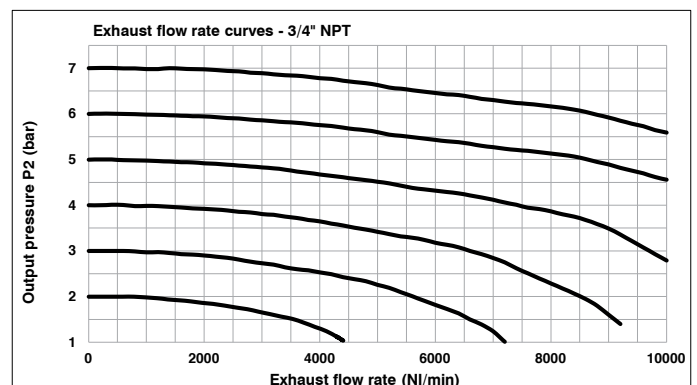
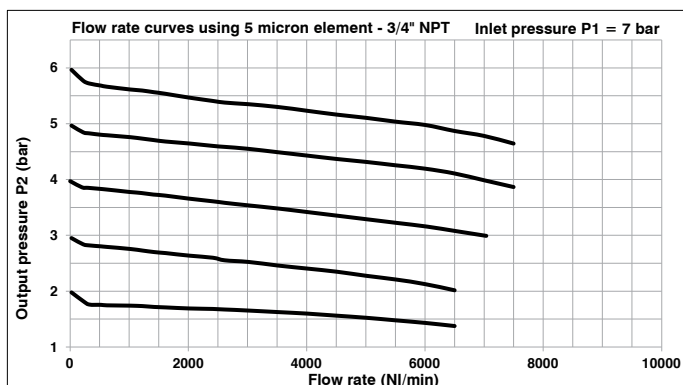
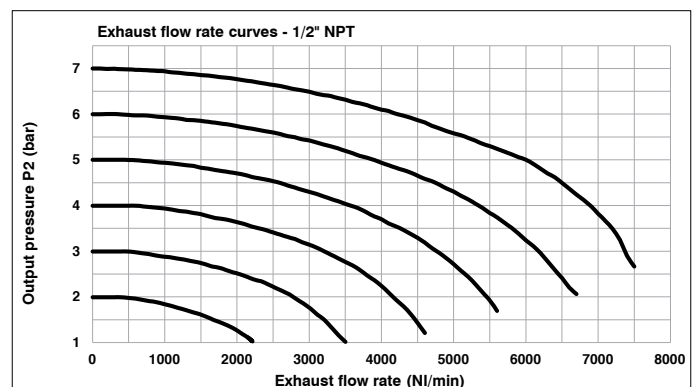
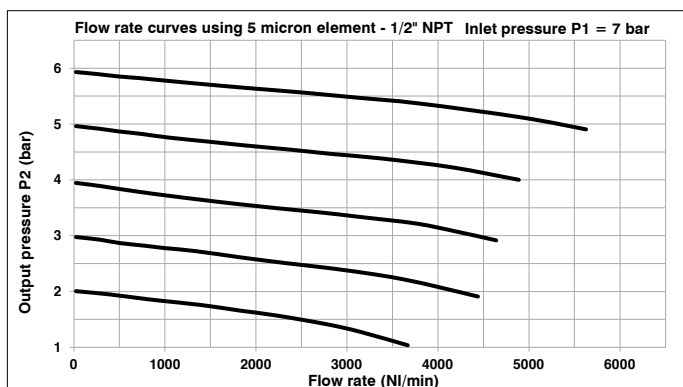
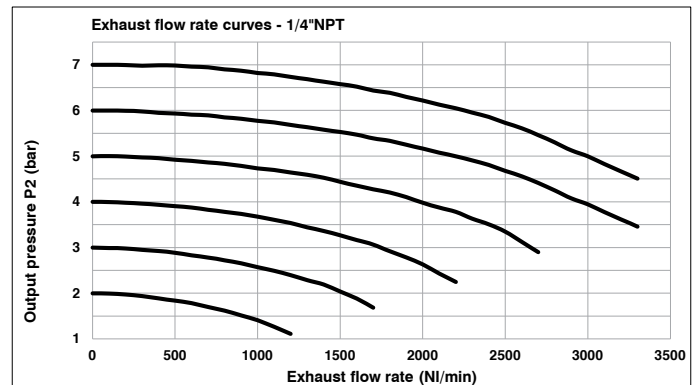
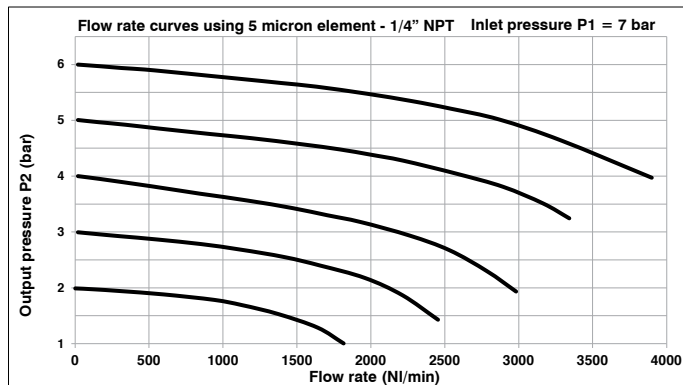
Size and connections	
3A	Size 3 - 1/4" NPT
3B	Size 3 - 1/2" NPT
4A	Size 4 - 3/4" NPT
4B	Size 4 - 1" NPT

Filter pore size	
A	5 µm - Stainless steel AISI 316
B	20 µm - Stainless steel AISI 316
C	50 µm - Stainless steel AISI 316
D	5 µm - HDPE
E	20 µm - HDPE
F	50 µm - HDPE

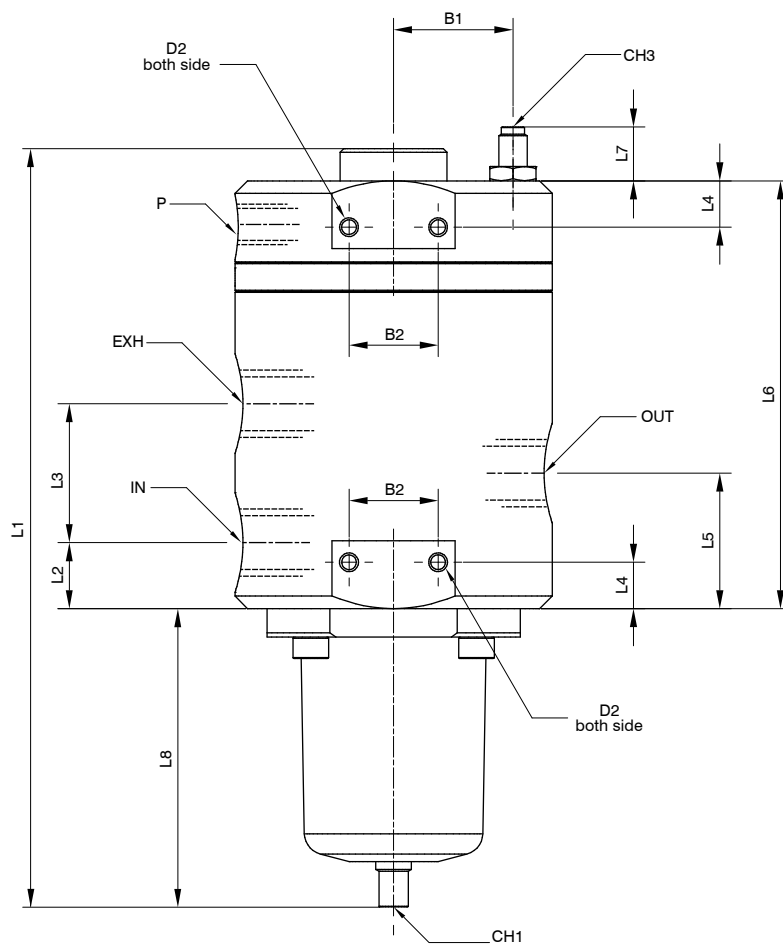
Temperature options	
	Standard (-30°C ... +80°C)
L	Low temperature (-50°C ... +80°C)
Z	Low temperature (-60°C ... +80°C)
H	Low temperature (-5°C ... +150°C)
S	Automatic drain (-5°C ... +70°C)
EF	EPDM-FDA (-40°C ... +100°C)

Example : SS173BVFBAL : Size 3 Volume filter booster, 1/2"NPT, 5 µm element, low temperature and manual drain.

Characteristic curves (without flow regulators)

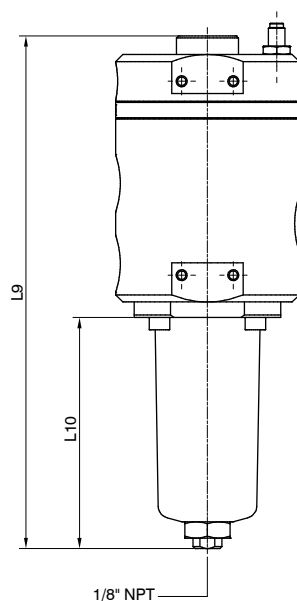


Dimensions



Model	B1	B2	D1	D2 (both side)	L1	L2	L3	L4	L5	L6	L7	L8	IN - OUT - EXH	P	CH1	CH3
SS173...	33,5	25	89	M5	213	18,5	39	13	38	120	15,5	84	1/4" NPT 1/2" NPT	1/4" NPT	5	4
SS174...	43	22	109	M6	323,5	27,5	63,5	14	59,5	175	15,5	133,5	3/4" NPT 1" NPT		8	4

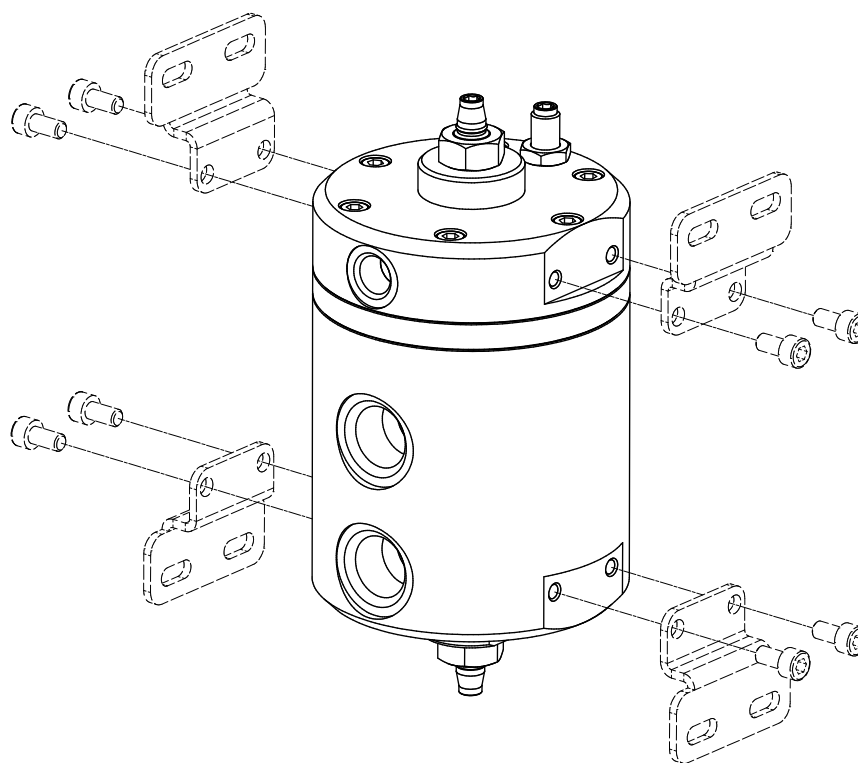
Automatic
drain version (A.D.)



Model	L9	L10
SS173...	248,5	119,5
SS174...	332,5	142,5

Accessories and fixing

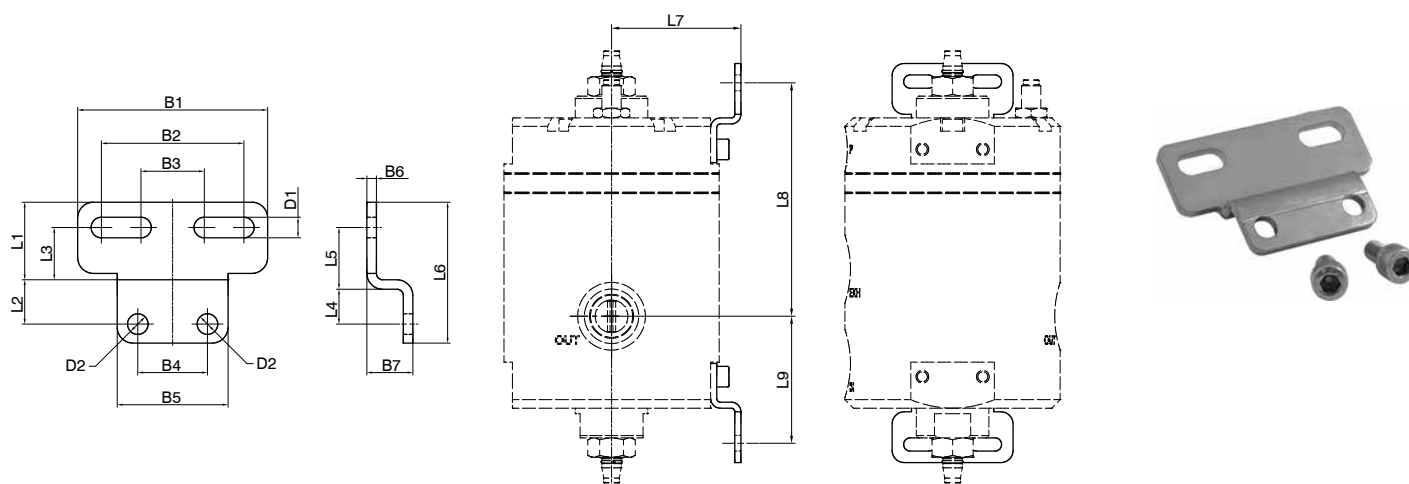
Special fixing brackets made of AISI 316L stainless steel are provided upon request.
 Fixing position for every need is confirmed by using one or two brackets.



Fixing bracket

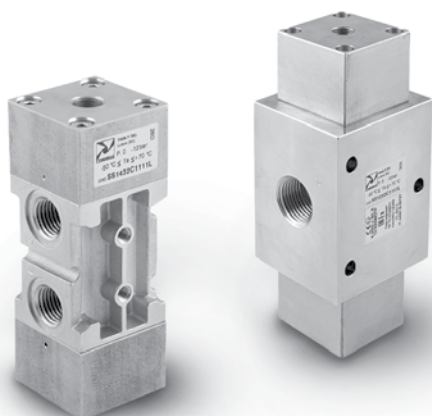
SS17250

Model	
SS17250	applicable to model SS173... and SA173...
SS17350	applicable to model SS174... and SA174...



Model	L1	L2	L3	L4	L5	L6	L7	L8	L9	B1	B2	B3	B4	B5	B6	B7	D1	D2	Weight (g)
SS17250	22,5	13	15	10,5	17,5	41	53,5	96,5	52,5	50	35	20	25	34	2,5	12,5	5,5	5,5	39
SS17350	24,5	14	16,5	11	19,5	44,5	65,5	132	76	60	45	20	22	35	3	14,5	6,5	6,5	57

Series SL - P



- All external and internal parts are AISI 316L
- In compliance with NACE standard MR0175/ISO 15156
- 1/4", 1/2, 3/4" and 1" NPT connections
- Type: 3/2, 5/2 and 5/3
- Suitable up to SIL 3
- Steel Line Range (SL)

Construction characteristics

Body	AISI 316L stainless steel
Operators	AISI 316L stainless steel
Spool	AISI 316L stainless steel
Spring	AISI 316 stainless steel
Screws	AISI 316 stainless steel (A4-70 stainless steel)
Seals	NBR for low temperatures (-50°C) standard FPM (Fluoroelastomer)

Operational characteristics

Fluid	Filtered air. No lubrication needed, if applied it shall be continuous. Inert Gas. Sweet gas (natural).
Operating temperature (for low temperature version L)	-50°C ... +70°C
Operating temperature (for high temperature version H)	-10°C ... +150°C
Maximum operating pressure	12 bar

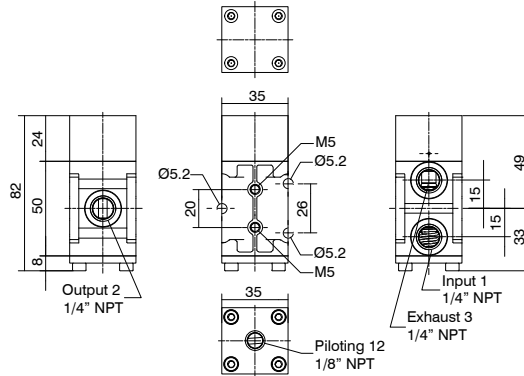
Certifications available:

ATEX: II 2G Ex h IIC T6...T3 Gb X; II 2D Ex h IIIC T80°C...T180°C Db X

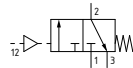
SIL: Suitable up to SIL 3

EACEx: TR CO 012/2011

Pneumatic-spring valve - (3/2)



Minimum piloting pressure 2,5 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	1000	1/4" NPT	1/8" NPT	500	1,02	15,15

Ordering code

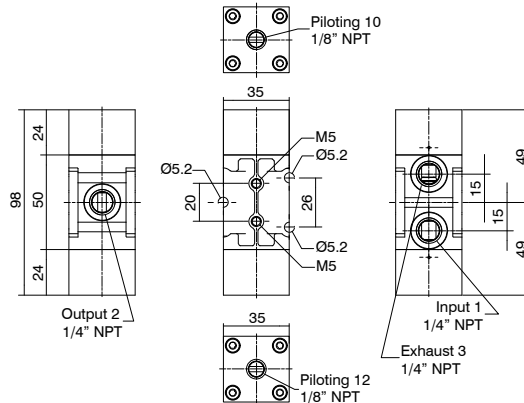
SS1432C1101

TYPE

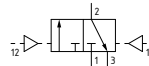
T L= Low temperature version
H= High temperature version



Pneumatic-pneumatic valve - (3/2)



Minimum piloting pressure 2,5 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	1000	1/4" NPT	1/8" NPT	660	1,02	15,15

Ordering code

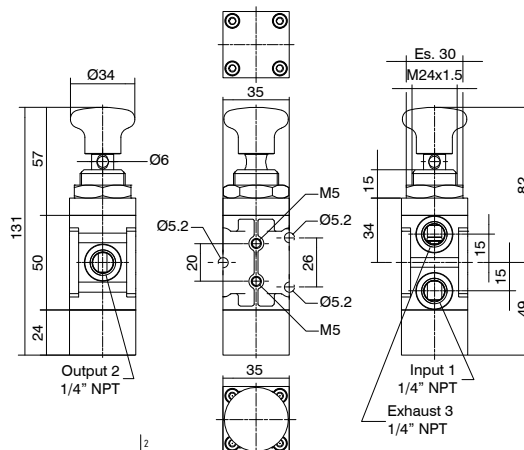
SS1432C0802

TYPE

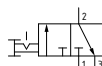
T L= Low temperature version
H= High temperature version



2 position push-pull valve - (3/2)



Operating force 55N.
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
12	1000	1/4" NPT	620	1,02	15,15

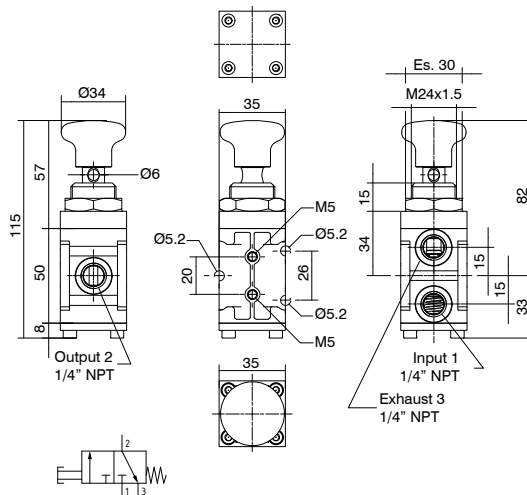


Spool type valves and solenoid valves (Steel Line) Series SL - P - 1/4" NPT

WWW.SUMY.IR

AIR DISTRIBUTION

Push button-spring valve - (3/2)



Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).

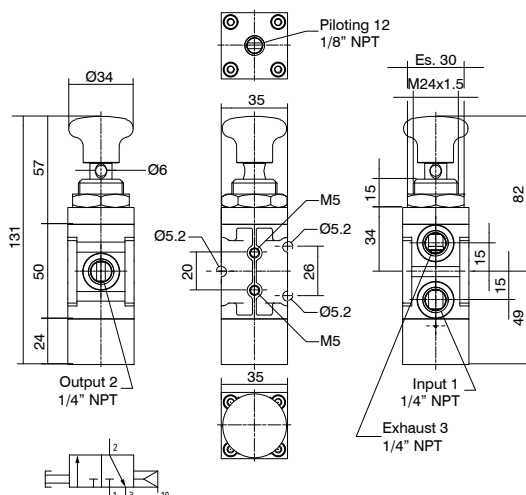
Ordering code	
SS1432C0801	
TYPE	
1	L= Low temperature version H= High temperature version

Operating force at 2 bar= 55N
Operating force at 12 bar= 105N

Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
12	1000	1/4" NPT	470	1,02	15,15

Push button-pneumatic return valve - (3/2)



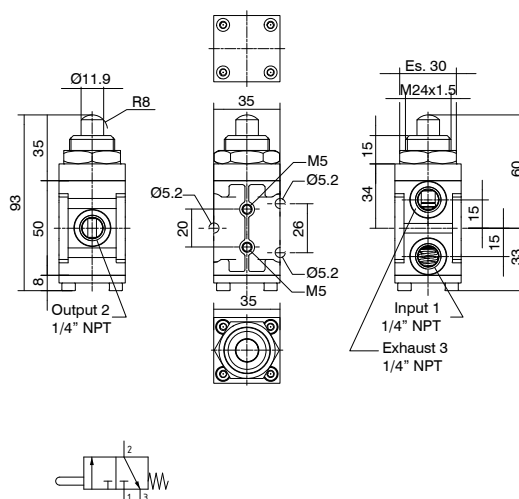
Minimum piloting pressure 2,5 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).

Ordering code	
SS1432C0811	
TYPE	
1	L= Low temperature version H= High temperature version

Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	1000	1/4" NPT	1/8" NPT	600	1,02	15,15

Tappet-spring valve - (3/2)



Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).

Ordering code	
SS1432C0001	
TYPE	
1	L= Low temperature version H= High temperature version

Operating force at 2 bar= 55N
Operating force at 12 bar= 105N

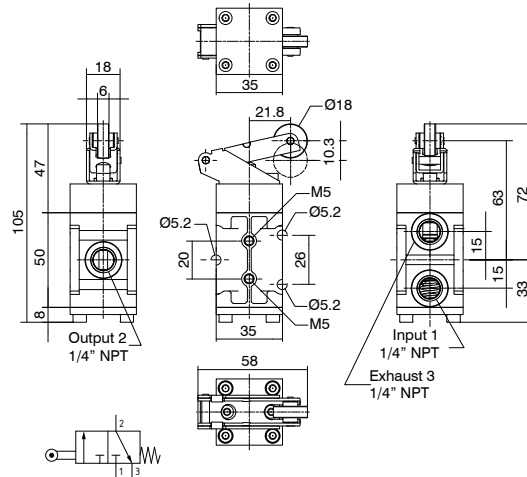
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
12	1000	1/4" NPT	450	1,02	15,15

► Roller lever-spring valve - (3/2)



Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Ordering code

SS1432C0401

TYPE

T L= Low temperature version
H= High temperature version



Operating force at 2 bar= 55N
Operating force at 12 bar= 105N

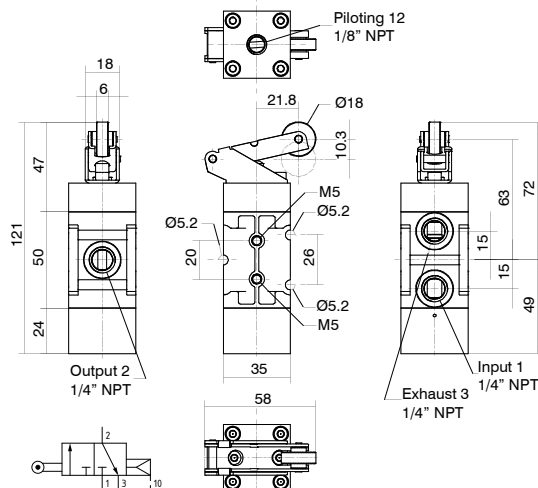
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
12	1000	1/4" NPT	480	1,02	15,15

► Roller lever-pneumatic valve - (3/2)



Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Ordering code

SS1432C0411

TYPE

T L= Low temperature version
H= High temperature version



Minimum piloting pressure 2,5 bar

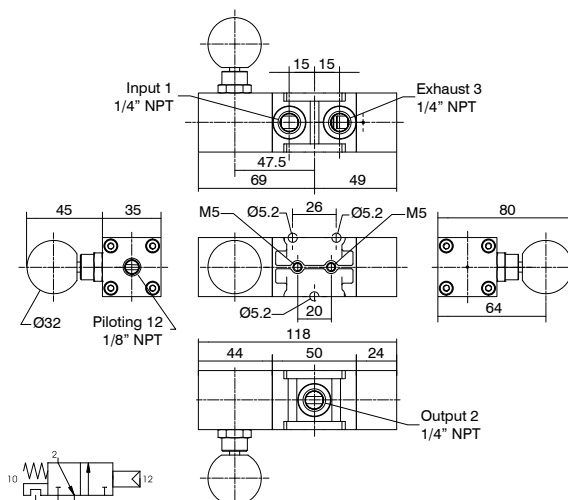
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
12	1000	1/4" NPT	480	1,02	15,15

► Pneumatic valve with self-locking manual reset - (3/2)



Minimum piloting pressure 2,5 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Ordering code

SS1432C1114

TYPE

T L= Low temperature version
H= High temperature version



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	1000	1/4" NPT	1/8" NPT	860	1,02	15,15



Spool type valves and solenoid valves (Steel Line) Series SL - P - 1/4" NPT

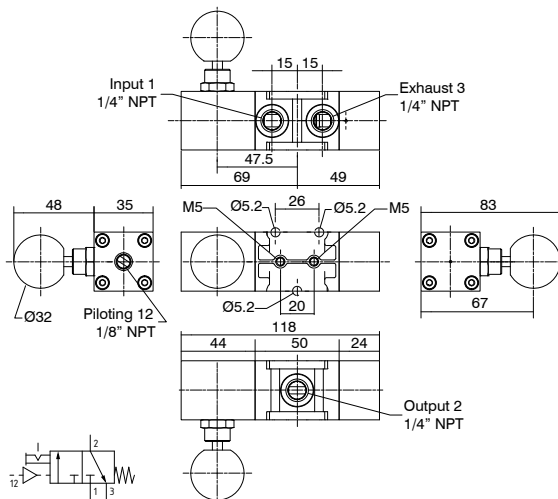
WWW.SUMY.IR

AIR DISTRIBUTION

Pneumatic valve with self-locking manual reset inverted - (3/2)



Minimum piloting pressure 2,5 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Ordering code

SS1432C1115

TYPE

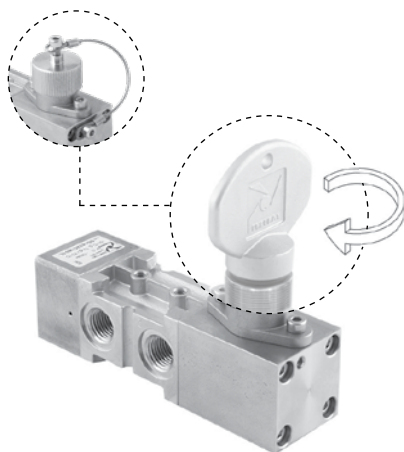
① L= Low temperature version
H= High temperature version



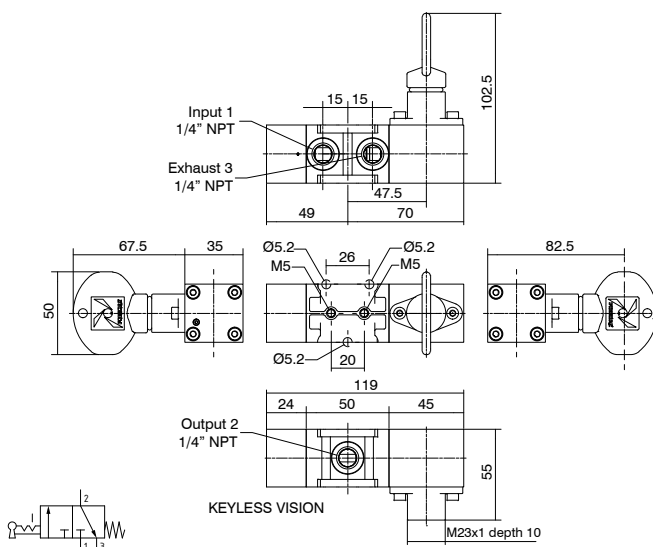
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	1000	1/4" NPT	1/8" NPT	860	1,02	15,15

Key-spring valve stable - (3/2)



Available with key selector cap



Ordering code

SS1432C1601

TYPE

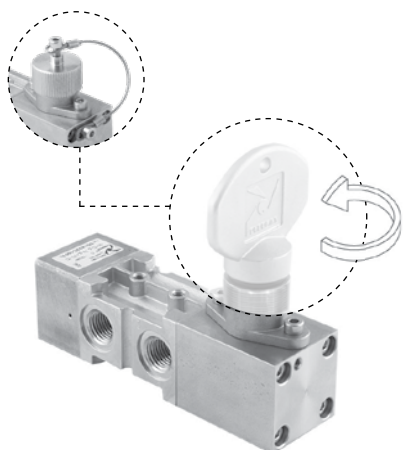
① L= Low temperature version
H= High temperature version



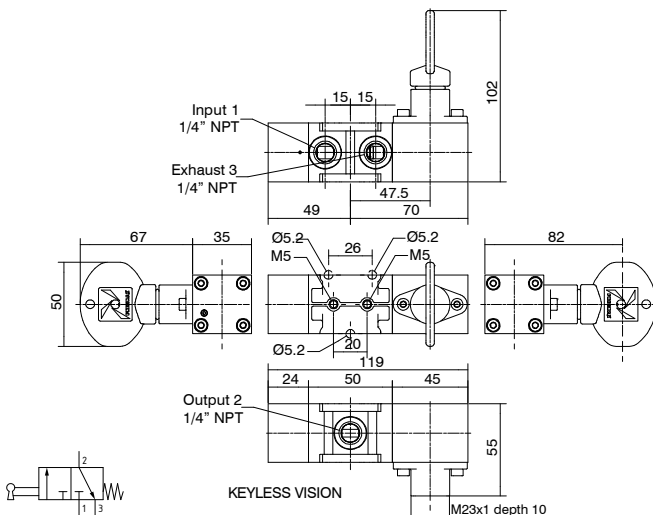
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Connections	Weight (g)	Cv	kv
12	1000	1/4" NPT	1020	1,02	15,15

Key-spring valve instable - (3/2)



Available with key selector cap



Ordering code

SS1432C2601

TYPE

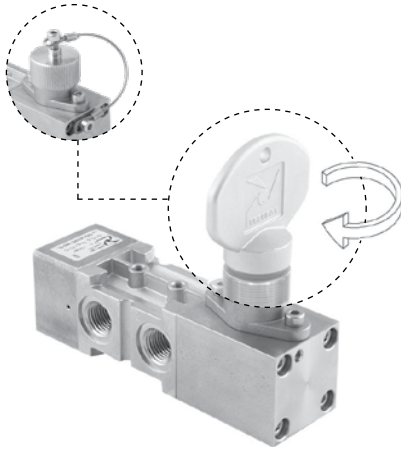
① L= Low temperature version
H= High temperature version



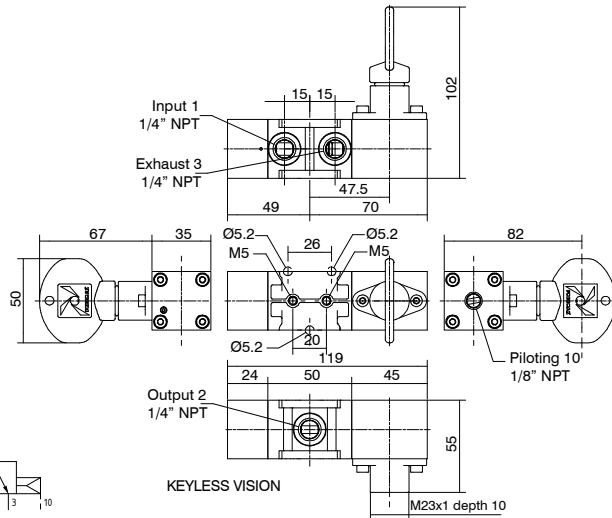
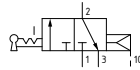
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Connections	Weight (g)	Cv	kv
12	1000	1/4" NPT	1020	1,02	15,15

Pneumatic-key valve stable - (3/2)



Available with key selector cap.
Minimum piloting pressure 2,5 bar, after the valve unlock.



Ordering code

SS1432C1611T

TYPE

T L= Low temperature version
H= High temperature version

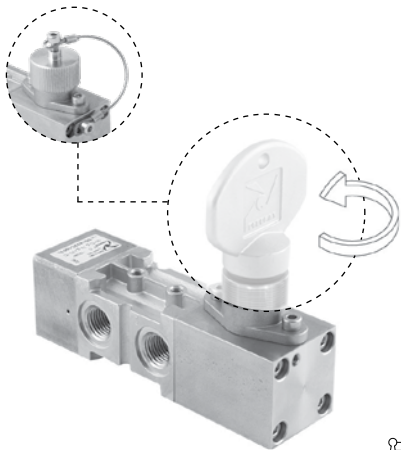


AIR DISTRIBUTION

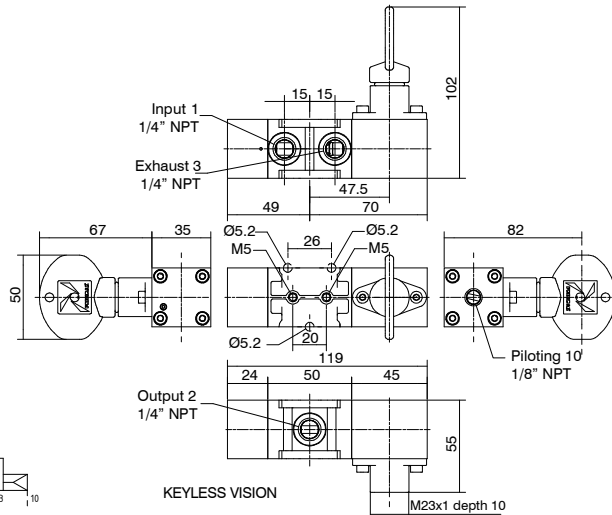
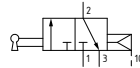
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
12	1000	1/4" NPT	1020	1,02	15,15

Pneumatic-key valve instable - (3/2)



Available with key selector cap.
Minimum piloting pressure 2,5 bar.



Ordering code

SS1432C2611T

TYPE

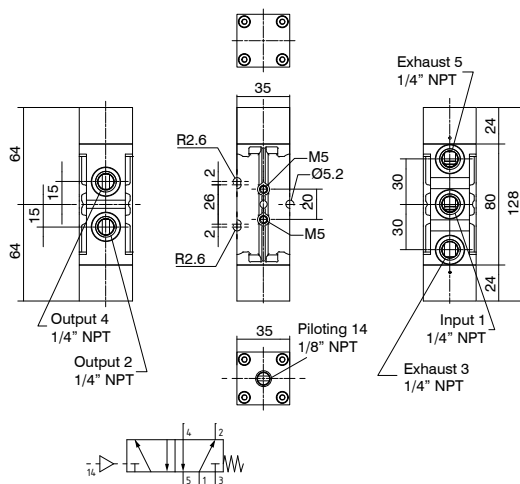
T L= Low temperature version
H= High temperature version



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
12	1000	1/4" NPT	1020	1,02	15,15

Pneumatic-spring valve - (5/2)



Minimum piloting pressure 2,5 bar

Fluid:

Filtered air. No lubrication needed, if applied it shall be continuous.

Inert Gas.

Sweet gas (natural).

Operational characteristics

Operational characteristics						
Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (l/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	1000	1/4" NPT	1/8" NPT	820	1,02	15,15

Ordering code

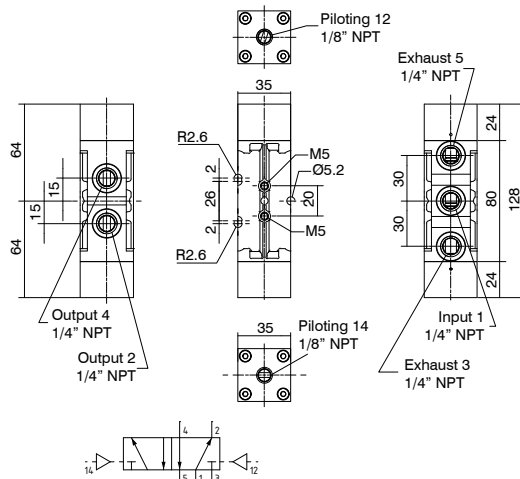
SS145201101T

	TYPE
--	------

T L= Low temperature version
H= High temperature version



Pneumatic-pneumatic valve - (5/2)



Minimum piloting pressure 2,5 bar

Fluid:

Filtered air. No lubrication needed, if applied it shall be continuous.

Inert Gas.

Sweet gas (natural).

Operational characteristics

Operational characteristics						
Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (l/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	1000	1/4" NPT	1/8" NPT	820	1,02	15,15

Ordering code

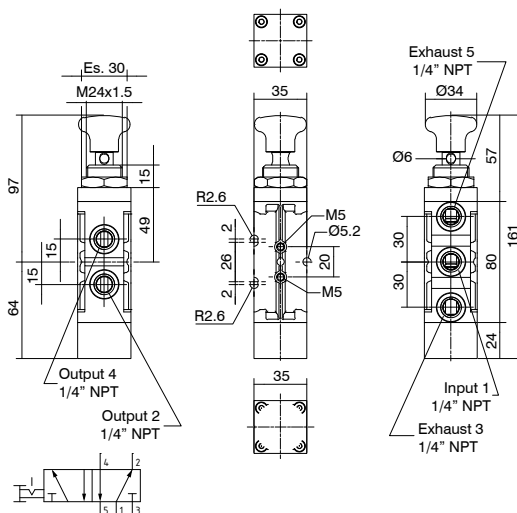
SS145200802T

TYPE

T L= Low temperature version
H= High temperature version



2 position push-pull valve - (5/2)



Operating force 55N.

Fluid:

Filtered air. No lubrication needed, if applied it shall be continuous.

Inert Gas.

Sweet gas (natural).

Operational characteristics

Operational characteristics					
Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (l/min)	Connections	Weight (g)	Cv	kv
12	1000	1/4" NPT	770	1,02	15,15

[illegible]

 **EAC Ex**

Technical drawing of a 4-way solenoid valve, showing three views: front, side, and top.

Front View (Left):

- Overall height: 97
- Top section height: 15
- Bottom section height: 49
- Port diameter: $\varnothing 6$
- Thread: M24x1.5
- Label: Output 4 1/4" NPT
- Label: Output 2 1/4" NPT

Side View (Middle):

- Overall width: 35
- Top section height: 26
- Bottom section height: 20
- Port diameter: $\varnothing 6$
- Thread: M5
- Label: R2.6
- Label: R2.6

Top View (Right):

- Overall width: 35
- Top section height: 57
- Bottom section height: 80
- Port diameter: $\varnothing 6$
- Thread: M5
- Label: R2.6
- Label: R2.6
- Label: Input 1 1/4" NPT
- Label: Exhaust 3 1/4" NPT
- Label: Exhaust 5 1/4" NPT

Bottom View (Bottom Left):

- Overall width: 35
- Top section height: 26
- Bottom section height: 20
- Port diameter: $\varnothing 6$
- Thread: M5
- Label: R2.6
- Label: R2.6

 **EAC Ex**

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Spool type valves and solenoid valves (Steel Line) Series SL - P - 1/4" NPT

WWW.SUMY.IR

Roller lever-spring valve - (5/2)



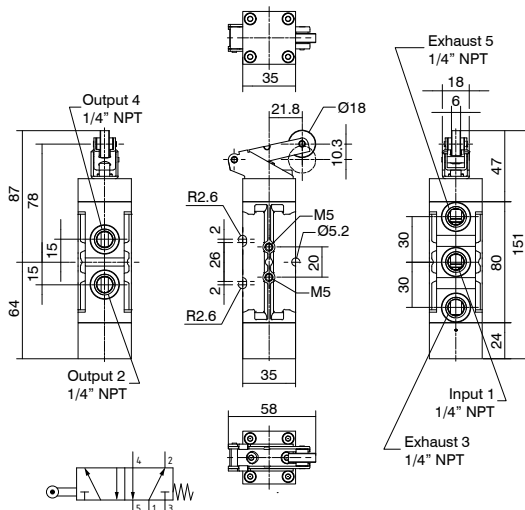
Operating force 90N

Fluid:

Filtered air. No lubrication needed, if applied it shall be continuous.

Inert Gas.

Sweet gas (natural).



Ordering code

SS145200401T

TYPE

T L= Low temperature version
H= High temperature version



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Connections	Weight (g)	Cv	kv
12	1000	1/4" NPT	800	1,02	15,15

Roller lever-pneumatic valve - (5/2)



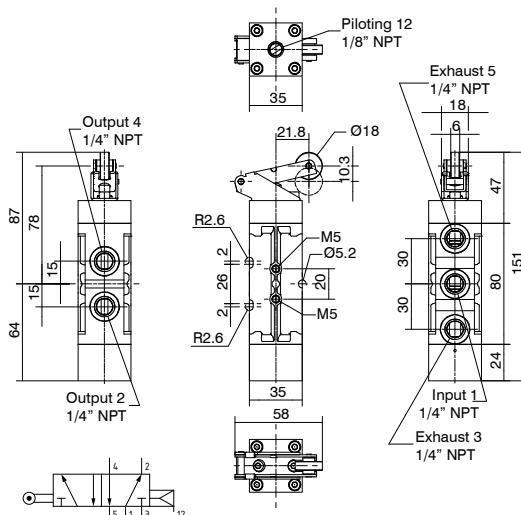
Minimum piloting pressure 2,5 bar

Fluid:

Filtered air. No lubrication needed, if applied it shall be continuous.

Inert Gas.

Sweet gas (natural).



Ordering code

SS145200411T

TYPE

T L= Low temperature version
H= High temperature version



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Connections	Weight (g)	Cv	kv
12	1000	1/4" NPT	800	1,02	15,15

Pneumatic valve with self-locking manual reset - (5/2)



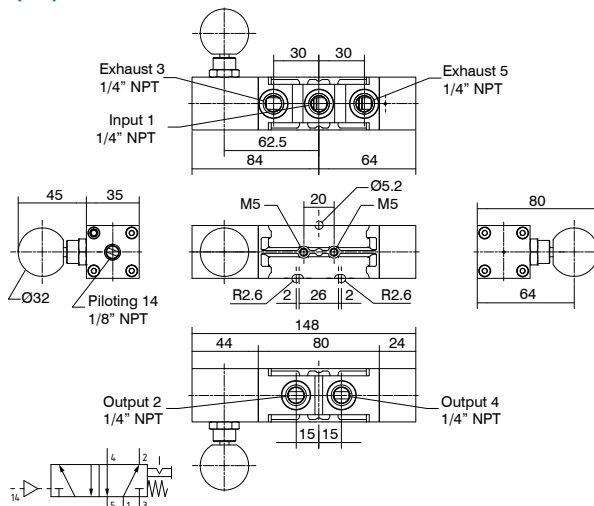
Minimum piloting pressure 2,5 bar

Fluid:

Filtered air. No lubrication needed, if applied it shall be continuous.

Inert Gas.

Sweet gas (natural).



Ordering code

SS145201114T

TYPE

T L= Low temperature version
H= High temperature version



Operational characteristics

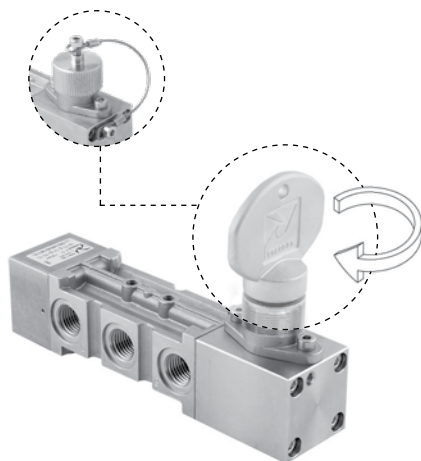
Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	1000	1/4" NPT	1/8" NPT	1020	1,02	15,15



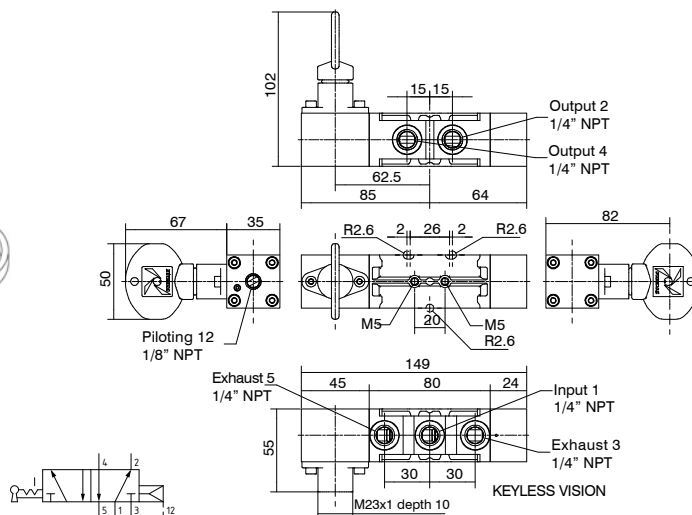
Spool type valves and solenoid valves (Steel Line) Series SL - P - 1/4" NPT

WWW.SUMY.IR

Pneumatic-key valve stable - (5/2)



Available with key selector cap.



Ordering code

SS145201611

TYPE

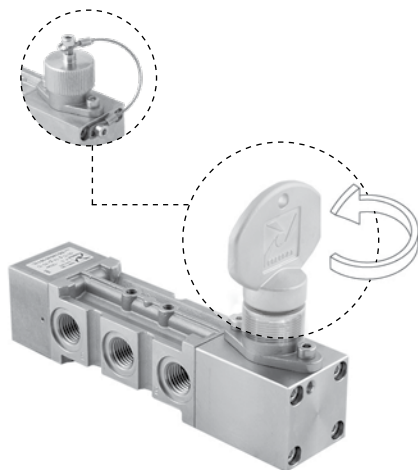
1 L= Low temperature version
H= High temperature version



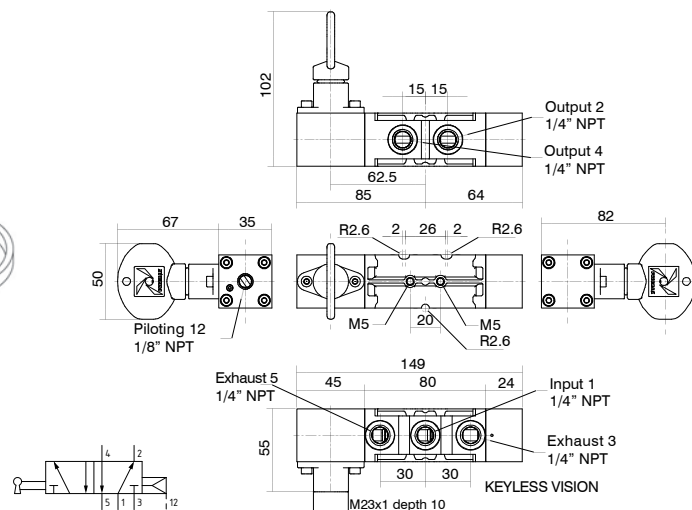
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Connections	Weight (g)	Cv	kv
12	1000	1/4" NPT	1180	1,02	15,15

Pneumatic-key valve instable - (5/2)



Available with key selector cap.



Ordering code

SS145202611

TYPE

1 L= Low temperature version
H= High temperature version



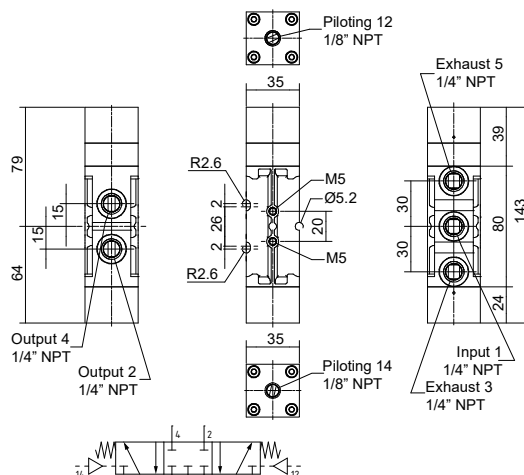
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Connections	Weight (g)	Cv	kv
12	1000	1/4" NPT	1180	1,02	15,15

Pneumatic-pneumatic closed centers valve - (5/3)



Minimum piloting pressure 2,5 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Ordering code

SS145311111

TYPE

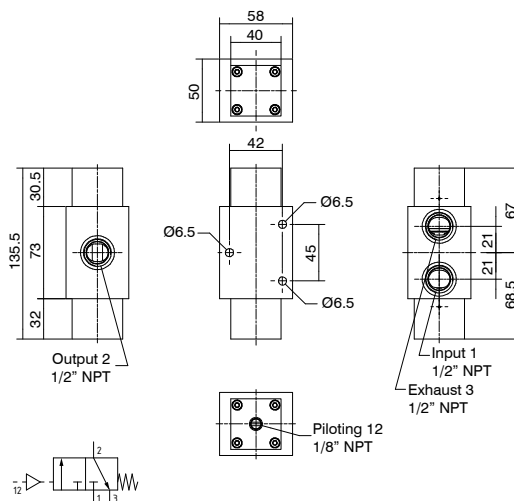
1 L= Low temperature version
H= High temperature version



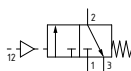
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	1000	1/4" NPT	1/8" NPT	931	1,02	15,15

Pneumatic-spring valve - (3/2)



Minimum piloting pressure 3 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	3500	1/2" NPT	1/8" NPT	1992	3,55	53,03

Ordering code

SS1232C1101

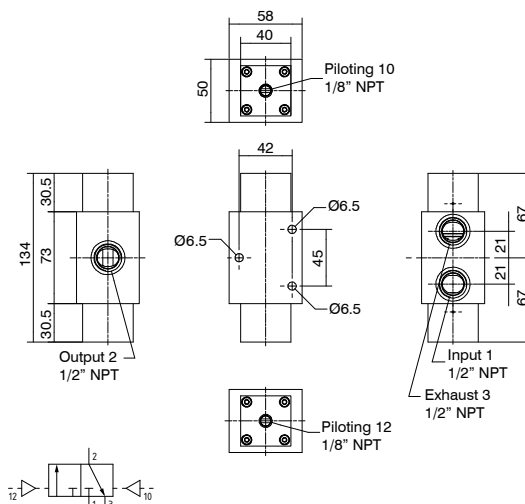
TYPE

T L= Low temperature version
H= High temperature version

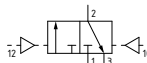


AIR DISTRIBUTION

Pneumatic-pneumatic valve - (3/2)



Minimum piloting pressure 3 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	3500	1/2" NPT	1/8" NPT	2001	3,55	53,03

Ordering code

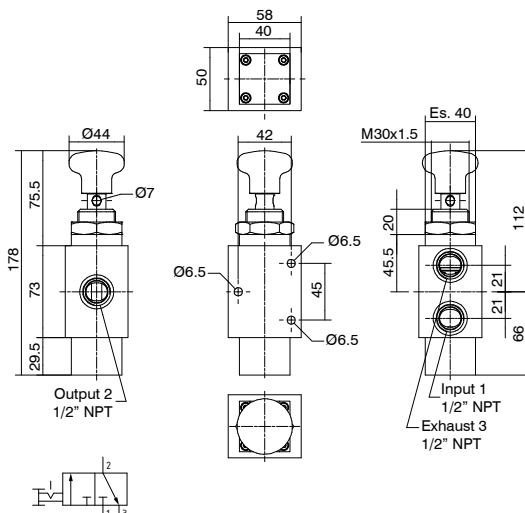
SS1232C0802

TYPE

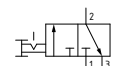
T L= Low temperature version
H= High temperature version



2 position push-pull valve - (3/2)



Operating force 55N.
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
12	3500	1/2" NPT	2027	3,55	53,03



Spool type valves and solenoid valves (Steel Line) Series SL - P - 1/2" NPT

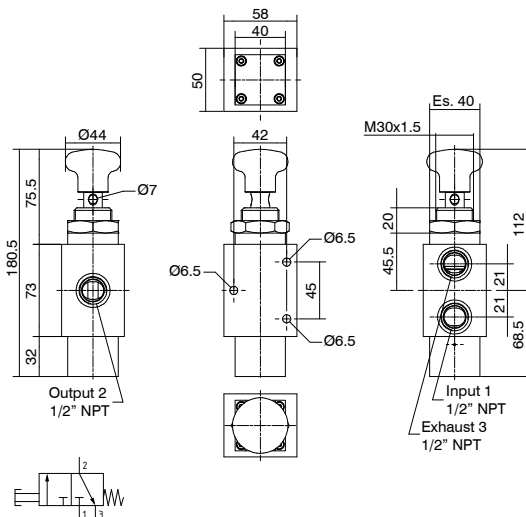
WWW.SUMY.IR

AIR DISTRIBUTION

Push button-spring valve - (3/2)



Operating force 200N
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Ordering code	
SS1232C0801	
TYPE	
1	L= Low temperature version
	H= High temperature version

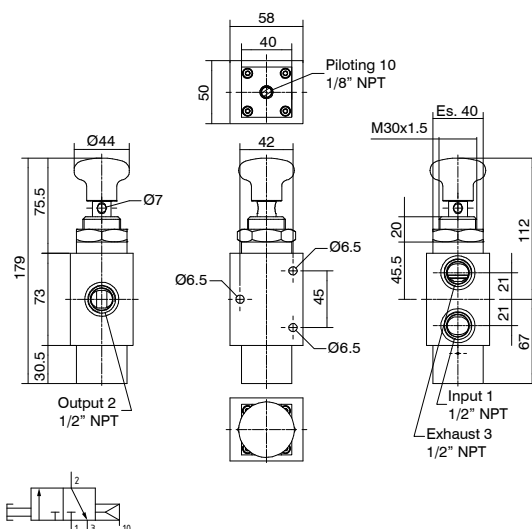
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
12	3500	1/2" NPT	2000	3,55	53,03

Push button-pneumatic return valve - (3/2)



Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Ordering code	
SS1232C0811	
TYPE	
1	L= Low temperature version
	H= High temperature version

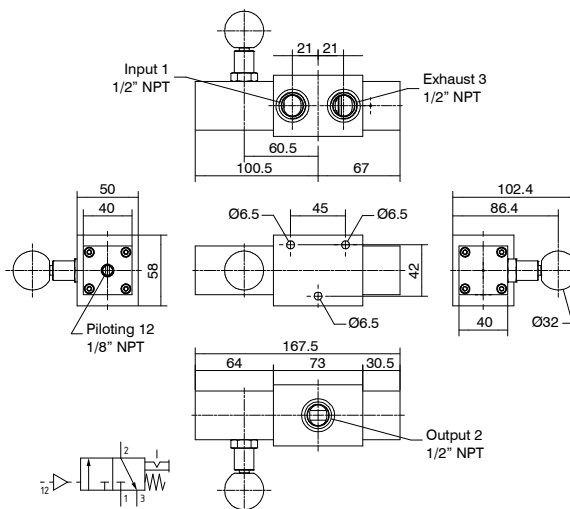
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	3500	1/2" NPT	1/8" NPT	2012	3,55	53,03

Pneumatic valve with self-locking manual reset - (3/2)



Minimum piloting pressure 3 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



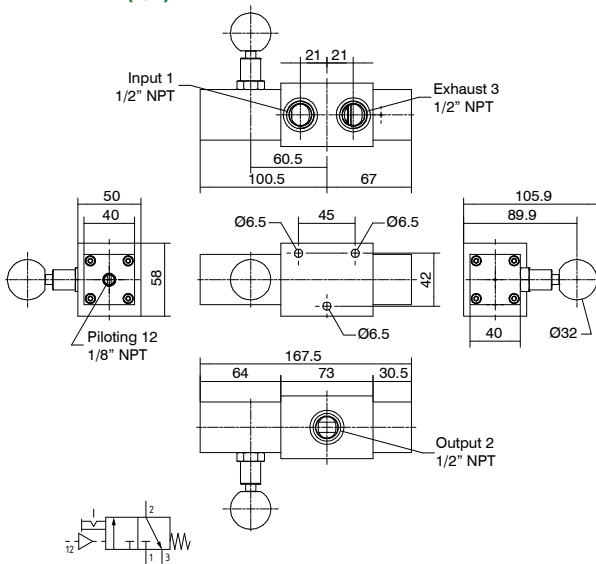
Ordering code	
SS1232C1114	
TYPE	
1	L= Low temperature version
	H= High temperature version

Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	3500	1/2" NPT	1/8" NPT	2409	3,55	53,03



Pneumatic valve with self-locking manual reset inverted - (3/2)



Ordering code

SS1232C1115

TYPE

T L= Low temperature version
H= High temperature version

Ex **SILv** **EAC** **Ex**

Minimum piloting pressure 3 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).

Operational characteristics						
Maximum working pressure (bar)	Flow rate at 6 bar with Δp=1 (NL/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	3500	1/2" NPT	1/8" NPT	2408	3,55	53,03

AIR DISTRIBUTION

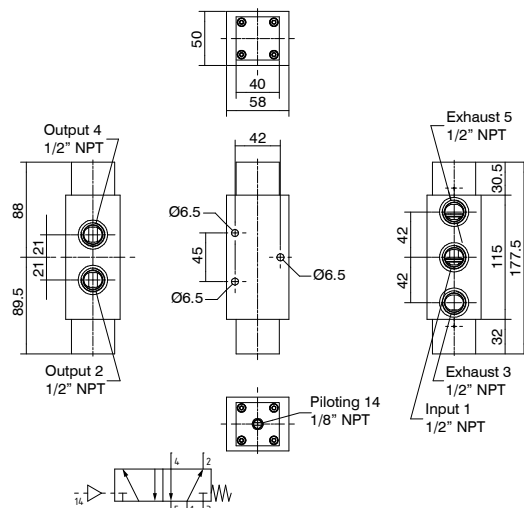


Spool type valves and solenoid valves (Steel Line) Series SL - P - 1/2" NPT

WWW.SUMY.IR

AIR DISTRIBUTION

Pneumatic-spring valve - (5/2)



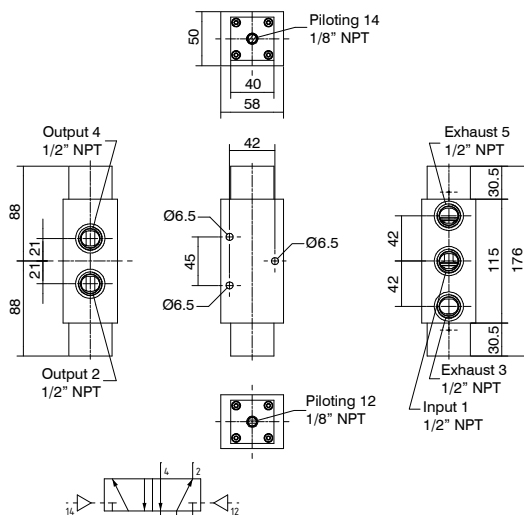
Minimum piloting pressure 3 bar
Fluid: Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).

Ordering code	
SS125201101T	
TYPE	
T	L= Low temperature version H= High temperature version

Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
12	3500	1/2" NPT	2744	3,55	53,03

Pneumatic-pneumatic valve - (5/2)



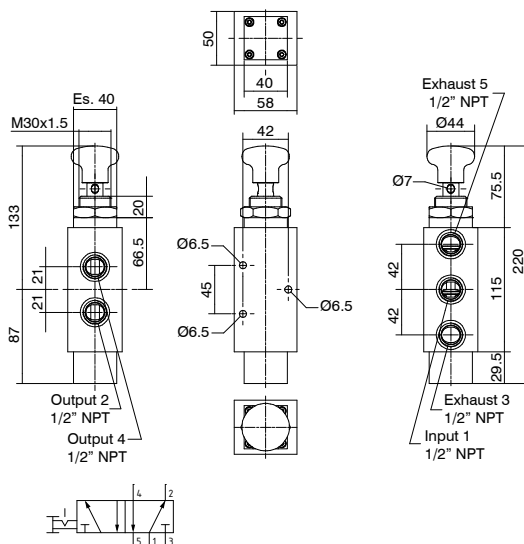
Minimum piloting pressure 3 bar
Fluid: Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).

Ordering code	
SS125201111T	
TYPE	
T	L= Low temperature version H= High temperature version

Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	3500	1/2" NPT	1/8" NPT	2790	3,55	53,03

2 position push-pull valve - (5/2)



Operating force 55N.
Fluid: Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).

Ordering code	
SS125200802T	
TYPE	
T	L= Low temperature version H= High temperature version

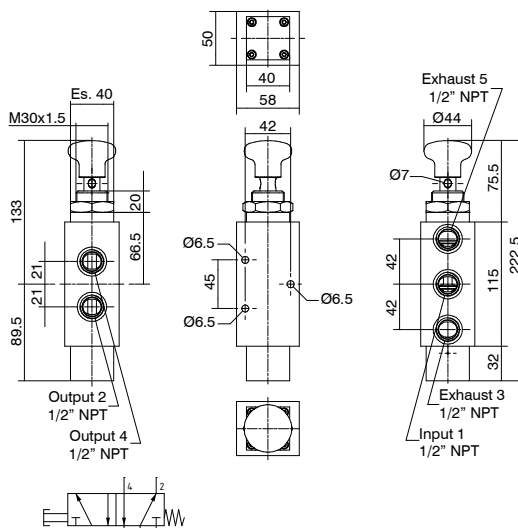
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
12	3500	1/2" NPT	2757	3,55	53,03

Push button-spring valve - (5/2)



Operating force 200N
Fluid: Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Ordering code

SS125200801

TYPE

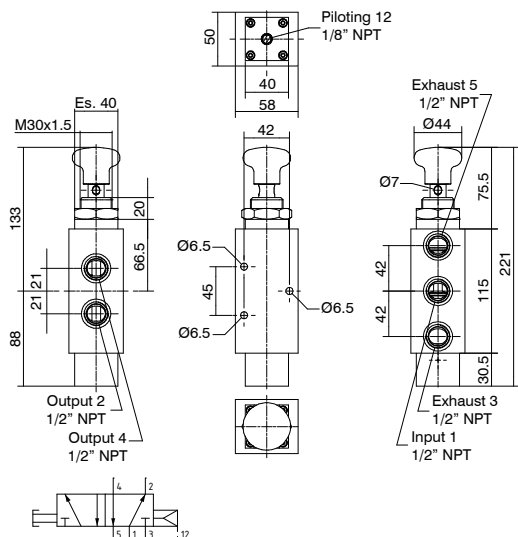
T L= Low temperature version
H= High temperature version

Operational characteristics					
Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
12	3500	1/2" NPT	2730	3,55	53,03

Push button-pneumatic return valve - (5/2)



Minimum piloting pressure 3 bar
Fluid: Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Ordering code

SS125200811

TYPE

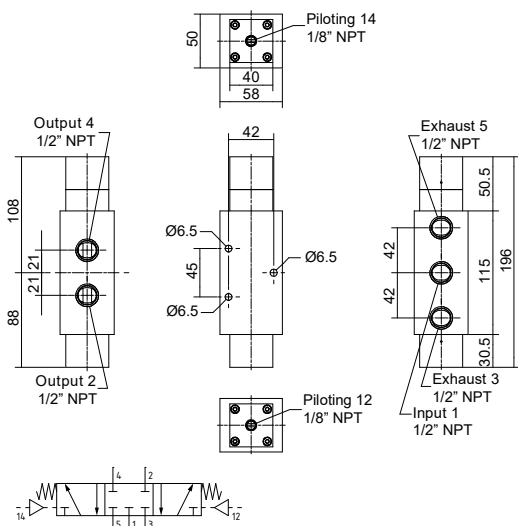
T L= Low temperature version
H= High temperature version

Operational characteristics						
Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (l/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	3500	1/2" NPT	1/8" NPT	2780	3,55	53,03

Pneumatic-pneumatic closed centers valve - (5/3)



Minimum piloting pressure 3 bar
Fluid: Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Ordering code

SS125311111

TYPE

T L= Low temperature version
H= High temperature version

Operational characteristics						
Maximum working pressure (bar)	Flow rate at 6 bar with Δp=1 (l/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	3500	1/2" NPT	1/8" NPT	3019	3,55	53,03

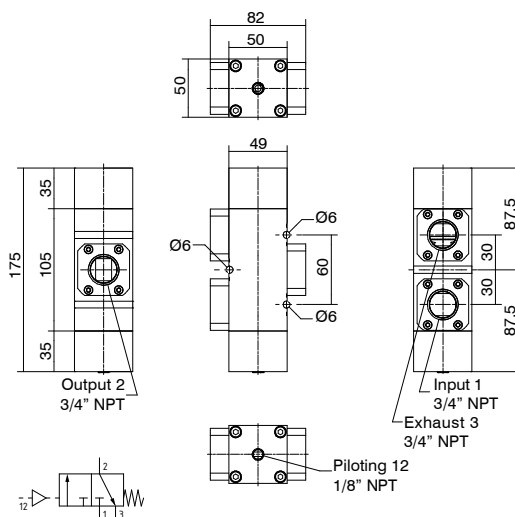


Spool type valves and solenoid valves (Steel Line) Series SL - P - 3/4" NPT

WWW.SUMY.IR

AIR DISTRIBUTION

Pneumatic-spring valve - (3/2)



Minimum piloting pressure 3 bar
Maximum piloting pressure (for low temperature version L) 10 bar.
Maximum piloting pressure (for high temperature version H) 8 bar.
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).

Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	10000	3/4" NPT	1/8" NPT	3190	10,16	151,51

Ordering code

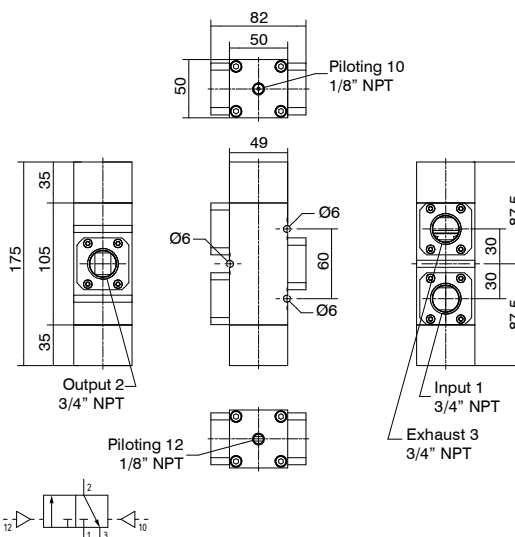
SS3432C1101

TYPE

L = Low temperature version
H = High temperature version



Pneumatic-pneumatic valve - (3/2)



Minimum piloting pressure 3 bar
Maximum piloting pressure (for low temperature version L) 10 bar.
Maximum piloting pressure (for high temperature version H) 8 bar.
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).

Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	10000	3/4" NPT	1/8" NPT	3165	10,16	151,51

Ordering code

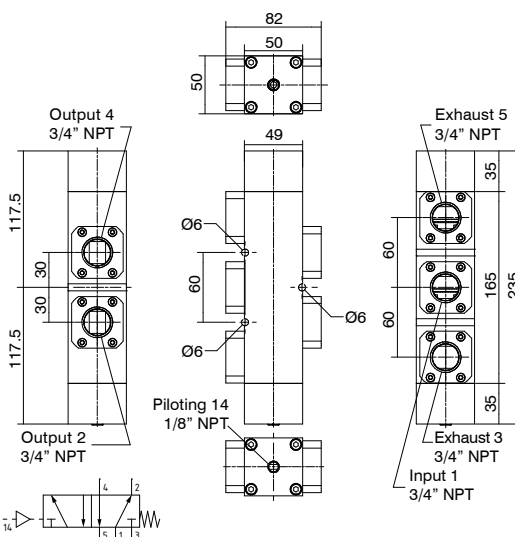
SS3432C1111

TYPE

L = Low temperature version
H = High temperature version



Pneumatic-spring valve - (5/2)



Minimum piloting pressure 3 bar
Maximum piloting pressure (for low temperature version L) 10 bar.
Maximum piloting pressure (for high temperature version H) 8 bar.
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).

Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	10000	3/4" NPT	1/8" NPT	4345	10,16	151,51

Ordering code

SS345201101

TYPE

L = Low temperature version
H = High temperature version

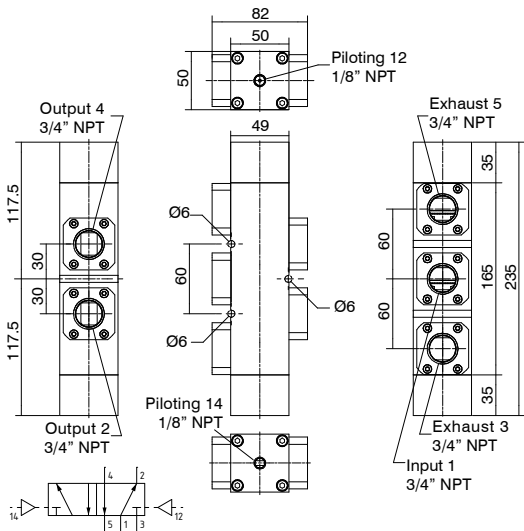




Pneumatic-pneumatic valve - (5/2)



Minimum piloting pressure 3 bar
Maximum piloting pressure (for low temperature version L) 10 bar.
Maximum piloting pressure (for high temperature version H) 8 bar.
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Ordering code

SS3452011111

TYPE

L= Low temperature version

H= High temperature version



Operational characteristics						
Maximum working pressure (bar)	Flow rate at 6 bar with Δp=1 (NI/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	10000	3/4" NPT	1/8" NPT	4325	10,16	151,51

AIR DISTRIBUTION



Spool type valves and solenoid valves (Steel Line) Series SL - P - 1" NPT

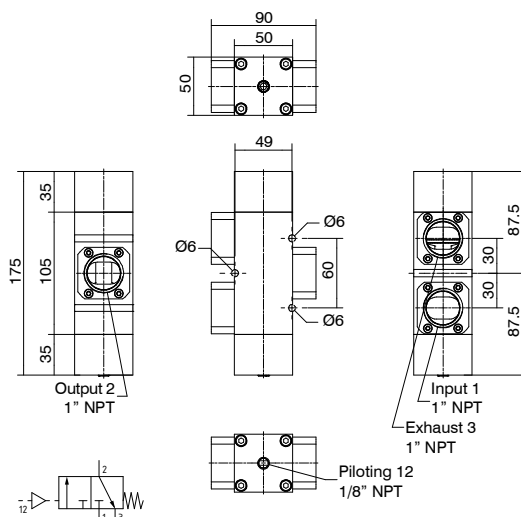
WWW.SUMY.IR

AIR DISTRIBUTION

Pneumatic-spring valve - (3/2)



Minimum piloting pressure 3 bar
Maximum piloting pressure (for low temperature version L) 10 bar.
Maximum piloting pressure (for high temperature version H) 8 bar.
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Ordering code	
SS1132C1101	
TYPE	
L = Low temperature version H = High temperature version	

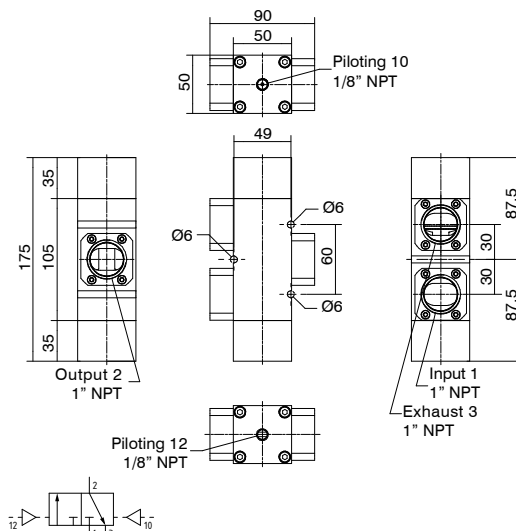
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	13500	1" NPT	1/8" NPT	3180	13,72	204,54

Pneumatic-pneumatic valve - (3/2)



Minimum piloting pressure 3 bar
Maximum piloting pressure (for low temperature version L) 10 bar.
Maximum piloting pressure (for high temperature version H) 8 bar.
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Ordering code	
SS1132C1111	
TYPE	
L = Low temperature version H = High temperature version	

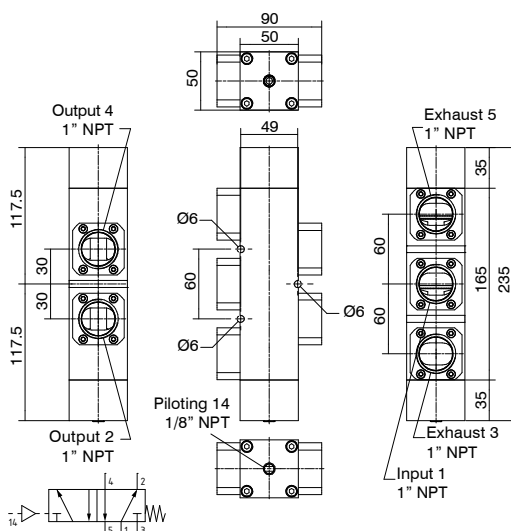
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	13500	1" NPT	1/8" NPT	3155	13,72	204,54

Pneumatic-spring valve - (5/2)



Minimum piloting pressure 3 bar
Maximum piloting pressure (for low temperature version L) 10 bar.
Maximum piloting pressure (for high temperature version H) 8 bar.
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Ordering code	
SS115201101	
TYPE	
L = Low temperature version H = High temperature version	

Operational characteristics

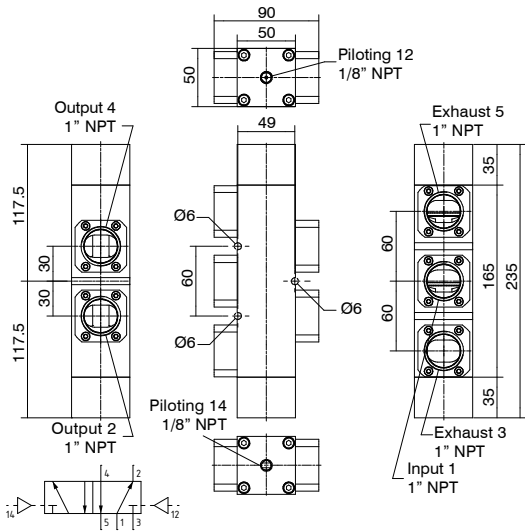
Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	13500	1" NPT	1/8" NPT	4325	13,72	204,54



Pneumatic-pneumatic valve - (5/2)



Minimum piloting pressure 3 bar
Maximum piloting pressure (for low temperature version L) 10 bar.
Maximum piloting pressure (for high temperature version H) 8 bar.
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Ordering code

SS1152011111

TYPE

L= Low temperature version

H= High temperature version

Ex

SIL

EAC

Ex

AIR DISTRIBUTION

Operational characteristics						
Maximum working pressure (bar)	Flow rate at 6 bar with Δp=1 (NI/min)	Connections	Pilot connections	Weight (g)	Cv	kv
12	13500	1" NPT	1/8" NPT	4305	13,72	204,54

Series SL - C2 (IP65)



- All external and internal parts are AISI 316L
- Compliance with NACE standard MR0175/ISO 15156
- 1/4" NPT connections
- Type: 3/2 and 5/2
- Steel Line Range (SL)

Construction characteristics

Body	AISI 316L stainless steel
Operators	AISI 316L stainless steel
Spool	AISI 316L stainless steel
Spring	AISI 316 stainless steel
Screws	AISI 316 stainless steel (A4-70 stainless steel)
Seals	NBR for low temperatures (available on request) FPM (Fluoroelastomer)

Operational characteristics

Fluid	Filtered air. No lubrication needed, if applied it shall be continuous. Inert Gas. Sweet gas (natural).
Maximum operating pressure	10 bar
Operating temperature	-10°C ... +130°C
Note: The suitable operating temperature is limited by the most restrictive component, which is the pilot, regardless of the type of seals used in the valve spool.	

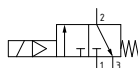
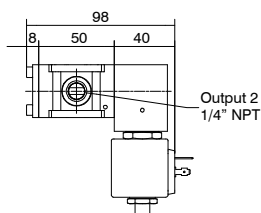
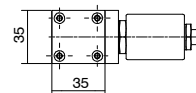
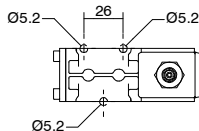
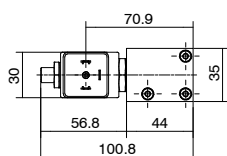
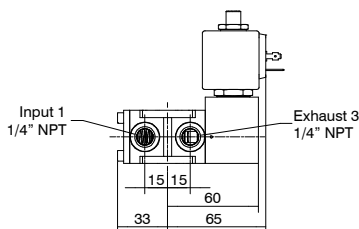
Electrical (Electropilot) construction characteristics

Cores	Ferromagnetic stainless steel
Guide tube	Stainless steel
Springs	Stainless steel
Seals	FPM (Fluoroelastomer) NBR (available on request)
Incorporation	PA reinforced fibreglass
Wire insulation	F (Class H available on request)
Nominal voltage	12, 24 V DC 24, 110, 220 V AC
Power consumption DC	10W
Power consumption AC	15VA
Electrical connection	According to DIN43650 A
IP Rating	IP65
Tolerance on voltage supply	±10%
ED continuous service	100%

Certifications available:

Non ATEX marked product

Solenoid-spring valve - (3/2)



Minimum piloting pressure 2,5 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).

Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	900	1,02	15,15

Ordering code

SS1432C2T01H

TENSION

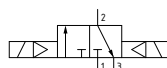
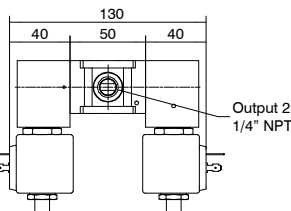
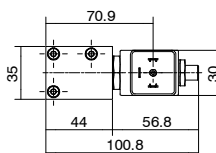
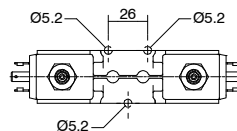
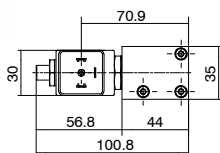
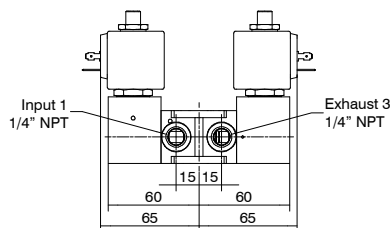
0= 12 V DC

T 1= 24 V DC

B= 24 V AC (50/60 Hz)

E= 230 V AC (50/60 Hz)

Solenoid-solenoid valve - (3/2)



Minimum piloting pressure 2,5 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).

Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	1400	1,02	15,15

Ordering code

SS1432C2T2T0H

TENSION

0= 12 V DC

T 1= 24 V DC

B= 24 V AC (50/60 Hz)

E= 230 V AC (50/60 Hz)



Spool type valves and solenoid valves (Steel Line)

Series SL - C2 (IP65) - 1/4" NPT

WWW.SUMY.IR

AIR DISTRIBUTION

Solenoid-spring valve - (5/2)

Ordering code

SS145202101H

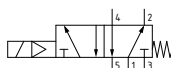
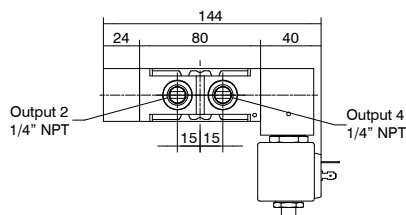
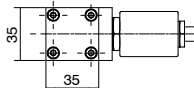
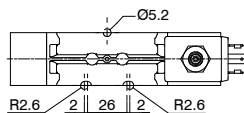
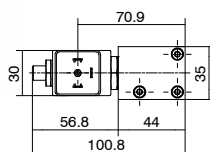
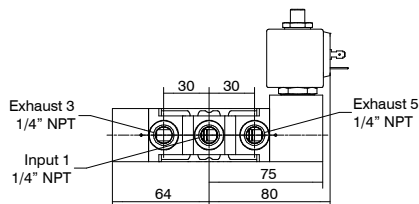
TENSION

0 = 12 V DC

1 = 24 V DC

B = 24 V AC (50/60 Hz)

E = 230 V AC (50/60 Hz)



Minimum piloting pressure 2,5 bar

Fluid:

Filtered air. No lubrication needed, if applied it shall be continuous.

Inert Gas.

Sweet gas (natural).

Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (l/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	1200	1,02	15,15

Solenoid-solenoid valve - (5/2)

Ordering code

SS1452021020H

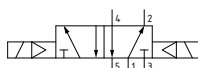
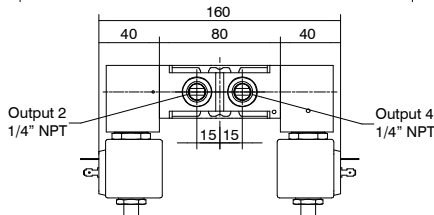
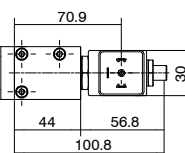
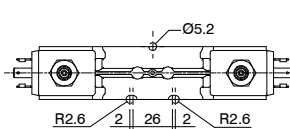
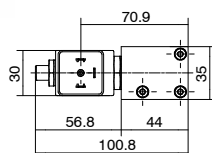
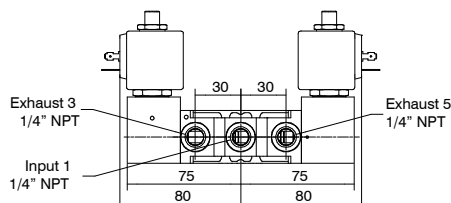
TENSION

0 = 12 V DC

1 = 24 V DC

B = 24 V AC (50/60 Hz)

E = 230 V AC (50/60 Hz)



Minimum piloting pressure 2,5 bar

Fluid:

Filtered air. No lubrication needed, if applied it shall be continuous.

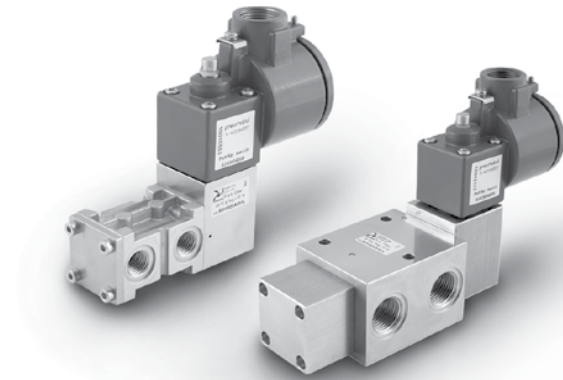
Inert Gas.

Sweet gas (natural).

Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (l/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	1600	1,02	15,15

Series SL - CA (IP66)



- For safe area with IP66 stainless steel housing (only solenoid coil)
- All external and internal parts are AISI 316L
- In compliance with NACE standard MR0175/ISO 15156
- 1/4" and 1/2" NPT connections
- Type: 3/2 and 5/2
- Suitable up to SIL 3
- Steel Line Range (SL)

Construction characteristics

Body	AISI 316L stainless steel
Operators	AISI 316L stainless steel
Spool	AISI 316L stainless steel
Spring	AISI 316 stainless steel
Screws	AISI 316 stainless steel (A4-70 stainless steel)
Seals	NBR for low temperatures FPM (Fluoroelastomer) (available on request)

Operating range

Fluid	Filtered air. No lubrication needed, if applied it shall be continuous. Inert Gas. Sweet gas (natural).
Maximum operating pressure	10 bar
Operating temperature	-20°C ... +70°C
Note: The suitable operating temperature is limited by the most restrictive component, which is the pilot, regardless of the type of seals used in the valve spool.	

Electrical (Electropilot) construction characteristics

Housing	304 stainless steel with epoxy paint
Armour / Cores	Ferromagnetic stainless steel
Springs	Stainless steel
Seals	FPM (Fluoroelastomer)
Incorporation	PBT 30% glass load
Wire insulation	H
Nominal voltage	24 V DC 24, 110, 220 V AC
Power consumption DC	2,4W
Power consumption AC	10VA (Inrush), 5VA (Running)
Connection for cable entry	M20x1.5 (1/2" NPT available on request)
Electrical connection	Screw terminals 2 Poles 2.5 mm
IP Rating	IP66
Tolerance on voltage supply	±10%
ED continuous service	100%

Certifications available:

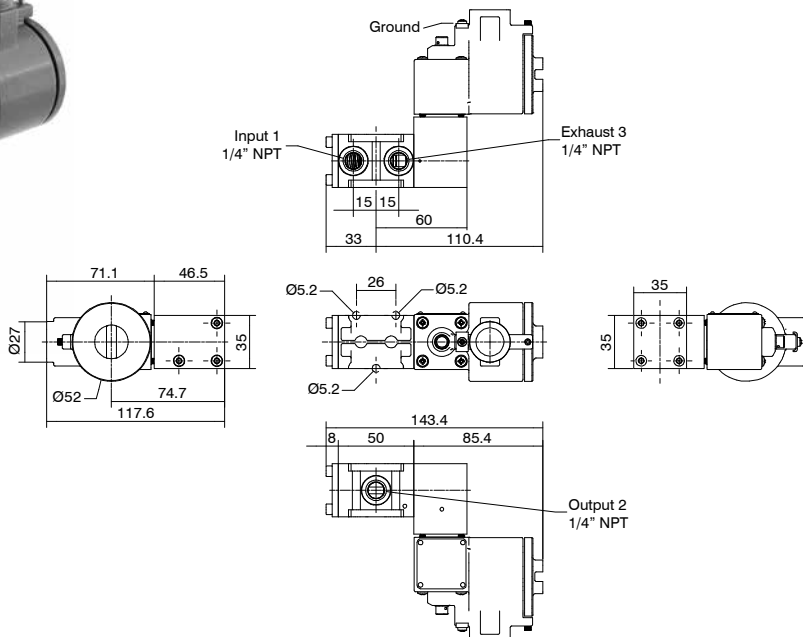
Non ATEX marked product
SIL: Suitable up to SIL 3



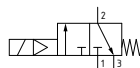
Spool type valves and solenoid valves (Steel Line) Series SL - CA (IP66) - 1/4" NPT WWW.SUMY.IR

AIR DISTRIBUTION

Solenoid-spring valve - (3/2)



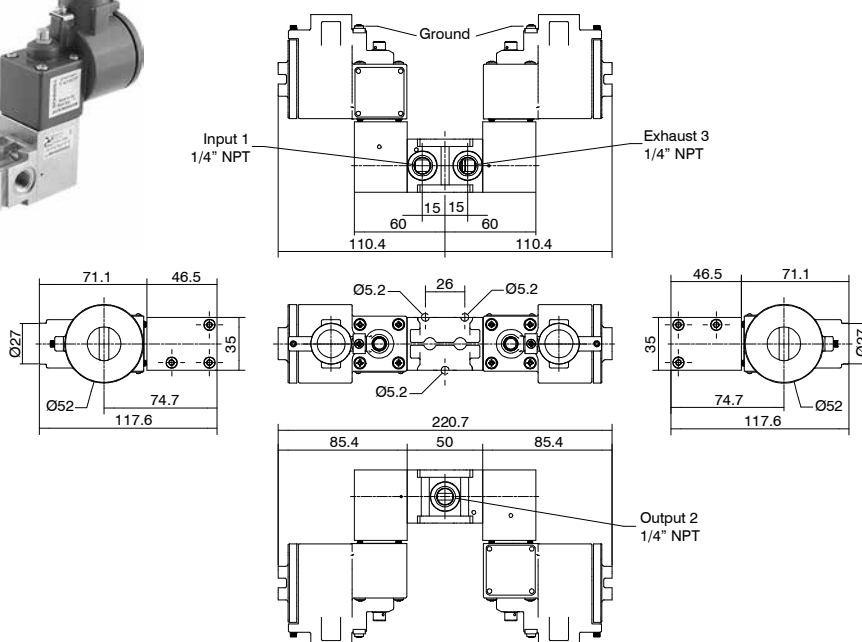
Minimum piloting pressure 2,5 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



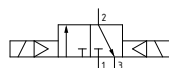
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	1500	1,02	15,15

Solenoid-solenoid valve - (3/2)



Minimum piloting pressure 2,5 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	2600	1,02	15,15

Ordering code

SS1432CA01L

TENSION

- 1= 24 V DC
- 2= 24 V AC (50/60 Hz)
- 3= 110 V AC (50/60 Hz)
- 4= 220 V AC (50/60 Hz)



Ordering code

SS1432CA01L

TENSION

- 1= 24 V DC
- 2= 24 V AC (50/60 Hz)
- 3= 110 V AC (50/60 Hz)
- 4= 220 V AC (50/60 Hz)



► Solenoid valve with self-locking manual reset - (3/2)

Ordering code

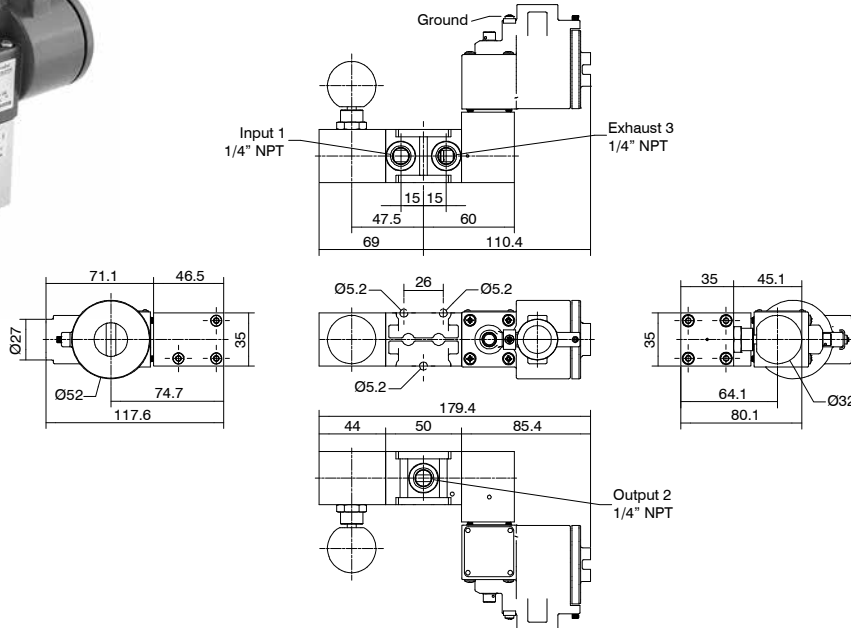
SS1432CA114L

TENSION

- 1 = 24 V DC
- 2 = 24 V AC (50/60 Hz)**
- 3 = 110 V AC (50/60 Hz)
- 4 = 220 V AC (50/60 Hz)



AIR DISTRIBUTION



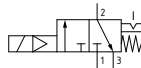
Minimum piloting pressure 2,5 bar

Fluid:

Filtered air. No lubrication needed, if applied it shall be continuous.

Inert Gas.

Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	1850	1,02	15,15

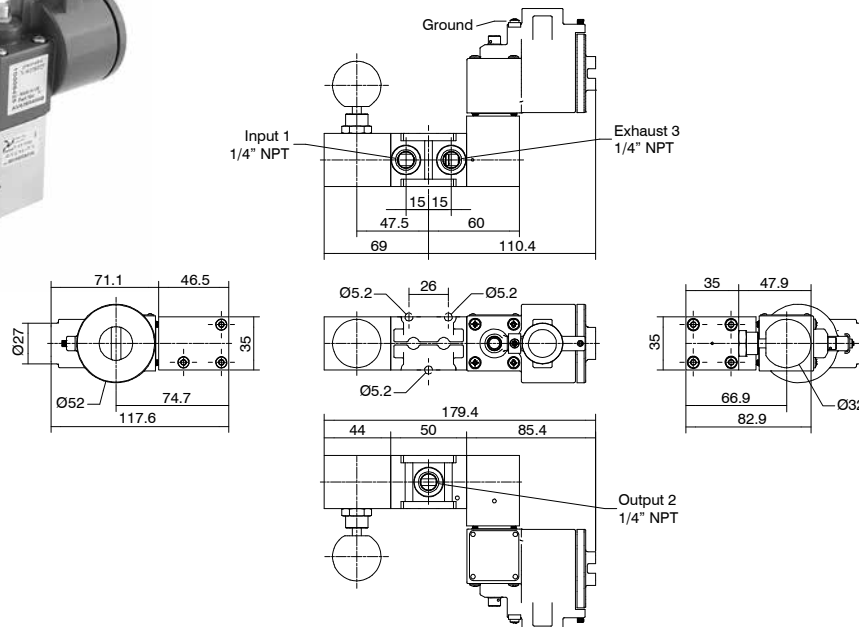
► Solenoid valve with self-locking manual reset inverted - (3/2)

Ordering code

SS1432CA115L

TENSION

- 1 = 24 V DC
- 2 = 24 V AC (50/60 Hz)**
- 3 = 110 V AC (50/60 Hz)
- 4 = 220 V AC (50/60 Hz)



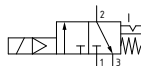
Minimum piloting pressure 2,5 bar

Fluid:

Filtered air. No lubrication needed, if applied it shall be continuous.

Inert Gas.

Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	1850	1,02	15,15



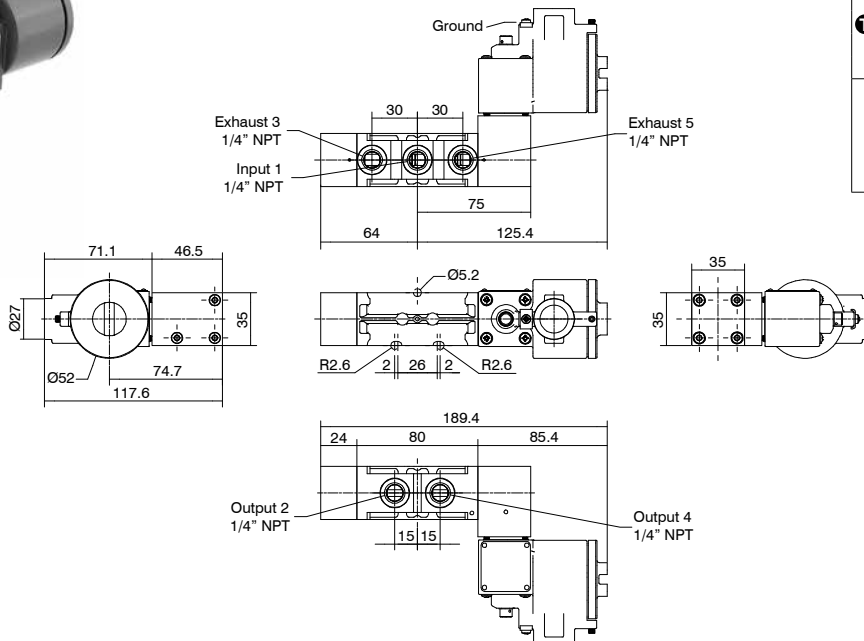
Spool type valves and solenoid valves (Steel Line)

Series SL - CA (IP66) - 1/4" NPT

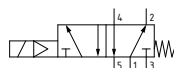
WWW.SUMY.IR

AIR DISTRIBUTION

Solenoid-spring valve - (5/2)



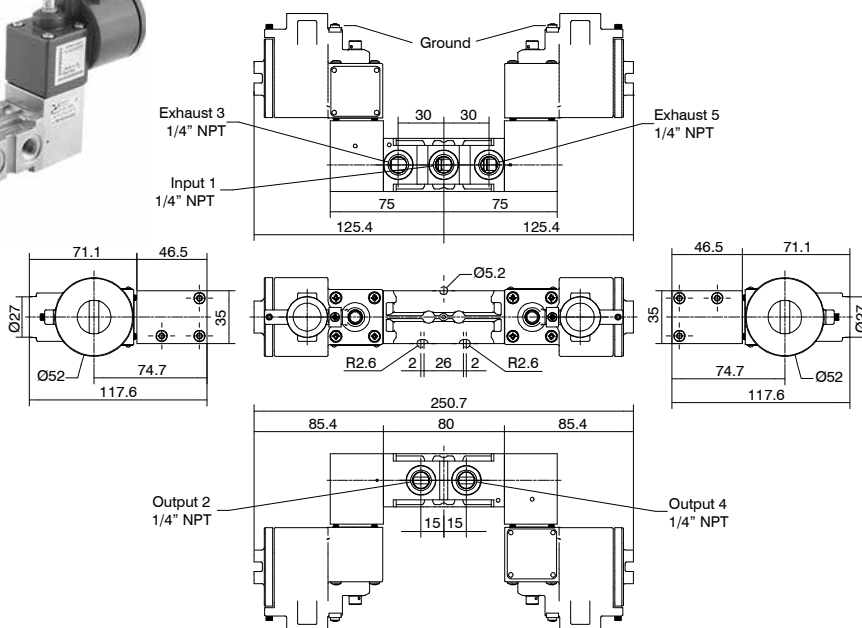
Minimum piloting pressure 2,5 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



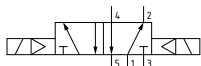
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (l/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	1800	1,02	15,15

Solenoid-solenoid valve - (5/2)



Minimum piloting pressure 2,5 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (l/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	2750	1,02	15,15

Ordering code

SS14520A01L

TENSION

1= 24 V DC

① 2= 24 V AC (50/60 Hz)

3= 110 V AC (50/60 Hz)

4= 220 V AC (50/60 Hz)



Ordering code

SS14520A01L

TENSION

1= 24 V DC

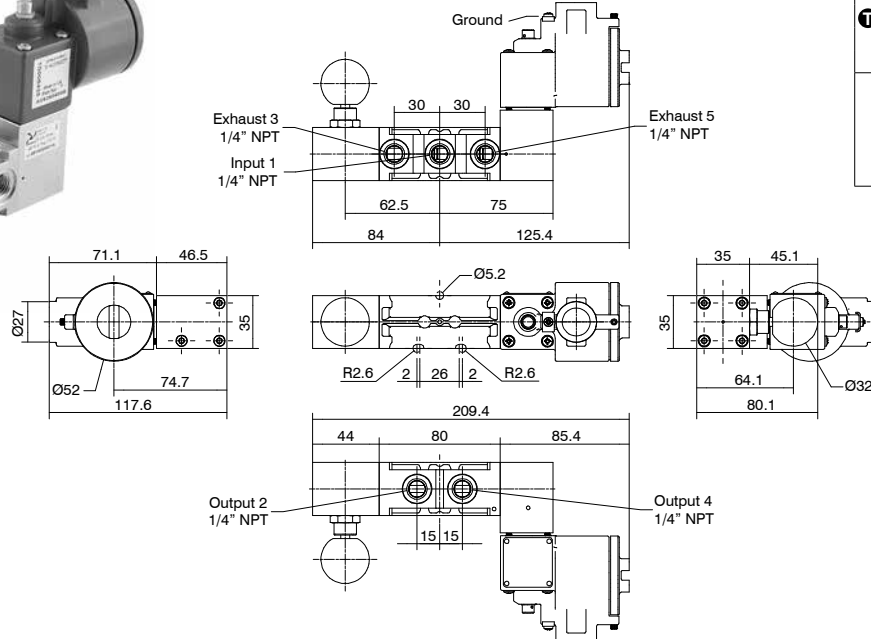
① 2= 24 V AC (50/60 Hz)

3= 110 V AC (50/60 Hz)

4= 220 V AC (50/60 Hz)



► Solenoid valve with self-locking manual reset - (5/2)

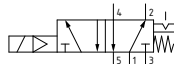


Ordering code
SS14520A114L
TENSION
1 = 24 V DC
1 2 = 24 V AC (50/60 Hz)
3 = 110 V AC (50/60 Hz)
4 = 220 V AC (50/60 Hz)



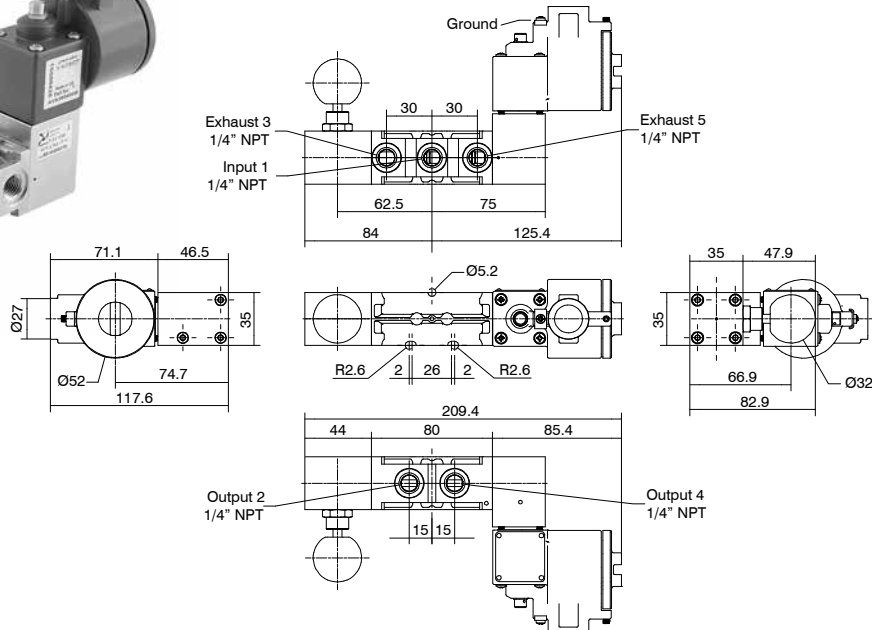
AIR DISTRIBUTION

Minimum piloting pressure 2,5 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Operational characteristics					
Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	2000	1,02	15,15

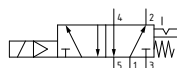
► Solenoid valve with self-locking manual reset inverted - (5/2)



Ordering code
SS14520A115L
TENSION
1 = 24 V DC
1 2 = 24 V AC (50/60 Hz)
3 = 110 V AC (50/60 Hz)
4 = 220 V AC (50/60 Hz)



Minimum piloting pressure 2,5 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Operational characteristics					
Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	2000	1,02	15,15



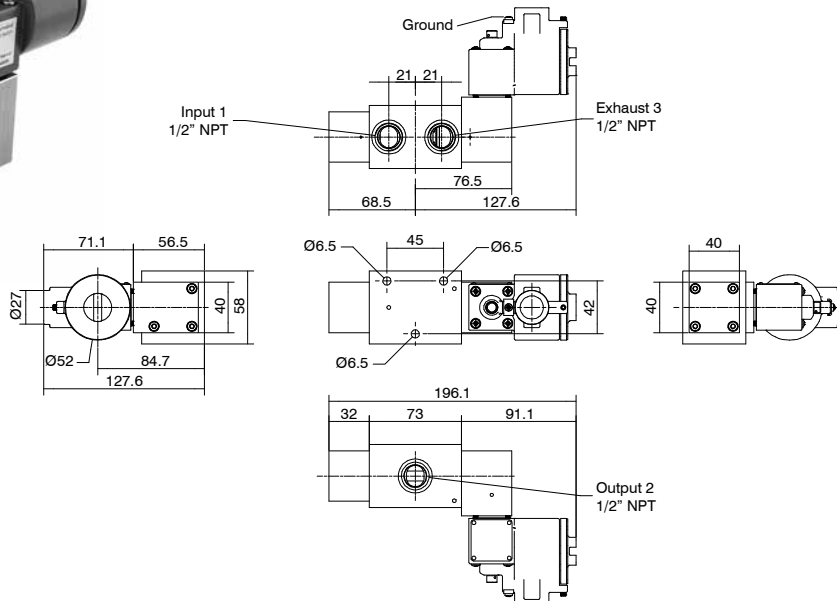
Spool type valves and solenoid valves (Steel Line)

Series SL - CA (IP66) - 1/2" NPT

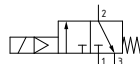
WWW.SUMY.IR

AIR DISTRIBUTION

Solenoid-spring valve - (3/2)



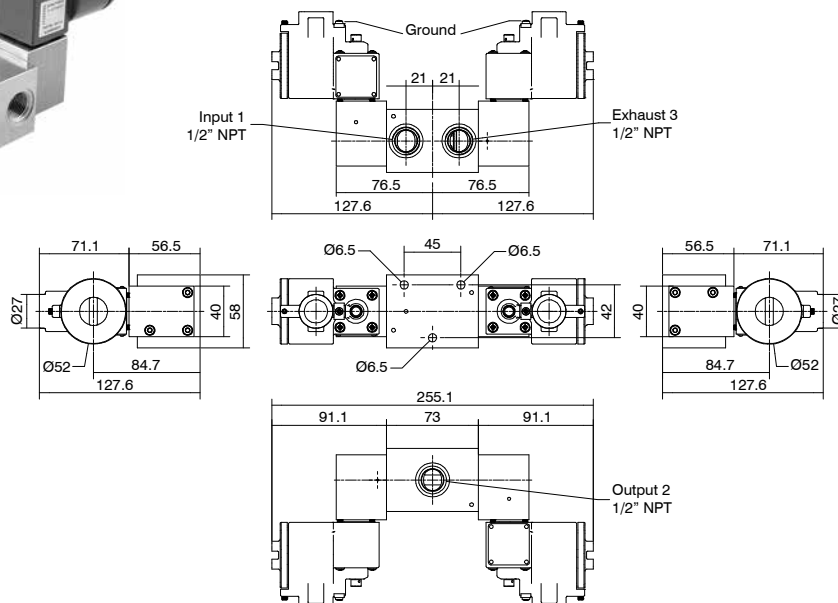
Minimum piloting pressure 3 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



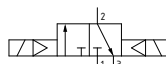
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	3500	1/2" NPT	2776	3,55	53,03

Solenoid-solenoid valve - (3/2)



Minimum piloting pressure 3 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	3500	1/2" NPT	3909	3,55	53,03

Ordering code

SS1232CA01L

TENSION

1= 24 V DC

① 2= 24 V AC (50/60 Hz)

3= 110 V AC (50/60 Hz)

4= 220 V AC (50/60 Hz)



Ordering code

SS1232CA01L

TENSION

1= 24 V DC

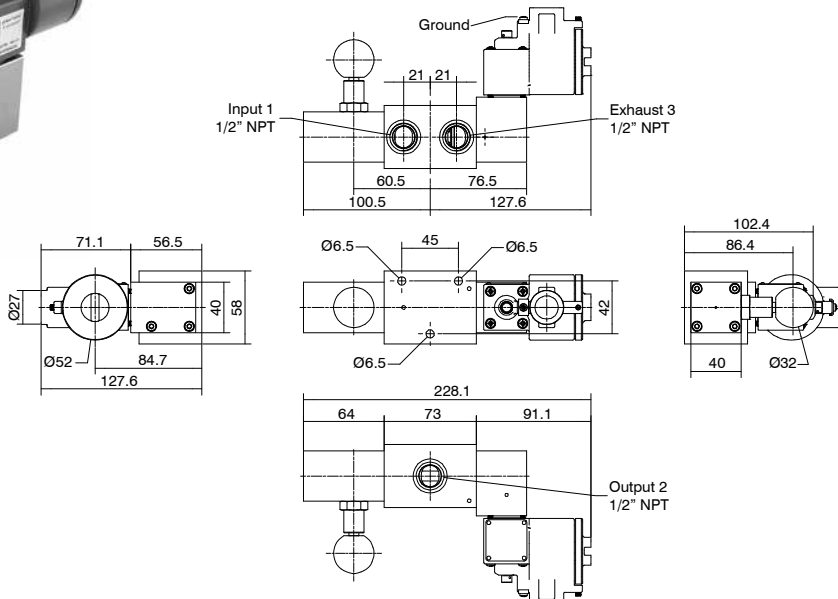
① 2= 24 V AC (50/60 Hz)

3= 110 V AC (50/60 Hz)

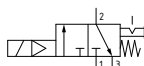
4= 220 V AC (50/60 Hz)



► Solenoid valve with self-locking manual reset - (3/2)



Minimum piloting pressure 3 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	3500	1/2" NPT	3358	3,55	53,03

Ordering code

SS1232CA14L

TENSION

1= 24 V DC

2= 24 V AC (50/60 Hz)

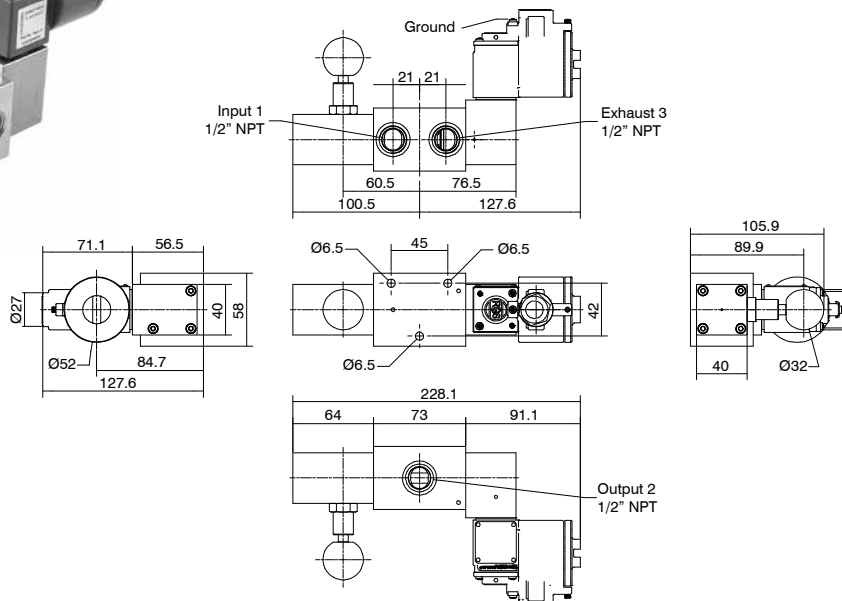
3= 110 V AC (50/60 Hz)

4= 220 V AC (50/60 Hz)

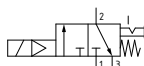


AIR DISTRIBUTION

► Solenoid valve with self-locking manual reset inverted - (3/2)



Minimum piloting pressure 3 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	3500	1/2" NPT	3360	3,55	53,03

Ordering code

SS1232CA15L

TENSION

1= 24 V DC

2= 24 V AC (50/60 Hz)

3= 110 V AC (50/60 Hz)

4= 220 V AC (50/60 Hz)

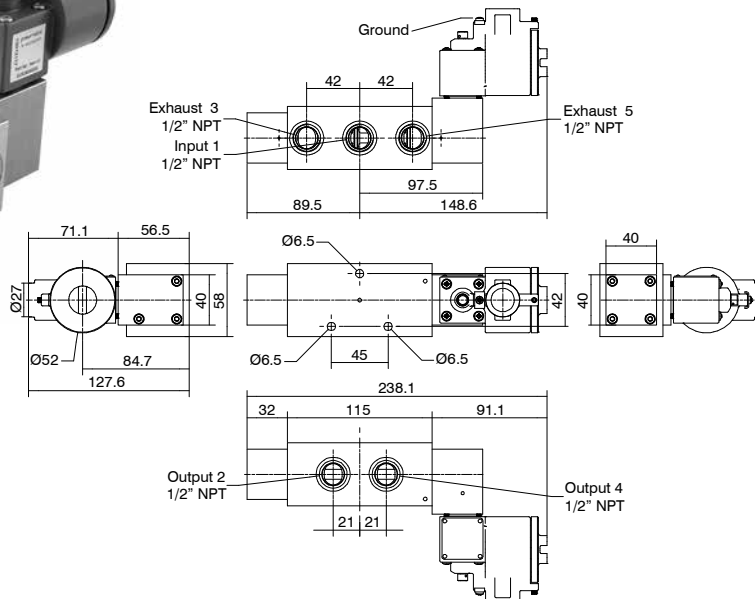
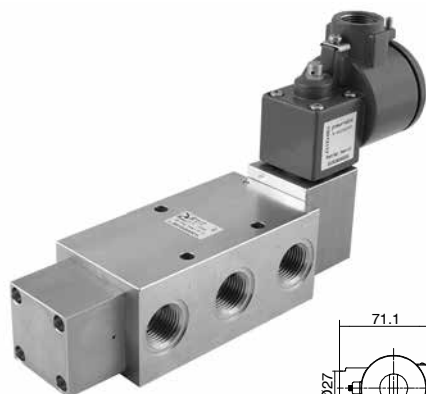




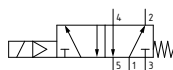
Spool type valves and solenoid valves (Steel Line) Series SL - CA (IP66) - 1/2" NPT WWW.SUMY.IR

AIR DISTRIBUTION

Solenoid-spring valve - (5/2)



Minimum piloting pressure 3 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (l/min)	Connections	Weight (g)	Cv	kv
10	3500	1/2" NPT	3679	3,55	53,03

Ordering code

SS12520A01L

TENSION

1= 24 V DC

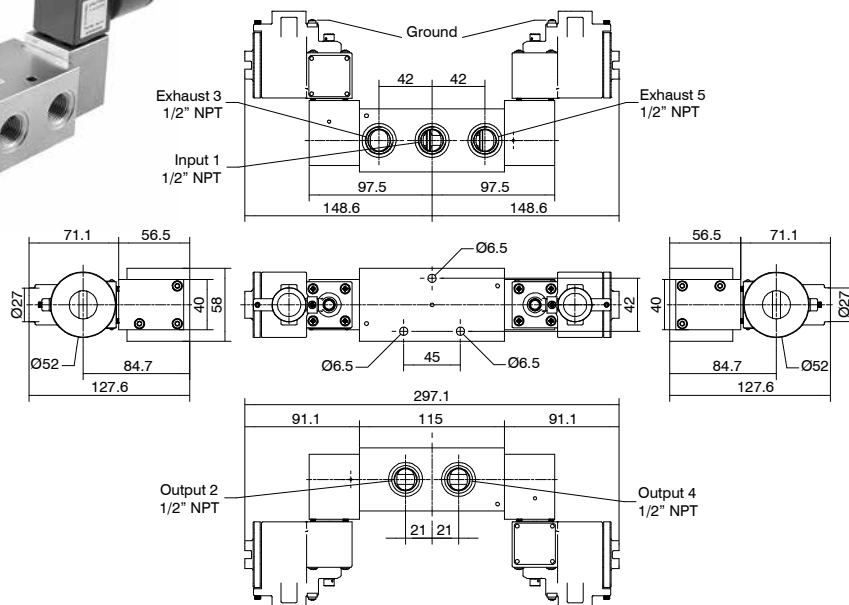
① 2= 24 V AC (50/60 Hz)

3= 110 V AC (50/60 Hz)

4= 220 V AC (50/60 Hz)



Solenoid-solenoid valve - (5/2)



Minimum piloting pressure 3 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (l/min)	Connections	Weight (g)	Cv	kv
10	3500	1/2" NPT	4678	3,55	53,03

Ordering code

SS12520A01L

TENSION

1= 24 V DC

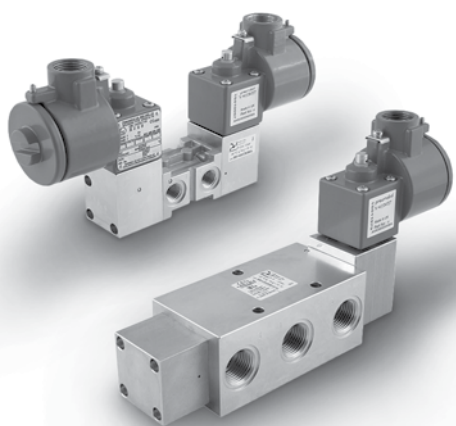
① 2= 24 V AC (50/60 Hz)

3= 110 V AC (50/60 Hz)

4= 220 V AC (50/60 Hz)



Series SL - CB (Exd)



- IP66 Exd Explosion protection (only solenoid coil)
- All external and internal parts are AISI 316L
- In compliance with NACE standard MR0175/ISO 15156
- 1/4" and 1/2" NPT connections
- Type: 3/2 and 5/2
- Suitable up to SIL 3
- Steel Line Range (SL)

Construction characteristics

Body	AISI 316L stainless steel
Operators	AISI 316L stainless steel
Spool	AISI 316L stainless steel
Spring	AISI 316 stainless steel
Screws	AISI 316 stainless steel (A4-70 stainless steel)
Seals	NBR for low temperatures FPM (Fluoroelastomer) (available on request)

Operational characteristics

Fluid	Filtered air. No lubrication needed, if applied it shall be continuous. Inert Gas. Sweet gas (natural).
Operating temperature for DC version	-50°C ... +70°C
Operating temperature for AC version	-50°C ... +55°C
Maximum operating pressure	10 bar

Electrical (Electropilot) construction characteristics

Housing	304 stainless steel with epoxy paint
Armour / Cores	Ferromagnetic stainless steel
Springs	Stainless steel
Seals	FPM (Fluoroelastomer)
Incorporation	PBT 30% glass load
Wire insulation	H
Nominal voltage	24 V DC 24, 110, 220/240 V AC
Power consumption DC	3W
Power consumption AC	10VA (Inrush), 5VA (Running)
Connection for cable entry	M20x1.5 (1/2" NPT available on request)
Electrical connection	Screw terminals 2 Poles 2.5 mm
IP Rating	IP66
Tolerance on voltage supply	±10%
ED continuous service	100%

Certifications available:

ATEX: II 2G Ex h IIC T6...T3 Gb X; II 2D Ex h IIIC T85°C...T200°C Db X

SIL: Suitable up to SIL 3

IECEX: International certification for explosive atmospheres

Coil marking: II 2G Ex db IIC T6...T3 Gb; II 2D Ex tb IIIC T85°C...T200°C Db

CCC: China Compulsory Certificate

ATEX and SIL: refer to products in the various sections to the catalogues.

IECEX and CCC: refer to Pneumatrol pilots installed upon each valve.

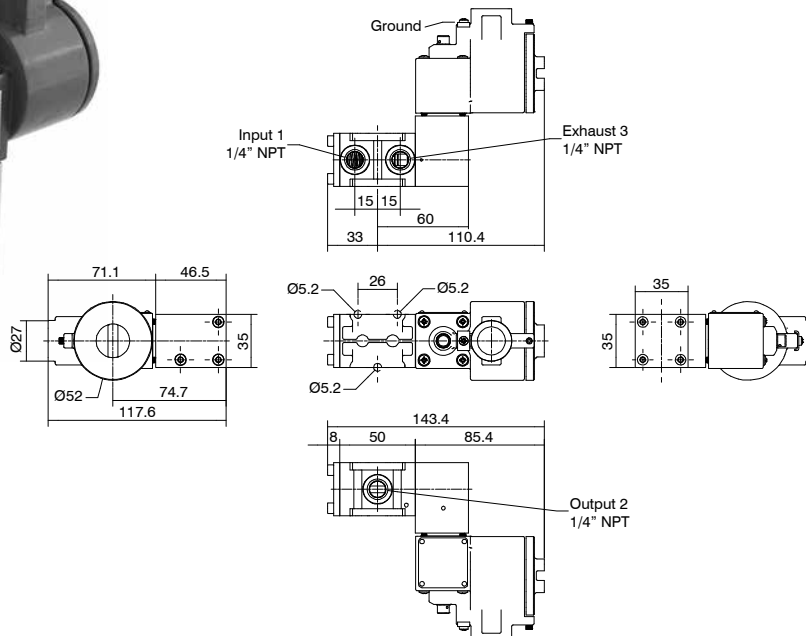


Spool type valves and solenoid valves (Steel Line) Series SL - CB (Exd) - 1/4" NPT

WWW.SUMY.IR

AIR DISTRIBUTION

Solenoid-spring valve - (3/2)



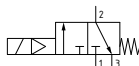
Minimum piloting pressure 2,5 bar

Fluid:

Filtered air. No lubrication needed, if applied it shall be continuous.

Inert Gas.

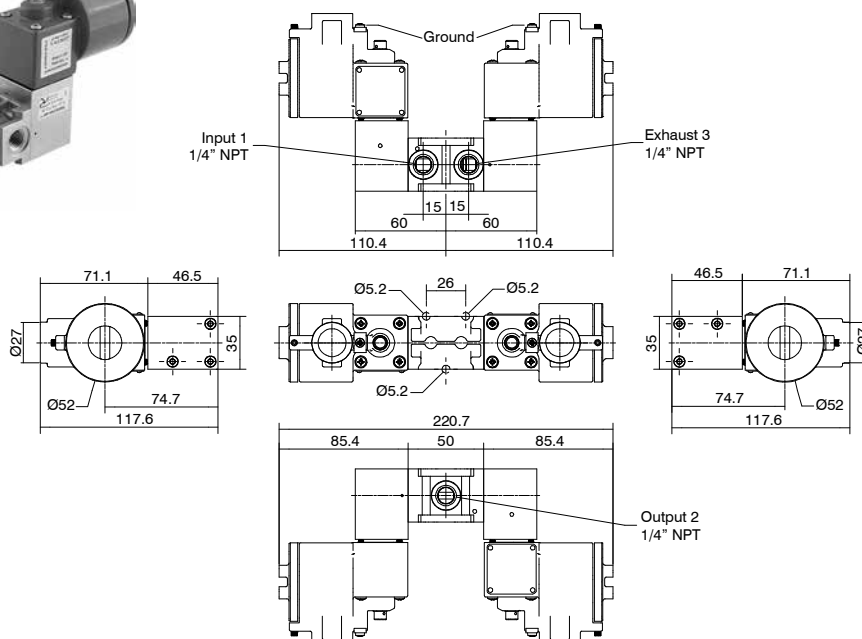
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	1500	1,02	15,15

Solenoid-solenoid valve - (3/2)



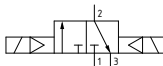
Minimum piloting pressure 2,5 bar

Fluid:

Filtered air. No lubrication needed, if applied it shall be continuous.

Inert Gas.

Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	2600	1,02	15,15

Ordering code

SS1432CB01L

TENSION

1= 24 V DC

2= 24 V AC (50/60 Hz)

3= 110 V AC (50/60 Hz)

4= 240 V AC (50/60 Hz)



Ordering code

SS1432CB01L

TENSION

1= 24 V DC

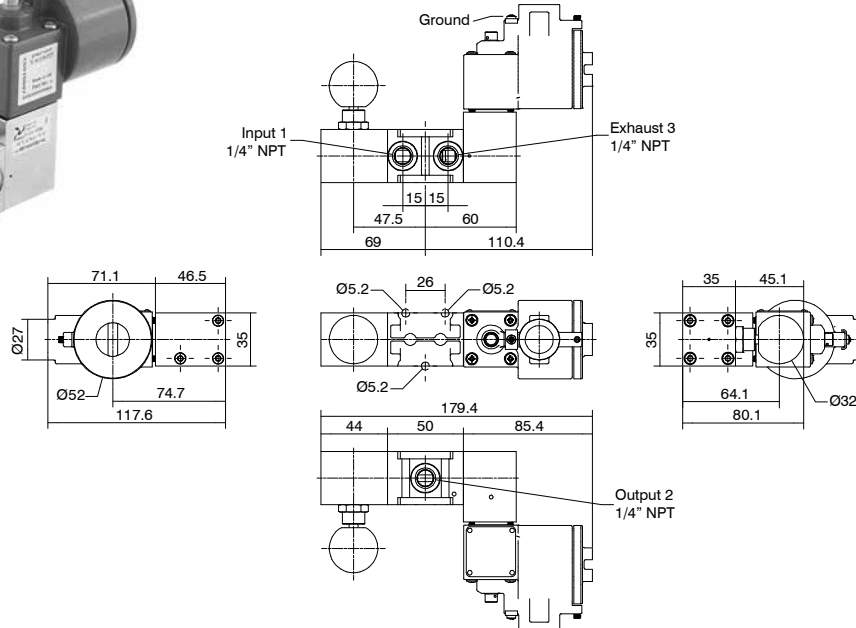
2= 24 V AC (50/60 Hz)

3= 110 V AC (50/60 Hz)

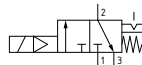
4= 240 V AC (50/60 Hz)



► Solenoid valve with self-locking manual reset - (3/2)



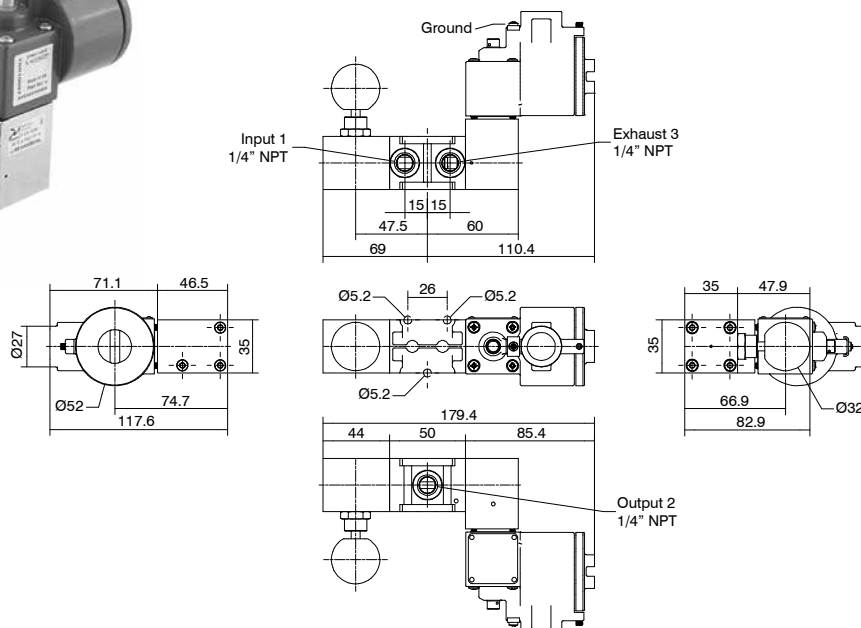
Minimum piloting pressure 2,5 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



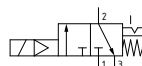
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	1850	1,02	15,15

► Solenoid valve with self-locking manual reset inverted - (3/2)



Minimum piloting pressure 2,5 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	1850	1,02	15,15

Ordering code

SS1432CB114L

TENSION

- 1 = 24 V DC
- 2 = 24 V AC (50/60 Hz)
- 3 = 110 V AC (50/60 Hz)
- 4 = 240 V AC (50/60 Hz)



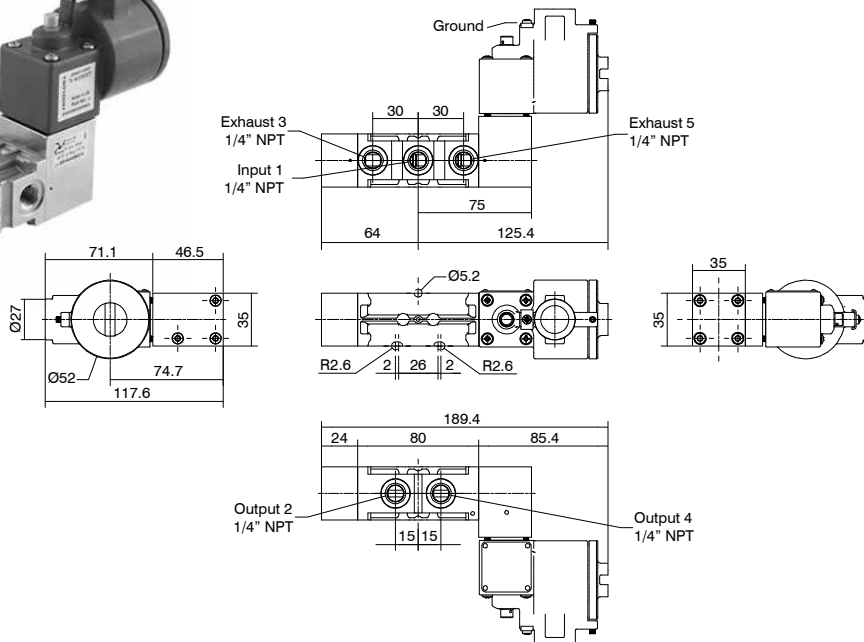
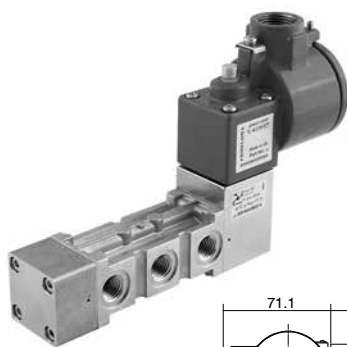
AIR DISTRIBUTION



Spool type valves and solenoid valves (Steel Line) Series SL - CB (Exd) - 1/4" NPT

WWW.SUMY.IR

Solenoid-spring valve - (5/2)



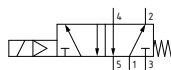
Minimum piloting pressure 2,5 bar

Fluid:

Filtered air. No lubrication needed, if applied it shall be continuous.

Inert Gas.

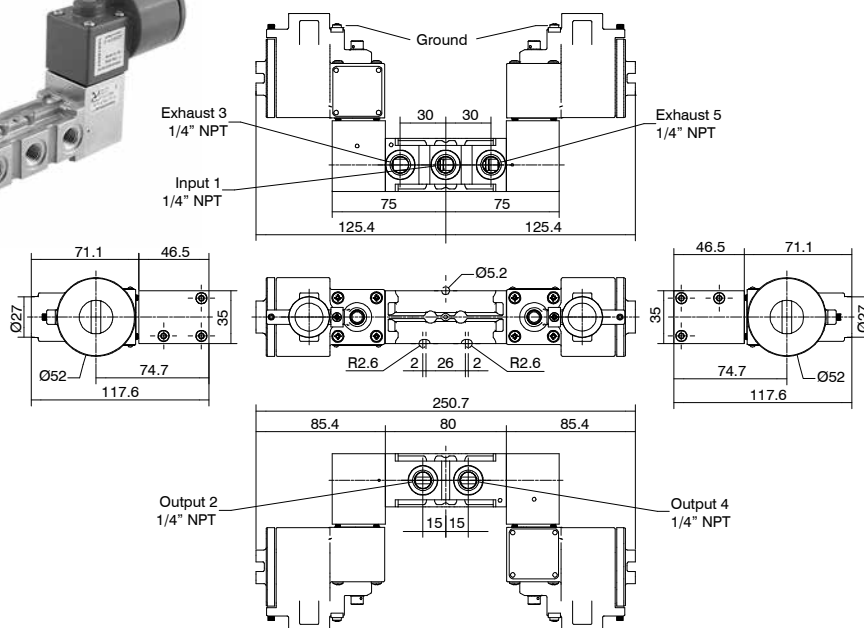
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	1800	1,02	15,15

Solenoid-solenoid valve - (5/2)



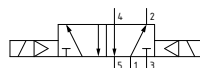
Minimum piloting pressure 2,5 bar

Fluid:

Filtered air. No lubrication needed, if applied it shall be continuous.

Inert Gas.

Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	2750	1,02	15,15

Ordering code

SS14520B01L

TENSION

1= 24 V DC

① 2= 24 V AC (50/60 Hz)

3= 110 V AC (50/60 Hz)

4= 240 V AC (50/60 Hz)



Ordering code

SS14520B01L

TENSION

1= 24 V DC

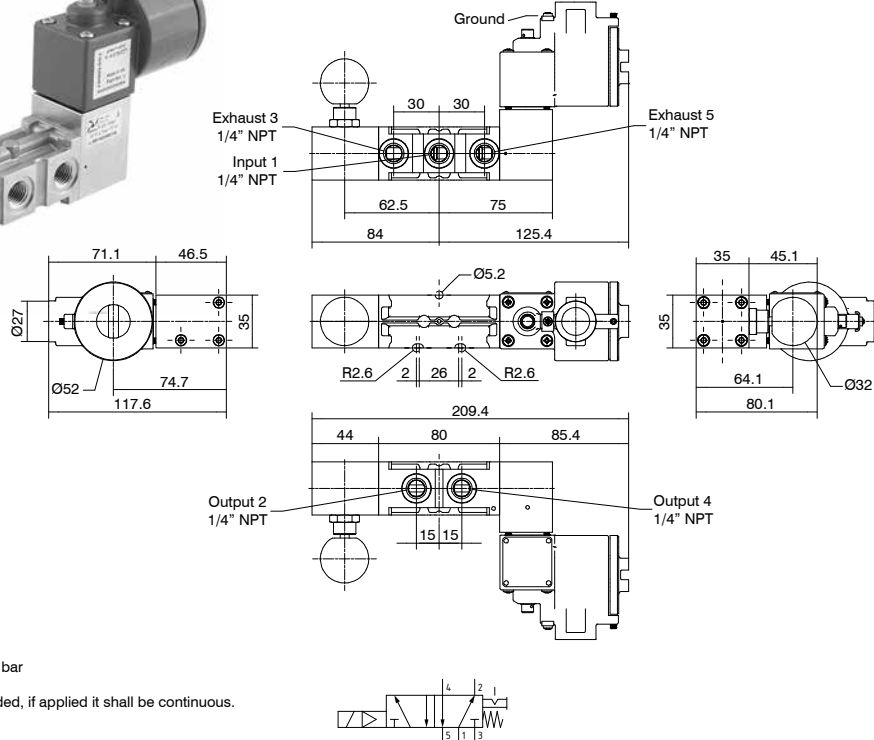
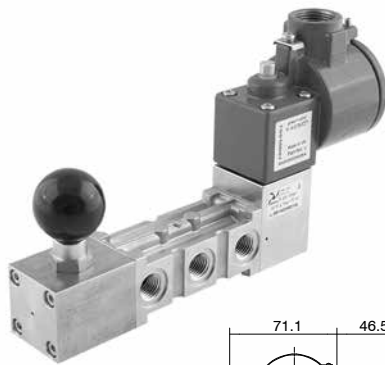
① 2= 24 V AC (50/60 Hz)

3= 110 V AC (50/60 Hz)

4= 240 V AC (50/60 Hz)



► Solenoid valve with self-locking manual reset - (5/2)

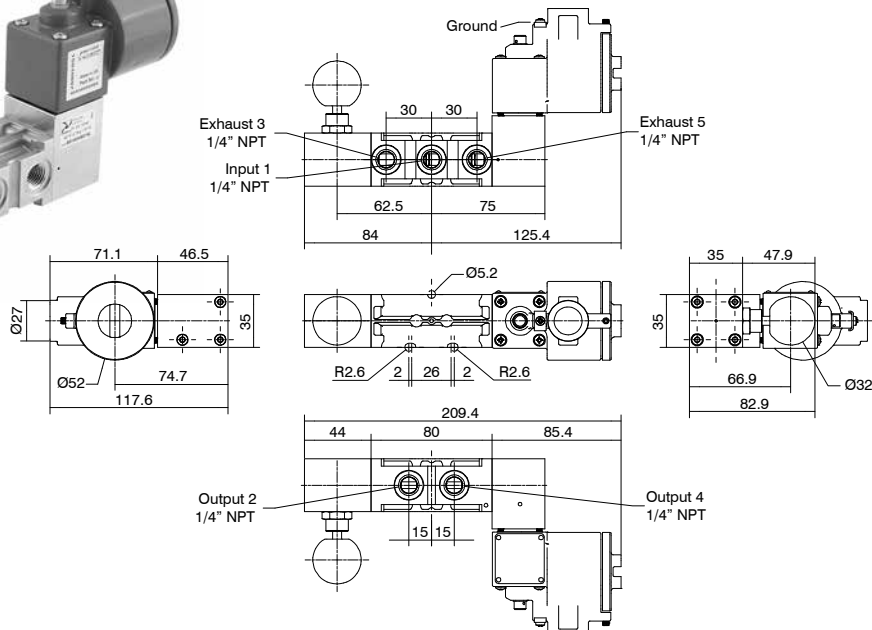
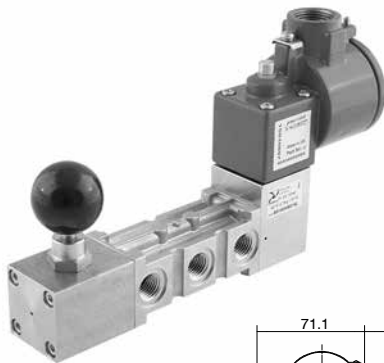


Minimum piloting pressure 2,5 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).

Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	2000	1,02	15,15

► Solenoid valve with self-locking manual reset inverted - (5/2)



Minimum piloting pressure 2,5 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).

Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	2000	1,02	15,15

Ordering code

SS14520B14L

TENSION

1 = 24 V DC

2 = 24 V AC (50/60 Hz)

3 = 110 V AC (50/60 Hz)

4 = 240 V AC (50/60 Hz)



AIR DISTRIBUTION

Ordering code

SS14520B15L

TENSION

1 = 24 V DC

2 = 24 V AC (50/60 Hz)

3 = 110 V AC (50/60 Hz)

4 = 240 V AC (50/60 Hz)



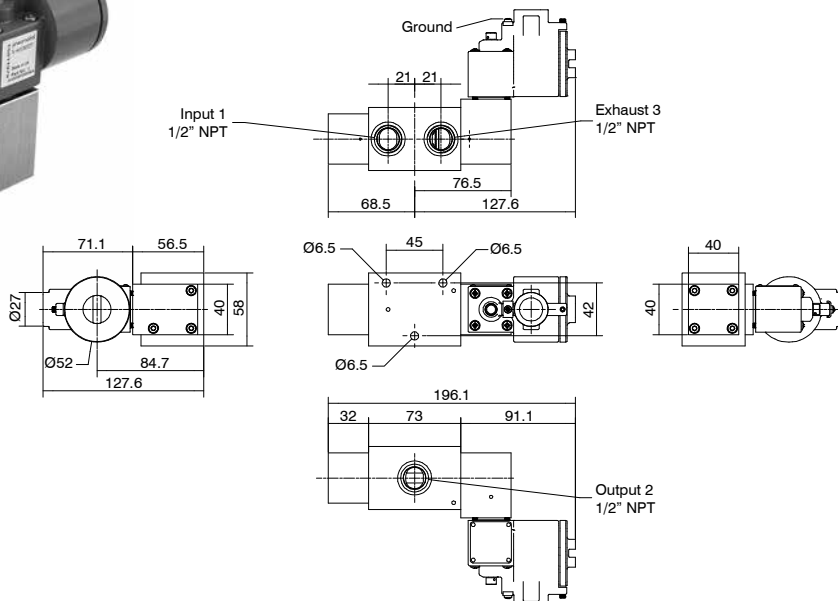


Spool type valves and solenoid valves (Steel Line) Series SL - CB (Exd) - 1/2" NPT

WWW.SUMY.IR

AIR DISTRIBUTION

Solenoid-spring valve - (3/2)



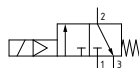
Minimum piloting pressure 3 bar

Fluid:

Filtered air. No lubrication needed, if applied it shall be continuous.

Inert Gas.

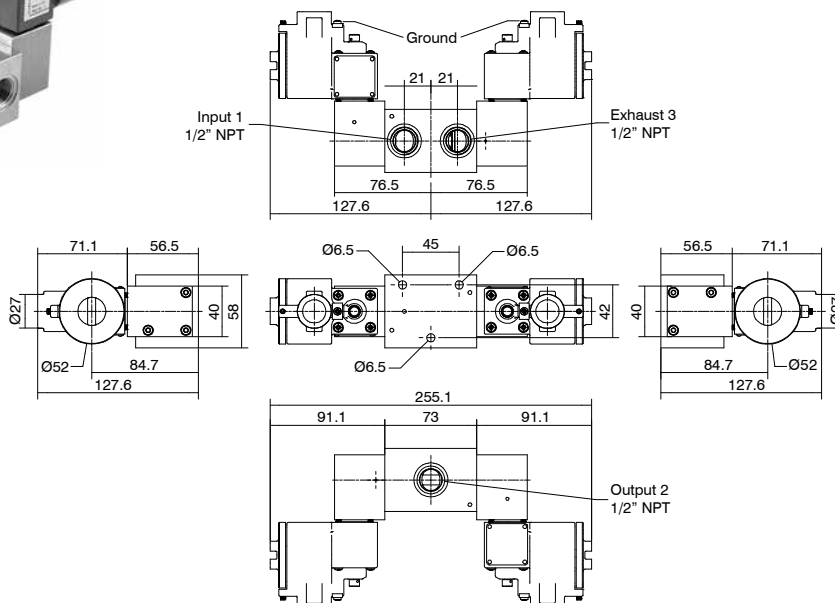
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	3500	1/2" NPT	2776	3,55	53,03

Solenoid-solenoid valve - (3/2)



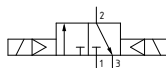
Minimum piloting pressure 3 bar

Fluid:

Filtered air. No lubrication needed, if applied it shall be continuous.

Inert Gas.

Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	3500	1/2" NPT	3909	3,55	53,03

Ordering code

SS1232CB01L

TENSION

1= 24 V DC

① 2= 24 V AC (50/60 Hz)

3= 110 V AC (50/60 Hz)

4= 240 V AC (50/60 Hz)



Ordering code

SS1232CB01L

TENSION

1= 24 V DC

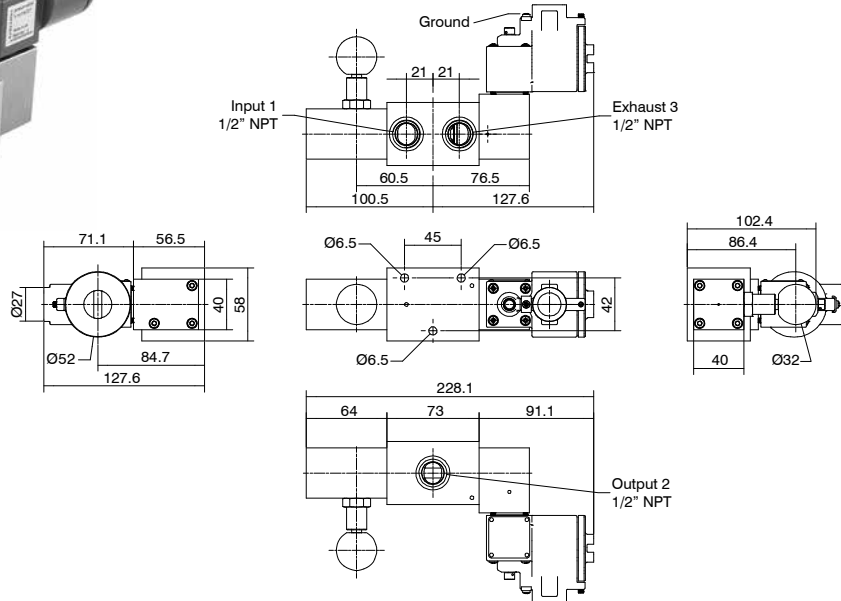
① 2= 24 V AC (50/60 Hz)

3= 110 V AC (50/60 Hz)

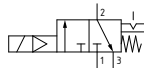
4= 240 V AC (50/60 Hz)



► Solenoid valve with self-locking manual reset - (3/2)



Minimum piloting pressure 3 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	3500	1/2" NPT	3358	3,55	53,03

Ordering code

SS1232CB114L

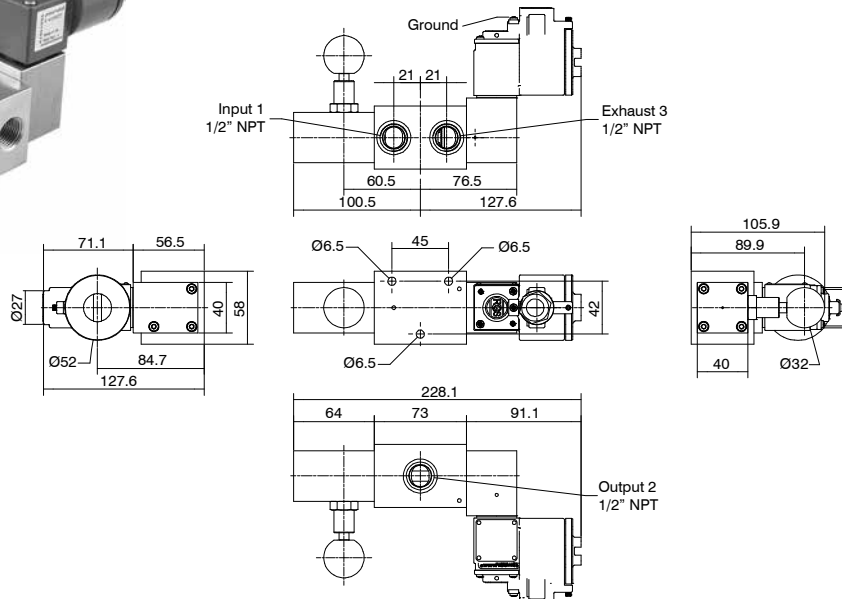
TENSION

- 1 = 24 V DC
- 2 = 24 V AC (50/60 Hz)
- 3 = 110 V AC (50/60 Hz)
- 4 = 240 V AC (50/60 Hz)

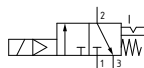


AIR DISTRIBUTION

► Solenoid valve with self-locking manual reset inverted - (3/2)



Minimum piloting pressure 3 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	3500	1/2" NPT	3360	3,55	53,03

Ordering code

SS1232CB115L

TENSION

- 1 = 24 V DC
- 2 = 24 V AC (50/60 Hz)
- 3 = 110 V AC (50/60 Hz)
- 4 = 240 V AC (50/60 Hz)



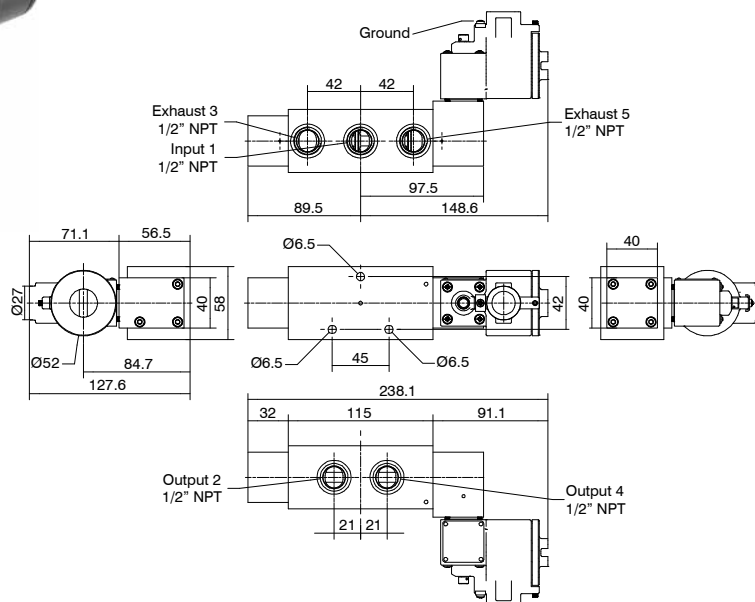


Spool type valves and solenoid valves (Steel Line) Series SL - CB (Exd) - 1/2" NPT

WWW.SUMY.IR

AIR DISTRIBUTION

Solenoid-spring valve - (5/2)



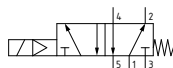
Minimum piloting pressure 3 bar

Fluid:

Filtered air. No lubrication needed, if applied it shall be continuous.

Inert Gas.

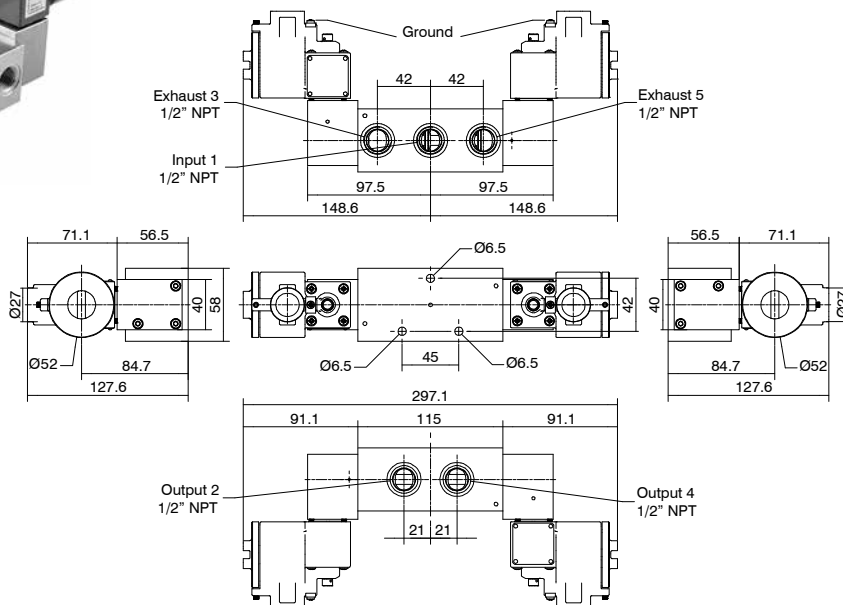
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	3500	1/2" NPT	3679	3,55	53,03

Solenoid-solenoid valve - (5/2)



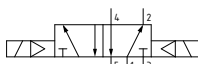
Minimum piloting pressure 3 bar

Fluid:

Filtered air. No lubrication needed, if applied it shall be continuous.

Inert Gas.

Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	3500	1/2" NPT	4678	3,55	53,03

Ordering code

SS12520B01L

TENSION

1= 24 V DC

① 2= 24 V AC (50/60 Hz)

3= 110 V AC (50/60 Hz)

4= 240 V AC (50/60 Hz)



Ordering code

SS12520B01L

TENSION

1= 24 V DC

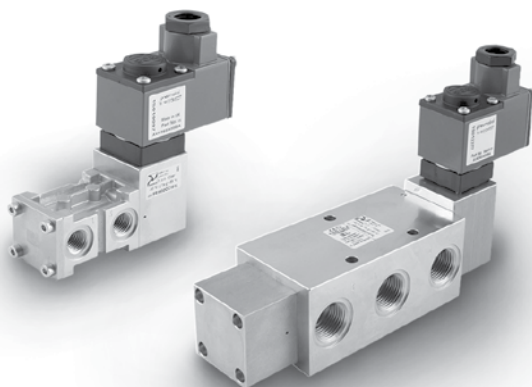
① 2= 24 V AC (50/60 Hz)

3= 110 V AC (50/60 Hz)

4= 240 V AC (50/60 Hz)



Series SL - CC (Exi IP65)



- Intrinsically safe Exia (only solenoid coil)
- All external and internal parts are AISI 316L
- In compliance with NACE standard MR0175/ISO 15156
- 1/4" and 1/2" NPT connections
- Type: 3/2 and 5/2
- Suitable up to SIL 3
- Steel Line Range (SL)

Construction characteristics

Body	AISI 316L stainless steel
Operators	AISI 316L stainless steel
Spool	AISI 316L stainless steel
Spring	AISI 316 stainless steel
Screws	AISI 316 stainless steel (A4-70 stainless steel)
Seals	NBR for low temperatures FPM (Fluoroelastomer) (available on request)

Operational characteristics

Fluid	Filtered air. No lubrication needed, if applied it shall be continuous. Inert Gas. Sweet gas (natural).
Maximum operating pressure	10 bar
Operating temperature	-40°C ... +65°C

Note: The suitable operating temperature is limited by the most restrictive component, which is the pilot, regardless of the type of seals used in the valve spool.

Electrical (Electropilot) construction characteristics

Housing	Zinc alloy with epoxy paint
Armour / Cores	Ferromagnetic stainless steel
Springs	Stainless steel
Seals	FPM (Fluoroelastomer)
Incorporation	PBT 30% glass load
Wire insulation	H
Guide tube	Stainless steel
Resistance	370 Ohms
Nominal voltage	24 V DC
Power consumption DC	0,4 W (Running)
Connection for cable entry	M20x1.5
Electrical connection	Screw terminals 2 Poles 2.5 mm
IP Rating	IP65
Tolerance on voltage supply	±10%
ED continuous service	100%

Electrical specifications for intrinsically safe

U _{max} : in	31 V DC
I _{max} :	0,67 A
W _{max} : in	2,98 W

Certifications available:

ATEX: II 2G Ex h IIC T6...T4 Gb X; II 2D Ex h IIIB T135°C Db X

SIL: Suitable up to SIL 3

IECEx: International certification for explosive atmospheres

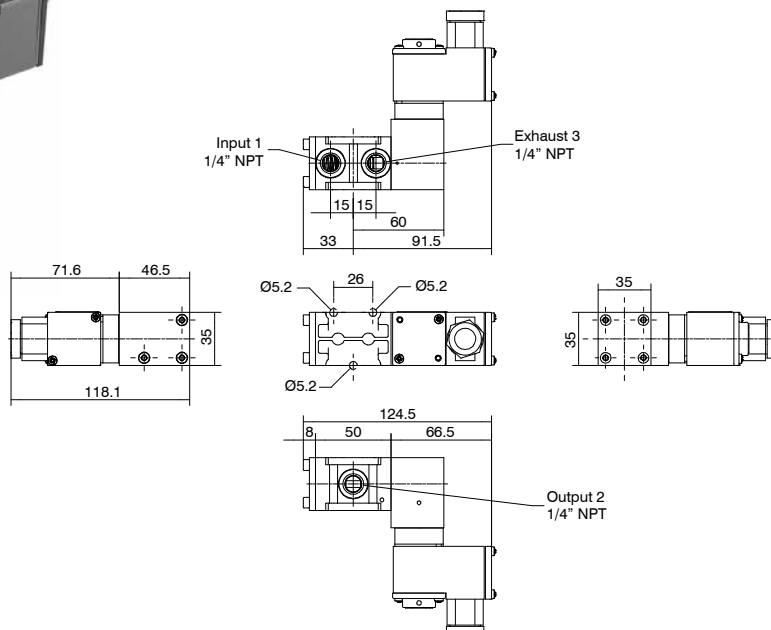
Coil marking: II 1G Ex ia IIC T6...T5 Ga; II 1D Ex ia IIIB T135°C T₅₀₀ 175°C Da

ATEX and SIL: refer to products in the various sections to the catalogues.

IECEx: refer to Pneumatrol pilots installed upon each valve.

FM Approval: available on request on Pneumatrol pilots

Solenoid-spring valve - (3/2)



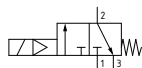
Minimum piloting pressure 2,5 bar

Fluid:

Filtered air. No lubrication needed, if applied it shall be continuous.

Inert Gas.

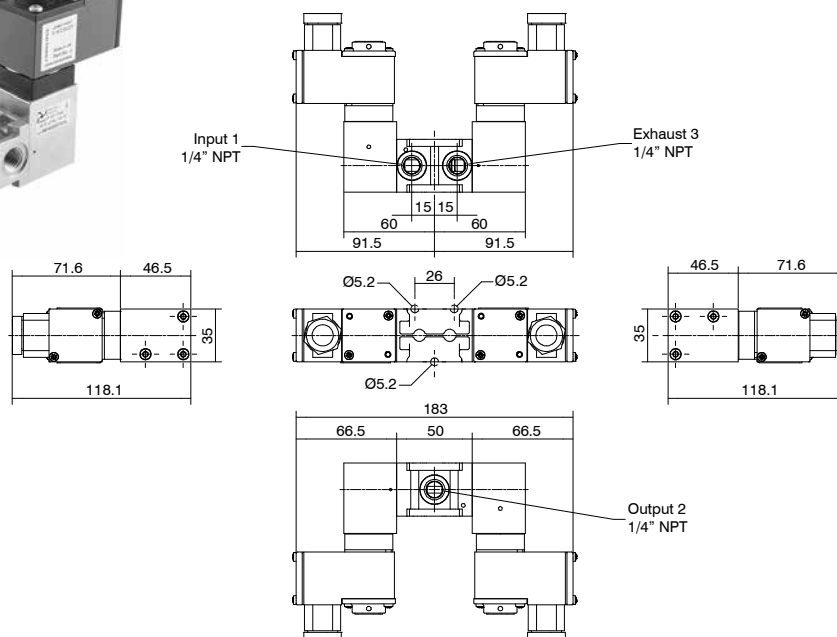
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	1200	1,02	15,15

Solenoid-solenoid valve - (3/2)



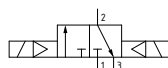
Minimum piloting pressure 2,5 bar

Fluid:

Filtered air. No lubrication needed, if applied it shall be continuous.

Inert Gas.

Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	2300	1,02	15,15

Ordering code

SS1432CC001L

TENSION

1 = 24 V DC 33 mA



Ordering code

SS1432CC001L

TENSION

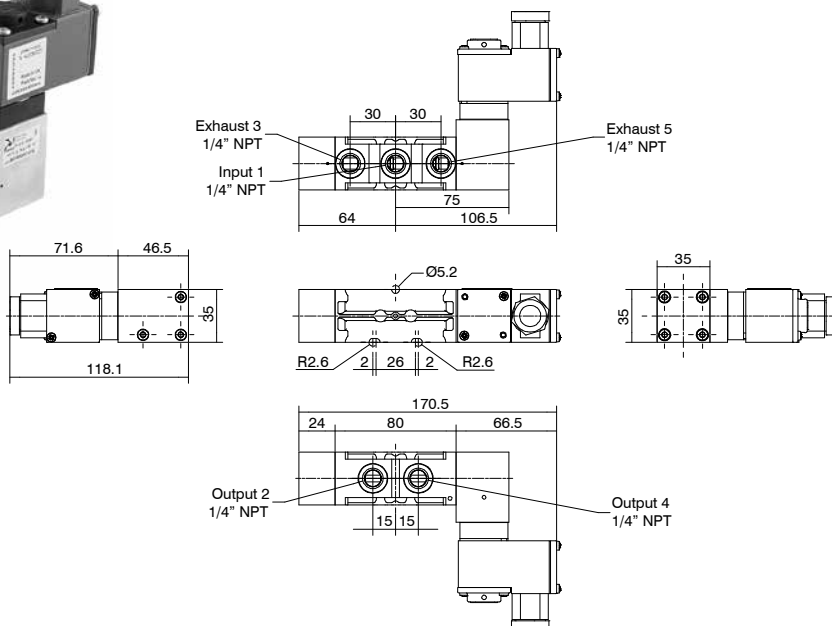
1 = 24 V DC 33 mA



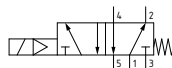


Spool type valves and solenoid valves (Steel Line)
Series SL - CC (Exi IP65) - 1/4" NPT
 WWW.SUMY.IR

Solenoid-spring valve - (5/2)



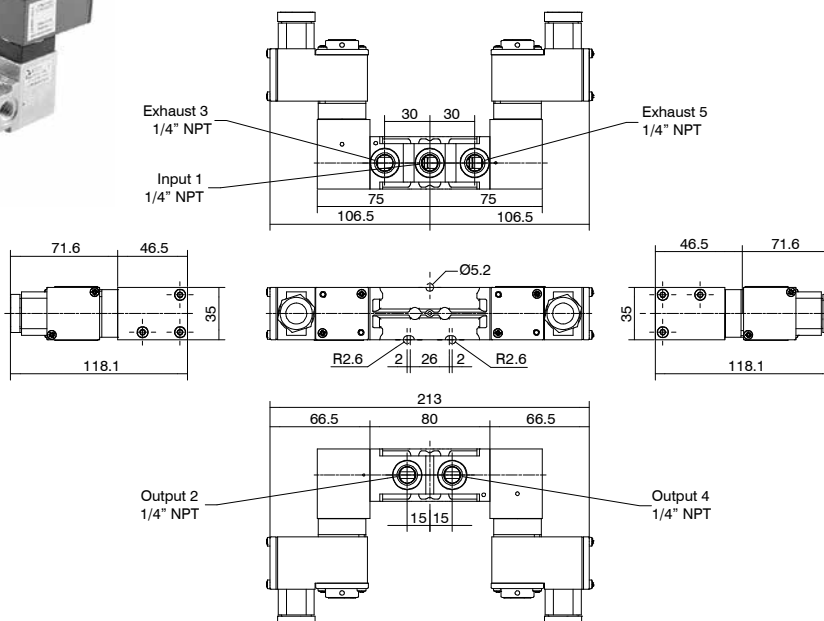
Minimum piloting pressure 2,5 bar
 Fluid:
 Filtered air. No lubrication needed, if applied it shall be continuous.
 Inert Gas.
 Sweet gas (natural).



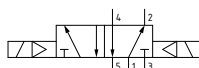
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	1500	1,02	15,15

Solenoid-solenoid valve - (5/2)



Minimum piloting pressure 2,5 bar
 Fluid:
 Filtered air. No lubrication needed, if applied it shall be continuous.
 Inert Gas.
 Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	2150	1,02	15,15

Ordering code

SS14520C01L

TENSION

1= 24 V DC 33 mA



Ordering code

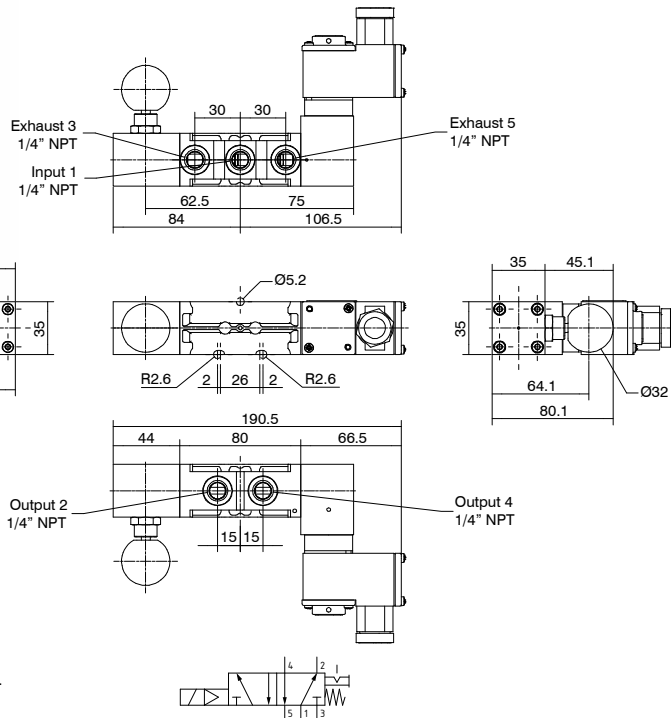
SS14520C01L

TENSION

1= 24 V DC 33 mA



Solenoid valve with self-locking manual reset - (5/2)

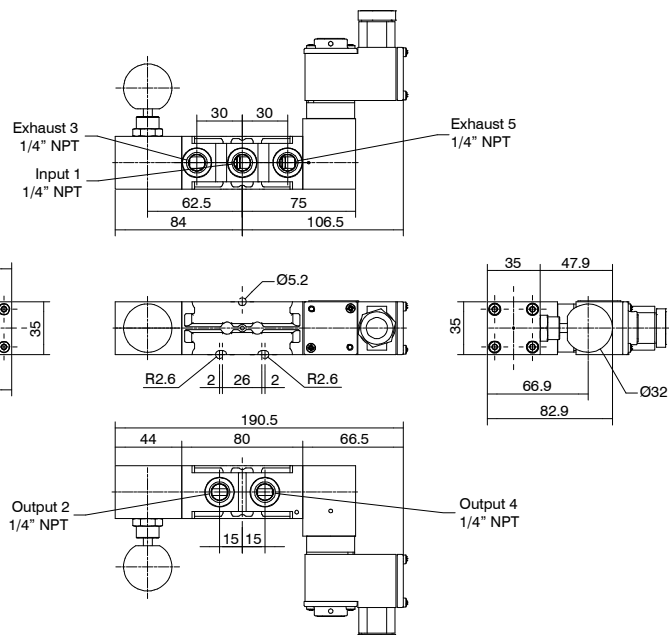


Minimum piloting pressure 2,5 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).

Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	1700	1,02	15,15

Solenoid valve with self-locking manual reset inverted - (5/2)



Minimum piloting pressure 2,5 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).

Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	1700	1,02	15,15

Ordering code

SS14520C114L

TENSION

1 = 24 V DC 33 mA

Ordering code

SS14520C115L

TENSION

1 = 24 V DC 33 mA



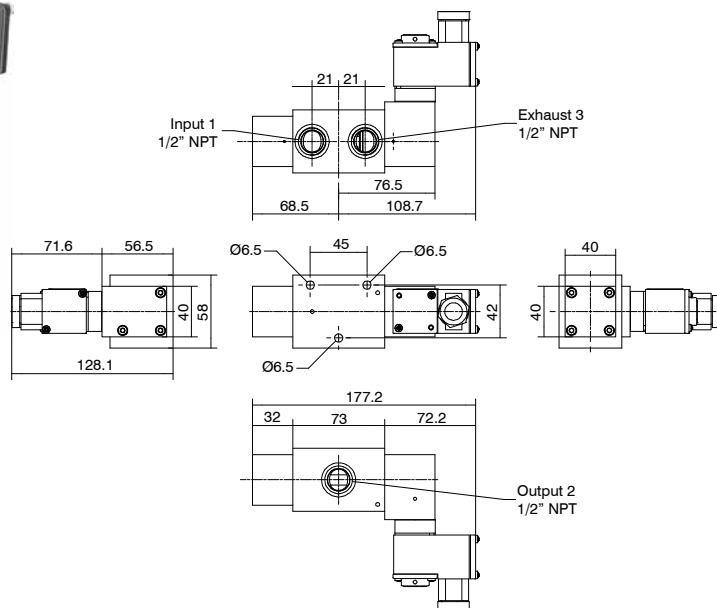
Spool type valves and solenoid valves (Steel Line)

Series SL - CC (Exi IP65) - 1/2" NPT

WWW.SUMY.IR

AIR DISTRIBUTION

Solenoid-spring valve - (3/2)



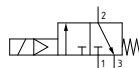
Minimum piloting pressure 3 bar

Fluid:

Filtered air. No lubrication needed, if applied it shall be continuous.

Inert Gas.

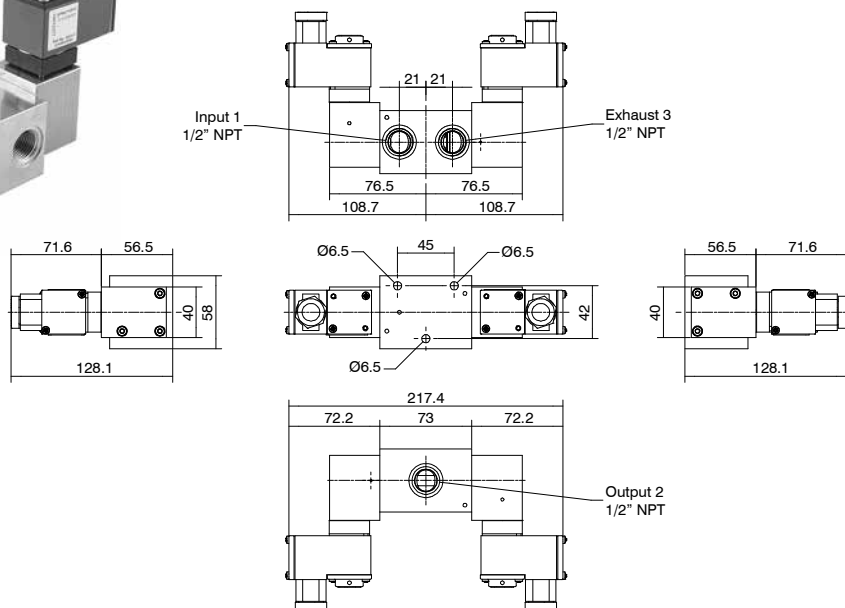
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Connections	Weight (g)	Cv	kv
10	3500	1/2" NPT	2437	3,55	53,03

Solenoid-solenoid valve - (3/2)



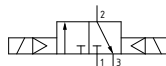
Minimum piloting pressure 3 bar

Fluid:

Filtered air. No lubrication needed, if applied it shall be continuous.

Inert Gas.

Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Connections	Weight (g)	Cv	kv
10	3500	1/2" NPT	3228	3,55	53,03

Ordering code

SS1232CC^T01L

TENSION

1 = 24 V DC 33 mA



Ordering code

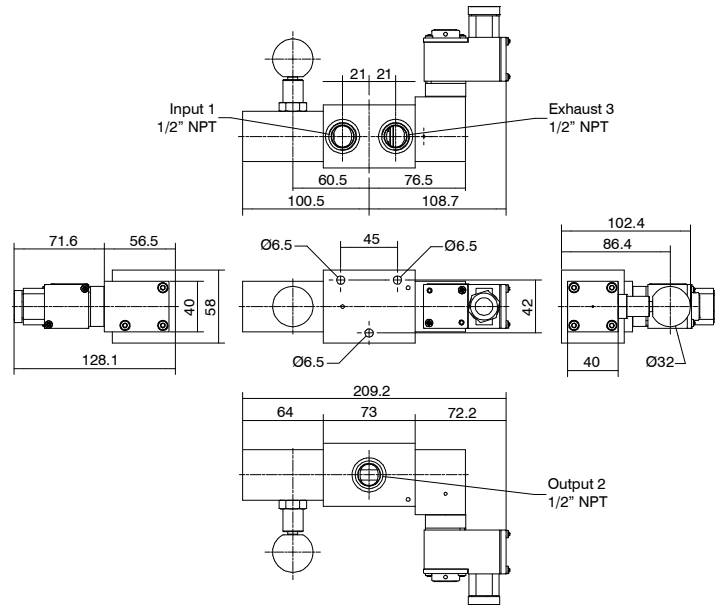
SS1232CC^TCTL

TENSION

1 = 24 V DC 33 mA

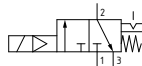


► Solenoid valve with self-locking manual reset - (3/2)



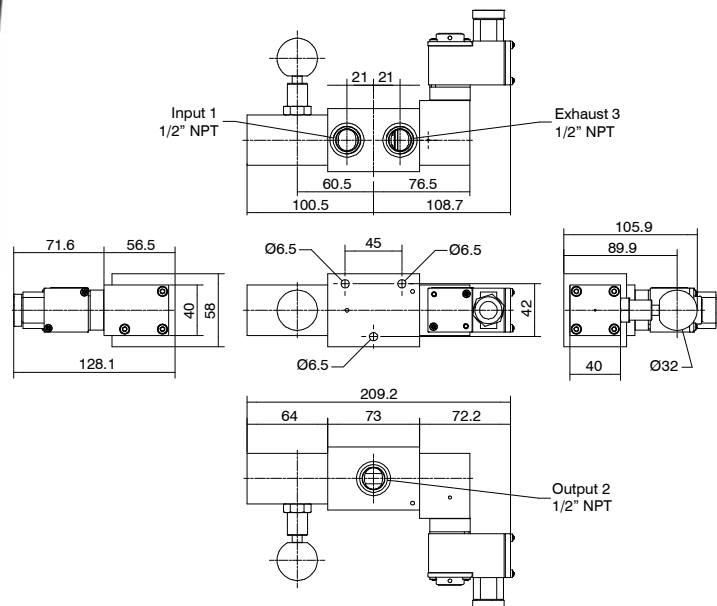
Ordering code	
SS1232CC14L	
TENSION	
T	1 = 24 V DC 33 mA

Minimum piloting pressure 3 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



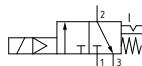
Operational characteristics					
Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	3500	1/2" NPT	3020	3,55	53,03

► Solenoid valve with self-locking manual reset inverted - (3/2)



Ordering code	
SS1232CC15L	
TENSION	
T	1 = 24 V DC 33 mA

Minimum piloting pressure 3 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



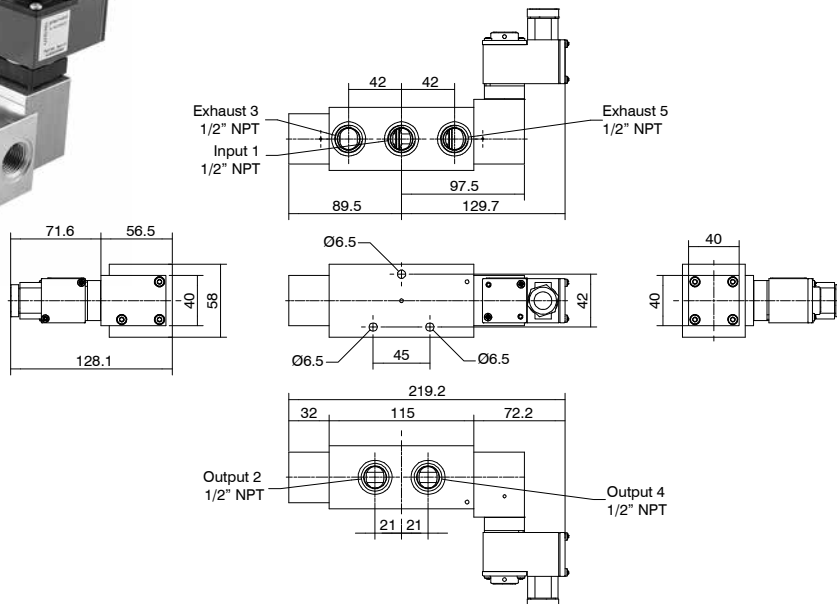
Operational characteristics					
Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	3500	1/2" NPT	3015	3,55	53,03



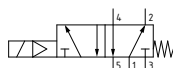
Spool type valves and solenoid valves (Steel Line) Series SL - CC (Exi IP65) - 1/2" NPT WWW.SUMY.IR

AIR DISTRIBUTION

Solenoid-spring valve - (5/2)



Minimum piloting pressure 3 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (l/min)	Connections	Weight (g)	Cv	kv
10	3500	1/2" NPT	3349	3,55	53,03

Ordering code

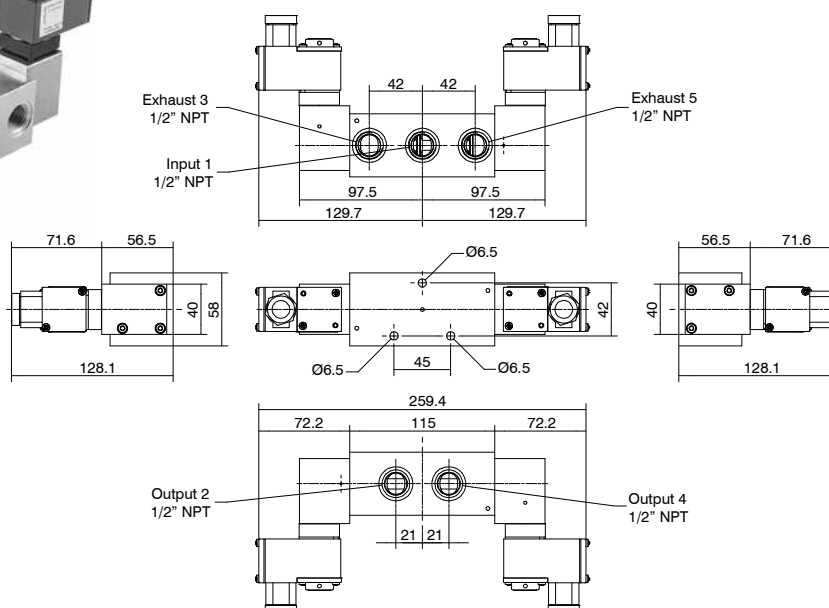
SS12520C01L

TENSION

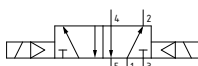
1= 24 V DC 33 mA



Solenoid-solenoid valve - (5/2)



Minimum piloting pressure 3 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (l/min)	Connections	Weight (g)	Cv	kv
10	3500	1/2" NPT	3749	3,55	53,03

Ordering code

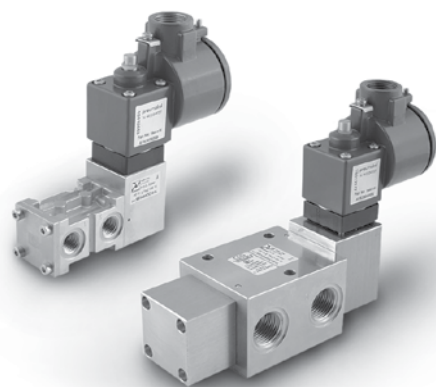
SS12520C01L

TENSION

1= 24 V DC 33 mA



Series SL - CM (Exi IP66)



- Intrinsically safe Exia with IP66 steel housing (only solenoid coil)
- All external and internal parts are AISI 316L
- In compliance with NACE standard MR0175/ISO 15156
- 1/4" and 1/2" NPT connections
- Type: 3/2 and 5/2
- Suitable up to SIL 3
- Steel Line Range (SL)

Construction characteristics

Body	AISI 316L stainless steel
Operators	AISI 316L stainless steel
Spool	AISI 316L stainless steel
Spring	AISI 316 stainless steel
Screws	AISI 316 stainless steel (A4-70 stainless steel)
Seals	NBR for low temperatures FPM (Fluoroelastomer) (available on request)

Operating range

Fluid	Filtered air. No lubrication needed, if applied it shall be continuous. Inert Gas. Sweet gas (natural).
Maximum operating pressure	10 bar
Operating temperature	-40°C ... +65°C

Note: The suitable operating temperature is limited by the most restrictive component, which is the pilot, regardless of the type of seals used in the valve spool.

Electrical (Electropilot) construction characteristics

Housing	304 stainless steel with epoxy paint
Armour / Cores	Ferromagnetic stainless steel
Springs	Stainless steel
Seals	FPM (Fluoroelastomer)
Incorporation	PBT 30% glass load
Wire insulation	H
Guide tube	Stainless steel
Resistance	370 Ohms
Nominal voltage	24 V DC
Power consumption DC	0,4 W (Inrush)
Connection for cable entry	M20x1.5
Electrical connection	Screw terminals 2 Poles 2.5 mm
IP Rating	IP66
Tolerance on voltage supply	±10%
ED continuous service	100%

Electrical specifications for intrinsically safe

U _{max} : in	31 V DC
I _{max} :	0,67 A
W _{max} : in	2,98 W

Certifications available:

ATEX: II 2G Ex h IIC T6...T4 Gb X; II 2D Ex h IIIB T135°C Db X

SIL: Suitable up to SIL 3

IECEX: International certification for explosive atmospheres

CCC: China Compulsory Certificate

Coil marking: II 1G Ex ia IIC T6...T5 Ga; II 1D Ex ia IIIB T135°C T₅₀₀ 175°C Da

ATEX and SIL: refer to products in the various sections to the catalogues.

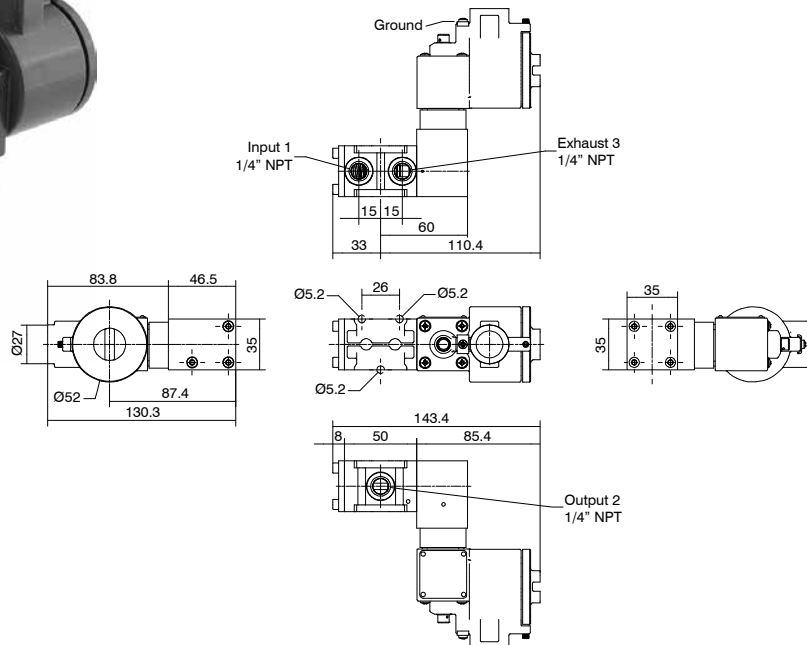
IECEX and CCC: refer to Pneumatrol pilots installed upon each valve.



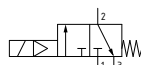
Spool type valves and solenoid valves (Steel Line) Series SL - CM (Exi IP66) - 1/4" NPT WWW.SUMY.IR

AIR DISTRIBUTION

Solenoid-spring valve - (3/2)



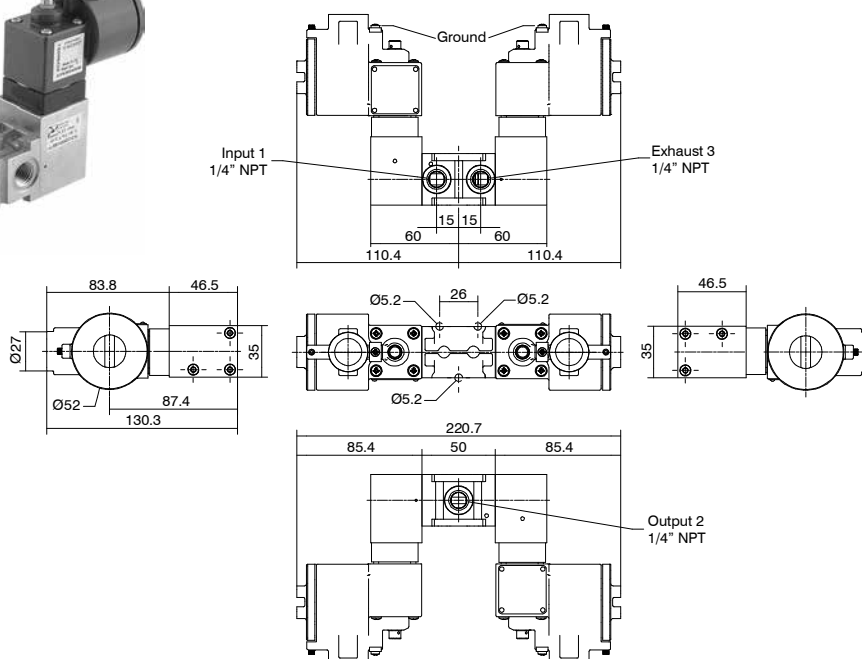
Minimum piloting pressure 2,5 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



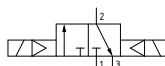
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	1500	1,02	15,15

Solenoid-solenoid valve - (3/2)



Minimum piloting pressure 2,5 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	2600	1,02	15,15

Ordering code

SS1432CM101L



Ordering code

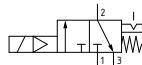
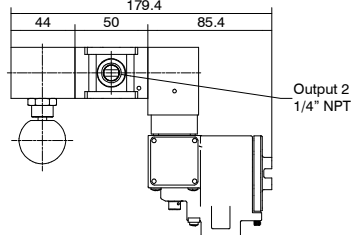
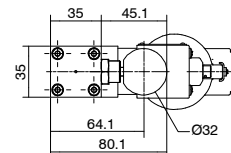
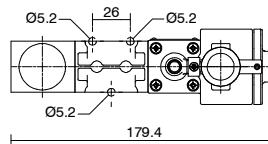
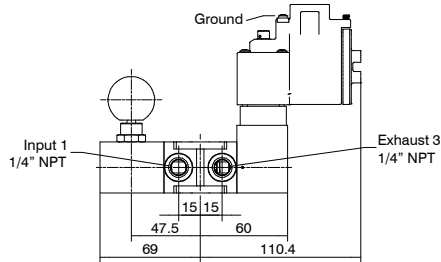
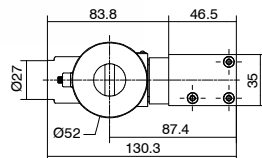
SS1432CM1M1L



► Solenoid valve with self-locking manual reset - (3/2)

Ordering code

SS1432CM114L



Minimum piloting pressure 2,5 bar

Fluid:

Filtered air. No lubrication needed, if applied it shall be continuous.

Inert Gas.

Sweet gas (natural).

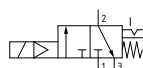
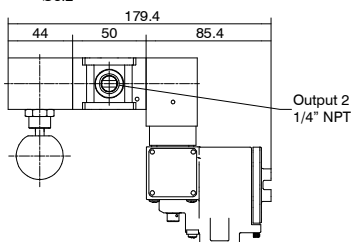
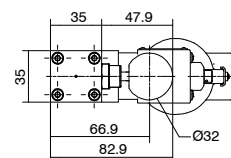
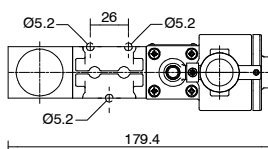
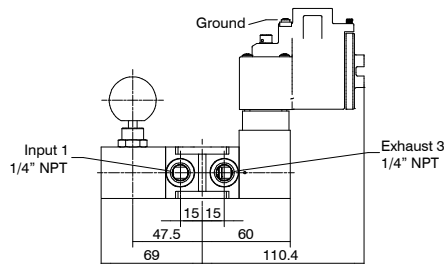
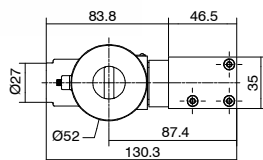
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	1850	1,02	15,15

► Solenoid valve with self-locking manual reset inverted - (3/2)

Ordering code

SS1432CM115L



Minimum piloting pressure 2,5 bar

Fluid:

Filtered air. No lubrication needed, if applied it shall be continuous.

Inert Gas.

Sweet gas (natural).

Operational characteristics

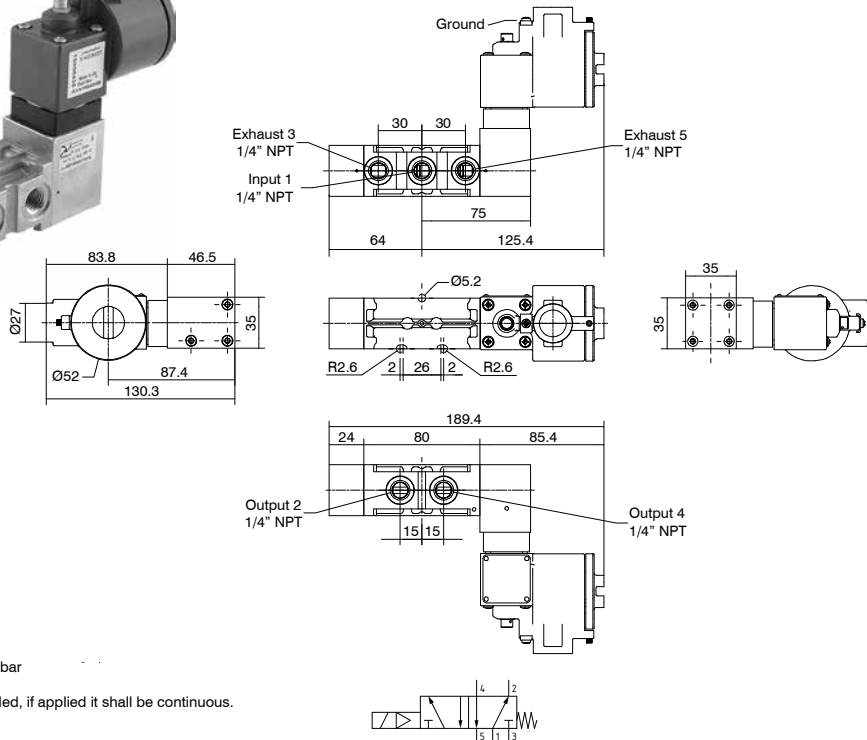
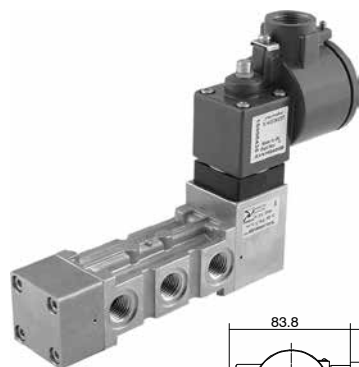
Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	1850	1,02	15,15



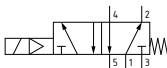
Spool type valves and solenoid valves (Steel Line) Series SL - CM (Exi IP66) - 1/4" NPT WWW.SUMY.IR

AIR DISTRIBUTION

Solenoid-spring valve - (5/2)



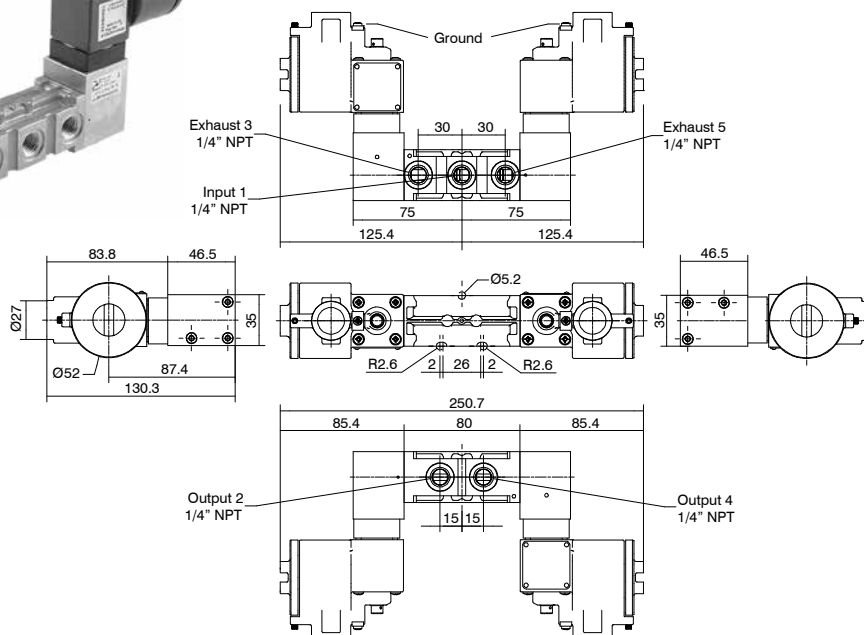
Minimum piloting pressure 2,5 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



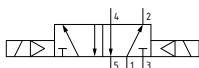
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	1800	1,02	15,15

Solenoid-solenoid valve - (5/2)



Minimum piloting pressure 2,5 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	2750	1,02	15,15

Ordering code

SS14520M101L

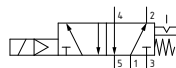


Ordering code

SS14520M1M1L



AIR DISTRIBUTION



Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (l/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	1700	1,02	15,15

Operational characteristics					
Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (l/min)	Connections	Weight (g)	Cv	kv
10	1000	1/4" NPT	1700	1,02	15,15





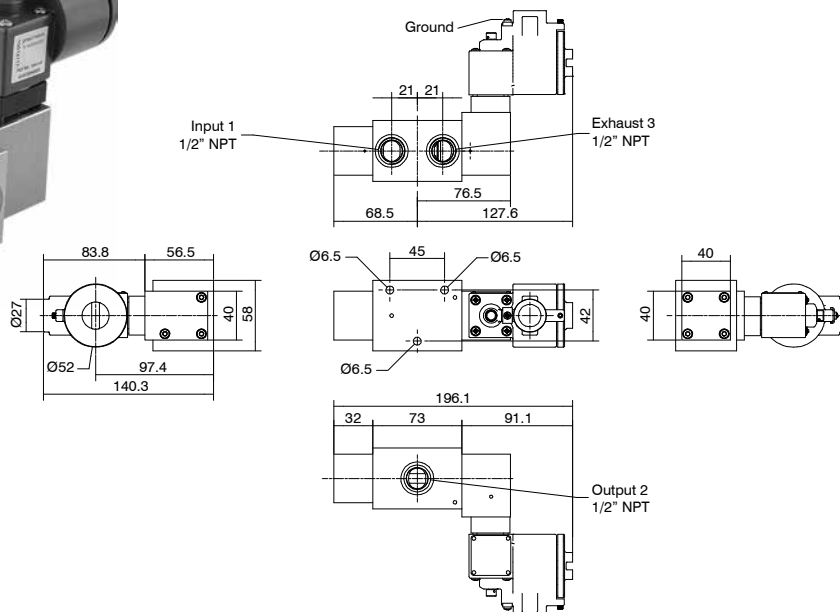
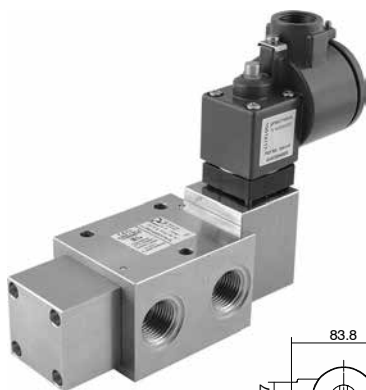
Spool type valves and solenoid valves (Steel Line)

Series SL - CM (Exi IP66) - 1/2" NPT

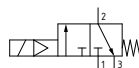
WWW.SUMY.IR

AIR DISTRIBUTION

Solenoid-spring valve - (3/2)



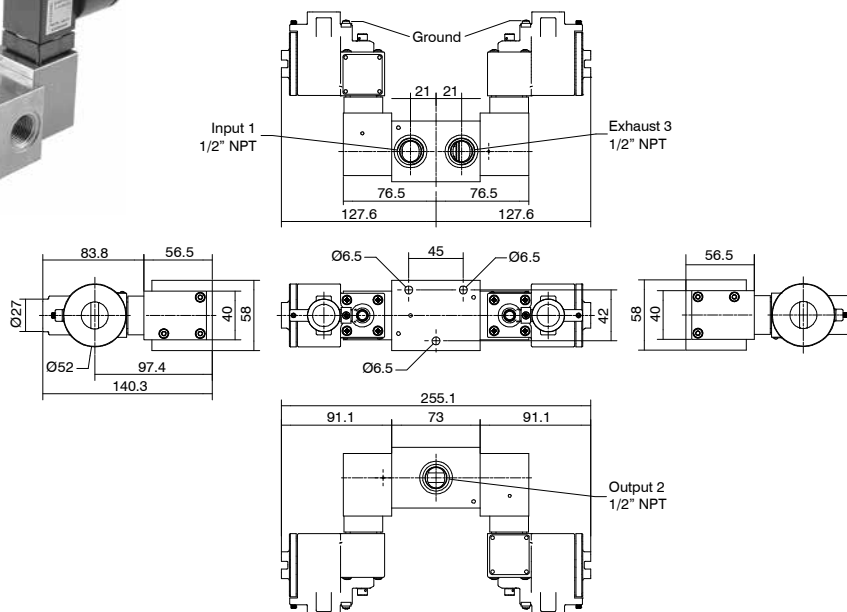
Minimum piloting pressure 3 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



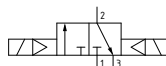
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Connections	Weight (g)	Cv	kv
10	3500	1/2" NPT	2776	3,55	53,03

Solenoid-solenoid valve - (3/2)



Minimum piloting pressure 3 bar
Fluid:
Filtered air. No lubrication needed, if applied it shall be continuous.
Inert Gas.
Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Connections	Weight (g)	Cv	kv
10	3500	1/2" NPT	3909	3,55	53,03

Ordering code

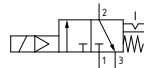
SS1232CM101L



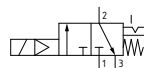
Ordering code

SS1232CM1M1L





Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (l/min)	Connections	Weight (g)	Cv	kv
10	3500	1/2" NPT	3358	3,55	53,03



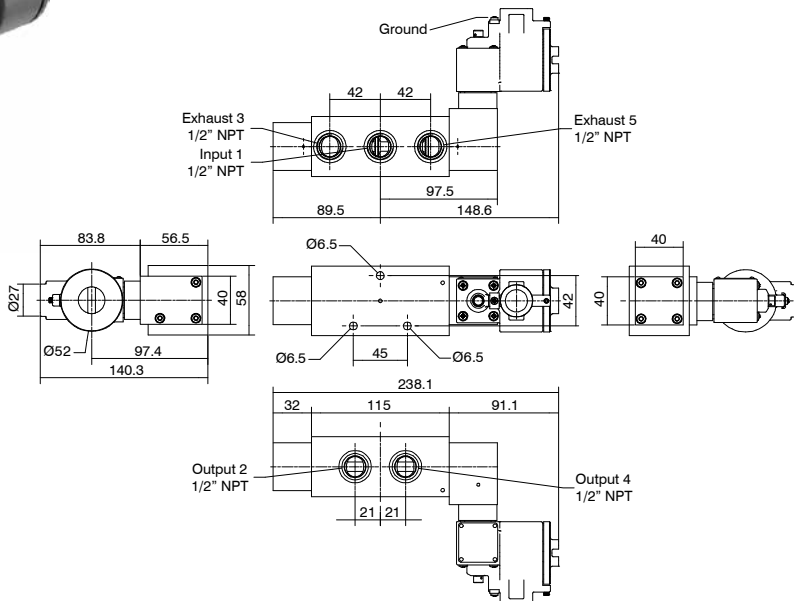
Operational characteristics					
Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (l/min)	Connections	Weight (g)	Cv	kv
10	3500	1/2" NPT	3360	3,55	53,03



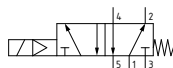
Spool type valves and solenoid valves (Steel Line)
Series SL - CM (Exi IP66) - 1/2" NPT
 WWW.SUMY.IR

AIR DISTRIBUTION

Solenoid-spring valve - (5/2)



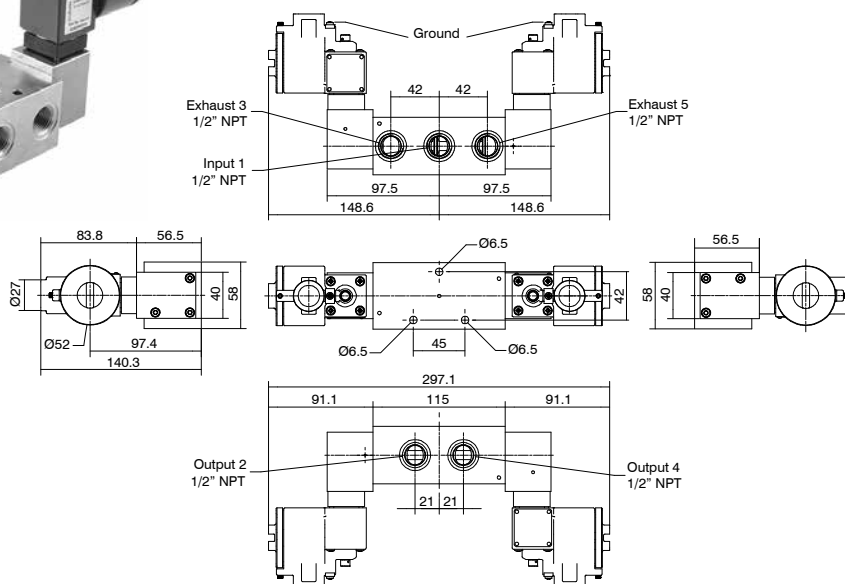
Minimum piloting pressure 3 bar
 Fluid:
 Filtered air. No lubrication needed, if applied it shall be continuous.
 Inert Gas.
 Sweet gas (natural).



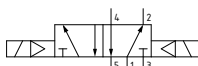
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Connections	Weight (g)	Cv	kv
10	3500	1/2" NPT	3679	3,55	53,03

Solenoid-solenoid valve - (5/2)



Minimum piloting pressure 3 bar
 Fluid:
 Filtered air. No lubrication needed, if applied it shall be continuous.
 Inert Gas.
 Sweet gas (natural).



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Connections	Weight (g)	Cv	kv
10	3500	1/2" NPT	4678	3,55	53,03

Ordering code

SS12520M101L

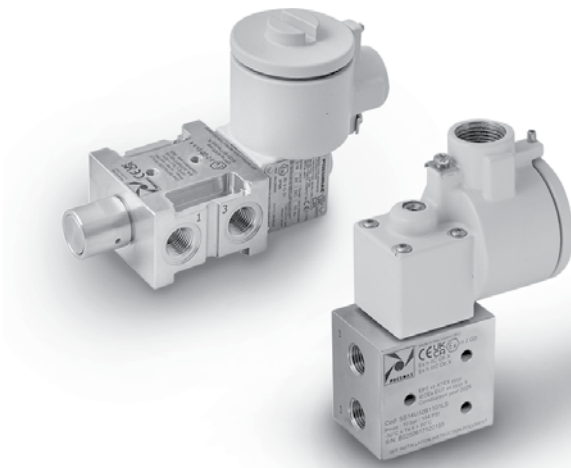


Ordering code

SS12520M1M1L



Series SL - U (Exd)



- Exd Explosion protection (only solenoid coil)
- Stand Alone and manifold versions
- In compliance with NACE standard MR0175/ISO 15156
- 1/4" connections
- Type: 3/2
- Suitable up to SIL 3
- Steel Line Range (SL)

Note

Any fittings must be installed using medium-strength thread sealant on the threaded connections.

Construction characteristics

Body	AISI 316L stainless steel
Spool	AISI 303 stainless steel
Spacers	AISI 303 stainless steel
Spring	AISI 302 stainless steel
Screws	Acciaio inox AISI 316 (inox A4-70)
Seals	NBR for low temperatures Silicone

Operating range

Fluid	Filtered air. No lubrication needed, if applied it shall be continuous. Inert Gas. Sweet gas (natural).
Operating temperature (for low temperature version L)	-30°C...+80°C (DC version) & -30°C...+55°C (AC version)
Operating temperature (for low temperature version S)	-50°C...+80°C (DC version) & -50°C...+55°C (AC version)
Maximum operating pressure	10 bar

Electrical (Electropilot) construction characteristics

Housing	Stainless steel with epoxy paint
Armour / Cores	Ferromagnetic stainless steel
Springs	AISI 302 stainless steel
Seals	Silicone
Wire insulation	H
Guide tube	Stainless steel
Nominal voltage	24 V DC / 24 V AC / 110 V AC / 220 V AC 48 V DC / 110 V DC / 24 V DC + Diode
Power consumption DC	3W
Power consumption AC	9,5 VA
Connection for cable entry	M20x1.5 / 1/2" NPT
Electrical connection	Screw terminals 2 Poles 2.5 mm
IP Rating	IP66
Tolerance on voltage supply	-5% ... +10%
ED continuous service	100%

Certifications available:

ATEX: II 2G Ex db h IIC T6...T3 Gb X; II 2D Ex h tb IIIC T85°C...T200°C Db X

SIL: Suitable up to SIL 3

IECEX: Ex db h IIC T6...T3 Gb; Ex h tb IIIC T85°C...T200°C Db

Coil marking: II 2G Ex db IIC T6...T3 Gb; II 2D Ex tb IIIC T85°C...T200°C Db

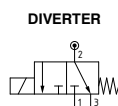
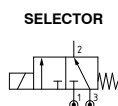
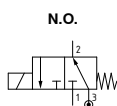
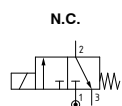
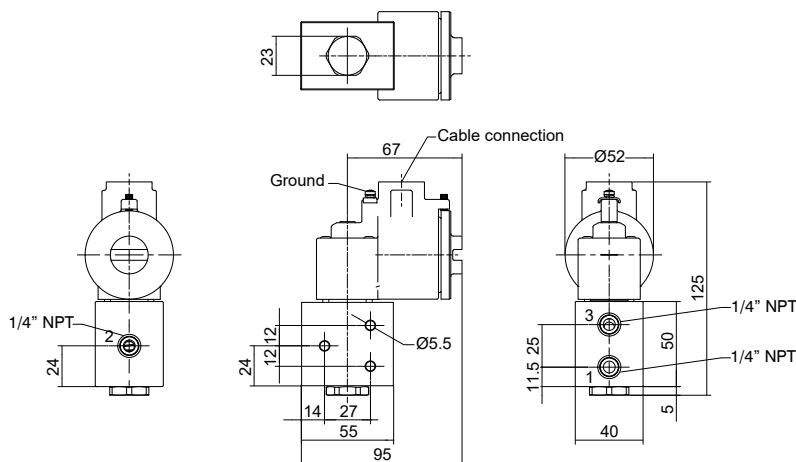


Spool type valves and solenoid valves (Steel Line) Series SL - U (Exd) - 1/4" NPT

WWW.SUMY.IR

AIR DISTRIBUTION

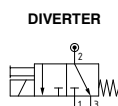
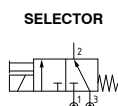
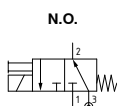
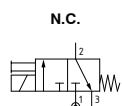
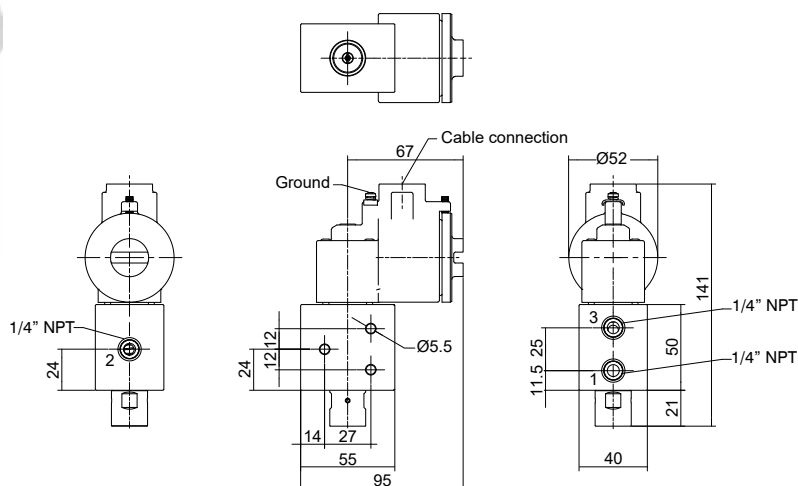
Solenoid valve direct acting - (3/2)



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Connections	Weight (g)	Cv	kv
10	480	1/4" NPT	1550	0,49	7,27

Solenoid valve direct acting with manual override - (3/2)



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Connections	Weight (g)	Cv	kv
10	480	1/4" NPT	1550	0,49	7,27

Ordering code

SS14U32CVO01TS

CONNECTION

B= M20x1,5
F= 1/2" NPT

TENSION

1= 24 VDC
2= 24 VAC (50/60 Hz)
3= 110 VAC (50/50 Hz)
4= 220 VAC (50/60 Hz)
5= 110 VDC
6= 48 VDC
7= 24 VDC + DIODE

COIL ORIENTATION

1= 0°
2= 90°
3= 270°

TEMPERATURE OPTION

L= Low temperature -30°C
S= Low temperature -50°C



Ordering code

SS14U32CVO0P1TS

CONNECTION

B= M20x1,5
F= 1/2" NPT

TENSION

1= 24 VDC
2= 24 VAC (50/60 Hz)
3= 110 VAC (50/50 Hz)
4= 220 VAC (50/60 Hz)
5= 110 VDC
6= 48 VDC
7= 24 VDC + DIODE

COIL ORIENTATION

1= 0°
2= 90°
3= 270°

TEMPERATURE OPTION

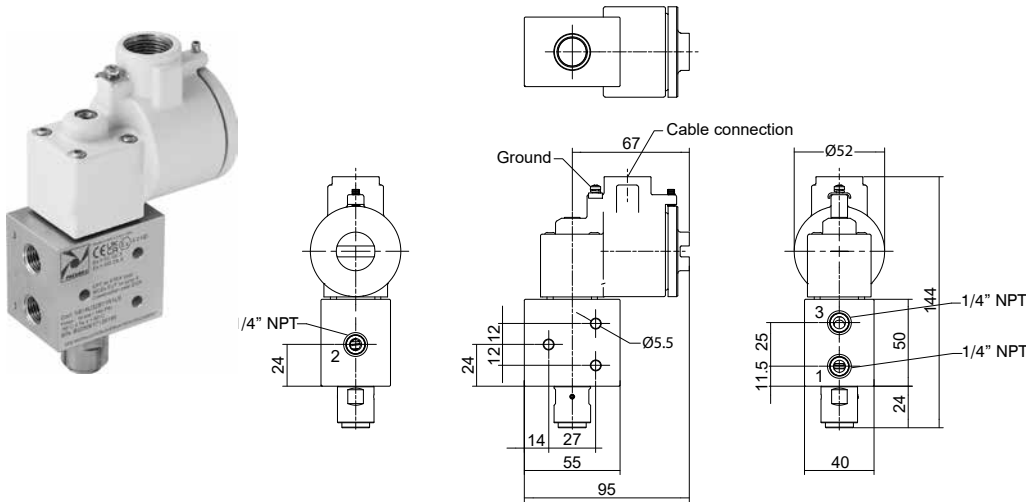
L= Low temperature -30°C
S= Low temperature -50°C





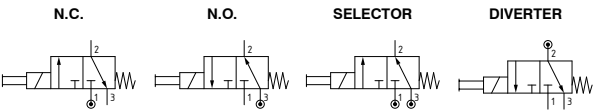
Solenoid valve direct acting with manual reset - (3/2)

TAMPER PROOF SYSTEM
The **MANUAL RESET** version requires the valve to be energised and at the same time manually actuated before it can be operated.



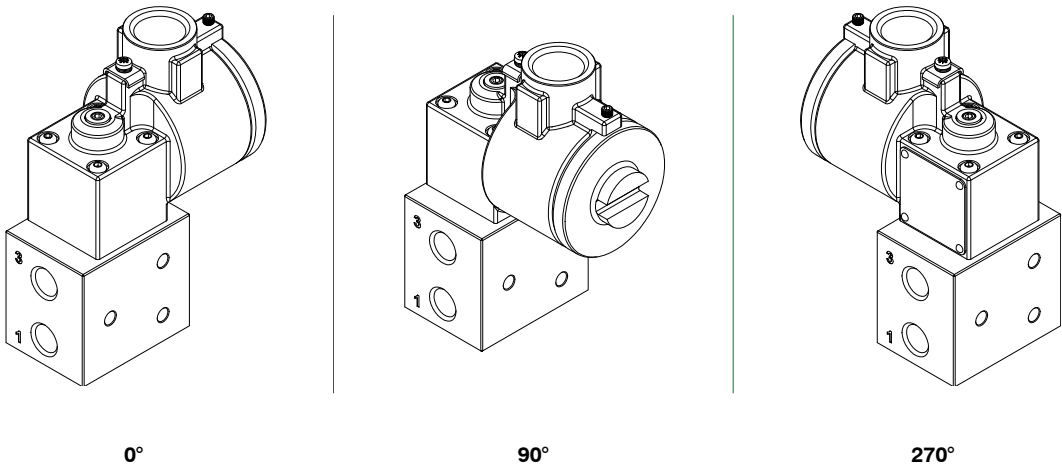
Ordering code	
SS14U32CVOOR1TS	
CONNECTION	
C B= M20x1,5	
F= 1/2" NPT	
TENSION	
1= 24 VDC	
2= 24 VAC (50/60 Hz)	
3=110 VAC (50/50 Hz)	
V 4= 220 VAC (50/60 Hz)	
5= 110 VDC	
6= 48 VDC	
7= 24 VDC + DIODE	
COIL ORIENTATION	
O 1= 0°	
2= 90°	
3= 270°	
TEMPERATURE OPTION	
T L= Low temperature -30°C	
S= Low temperature -50°C	

AIR DISTRIBUTION



Operational characteristics					
Maximum working pressure (bar)	Flow rate at 6 bar with Δp=1 (Nl/min)	Connections	Weight (g)	Cv	kv
10	480	1/4" NPT	1550	0,49	7,27

Coil orientation



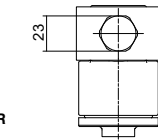
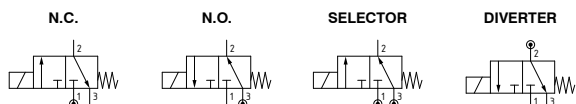
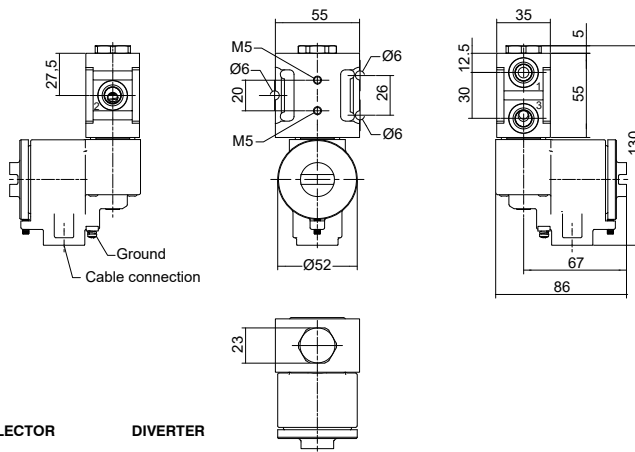


Spool type valves and solenoid valves (Steel Line) Series SL - U (Exd) - 1/4" NPT

WWW.SUMY.IR

AIR DISTRIBUTION

Solenoid valve direct acting - (3/2)



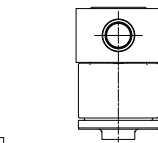
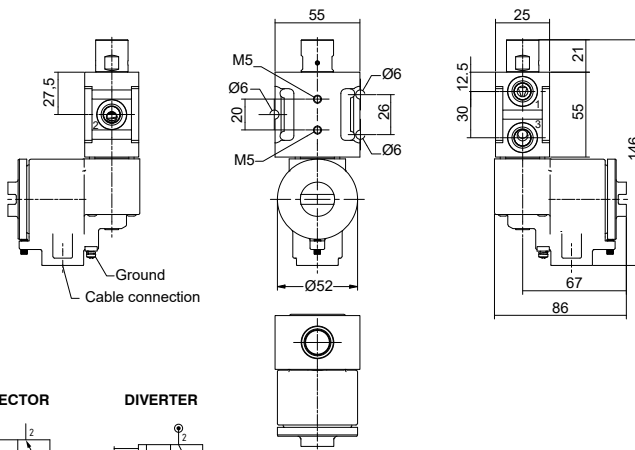
Ordering code	
SS14U32CVO01TG	
CONNECTION	
B= M20x1,5	
F= 1/2" NPT	
TENSION	
1= 24 VDC	
2= 24 VAC (50/60 Hz)	
3= 110 VAC (50/60 Hz)	
4= 220 VAC (50/60 Hz)	
5= 110 VDC	
6= 48 VDC	
7= 24 VDC + DIODE	
FLOW DIRECTION	
1= From left to right	
3= From right to left	
TEMPERATURE OPTION	
L= Low temperature -30°C	
S= Low temperature -50°C	



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	480	1/4" NPT	1450	0,49	7,27

Solenoid valve direct acting with manual override - (3/2)



Ordering code	
SS14U32CVO0P1TG	
CONNECTION	
B= M20x1,5	
F= 1/2" NPT	
TENSION	
1= 24 VDC	
2= 24 VAC (50/60 Hz)	
3= 110 VAC (50/60 Hz)	
4= 220 VAC (50/60 Hz)	
5= 110 VDC	
6= 48 VDC	
7= 24 VDC + DIODE	
FLOW DIRECTION	
1= From left to right	
3= From right to left	
TEMPERATURE OPTION	
L= Low temperature -30°C	
S= Low temperature -50°C	



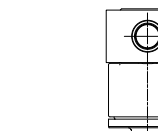
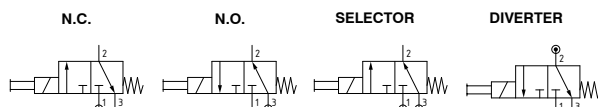
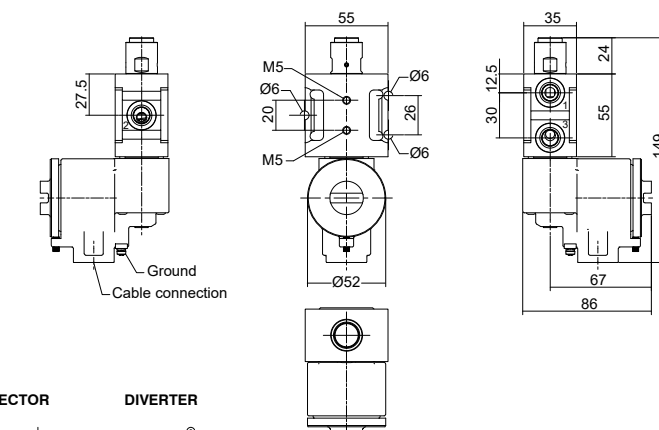
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	480	1/4" NPT	1450	0,49	7,27

Solenoid valve direct acting with manual reset - (3/2)

TAMPER PROOF SYSTEM

The **MANUAL RESET** version requires the valve to be energised and at the same time manually actuated before it can be operated.



Ordering code	
SS14U32CVO0R1TG	
CONNECTION	
B= M20x1,5	
F= 1/2" NPT	
TENSION	
1= 24 VDC	
2= 24 VAC (50/60 Hz)	
3= 110 VAC (50/60 Hz)	
4= 220 VAC (50/60 Hz)	
5= 110 VDC	
6= 48 VDC	
7= 24 VDC + DIODE	
FLOW DIRECTION	
1= From left to right	
3= From right to left	
TEMPERATURE OPTION	
L= Low temperature -30°C	
S= Low temperature -50°C	



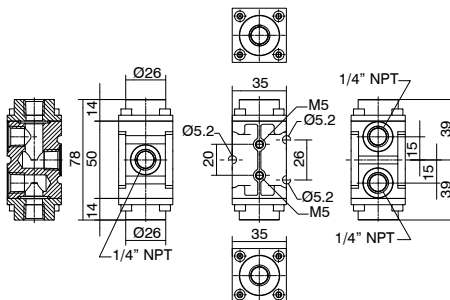
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
10	480	1/4" NPT	1450	0,49	7,27

Flow divider, 2 outputs



Different types of dividers available on request.



Ordering code

SS14T200T

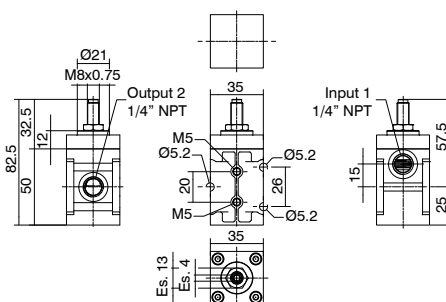
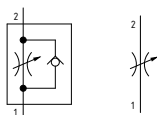
TYPE

T L= Low temperature version
H= High temperature version

Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
12	1700	1/4" NPT	390	1,73	25,75

Flow regulator 1/4" NPT



Ordering code

SS14RF6T

FUNCTION

F U= Unidirectional
B= Bidirectional

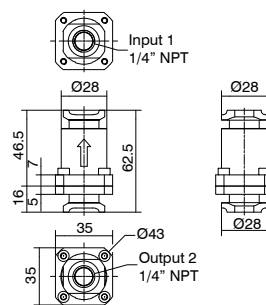
TYPE

T L= Low temperature version
H= High temperature version

Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
12	1000	1/4" NPT	500	1,02	15,15

Double seal non return valve



Ordering code

SS14VUS1

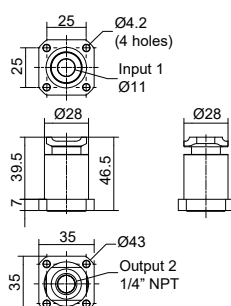
TYPE

T L= Low temperature version
H= High temperature version

Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
12	1400	1/4" NPT	220	1,42	21,21

Double seal non return valve for group



Ordering code

SS14VUG1

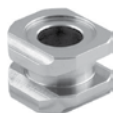
TYPE

T L= Low temperature version
H= High temperature version

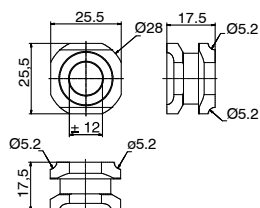
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
12	1400	1/4" NPT	150	1,42	21,21

Adapter for 90°



Weight 0,45 g



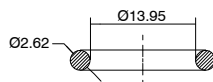
Ordering code

SS1490

Seal OR 2,62 x 13,95



Weight 0,38 g
 100-pieces pack.



Ordering code

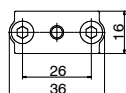
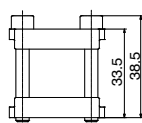
SS14D^T

TYPE

^T L= Low temperature version

H= High temperature version

Mounting kit "A"

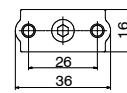
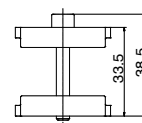
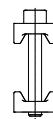


Weight 55 g
 Kit includes:
 Nr. 1 Front flange
 Nr. 1 Threaded rear flange
 Nr. 2 Screw M5x35 AISI 316

Ordering code

SS14A

Mounting kit "B"



Weight 48 g
 Kit includes:
 Nr. 1 Front flange
 Nr. 1 Threaded rear flange
 Nr. 1 Screw M5x35 AISI 316

Ordering code

SS14B

Single deployment flange

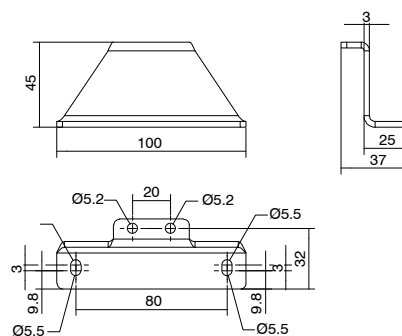


Weight 55 g
 Kit includes:
 Nr. 1 Single deployment flange
 Nr. 3 Screws M5x40 AISI 316
 Nr. 2 Screws M5x8 AISI 316

Ordering code

SS14C

Fixing bracket

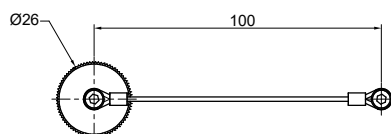


Weight 125 g
 Kit includes:
 Nr. 2 Screws M5x8 AISI 316
 Nr. 1 Flange

Ordering code

SS14M5

Key selector cap

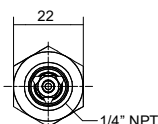
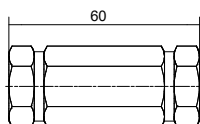


Weight 32 g
 Kit includes:
 Nr. 1 Screw M4x8 AISI 316

Ordering code

SS14TC

► **Non return valve 1/4" NPT-F/F AISI 316L HT**



Ordering code

SS14VU03SV4N

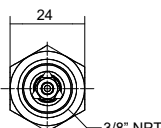
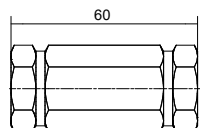


On request are available versions with temperature range: -55°C ... +150°C

Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Minimum operating pressure differential (bar)	Leak-tight with pressure differential (bar)	Temperature °C	Weight (g)	Cv	kv
210	680	0,2	0,2	-25 ... +205	107	0,69	10,30

► **Non return valve 3/8" NPT-F/F AISI 316L HT**



Ordering code

SS38VU03SV6N

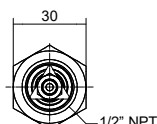
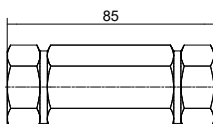


On request are available versions with temperature range: -55°C ... +150°C

Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Minimum operating pressure differential (bar)	Leak-tight with pressure differential (bar)	Temperature °C	Weight (g)	Cv	kv
210	2020	0,2	0,2	-25 ... +205	253	2,05	30,60

► **Non return valve 1/2" NPT-F/F AISI 316L HT**



Ordering code

SS12VU03SV8N

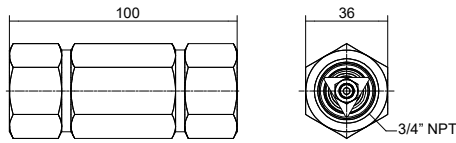


On request are available versions with temperature range: -55°C ... +150°C

Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Minimum operating pressure differential (bar)	Leak-tight with pressure differential (bar)	Temperature °C	Weight (g)	Cv	kv
210	2650	0,2	0,2	-25 ... +205	380	2,69	40,15

► **Non return valve 3/4" NPT-F/F AISI 316L HT**



Ordering code

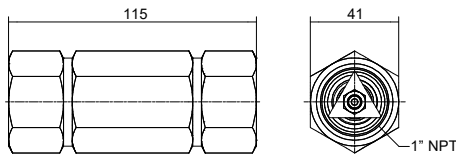
SS34VU03SV12N



On request are available versions with
 temperature range: -55°C ... +150°C

Operational characteristics							
Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (l/min)	Minimum operating pressure differential (bar)	Leak-tight with pressure differential (bar)	Temperature °C	Weight (g)	Cv	kv
210	4030	0,2	0,2	-25 ... +205	577	4,09	61,06

► **Non return valve 1" NPT-F/F AISI 316L HT**



Ordering code

SS11VU03SV16N

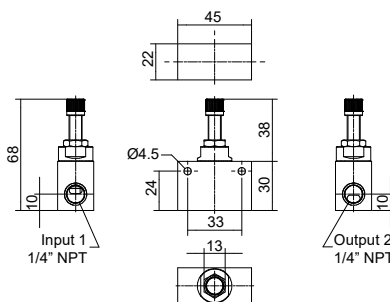
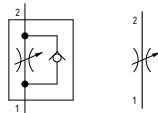


On request are available versions with
 temperature range: -55°C ... +150°C

Operational characteristics							
Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (l/min)	Minimum operating pressure differential (bar)	Leak-tight with pressure differential (bar)	Temperature °C	Weight (g)	Cv	kv
210	5500	0,2	0,2	-25 ... +205	774	5,59	83,33



Flow regulator 1/4" NPT single use



Ordering code

SS1401RF

FUNCTION

U = Unidirectional
B = Bidirectional

TYPE

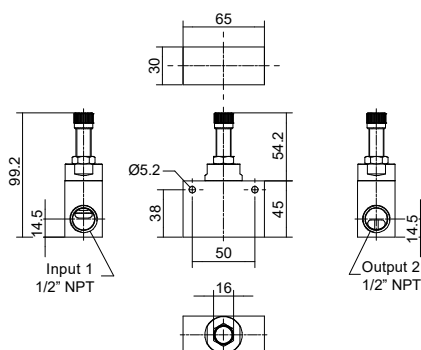
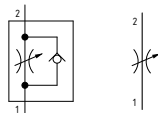
L = Low temperature version
H = High temperature version



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Temperature °C		Cv	kv
12	700	1/4" NPT	219	-50 ... +70 (version L)	-10 ... +150 (version H)	0,71	10,60

Flow regulator 1/2" NPT single use



Ordering code

SS1201RF

FUNCTION

U = Unidirectional
B = Bidirectional

TYPE

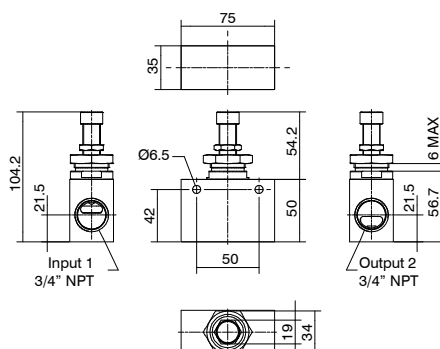
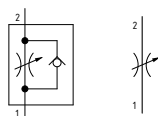
L = Low temperature version
H = High temperature version



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Temperature °C		Cv	kv
12	2000	1/2" NPT	634,5	-50 ... +70 (version L)	-10 ... +150 (version H)	2,03	30,30

Flow regulator 3/4" NPT single use



Ordering code

SS3401RF

FUNCTION

U = Unidirectional
B = Bidirectional

TYPE

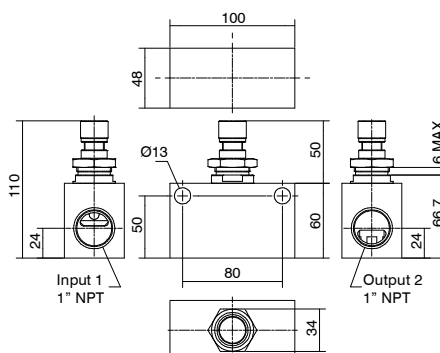
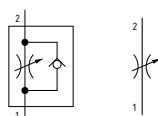
L = Low temperature version
H = High temperature version



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Temperature °C		Cv	kv
12	2800	3/4" NPT	925	-50 ... +70 (version L)	-10 ... +150 (version H)	2,84	42,42

Flow regulator 1" NPT single use



Ordering code

SS1101RF

FUNCTION

U = Unidirectional
B = Bidirectional

TYPE

L = Low temperature version
H = High temperature version



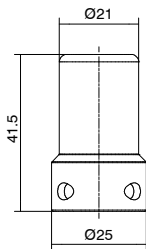
Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Temperature °C		Cv	kv
12	3300	1" NPT	2000	-50 ... +70 (version L)	-10 ... +150 (version H)	3,35	50



► Flow regulator system 1/4" NPT tamper-proof system

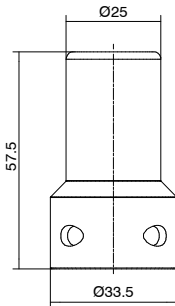
Ordering code
SS14RFK



Note: Available for 1/4" NPT flow regulator
We suggest using a long shackle padlock: Shackle diameter ≤ 4mm
The padlock is not supplied with the product.
Weight 40 g

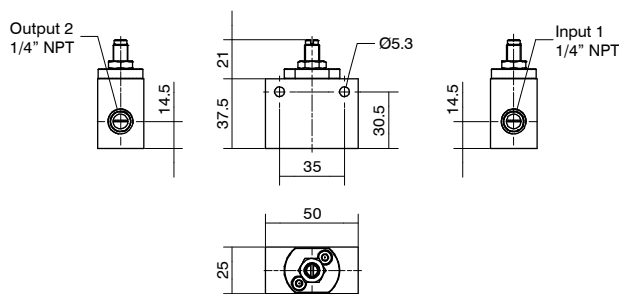
► Flow regulator system 1/2" NPT tamper-proof system

Ordering code
SS12RFK



Note: Available for 1/2" NPT flow regulator
We suggest using a long shackle padlock: Shackle diameter ≤ 5mm
The padlock is not supplied with the product.
Weight 75 g

Bidirectional flow regulator 1/4" NPT high flow rate



Flow rate with the needle in the fully closed position ~ 20 NI/min



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
12	2200	1/4" NPT	400	2,23	33,33

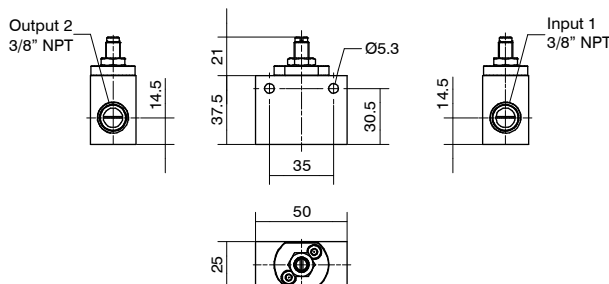
Ordering code

SS14A1RFB1

TYPE
 1 L= Low temperature version
 H= High temperature version



Bidirectional flow regulator 3/8" NPT high flow rate



Flow rate with the needle in the fully closed position ~ 20 NI/min



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
12	3200	3/8" NPT	380	3,25	48,48

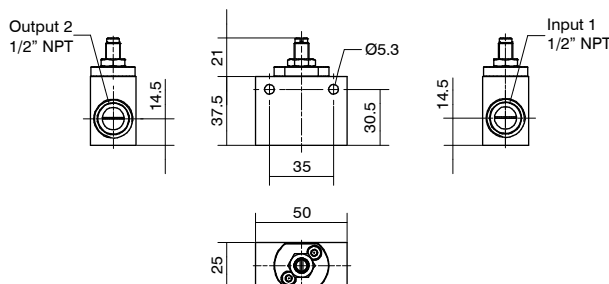
Ordering code

SS38A1RFB1

TYPE
 1 L= Low temperature version
 H= High temperature version



Bidirectional flow regulator 1/2" NPT high flow rate



Flow rate with the needle in the fully closed position ~ 20 NI/min



Operational characteristics

Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
12	6500	1/2" NPT	360	6,60	98,48

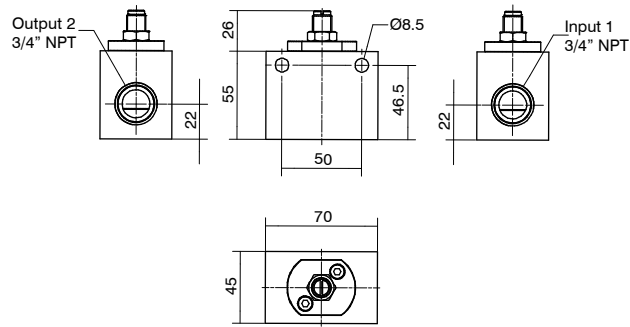
Ordering code

SS12A1RFB1

TYPE
 1 L= Low temperature version
 H= High temperature version



Bidirectional flow regulator 3/4" NPT high flow rate



Flow rate with the needle in the fully closed position ~ 40 NI/min



Operational characteristics					
Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
12	15000	3/4" NPT	1300	15,24	227,27

Ordering code

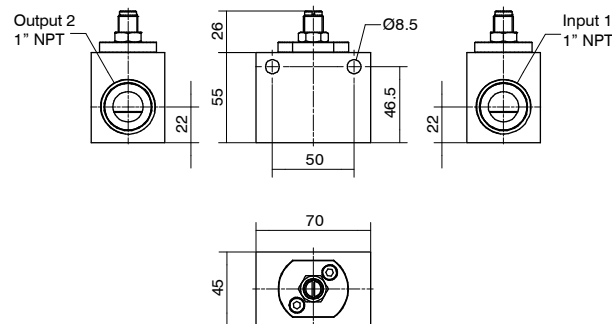
SS34A1RFB1

TYPE

- 1** L= Low temperature version
H= High temperature version



Bidirectional Flow regulator 1" NPT high flow rate



Flow rate with the needle in the fully closed position ~ 70 NI/min



Operational characteristics					
Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Connections	Weight (g)	Cv	kv
12	16500	1" NPT	1150	16,76	250

Ordering code

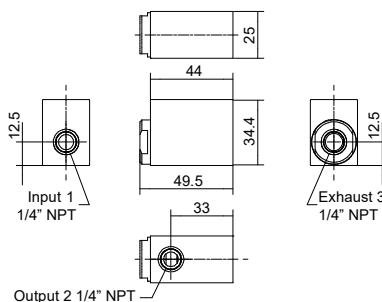
SS11A1RFB1

TYPE

- 1** L= Low temperature version
H= High temperature version



Quick exhaust valve 1/4" NPT

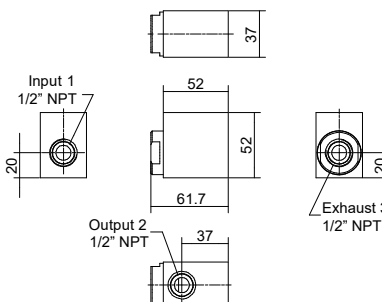


Ordering code	
SS1402SR1	
TYPE	
1 L= Low temperature version H= High temperature version	

Operational characteristics

Maximum working pressure (bar)	Inlet flow rate at 6 bar with $\Delta p=1$ (NI/min)	Cv	kv	Flow rate from 2 to 3 at 6 bar on free exhaust (NI/min)	Cv	kv	Connections	Temperature °C		Weight (g)
12	700	0,71	10,60	2700	2,74	40,9	1/4" NPT	-50 ... +70 (version L)	-10 ... +150 (version H)	250

Quick exhaust valve 1/2" NPT

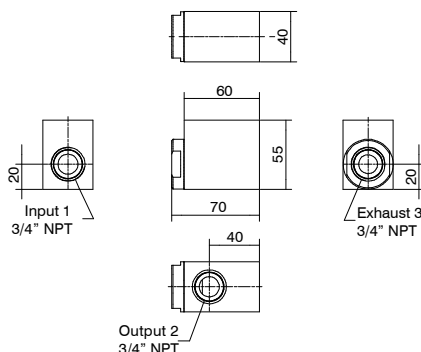


Ordering code	
SS1202SR1	
TYPE	
1 L= Low temperature version H= High temperature version	

Operational characteristics

Maximum working pressure (bar)	Inlet flow rate at 6 bar with $\Delta p=1$ (NI/min)	Cv	kv	Flow rate from 2 to 3 at 6 bar on free exhaust (NI/min)	Cv	kv	Connections	Temperature °C		Weight (g)
12	2000	2,03	30,30	7150	7,26	108,33	1/2" NPT	-50 ... +70 (version L)	-10 ... +150 (version H)	617,5

Quick exhaust valve 3/4" NPT

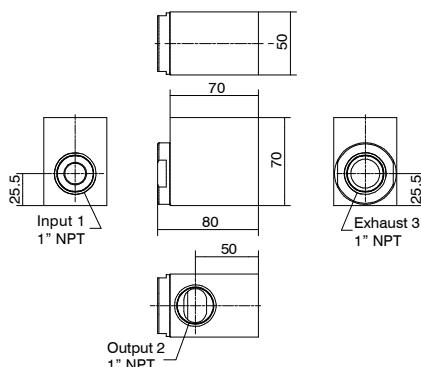


Ordering code	
SS3402SR1	
TYPE	
1 L= Low temperature version H= High temperature version	

Operational characteristics

Maximum working pressure (bar)	Inlet flow rate at 6 bar with $\Delta p=1$ (NI/min)	Cv	kv	Flow rate from 2 to 3 at 6 bar on free exhaust (NI/min)	Cv	kv	Connections	Temperature °C		Weight (g)
12	3000	3,04	45,45	10000	10,16	151,51	3/4" NPT	-50 ... +70 (version L)	-10 ... +150 (version H)	745

Quick exhaust valve 1" NPT

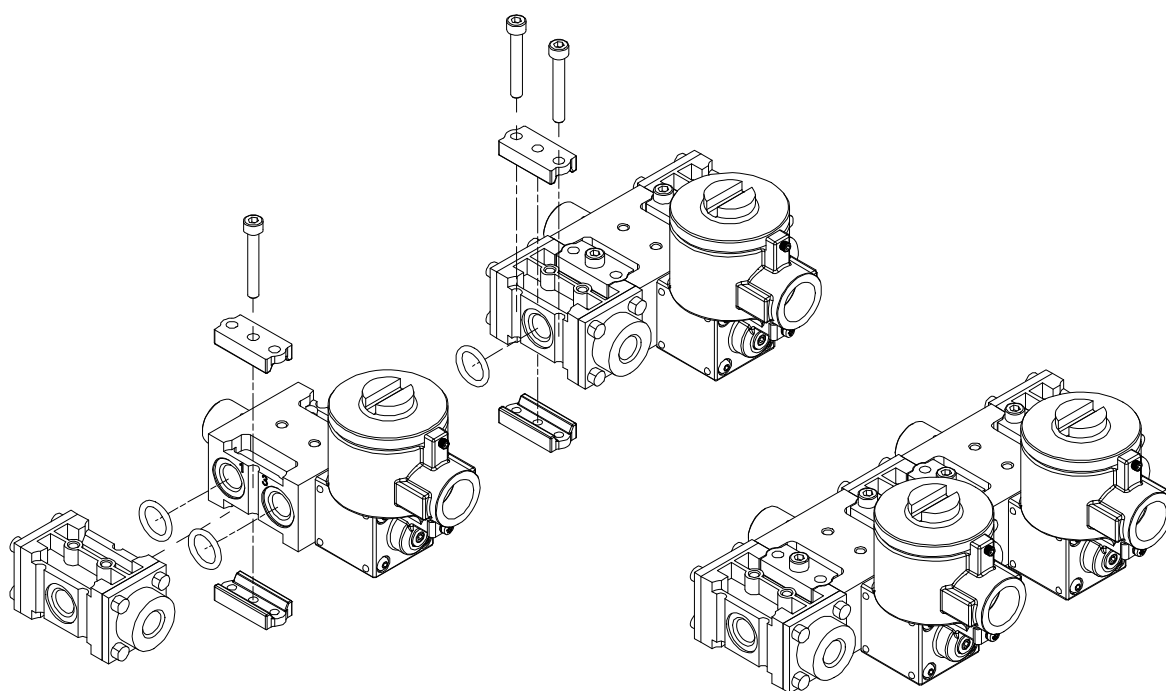
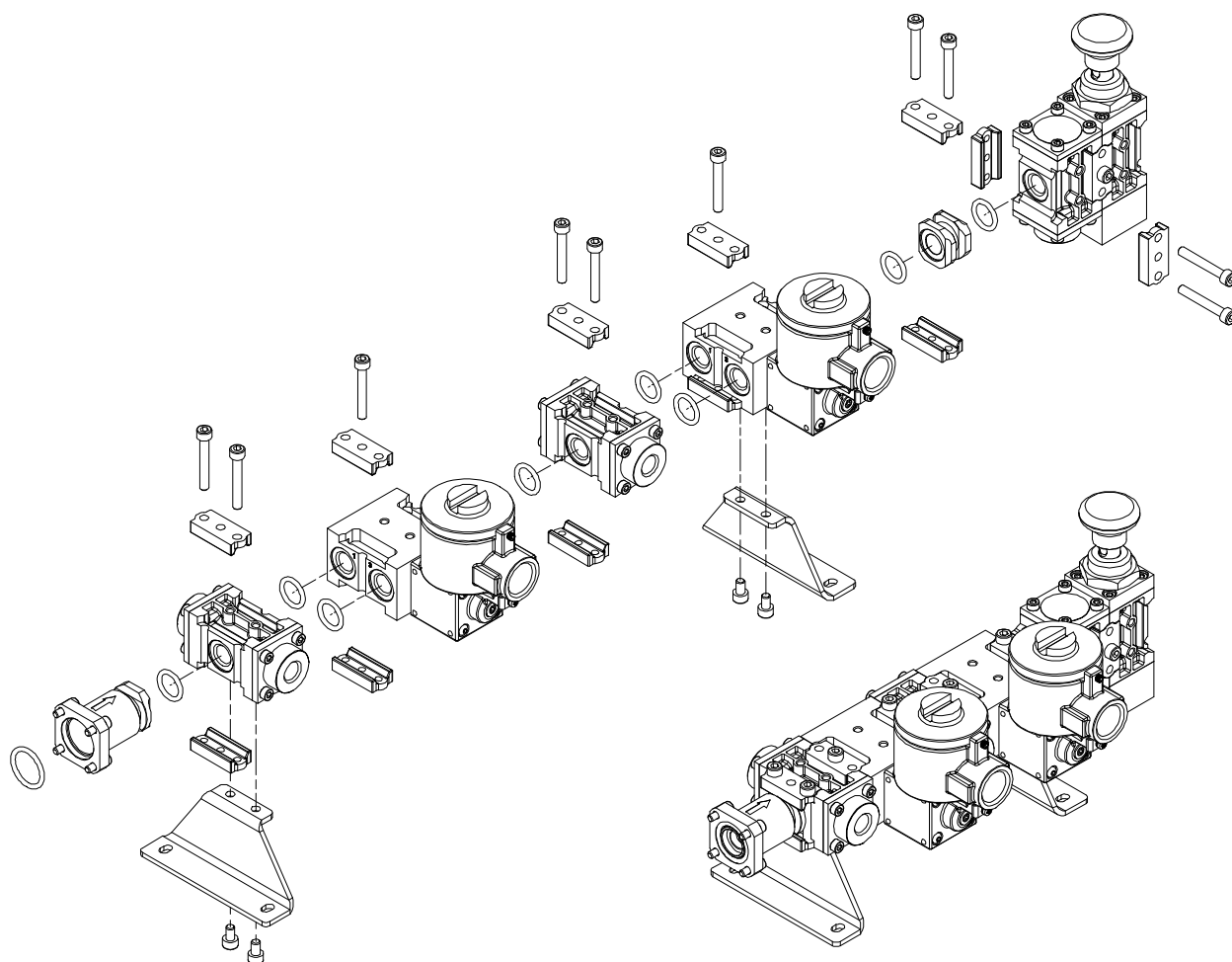


Ordering code	
SS1102SR1	
TYPE	
1 L= Low temperature version H= High temperature version	

Operational characteristics

Maximum working pressure (bar)	Inlet flow rate at 6 bar with $\Delta p=1$ (NI/min)	Cv	kv	Flow rate from 2 to 3 at 6 bar on free exhaust (NI/min)	Cv	kv	Connections	Temperature °C		Weight (g)
12	5000	5,08	75,75	18000	18,29	272,72	1" NPT	-50 ... +70 (version L)	-10 ... +150 (version H)	1365

Example: group assembly scheme



ATTENTION:

The operating characteristics of the unit may change depending on its composition. Consider the technical and operating characteristics with reference to the individual elements that will make up the unit.

Series SA - S

AIR DISTRIBUTION



- All external parts are in aluminum
- 1/4", 1/2" and 1" NPT connections
- Type: 3/2 and 5/2
- Wide flow range
- Suitable up to 3 SIL

Construction characteristics

Body	Aluminium
Operators	Aluminium
Spacers	Aluminium
Spool	AISI 303 stainless steel
Spring	AISI 302 stainless steel
Screws	Stainless steel
Seals	NBR for low temperature (-30°C)

Operating range

Fluid	Filtered air. No lubrication needed, if applied it shall be continuous. Inert Gas. Sweet gas (natural).
Operating temperature	-30°C...+70°C
Maximum operating pressure	12 bar

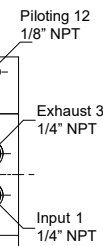
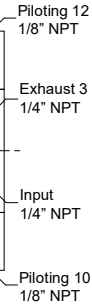
Working port size

Flow at 6 bar with $\Delta p=1$ (NI/min)

1/4" NPT	1360
1/2" NPT	2500
1" NPT	6500

Certifications available:

ATEX: II 2G Ex h IIC T5 Gb X; II 2D Ex h IIIC T100°C Db X
SIL: Suitable up to SIL 3



Operational characteristics									
Fluid	Maximum working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p = 1$ (Nl/min)	Orifice size (mm)	Working port size	Pilot connections	Weight (g)	Cv	kv
Filtered and lubricated air	12	-30 ... +70	1360	8	1/4" NPT	1/8" NPT	394	1,38	20,60



Spool type valves and solenoid valves (Aluminium)

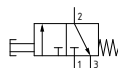
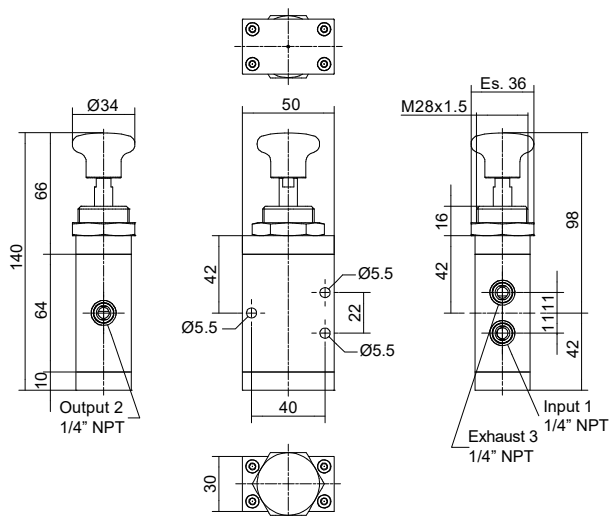
Series SA - S - 1/4" NPT

WWW.SUMY.IR

Push button-pneumatic valve - (3/2)

Ordering code

SA1432C0801L



Operating force 71,5N

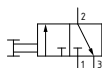
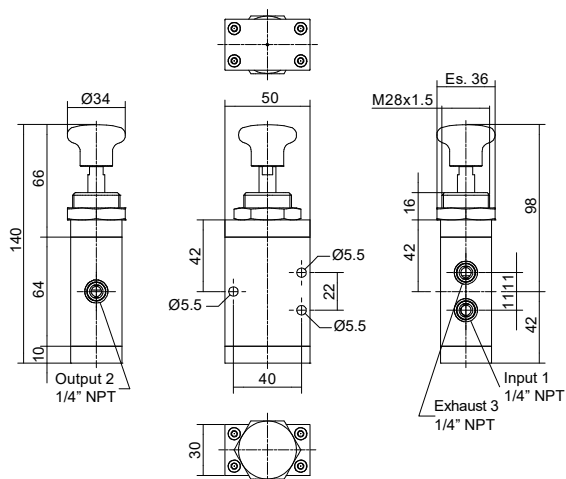
Operational characteristics

Fluid	Maximum working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Orifice size (mm)	Working port size	Weight (g)	Cv	kv
Filtered and lubricated air	12	-30 ... +70	1360	8	1/4" NPT	405	1,38	20,60

Bistable push button valve - (3/2)

Ordering code

SA1432C0803L

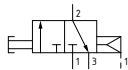
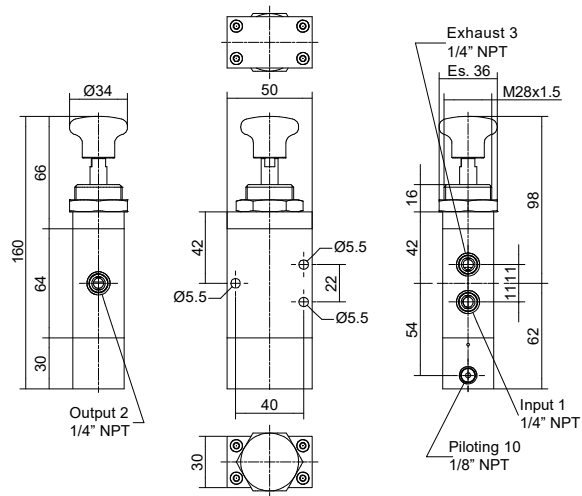


Operating force 105N

Operational characteristics

Fluid	Maximum working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Orifice size (mm)	Working port size	Weight (g)	Cv	kv
Filtered and lubricated air	12	-30 ... +70	1360	8	1/4" NPT	395	1,38	20,60

Ordering code
SA1432C0811L

Minimum piloting pressure 2 bar

Operational characteristics									
Fluid	Maximum working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Orifice size (mm)	Working port size	Pilot connections	Weight (g)	Cv	kv
Filtered and lubricated air	12	-30 ... +70	1360	8	1/4" NPT	1/8" NPT	481	2,54	37,88



Spool type valves and solenoid valves (Aluminium)

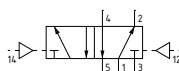
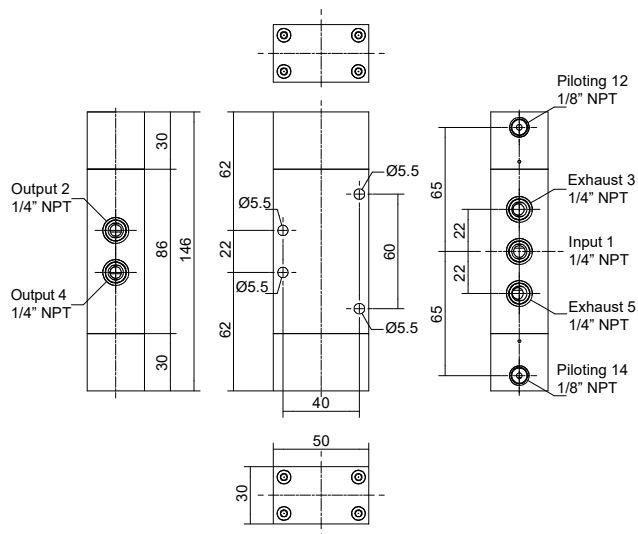
Series SA - S - 1/4" NPT

WWW.SUMY.IR

Pneumatic-Pneumatic - (5/2)

Ordering code

SA145201111L



Minimum piloting pressure 2 bar

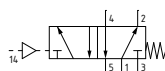
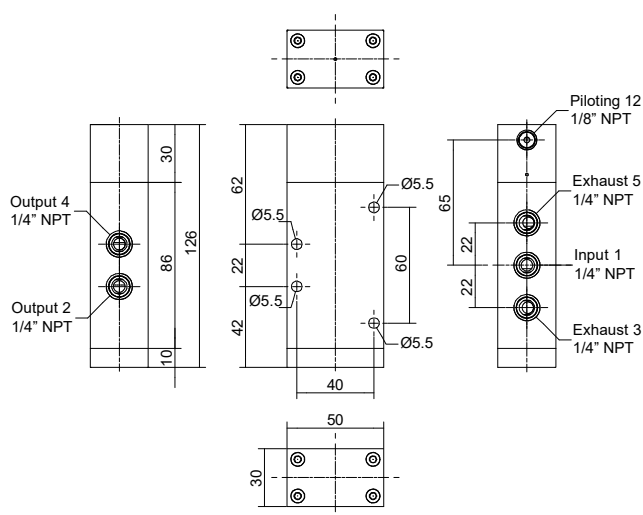
Operational characteristics

Fluid	Maximum working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Orifice size (mm)	Working port size	Pilot connections	Weight (g)	Cv	kv
Filtered and lubricated air	12	-30 ... +70	1360	8	1/4" NPT	1/8" NPT	550	1,38	20,60

Pneumatic-Spring - (5/2)

Ordering code

SA145201101L

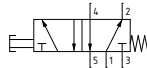
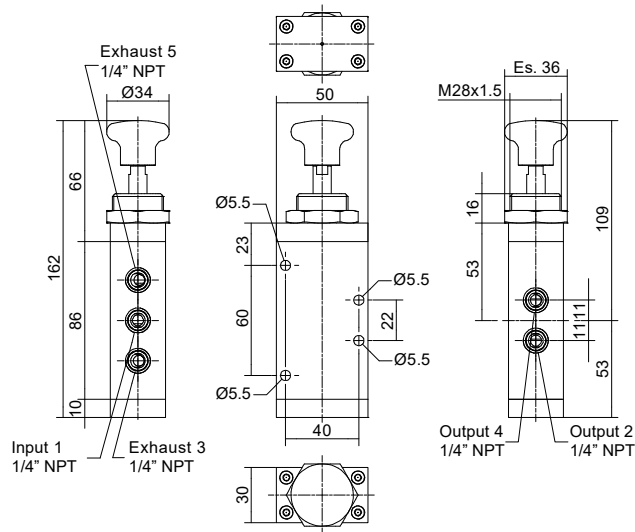


Minimum piloting pressure 2,5 bar

Operational characteristics

Fluid	Maximum working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Orifice size (mm)	Working port size	Pilot connections	Weight (g)	Cv	kv
Filtered and lubricated air	12	-30 ... +70	1360	8	1/4" NPT	1/8" NPT	475	1,38	20,60

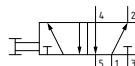
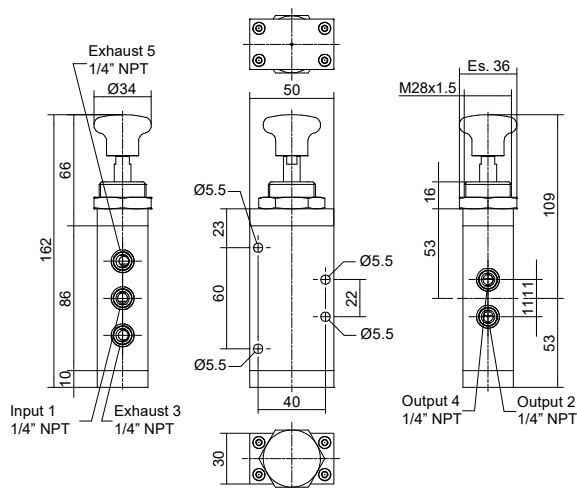
► Push button-pneumatic valve - (5/2)



Operating force 71,5N

Operational characteristics								
Fluid	Maximum working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Orifice size (mm)	Working port size	Weight (g)	Cv	kv
Filtered and lubricated air	12	-30 ... +70	1360	8	1/4" NPT	487	1,38	20,60

► Bistable push button valve - (5/2)



Operating force 105N

Operational characteristics								
Fluid	Maximum working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Orifice size (mm)	Working port size	Weight (g)	Cv	kv
Filtered and lubricated air	12	-30 ... +70	1360	8	1/4" NPT	483	1,38	20,60

Ordering code

SA145200801L



Ordering code

SA145200803L

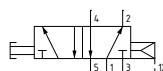
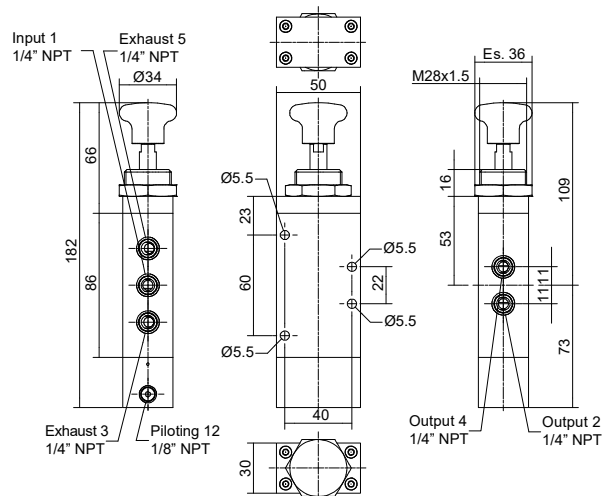




Push button-pneumatic valve - (5/2)

Ordering code

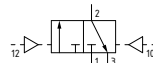
SA145200811L



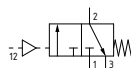
Minimum piloting pressure 2 bar

Operational characteristics

Fluid	Maximum working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Orifice size (mm)	Working port size	Pilot connections	Weight (g)	Cv	kv
Filtered and lubricated air	12	-30 ... +70	1360	8	1/4" NPT	1/8" NPT	561	2,54	37,88



Operational characteristics									
Fluid	Maximum working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p = 1$ (l/min)	Orifice size (mm)	Working port size	Pilot connections	Weight (g)	Cv	kv
Filtered and lubricated air	12	-30 ... +70	2500	15	1/2" NPT	1/8" NPT	1360	2,54	37,88



Operational characteristics									
Fluid	Maximum working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p = 1$ (Nl/min)	Orifice size (mm)	Working port size	Pilot connections	Weight (g)	Cv	kv
Filtered and lubricated air	12	-30 ... +70	2500	15	1/2 NPT	1/8" NPT	1135	2,54	37,88



Spool type valves and solenoid valves (Aluminium)

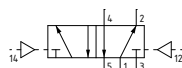
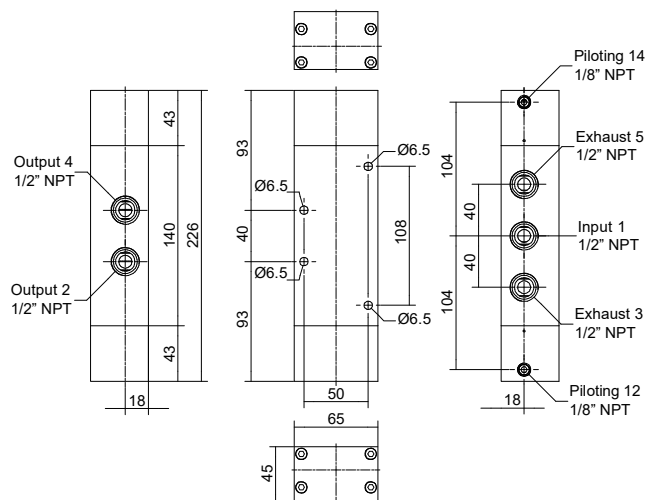
Series SA - S - 1/2" NPT

WWW.SUMY.IR

Pneumatic-Pneumatic - (5/2)

Ordering code

SA125201111L



Minimum piloting pressure 2 bar

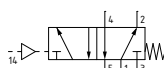
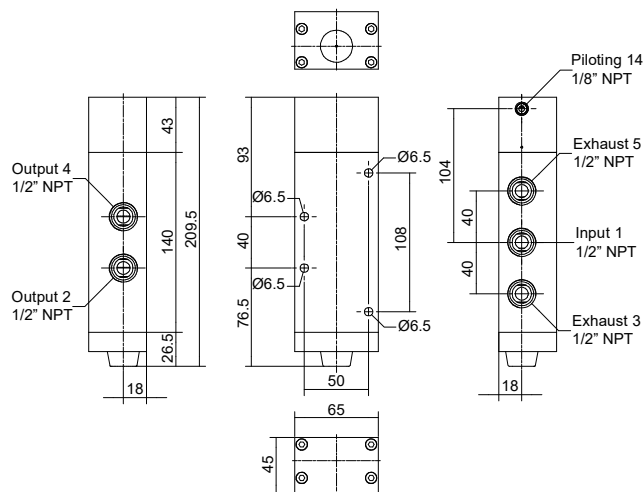
Operational characteristics

Fluid	Maximum working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Orifice size (mm)	Working port size	Pilot connections	Weight (g)	Cv	kv
Filtered and lubricated air	12	-30 ... +70	2500	15	1/2" NPT	1/8" NPT	1660	2,54	37,88

Pneumatic-Spring - (5/2)

Ordering code

SA125201101L

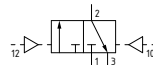
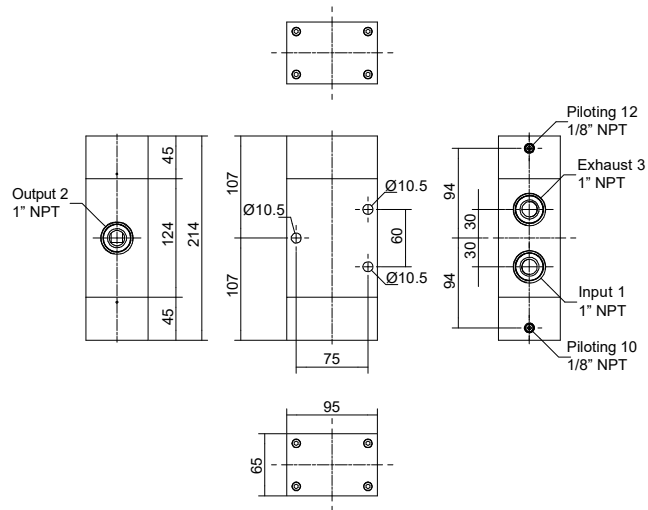


Minimum piloting pressure 2,5 bar

Operational characteristics

Fluid	Maximum working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Orifice size (mm)	Working port size	Pilot connections	Weight (g)	Cv	kv
Filtered and lubricated air	12	-30 ... +70	2500	15	1/2" NPT	1/8" NPT	1430	2,54	37,88

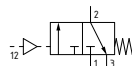
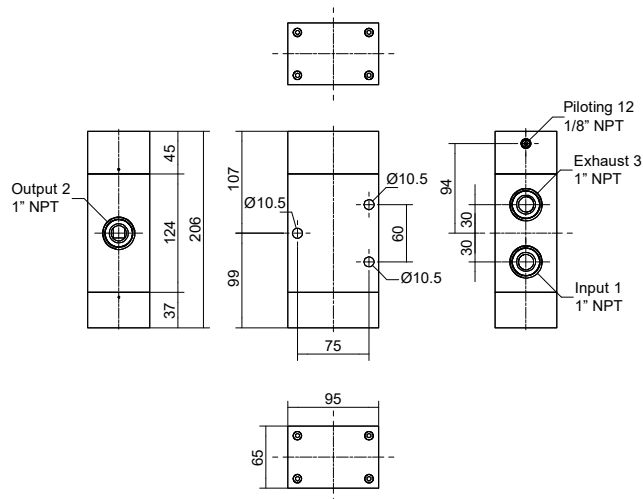
Pneumatic-Pneumatic - (3/2)



Minimum piloting pressure 2 bar

Operational characteristics									
Fluid	Maximum working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (l/min)	Orifice size (mm)	Working port size	Pilot connections	Weight (g)	Cv	kv
Filtered and lubricated air	12	-30 ... +70	6500	20	1" NPT	1/8" NPT	3315	6,60	98,48

Pneumatic-Spring - (3/2)



Minimum piloting pressure 2,5 bar

Operational characteristics									
Fluid	Maximum working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (l/min)	Orifice size (mm)	Working port size	Pilot connections	Weight (g)	Cv	kv
Filtered and lubricated air	12	-30 ... +70	6500	20	1" NPT	1/8" NPT	3225	6,60	98,48

Ordering code

SA1132C1111L



Ordering code

SA1132C1101L





Spool type valves and solenoid valves (Aluminium)

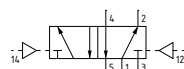
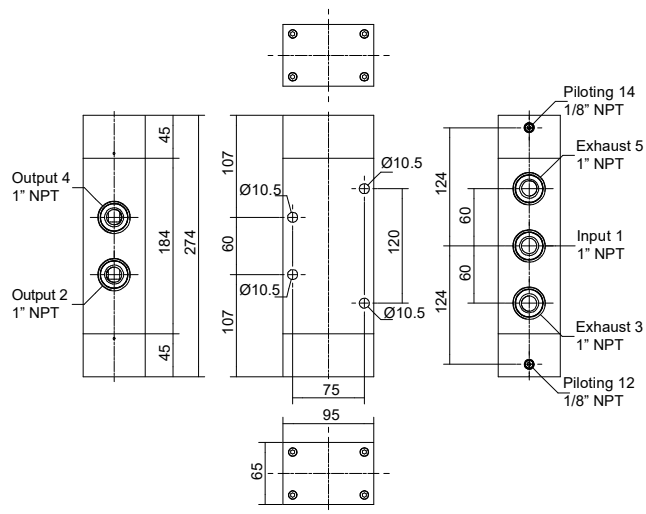
Series SA - S - 1" NPT

WWW.SUMY.IR

Pneumatic-Pneumatic - (5/2)

Ordering code

SA115201111L



Minimum piloting pressure 2 bar

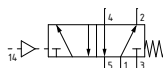
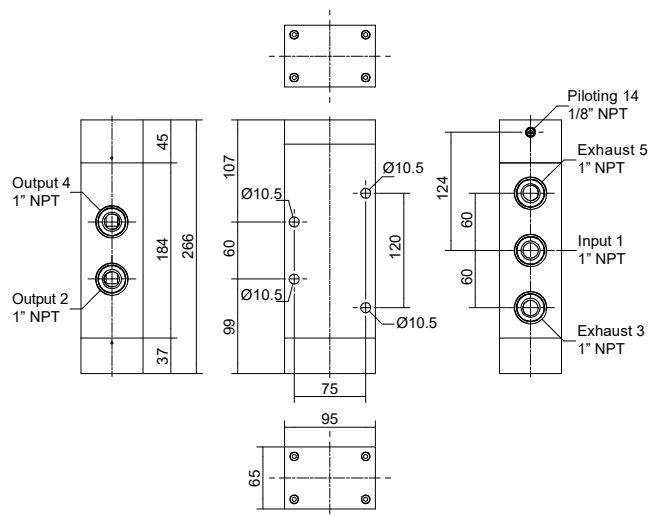
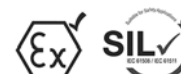
Operational characteristics

Fluid	Maximum working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Orifice size (mm)	Working port size	Pilot connections	Weight (g)	Cv	kv
Filtered and lubricated air	12	-30 ... +70	6500	20	1" NPT	1/8" NPT	4220	6,60	98,48

Pneumatic-Spring - (5/2)

Ordering code

SA115201101L

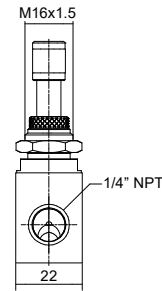
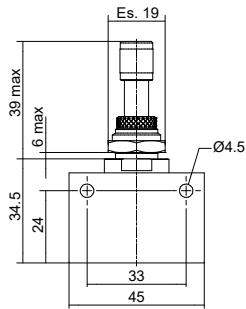
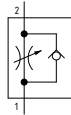


Minimum piloting pressure 2,5 bar

Operational characteristics

Fluid	Maximum working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Orifice size (mm)	Working port size	Pilot connections	Weight (g)	Cv	kv
Filtered and lubricated air	12	-30 ... +70	6500	20	1" NPT	1/8" NPT	4130	6,60	98,48

Flow regulator 1/4" NPT



Ordering code

A6.01.F

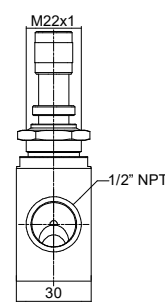
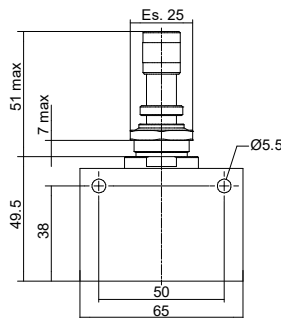
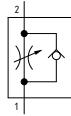
FUNCTION

F 14N=Unidirectional
14/1N=Bidirectional



Operational characteristics							
Fluid	Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Orifice size (mm)	Temperature °C	Weight (g)	Cv	kv
Filtered air	12	900	7	-30 ... +70	102	0,91	13,63

Flow regulator 1/2" NPT



Ordering code

A6.01.F

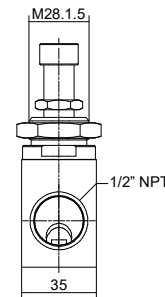
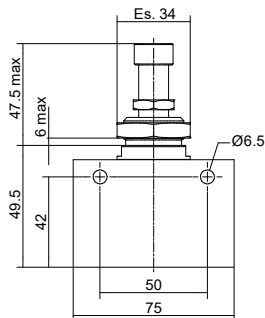
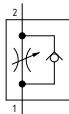
FUNCTION

F 12N=Unidirectional
12/1N=Bidirectional



Operational characteristics							
Fluid	Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Orifice size (mm)	Temperature °C	Weight (g)	Cv	kv
Filtered air	12	2000	12	-30 ... +70	276	2,03	30,30

Flow regulator 3/4" NPT - Unidirectional



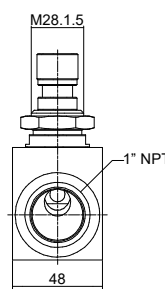
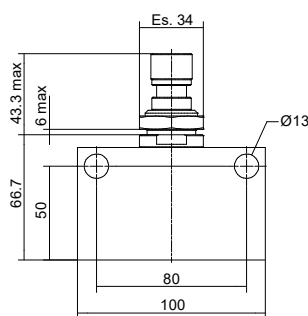
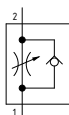
Ordering code

A6.01.34



Operational characteristics							
Fluid	Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Orifice size (mm)	Temperature °C	Weight (g)	Cv	kv
Filtered air	12	2800	12	-30 ... +70	482	2,84	42,42

Flow regulator 1" NPT - Unidirectional



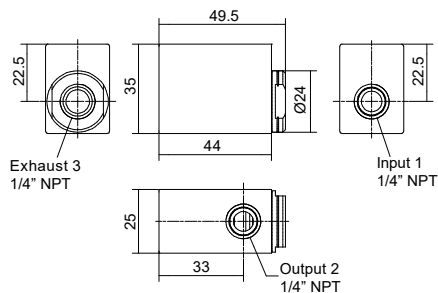
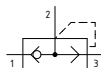
Ordering code

A6.01.11



Operational characteristics							
Fluid	Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Orifice size (mm)	Temperature °C	Weight (g)	Cv	kv
Filtered air	12	3300	14	-30 ... +70	874	3,35	50

Quick exhaust valve 1/4" NPT



Ordering code

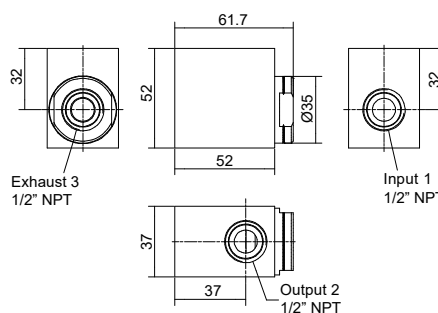
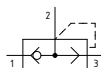
A6.02.14



Operational characteristics

Fluid	Working pressure (bar)	Flow rate from 1 to 2 at 6 bar with $\Delta p=1$ (NI/min)	Cv	kv	Flow rate from 2 to 3 at 6 bar on free exhaust (NI/min)	Cv	kv	Temperature °C	Weight (g)
Filtered air	0,5 ... 10	500	0,50	0,75	2500	2,54	37,87	-30 ... +70	112

Quick exhaust valve 1/2" NPT



Ordering code

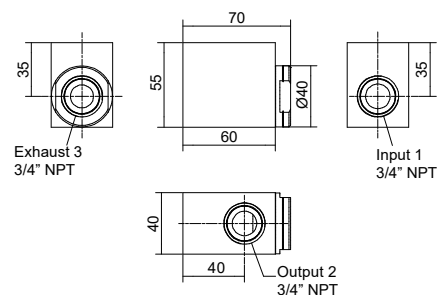
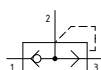
A6.02.12



Operational characteristics

Fluid	Working pressure (bar)	Flow rate from 1 to 2 at 6 bar with $\Delta p=1$ (NI/min)	Cv	kv	Flow rate from 2 to 3 at 6 bar on free exhaust (NI/min)	Cv	kv	Temperature °C	Weight (g)
Filtered air	0,5 ... 10	1500	1,52	22,72	6000	6,10	90,90	-30 ... +70	310

Quick exhaust valve 3/4" NPT



Ordering code

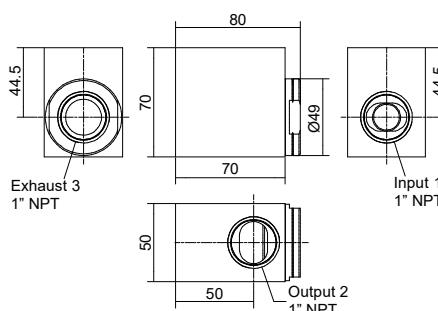
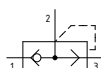
A6.02.34



Operational characteristics

Fluid	Working pressure (bar)	Flow rate from 1 to 2 at 6 bar with $\Delta p=1$ (NI/min)	Cv	kv	Flow rate from 2 to 3 at 6 bar on free exhaust (NI/min)	Cv	kv	Temperature °C	Weight (g)
Filtered air	0,5 ... 10	3000	3,04	45,45	10000	10,16	151,51	-30 ... +70	400

Quick exhaust valve 1" NPT



Ordering code

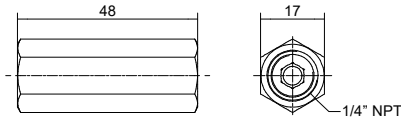
A6.02.11



Operational characteristics

Fluid	Working pressure (bar)	Flow rate from 1 to 2 at 6 bar with $\Delta p=1$ (NI/min)	Cv	kv	Flow rate from 2 to 3 at 6 bar on free exhaust (NI/min)	Cv	kv	Temperature °C	Weight (g)
Filtered air	0,5 ... 10	5000	5,08	75,75	18000	18,29	272,72	-30 ... +70	670

► Non return valve 1/4" NPT



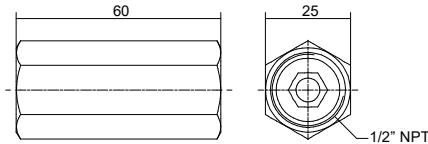
Ordering code

A6.07.14



Operational characteristics						
Fluid	Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (l/min)	Temperature °C	Weight (g)	Cv	kv
Filtered and lubricated air	12	1450	-30 ... +70	59	1,47	21,97

► Non return valve 1/2" NPT



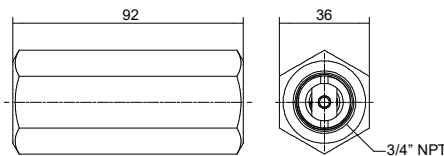
Ordering code

A6.07.12



Operational characteristics						
Fluid	Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (l/min)	Temperature °C	Weight (g)	Cv	kv
Filtered and lubricated air	12	3500	-30 ... +70	139	3,55	53,03

► Non return valve 3/4" NPT



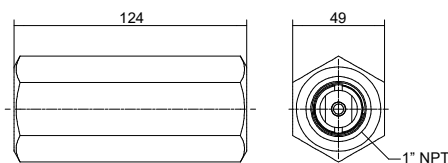
Ordering code

A6.07.34



Operational characteristics						
Fluid	Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (l/min)	Temperature °C	Weight (g)	Cv	kv
Filtered and lubricated air	12	6250	-30 ... +70	564	6,35	94,69

► Non return valve 1" NPT



Ordering code

A6.07.11



Operational characteristics						
Fluid	Maximum working pressure (bar)	Flow rate at 6 bar with $\Delta p=1$ (l/min)	Temperature °C	Weight (g)	Cv	kv
Filtered and lubricated air	12	9500	-30 ... +70	1502	9,65	143,94

Series SA - P

AIR DISTRIBUTION



- All external parts are in alluminum
- 1/2", 3/4", 1" and 1 1/2" NPT connections
- N.C. e N.O. functions
- Type: 3/2
- Suitable up to 3 SIL

Construction characteristics

Body	Aluminium
End covers	Aluminium
Actuators	NBR
Pistons	POM
Actuator rod	Aluminium
Springs	Acciaio inox
Seals	NBR

Operating range

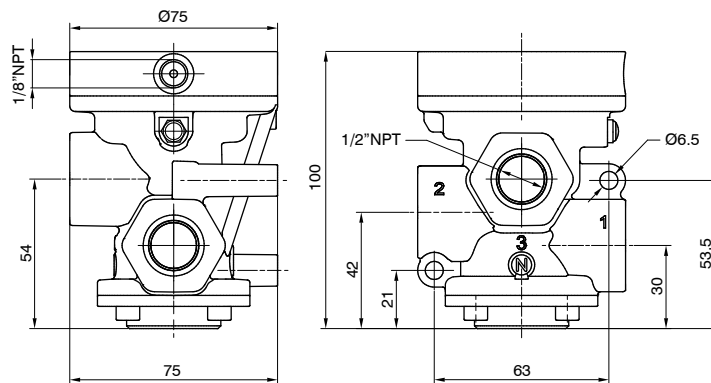
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous Inert Gas Sweet gas (natural)
Operating temperature	-30°C...+70°C
Maximum operating pressure	12 bar

Certifications available:

ATEX: II 2G Ex h IIC T5 Gb X; II 2D Ex h IIIC T100°C Db X

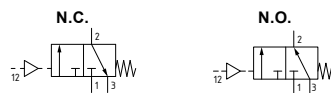
SIL: Suitable up to SIL 3

Pneumatic-Spring - (3/2)



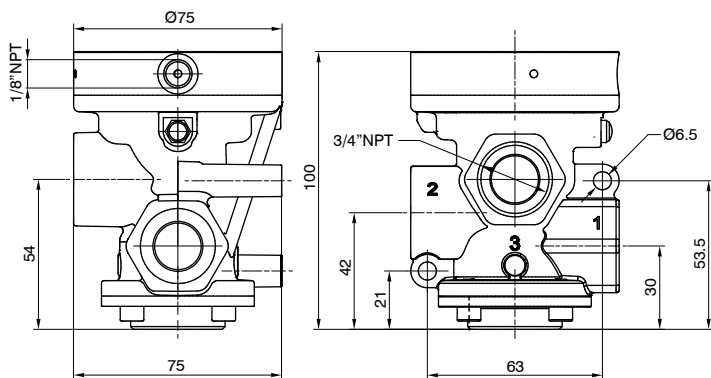
Ordering code
SA772321101F
FUNCTION
F C= Normally Closed
A= Normally Open

Normally closed
Minimum piloting pressure 2,5 bar



Operational characteristics									
Fluid	Maximum working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Orifice size (mm)	Working port size	Pilot connections	Cv	kv	Weight (g)
Filtered and lubricated air	12	-30 ... +70	4800	15	1/2" NPT	1/8" NPT	4,88	72,72	1100

Pneumatic-Spring - (3/2)



Ordering code
SA773321101F
FUNCTION
F C= Normally Closed
A= Normally Open

Normally closed
Minimum piloting pressure 2,5 bar



Operational characteristics									
Fluid	Maximum working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Orifice size (mm)	Working port size	Pilot connections	Cv	kv	Weight (g)
Filtered and lubricated air	12	-30 ... +70	6100	20	3/4" NPT	1/8" NPT	6,20	92,42	1050

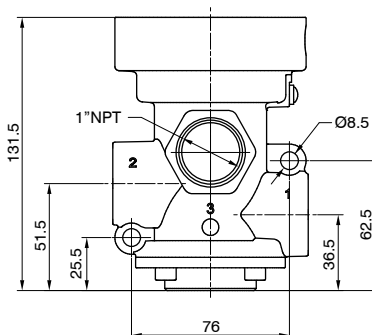
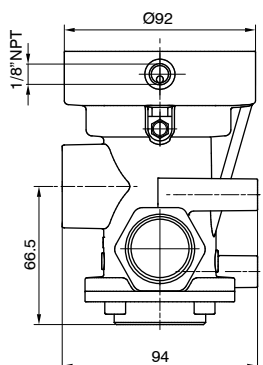


Valves and solenoid valves poppet system

Serie SA - P - 1", 1 1/2" NPT

WWW.SUMY.IR

Pneumatic-Spring - (3/2)



Ordering code

SA771321101F

FUNCTION

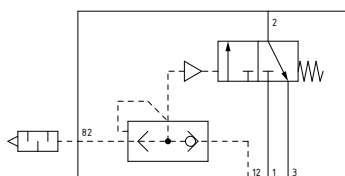
F C = Normally Closed

A = Normally Open

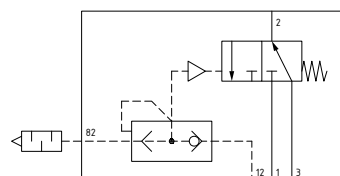


AIR DISTRIBUTION

N.C.



N.A.

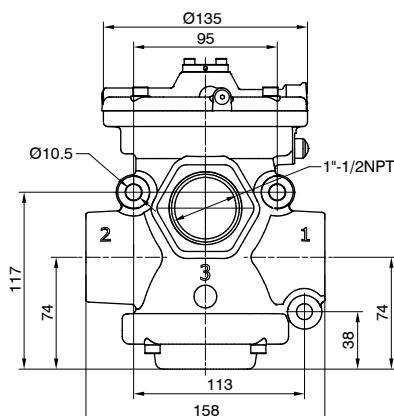
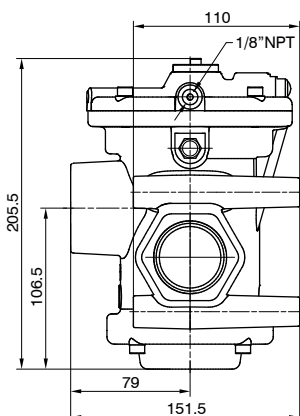


Normally closed
Minimum piloting pressure 2,5 bar

Operational characteristics

Fluid	Maximum working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Orifice size (mm)	Working port size	Pilot connections	Cv	kv	Weight (g)
Filtered and lubricated air	12	-30 ... +70	12000	25	1" NPT	1/8" NPT	12,19	181,81	1050

Pneumatic-Spring - (3/2)



Ordering code

SAN77632110F

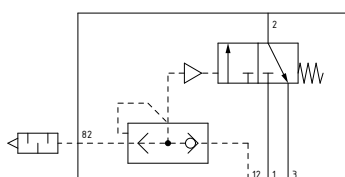
FUNCTION

F 1 = Normally Closed

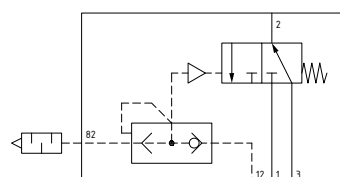
1A = Normally Open



N.C.



N.A.



Normally closed
Minimum piloting pressure 3 bar

Operational characteristics

Fluid	Maximum working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Orifice size (mm)	Working port size	Pilot connections	Cv	kv	Weight (g)
Filtered and lubricated air	12	-30 ... +70	33500	38	1 1/2" NPT	1/8" NPT	34,04	507,57	3550

Series 514 High Performance



- G1/4" e 1/4" NPT connections
- Type: 3/2, 4/2 and 5/2
- Suitable for explosive atmospheres (Directive 2014/34/EU)
- Suitable up to SIL 3

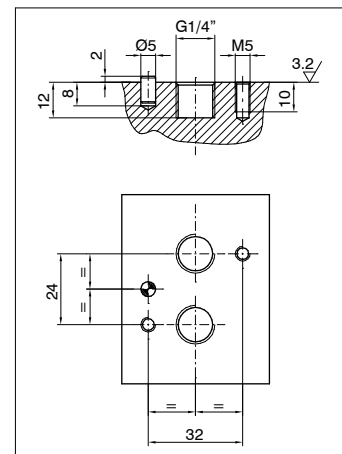
Construction characteristics

Body	Aluminium
Spacers	Technopolymer
Seals	Nitrile rubber
Springs	Stainless Steel
Operators	Technopolymer
Spools	Steel
Screws	Zinc coated Steel / Stainless steel

Certifications available

SIL: Suitable up to SIL 3

“NAMUR” interface dimensions:
 according to standard (VDI/VDE 3847 July 2003)





Order codes

	51	4	.	52	.	00	.	39	.	B04	
--	----	---	---	----	---	----	---	----	---	-----	--

Model

: Standard valve

X : ATEX valve

(-20°C ... +40°C) - only with solenoid coils “B##”, “C##” e “X##”

(-30°C ... +50°C) - only with solenoid coils “MHC”, “MH#”

Connections

4 : G1/4" - supplied with plate

6 : 1/4" NPT - supplied with plate

Type

32: 3 ways, 2 positions

42: 4 ways, 2 positions

52: 5 ways, 2 positions

92: Universal kit version (4/2 and 5/2)

93: Universal kit version (3/2 and 5/2)

Version

16: Pneumatic-Differential

18: Pneumatic-Pneumatic

19: Pneumatic-Spring

35: Solenoid-Solenoid

36: Solenoid-Differential

39: Solenoid-Spring

Voltages	Valve marking with ATEX solenoid coil	Protection method of the ATEX solenoid coil
B00: Ø10 stem without solenoid coil to be used with the following solenoid coils	 :   II 2G Ex h IIC T5 Gb X   II 2D Ex h IIIC T96°C Db X	/
B04: 12 V DC - for all models B05: 24 V DC - for all models B09: 24 V DC (2W) - only for standard model B56: 24 V AC (50-60 Hz) - for all models B57: 110 V AC (50-60 Hz) - for all models B58: 230 V AC (50-60 Hz) - for all models C04: 12 V DC - for all models C05: 24 V DC - for all models C09: 24 V DC (2W) - only for standard model C56: 24 V AC (50-60 Hz) - for all models C57: 110 V AC (50-60 Hz) - for all models C58: 230 V AC (50-60 Hz) - for all models	 :   II 3G Ex h IIC T4 Gc X   II 3D Ex h IIIC T120°C Dc X IP65	Ex ec Ex tc
F00: Ø9 stem without solenoid coil to be used with the following solenoid coils	 :   II 2G Ex h IIC T5 Gb X   II 2D Ex h IIIC T96°C Db X	/
X05: 24 V DC - only for ATEX model X56: 24 V AC (50-60 Hz) - only for ATEX model X57: 110 V AC (50-60 Hz) - only for ATEX model X58: 230 V AC (50-60 Hz) - only for ATEX model	 :   II 2G Ex h IIC T4 Gb X   II 2D Ex h IIIC T135°C Db X IP65	Ex mb
MHC: 24 V DC T6 - only for ATEX model complete with connector	 :   II 2G Ex h IIB/IIC T4 Gb X   II 2D Ex h IIIC T130°C Db X IP65	Ex ia
MH4: 24 V DC T4 - only for ATEX model MH6: 24 V DC T6 - only for ATEX model	 :   II 2G Ex h IIB/IIC T4 Gb X	Ex ia
Electrical specifications for intrinsically safety Group IIC Ui max= 28 V, li max= 115 mA, Pi max= 1,6 W Group IIB Ui max= 32 V, li max= 195 mA, Pi max= 1,6 W		
Voltages	Solenoid coil marking	
L04: 12 V DC - only for FM APPROVED model L05: 24 V DC - only for FM APPROVED model L39: 120 V AC - only for FM APPROVED model L41: 240 V AC - only for FM APPROVED model		
FM APPROVED valve (-20°C ... +50°C) - only with solenoid coils "L##"		

Temperature options

: Standard valve (-10°C ... +50°C)

LT : Low temperature (-30°C ... +50°C)

Example: 514.52.00.39.B04: Standard valve, G1/4" connections supplied with plate, solenoid-spring 5 ways, 12 VDC solenoid coil

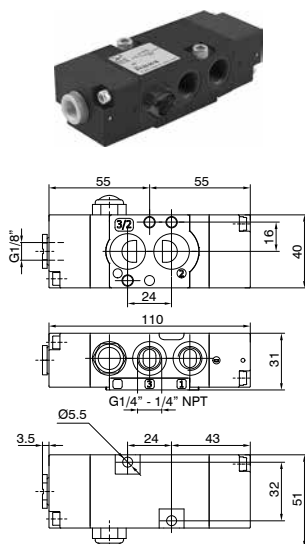
Pneumatic-Differential

CODING: M51C.T.00.16

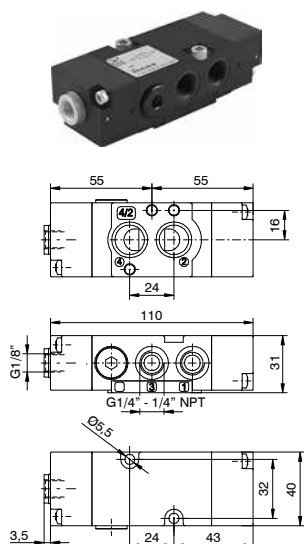
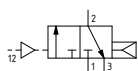
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max. working pressure (bar)	10
Temperature °C	See order codes page
Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	1100
Orifice size (mm)	8
Working ports size	G 1/4" - 1/4" NPT
Cv	1,11
kv	16,66

M	MODEL
	= Standard valve
X	ATEX valve
C	CONNECTIONS
	4 = G1/4"
	6 = 1/4" NPT
T	TYPE
	32 = 3 ways, 2 positions
	42 = 4 ways, 2 positions
	52 = 5 ways, 2 positions
C	TEMPERATURE OPTION
	SEE ORDER CODES PAGE

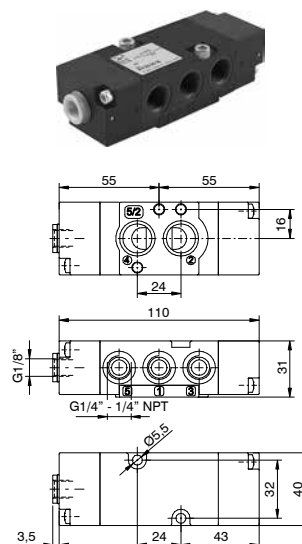
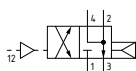
Minimum pilot pressure 2,5 bar
Maximum fitting torque 9 N/m



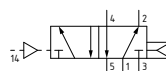
M51C.32.00.16 Weight 240 g



M51C.42.00.16 Weight 240 g



M51C.52.00.16 Weight 235 g



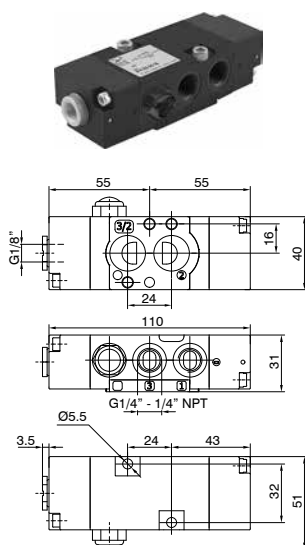
Pneumatic-Pneumatic

CODING: M51C.T.00.18

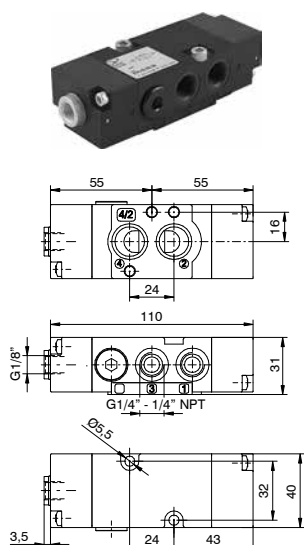
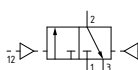
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max. working pressure (bar)	10
Temperature °C	See order codes page
Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	1100
Orifice size (mm)	8
Working ports size	G 1/4" - 1/4" NPT
Cv	1,11
kv	16,66

M	MODEL
	= Standard valve
X	ATEX valve
C	CONNECTIONS
	4 = G1/4"
	6 = 1/4" NPT
T	TYPE
	32 = 3 ways, 2 positions
	42 = 4 ways, 2 positions
	52 = 5 ways, 2 positions
C	TEMPERATURE OPTION
	SEE ORDER CODES PAGE

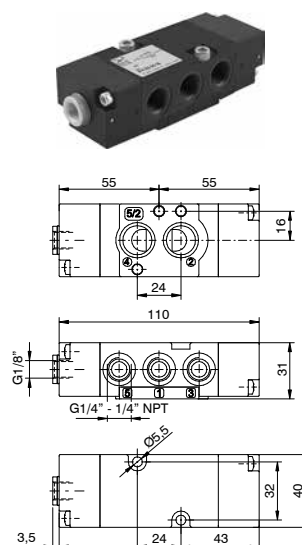
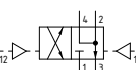
Minimum pilot pressure 2,5 bar
Maximum fitting torque 9 N/m



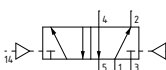
M51C.32.00.18 Weight 240 g



M51C.42.00.18 Weight 240 g



M51C.52.00.18 Weight 235 g



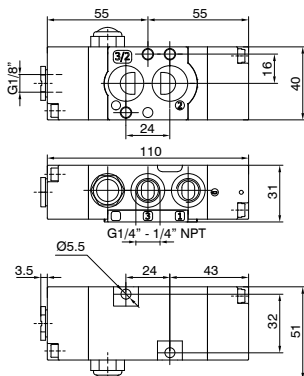
Pneumatic-Spring

CODING: M51C.T.00.19C

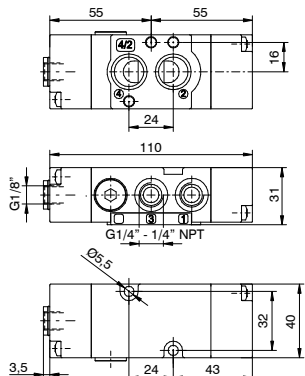
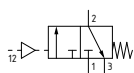
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max. working pressure (bar)	10
Temperature °C	See order codes page
Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	1100
Orifice size (mm)	8
Working ports size	G 1/4" - 1/4" NPT
Cv	1,11
kv	16,66

M	MODEL = Standard valve X = ATEX valve
C	CONNECTIONS 4 = G1/4" 6 = 1/4" NPT
T	TYPE 32 = 3 ways, 2 positions 42 = 4 ways, 2 positions 52 = 5 ways, 2 positions
O	TEMPERATURE OPTION SEE ORDER CODES PAGE

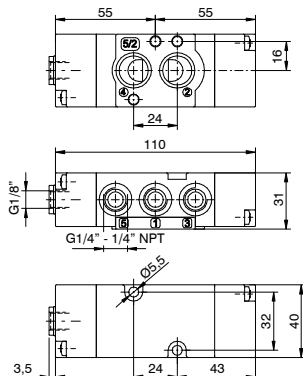
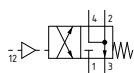
Minimum pilot pressure 2,5 bar
Maximum fitting torque 9 N/m



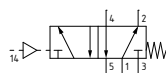
Weight 240 g



M51C.42.00.19 Weight 240 g



M51C.52.00.19 Weight 235 g



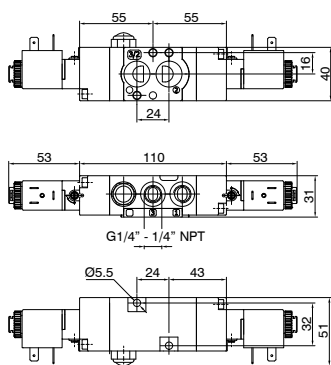
Solenoid-Solenoid

CODING: M51C.T.00.35.VO

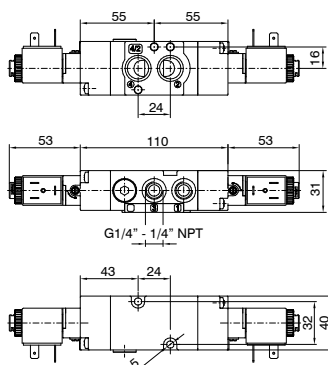
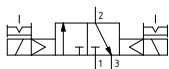
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max. working pressure (bar)	10
Temperature °C	See order codes page
Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	1100
Orifice size (mm)	8
Working ports size	G 1/4" - 1/4" NPT
Cv	1,11
kv	16,66

M	MODEL = Standard valve X = ATEX valve
C	CONNECTIONS 4 = G1/4" 6 = 1/4" NPT
T	TYPE 32 = 3 ways, 2 positions 42 = 4 ways, 2 positions 52 = 5 ways, 2 positions
V	VOLTAGE SEE ORDER CODES PAGE
O	TEMPERATURE OPTION SEE ORDER CODES PAGE

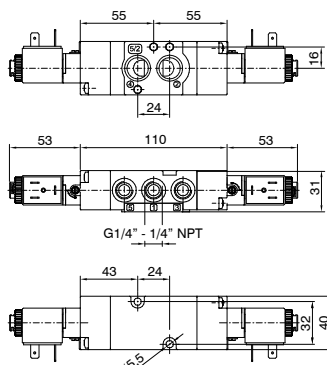
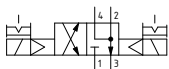
Minimum pilot pressure 2,5 bar
Maximum fitting torque 9 N/m



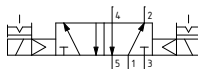
Weight 410 g



Weight 410 g



M51C.52.00.35.V Weight 405 g





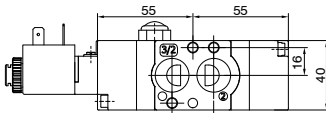
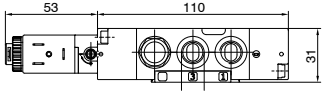
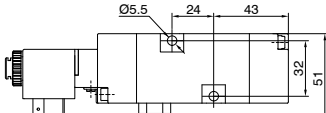
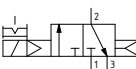
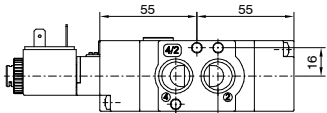
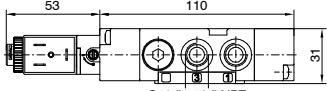
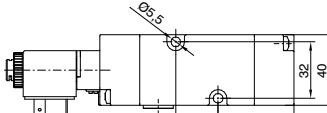
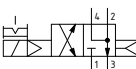
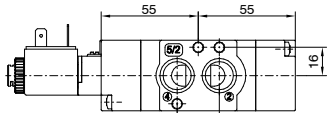
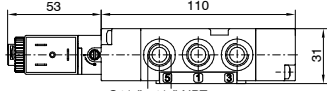
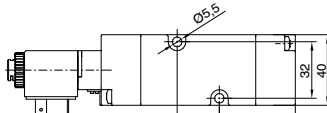
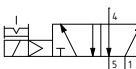
Solenoid-Differential

CODING: M51C.T.00.36.VO

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max. working pressure (bar)	10
Temperature °C	See order codes page
Flow rate at 6 bar with $\Delta p=1$ (l/min)	1100
Orifice size (mm)	8
Working ports size	G 1/4" - 1/4" NPT
Cv	1,11
kv	16,66

M	MODEL
	= Standard valve
	X = ATEX valve
C	CONNECTIONS
	4 = G1/4"
	6 = 1/4" NPT
T	TYPE
	32 = 3 ways, 2 positions
	42 = 4 ways, 2 positions
	52 = 5 ways, 2 positions
V	VOLTAGE
	SEE ORDER CODES PAGE
O	TEMPERATURE OPTION
	SEE ORDER CODES PAGE

Minimum pilot pressure 2,5 bar
Maximum fitting torque 9 N/m

    M51C.32.00.36.VO Weight 330 g 	    M51C.42.00.36.VO Weight 330 g 	    M51C.52.00.36.VO Weight 325 g 
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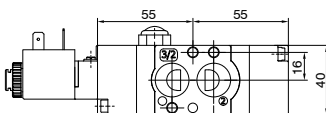
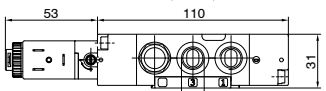
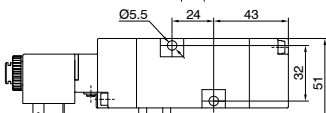
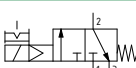
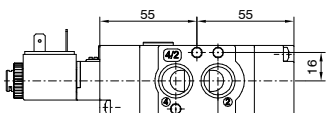
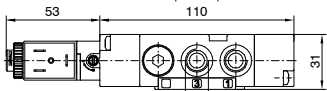
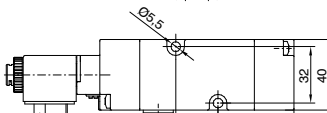
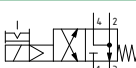
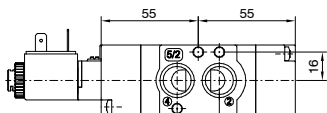
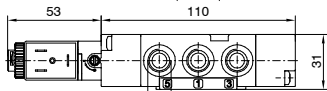
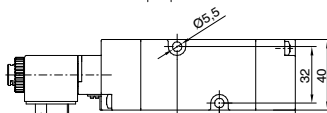
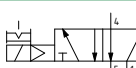
Solenoid-Spring

CODING: M51C.T.00.39.VO

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max. working pressure (bar)	10
Temperature °C	See order codes page
Flow rate at 6 bar with $\Delta p=1$ (l/min)	1100
Orifice size (mm)	8
Working ports size	G 1/4" - 1/4" NPT
Cv	1,11
kv	16,66

M	MODEL
	= Standard valve
	X = ATEX valve
C	CONNECTIONS
	4 = G1/4"
	6 = 1/4" NPT
T	TYPE
	32 = 3 ways, 2 positions
	42 = 4 ways, 2 positions
	52 = 5 ways, 2 positions
V	VOLTAGE
	SEE ORDER CODES PAGE
O	TEMPERATURE OPTION
	SEE ORDER CODES PAGE

Minimum pilot pressure 2,5 bar
Maximum fitting torque 9 N/m

    M51C.32.00.39.VO Weight 330 g 	    M51C.42.00.39.VO Weight 330 g 	    M51C.52.00.39.VO Weight 325 g 
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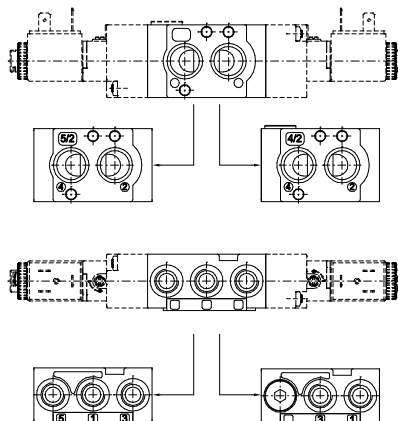
Valves and solenoid valves with "Namur" interface Series 514 High Performance

WWW.SUMY.IR

Universal kit version (4/2 and 5/2)

Operational characteristics

Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max. working pressure (bar)	10
Temperature °C	See order codes page
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	1100
Orifice size (mm)	8
Working ports size	G 1/4" - 1/4" NPT
Cv	1,11
kv	16,66



CODING: M51C.92.00.V.T.O

MODEL	
M	= Standard valve
X	= ATEX valve
CONNECTIONS	
C	4 = G1/4"
	6 = 1/4" NPT
VERSION	
16	= Pneumatic-Differential
18	= Pneumatic - Pneumatic
V	19 = Pneumatic - Spring
	35 = Solenoid - Solenoid
	36 = Solenoid - Differential
	39 = Solenoid - Spring
VOLTAGE	
T	SEE ORDER CODES PAGE
TEMPERATURE OPTION	
O	SEE ORDER CODES PAGE

Minimum pilot pressure 2,5 bar
Maximum fitting torque 9 N/m
To change a 5/2 valve into a 4/2: simply replace the bottom plate with the one included in the universal kit (cod. 51C.92...) and by plugging port 5

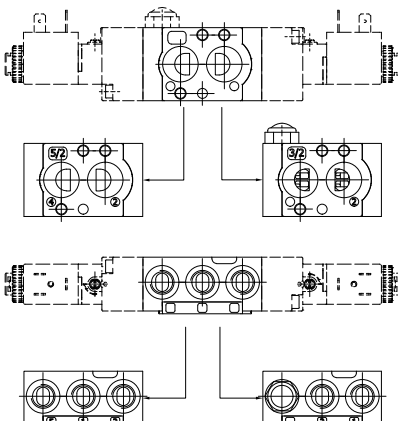
M51C.92.00.V.T.O Weight 405 g



Universal kit version (3/2 and 5/2)

Operational characteristics

Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max. working pressure (bar)	10
Temperature °C	See order codes page
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	1100
Orifice size (mm)	8
Working ports size	G 1/4" - 1/4" NPT
Cv	1,11
kv	16,66



CODING: M51C.93.00.V.T.O

MODEL	
M	= Standard valve
X	= ATEX valve
CONNECTIONS	
C	4 = G1/4"
	6 = 1/4" NPT
VERSION	
16	= Pneumatic-Differential
18	= Pneumatic - Pneumatic
V	19 = Pneumatic - Spring
	35 = Solenoid - Solenoid
	36 = Solenoid - Differential
	39 = Solenoid - Spring
VOLTAGE	
T	SEE ORDER CODES PAGE
TEMPERATURE OPTION	
O	SEE ORDER CODES PAGE

Minimum pilot pressure 2,5 bar
Maximum fitting torque 9 N/m
To change a 5/2 valve into a 3/2: simply replace the bottom plate with the one included in the universal kit (cod. 51C.93...) and by applying a silencer to connection 5

M51C.93.00.V.T.O Weight 405 g



Series 515 High Performance



- G1/4" and 1/4" NPT connections
- Type: 5/2
- Suitable for explosive atmospheres (Directive 2014/34/EU)
- Suitable up to SIL 3

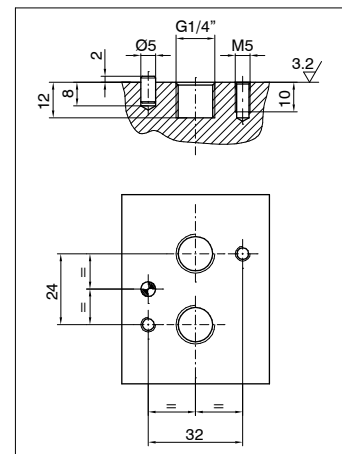
Construction characteristics

Body	Aluminium
Spacers	Technopolymer
Seals	Nitrile rubber
Springs	Stainless Steel
Operators	Technopolymer
Spools	Steel
Screws	Zinc coated Steel / Stainless steel

Certifications available

SIL: Suitable up to SIL 3

“NAMUR” interface dimensions:
 according to standard (VDI/VDE 3847 July 2003)





Order codes

51 5 . 52 . 00 . 39 . B04

Model

: Standard valve

X : ATEX valve

(-20°C ... +40°C) - only with solenoid coils “B##”, “C##” e “X##”

(-30°C ... +50°C) - only with solenoid coils “MHC”, “MH#”

Connections

5 : G1/4" - supplied without plate

7 : 1/4" NPT - supplied without plate

Version

16: Pneumatic-Differential

18: Pneumatic-Pneumatic

19: Pneumatic-Spring

35: Solenoid-Solenoid

36: Solenoid-Differential

39: Solenoid-Spring

Voltages	Valve marking with ATEX solenoid coil	Protection method of the ATEX solenoid coil
B00: Ø10 stem without solenoid coil to be used with the following solenoid coils	 : $\begin{matrix} \text{CE} & \text{UK} & \text{II} & 2\text{G} & \text{Ex} & \text{h} & \text{IIC} & \text{T5} & \text{Gb} & \text{X} \\ \text{CE} & \text{UK} & \text{II} & 2\text{D} & \text{Ex} & \text{h} & \text{IIIC} & \text{T96}^{\circ}\text{C} & \text{Db} & \text{X} \end{matrix}$	/
B04: 12 V DC - for all models B05: 24 V DC - for all models B09: 24 V DC (2W) - only for standard model B56: 24 V AC (50-60 Hz) - for all models B57: 110 V AC (50-60 Hz) - for all models B58: 230 V AC (50-60 Hz) - for all models C04: 12 V DC - for all models C05: 24 V DC - for all models C09: 24 V DC (2W) - only for standard model C56: 24 V AC (50-60 Hz) - for all models C57: 110 V AC (50-60 Hz) - for all models C58: 230 V AC (50-60 Hz) - for all models	 : $\begin{matrix} \text{CE} & \text{UK} & \text{II} & 3\text{G} & \text{Ex} & \text{h} & \text{IIC} & \text{T4} & \text{Gc} & \text{X} \\ \text{CE} & \text{UK} & \text{II} & 3\text{D} & \text{Ex} & \text{h} & \text{IIIC} & \text{T120}^{\circ}\text{C} & \text{Dc} & \text{X} & \text{IP65} \end{matrix}$	Ex ec Ex tc
F00: Ø9 stem without solenoid coil to be used with the following solenoid coils	 : $\begin{matrix} \text{CE} & \text{UK} & \text{II} & 2\text{G} & \text{Ex} & \text{h} & \text{IIC} & \text{T5} & \text{Gb} & \text{X} \\ \text{CE} & \text{UK} & \text{II} & 2\text{D} & \text{Ex} & \text{h} & \text{IIIC} & \text{T96}^{\circ}\text{C} & \text{Db} & \text{X} \end{matrix}$	/
X05: 24 V DC - only for ATEX model X56: 24 V AC (50-60 Hz) - only for ATEX model X57: 110 V AC (50-60 Hz) - only for ATEX model X58: 230 V AC (50-60 Hz) - only for ATEX model	 : $\begin{matrix} \text{CE} & \text{UK} & \text{II} & 2\text{G} & \text{Ex} & \text{h} & \text{IIC} & \text{T4} & \text{Gb} & \text{X} \\ \text{CE} & \text{UK} & \text{II} & 2\text{D} & \text{Ex} & \text{h} & \text{IIIC} & \text{T135}^{\circ}\text{C} & \text{Db} & \text{X} & \text{IP65} \end{matrix}$	Ex mb
MHC: 24 V DC T6 - only for ATEX model complete with connector	 : $\begin{matrix} \text{CE} & \text{UK} & \text{II} & 2\text{G} & \text{Ex} & \text{h} & \text{IIB/IIC} & \text{T4} & \text{Gb} & \text{X} \\ \text{CE} & \text{UK} & \text{II} & 2\text{D} & \text{Ex} & \text{h} & \text{IIIC} & \text{T130}^{\circ}\text{C} & \text{Db} & \text{X} & \text{IP65} \end{matrix}$	Ex ia
MH4: 24 V DC T4 - only for ATEX model MH6: 24 V DC T6 - only for ATEX model	 : $\begin{matrix} \text{CE} & \text{UK} & \text{II} & 2\text{G} & \text{Ex} & \text{h} & \text{IIB/IIC} & \text{T4} & \text{Gb} & \text{X} \end{matrix}$	Ex ia
Electrical specifications for intrinsically safety Group IIC Ui max= 28 V, li max= 115 mA, Pi max= 1,6 W Group IIB Ui max= 32 V, li max= 195 mA, Pi max= 1,6 W		
Voltages	Solenoid coil marking	
L04: 12 V DC - only for FM APPROVED model L05: 24 V DC - only for FM APPROVED model L39: 120 V AC - only for FM APPROVED model L41: 240 V AC - only for FM APPROVED model		
FM APPROVED valve (-20°C ... +50°C) - only with solenoid coils "L##"		

Temperature options

: Standard valve (-10°C ... +50°C)

LT : Low temperature (-30°C ... +50°C)

Example: 515.52.00.39.B04: Standard valve, G1/4" connections supplied without plate, solenoid-spring 5 ways, 12 VDC solenoid coil

Pneumatic-Differential

CODING: M51C.52.00.16

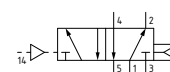
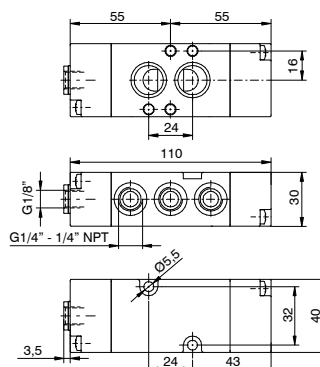
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max. working pressure (bar)	10
Temperature °C	See order codes page
Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	1100
Orifice size (mm)	8
Working ports size	G 1/4" - 1/4" NPT
Cv	1,11
kv	16,66

MODEL
M = Standard valve
X = ATEX valve
CONNECTIONS
C = 5 = G1/4"
7 = 1/4" NPT
TEMPERATURE OPTION
SEE ORDER CODES PAGE



Weight 245 g
Minimum pilot pressure 2,5 bar
Maximum fitting torque 9 N/m

M51C.52.00.16



Pneumatic-Pneumatic

CODING: M51C.52.00.18

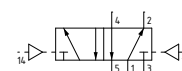
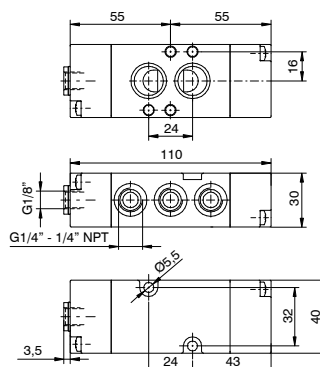
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max. working pressure (bar)	10
Temperature °C	See order codes page
Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	1100
Orifice size (mm)	8
Working ports size	G 1/4" - 1/4" NPT
Cv	1,11
kv	16,66

MODEL
M = Standard valve
X = ATEX valve
CONNECTIONS
C = 5 = G1/4"
7 = 1/4" NPT
TEMPERATURE OPTION
SEE ORDER CODES PAGE



Weight 245 g
Minimum pilot pressure 2,5 bar
Maximum fitting torque 9 N/m

M51C.52.00.18



Pneumatic-Spring

CODING: M51C.52.00.19

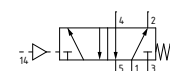
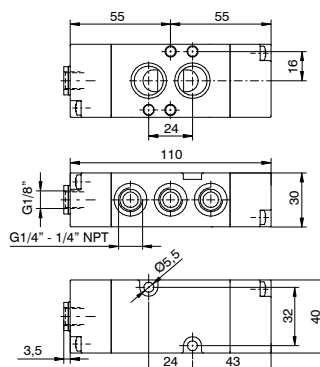
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max. working pressure (bar)	10
Temperature °C	See order codes page
Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	1100
Orifice size (mm)	8
Working ports size	G 1/4" - 1/4" NPT
Cv	1,11
kv	16,66

MODEL
M = Standard valve
X = ATEX valve
CONNECTIONS
C = 5 = G1/4"
7 = 1/4" NPT
TEMPERATURE OPTION
SEE ORDER CODES PAGE



Weight 245 g
Minimum pilot pressure 2,5 bar
Maximum fitting torque 9 N/m

M51C.52.00.19





Valves and solenoid valves with "Namur" interface Series 515 High Performance

WWW.SUMY.IR

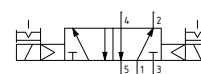
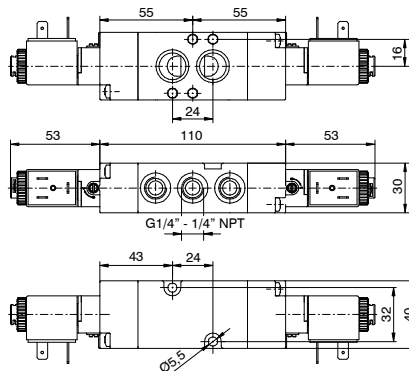
AIR DISTRIBUTION

Solenoid-Solenoid

CODING: M51C.52.00.35.TO

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max. working pressure (bar)	10
Temperature °C	See order codes page
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	1100
Orifice size (mm)	8
Working ports size	G 1/4" - 1/4" NPT
Cv	1,11
kv	16,66

M	MODEL
	= Standard valve
	X = ATEX valve
C	CONNECTIONS
	5 = G1/4"
	7 = 1/4" NPT
T	VOLTAGE
	SEE ORDER CODES PAGE
O	TEMPERATURE OPTION
	SEE ORDER CODES PAGE



Weight 415 g
Minimum pilot pressure 2,5 bar
Maximum fitting torque 9 N/m

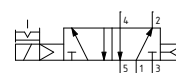
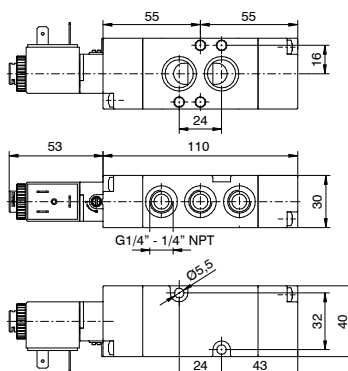
M51C.52.00.35.TO

Solenoid-Differential

CODING: M51C.52.00.36.TO

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max. working pressure (bar)	10
Temperature °C	See order codes page
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	1100
Orifice size (mm)	8
Working ports size	G 1/4" - 1/4" NPT
Cv	1,11
kv	16,66

M	MODEL
	= Standard valve
	X = ATEX valve
C	CONNECTIONS
	5 = G1/4"
	7 = 1/4" NPT
T	VOLTAGE
	SEE ORDER CODES PAGE
O	TEMPERATURE OPTION
	SEE ORDER CODES PAGE



Weight 330 g
Minimum pilot pressure 2,5 bar
Maximum fitting torque 9 N/m

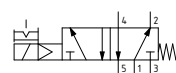
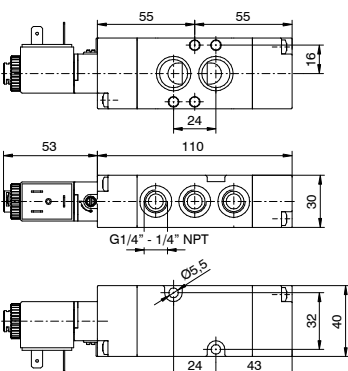
M51C.52.00.36.TO

Solenoid-Spring

CODING: M51C.52.00.39.TO

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max. working pressure (bar)	10
Temperature °C	See order codes page
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	1100
Orifice size (mm)	8
Working ports size	G 1/4" - 1/4" NPT
Cv	1,11
kv	16,66

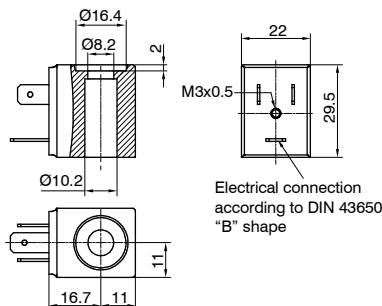
M	MODEL
	= Standard valve
	X = ATEX valve
C	CONNECTIONS
	5 = G1/4"
	7 = 1/4" NPT
T	VOLTAGE
	SEE ORDER CODES PAGE
O	TEMPERATURE OPTION
	SEE ORDER CODES PAGE



Weight 330 g
Minimum pilot pressure 2,5 bar
Maximum fitting torque 9 N/m

M51C.52.00.39.TO

Solenoid coil 22 mm Ø10, type MB



Ordering code

MB1

VOLTAGE
4= 12 VDC
5= 24 VDC
9= 24 VDC (2W)
56= 24 VAC (50-60 Hz)
57= 110 VAC (50-60 Hz)
58= 230 VAC (50-60 Hz)



AIR DISTRIBUTION

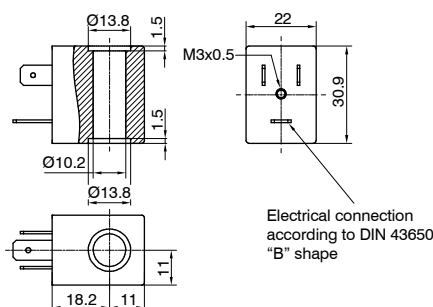
Operational characteristics

Class of insulation	Tolerance on voltage	IP Rating with connector	Electrical connection	Weight (g)
F	±10%	IP65	DIN43650 B industrial	53

Solenoid coil 22 mm Ø10, type XMB



CE II 3G Ex ec IIC T5/T4 Gc
CE II 3D Ex tc IIIC T93°C...T116°C Dc



Ordering code

XMB1

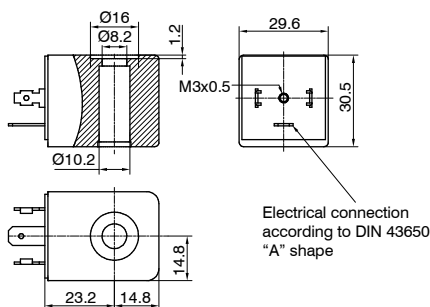
VOLTAGE
4= 12 VDC
5= 24 VDC
56= 24 VAC (50-60 Hz)
57= 110 VAC (50-60 Hz)
58= 230 VAC (50-60 Hz)



Operational characteristics

Class of insulation	Tolerance on voltage	IP Rating with connector	Electrical connection	Weight (g)
F	±10%	IP65	DIN43650 B industrial	54

Solenoid coil 30 mm Ø10, type MC



Ordering code

MC1

VOLTAGE
4= 12 VDC
5= 24 VDC
9= 24 VDC (2W)
56= 24 VAC (50-60 Hz)
57= 110 VAC (50-60 Hz)
58= 230 VAC (50-60 Hz)



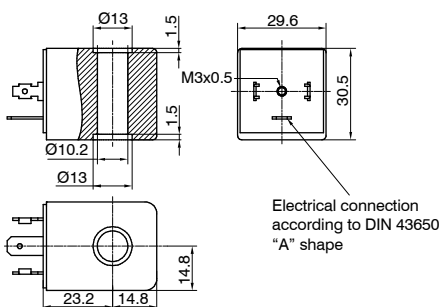
Operational characteristics

Class of insulation	Tolerance on voltage	IP Rating with connector	Electrical connection	Weight (g)
F	±10%	IP65	DIN43650 A	113

Solenoid coil 30 mm Ø10, type XMC



CE II 3G Ex ec IIC T5/T4 Gc
CE II 3D Ex tc IIIC T93°C...T116°C Dc



Ordering code

XMC1

VOLTAGE
4= 12 VDC
5= 24 VDC
56= 24 VAC (50-60 Hz)
57= 110 VAC (50-60 Hz)
58= 230 VAC (50-60 Hz)



Operational characteristics

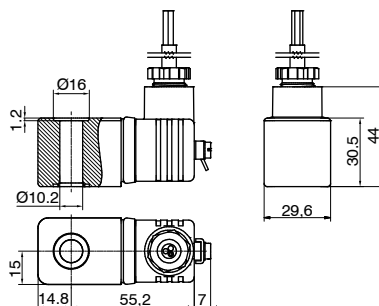
Class of insulation	Tolerance on voltage	IP Rating with connector	Electrical connection	Weight (g)
F	±10%	IP65	DIN43650 A	117



Solenoid coil 30 mm Ø10, type XME



CE UK II 2G Ex mb IIC T6...T4 Gb
CE UK II 2D Ex mb IIIC T85°C...T135°C Db



Ordering code

XME-3

VOLTAGE

5 = 24 VDC
56 = 24 VAC (50-60 Hz)
57 = 110 VAC (50-60 Hz)
58 = 230 VAC (50-60 Hz)



Operational characteristics

Class of insulation	Tolerance on voltage	IP Rating with connector	Electrical connection	Weight (g)
H	±10%	IP65	Cavo 3 mt.	325

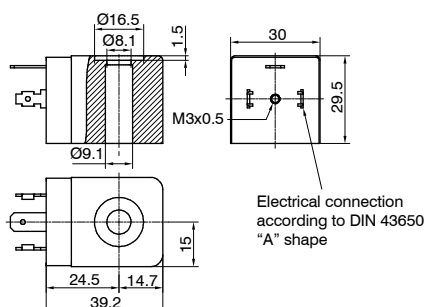
Solenoid coil 30 mm Ø9, type XMHB Ex ia



CE UK II 2G Ex ia IIB/IIC T6/T4 Gb

Electrical specifications for intrinsically safety

Group IIC Ui max= 28 V, li max= 115 mA, Pi max= 1,6 W
Group IIB Ui max= 32 V, li max= 195 mA, Pi max= 1,6 W



Ordering code

XMHB1

VOLTAGE

4 = 32 VDC T4
6 = 32 VDC T6



Operational characteristics

Class of insulation	Tolerance on voltage	IP Rating with connector	Electrical connection	Weight (g)
F	±10%	IP65	DIN43650 A	111

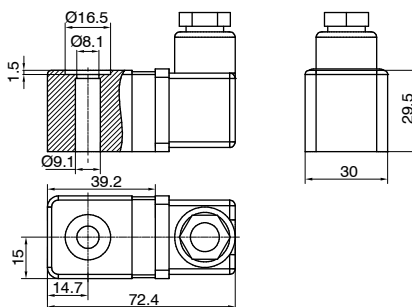
Solenoid coil 30 mm Ø9, type XMHC Ex ia 32 VDC T6



CE UK II 2G Ex ia IIC/IIB T6/T4 Ga
CE UK II 2D Ex tb IIIC T80°C/T130°C Db IP65

Electrical specifications for intrinsically safety

Group IIC Ui max= 28 V, li max= 115 mA, Pi max= 1,6 W
Group IIB Ui max= 32 V, li max= 195 mA, Pi max= 1,6 W



Ordering code

XMHC



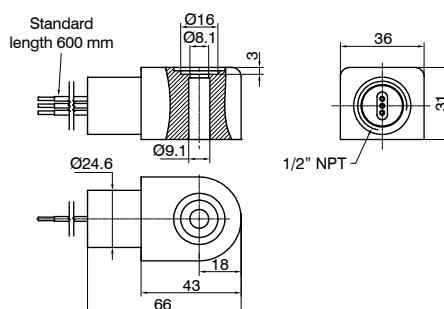
Operational characteristics

Class of insulation	Tolerance on voltage	IP Rating	Weight (g)
F	±10%	IP65	136

Solenoid coil 36 mm Ø9, type ML FM APPROVED



Class I, Division 2, Groups A, B, C, D, T4, Ta=60°C
Suitable for Class II, III, Division 2, Groups E, F, G, T4, Ta=60°C
hazardous (classified) locations.



Ordering code

ML1

VOLTAGE

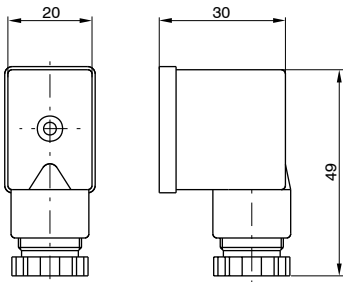
4 = 12 VDC
5 = 24 VDC
39 = 120 VAC
41 = 240 VAC



Operational characteristics

Class of insulation	Tolerance on voltage	IP Rating with connector	Electrical connection (mm)	Weight (g)
H	±10%	IP65	600	150

Connector 22 mm ATEX DIN43650 B industrial



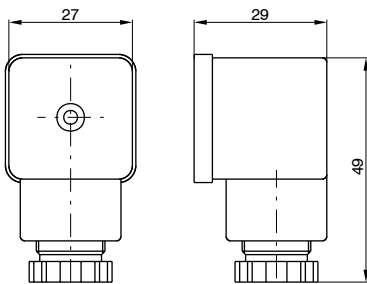
Ordering code

X305.11.00



Weight 21 g

Connector 30 mm ATEX DIN43650 A



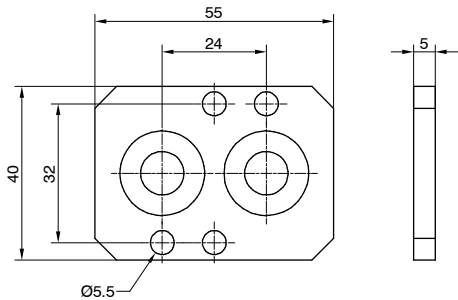
Ordering code

X300.11.00



Weight 25 g

30 mm solenoid base adaptor



Ordering code

514.05

Weight 25 g

WWW.SUMY.IR



PNEUMAX

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process@pneumaxspa.com
www.pneumaxspa.com



PNEUMAX
WWW.SUMY.IR



PNEUMAX FLUID CONTROL

CATALOGUE

Pneumax Fluid Control Catalogue

Pneumax offers a wide range of brass and stainless steel valves and solenoid valves, suitable for use with liquid and gaseous fluids.



Pneumax Group

Smart Technologies and Human Competence

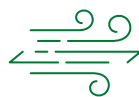
Founded in 1976, **Pneumax S.p.A.** is today one of the leading, international manufacturers of components and systems for automation. It is at the fore front of a group comprised of **26 companies**, with **over 850 employees worldwide**. Ongoing investment in research and development has allowed Pneumax to continually expand its range of standard products and customised solutions, adding to the well-established pneumatic technology, a range of electric drive actuators and fluid control components.

The desire to provide the service and specific application skills has led to the creation of 3 business units, dedicated to **Industrial Automation**, **Process Automation** and **Automotive sector**.

With the assistance of the specific Business unit Development Manager, Pneumax are able to design solutions than can add value to individual customer applications.



3 TECHNOLOGIES



**PNEUMATIC
TECHNOLOGY**



**ELECTRIC
ACTUATION**



**FLUID
CONTROL**

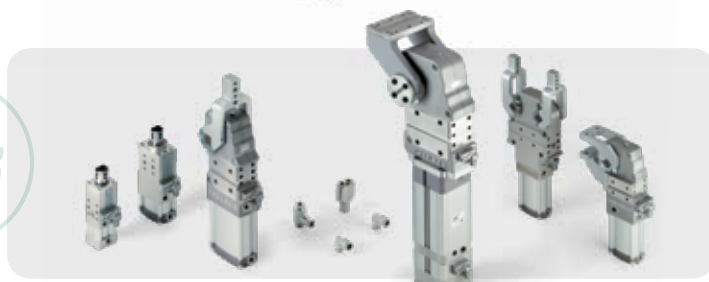
Industrial automation



Process automation



Automotive



Components and systems for fluid control

The Pneumax range of components designed for the control and management of liquid and gaseous fluids have been manufactured using selected materials (valve bodies: brass, stainless steel, seals: NBR, FPM, PTFE & EPDM) in order to guarantee maximum reliability in harsh environments.

- Solutions for low temperatures ($> -40^{\circ}\text{C}$) or high temperatures ($< +140^{\circ}\text{C}$)
- Wide range of components suitable for use with oxygen
- Certified solenoid coils



Pneumatic actuated
angle seat valves

Pad valves

Servo-assisted piston and
diaphragm solenoid valves

Direct acting poppet type
solenoid valves



Index

Pneumax Fluid Control

Introduction

I-III

Chemical compatibility fluids-materials 1-2

Solenoid valves

Direct acting poppet type solenoid valves

Series EC-D



Tube Ø10 mm
 Brass
 2/2 and 3/2 versions

3-6



Tube Ø10 mm
 AISI 316L stainless steel
 2/2 and 3/2 versions

7-10



Tube Ø13 mm
 Brass
 2/2 and 3/2 versions

11-14



Tube Ø13 mm
 AISI 316L stainless steel
 2/2 and 3/2 versions

15-18

Series EC-DA



Tube Ø14 mm
 Brass
 Ex certified housing
 2/2 version

19-20



Tube Ø14 mm
 AISI 316L stainless steel
 Ex certified housing
 2/2 version

21-22

Servo-assisted diaphragm solenoid valves

Series EC-S



Solenoid valves - 1/4" ... 1"
 Brass
 2/2 version

23-24



Solenoid valves - 1 1/4" ... 2"
 Brass
 2/2 version

25-26



Solenoid valves - 3/8" ... 1"
 AISI 316L stainless steel
 2/2 version

27-28

Series EC-SA



Solenoid valves - 1/4" ... 1"
 Brass
 Ex certified housing
 2/2 version

29-30



Solenoid valves - 1 1/4" ... 2"
 Brass
 Ex certified housing
 2/2 version

31-32



Solenoid valves - 3/8" ... 1"
 AISI 316L stainless steel
 Ex certified housing
 2/2 version

33-34

Assisted-lift diaphragm solenoid valves

Series EC-M



Solenoid valves - 1/4" ... 1"
 Brass
 2/2 version

35-36

Solenoid coils

	Series MI - 22 mm Ø10 mm		Series MG - 30 mm Ø13 mm		Series MK - 36 mm Ø13 mm		Series X2 - 50 mm Ø14 mm
	Series XMB - 22 mm Ø10 mm		Series XME - 30 mm Ø10 mm		Series 31 - 36 mm Ø13 mm		
	Series 10 - 22 mm Ø10 mm		Series 30 - 30 mm Ø13 mm				

Valves

Pneumatic actuated angle seat valves

Series PVF

	Valve with threaded ports 1/4" ... 3" 2/2 version	37		Valve with weld-in ports 2/2 version	38
	Valve with ISO 2852 clamp ports 2/2 version	39		Valve with ASME-BPE clamp ports 2/2 version	40
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Pneumatic actuated valves

Series PVF-50

	Multi channel valve 1/2" and 1" 2/2 version	42
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PVF and PVF-50 series accessories

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Manually actuated angle seat valves

Series PVF-MN

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Pad valves

Series PVA

	With "T" body valve 1/4" ... 2" 2/2 version	47-48		With "Y" body valve 1/4" ... 2" 2/2 version	49-50
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Chemical compatibility fluids-materials

Guide for material selection: fluids compatibility.

FLUID	NBR	EPDM	FPM	PTFE	BRASS	STAINLESS STEEL 316L
Ethyl acetate	✗	⚠	✗	✓	✗	✓
Acetylene	✓	✓	✓	✓	✓	✓
Vinegar	✗	✓	⚠	✓	✗	✓
Acetone	✗	✓	✗	✓	✓	✓
Hot water <75°C	✓	✓	✓	✓	✓	✓
Water with glycol	✓	✓	✓	✓	✓	✓
Demineralized water	⚠	✓	✓	✓	✓	✓
Distilled water	✓	✓	✓	✓	⚠	✓
Ammonia (gas)	✗	✓	⚠	✓	✗	✓
Ammonia (liquid)	✗	⚠	⚠	✓	⚠	✓
Carbon dioxide dry (gas)	✓	⚠	✓	✓	✓	✓
Carbon dioxide wet	✓	⚠	⚠	✓	⚠	✓
Argon	✓	✓	✓	✓	✓	✓
Nitrogen	✓	✓	✓	✓	✓	✓
Benzene	✗	✗	✗	✓	⚠	✓
Gasoline	✓	✗	✓	✓	✓	✓
Butane	✓	✗	✓	✓	✓	✓
Chloroform	✗	✗	⚠	✓	✓	✓
Chloromethane	✗	✗	⚠	✓	⚠	✓
Ethyl chloride	✓	✓	✓	✓	✗	✓
Ethane	✓	✗	✓	✓	✓	✓
Helium	✓	✓	✓	✓	⚠	✓
Heptane	✓	✗	✓	✓	✓	✓
Hexane	✓	✗	✓	✓	✓	✓
Ethanol	⚠	✓	⚠	✓	✓	✓
Ethylene	✓	✗	✓	✓	✓	✓
Formaldehyde	⚠	⚠	⚠	✓	✗	✓

 = Compatible
  = Partial compatibility
  = Non-compatible

FLUID	NBR	EPDM	FPM	PTFE	BRASS	STAINLESS STEEL 316L
Natural gas	✓	✗	✓	✓	⚠	✓
Refrigerant gas R134A	✗	⚠	✗	✓	✓	✓
Diesel	⚠	✗	✓	✓	✓	✓
Glycerin	⚠	✓	✓	✓	⚠	✓
Ethylene glycol	✓	✓	✓	✓	⚠	✓
Hydrogen	✓	✓	✓	✓	✓	✓
Isobutane	✓	✗	✓	✓	✓	✓
Isopentane	✓	✗	✓	✓	✓	✓
Methane	✓	✗	✓	✓	✓	✓
Methanol	✗	✓	✗	✓	⚠	✓
Nitrobenzene	✗	✗	⚠	✓	✓	✓
Olive oil	✓	⚠	✓	✓	⚠	✓
Mineral oil	✓	✗	✓	✓	✓	✓
Oxygen	⚠	⚠	✓	✓	✓	✓
Ozone	✗	⚠	⚠	✓	⚠	✓
Pentane	✓	✗	✓	✓	✓	✓
Hydrogen peroxide 30%	✗	⚠	✓	✓	✗	⚠
Propane (LPG)	✓	✗	✓	✓	✓	✓
Propanol	✗	✓	✓	✓	✓	✓
Soda	✓	✓	✓	✓	⚠	✓
Lye (caustic soda)	⚠	✓	⚠	✓	✗	⚠
Carbon disulfide	✗	✗	✓	✓	✓	✓
Toluene	✗	✗	⚠	✓	✓	✓
Trichloroethylene	✗	✗	⚠	✓	✗	✓
Steam	✗	✓	⚠	✓	✓	✓
Xylene	✗	✗	⚠	✓	✓	✓

✓ = Compatible ⚠ = Partial compatibility ✗ = Non-compatible

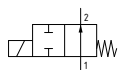
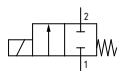
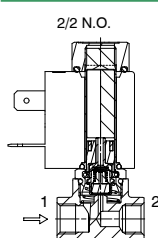
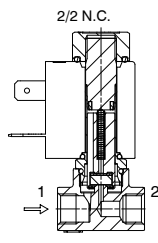
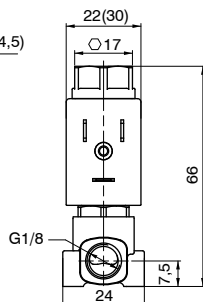
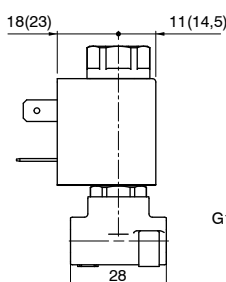
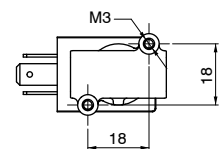


Series EC-D

Direct acting solenoid valves for Ø10 and Ø13 tube, with brass or 316L stainless steel body.

ECD01B - Tube Ø10 - Brass - 2/2 solenoid valve

CODING: ECD01BFCITGD-O-BV



Construction characteristics

Body	Brass
Armature tube	Brass (only for 2/2 N.O.) Stainless steel (only for 2/2 N.C.)
Plunger and fixed core	Stainless steel AISI 430FR
Springs	Stainless steel
Lock nut	Technopolymer

Technical characteristics

Maximum admitted pressure (bar)	2/2 N.C. 2/2 N.O.	50 28
Maximum fluid viscosity (mm²/s)		25cSt
Ambient temperature with class F solenoid coil (°C)		-10 ... +55
Ambient temperature with class H solenoid coil (°C)		-10 ... +80
Ambient temperature with UL class H solenoid coil (°C)		-10 ... +60
Assembly positions		Preferably with solenoid coil upwards

Weight (without solenoid coil)

1/8" g	80
--------	----

Technical data

Type	Function	KV (m³/h)	Orifice size (mm)	Min	Differential pressure (bar)							
					MI solenoid coil		XME solenoid coil		Series 10 solenoid coil		XMB solenoid coil	
					max DC	max AC	max DC	max AC	max DC	max AC	max DC	max AC
1/8"	2/2 N.C.	0.05	1.2	0	25		35		25		25	
		0.07	1.5		16		22		16		16	
		0.1	2		10	12	15		10	12	10	12
		0.15	2.5		5.5	8	8		5.5	8	5.5	8
		0.2	3		2	5	4		2	5	2	5
		0.35	4		1.5	4	2.5		1.5	4	1.5	4
	2/2 N.O.	0.05	1.2	0	19		19		19		19	
		0.07	1.5		14		14		14		14	
		0.1	2		8		8		8		8	
		0.15	2.5		4.5		4.5		4.5		4.5	
		0.2	3		2.5		2.5		2.5		2.5	

Notes

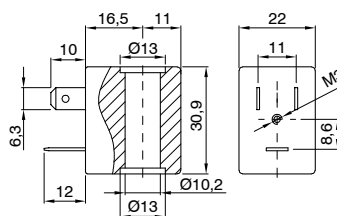
Steam max. OPD for FPM and EPDM = 2,5 bar (+140 °C)



Series MI - 22 mm solenoid coil, Ø10 mm



EAC



CODING: MI V

VERSION
4 = 12 V DC
5 = 24 V DC
21 = 48-50 V AC (50-60 Hz)
56 = 24 V AC (50-60 Hz)
57 = 110 V AC (50-60 Hz)
58 = 230 V AC (50-60 Hz)

Operational characteristics

Insulation class	Tolerance on AC voltage	Tolerance on DC voltage	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Weight (g)
							AC (VA)	DC (W)	
F	-10% ... +15%	±10%	IP65	ED100%	EN 175301-803 form B industrial	Code: 305.11.00	8	6,5	52,5

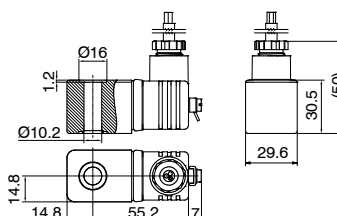
Series XME - 30 mm solenoid coil, Ø10 mm



Ex

IECEx

II 2G Ex mb IIC T6...T4 Gb
II 2D Ex mb IIC T85°C...T135°C Db



CODING: XME V-3

VERSION
5 = 24 V DC
56 = 24 V AC (50-60 Hz)
57 = 110 V AC (50-60 Hz)
58 = 230 V AC (50-60 Hz)

Operational characteristics

Insulation class	Tolerance on AC voltage	Tolerance on DC voltage	IP rating with connector	Continuous service	Electrical connection	Power		Temperature class	Weight (g)
						AC (VA)	DC (W)		
H	-10% ... +15%	±10%	IP65	ED100%	3 m cable	5,3	5,4	T4	329

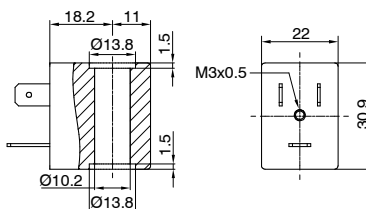
Series XMB - 22 mm solenoid coil, Ø10 mm



Ex

EAC

II 3G Ex ec IIC T5/T4 Gc
II 3D Ex tc IIC T93°C...T116°C Dc



CODING: XMB V

VERSION
4 = 12 V DC
5 = 24 V DC
56 = 24 V AC (50-60 Hz)
57 = 110 V AC (50-60 Hz)
58 = 230 V AC (50-60 Hz)

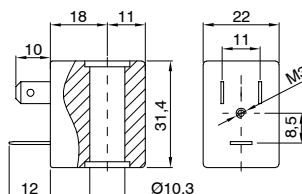
Operational characteristics

Insulation class	Voltage tolerance	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Temperature class	Weight (g)
						AC (VA)	DC (W)		
F	±10%	IP65	ED100%	EN 175301-803 form B industrial	Code: 305.11.00	5,5		T4	54

Series 10 - 22 mm solenoid coil, Ø10 mm



CE cULus



CODING: 9010 V

VERSION
A/RD1 = 12 V DC
B/RD2 = 24 V DC
2/RA2 = 24 V AC
4/RA4 = 110 / 120 V AC (50-60 Hz)
5/RA6 = 220 / 230 V AC (50-60 Hz)
6/RA7 = 240 V AC (50-60 Hz)

Operational characteristics

Insulation class	Voltage tolerance	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Ambient temperature	Weight (g)
						AC (VA)	DC (W)		
H	±10%	IP65	ED100%	EN 175301-803 form B industrial	Code: 305.11.00	8	6,5	-10°C ... +60°C	57



Direct acting poppet type solenoid valves

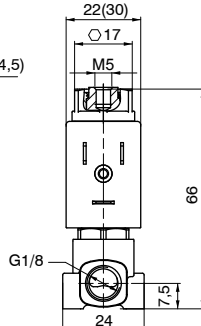
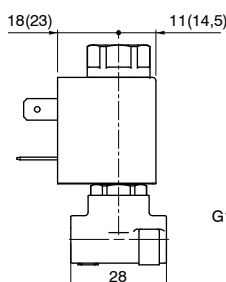
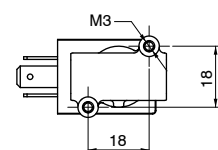
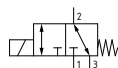
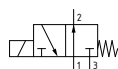
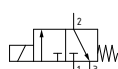
Series EC-D

WWW.SUMY.IR

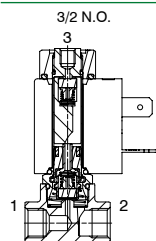
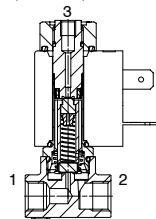
PNEUMAX FLUID CONTROL

ECD01B - Tube Ø10 - Brass - 3/2 solenoid valve

CODING: ECD01BFCITGD-O-BV



3/2 N.C. - 3/2 Universal



F	FUNCTION
	3 = 3/2 N.C.
	4 = 3/2 N.O.
	5 = 3/2 Universal
C	CONNECTIONS
	G = Gas thread
	N = NPT thread
T	TYPE
	A = 1/8"
G	SEALS
	V = FPM (-10°C ... +140°C)
	N = NBR (-10°C ... +90°C)
D	ORIFICE SIZE
	12 = 1,2 mm
	15 = 1,5 mm
	20 = 2,0 mm
O	OPTIONS
	000 = Standard
	P01 = Electroless nickel plating
	P03 = Oxygen use
B	SOLENOID COILS
	= Without solenoid coil
	MI = Solenoid coil, 22 mm
	XME = Wired solenoid coil, 30 mm (ATEX)
	XMB = Solenoid coil, 22 mm (ATEX)
V	SOLENOID COIL VOLTAGE
	SEE SOLENOID COIL CHARACTERISTICS

Construction characteristics	
Body	Brass
Armature tube	Brass (only for 3/2 N.O.)
	Stainless steel (only for 3/2 N.C. and 3/2 Universal)
Plunger and fixed core	Stainless steel AISI 430FR
Springs	Stainless steel
Lock nut	Technopolymer

Technical characteristics		
Maximum admitted pressure (bar)	3/2 N.C.	14
	3/2 N.O.	
	3/2 Universal	
Maximum fluid viscosity (mm²/s)		25cSt
Ambient temperature with class F solenoid coil (°C)		-10 ... +55
Ambient temperature with class H solenoid coil (°C)		-10 ... +80
Ambient temperature with UL class H solenoid coil (°C)		-10 ... +60
Assembly positions		Preferably with solenoid coil upwards

Weight (without solenoid coil)	
1/8" g	80

Technical data														
T = Type	Function	KV (m³/h)		Orifice size (mm)		Min	Differential pressure (bar)							
		1→2	2→3	1→2	2→3		MI solenoid coil		XME solenoid coil		Series 10 solenoid coil		XMB solenoid coil	
							max DC	max AC	max DC	max AC	max DC	max AC	max DC	max AC
1/8"	3/2 N.C.	0.05	0.07	1.2	1.5	0	13		13		13		13	
		0.07		10			10		10		10			
		0.1		6					6		6			
	3/2 N.O.	0.07		1.5			6 9		6 9		6 9			
	3/2 Universal	0.07		1.5			6		6		6			

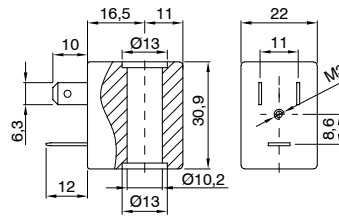
Notes

Steam max. OPD for FPM and EPDM = 2,5 bar (+140 °C)

Series MI - 22 mm solenoid coil, Ø10 mm



ERC



CODING: MI V

VERSION
4 = 12 V DC
5 = 24 V DC
21 = 48-50 V AC (50-60 Hz)
56 = 24 V AC (50-60 Hz)
57 = 110 V AC (50-60 Hz)
58 = 230 V AC (50-60 Hz)

Operational characteristics

Insulation class	Tolerance on AC voltage	Tolerance on DC voltage	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Weight (g)
							AC (VA)	DC (W)	
F	-10% ... +15%	±10%	IP65	ED100%	EN 175301-803 form B industrial	Code: 305.11.00	8	6,5	52,5

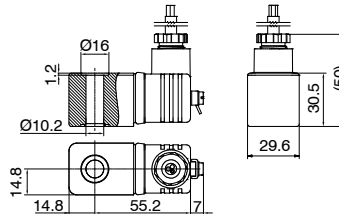
Series XME - 30 mm solenoid coil, Ø10 mm



Ex

IECEx

II 2G Ex mb IIC T6...T4 Gb
II 2D Ex mb IIC T85°C...T135°C Db



CODING: XME V-3

VERSION
5 = 24 V DC
56 = 24 V AC (50-60 Hz)
57 = 110 V AC (50-60 Hz)
58 = 230 V AC (50-60 Hz)

Operational characteristics

Insulation class	Tolerance on AC voltage	Tolerance on DC voltage	IP rating with connector	Continuous service	Electrical connection	Power		Temperature class	Weight (g)
						AC (VA)	DC (W)		
H	-10% ... +15%	±10%	IP65	ED100%	3 m cable	5,3	5,4	T4	329

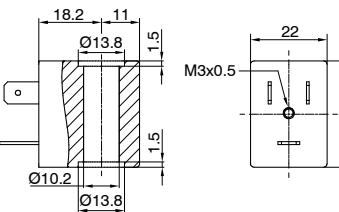
Series XMB - 22 mm solenoid coil, Ø10 mm



Ex

ERC

II 3G Ex ec IIC T5/T4 Gc
II 3D Ex tc IIC T93°C...T116°C Dc



CODING: XMB V

VERSION
4 = 12 V DC
5 = 24 V DC
56 = 24 V AC (50-60 Hz)
57 = 110 V AC (50-60 Hz)
58 = 230 V AC (50-60 Hz)

Operational characteristics

Insulation class	Voltage tolerance	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Temperature class	Weight (g)
						AC (VA)	DC (W)		
F	±10%	IP65	ED100%	EN 175301-803 form B industrial	Code: 305.11.00	5,5		T4	54

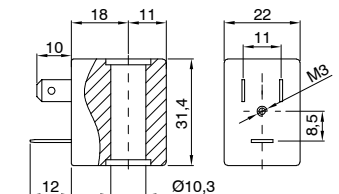
Series 10 - 22 mm solenoid coil, Ø10 mm



CE

UL

US



CODING: 9010 V

VERSION
A/RD1 = 12 V DC
B/RD2 = 24 V DC
2/RA2 = 24 V AC
4/RA4 = 110 / 120 V AC (50-60 Hz)
5/RA6 = 220 / 230 V AC (50-60 Hz)
6/RA7 = 240 V AC (50-60 Hz)

Operational characteristics

Insulation class	Voltage tolerance	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Ambient temperature	Weight (g)
						AC (VA)	DC (W)		
H	±10%	IP65	ED100%	EN 175301-803 form B industrial	Code: 305.11.00	8	6,5	-10°C ... +60°C	57

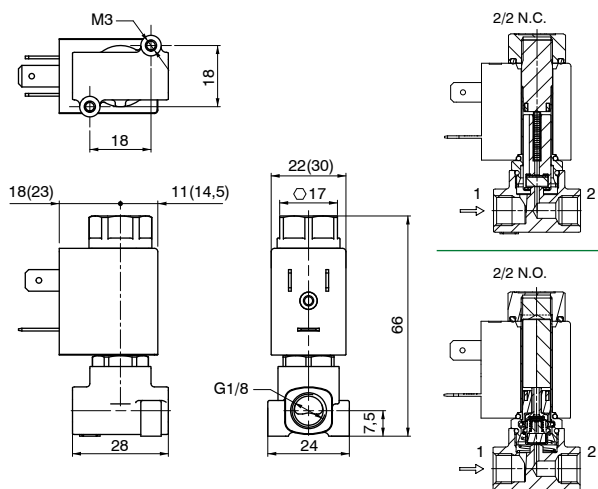
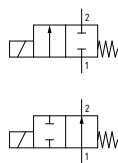


Direct acting poppet type solenoid valves

Series EC-D

WWW.SUMY.IR

PNEUMAX FLUID CONTROL



CODING: ECD01S**F****C****T****G****D**-**O**-**B****V**

F	FUNCTION
	1 = 2/2 N.C. 2 = 2/2 N.O.
C	CONNECTIONS
	G = Gas thread N = NPT thread
T	TYPE
	A = 1/8"
G	SEALS
	V = FPM (-10°C ... +140°C)
	N = NBR (-10°C ... +90°C)
	E = EPDM (-10°C ... +140°C)
D	ORIFICE SIZE
	15 = 1,5 mm
	20 = 2,0 mm
	30 = 3,0 mm
O	OPTIONS
	000 = Standard
	P03 = Oxygen use
	P07 = Silver shading ring
B	SOLENOID COILS
	= Without solenoid coil
	MI = Solenoid coil, 22 mm
	XME = Wired solenoid coil, 30 mm (ATEX)
	XMB = Solenoid coil, 22 mm (ATEX)
V	SOLENOID COIL VOLTAGE
	SEE SOLENOID COIL CHARACTERISTICS

Construction characteristics	
Body	Stainless steel 316L
Armature tube	Stainless steel
Plunger and fixed core	Stainless steel AISI 430FR
Springs	Stainless steel
Lock nut	Technopolymer

Technical characteristics		
Maximum admitted pressure (bar)	2/2 N.C.	50
	2/2 N.O.	28
Maximum fluid viscosity (mm²/s)		25cSt
Ambient temperature with class F solenoid coil (°C)		-10 ... +55
Ambient temperature with class H solenoid coil (°C)		-10 ... +80
Ambient temperature with UL class H solenoid coil (°C)		-10 ... +60
Assembly positions		Preferably with solenoid coil upwards

Weight (without solenoid coil)	
1/8" g	130

Technical data												
① = Type	Function	KV (m³/h)	Orifice size (mm)	Differential pressure (bar)								
				Min	MI solenoid coil		XME solenoid coil		Series 10 solenoid coil		XMB solenoid coil	
					max DC	max AC	max DC	max AC	max DC	max AC	max DC	max AC
1/8"	2/2 N.C.	0.07	1.5	0	16		22		16		16	
		0.10	2.0		10	12	15		10	12	10	12
		0.20	3.0		2	5	4		2	5	2	5
	2/2 N.O.	0.07	1.5	0	14		14		14		14	
		0.10	2.0		8		8		8		8	
		0.20	3.0		2.5		2.5		2.5		2.5	

Notes

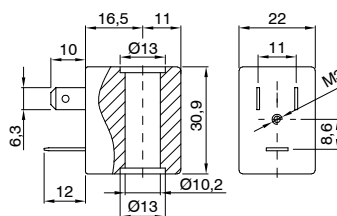
Steam max. OPD for FPM and EPDM = 2,5 bar (+140 °C)



Series MI - 22 mm solenoid coil, Ø10 mm



EAC



CODING: MI V

VERSION
4 = 12 V DC
5 = 24 V DC
21 = 48-50 V AC (50-60 Hz)
56 = 24 V AC (50-60 Hz)
57 = 110 V AC (50-60 Hz)
58 = 230 V AC (50-60 Hz)

Operational characteristics

Insulation class	Tolerance on AC voltage	Tolerance on DC voltage	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Weight (g)
							AC (VA)	DC (W)	
F	-10% ... +15%	±10%	IP65	ED100%	EN 175301-803 form B industrial	Code: 305.11.00	8	6,5	52,5

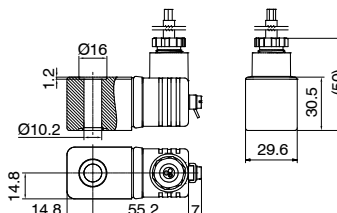
Series XME - 30 mm solenoid coil, Ø10 mm



Ex

IECEx

II 2G Ex mb IIC T6...T4 Gb
II 2D Ex mb IIC T85°C...T135°C Db



CODING: XME V-3

VERSION
5 = 24 V DC
56 = 24 V AC (50-60 Hz)
57 = 110 V AC (50-60 Hz)
58 = 230 V AC (50-60 Hz)

Operational characteristics

Insulation class	Tolerance on AC voltage	Tolerance on DC voltage	IP rating with connector	Continuous service	Electrical connection	Power		Temperature class	Weight (g)
						AC (VA)	DC (W)		
H	-10% ... +15%	±10%	IP65	ED100%	3 m cable	5,3	5,4	T4	329

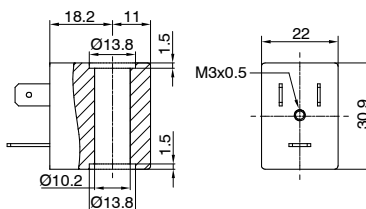
Series XMB - 22 mm solenoid coil, Ø10 mm



Ex

EAC

II 3G Ex ec IIC T5/T4 Gc
II 3D Ex tc IIC T93°C...T116°C Dc



CODING: XMB V

VERSION
4 = 12 V DC
5 = 24 V DC
56 = 24 V AC (50-60 Hz)
57 = 110 V AC (50-60 Hz)
58 = 230 V AC (50-60 Hz)

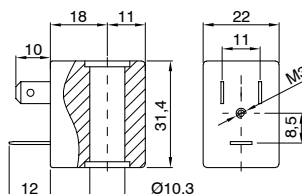
Operational characteristics

Insulation class	Voltage tolerance	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Temperature class	Weight (g)
						AC (VA)	DC (W)		
F	±10%	IP65	ED100%	EN 175301-803 form B industrial	Code: 305.11.00	5,5		T4	54

Series 10 - 22 mm solenoid coil, Ø10 mm



CE cULus



CODING: 9010 V

VERSION
A/RD1 = 12 V DC
B/RD2 = 24 V DC
2/RA2 = 24 V AC
4/RA4 = 110 / 120 V AC (50-60 Hz)
5/RA6 = 220 / 230 V AC (50-60 Hz)
6/RA7 = 240 V AC (50-60 Hz)

Operational characteristics

Insulation class	Voltage tolerance	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Ambient temperature	Weight (g)
						AC (VA)	DC (W)		
H	±10%	IP65	ED100%	EN 175301-803 form B industrial	Code: 305.11.00	8	6,5	-10°C ... +60°C	57

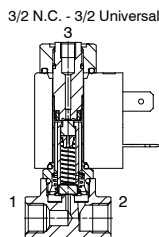
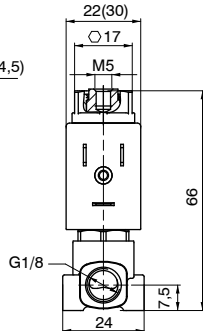
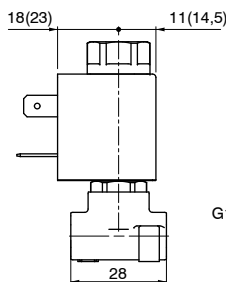
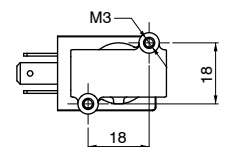
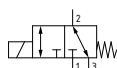
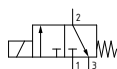


Direct acting poppet type solenoid valves

Series EC-D

WWW.SUMY.IR

PNEUMAX FLUID CONTROL



CODING: ECD01S**F****C****T****G****D**-**O**-**B****V**

F	FUNCTION
	3 = 3/2 N.C. 5 = 3/2 Universal
C	CONNECTIONS
	G = Gas thread N = NPT thread
T	TYPE
	A = 1/8"
G	SEALS
	V = FPM (-10°C ... +140°C) N = NBR (-10°C ... +90°C)
D	ORIFICE SIZE
	15 = 1,5 mm 20 = 2,0 mm
O	OPTIONS
	000 = Standard P03 = Oxygen use P07 = Silver shading ring
B	SOLENOID COILS
	= Without solenoid coil
	MI = Solenoid coil, 22 mm
	XME = Wired solenoid coil, 30 mm (ATEX)
V	SOLENOID COIL VOLTAGE
	SEE SOLENOID COIL CHARACTERISTICS

Construction characteristics	
Body	Stainless steel 316L
Armature tube	Stainless steel
Plunger and fixed core	Stainless steel AISI 430FR
Springs	Stainless steel
Lock nut	Technopolymer

Technical characteristics		
Maximum admitted pressure (bar)	3/2 N.C.	14
	3/2 Universal	
Maximum fluid viscosity (mm²/s)	25cSt	
Ambient temperature with class F solenoid coil (°C)	-10 ... +55	
Ambient temperature with class H solenoid coil (°C)	-10 ... +80	
Ambient temperature with UL class H solenoid coil (°C)	-10 ... +60	
Assembly positions	Preferably with solenoid coil upwards	

Weight (without solenoid coil)	
1/8" g	130

Technical data														
① = Type	Function	kV (m³/h)		Orifice size (mm)		Min	Differential pressure (bar)							
		1→2	2→3	1→2	2→3		MI solenoid coil		XME solenoid coil		Series 10 solenoid coil		XMB solenoid coil	
							max DC	max AC	max DC	max AC	max DC	max AC	max DC	max AC
1/8"	3/2 N.C.	0.07	0.07	1.5	1.5	0	10		10		10		10	
		0.10		2.0			6	6	6	6				
	3/2 Universal	0.07		1.5			6	6	6	6				

Notes

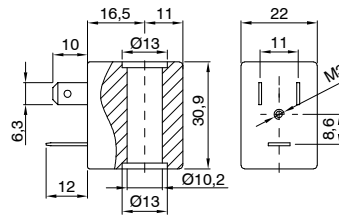
Steam max. OPD for FPM = 2,5 bar (+140 °C)



Series MI - 22 mm solenoid coil, Ø10 mm



EAC



CODING: MI V

VERSION
4 = 12 V DC
5 = 24 V DC
21 = 48-50 V AC (50-60 Hz)
56 = 24 V AC (50-60 Hz)
57 = 110 V AC (50-60 Hz)
58 = 230 V AC (50-60 Hz)

Operational characteristics

Insulation class	Tolerance on AC voltage	Tolerance on DC voltage	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Weight (g)
							AC (VA)	DC (W)	
F	-10% ... +15%	±10%	IP65	ED100%	EN 175301-803 form B industrial	Code: 305.11.00	8	6,5	52,5

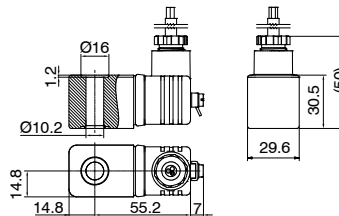
Series XME - 30 mm solenoid coil, Ø10 mm



Ex

IECEx

II 2G Ex mb IIC T6...T4 Gb
II 2D Ex mb IIC T85°C...T135°C Db



CODING: XME V-3

VERSION
5 = 24 V DC
56 = 24 V AC (50-60 Hz)
57 = 110 V AC (50-60 Hz)
58 = 230 V AC (50-60 Hz)

Operational characteristics

Insulation class	Tolerance on AC voltage	Tolerance on DC voltage	IP rating with connector	Continuous service	Electrical connection	Power		Temperature class	Weight (g)
						AC (VA)	DC (W)		
H	-10% ... +15%	±10%	IP65	ED100%	3 m cable	5,3	5,4	T4	329

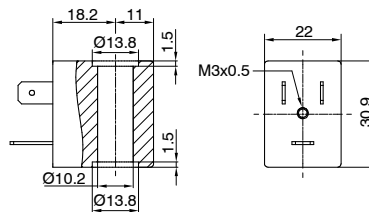
Series XMB - 22 mm solenoid coil, Ø10 mm



Ex

EAC

II 3G Ex ec IIC T5/T4 Gc
II 3D Ex tc IIC T93°C...T116°C Dc



CODING: XMB V

VERSION
4 = 12 V DC
5 = 24 V DC
56 = 24 V AC (50-60 Hz)
57 = 110 V AC (50-60 Hz)
58 = 230 V AC (50-60 Hz)

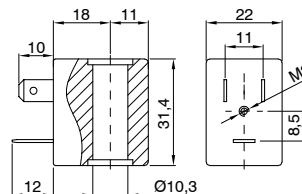
Operational characteristics

Insulation class	Voltage tolerance	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Temperature class	Weight (g)
						AC (VA)	DC (W)		
F	±10%	IP65	ED100%	EN 175301-803 form B industrial	Code: 305.11.00	5,5		T4	54

Series 10 - 22 mm solenoid coil, Ø10 mm



CE cULus



CODING: 9010 V

VERSION
A/RD1 = 12 V DC
B/RD2 = 24 V DC
2/RA2 = 24 V AC
4/RA4 = 110 / 120 V AC (50-60 Hz)
5/RA6 = 220 / 230 V AC (50-60 Hz)
6/RA7 = 240 V AC (50-60 Hz)

Operational characteristics

Insulation class	Voltage tolerance	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Ambient temperature	Weight (g)
						AC (VA)	DC (W)		
H	±10%	IP65	ED100%	EN 175301-803 form B industrial	Code: 305.11.00	8	6,5	-10°C ... +60°C	57



Direct acting poppet type solenoid valves

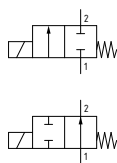
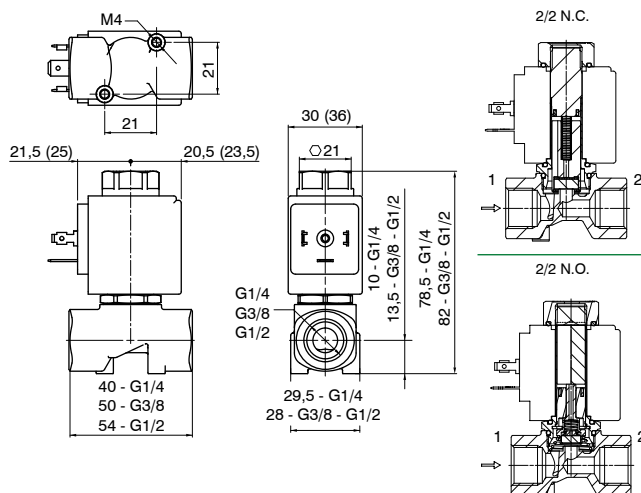
Series EC-D

WWW.SUMY.IR

ECD02B - Tube Ø13 - Brass - 2/2 solenoid valve

CODING: ECD02B**FCTGD-O-BV**

PNEUMAX FLUID CONTROL



FUNCTION	
F	1 = 2/2 N.C. 2 = 2/2 N.O.
CONNECTIONS	
G	= Gas thread
N	= NPT thread
TYPE	
T	B = 1/4" C = 3/8" D = 1/2"
SEALS	
G	V = FPM (-10°C ... +140°C) N = NBR (-10°C ... +90°C) E = EPDM (-10°C ... +140°C) P = PTFE (-10°C ... +180°C) (only for 2/2 N.C.)
ORIFICE SIZE	
D	10 = 1,0 mm 15 = 1,5 mm 20 = 2,0 mm 25 = 2,5 mm 35 = 3,5 mm 45 = 4,5 mm 50 = 5,0 mm 64 = 6,4 mm
OPTIONS	
O	000 = Standard P01 = Electroless nickel plating P02 = Stainless steel seat P03 = Oxygen use P04 = Stainless steel armature tube (only for 2/2 N.O.) P06 = Manual override (only for 1/4" 2/2 N.C.)
SOLENOID COILS	
B	= Without solenoid coil MG = Solenoid coil, 30 mm MK = Solenoid coil, 36 mm (only for 2/2 N.C.) 30 = Solenoid coil, 30 mm (UL) 31 = Solenoid coil, 36 mm (UL) (only for 2/2 N.C.)
SOLENOID COIL VOLTAGE	
V	SEE SOLENOID COIL CHARACTERISTICS

Construction characteristics	
Body	Brass
Armature tube	Brass (only for 2/2 N.O.)
Armature tube	Stainless steel (only for 2/2 N.C.)
Plunger and fixed core	Stainless steel AISI 430FR
Springs	Stainless steel
Lock nut	Technopolymer
Weight (without solenoid coil)	
1/4" g	160
3/8" g	210
1/2" g	200

Technical characteristics		
Maximum admitted pressure (bar)	2/2 N.C.	100
	2/2 N.O.	27
Maximum fluid viscosity (mm²/s)		25cSt
Ambient temperature with class F solenoid coil (°C)		-10 ... +55
Ambient temperature with class H solenoid coil (°C)		-10 ... +80
Ambient temperature with UL class H solenoid coil (°C)		-10 ... +60
Assembly positions		Preferably with solenoid coil upwards

Technical data												
T = Type	Function	KV (m³/h)	Orifice size (mm)	Min	Differential pressure (bar)							
					MG solenoid coil		MK solenoid coil		Series 30 solenoid coil		Series 31 solenoid coil	
					max DC	max AC	max DC	max AC	max DC	max AC	max DC	max AC
1/4"	2/2 N.C.	0.04	1.0	0	80		100		80		100	
		0.07	1.5		26	30	80		26	30	80	
		0.1	2.0		20	22	40	50	20	22	40	50
		0.15	2.5		14	16	33	35	14	16	33	35
		0.32	3.5		8	10	19	20	8	10	19	20
		0.41	4.5		3.5	6.5	13	14	3.5	6.5	13	14
		0.51	5.0		2	4	9	10	2	4	9	10
		0.65	6.4		1	3	4.5	5	1	3	4.5	5
3/8"	2/2 N.C.	0.07	1.5	0	26	30	80	80	26	30	80	80
		0.1	2.0		20	22	40	50	20	22	40	50
		0.15	2.5		14	16	33	35	14	16	33	35
		0.32	3.5		8	10	19	20	8	10	19	20
		0.41	4.5		3.5	6.5	13	14	3.5	6.5	13	14
		0.51	5.0		2	4	9	10	2	4	9	10
		0.65	6.4		1	3	4.5	5	1	3	4.5	5
		1/2"	2/2 N.C.		0.07	1.5	0	26	30	80	80	26
0.1	2.0			20	22	40		50	20	22	40	50
0.15	2.5			14	16	33		35	14	16	33	35
0.32	3.5			8	10	19		20	8	10	19	20
0.41	4.5			3.5	6.5	13		14	3.5	6.5	13	14
0.51	5.0			2	4	9		10	2	4	9	10
0.65	6.4			1	3	4.5		5	1	3	4.5	5
1/4"	2/2 N.O.			0.07	1.5	0		18	18	/	/	18
		0.1	2	11	11		/	/	11	11	/	/
		0.15	2.5	7	7		/	/	7	7	/	/
		0.32	3.5	4	4		/	/	4	4	/	/
		0.41	4.5	3	3		/	/	3	3	/	/
		0.51	5	2.2	2.2		/	/	2.2	2.2	/	/



Technical data												
① = Type	Function	KV (m³/h)	Orifice size (mm)	Min	Differential pressure (bar)							
					MG solenoid coil		MK solenoid coil		Series 30 solenoid coil		Series 31 solenoid coil	
					max DC	max AC	max DC	max AC	max DC	max AC	max DC	max AC
3/8"	2/2 N.O.	0.07	1.5	0	18	18	/	/	18	18	/	/
		0.1	2		11	11	/	/	11	11	/	/
		0.15	2.5		7	7	/	/	7	7	/	/
		0.32	3.5		4	4	/	/	4	4	/	/
		0.41	4.5		3	3	/	/	3	3	/	/
		0.51	5		2.2	2.2	/	/	2.2	2.2	/	/
1/2"	2/2 N.O.	0.07	1.5	0	18	18	/	/	18	18	/	/
		0.1	2		11	11	/	/	11	11	/	/
		0.15	2.5		7	7	/	/	7	7	/	/
		0.32	3.5		4	4	/	/	4	4	/	/
		0.41	4.5		3	3	/	/	3	3	/	/
		0.51	5		2.2	2.2	/	/	2.2	2.2	/	/

Notes

Steam max. OPD for FPM and EPDM = 2,5 bar (+140 °C)

Steam max. OPD for PTFE = 10 bar (+180 °C) (2/2 N.C. only)

PTFE Ø1.0 ... Ø4.5 mm: Only stainless steel seat

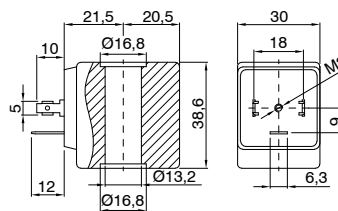
PTFE = 0.2 NI/h: Allowable leakage

OPD > 50 bar: Only PTFE seal and stainless steel seat

Series MG - 30 mm solenoid coil, Ø13 mm



EAC



CODING: MG

VERSION
4 = 12 V DC
5 = 24 V DC
56 = 24 V AC (50-60 Hz)
57 = 110 V AC (50-60 Hz)
58 = 230 V AC (50-60 Hz)

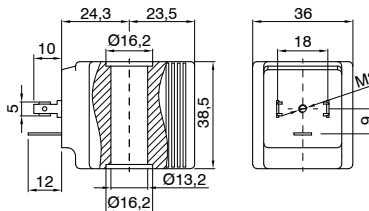
Operational characteristics

Insulation class	Tolerance on AC voltage	Tolerance on DC voltage	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Weight (g)
							AC (VA)	DC (W)	
F	-10% ... +15%	±10%	IP65	ED100%	EN 175301-803 form A	Code: 300.11.00	15	10	130

Series MK - 36 mm solenoid coil, Ø13 mm



EAC



CODING: MK

VERSION
4 = 12 V DC
5 = 24 V DC
56 = 24 V AC (50-60 Hz)
57 = 110 V AC (50-60 Hz)
58 = 230 V AC (50-60 Hz)

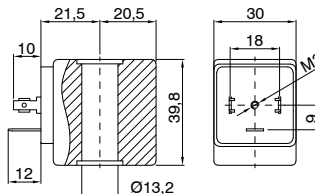
Operational characteristics

Insulation class	Tolerance on AC voltage	Tolerance on DC voltage	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Weight (g)
							AC (VA)	DC (W)	
H	-10% ... +15%	±10%	IP65	ED100%	EN 175301-803 form A	Code: 300.11.00	30	27	201

Series 30 - 30 mm solenoid coil, Ø13 mm



CE cUL US



CODING: 9030

VERSION
A/RD1 = 12 V DC
B/RD2 = 24 V DC
2/RA2 = 24 V AC
4/RA4 = 110 / 120 V AC (50-60 Hz)
5/RA6 = 220 / 230 V AC (50-60 Hz)
6/RA7 = 240 V AC (50-60 Hz)

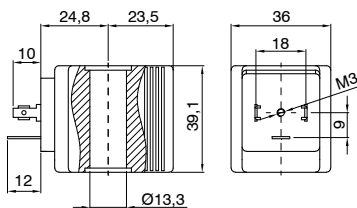
Operational characteristics

Insulation class	Voltage tolerance	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Ambient temperature	Weight (g)
						AC (VA)	DC (W)		
H	±10%	IP65	ED100%	EN 175301-803 form A	Code: 300.11.00	15	10	-10°C ... +60°C	133

Series 31 - 36 mm solenoid coil, Ø13 mm



CE cUL US



CODING: 9031

VERSION
A/RD1 = 12 V DC
B/RD2 = 24 V DC
2/RA2 = 24 V AC
4/RA4 = 110 / 120 V AC (50-60 Hz)
5/RA6 = 220 / 230 V AC (50-60 Hz)
6/RA7 = 240 V AC (50-60 Hz)

Operational characteristics

Insulation class	Voltage tolerance	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Ambient temperature	Weight (g)
						AC (VA)	DC (W)		
H	±10%	IP65	ED100%	EN 175301-803 form A	Code: 300.11.00	30	22	-10°C ... +60°C	201



Direct acting poppet type solenoid valves

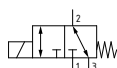
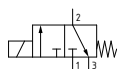
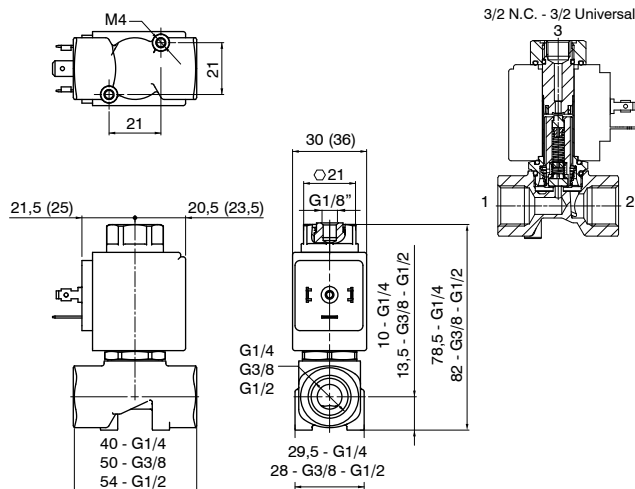
Series EC-D

WWW.SUMY.IR

PNEUMAX FLUID CONTROL

ECD02B - Tube Ø13 - Brass - 3/2 solenoid valve

CODING: ECD02B**F****C****T****G****D**-**O**-**B****V**



FUNCTION	
F	3 = 3/2 N.C. 5 = 3/2 Universal
CONNECTIONS	
G	= Gas thread
N	= NPT thread
TYPE	
T	B = 1/4" C = 3/8" D = 1/2"
SEALS	
G	V = FPM (-10°C ... +140°C) N = NBR (-10°C ... +90°C)
ORIFICE SIZE	
D	20 = 2,0 mm 25 = 2,5 mm
OPTIONS	
O	000 = Standard P01 = Electroless nickel plating P02 = Stainless steel seat P03 = Oxygen use P06 = Manual override (solo per 3/2 1/4")
SOLENOID COILS	
B	= Without solenoid coil MG = Solenoid coil, 30 mm 30 = Solenoid coil, 30 mm (UL)
SOLENOID COIL VOLTAGE	
V	SEE SOLENOID COIL CHARACTERISTICS

Construction characteristics	
Body	Brass
Armature tube	Stainless steel
Plunger and fixed core	Stainless steel AISI 430FR
Springs	Stainless steel
Lock nut	Technopolymer

Technical characteristics		
Maximum admitted pressure (bar)	3/2 N.C.	14
	3/2 Universal	
Maximum fluid viscosity (mm²/s)		25cSt
Ambient temperature with class F solenoid coil (°C)		-10 ... +55
Ambient temperature with class H solenoid coil (°C)		-10 ... +80
Ambient temperature with UL class H solenoid coil (°C)		-10 ... +60
Assembly positions		Preferably with solenoid coil upwards

Weight (without solenoid coil)	
1/4" g	160
3/8" g	210
1/2" g	200

Technical data										
① = Type	Function	KV (m³/h)		Orifice size (mm)		Min	Differential pressure (bar)			
		1→2	2→3	1→2	2→3		MG solenoid coil		Series 30 solenoid coil	
							max DC	max AC	max DC	max AC
1/4"	3/2 N.C.	0.1	0.15	2	2.5	0	13		13	
		0.15		2.5			10		10	
3/8"	3/2 N.C.	0.1		2		0	13		13	
		0.15		2.5			10		10	
1/2"	3/2 N.C.	0.1		2		0	13		13	
		0.15		2.5			10		10	
1/4"	3/2 Universal	0.15		2.5		0	5		5	
3/8"		0.15	2.5	0	5		5			
1/2"		0.15	2.5	0	5		5			

Notes

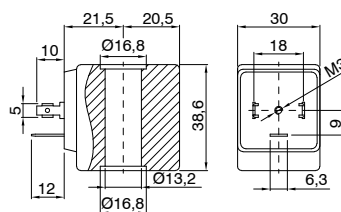
Steam max. OPD for FPM = 2,5 bar (+140°C)



Series MG - 30 mm solenoid coil, Ø13 mm



EAC



CODING: MG

VERSION
4 = 12 V DC
5 = 24 V DC
56 = 24 V AC (50-60 Hz)
57 = 110 V AC (50-60 Hz)
58 = 230 V AC (50-60 Hz)

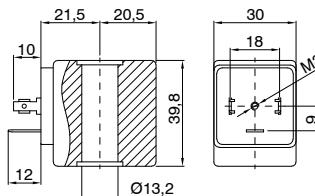
Operational characteristics

Insulation class	Tolerance on AC voltage	Tolerance on DC voltage	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Weight (g)
							AC (VA)	DC (W)	
F	-10% ... +15%	±10%	IP65	ED100%	EN 175301-803 form A	Code: 300.11.00	15	10	130

Series 30 - 30 mm solenoid coil, Ø13 mm



CE c US



CODING: 9030

VERSION
A/RD1 = 12 V DC
B/RD2 = 24 V DC
2/RA2 = 24 V AC
4/RA4 = 110 / 120 V AC (50-60 Hz)
5/RA6 = 220 / 230 V AC (50-60 Hz)
6/RA7 = 240 V AC (50-60 Hz)

Operational characteristics

Insulation class	Voltage tolerance	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Ambient temperature	Weight (g)
						AC (VA)	DC (W)		
H	±10%	IP65	ED100%	EN 175301-803 form A	Code: 300.11.00	15	10	-10°C ... +60°C	133



Direct acting poppet type solenoid valves

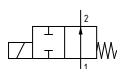
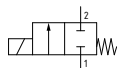
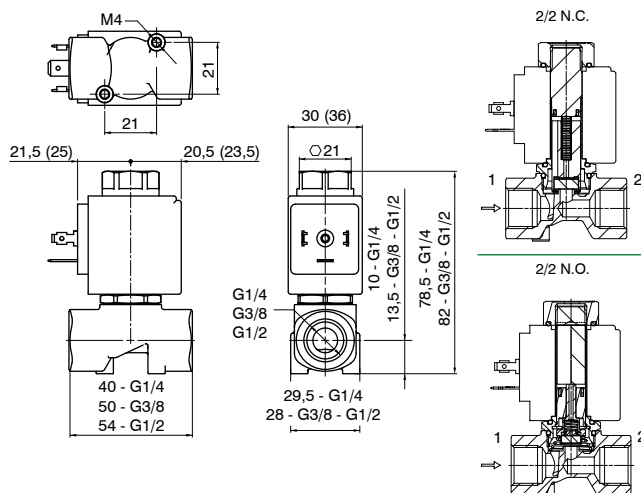
Series EC-D

WWW.SUMY.IR

PNEUMAX FLUID CONTROL

ECD02S - Tube Ø13 - Stainless steel AISI 316L - 2/2 solenoid valve

CODING: ECD02S F C T G D - O - B V



FUNCTION	
F	1 = 2/2 N.C. 2 = 2/2 N.O.
CONNECTIONS	
G	G = Gas thread N = NPT thread
TYPE	
T	B = 1/4" C = 3/8" D = 1/2"
SEALS	
G	V = FPM (-10°C ... +140°C) N = NBR (-10°C ... +90°C) E = EPDM (-10°C ... +140°C) P = PTFE (-10°C ... +180°C) (only for 2/2 N.C.)
ORIFICE SIZE	
D	15 = 1,5 mm 25 = 2,5 mm 35 = 3,5 mm 50 = 5,0 mm 64 = 6,4 mm
OPTIONS	
O	000 = Standard P03 = Oxygen use P07 = Silver shading ring
SOLENOID COILS	
B	= Without solenoid coil MG = Solenoid coil, 30 mm MK = Solenoid coil, 36 mm (only for 2/2 N.C.) 30 = Solenoid coil, 30 mm (UL) 31 = Solenoid coil, 36 mm (UL) (only for 2/2 N.C.)
SOLENOID COIL VOLTAGE	
V	SEE SOLENOID COIL CHARACTERISTICS

Construction characteristics	
Body	Stainless steel 316L
Armature tube	Stainless steel
Plunger and fixed core	Stainless steel AISI 430FR
Springs	Stainless steel
Lock nut	Technopolymer

Technical characteristics		
Maximum admitted pressure (bar)	2/2 N.C.	100
	2/2 N.O.	27
Maximum fluid viscosity (mm²/s)	25cSt	
Ambient temperature with class F solenoid coil (°C)	-10 ... +55	
Ambient temperature with class H solenoid coil (°C)	-10 ... +80	
Ambient temperature with UL class H solenoid coil (°C)	-10 ... +60	
Assembly positions	Preferably with solenoid coil upwards	

Weight (without solenoid coil)	
1/4" g	160
3/8" g	210
1/2" g	200

Technical data												
T = Type	Function	KV (m³/h)	Orifice size (mm)	Min	Differential pressure (bar)							
					MG solenoid coil		MK solenoid coil		Series 30 solenoid coil		Series 31 solenoid coil	
					max DC	max AC	max DC	max AC	max DC	max AC	max DC	max AC
1/4"	2/2 N.C.	0.07	1.5	0	26	30	80		26	30	80	
		0.15	2.5		14	16	33	35	14	16	33	35
		0.32	3.5		8	10	19	20	8	10	19	20
		0.51	5		2	4	9	10	2	4	9	10
3/8"	2/2 N.C.	0.15	2.5	0	14	16	33	35	14	16	33	35
		0.32	3.5		8	10	19	20	8	10	19	20
		0.51	5		2	4	9	10	2	4	9	10
		0.65	6.4		1	3	4.5	5	1	3	4.5	5
1/2"	2/2 N.C.	0.15	2.5	0	14	16	33	35	14	16	33	35
		0.32	3.5		8	10	19	20	8	10	19	20
		0.51	5		2	4	9	10	2	4	9	10
		0.65	6.4		1	3	4.5	5	1	3	4.5	5
1/4"	2/2 N.O.	0.07	1.5	0	18	18	/	/	18	18	/	/
		0.15	2.5		7	7	/	/	7	7	/	/
		0.32	3.5		4	4	/	/	4	4	/	/
		0.51	5		2.2	2.2	/	/	2.2	2.2	/	/
3/8"	2/2 N.O.	0.15	2.5	0	7	7	/	/	7	7	/	/
		0.32	3.5		4	4	/	/	4	4	/	/
		0.51	5		2.2	2.2	/	/	2.2	2.2	/	/
1/2"	2/2 N.O.	0.15	2.5	0	7	7	/	/	7	7	/	/
		0.32	3.5		4	4	/	/	4	4	/	/
		0.51	5		2.2	2.2	/	/	2.2	2.2	/	/

Notes

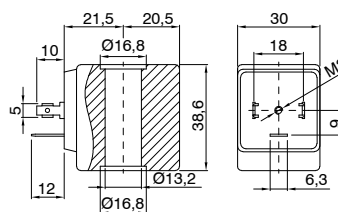
Steam max. OPD for FPM and EPDM= 2,5 bar (+140 °C)
 Steam max. OPD for PTFE= 10 bar (+180 °C) (2/2 N.C. only)
 OPD > 50 bar: only PTFE seal
 PTFE = 0.2 NI/h: Allowable leakage
 OPD > 50 bar: Only PTFE seal and stainless steel seat



Series MG - 30 mm solenoid coil, Ø13 mm



EAC



CODING: MG

VERSION

4 = 12 V DC
 5 = 24 V DC
 56 = 24 V AC (50-60 Hz)
 57 = 110 V AC (50-60 Hz)
 58 = 230 V AC (50-60 Hz)

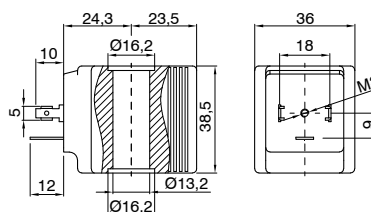
Operational characteristics

Insulation class	Tolerance on AC voltage	Tolerance on DC voltage	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Weight (g)
							AC (VA)	DC (W)	
F	-10% ... +15%	±10%	IP65	ED100%	EN 175301-803 form A	Code: 300.11.00	15	10	130

Series MK - 36 mm solenoid coil, Ø13 mm



EAC



CODING: MK

VERSION

4 = 12 V DC
 5 = 24 V DC
 56 = 24 V AC (50-60 Hz)
 57 = 110 V AC (50-60 Hz)
 58 = 230 V AC (50-60 Hz)

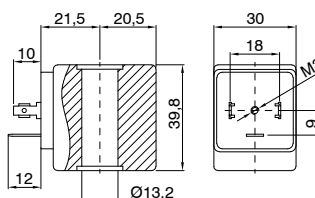
Operational characteristics

Insulation class	Tolerance on AC voltage	Tolerance on DC voltage	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Weight (g)
							AC (VA)	DC (W)	
H	-10% ... +15%	±10%	IP65	ED100%	EN 175301-803 form A	Code: 300.11.00	30	27	201

Series 30 - 30 mm solenoid coil, Ø13 mm



CE CULUS



CODING: 9030

VERSION

A/RD1 = 12 V DC
 B/RD2 = 24 V DC
 2/RA2 = 24 V AC
 4/RA4 = 110 / 120 V AC (50-60 Hz)
 5/RA6 = 220 / 230 V AC (50-60 Hz)
 6/RA7 = 240 V AC (50-60 Hz)

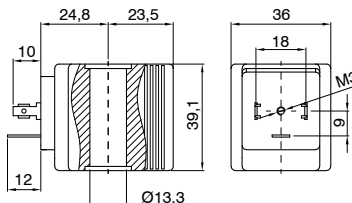
Operational characteristics

Insulation class	Voltage tolerance	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Ambient temperature	Weight (g)
						AC (VA)	DC (W)		
H	±10%	IP65	ED100%	EN 175301-803 form A	Code: 300.11.00	15	10	-10°C ... +60°C	133

Series 31 - 36 mm solenoid coil, Ø13 mm



CE CULUS



CODING: 9031

VERSION

A/RD1 = 12 V DC
 B/RD2 = 24 V DC
 2/RA2 = 24 V AC
 4/RA4 = 110 / 120 V AC (50-60 Hz)
 5/RA6 = 220 / 230 V AC (50-60 Hz)
 6/RA7 = 240 V AC (50-60 Hz)

Operational characteristics

Insulation class	Voltage tolerance	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Ambient temperature	Weight (g)
						AC (VA)	DC (W)		
H	±10%	IP65	ED100%	EN 175301-803 form A	Code: 300.11.00	30	22	-10°C ... +60°C	201



Direct acting poppet type solenoid valves

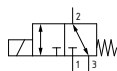
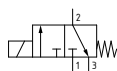
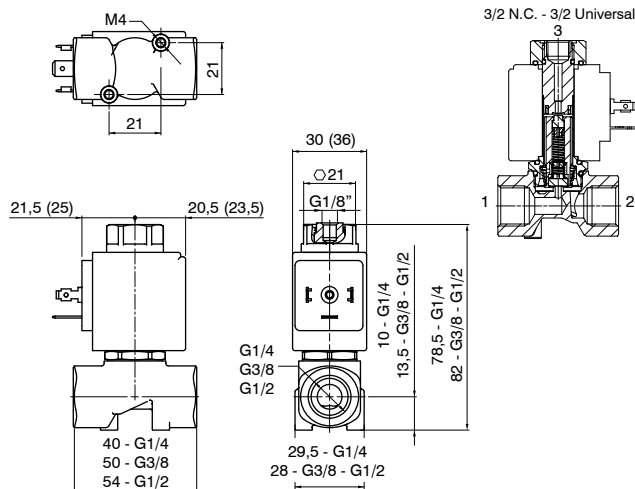
Series EC-D

WWW.SUMY.IR

PNEUMAX FLUID CONTROL

ECD02S - Tube Ø13 - Stainless steel AISI 316L - 3/2 solenoid valve

CODING: ECD02S**F****C****T****G****D**-**O**-**B****V**



FUNCTION	
F	3 = 3/2 N.C. 5 = 3/2 Universal
CONNECTIONS	
C	G = Gas thread N = NPT thread
TYPE	
T	B = 1/4" C = 3/8" D = 1/2"
SEALS	
G	V = FPM (-10°C ... +140°C) N = NBR (-10°C ... +90°C)
ORIFICE SIZE	
D	20 = 2,0 mm 25 = 2,5 mm
OPTIONS	
O	000 = Standard P03 = Oxygen use P07 = Silver shading ring
SOLENOID COILS	
B	= Without solenoid coil MG = Solenoid coil, 30 mm 30 = Solenoid coil, 30 mm (UL)
SOLENOID COIL VOLTAGE	
V	SEE SOLENOID COIL CHARACTERISTICS

Construction characteristics	
Body	Stainless steel 316L
Armature tube	Stainless steel
Plunger and fixed core	Stainless steel AISI 430FR
Springs	Stainless steel
Lock nut	Technopolymer

Technical characteristics		
Maximum admitted pressure (bar)	3/2 N.C.	14
	3/2 Universal	
Maximum fluid viscosity (mm²/s)	25cSt	
Ambient temperature with class F solenoid coil (°C)	-10 ... +55	
Ambient temperature with class H solenoid coil (°C)	-10 ... +80	
Ambient temperature with UL class H solenoid coil (°C)	-10 ... +60	
Assembly positions	Preferably with solenoid coil upwards	

Weight (without solenoid coil)	
1/4" g	160
3/8" g	210
1/2" g	200

Technical data										
① = Type	Function	KV (m³/h)		Orifice size (mm)		Min	Differential pressure (bar)			
		1→2	2→3	1→2	2→3		MG solenoid coil		Series 30 solenoid coil	
							max DC	max AC	max DC	max AC
1/4"	3/2 N.C.	0.1	0.15	2	2.5	0	13		13	
		0.15		2.5			10		10	
3/8"	3/2 N.C.	0.1		2		0	13		13	
		0.15		2.5			10		10	
1/2"	3/2 N.C.	0.1		2		0	13		13	
		0.15		2.5			10		10	
1/4"	3/2 Universal	0.15		2.5		0	5		5	
3/8"		0.15		2.5		0	5		5	
1/2"		0.15		2.5		0	5		5	

Notes

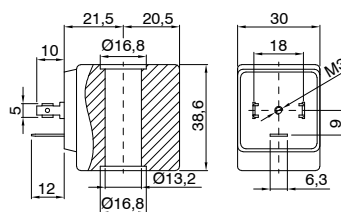
Steam max. OPD for FPM = 2,5 bar (+140 °C)



Series MG - 30 mm solenoid coil, Ø13 mm



EAC



CODING: MG

VERSION

4 = 12 V DC

5 = 24 V DC

56 = 24 V AC (50-60 Hz)

57 = 110 V AC (50-60 Hz)

58 = 230 V AC (50-60 Hz)

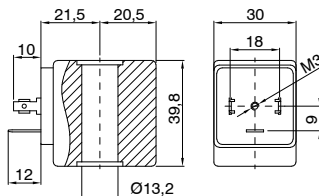
Operational characteristics

Insulation class	Tolerance on AC voltage	Tolerance on DC voltage	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Weight (g)
							AC (VA)	DC (W)	
F	-10% ... +15%	±10%	IP65	ED100%	EN 175301-803 form A	Code: 300.11.00	15	10	130

Series 30 - 30 mm solenoid coil, Ø13 mm



CE cUL US



CODING: 9030

VERSION

A/RD1 = 12 V DC

B/RD2 = 24 V DC

2/RA2 = 24 V AC

4/RA4 = 110 / 120 V AC (50-60 Hz)

5/RA6 = 220 / 230 V AC (50-60 Hz)

6/RA7 = 240 V AC (50-60 Hz)

Operational characteristics

Insulation class	Voltage tolerance	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Ambient temperature	Weight (g)
						AC (VA)	DC (W)		
H	±10%	IP65	ED100%	EN 175301-803 form A	Code: 300.11.00	15	10	-10°C ... +60°C	133



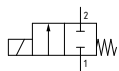
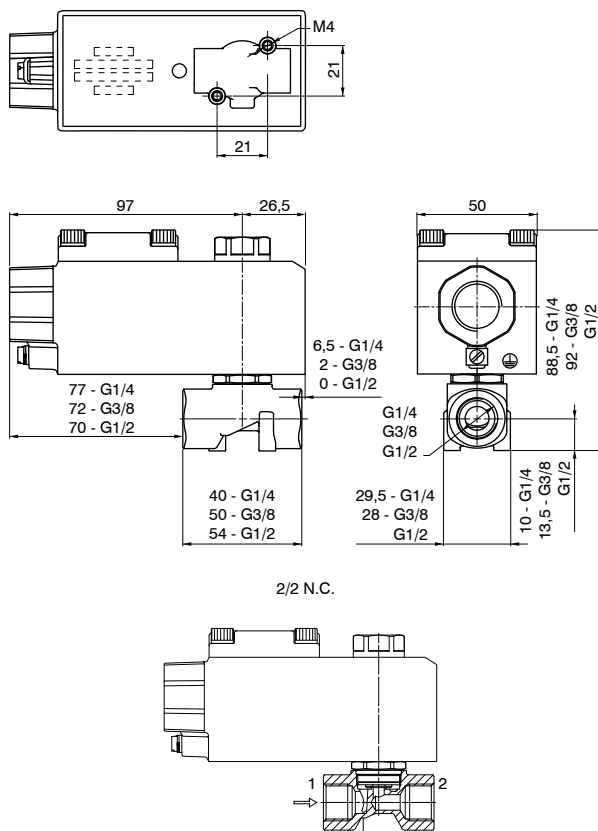
Series EC-DA

Direct acting solenoid valves for Ø14 tube, Ex certified housing, with brass or 316L stainless steel body.

ECDA3B - Tube Ø14 - Brass - 2/2 solenoid valve - Ex certified housing

CODING: ECDA3BFCCTGD-O-BV

F	FUNCTION
	1 = 2/2 N.C.
C	CONNECTIONS
	G = Gas thread
	N = NPT thread
T	TYPE
	B = 1/4"
	C = 3/8"
	D = 1/2"
G	SEALS
	V = FPM (-10°C ... +140°C)
	N = NBR (-10°C ... +90°C)
	E = EPDM (-10°C ... +140°C)
	P = PTFE (-10°C ... +180°C)
D	ORIFICE SIZE
	10 = 1,0 mm
	15 = 1,5 mm
	20 = 2,0 mm
	25 = 2,5 mm
	35 = 3,5 mm
	45 = 4,5 mm
	50 = 5,0 mm
	64 = 6,4 mm
O	OPTIONS
	000 = Standard
	P01 = Electroless nickel plating
	P02 = Stainless steel seat
	P03 = Oxygen use
B	SOLENOID COILS
	= Without solenoid coil
	X2A = 12 V AC/DC (8 W)
	X2B = 24 V AC/DC (8 W)
	X24 = 110/120 V AC/DC (8 W)
	X25 = 220/240 V AC/DC (8 W)
V	SOLENOID COIL VOLTAGE
	SEE SOLENOID COIL CHARACTERISTICS



Construction characteristics	
Body	Brass
Armature tube	Stainless steel
Plunger and fixed core	Stainless steel AISI 430FR
Springs	Stainless steel
Lock nut	Technopolymer
Weight (without solenoid coil)	
1/4" g	170
3/8" g	225
1/2" g	215

Technical characteristics	
Maximum admitted pressure (bar)	100
Maximum fluid viscosity (mm²/s)	25cSt
Ambient temperature with class T6 solenoid coil (°C)	-40 ... +35
Ambient temperature with class T5 solenoid coil (°C)	-40 ... +50
Ambient temperature with class T4 solenoid coil (°C)	-40 ... +60
Assembly positions	Preferably with solenoid coil upwards

Technical data						
① = Type	Function	KV (m³/h)	Orifice size (mm)	Differential pressure (bar)		
				Min	X2 solenoid coil	
					max DC	max AC
1/4"	2/2 N.C.	0.04	1	0	80	
		0.07	1.5		26	
		0.1	2		20	
		0.15	2.5		14	
		0.32	3.5		8	
		0.41	4.5		3.5	
		0.51	5		2	
		0.65	6.4		1	
3/8"		0.07	1.5		26	
		0.1	2		20	
		0.15	2.5		14	
		0.32	3.5		8	
		0.41	4.5		3.5	
		0.51	5		2	
		0.65	6.4		1	
		1/2"	0.07		1.5	26
0.1			2		20	
0.15			2.5		14	
0.32			3.5		8	
0.41			4.5		3.5	
0.51			5		2	
0.65			6.4		1	

Notes

Steam max. OPD for FPM and EPDM = 2,5 bar (+140 °C)

Steam max. OPD for PTFE = 10 bar (+180 °C)

PTFE Ø1.5 ... Ø4.5 mm: Only stainless steel seat

PTFE = 0.2 NI/h: Allowable leakage

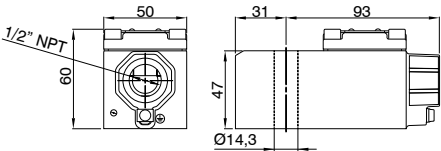
OPD > 50 bar: Only PTFE seal and stainless steel seat



Series X2 - 50 mm solenoid coil, Ø14 mm



II 2G/D Ex db IIC T6/T5/T4 Gb
Ex tb IIIC T85°C/T100°C/T135°C Db



CODING: 90X2V

V	VERSION
	A/RD1 = 12 V AC/DC
	B/RD2 = 24 V AC/DC
	4/RA4 = 110 / 120 V AC/DC
	5/RA6 = 220 / 240 V AC/DC

Housing material
Aluminium

Options

- Cable entry: M20x1,5
- Stainless steel housing

Operational characteristics								
Insulation class	Voltage tolerance	IP rating	Continuous service	Electrical connection	Power	Cable entry	Ambient temperature	Weight (g)
H	±10%	IP66	ED100%	Terminal block	8 W	1/2" NPT	-40 / +35 °C (T6), +50 °C (T5), +60 °C (T4)	700

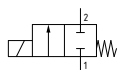
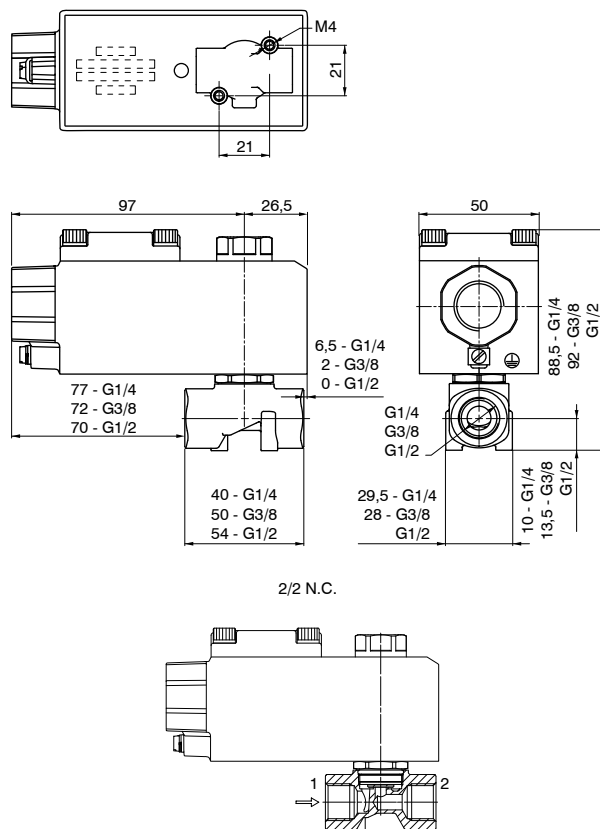


Direct acting poppet type solenoid valves

Series EC-DA

WWW.SUMY.IR

PNEUMAX FLUID CONTROL



CODING: ECDA3S**FCTGD-O-BV**

F	FUNCTION
1	2/2 N.C.
C	CONNECTIONS
G	G = Gas thread
N	N = NPT thread
T	TYPE
B	B = 1/4"
C	C = 3/8"
D	D = 1/2"
G	SEALS
V	V = FPM (-10°C ... +140°C)
N	N = NBR (-10°C ... +90°C)
E	E = EPDM (-10°C ... +140°C)
P	P = PTFE (-10°C ... +180°C)
D	ORIFICE SIZE
15	1,5 mm
25	2,5 mm
35	3,5 mm
50	5,0 mm
64	6,4 mm
O	OPTIONS
000	= Standard
P03	= Oxygen use
B	SOLENOID COILS
X2A	= Without solenoid coil
X2A	X2A = 12 V AC/DC (8 W)
X2B	X2B = 24 V AC/DC (8 W)
X24	X24 = 110/120 V AC/DC (8 W)
X25	X25 = 220/240 V AC/DC (8 W)
V	SOLENOID COIL VOLTAGE
SEE SOLENOID COIL CHARACTERISTICS	

Construction characteristics	
Body	Stainless steel 316L
Armature tube	Stainless steel
Plunger and fixed core	Stainless steel AISI 430FR
Springs	Stainless steel
Lock nut	Technopolymer
Weight (without solenoid coil)	
1/4" g	145
3/8" g	205
1/2" g	195

Technical characteristics	
Maximum admitted pressure (bar)	100
Maximum fluid viscosity (mm²/s)	25cSt
Ambient temperature with class T6 solenoid coil (°C)	-40 ... +35
Ambient temperature with class T5 solenoid coil (°C)	-40 ... +50
Ambient temperature with class T4 solenoid coil (°C)	-40 ... +60
Assembly positions	Preferably with solenoid coil upwards

Technical data						
① = Type	Function	KV (m³/h)	Orifice size (mm)	Differential pressure (bar)		
				Min	X2 solenoid coil	
1/4"	2/2 N.C.	0.07	1.5	0	max DC	max AC
		0.15	2.5		26	
		0.32	3.5		14	
		0.51	5		8	
3/8"		0.15	2.5		2	
		0.32	3.5		14	
		0.51	5		8	
		0.65	6.4		2	
1/2"		0.15	2.5		1	
		0.32	3.5		14	
		0.51	5		8	
		0.65	6.4		2	
					1	

Notes

Steam max. OPD for FPM and EPDM= 2,5 bar (+140 °C)

Steam max. OPD for PTFE= 10 bar (+180 °C)

PTFE = 0.2 NI/h: Allowable leakage

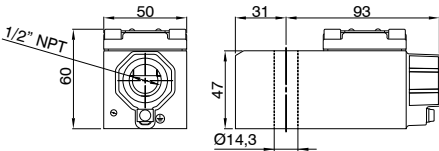
OPD > 50 bar: only PTFE seal (only for 1/4")



Series X2 - 50 mm solenoid coil, Ø14 mm



II 2G/D Ex db IIC T6/T5/T4 Gb
Ex tb IIIC T85°C/T100°C/T135°C Db



CODING: 90X2V

V	VERSION
	A/RD1 = 12 V AC/DC
	B/RD2 = 24 V AC/DC
	4/RA4 = 110 / 120 V AC/DC
	5/RA6 = 220 / 240 V AC/DC

Housing material
Aluminium

Options

- Cable entry: M20x1,5
- Stainless steel housing

Operational characteristics								
Insulation class	Voltage tolerance	IP rating	Continuous service	Electrical connection	Power	Cable entry	Ambient temperature	Weight (g)
H	±10%	IP66	ED100%	Terminal block	8 W	1/2" NPT	-40 / +35 °C (T6), +50 °C (T5), +60 °C (T4)	700



Servo-assisted diaphragm solenoid valves

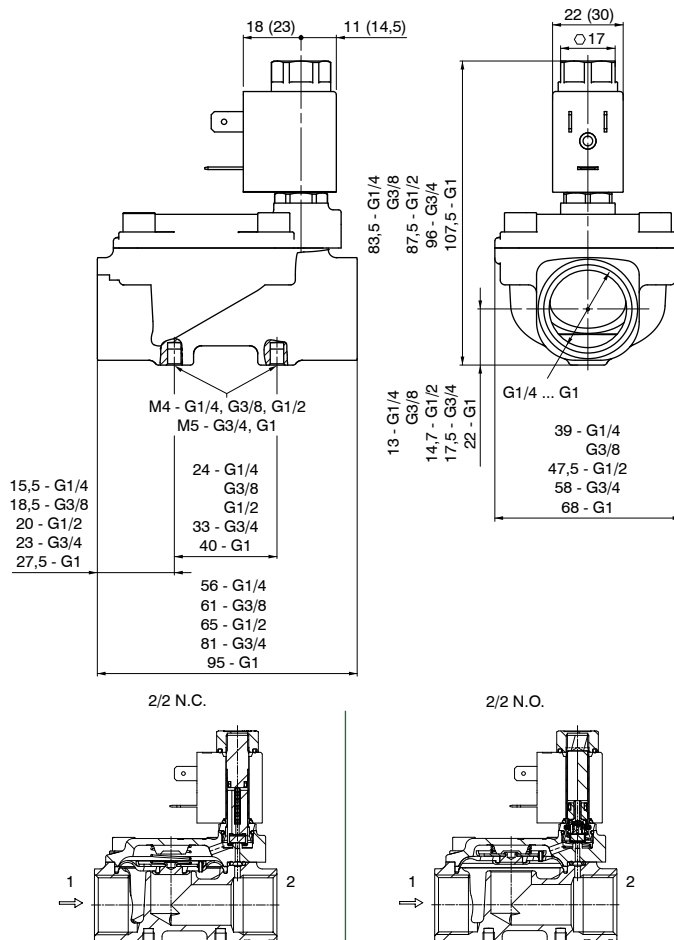
Series EC-S

WWW.SUMY.IR

Series EC-S

Servo-assisted diaphragm solenoid valves, with brass or 316L stainless steel body.

ECS01B - 1/4" ... 1" - Brass - 2/2 solenoid valve



CODING: ECS01B F C T G D - O - B V

F	FUNCTION
	1 = 2/2 N.C. 2 = 2/2 N.O.
C	CONNECTIONS
	G = Gas thread N = NPT thread
T	TYPE
	B = 1/4" (12 mm orifice size)
	C = 3/8" (12 mm orifice size)
	D = 1/2" (14 mm orifice size)
	E = 3/4" (18 mm orifice size)
	F = 1" (25 mm orifice size)
G	SEALS
	V = FPM (-0°C ... +130°C)
	N = NBR (-10°C ... +90°C)
	E = EPDM (-10°C ... +140°C)
D	ORIFICE SIZE
	12 = 12 mm
	14 = 14 mm
	18 = 18 mm
	25 = 25 mm
O	OPTIONS
	000 = Standard
	P01 = Electroless nickel plating
	P03 = Oxygen use
	P05 = Vacuum use
	P06 = Manual override (only for 2/2 N.C.)
B	SOLENOID COILS
	= Without solenoid coil
	M1 = Solenoid coil, 22 mm
	XME = Wired solenoid coil, 30 mm (ATEX)
	XMB = Solenoid coil, 22 mm (ATEX)
V	SOLENOID COIL VOLTAGE
	SEE SOLENOID COIL CHARACTERISTICS

Construction characteristics	
Body	Brass
Armature tube	Stainless steel
Plunger and fixed core	Stainless steel AISI 430FR
Springs	Stainless steel
Lock nut	Technopolymer

Weight (without solenoid coil)	
1/4" g	250
3/8" g	245
1/2" g	350
3/4" g	590
1" g	890

Technical characteristics		
Maximum admitted pressure (bar)	2/2 N.C.	21
	2/2 N.O.	
Maximum fluid viscosity (mm²/s)	25cSt	
Ambient temperature with class F solenoid coil (°C)	-10 ... +55	
Ambient temperature with class H solenoid coil (°C)	-10 ... +80	
Ambient temperature with UL class H solenoid coil (°C)	-10 ... +60	
Assembly positions	Preferably with solenoid coil upwards	

Technical data												
I = Type	Function	KV (m³/h)	Orifice size (mm)	Min	Differential pressure (bar)							
					MI solenoid coil		XME solenoid coil		XMB solenoid coil		Series 10 solenoid coil	
					max DC	max AC	max DC	max AC	max DC	max AC	max DC	max AC
1/4"	2/2 N.C.	2.2	12	0.15	16		16		16		16	
3/8"		2.4	12		16		16		16		16	
1/2"		3.5	14		16		16		16		16	
3/4"		5.5	18		14		14		14		14	
1"		11	25		12		12		12		12	
1/4"	2/2 N.O.	2.2	12		16		16		16		16	
3/8"		2.4	12		16		16		16		16	
1/2"		3.5	14		16		16		16		16	
3/4"		5.5	18		14		14		14		14	
1"		11	25		12		12		12		12	

Notes

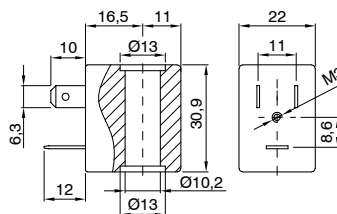
Steam max. OPD for EPDM = 2,5 bar (+140 °C)



Series MI - 22 mm solenoid coil, Ø10 mm



ERC



CODING: MI

VERSION
4 = 12 V DC
5 = 24 V DC
21 = 48-50 V AC (50-60 Hz)
56 = 24 V AC (50-60 Hz)
57 = 110 V AC (50-60 Hz)
58 = 230 V AC (50-60 Hz)

Operational characteristics

Insulation class	Tolerance on AC voltage	Tolerance on DC voltage	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Weight (g)
							AC (VA)	DC (W)	
F	-10% ... +15%	±10%	IP65	ED100%	EN 175301-803 form B industrial	Code: 305.11.00	8	6,5	52,5

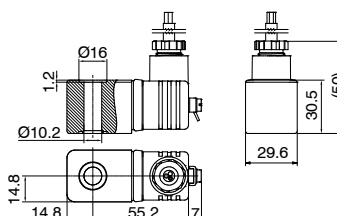
Series XME - 30 mm solenoid coil, Ø10 mm



Ex

IECEx

II 2G Ex mb IIC T6...T4 Gb
II 2D Ex mb IIC T85°C...T135°C Db



CODING: XME-3

VERSION
5 = 24 V DC
56 = 24 V AC (50-60 Hz)
57 = 110 V AC (50-60 Hz)
58 = 230 V AC (50-60 Hz)

Operational characteristics

Insulation class	Tolerance on AC voltage	Tolerance on DC voltage	IP rating with connector	Continuous service	Electrical connection	Power		Temperature class	Weight (g)
						AC (VA)	DC (W)		
H	-10% ... +15%	±10%	IP65	ED100%	3 m cable	5,3	5,4	T4	329

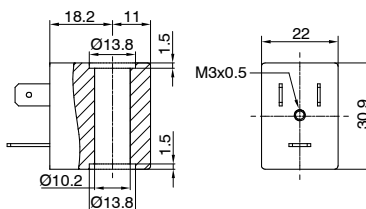
Series XMB - 22 mm solenoid coil, Ø10 mm



Ex

ERC

II 3G Ex ec IIC T5/T4 Gc
II 3D Ex tc IIC T93°C...T116°C Dc



CODING: XMB

VERSION
4 = 12 V DC
5 = 24 V DC
56 = 24 V AC (50-60 Hz)
57 = 110 V AC (50-60 Hz)
58 = 230 V AC (50-60 Hz)

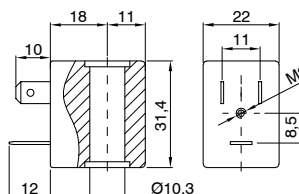
Operational characteristics

Insulation class	Voltage tolerance	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Temperature class	Weight (g)
						AC (VA)	DC (W)		
F	±10%	IP65	ED100%	EN 175301-803 form B industrial	Code: 305.11.00	5,5		T4	54

Series 10 - 22 mm solenoid coil, Ø10 mm



CE cULus

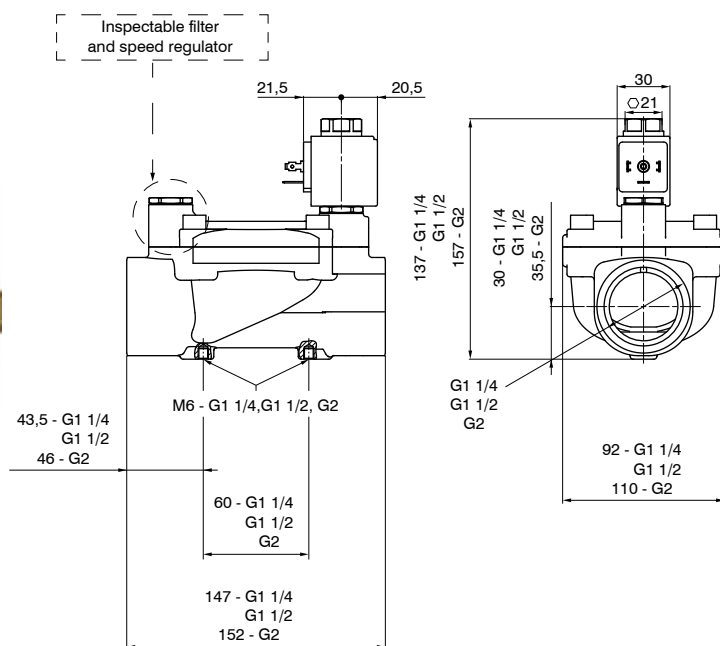


CODING: 9010

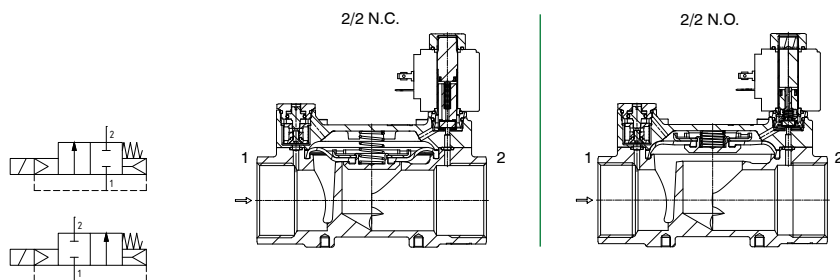
VERSION
A/RD1 = 12 V DC
B/RD2 = 24 V DC
2/RA2 = 24 V AC
4/RA4 = 110 / 120 V AC (50-60 Hz)
5/RA6 = 220 / 230 V AC (50-60 Hz)
6/RA7 = 240 V AC (50-60 Hz)

Operational characteristics

Insulation class	Voltage tolerance	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Ambient temperature	Weight (g)
						AC (VA)	DC (W)		
H	±10%	IP65	ED100%	EN 175301-803 form B industrial	Code: 305.11.00	8	6,5	-10°C ... +60°C	57

ECS01B - 1 1/4" ... 2" - Brass - 2/2 solenoid valve
CODING: ECS01B F C T G D - O - B V


FUNCTION	
F	1 = 2/2 N.C. 2 = 2/2 N.O.
CONNECTIONS	
G	= Gas thread
N	= NPT thread
TYPE	
T	G = 1 1/4" (38 mm orifice size) H = 1 1/2" (38 mm orifice size) I = 2" (50 mm orifice size)
SEALS	
V	= FPM (-0°C ... +130°C)
N	= NBR (-10°C ... +90°C)
E	= EPDM (-10°C ... +140°C)
ORIFICE SIZE	
D	38 = 38 mm 50 = 50 mm
OPTIONS	
000	= Standard
P01	= Electroless nickel plating
P03	= Oxygen use
P05	= Vacuum use
P06	= Manual override (only for 2/2 N.C.)
SOLENOID COILS	
B	= Without solenoid coil MG = Solenoid coil, 30 mm 30 = Solenoid coil, 30 mm (UL)
SOLENOID COIL VOLTAGE	
V	SEE SOLENOID COIL CHARACTERISTICS



Construction characteristics	
Body	Brass
Armature tube	Stainless steel (only for 2/2 N.C.) Brass (only for 2/2 N.O.)
Plunger and fixed core	Stainless steel AISI 430FR
Springs	Stainless steel
Lock nut	Technopolymer

Technical characteristics		
Maximum admitted pressure (bar)	2/2 N.C.	15,5
	2/2 N.O.	
Maximum fluid viscosity (mm²/s)		25cSt
Ambient temperature with class F solenoid coil (°C)		-10 ... +55
Ambient temperature with UL class H solenoid coil (°C)		-10 ... +60
Assembly positions		Preferably with solenoid coil upwards

Weight (without solenoid coil)	
1 1/4" g	2720
1 1/2" g	2550
2" g	3980

Technical data								
① = Type	Function	KV (m³/h)	Orifice size (mm)	Differential pressure (bar)				
				Min	MG solenoid coil		Series 30 solenoid coil	
					max DC	max AC	max DC	max AC
1 1/4"	2/2 N.C.	19	38	0.2				
1 1/2"		22	38		12		12	
2"		36	50		10		10	
1 1/4"	2/2 N.O.	19	38		10		10	
1 1/2"		22	38		10		10	
2"		36	50		10		10	

Notes

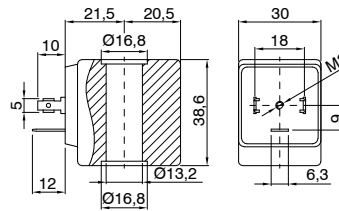
Steam max. OPD for EPDM= 2,5 bar (+140 °C)



Series MG - 30 mm solenoid coil, Ø13 mm



ERC



CODING: MG

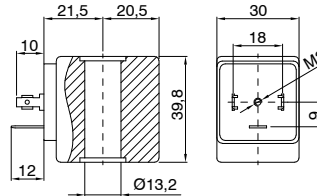
VERSION
4 = 12 V DC
5 = 24 V DC
56 = 24 V AC (50-60 Hz)
57 = 110 V AC (50-60 Hz)
58 = 230 V AC (50-60 Hz)

Operational characteristics									
Insulation class	Tolerance on AC voltage	Tolerance on DC voltage	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Weight (g)
							AC (VA)	DC (W)	
F	-10% ... +15%	±10%	IP65	ED100%	EN 175301-803 form A	Code: 300.11.00	15	10	130

Series 30 - 30 mm solenoid coil, Ø13 mm



CE cUL US



CODING: 9030

VERSION
A/RD1 = 12 V DC
B/RD2 = 24 V DC
2/RA2 = 24 V AC
4/RA4 = 110 / 120 V AC (50-60 Hz)
5/RA6 = 220 / 230 V AC (50-60 Hz)
6/RA7 = 240 V AC (50-60 Hz)

Operational characteristics									
Insulation class	Voltage tolerance	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Ambient temperature	Weight (g)
						AC (VA)	DC (W)		
H	±10%	IP65	ED100%	EN 175301-803 form A	Code: 300.11.00	15	10	-10°C ... +60°C	133



Servo-assisted diaphragm solenoid valves

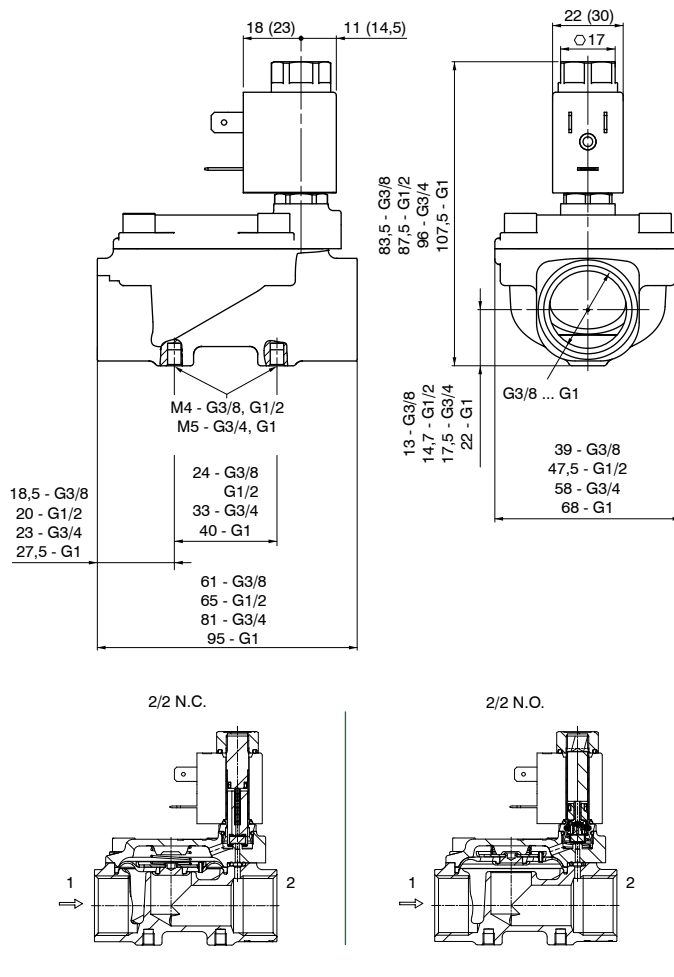
Series EC-S

WWW.SUMY.IR

PNEUMAX FLUID CONTROL

ECS01S - 3/8" ... 1" - Stainless steel AISI 316L - 2/2 solenoid valve

CODING: ECS01S**F****C****T****G****D**-**O**-**B****V**



FUNCTION	
F	1 = 2/2 N.C. 2 = 2/2 N.O.
CONNECTIONS	
G	= Gas thread
N	= NPT thread
TYPE	
C	= 3/8" (12 mm orifice size)
D	= 1/2" (14 mm orifice size)
E	= 3/4" (18 mm orifice size)
F	= 1" (25 mm orifice size)
SEALS	
V	= FPM (-0°C ... +130°C)
N	= NBR (-10°C ... +90°C)
E	= EPDM (-10°C ... +140°C)
ORIFICE SIZE	
12	= 12 mm
14	= 14 mm
18	= 18 mm
25	= 25 mm
OPTIONS	
000	= Standard
P03	= Oxygen use
P05	= Vacuum use
P06	= Manual override (only for 2/2 N.C.)
P07	= Silver shading ring
SOLENOID COILS	
= Without solenoid coil	
M1	= Solenoid coil, 22 mm
XME	= Wired solenoid coil, 30 mm (ATEX)
XMB	= Solenoid coil, 22 mm (ATEX)
10	= Solenoid coil, 22 mm (UL)
SOLENOID COIL VOLTAGE	
SEE SOLENOID COIL CHARACTERISTICS	

Construction characteristics	
Body	Stainless steel 316L
Armature tube	Stainless steel
Plunger and fixed core	Stainless steel AISI 430FR
Springs	Stainless steel
Lock nut	Technopolymer

Technical characteristics		
Maximum admitted pressure (bar)	2/2 N.C.	21
	2/2 N.O.	
Maximum fluid viscosity (mm²/s)	25cSt	
Ambient temperature with class F solenoid coil (°C)	-10 ... +55	
Ambient temperature with class H solenoid coil (°C)	-10 ... +80	
Ambient temperature with UL class H solenoid coil (°C)	-10 ... +60	
Assembly positions	Preferably with solenoid coil upwards	

Weight (without solenoid coil)	
3/8" g	230
1/2" g	330
3/4" g	540
1" g	835

Technical data												
T = Type	Function	KV (m³/h)	Orifice size (mm)	Differential pressure (bar)								
				Min	MI solenoid coil		XME solenoid coil		XMB solenoid coil		Series 10 solenoid coil	
					max DC	max AC	max DC	max AC	max DC	max AC	max DC	max AC
3/8"	2/2 N.C.	2.4	12	0.15	16		16		16		16	
1/2"		3.5	14		16		16		16			
3/4"		5.5	18		14		14		14			
1"		11	25		12		12		12			
3/8"	2/2 N.O.	2.4	12		16		16		16			
1/2"		3.5	14		16		16		16			
3/4"		5.5	18		14		14		14			
1"		11	25		12		12		12			

Notes

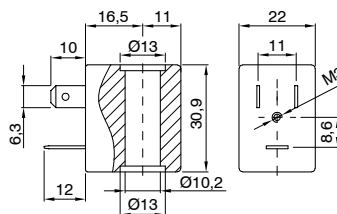
Steam max. OPD for EPDM= 2,5 bar (+140 °C)



Series MI - 22 mm solenoid coil, Ø10 mm



ERC



CODING: MI V

VERSION
4 = 12 V DC
5 = 24 V DC
21 = 48-50 V AC (50-60 Hz)
56 = 24 V AC (50-60 Hz)
57 = 110 V AC (50-60 Hz)
58 = 230 V AC (50-60 Hz)

Operational characteristics

Insulation class	Tolerance on AC voltage	Tolerance on DC voltage	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Weight (g)
							AC (VA)	DC (W)	
F	-10% ... +15%	±10%	IP65	ED100%	EN 175301-803 form B industrial	Code: 305.11.00	8	6,5	52,5

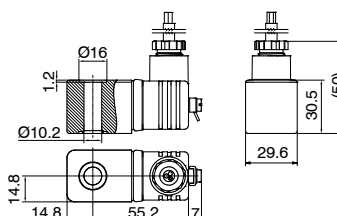
Series XME - 30 mm solenoid coil, Ø10 mm



Ex

IECEx

II 2G Ex mb IIC T6...T4 Gb
II 2D Ex mb IIC T85°C...T135°C Db



CODING: XME V-3

VERSION
5 = 24 V DC
56 = 24 V AC (50-60 Hz)
57 = 110 V AC (50-60 Hz)
58 = 230 V AC (50-60 Hz)

Operational characteristics

Insulation class	Tolerance on AC voltage	Tolerance on DC voltage	IP rating with connector	Continuous service	Electrical connection	Power		Temperature class	Weight (g)
						AC (VA)	DC (W)		
H	-10% ... +15%	±10%	IP65	ED100%	3 m cable	5,3	5,4	T4	329

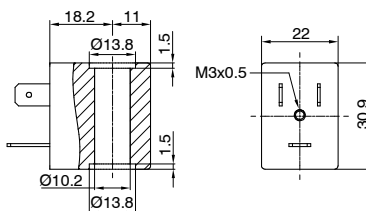
Series XMB - 22 mm solenoid coil, Ø10 mm



Ex

ERC

II 3G Ex ec IIC T5/T4 Gc
II 3D Ex tc IIC T93°C...T116°C Dc



CODING: XMB V

VERSION
4 = 12 V DC
5 = 24 V DC
56 = 24 V AC (50-60 Hz)
57 = 110 V AC (50-60 Hz)
58 = 230 V AC (50-60 Hz)

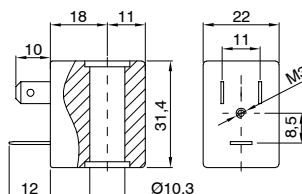
Operational characteristics

Insulation class	Voltage tolerance	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Temperature class	Weight (g)
						AC (VA)	DC (W)		
F	±10%	IP65	ED100%	EN 175301-803 form B industrial	Code: 305.11.00	5,5		T4	54

Series 10 - 22 mm solenoid coil, Ø10 mm



CE cULus



CODING: 9010 V

VERSION
A/RD1 = 12 V DC
B/RD2 = 24 V DC
2/RA2 = 24 V AC
4/RA4 = 110 / 120 V AC (50-60 Hz)
5/RA6 = 220 / 230 V AC (50-60 Hz)
6/RA7 = 240 V AC (50-60 Hz)

Operational characteristics

Insulation class	Voltage tolerance	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Ambient temperature	Weight (g)
						AC (VA)	DC (W)		
H	±10%	IP65	ED100%	EN 175301-803 form B industrial	Code: 305.11.00	8	6,5	-10°C ... +60°C	57



Servo-assisted diaphragm solenoid valves

Series EC-SA

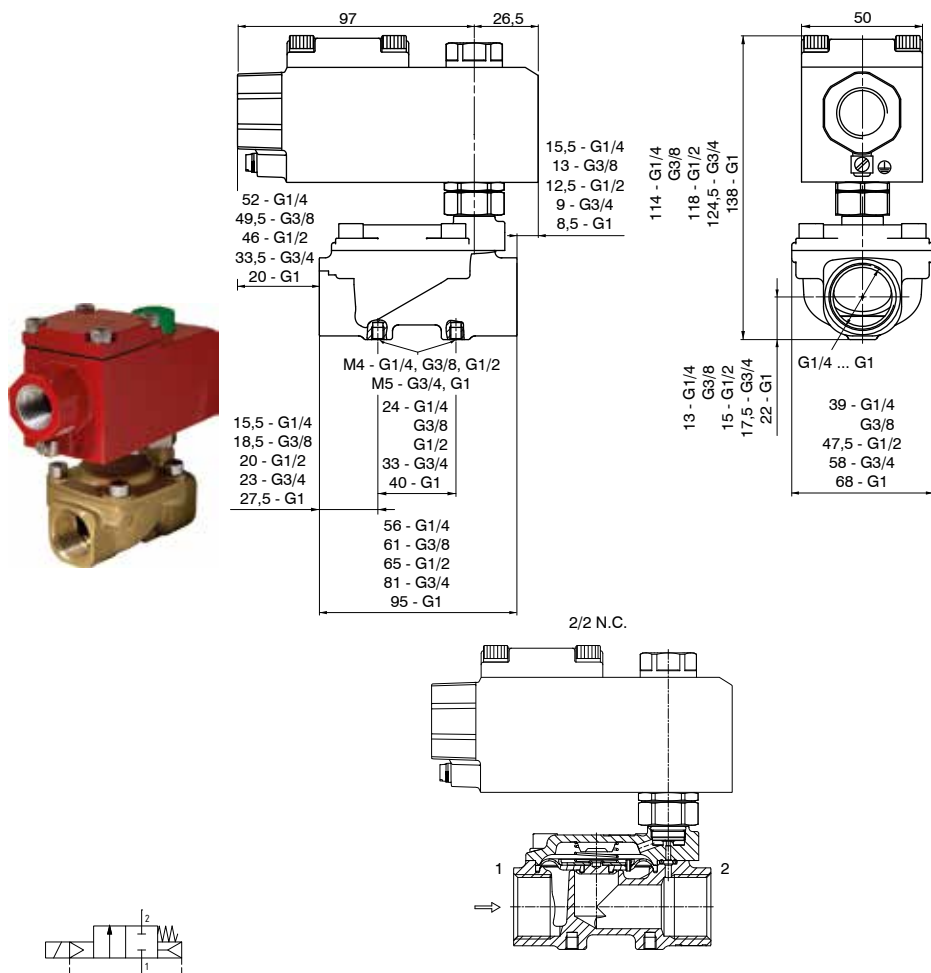
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Series EC-SA

Servo-assisted diaphragm solenoid valves, Ex certified housing, with brass or 316L stainless steel body.

ECSA3B - 1/4" ... 1" - Brass - 2/2 solenoid valve - Ex certified housing

CODING: ECSA3BFC TGD-O-BV



F	FUNCTION
	1 = 2/2 N.C.
C	CONNECTIONS
	G = Gas thread
	N = NPT thread
T	TYPE
	B = 1/4" (12 mm orifice size)
	C = 3/8" (12 mm orifice size)
	D = 1/2" (14 mm orifice size)
	E = 3/4" (18 mm orifice size)
	F = 1" (25 mm orifice size)
G	SEALS
	V = FPM (-0°C ... +130°C)
	N = NBR (-10°C ... +90°C)
	E = EPDM (-10°C ... +140°C)
D	ORIFICE SIZE
	12 = 12 mm
	14 = 14 mm
	18 = 18 mm
	25 = 25 mm
O	OPTIONS
	000 = Standard
	P01 = Electroless nickel plating
	P03 = Oxygen use
	P05 = Vacuum use
B	SOLENOID COILS
	= Without solenoid coil
	X2A = 12 V AC/DC (8 W)
	X2B = 24 V AC/DC (8 W)
	X24 = 110/120 V AC/DC (8 W)
	X25 = 220/240 V AC/DC (8 W)
V	SOLENOID COIL VOLTAGE
	SEE SOLENOID COIL CHARACTERISTICS

Construction characteristics	
Body	Brass
Armature tube	Stainless steel
Plunger and fixed core	Stainless steel AISI 430FR
Springs	Stainless steel
Lock nut	Technopolymer

Technical characteristics	
Maximum admitted pressure (bar)	21
Maximum fluid viscosity (mm ² /s)	25cSt
Ambient temperature with class T6 solenoid coil (°C)	-40 ... +35
Ambient temperature with class T5 solenoid coil (°C)	-40 ... +50
Ambient temperature with class T4 solenoid coil (°C)	-40 ... +60
Assembly positions	Preferably with solenoid coil upwards

Weight (without solenoid coil)	
1/4" g	320
3/8" g	315
1/2" g	420
3/4" g	660
1" g	950

Technical data					
Type	Function	KV (m ³ /h)	Orifice size (mm)	Differential pressure (bar)	
				Min	X2 solenoid coil
					max DC max AC
1/4"	2/2 N.C.	2.2	12	0.15	16
3/8"		2.4	12		16
1/2"		3.5	14		16
3/4"		5.5	18		14
1"		11	25		12

Notes

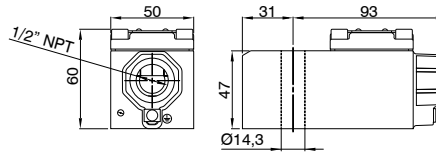
Steam max. OPD for EPDM = 2,5 bar (+140 °C)



► **Series X2 - 50 mm solenoid coil, Ø14 mm**



II 2G/D Ex db IIC T6/T5/T4 Gb
 Ex tb IIIC T85°C/T100°C/T135°C Db



CODING: 90X2

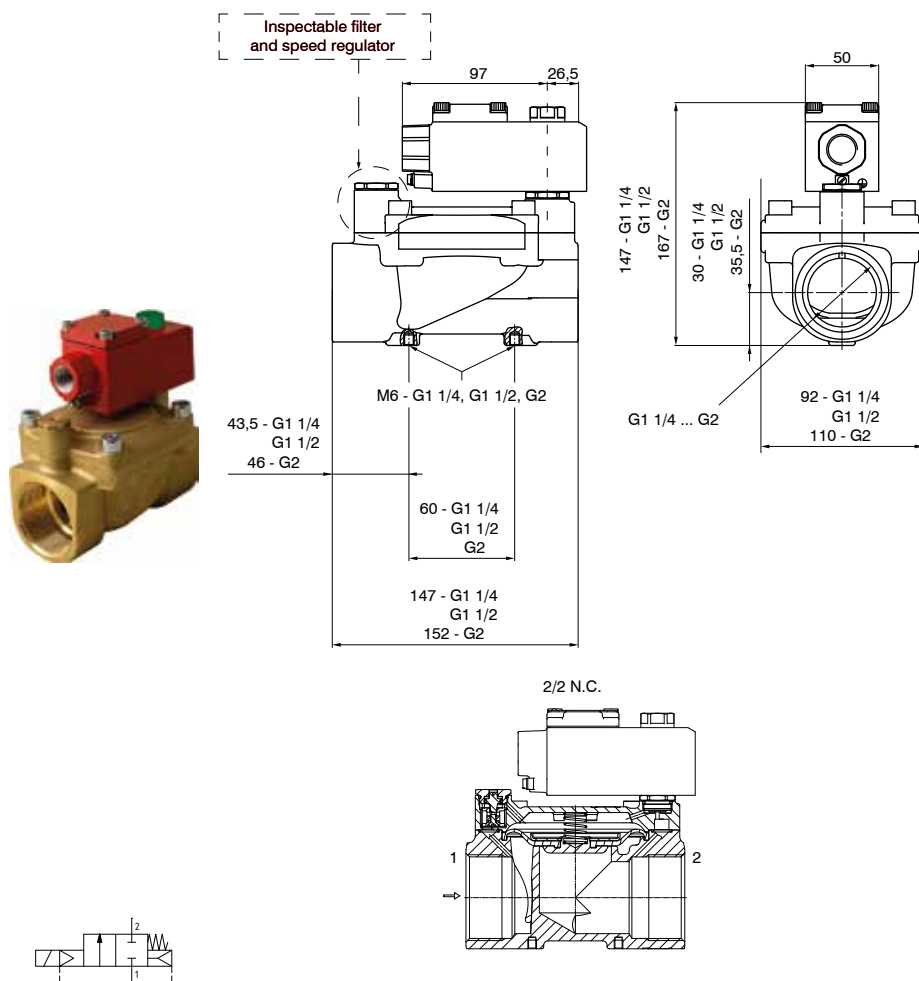
VERSION
A/RD1 = 12 V AC/DC
B/RD2 = 24 V AC/DC
4/RA4 = 110 / 120 V AC/DC
5/RA6 = 220 / 240 V AC/DC

Housing material
 Aluminium

Options

- Cable entry: M20x1,5
- Stainless steel housing

Operational characteristics								
Insulation class	Voltage tolerance	IP rating	Continuous service	Electrical connection	Power	Cable entry	Ambient temperature	Weight (g)
H	±10%	IP66	ED100%	Terminal block	8 W	1/2" NPT	-40 / +35 °C (T6), +50 °C (T5), +60 °C (T4)	700

ECSA3B - 1 1/4" ... 2" - Brass - 2/2 solenoid valve - Ex certified housing
CODING: ECSA3BFCITGD-O-BV


F	FUNCTION
	1 = 2/2 N.C.
C	CONNECTIONS
	G = Gas thread
	N = NPT thread
T	TYPE
	G = 1 1/4" (38 mm orifice size)
	H = 1 1/2" (38 mm orifice size)
	I = 2" (50 mm orifice size)
G	SEALS
	V = FPM (-0°C ... +130°C)
	N = NBR (-10°C ... +90°C)
	E = EPDM (-10°C ... +140°C)
D	ORIFICE SIZE
	38 = 38 mm
	50 = 50 mm
O	OPTIONS
	000 = Standard
	P01 = Electroless nickel plating
	P03 = Oxygen use
	P05 = Vacuum use
B	SOLENOID COILS
	= Without solenoid coil
	X2A = 12 V AC/DC (8 W)
	X2B = 24 V AC/DC (8 W)
	X24 = 110/120 V AC/DC (8 W)
	X25 = 220/240 V AC/DC (8 W)
V	SOLENOID COIL VOLTAGE
	SEE SOLENOID COIL CHARACTERISTICS

Construction characteristics	
Body	Brass
Armature tube	Stainless steel
Plunger and fixed core	Stainless steel AISI 430FR
Springs	Stainless steel
Lock nut	Technopolymer

Technical characteristics	
Maximum admitted pressure (bar)	15,5
Maximum fluid viscosity (mm²/s)	25cSt
Ambient temperature with class T6 solenoid coil (°C)	-40 ... +35
Ambient temperature with class T5 solenoid coil (°C)	-40 ... +50
Ambient temperature with class T4 solenoid coil (°C)	-40 ... +60
Assembly positions	Preferably with solenoid coil upwards

Weight (without solenoid coil)	
1 1/4" g	2720
1 1/2" g	2550
2" g	3980

Technical data					
● = Type	Function	KV (m³/h)	Orifice size (mm)	Differential pressure (bar)	
				Min	X2 solenoid coil
1 1/4"	2/2 N.C.	19	38	0.2	max DC
1 1/2"		22	38		max AC
2"		36	50		

Notes

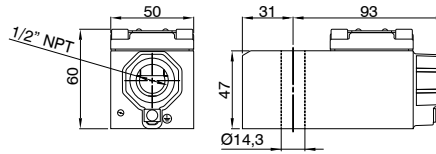
Steam max. OPD for EPDM = 2,5 bar (+140 °C)



► **Series X2 - 50 mm solenoid coil, Ø14 mm**



II 2G/D Ex db IIC T6/T5/T4 Gb
 Ex tb IIIC T85°C/T100°C/T135°C Db



CODING: 90X2

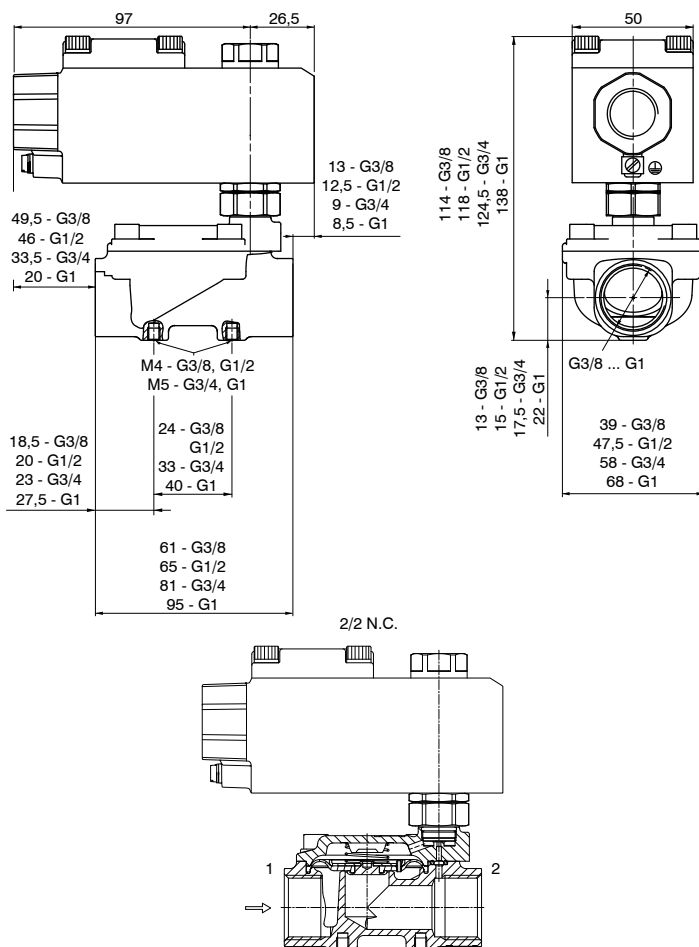
VERSION
A/RD1 = 12 V AC/DC
B/RD2 = 24 V AC/DC
4/RA4 = 110 / 120 V AC/DC
5/RA6 = 220 / 240 V AC/DC

Housing material
 Aluminium

Options

- Cable entry: M20x1,5
- Stainless steel housing

Operational characteristics								
Insulation class	Voltage tolerance	IP rating	Continuous service	Electrical connection	Power	Cable entry	Ambient temperature	Weight (g)
H	±10%	IP66	ED100%	Terminal block	8 W	1/2" NPT	-40 / +35 °C (T6), +50 °C (T5), +60 °C (T4)	700

ECSA3S - 3/8" ... 1" - Stainless steel AISI 316L - 2/2 solenoid valve - Ex certified housing
CODING: ECSA3SFCCTGD-O-BV


F	FUNCTION
	1 = 2/2 N.C.
C	CONNECTIONS
	G = Gas thread
	N = NPT thread
T	TYPE
	C = 3/8" (12 mm orifice size)
	D = 1/2" (14 mm orifice size)
	E = 3/4" (18 mm orifice size)
	F = 1" (25 mm orifice size)
G	SEALS
	V = FPM (-0°C ... +130°C)
	N = NBR (-10°C ... +90°C)
	E = EPDM (-10°C ... +140°C)
D	ORIFICE SIZE
	12 = 12 mm
	14 = 14 mm
	18 = 18 mm
	25 = 25 mm
O	OPTIONS
	000 = Standard
	P03 = Oxygen use
	P05 = Vacuum use
B	SOLENOID COILS
	= Without solenoid coil
	X2A = 12 V AC/DC (8 W)
	X2B = 24 V AC/DC (8 W)
	X24 = 110/120 V AC/DC (8 W)
	X25 = 220/240 V AC/DC (8 W)
V	SOLENOID COIL VOLTAGE
	SEE SOLENOID COIL CHARACTERISTICS

Construction characteristics	
Body	Stainless steel 316L
Armature tube	Stainless steel
Plunger and fixed core	Stainless steel AISI 430FR
Springs	Stainless steel
Lock nut	Technopolymer

Technical characteristics	
Maximum admitted pressure (bar)	21
Maximum fluid viscosity (mm²/s)	25cSt
Ambient temperature with class T6 solenoid coil (°C)	-40 ... +35
Ambient temperature with class T5 solenoid coil (°C)	-40 ... +50
Ambient temperature with class T4 solenoid coil (°C)	-40 ... +60
Assembly positions	Preferably with solenoid coil upwards

Weight (without solenoid coil)	
3/8" g	300
1/2" g	400
3/4" g	610
1" g	895

Technical data					
● = Type	Function	KV (m³/h)	Orifice size (mm)	Differential pressure (bar)	
				Min	X2 solenoid coil
3/8"	2/2 N.C.	2.4	12	0.15	max DC
1/2"		3.5	14		max AC
3/4"		5.5	18		
1" g		11	25		

Notes

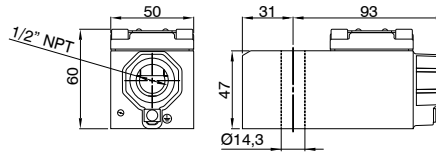
Steam max. OPD for EPDM= 2,5 bar (+140 °C)



► **Series X2 - 50 mm solenoid coil, Ø14 mm**



II 2G/D Ex db IIC T6/T5/T4 Gb
 Ex tb IIIC T85°C/T100°C/T135°C Db



CODING: 90X2

VERSION
A/RD1 = 12 V AC/DC
B/RD2 = 24 V AC/DC
4/RA4 = 110 / 120 V AC/DC
5/RA6 = 220 / 240 V AC/DC

Housing material
 Aluminium

Options

- Cable entry: M20x1,5
- Stainless steel housing

Operational characteristics								
Insulation class	Voltage tolerance	IP rating	Continuous service	Electrical connection	Power	Cable entry	Ambient temperature	Weight (g)
H	±10%	IP66	ED100%	Terminal block	8 W	1/2" NPT	-40 / +35 °C (T6), +50 °C (T5), +60 °C (T4)	700



Servo-assisted diaphragm solenoid valves

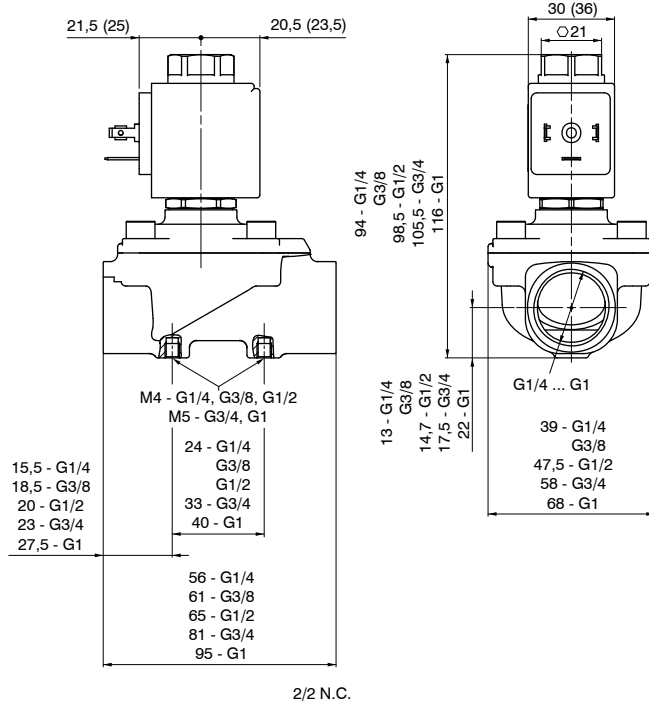
Series EC-M

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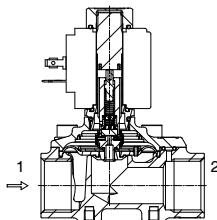
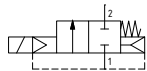
Series EC-M

Assisted-lift diaphragm solenoid valves, with brass body.

ECM01B - 1/4" ... 1" - Brass - 2/2 solenoid valve



2/2 N.C.



CODING: ECM01B**F****C****T****G****D**-**O**-**BV**

F	FUNCTION 1 = 2/2 N.C.
C	CONNECTIONS G = Gas thread N = NPT thread
T	TYPE B = 1/4" (12 mm orifice size) C = 3/8" (12 mm orifice size) D = 1/2" (14 mm orifice size) E = 3/4" (18 mm orifice size) F = 1" (25 mm orifice size)
G	SEALS V = FPM (-0°C ... +130°C) N = NBR (-10°C ... +90°C) E = EPDM (-10°C ... +140°C)
D	ORIFICE SIZE 12 = 12 mm 14 = 14 mm 18 = 18 mm 25 = 25 mm
O	OPTIONS 000 = Standard P01 = Electroless nickel plating P03 = Oxygen use P05 = Vacuum use
B	SOLENOID COILS = Without solenoid coil MG = Solenoid coil, 30 mm 30 = Solenoid coil, 30 mm (UL) 31 = Solenoid coil, 36 mm (UL)
V	SOLENOID COIL VOLTAGE SEE SOLENOID COIL CHARACTERISTICS

Construction characteristics

Body	Brass
Armature tube	Stainless steel
Plunger and fixed core	Stainless steel AISI 430FR
Springs	Stainless steel
Lock nut	Technopolymer

Technical characteristics

Maximum admitted pressure (bar)	15,5
Maximum fluid viscosity (mm²/s)	25cSt
Ambient temperature with class F solenoid coil (°C)	-10 ... +55
Ambient temperature with UL class H solenoid coil (°C)	-10 ... +60
Assembly positions	Preferably with solenoid coil upwards

Weight (without solenoid coil)

1/4" g	285
3/8" g	280
1/2" g	380
3/4" g	610
1" g	875

Technical data

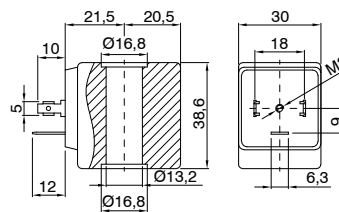
Technical data										
T = Type	Function	KV (m³/h)	Orifice size (mm)	Differential pressure (bar)						
				Min	MG solenoid coil		Series 30 solenoid coil		Series 31 solenoid coil	
	max DC	max AC	max DC		max AC	max DC	max AC			
1/4"	2/2 N.C.	2.0	12	0	8	10	8	10	12	
3/8"		2.0	12		8	10	8	10	12	
1/2"		2.5	14		8	10	8	10	12	
3/4"		4	18		/	/	/	/	6	10
1"		8	25		/	/	/	/	6	10



Series MG - 30 mm solenoid coil, Ø13 mm



ERC



CODING: MG

VERSION

4 = 12 V DC
5 = 24 V DC
56 = 24 V AC (50-60 Hz)
57 = 110 V AC (50-60 Hz)
58 = 230 V AC (50-60 Hz)

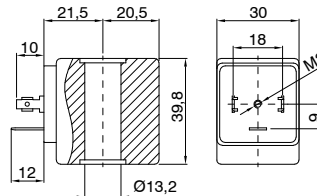
Operational characteristics

Insulation class	Tolerance on AC voltage	Tolerance on DC voltage	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Weight (g)
							AC (VA)	DC (W)	
F	-10% ... +15%	±10%	IP65	ED100%	EN 175301-803 form A	Code: 300.11.00	15	10	130

Series 30 - 30 mm solenoid coil, Ø13 mm



CE CULUS



CODING: 9030

VERSION

A/RD1 = 12 V DC
B/RD2 = 24 V DC
2/RA2 = 24 V AC
4/RA4 = 110 / 120 V AC (50-60 Hz)
5/RA6 = 220 / 230 V AC (50-60 Hz)
6/RA7 = 240 V AC (50-60 Hz)

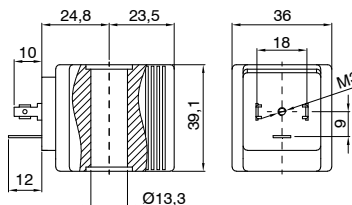
Operational characteristics

Insulation class	Voltage tolerance	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Ambient temperature	Weight (g)
						AC (VA)	DC (W)		
H	±10%	IP65	ED100%	EN 175301-803 form A	Code: 300.11.00	15	10	-10°C ... +60°C	133

Series 31 - 36 mm solenoid coil, Ø13 mm



CE CULUS



CODING: 9031

VERSION

A/RD1 = 12 V DC
B/RD2 = 24 V DC
2/RA2 = 24 V AC
4/RA4 = 110 / 120 V AC (50-60 Hz)
5/RA6 = 220 / 230 V AC (50-60 Hz)
6/RA7 = 240 V AC (50-60 Hz)

Operational characteristics

Insulation class	Voltage tolerance	IP rating with connector	Continuous service	Electrical connection	Connector	Power		Ambient temperature	Weight (g)
						AC (VA)	DC (W)		
H	±10%	IP65	ED100%	EN 175301-803 form A	Code: 300.11.00	30	22	-10°C ... +60°C	201



Pneumatic actuated angle seat valves

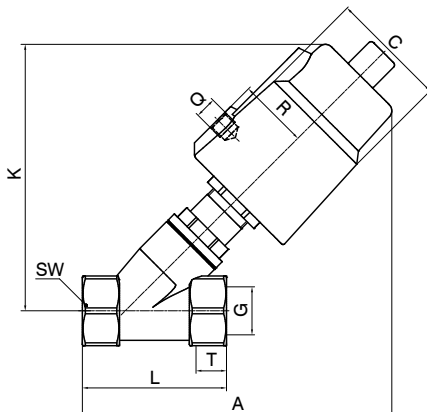
Series PVF

WWW.SUMY.IR

Series PVF

Angle seat valves with AISI 316 or 304 stainless steel body.

2-way water hammer free valve with threaded ports - 1/4" ... 3"



II 2G Ex h IIC T4..T2 Gb X
II 2D Ex h IIC T130°C..T*230 Db X
-10°C ≤ Ta ≤ +80°C

- High flow rate thanks to body configuration with inclined seating
- Anti water hammer functioning with input below poppet
- Self-levelling poppet to ensure improved sealing
- Optical position indicator
- Self-adjusting gland packing set requiring no maintenance

CODING: PVF **A F D M**

A	ACTUATOR
	40 = Ø40 mm (only for size Ø8, Ø10, Ø15)
	50 = Ø50 mm (only for size Ø8, Ø10, Ø15, Ø20, Ø25)
	63 = Ø63 mm (only for size Ø25, Ø32, Ø40, Ø50)
	90 = Ø90 mm (only for size Ø32, Ø40, Ø50)
	125A = Ø125 mm (only for size Ø65, Ø80)
F	FUNCTION
	0 = N.O. 1 = N.C.
D	ORIFICE SIZE
	08 = Ø8 (only for actuator Ø40 and Ø50 mm)
	10 = Ø10 (only for actuator Ø40 and Ø50 mm)
	15 = Ø15 (only for actuator Ø40 and Ø50 mm)
	20 = Ø20 (only for actuator Ø50 mm)
	25 = Ø25 (only for actuator Ø50 and Ø63 mm)
	32 = Ø32 (only for actuator Ø63 and Ø90 mm)
	40 = Ø40 (only for actuator Ø63 and Ø90 mm)
	50 = Ø50 (only for actuator Ø63 and Ø90 mm)
	65 = Ø65 (only for actuator Ø125A mm)
	80 = Ø80 (only for actuator Ø125A mm)
M	MATERIALS
	304 = AISI 304 316 = AISI 316

OPTIONS (on request)

- Double-acting versions available
- Connection type: GAS ISO / NPT

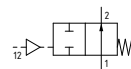
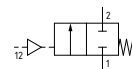


Table of dimensions												
Actuator (mm)	Function		Orifice size (mm)	G	C (mm)	R (mm)	K (mm)	Q (mm)	T (mm)	A (mm)	L (mm)	SW (mm)
	N.O.	N.C.										
40	0	1	08	1/4"	50.5	27	112	1/8"	12	124	68	27
			10	3/8"	50.5	27	112		12	124	68	27
			15	1/2"	50.5	27	111		15	119	68	27
08			1/4"	60	33	125	12		135	68	27	
10			3/8"	60	33	125	12		135	68	27	
15			1/2"	60	33	124	15		131	68	27	
20			3/4"	60	33	132	16		140	75	32	
25			1"	60	33	136	17		145	90	40	
25			1"	75	41	162	17		169	90	40	
63			32	1 1/4"	75	41	174	21	187	116	50	
			40	1 1/2"	75	41	175	21	187	116	56	
			50	2"	75	41	183	22	201	138	69	
90			32	1 1/4"	106	55	223	21	235	116	50	
			40	1 1/2"	106	55	223	21	235	116	56	
			50	2"	106	55	232	22	250	138	69	
125A			65	2 1/2"	148	74	302	1/4"	26	320	178	85
			80	3"	148	74	313		27	372	210	100

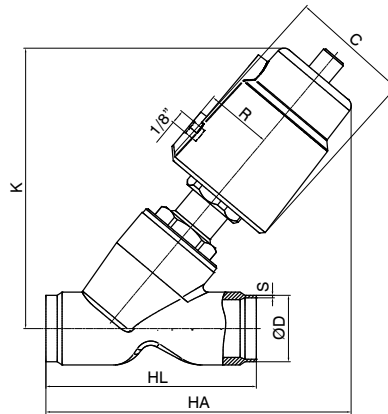
Technical data								
Actuator (mm)	Function		Orifice size (mm)	KV (m³/h)	Max. working pressure (bar)		Piloting pressure range (bar)	
	N.O.	N.C.			N.O.	N.C.	N.O.	N.C.
40	0	1	08	2.2	16	13	3 ... 5	4 ... 8
			10	3.9	16	13	3 ... 5	4 ... 8
			15	4.3	16	13	3 ... 5	4 ... 8
50			08	2.2	16	14	3 ... 4	4,5 ... 8
			10	3.9	16	14	3 ... 4	4,5 ... 8
			15	4.3	16	14	3 ... 4	4,5 ... 8
			20	7.6	16	14	3 ... 6	4,5 ... 8
			25	15.8	13	8	3 ... 6	4,5 ... 8
63			25	15.8	16	13	3 ... 5	5 ... 8
			32	26	13	6	3 ... 6	5 ... 8
			40	32	7	5	3 ... 6	5 ... 8
90			50	52	5	2	3 ... 6	5 ... 8
			32	26	/	16	/	6 ... 8
			40	32	16	16	3 ... 4	6 ... 8
125A			50	52	12	10	3 ... 6	6 ... 8
			65	83.2	14	9	3 ... 7	5,5 ... 8
			80	119	12	5	3 ... 7	5,5 ... 10

Construction characteristics			Technical characteristics		
	Body	Actuator		Body	Actuator
Materials	Stainless steel AISI 316/304	AISI 304 (Ø40 ... Ø90, Ø125 aluminium)	Fluid	Dry or lubricated air, gas and neutral fluids, water and steam	/
Gland packing seal kit	PTFE and FKM	/	Pilot fluid	/	Dry or lubricated air, gas and neutral fluids
Poppet	PTFE		Fluid temperature (°C)	-10 °C ... +180	max. +60
			Fluid viscosity (cSt)	max. 600	/
			Ambient temperature (°C)	-10 °C ... +80	
			Assembly positions	In all positions	

2-way water hammer free valve with weld-in ports



II 2G Ex h IIC T4..T2 Gb X
II 2D Ex h IIIC T130°C..T*230 Db X
-10°C ≤ Ta ≤ +80°C



- ▶ High flow rate thanks to body configuration with inclined seating
- ▶ Anti water hammer functioning with input below poppet
- ▶ Self-levelling poppet to ensure improved sealing
- ▶ Optical position indicator
- ▶ Self-adjusting gland packing set requiring no maintenance

CODING: PVF**A****F****D****N**-**M**

A	ACTUATOR
	40 = Ø40 mm (only for size Ø15)
	50 = Ø50 mm (only for size Ø15, Ø20, Ø25)
	63 = Ø63 mm (only for size Ø25, Ø32, Ø40, Ø50)
	90 = Ø90 mm (only for size Ø32, Ø40, Ø50)
F	FUNCTION
	0 = N.O.
	1 = N.C.
D	ORIFICE SIZE
	15 = Ø15 (only for actuator Ø40 and Ø50 mm)
	20 = Ø20 (only for actuator Ø50 mm)
	25 = Ø25 (only for actuator Ø50 and Ø63 mm)
	32 = Ø32 (only for actuator Ø63 and Ø90 mm)
	40 = Ø40 (only for actuator Ø63 and Ø90 mm)
	50 = Ø50 (only for actuator Ø63 and Ø90 mm)
N	STANDARDS
	H = DIN11850-2
	I = DIN11850-3
M	MATERIALS
	A = AISI 304
	B = AISI 316

OPTIONS (on request)

- Double-acting versions available

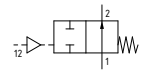
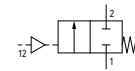


Table of dimensions												
Actuator (mm)	Function		Orifice size (mm)	C (mm)	R (mm)	K (mm)	HA (mm)	HL (mm)	DIN11850-2		DIN11850-3	
	N.O.	N.C.							D	S	D	S
40	0	1	15	50.5	27	112	118	70	19	1.5	20	2
50			15	60	33	125	128	70	19		20	
			20	60	33	132	135	82	23		24	
			25	60	33	136	150	100	29		30	
63			25	75	41	162	175	100	29		30	
			32	75	41	174	186	125	35		36	
			40	75	41	175	190	130	41		42	
90			50	75	41	183	206	155	53		54	
			32	106	55	223	232	125	35		36	
			40	106	55	223	235	130	41		42	
			50	106	55	232	250	155	53		54	

Technical data								
Actuator (mm)	Function		Orifice size (mm)	KV (m³/h)	Max. working pressure (bar)		Piloting pressure range (bar)	
	N.O.	N.C.			N.O.	N.C.	N.O.	N.C.
40	0	1	15	4.3	16	13	3 ... 5	4 ... 8
50			15	4.3	16	14	3 ... 4	4,5 ... 8
			20	7.6	16	14	3 ... 6	4,5 ... 8
			25	15.8	13	8	3 ... 6	4,5 ... 8
63			25	15.8	16	13	3 ... 5	5 ... 8
			32	26	13	6	3 ... 6	5 ... 8
			40	32	7	5	3 ... 6	5 ... 8
90			50	52	5	2	3 ... 6	5 ... 8
			32	26	/	16	/	6 ... 8
			40	32	16	16	3 ... 4	6 ... 8
			50	52	12	10	3 ... 6	6 ... 8

Construction characteristics		
	Body	Actuator
Materials	Stainless steel AISI 316/304	AISI 304 (Ø40 ... Ø90, Ø125 aluminium)
Gland packing seal kit	PTFE and FKM	/
Poppet	PTFE	

Technical characteristics		
	Body	Actuator
Fluid	Dry or lubricated air, gas and neutral fluids, water and steam	/
Pilot fluid	/	Dry or lubricated air, gas and neutral fluids
Fluid temperature (°C)	-10 °C ... +180	max. +60
Fluid viscosity (cSt)	max. 600	/
Ambient temperature (°C)	-10 °C ... +80	
Assembly positions	In all positions	

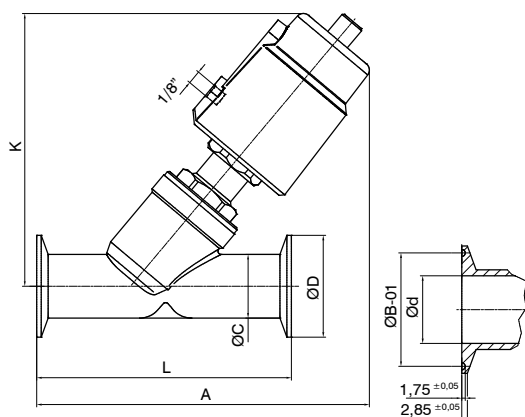


Pneumatic actuated angle seat valves

Series PVF

WWW.SUMY.IR

2-way water hammer free valve with ISO 2852 clamp ports



II 2G Ex h IIC T4..T2 Gb X
II 2D Ex h IIC T130°C..T*230 Db X
-10°C ≤ Ta ≤ +80°C

- High flow rate thanks to body configuration with inclined seating
- Anti water hammer functioning with input below poppet
- Self-levelling poppet to ensure improved sealing
- Optical position indicator
- Self-adjusting gland packing set requiring no maintenance

CODING: PVF**A**F**D**K-**M**

A	ACTUATOR
	40 = Ø40 mm (only for size Ø15)
	50 = Ø50 mm (only for size Ø15, Ø20, Ø25)
	63 = Ø63 mm (only for size Ø25, Ø32, Ø40, Ø50)
F	FUNCTION
	0 = N.O.
	1 = N.C.
D	ORIFICE SIZE
	15 = Ø15 (only for actuator Ø40 and Ø50 mm)
	20 = Ø20 (only for actuator Ø50 mm)
	25 = Ø25 (only for actuator Ø50 and Ø63 mm)
	32 = Ø32 (only for actuator Ø63 and Ø90 mm)
	40 = Ø40 (only for actuator Ø63 and Ø90 mm)
M	MATERIALS
	A = AISI 304
	B = AISI 316

OPTIONS (on request)

- Double-acting versions available

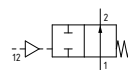
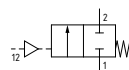


Table of dimensions

Table of dimensions										
Actuator (mm)	Function		Orifice size (mm)	A (mm)	K (mm)	L (mm)	C (mm)	B (mm)	Ød	ØD
	N.O.	N.C.								
40	0	1	15	130	115	80	19	27.5	15	34
50			15	140	126	80	19	27.5	15	34
			20	158	148	130	25	43.5	19	50.5
			25	165	140	130	32	43.5	27	50.5
63			25	188	166	130	32	43.5	27	50.5
			32	200	174	146	37	43.5	31	50.5
			40	210	175	160	40	56.5	33	64
90			50	221	185	175	53	56.5	45	64
			32	245	223	146	37	43.5	31	50.5
			40	255	223	160	40	56.5	33	64
			50	265	235	175	53	56.5	45	64

Technical data

Actuator (mm)	Function		Orifice size (mm)	KV (m³/h)	Technical data			
	N.O.	N.C.			Max. working pressure (bar)		Piloting pressure range (bar)	
					N.O.	N.C.	N.O.	N.C.
40	0	1	15	4.3	16	13	3...5	4...8
50			15	4.3	16	14	3...4	4,5...8
			20	7.6	16	14	3...6	4,5...8
			25	15.8	13	8	3...6	4,5...8
63			25	15.8	16	13	3...5	5...8
			32	26	13	6	3...6	5...8
			40	32	7	5	3...6	5...8
90			50	52	5	3	3...6	5...8
			32	26	/	16	/	6...8
			40	32	16	16	3...4	6...8
			50	52	12	10	3...6	6...8

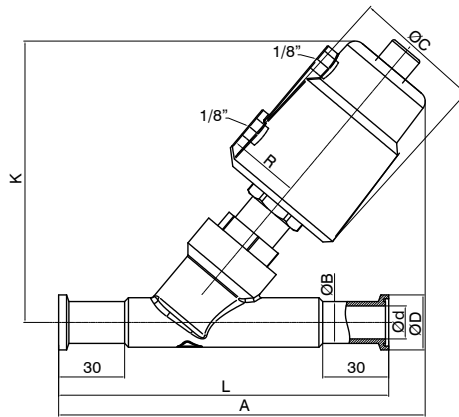
Construction characteristics

	Body	Actuator
Materials	Stainless steel AISI 316/304	AISI 304 (Ø40 ... Ø90, Ø125 aluminium)
Gland packing seal kit	PTFE and FKM	/
Poppet	PTFE	

Technical characteristics

	Body	Actuator
Fluid	Dry or lubricated air, gas and neutral fluids, water and steam	/
Pilot fluid	/	Dry or lubricated air, gas and neutral fluids
Fluid temperature (°C)	-10°C ... +180	max. +60
Fluid viscosity (cSt)	max. 600	/
Ambient temperature (°C)	-10°C ... +80	
Assembly positions	In all positions	

2-way water hammer free valve with ASME - BPE clamp ports



II 2G Ex h IIC T4..T2 Gb X
II 2D Ex h IIC T130°C..T*230 Db X
-10°C ≤ Ta ≤ +80°C

- ▶ High flow rate thanks to body configuration with inclined seating
- ▶ Anti water hammer functioning with input below poppet
- ▶ Self-levelling poppet to ensure improved sealing
- ▶ Optical position indicator
- ▶ Self-adjusting gland packing set requiring no maintenance

CODING: PVF(A)(F)(D)(J)-(M)

A	ACTUATOR	
	40 = Ø40 mm (only for size Ø15)	
	50 = Ø50 mm (only for size Ø15, Ø20, Ø25)	
	63 = Ø63 mm (only for size Ø25, Ø32, Ø40, Ø50)	
	90 = Ø90 mm (only for size Ø32, Ø40, Ø50)	
F	FUNCTION	
	0 = N.O.	
	1 = N.C.	
D	ORIFICE SIZE	
	15 = Ø15 (only for actuator Ø40 and Ø50 mm)	
	20 = Ø20 (only for actuator Ø50 mm)	
	25 = Ø25 (only for actuator Ø50 and Ø63 mm)	
	32 = Ø32 (only for actuator Ø63 and Ø90 mm)	
	40 = Ø40 (only for actuator Ø63 and Ø90 mm)	
M	MATERIALS	
	A = AISI 304	
	B = AISI 316	

OPTIONS (on request)

- Double-acting versions available

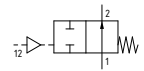
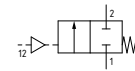


Table of dimensions											
Actuator (mm)	Function		Orifice size (mm)	C (mm)	R (mm)	K (mm)	A (mm)	L (mm)	ASME - BPE		
	N.O.	N.C.							ØD (mm)	ØB (mm)	Ød (mm)
40	0	1	15	50.5	27	127	158	130	25	12.7	9.4
50			15	60	33	140	169	130	25	12.7	9.4
			20	60	33	138	172	150	25	19.05	15.75
			25	60	33	146	180	160	50.5	25.4	22.1
63			25	75	41	169	205	160	50.5	25.4	22.1
			40	75	41	177	225	200	50.5	38.1	34.8
			50	75	41	187	238	230	64	50.8	47.5
90			40	106	55	225	267	200	50.5	38.1	34.8
			50	106	55	235	280	230	64	50.8	47.5

Technical data								
Actuator (mm)	Function		Orifice size (mm)	KV (m³/h)	Max. working pressure (bar)		Piloting pressure range (bar)	
	N.O.	N.C.			N.O.	N.C.	N.O.	N.C.
40	0	1	15	1.7	16	13	3 ... 5	4 ... 8
50			15	1.7	16	14	3 ... 4	4,5 ... 8
			20	5.8	16	14	3 ... 6	4,5 ... 8
			25	11.8	13	8	3 ... 6	4,5 ... 8
63			25	11.8	16	13	3 ... 5	5 ... 8
			40	20.6	7	5	3 ... 6	5 ... 8
			50	55.7	5	2	3 ... 6	5 ... 8
90			40	20.6	16	16	3 ... 4	6 ... 8
			50	55.7	12	10	3 ... 6	6 ... 8

Construction characteristics		
	Body	Actuator
Materials	Stainless steel AISI 316/304	AISI 304 (Ø40 ... Ø90, Ø125 aluminium)
Gland packing seal kit	PTFE and FKM	/
Poppet	PTFE	

Technical characteristics		
	Body	Actuator
Fluid	Dry or lubricated air, gas and neutral fluids, water and steam	/
Pilot fluid	/	Dry or lubricated air, gas and neutral fluids
Fluid temperature (°C)	-10 °C ... +180	max. +60
Fluid viscosity (cSt)	max. 600	/
Ambient temperature (°C)	-10 °C ... +80	
Assembly positions	In all positions	

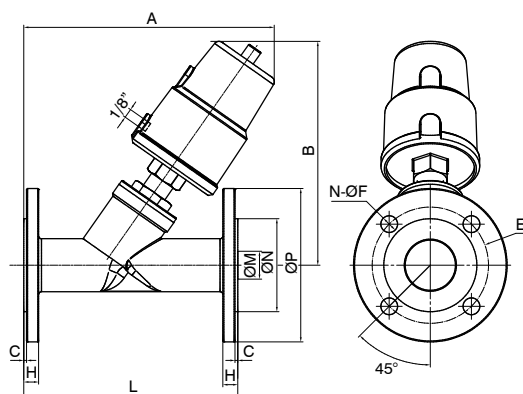


Pneumatic actuated angle seat valves

Series PVF

WWW.SUMY.IR

2-way water hammer free valve with flange mounting



II 2G Ex h IIC T4..T2 Gb X
II 2D Ex h IIC T130°C..T*230 Db X
-10°C ≤ Ta ≤ +80°C

- High flow rate thanks to body configuration with inclined seating
- Anti water hammer functioning with input below poppet
- Self-levelling poppet to ensure improved sealing
- Optical position indicator
- Self-adjusting gland packing set requiring no maintenance

CODING: PVF **A F D F** - **M**

A	ACTUATOR	
	40 = Ø40 mm (only for size Ø15)	
	50 = Ø50 mm (only for size Ø15, Ø20, Ø25)	
	63 = Ø63 mm (only for size Ø25, Ø32, Ø40, Ø50)	
F	FUNCTION	
	0 = N.O.	
	1 = N.C.	
D	ORIFICE SIZE	
	15 = Ø15 (only for actuator Ø40 and Ø50 mm)	
	20 = Ø20 (only for actuator Ø50 mm)	
	25 = Ø25 (only for actuator Ø50 and Ø63 mm)	
	32 = Ø32 (only for actuator Ø63 and Ø90 mm)	
	40 = Ø40 (only for actuator Ø63 and Ø90 mm)	
M	MATERIALS	
	A = AISI 304	
	B = AISI 316	

OPTIONS (on request)

- Double-acting versions available

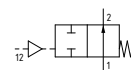
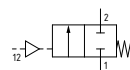


Table of dimensions

Table of dimensions													
Actuator (mm)	Function		Orifice size (mm)	A (mm)	B (mm)	L (mm)	C (mm)	H (mm)	OE	N-OF	OM	ON	OP
	N.O.	N.C.											
40	0	1	15	135	125	130	2	14	65	4-14	16	45	95
50			15	145	140	130	2	14	65	4-14	16	45	95
			20	165	140	150	2	14	75	4-14	19	56	105
			25	170	145	160	2	14	85	4-14	26	65	115
63			25	190	175	160	2	14	85	4-14	26	65	115
			32	190	188	180	2	16	100	4-18	31	78	140
			40	206	190	200	3	16	110	4-18	38	84	150
90			50	235	195	230	3	16	125	4-18	49	100	165
			32	230	235	180	2	16	100	4-18	31	78	140
			40	250	240	200	3	16	110	4-18	38	84	150
			50	277	245	230	3	16	125	4-18	49	100	165

Technical data

Technical data								
Actuator (mm)	Function		Orifice size (mm)	KV (m³/h)	Max. working pressure (bar)		Piloting pressure range (bar)	
	N.O.	N.C.			N.O.	N.C.	N.O.	N.C.
40	0	1	15	4.3	16	13	3 ... 5	4 ... 8
50			15	4.3	16	14	3 ... 4	4,5 ... 8
			20	7.6	16	14	3 ... 6	4,5 ... 8
			25	15.8	13	8	3 ... 6	4,5 ... 8
63			25	15.8	16	13	3 ... 5	5 ... 8
			32	26	13	6	3 ... 6	5 ... 8
			40	32	7	5	3 ... 6	5 ... 8
90			50	52	5	2	3 ... 6	5 ... 8
			32	26	/	16	/	6 ... 8
			40	32	16	16	3 ... 4	6 ... 8
			50	52	12	10	3 ... 6	6 ... 8

Construction characteristics

	Body	Actuator
Materials	Stainless steel AISI 316/304	AISI 304 (Ø40 ... Ø90, Ø125 aluminium)
Gland packing seal kit	PTFE and FKM	/
Poppet	PTFE	

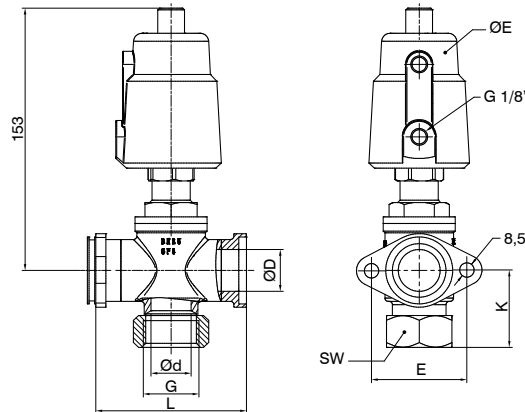
Technical characteristics

	Body	Actuator
Fluid	Dry or lubricated air, gas and neutral fluids, water and steam	/
Pilot fluid	/	Dry or lubricated air, gas and neutral fluids
Fluid temperature (°C)	-10°C ... +180	max. +60
Fluid viscosity (cSt)	max. 600	/
Ambient temperature (°C)	-10°C ... +80	
Assembly positions	In all positions	

Series PVF-50

Multi channel valves, to manage flow from multiple ports, with AISI 304 or AISI 316L stainless steel body.

2-way multi channel valve - G1/2" and G1"



CODING: PVF50VDT-M

VERSION	
V	1 = single acting normally closed 2 = double acting normally closed
ORIFICE SIZE	
D	15 = Ø15 25 = Ø25
MATERIALS	
M	A = AISI 304 B = AISI 316

II 2G Ex h IIC T4..T2 Gb X
II 2D Ex h IIC T130°C..T°230 Db X
-10°C ≤ Ta ≤ +80°C

- Self-levelling poppet to ensure improved sealing
- Optical position indicator
- Self-adjusting gland packing set requiring no maintenance

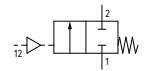
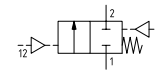


Table of dimensions								
Actuator (mm)	Orifice size (mm)	G	K	L	ØD	Ød	SW	OE
50	15	1/2"	35	76	25	18	27	50
	25	1"	46	90	32	24	39	57

Technical data						
Actuator (mm)	Orifice size (mm)	KV (m³/h)	Max. working pressure (bar)		Piloting pressure range (bar)	
			DE	SE	DE	SE
50	15	8.1	16	14	3 ... 8	4,5 ... 8
	25	14.8	13	8	3 ... 6	4,5 ... 8

Technical characteristics	
	Body
Fluid	Dry or lubricated air, gas and neutral fluids, water and steam
Fluid temperature (°C)	-10 °C ... +180
Fluid viscosity (cSt)	max. 600
Ambient temperature (°C)	-10 °C ... +80
Assembly positions	In all positions

Construction characteristics	
	Body
Materials	Stainless steel AISI 316/304
Gland packing seal kit	PTFE and FKM
Poppet	PTFE

Closed flange kit (A)

CODING: PVFT-0001



SIZE
15 = Ø15
25 = Ø25

The kit includes:
Nr. 1 flange, 2 screw, 2 nuts, 2 washers (AISI 304)
Nr. 1 OR (EPDM)

Closed flange kit (B)

CODING: PVFT-0003



SIZE
15 = Ø15
25 = Ø25

The kit includes:
Nr. 1 flange, 2 screw, 2 nuts, 2 washers (AISI 304)
Nr. 1 OR (EPDM)

Open flange kit (A)

CODING: PVFT-0002



SIZE
15 = Ø15
25 = Ø25

The kit includes:
Nr. 1 flange, 2 screw, 2 nuts, 2 washers (AISI 304)
Nr. 1 OR (EPDM)

Open flange kit (B)

CODING: PVFT-0004



SIZE
15 = Ø15
25 = Ø25

The kit includes:
Nr. 1 flange, 2 screw, 2 nuts, 2 washers (AISI 304)
Nr. 1 OR (EPDM)

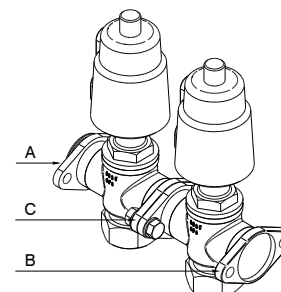
Valve joint kit (C)

CODING: PVFT-0005

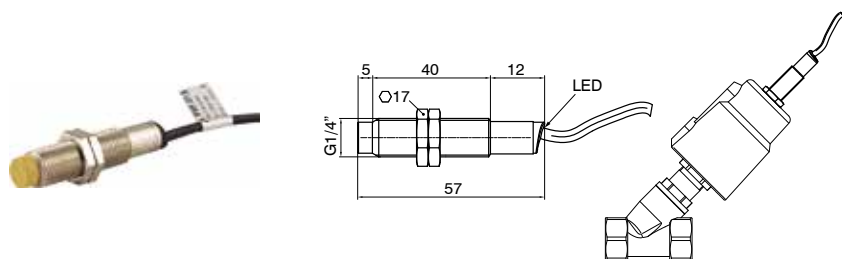


SIZE
15 = Ø15
25 = Ø25

The kit includes:
Nr. 2 screw, 2 nuts, 2 washers (AISI 304)
Nr. 1 OR (EPDM)



Proximity sensor



CODING: PVF.T.S

T	OUTPUT TYPE
	01 = NPN (N.C.)
	02 = NPN (N.O.)
	03 = PNP (N.C.)
	04 = PNP (N.O.)

OPTIONS (on request)

- A reduction is available for sizes 2 1/2" and 3"

- Nickel brass sensor, usable on valves up to size 2 inches for detection ON - OFF

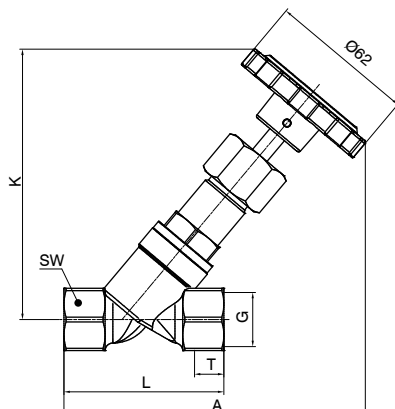
Operational characteristics	
Maximum current (mA)	200
Voltage field (VDC)	10 ... 30
Temperature °C	-25 ... +70
Sensing distance	3 mm ±10%
IP rating	IP67
Rated voltage (VDC)	24
Maximum switching frequency (Hz)	800
Residual voltage (V)	<3.3 (when load current is below 100mA, cable length is below 2m)
Current consumption (mA)	<10

Construction characteristics	
Cable	2 m; diameter 3,8 mm
Material of sensing terminal	ABS
Sensor type	inductive
Short-circuit protection	yes
Wrong connection protection	yes
Weight (g)	69

Series PVF-MN

Angle seat valves equipped with a manual knob, ensuring precise flow control, with AISI 316 or 304 stainless steel body.

2-way valve with threaded ports - 1/4" ... 2"



CODING: PVFMN **V** **D** **M**

V	VERSION
	0 = Standard adjustment A = Adjustable flow control
D	ORIFICE SIZE
	08 = Ø8
	10 = Ø10
	15 = Ø15
	20 = Ø20
	25 = Ø25
	32 = Ø32
M	MATERIALS
	304 = AISI 304
	316 = AISI 316

OPTIONS (on request)

- Connection type: GAS ISO / NPT

- ▶ High flow rate thanks to body configuration with inclined seating
- ▶ Adjustable flow control for better handling
- ▶ Self-adjusting gland packing set requiring no maintenance



Table of dimensions								
Version		Orifice size (mm)	G	K (mm)	T (mm)	A (mm)	L (mm)	SW (mm)
Standard adjustment	Adjustable flow control							
0	A	08	1/4"	115	12	128	68	27
		10	3/8"	115	12	128	68	27
		15	1/2"	115	15	128	68	27
		20	3/4"	120	16	133	75	32
		25	1"	125	17	142	90	40
		32	1 1/4"	146	21	166	116	50
		40	1 1/2"	148	21	168	116	56
		50	2"	155	22	182	138	69

Technical data				
Version		Orifice size (mm)	KV (m³/h)	Max. working pressure (bar)
Standard adjustment	Adjustable flow control			
0	A	08	2.2	16
		10	3.9	
		15	4.3	
		20	7.6	
		25	15.8	
		32	26	
		40	32	
		50	52	

Construction characteristics		Technical characteristics	
Body		Body	
Materials	Stainless steel AISI 316/304	Fluid	Dry or lubricated air, gas and neutral fluids, water and steam
Gland packing seal kit	PTFE and FKM	Fluid temperature (°C)	-10 °C ... +180
Poppet	PTFE	Fluid viscosity (cSt)	max. 600
		Ambient temperature (°C)	-10 °C ... +80
		Assembly positions	In all positions

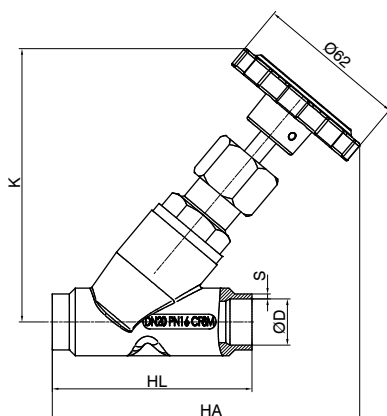


Manually actuated angle seat valves

Series PVF-MN

WWW.SUMY.IR

2-way valve with weld-in ports



- High flow rate thanks to body configuration with inclined seating
- Adjustable flow control for better handling
- Self-adjusting gland packing set requiring no maintenance

CODING: PVFMN**V**DN-M

V	VERSION
	0 = Standard adjustment A = Adjustable flow control
D	ORIFICE SIZE
	15 = Ø15
	20 = Ø20
	25 = Ø25
	32 = Ø32
	40 = Ø40
N	STANDARDS
	H = DIN11850-2
	I = DIN11850-3
M	MATERIALS
	A = AISI 304 B = AISI 316

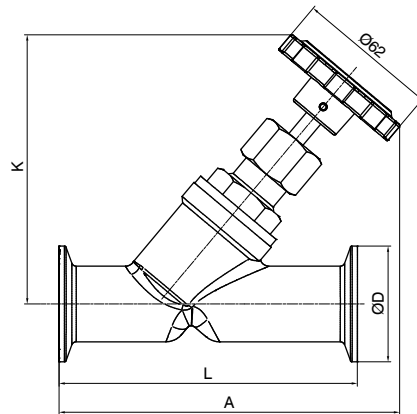


Table of dimensions									
Version		Orifice size (mm)	K (mm)	HA (mm)	HL (mm)	DIN11850-2		DIN11850-3	
Standard adjustment	Adjustable flow control					D	S	D	S
0	A	15	115	120	70	19	1.5	20	2
		20	120	128	82	23		24	
		25	125	144	100	29		30	
		32	146	165	125	35		36	
		40	148	168	130	41		42	
		50	155	182	155	53		54	

Technical data			
Version		Orifice size (mm)	KV (m³/h)
Standard adjustment	Adjustable flow control		
0	A	15	4.3
		20	7.6
		25	15.8
		32	26
		40	32
		50	52

Construction characteristics		Technical characteristics	
	Body		Body
Materials	Stainless steel AISI 316/304	Fluid	Dry or lubricated air, gas and neutral fluids, water and steam
Gland packing seal kit	PTFE and FKM	Fluid temperature (°C)	-10 °C ... +180
Poppet	PTFE	Fluid viscosity (cSt)	max. 600
		Ambient temperature (°C)	-10 °C ... +80
		Assembly positions	In all positions

2-way valve with ISO 2852 clamp ports



CODING: PVFMN**V**OK-M

V	VERSION
	0 = Standard adjustment
	A = Adjustable flow control
D	ORIFICE SIZE
	15 = Ø15
	20 = Ø20
	25 = Ø25
	32 = Ø32
	40 = Ø40
	50 = Ø50
M	MATERIALS
	A = AISI 304
	B = AISI 316

PNEUMAX FLUID CONTROL

- High flow rate thanks to body configuration with inclined seating
- Adjustable flow control for better handling
- Self-adjusting gland packing set requiring no maintenance

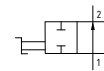


Table of dimensions						
Version		Orifice size (mm)	A (mm)	K (mm)	L (mm)	ØD
Standard adjustment	Adjustable flow control					
0	A	15	132	113	80	34
		20	147	122	130	50.5
		25	156	126	130	50.5
		32	174	142	146	50.5
		40	185	141	160	64
		50	195	152	175	64

Technical data				
Version		Orifice size (mm)	KV (m³/h)	Max. working pressure (bar)
Standard adjustment	Adjustable flow control			
0	A	15	4.3	16
		20	7.6	
		25	15.8	
		32	26	
		40	32	
		50	52	

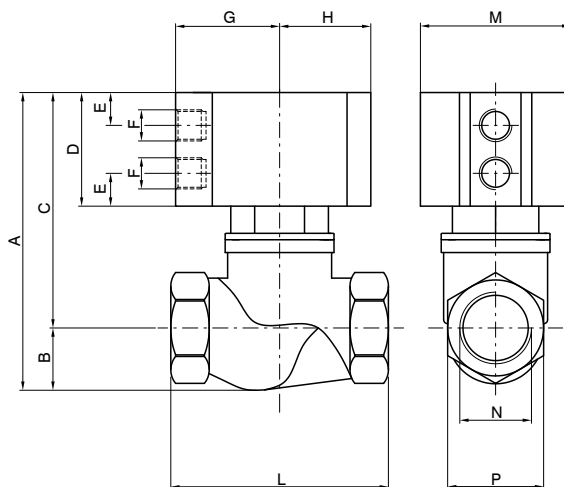
Construction characteristics		Technical characteristics	
	Body		Body
Materials	Stainless steel AISI 316/304	Fluid	Dry or lubricated air, gas and neutral fluids, water and steam
Gland packing seal kit	PTFE and FKM	Fluid temperature (°C)	-10 °C ... +180
Poppet	PTFE	Fluid viscosity (cSt)	max. 600
		Ambient temperature (°C)	-10 °C ... +80
		Assembly positions	In all positions



Series PVA

Angle seat pad valves with assisted flow, with or without magnetic piston, brass body.

“T” body version pad valve



CODING: PVA.B.A.P.T.C.G

OPERATOR	
A	DE = Double acting
	SC = Normally closed
	SA = Normally open
PISTON	
P	N = Non magnetic
	M = Magnetic
CONNECTIONS	
C	A = G1/4"
	B = G3/8"
	C = G1/2"
	D = G3/4"
	E = G1"
	F = G1 1/4"
	G = G1 1/2"
	H = G2"
SEALS	
G	N = NBR
	V = FPM
	F = PTFE

Table of dimensions

Connections (N)	Non magnetic piston			Magnetic piston			B	E	F	G	H	L	M	P
	A	C	D	A	C	D								
G1/4"	93,5	77,5	41	97,5	81,5	45	16	10,25	G1/8"	32,5	28,5	64	47	25
G3/8"	93,5	77,5	41	97,5	81,5	45	16	10,25	G1/8"	32,5	28,5	64	47	25
G1/2"	93,5	78	41	99,5	82	45	17,5	10,25	G1/8"	32,5	28,5	68	47	30
G3/4"	105	83	41	113	90	48	22	11,25	G1/8"	44	40	79	70	36
G1"	117	89	41	125	101	53	28	11,25	G1/8"	44	40	94	70	44
G1 1/4"	131	103	48	136	108	53	28	11,25	G1/8"	44	40	110	70	55
G1 1/2"	154	118	57	166	130	69	36	13,75	G1/8"	56	49	120	90	60
G2"	169	124	57	181	136	69	45	13,75	G1/8"	56	49	140	90	73

Technical data

Actuator (Ø)	Valve (Ø)	Weight (g)
40	13.5	350
	13.5	350
	15	400
63	20.5	850
	25	1100
	30	1400
80	38	2100
	49.5	3000

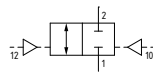
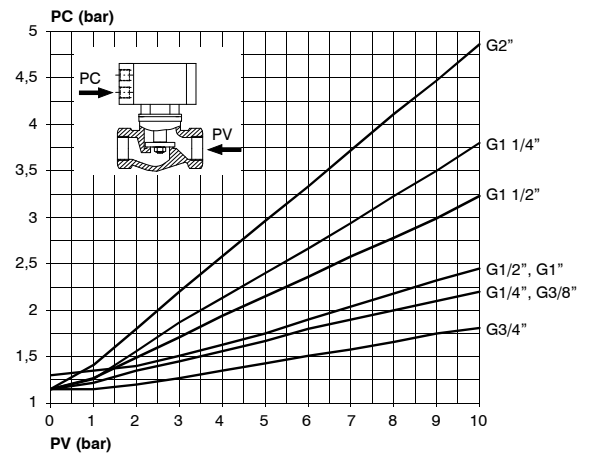
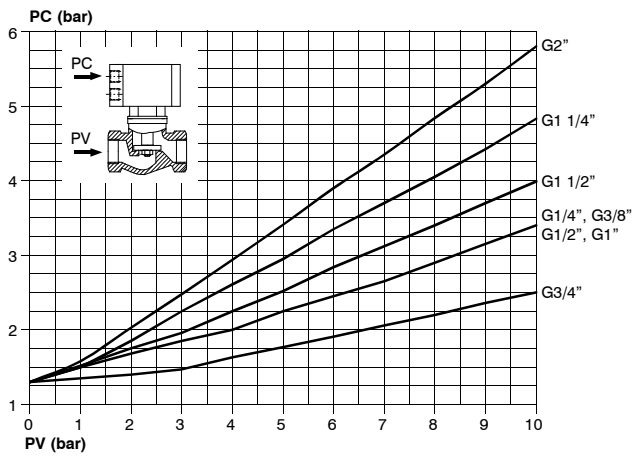
2-way valves, for interception of fluids, pneumatically actuated by a compact double or single acting cylinder with 360° swivel connections, NBR, FPM or PTFE seals in contact with the fluid. The barrel profile allows the use of magnetic sensors PNEUMAX code "1500_ ", "RS_ ", "RS_ ", "HS_ ", for sensor slot type "A" (see section 3, magnetic sensors series "SA" of the Pneumax General Catalogue).

Construction characteristics	
Springs	Zinc plated steel
Rear end cap	Anodized aluminium
Guide piston	
Guide end cap	
Cylinder	Aluminium alloy anodised
Seals in contact with fluid	NBR, FPM, PTFE
Pneumatic cylinder seals	
Piston rod	Chromed stainless steel
Bushing	Brass
Bushing pad	
Nut pad	

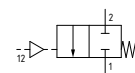
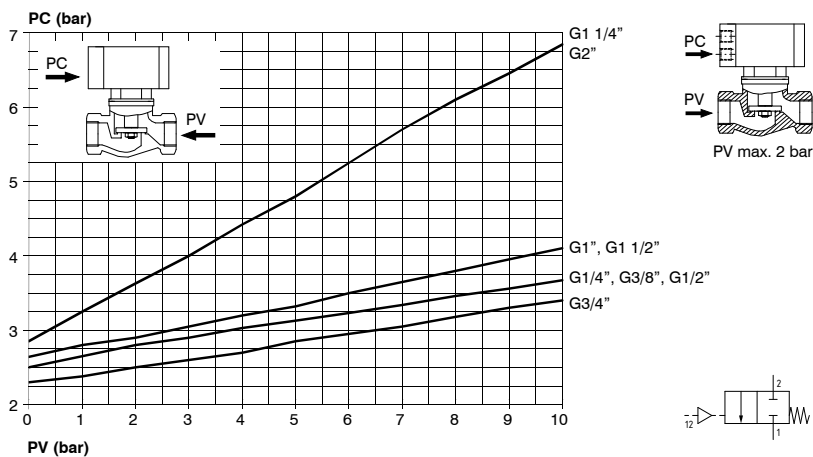
Technical characteristics	
Pneumatic cylinder fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Valve fluid	Fluid compatible with gasket compounds available
Working pressure (Cylinder) (bar)	10
Temperature °C (Non magnetic piston, NBR seals)	-10 ... +70
Temperature °C (Non magnetic piston, FPM seals)	-10 ... +150
Temperature °C (Non magnetic piston, PTFE seals)	
Temperature °C (Magnetic piston, NBR, FPM, PTFE seals)	-10 ... +70

Pressure curves

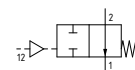
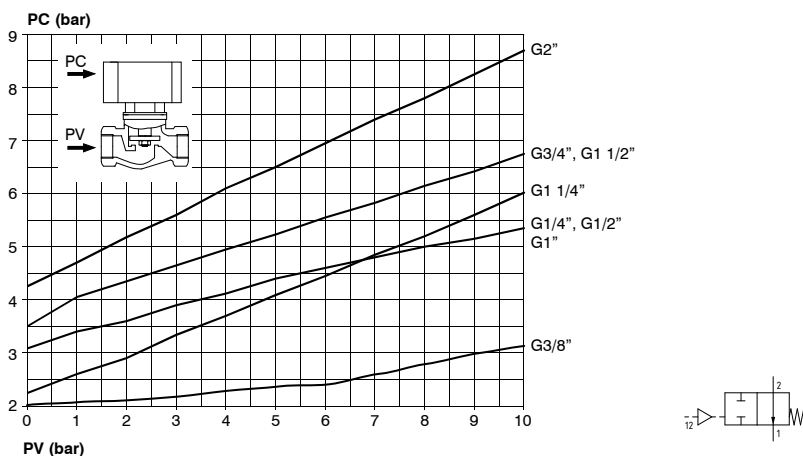
DOUBLE ACTING CYLINDER



SINGLE ACTING CYLINDER, NORMALLY CLOSED VALVE



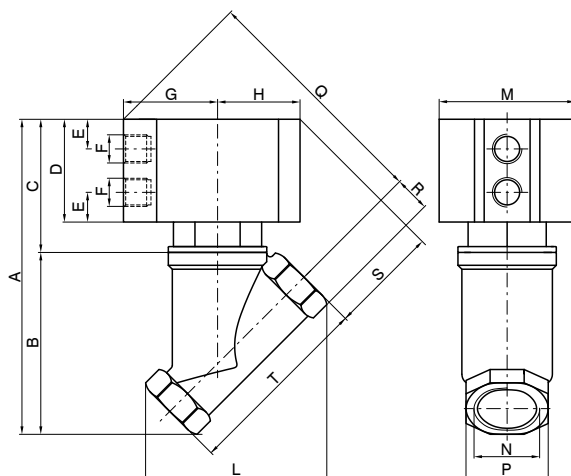
SINGLE ACTING CYLINDER, NORMALLY OPEN VALVE





“Y” body version pad valve

CODING: PVA.B.A.P.Y.C.G



A	OPERATOR
	DE = Double acting
	SC = Normally closed
	SA = Normally open
P	PISTON
	N = Non magnetic
	M = Magnetic
C	CONNECTIONS
	A = G1/4"
	B = G3/8"
	C = G1/2"
	D = G3/4"
	E = G1"
	F = G1 1/4"
	G = G1 1/2"
	H = G2"
G	SEALS
	N = NBR
	V = FPM
	F = PTFE

Table of dimensions

Connections (N)	Non magnetic piston					Magnetic piston														
	A	C	D	Q	S	A	C	D	Q	S	B	E	F	G	H	L	M	P	R	T
G1/4"	121	71	45	95	51	95	51	124	97	53	74	48	G1/8"	32.5	28.5	52	47	21	10.5	50
G3/8"	121	71	45	95	51	95	51	124	97	53	74	48	G1/8"	32.5	28.5	52	47	21	10.5	50
G1/2"	127	71	45	97	54	97	54	130	99	56	74	48	G1/8"	32.5	28.5	57	47	27	13.5	56
G3/4"	148	80	48	119	66	119	66	201	175	92	133	104	G1/8"	44	40	70	70	32	16	66
G1"	159	75	48	123	75	123	75	215	175	92	131	104	G1/8"	44	40	82	70	38	19	78
G1 1/4"	184	91	65	140	70	140	70	231	172	96	138	112	G1/8"	44	40	105	70	47	23.5	101
G1 1/2"	180	99	81	173	85	173	85	255	187	107	129	111	G1/8"	56	49	125	90	55	27.5	113
G2"	246	106	88	182	88	182	88	269	203	109	129	111	G1/8"	56	49	136	90	68	34	125

Technical data

Actuator (Ø)	Valve (Ø)	Weight (g)
40	13	350
	13	350
	13	400
63	18	850
	21,5	850
	30	1200
80	36	2000
	46	2300

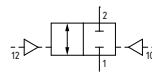
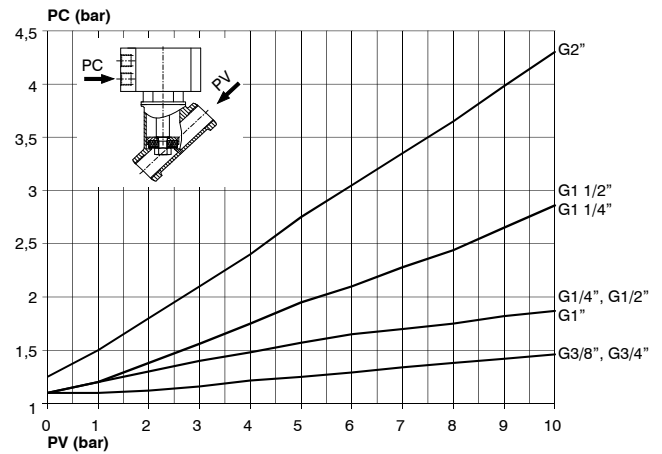
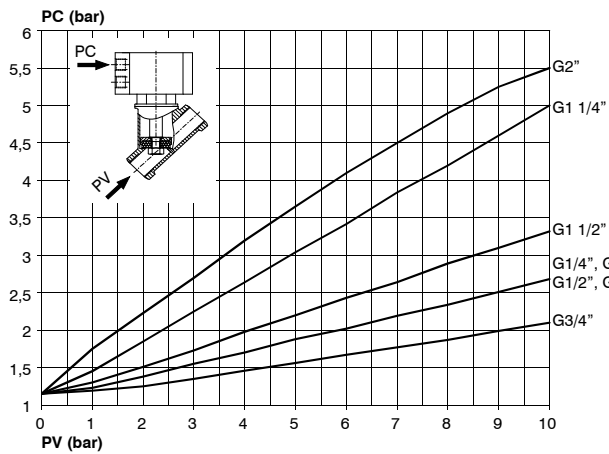
2-way valves, for interception of fluids, pneumatically actuated by a compact double or single acting cylinder with 360° swivel connections, NBR, FPM or PTFE seals in contact with the fluid. The barrel profile allows the use of magnetic sensors PNEUMAX code "1500._", "RS._", "HS._", for sensor slot type "A" (see section 3, magnetic sensors series "SA" of the Pneumax General Catalogue).

Construction characteristics	
Springs	Zinc plated steel
Rear end cap	Anodized aluminium
Guide piston	
Guide end cap	
Cylinder	Aluminium alloy anodised
Seals in contact with fluid	NBR, FPM, PTFE
Pneumatic cylinder seals	
Piston rod	Chromed stainless steel
Bushing	
Bushing pad	
Nut pad	Brass

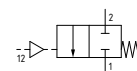
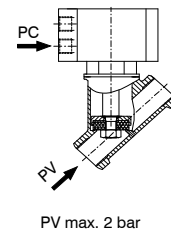
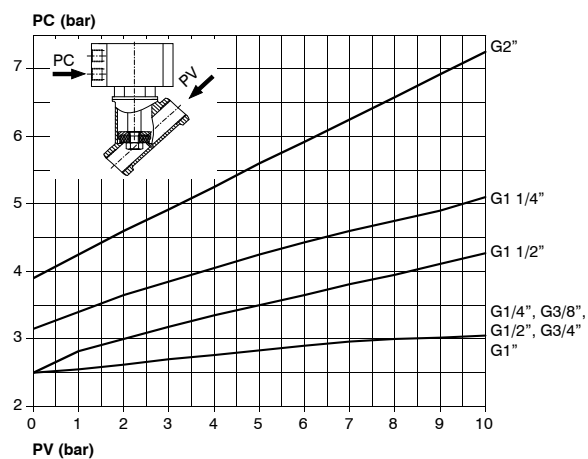
Technical characteristics	
Pneumatic cylinder fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Valve fluid	Fluid compatible with gasket compounds available
Working pressure (Cylinder) (bar)	10
Temperature °C (Non magnetic piston, NBR seals)	-10 ... +70
Temperature °C (Non magnetic piston, FPM seals)	-10 ... +150
Temperature °C (Non magnetic piston, PTFE seals)	
Temperature °C (Magnetic piston, NBR, FPM, PTFE seals)	-10 ... +70

Pressure curves

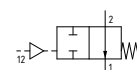
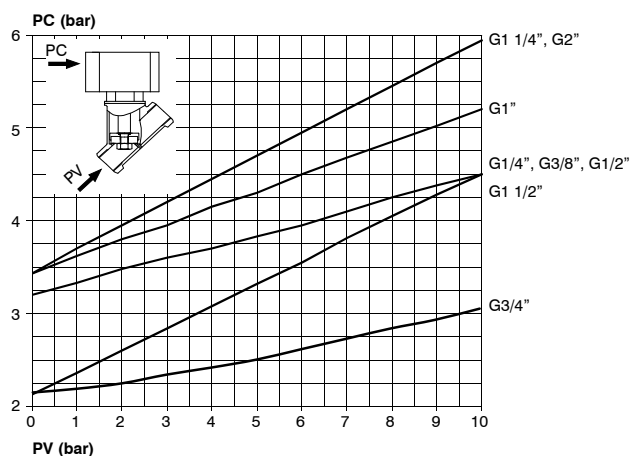
DOUBLE ACTING CYLINDER



SINGLE ACTING CYLINDER, NORMALLY CLOSED VALVE



SINGLE ACTING CYLINDER, NORMALLY OPEN VALVE





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