CATALOGUE

CAMOZZI
Automation

VALVES AND SOLENOID VALVES

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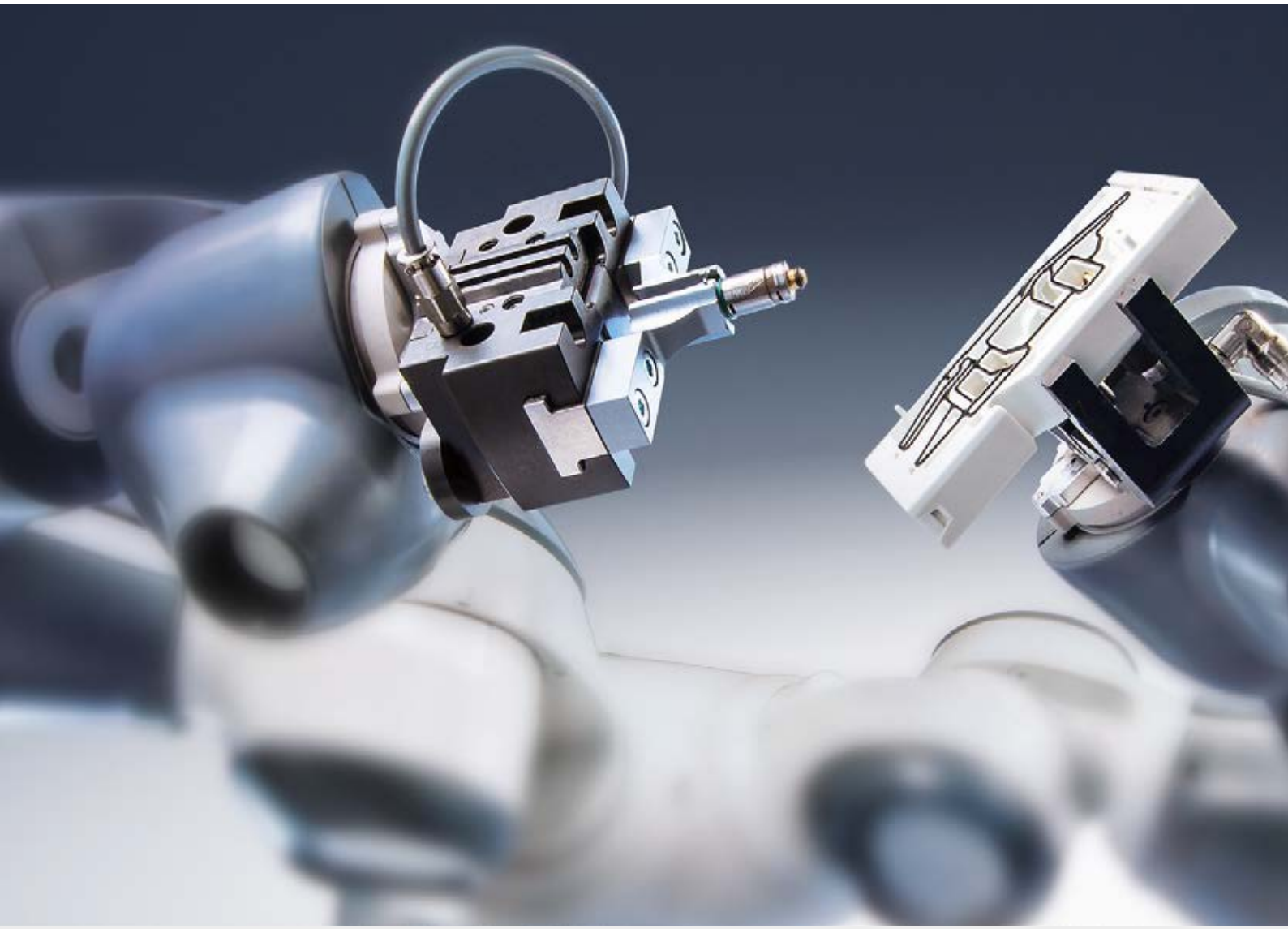

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CAMOZZI
Automation

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2 Solenoid, pneumatic and manifold valves
3 Mechanical and manual valves
4 Logic valves
5 Automatic valves
6 Flow control valves
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2 Rapid fittings
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5 Quick-release couplings
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8 Mini ball valves

General index

1 Direct and indirect acting 2/2 - 3/2 solenoid valves

2 Solenoid, pneumatic and manifold valves

3 Mechanical and manual valves

4 Logic valves

5 Automatic valves

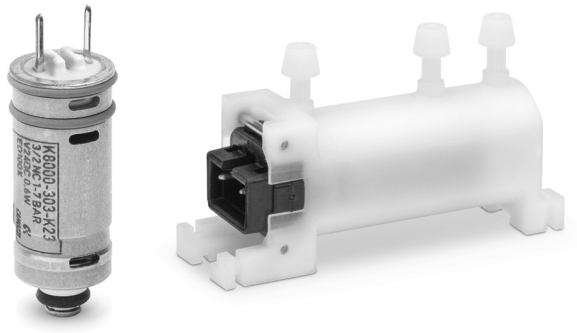
6 Flow control valves

7 Silencers

Series K8 - K8X
direct acting solenoid valves

New models

2/2-way - Normally Closed (NC) and Normally Open (NO)
3/2-way - Normally Closed (NC) and Normally Open (NO)
3/2-way - Universal (UNI)



- Compact design
- High performances
- Manifold mounting
- Long life
- Version for use with oxygen available

The universal (UNI) version enables to mix two different gaseous fluids or to select the path of the gaseous fluid in the pneumatic circuit.

Thanks to their particular design these valves can be used in applications where very compact solutions are required as well as high performances.
Series K8 is used to control actuators or very small devices and it is suitable for portable equipments thanks to low power consumption, reduced weight and dimensions.

GENERAL DATA

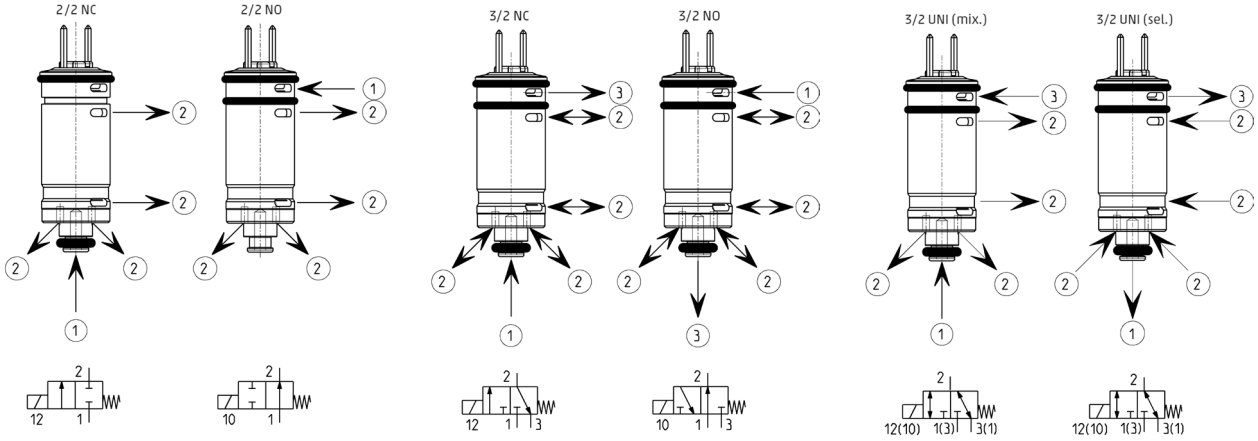
TECHNICAL FEATURES	
Function	2/2 NC - 3/2 NC - 2/2 NO - 3/2 NO - 3/2 UNI
Operation	direct acting poppet type
Pneumatic connections	cartridge seat in manifold / barb fittings for tube 4/2 - 4/2.5 - 5/3 mm
Orifice diameter	0.5 ... 0.7 mm
Flow efficient kv (l/min)	0.08 ... 0.15
Operating pressure	-1 ÷ 3 ... 7 bar
Operating temperature	0 ÷ 50 °C
Media	filtered compressed air, unlubricated, according to ISO 8573-1:2010 class [3:4:3], inert gas
Response time (ISO 12238)	ON <10 ms – OFF <10 ms
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	brass - stainless steel - PBT
Seals	FKM
Internal parts	stainless steel - enamelled copper
ELECTRICAL FEATURES	
Voltage	3 ... 24 V DC - other voltages on demand
Voltage tolerance	±10%
Power consumption	0.6 W
Duty cycle	ED 100%
Electrical connection	2 pins 0.5 x 0.5 pitch 4 mm - JST connector with 300 mm flying leads
Protection class	IP00
Special versions available on demand	

CODING EXAMPLE

K8	0	00	-	3	0	3	-	K	2	3

K8	SERIES
0	VALVE VERSION 0 = cartridge valve X = cartridge valve with PBT body
00	BODY DESIGN 00 = cartridge valve without body 1A = valve with PBT body and barb fittings for tube Ø 4/2 mm 1B = valve with PBT body and barb fittings for tube Ø 4/2.5 mm 1C = valve with PBT body and barb fittings for tube Ø 5/3 mm
3	NUMBER OF WAYS - FUNCTIONS 3 = 3/2-way - NC 4 = 3/2-way - NO 6 = 2/2-way - NO 5 = 2/2-way - NC 7 = 3/2-way - UNI
0	SEALS MATERIAL 0 = FKM
3	ORIFICE DIAMETER 3 = Ø 0.5 mm (max pressure 7 bar) 5 = Ø 0.7 mm 6 = Ø 0.5 mm (max pressure 4 bar)
K	MATERIALS K = brass orifice
2	ELECTRICAL CONNECTION 2 = pins - pitch 4 mm 3 = JST connector with 300 mm flying leads
3	VOLTAGE - POWER CONSUMPTION: 1 = 6 V DC - 0.6 W 5 = 5 V DC - 0.6 W 2 = 12 V DC - 0.6 W 6 = 3 V DC - 0.6 W 3 = 24 V DC - 0.6 W
	OPTIONS = standard OX1 = for use with oxygen (non volatile residual less than 550 mg/m²)

AVAILABLE FUNCTIONS



2/2 NC / 2/2 NO: 1 = inlet, 2 = outlet

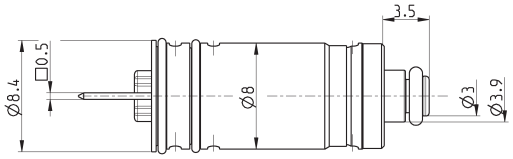
3/2 NC / 3/2 NO: 1 = inlet, 2 = outlet, 3 = exhaust

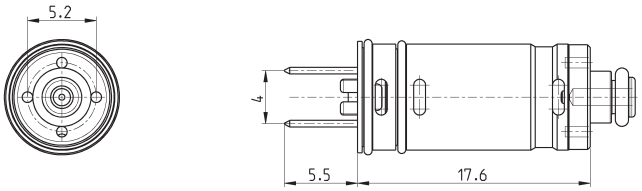
3/2 UNI (mix.): 1 = inlet A, 2 = outlet, 3 = inlet B

3/2 UNI (sel.): 1 = outlet A, 2 = inlet, 3 = outlet B

Series K8 solenoid valve - cartridge version

* add
- VOLTAGE
(see CODING EXAMPLE)

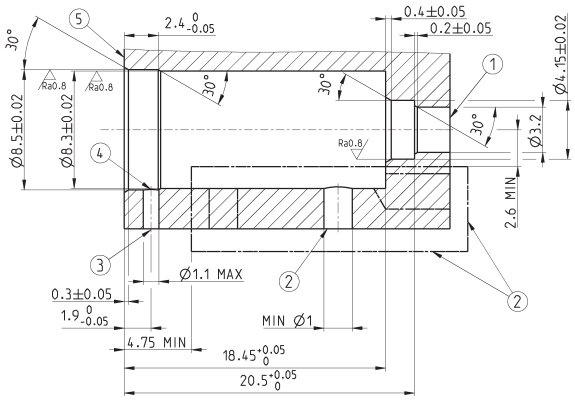




Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)
K8000-503-K2*	2/2 NC	0.5	0.08	1 ÷ 7
K8000-506-K2*	2/2 NC	0.5	0.08	-1 ÷ 4
K8000-505-K2*	2/2 NC	0.7	0.15	-1 ÷ 3
K8000-603-K2*	2/2 NO	0.6	0.10	1 ÷ 7
K8000-606-K2*	2/2 NO	0.6	0.10	-1 ÷ 4
K8000-303-K2*	3/2 NC	0.5	0.08	1 ÷ 7
K8000-306-K2*	3/2 NO	0.5	0.08	-1 ÷ 4
K8000-305-K2*	3/2 NC	0.7	0.15	-1 ÷ 3
K8000-403-K2*	3/2 NO	0.6	0.10	1 ÷ 7
K8000-406-K2*	3/2 NO	0.6	0.10	-1 ÷ 4
K8000-405-K2*	3/2 NO	0.6	0.10	1 ÷ 7
K8000-703-K2*	3/2 UNI	0.5	0.08	0 ÷ 3
K8000-705-K2*	3/2 UNI	0.7	0.15	-1 ÷ 2

Series K8 solenoid valve - valve seat dimensions for manifolds

LEGEND:
1 = Port 1
2 = Port 2
3 = Port 3
4 = Free from burrs
5 = Surface to be aligned with the upper surface of the valve reinforcement



FUNCTION	2/2 NC	2/2 NO	3/2 NC	3/2 NO	3/2 UNI (mix.)	3/2 UNI (sel.)
PORT 1	inlet	-	inlet	exhaust	inlet A	outlet A
PORT 2	outlet	outlet	outlet	outlet	outlet	inlet
PORT 3	-	inlet	exhaust	inlet	inlet B	outlet B

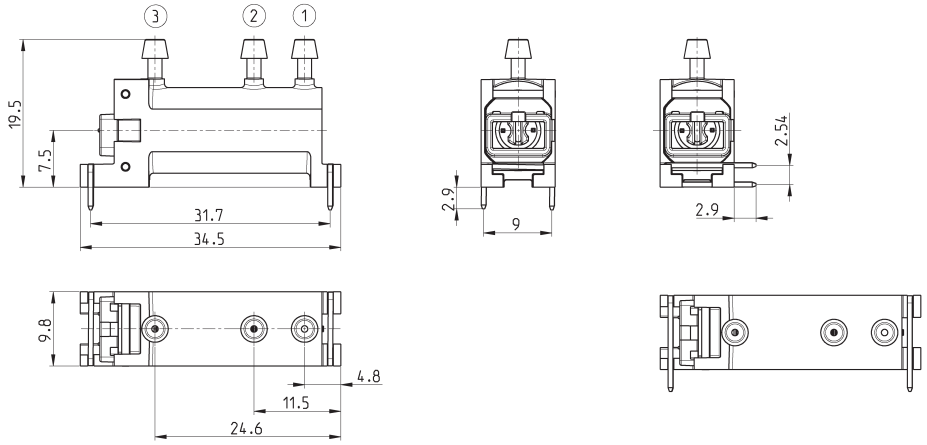
Series K8X solenoid valve - PBT version body

New

* add
- BODY DESIGN
- VOLTAGE
(see CODING EXAMPLE)

Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)
K8X1*-503-K3*	2/2 NC	0.5	0.08	1 ÷ 7
K8X1*-506-K3*	2/2 NC	0.5	0.08	-1 ÷ 4
K8X1*-505-K3*	2/2 NC	0.7	0.15	-1 ÷ 3
K8X1*-603-K3*	2/2 NO	0.6	0.10	1 ÷ 7
K8X1*-606-K3*	2/2 NO	0.6	0.10	-1 ÷ 4
K8X1*-303-K3*	3/2 NC	0.5	0.08	1 ÷ 7
K8X1*-306-K3*	3/2 NC	0.5	0.08	-1 ÷ 4
K8X1*-305-K3*	3/2 NC	0.7	0.15	-1 ÷ 3
K8X1*-403-K3*	3/2 NO	0.6	0.10	1 ÷ 7
K8X1*-406-K3*	3/2 NO	0.6	0.10	-1 ÷ 4

Series K8X solenoid valve - dimensions

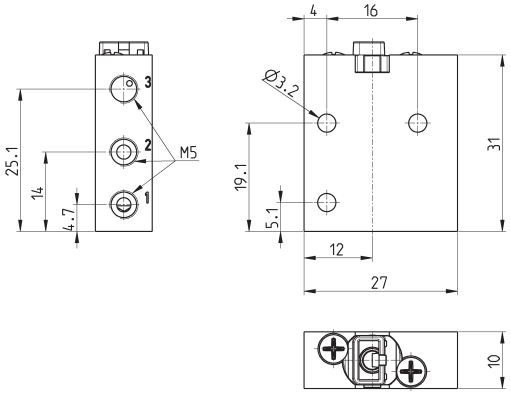


FUNCTION	2/2 NC	2/2 NO	3/2 NC	3/2 NO	3/2 UNI (mix.)	3/2 UNI (sel.)
PORT 1	inlet	-	inlet	exhaust	inlet A	outlet A
PORT 2	outlet	outlet	outlet	outlet	outlet	inlet
PORT 3	-	inlet	exhaust	inlet	inlet B	outlet B

Single body for Series K8 solenoid valve

Material: anodized aluminium
Connections: M5 threads

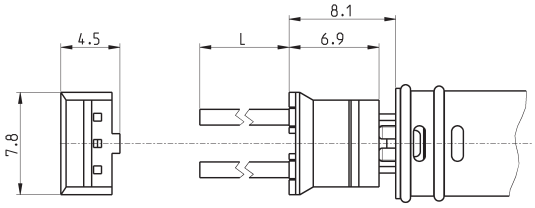
Valve restraint system to be used only with connector Mod. 120-J...



Mod.
K8303/14C

Connector with flying leads Mod. 120-J...

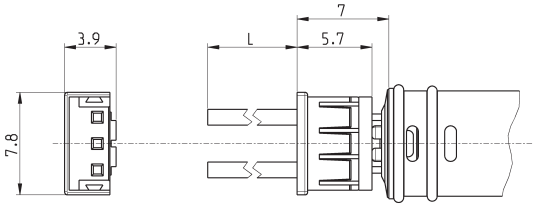
Flying leads section: 0.22 mm²
Flying lead external diameter: 1.1 mm
Material for the flying leads insulation: PVC



Mod.	description	colour	L = cable length (mm)	cable holding
120-J803	crimped cable connector J	white	300	crimping
120-J806	crimped cable connector J	white	600	crimping

Connector with flying leads Mod. 120-..

Cable section: 0.25 mm²
Cable external diameter: 1.2 mm
Material for the cable insulation: PVC



Mod.	description	colour	L = cable length (mm)	cable holding
120-803	crimped cable	white	300	crimping
120-806	crimped cable	white	600	crimping

Series K8B
pilot operated solenoid valves

2/2-way - Normally Closed (NC) and Normally Open (NO)
3/2-way - Normally Closed (NC) and Normally Open (NO)

- Compact design
- High flow
- Manifold mounting
- Long life

Thanks to their low power consumption and light weight Series K8B solenoid valves are particularly suitable for use with portable equipment too.

Series K8B indirect acting solenoid valves represent the evolution of Series K8 which has been equipped with a flow amplifier. Their particular design makes these valves ideal for use in applications requiring very compact solutions and high flow.

GENERAL DATA

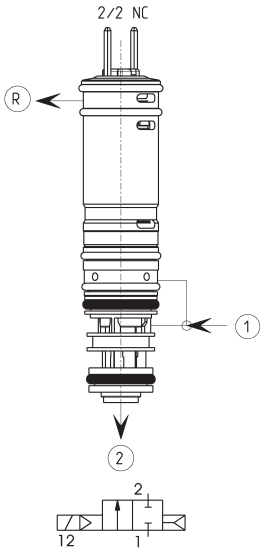
TECHNICAL FEATURES	
Function	2/2 NC - 2/2 NO - 3/2 NC - 3/2 NO
Operation	indirect acting poppet type
Pneumatic connections	cartridge seat in manifold - M7 threads - on subbase
Orifice diameter	3.6 mm
Flow coefficient kv (l/min)	2.8
Operating pressure	1 ÷ 7 bar
Operating temperature	0 ÷ 50 °C
Media	filtered compressed air, unlubricated, according to ISO 8573-1:2010, class [3:4:3], inert gas
Response time (ISO 12238)	ON <15 ms – OFF <15 ms
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	brass - stainless steel - PBT - aluminium
Seals	FKM
Internal parts	stainless steel - enamelled copper
ELECTRICAL FEATURES	
Voltage	3 ... 24 V DC - other voltages on demand
Voltage tolerance	±10%
Power consumption	0.6 W
Duty cycle	ED 100%
Electrical connection	2 pins 0.5 x 0.5 pitch 4 mm - JST connector with 300 mm flying leads
Protection class	IP00
Special versions available on demand	

CODING EXAMPLE

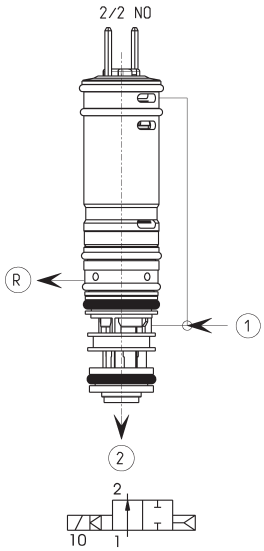
K8B	C5	4	00	-	D4	3	2	N	-	N	00	1A	C003

K8B	SERIES
C5	BODY DESIGN C0 = valve with aluminium body flanged connections C3 = valve with aluminium body threaded connections C5 = cartridge valve without body
4	NUMBER OF WAYS - FUNCTIONS 1 = 2/2-way - NC 2 = 2/2-way - NO 4 = 3/2-way - NC 5 = 3/2-way - NO
00	PNEUMATIC CONNECTIONS 00 = cartridge seat in manifold 03 = M7 thread 18 = 2/2-way K8B-type interface 19 = 3/2-way K8B-type interface
D4	ORIFICE DIAMETER D4 = Ø 3.6mm
3	SEALS MATERIALS 3 = FKM
2	MATERIALS 1 = stainless steel - brass - aluminium (valve with body version) 2 = stainless steel - brass (cartridge version)
N	MANUAL OVERRIDE N = not foreseen
N	FIXING N = not foreseen P = screws for plastics M = screws for metal
00	OPTION 00 = no option
1A	ELECTRICAL CONNECTION 2 = pins - pitch 4 mm 3 = JST connector with 300 mm flying leads
C003	VOLTAGE - POWER CONSUMPTION C001 = 6 V DC (0.6 W) C002 = 12 V DC (0.6 W) C003 = 24 V DC (0.6 W)
	OPTIONS: = standard OX1 = for use with oxygen (non volatile residual less than 550 mg/m²)

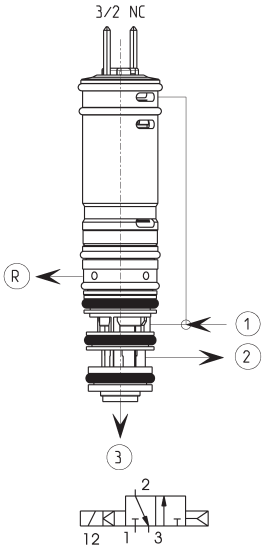
AVAILABLE FUNCTIONS



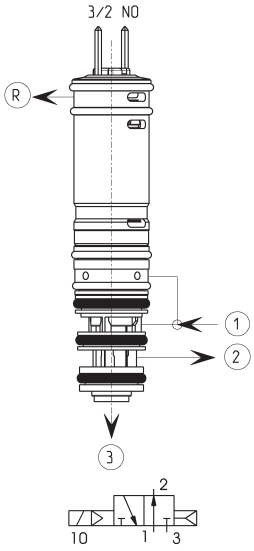
1 = inlet
2 = outlet
R = piloting exhaust



1 = inlet
2 = outlet
R = piloting exhaust



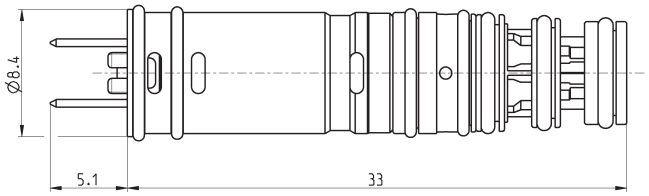
1 = inlet
2 = outlet
3 = exhaust
R = piloting exhaust



1 = inlet
2 = outlet
3 = exhaust
R = piloting exhaust

Solenoid valve Series K8B - cartridge version

* add
- VOLTAGE
(see CODING EXAMPLE)

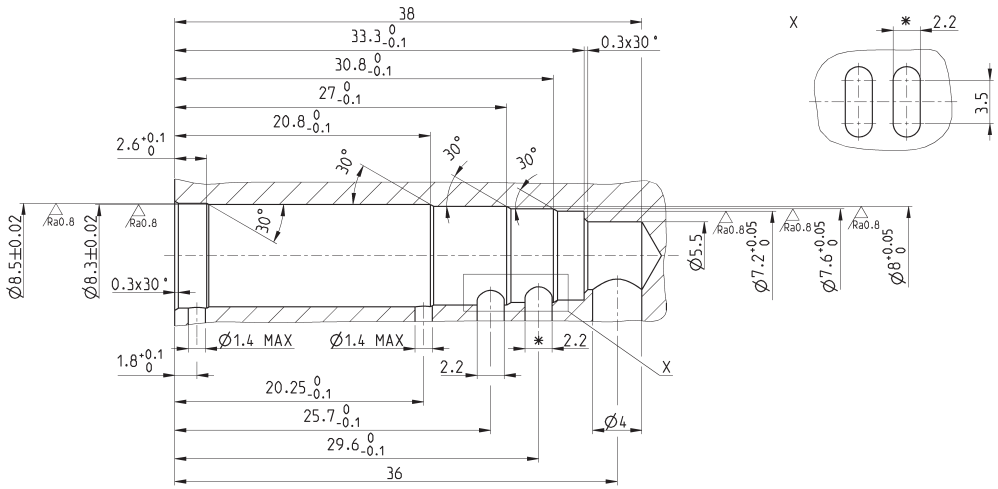


	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)
K8BC5100-D432N-N001A*	2/2 NC	3.6	2.8	1÷7
K8BC5200-D432N-N001A*	2/2 NO	3.6	2.8	1÷7
K8BC5400-D432N-N001A*	3/2 NC	3.6	2.8	1÷7
K8BC5500-D432N-N001A*	3/2 NO	3.6	2.8	1÷7

Series K8B - seat dimensions cartridge version

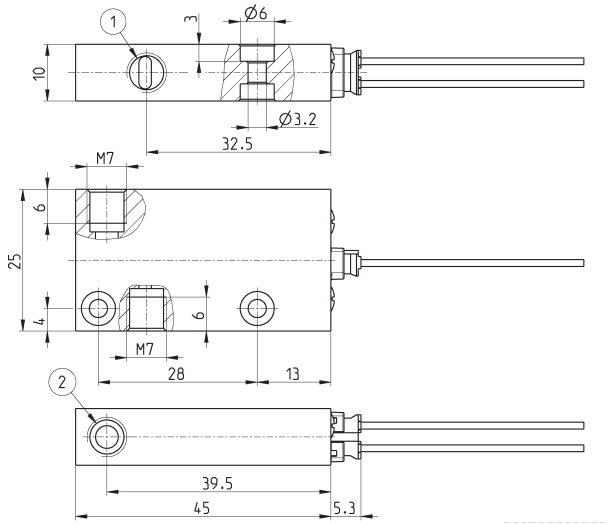
To achieve the declared flow rate it is necessary
to realize the ports with a section of 12.5 mm²
(equal to a diameter of 4 mm)

* for the 2/2 version this operation has not to be performed

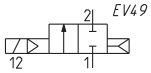


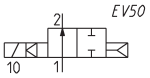
Series K8B solenoid valve - 2/2-way - threaded ports body version

Supplied with:
1x connector with flying leads
Mod. 120-J803 (300mm)



* add
- VOLTAGE
(see CODING EXAMPLE)

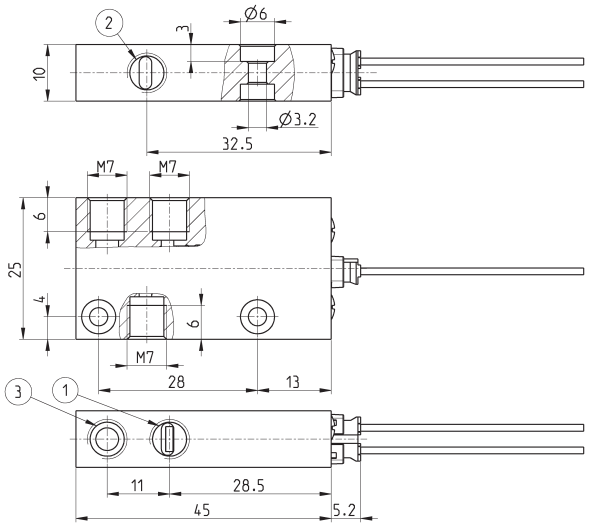




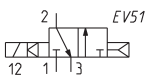
Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)
K8BC3103-D431N-N001B*	2/2 NC	3.6	2.8	1÷7
K8BC3203-D431N-N001B*	2/2 NO	3.6	2.8	1÷7

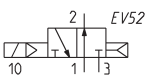
Series K8B solenoid valve - 3/2-way - threaded ports body version

Supplied with:
1x connector with flying leads
Mod. 120-J803 (300mm)



* add
- VOLTAGE
(see CODING EXAMPLE)



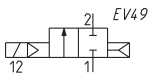


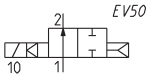
Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)
K8BC3403-D431N-N001B*	3/2 NC	3.6	2.8	1÷7
K8BC3503-D431N-N001B*	3/2 NO	3.6	2.8	1÷7

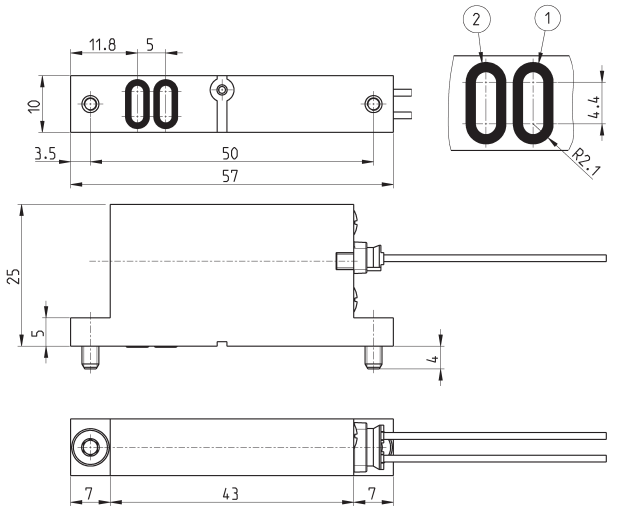
Series K8B solenoid valve - 2/2-way - flanged body version

Supplied with:
1x connector with flying leads
Mod. 120-J803 (300mm)
2x interface seals
2x M3x6 screws for mounting on metal
or
2x Ø3x6 screws for mounting on plastic

* add
- FIXING
- VOLTAGE
(see CODING EXAMPLE)





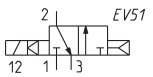


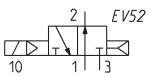
Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)
K8BC0118-D431N-*001B*	2/2 NC	3.6	2.8	1÷7
K8BC0218-D431N-*001B*	2/2 NO	3.6	2.8	1÷7

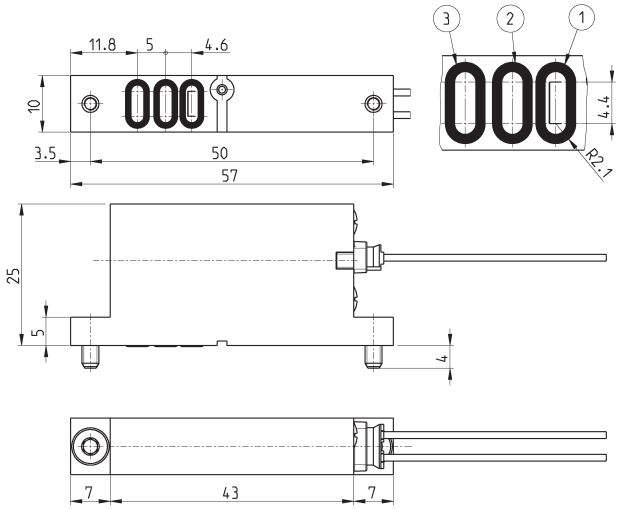
Series K8B solenoid valve - 3/2-way - flanged body version

Supplied with:
1x connector with flying leads
Mod. 120-J803 (300mm)
3x interface seals
2x M3x6 screws for mounting on metal
or
2x Ø3x6 screws for mounting on plastic

* add
- FIXING
- VOLTAGE
(see CODING EXAMPLE)



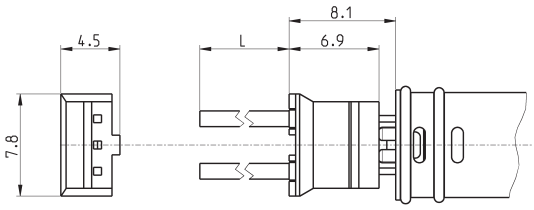




Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)
KBC0419-D431N-*001B*	3/2 NC	3.6	2.8	1÷7
KBC0519-D431N-*001B*	3/2 NO	3.6	2.8	1÷7

Connector with flying leads Mod. 120-J...

Flying leads section: 0.22 mm²
Flying lead external diameter: 1.1 mm
Material for the flying leads insulation: PVC



Mod.	description	colour	L = cable length (mm)	cable holding
120-J803	crimped cable connector J	white	300	crimping
120-J806	crimped cable connector J	white	600	crimping

Series K8DV
media separeted solenoid valves

2/2-way - Normally Closed (NC)

- Very compact design and reduced weight
- High flow performances
- Very low internal volume
- Suitable to be applied in medical equipment and analytical instruments

To choose the most suitable model for a specific application, check the chemical compatibility of the medium to control with the available materials of body and seals.

The K8DV solenoid valve was born to meet all the demands to shut off aggressive or heat sensitive fluids. Thanks to a fluid separation membrane, the fluid is isolated from all internal metal parts of the solenoid valve and avoids heating, even if minimum, generated by the solenoid positioned above.

GENERAL DATA

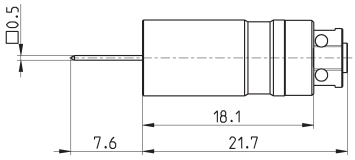
TECHNICAL FEATURES	
Function	2/2 NC
Operation	direct acting with fluid separation membrane
Pneumatic connections	cartridge seat in manifold - on subbase
Orifice diameter	0.7 mm
Flow efficient kv (l/min)	0.1
Operating pressure	0 ÷ 2.1 bar (FKM/EPDM) / 0 ÷ 1.5 bar (FFKM)
Operating temperature	5 ÷ 50 °C (FKM/EPDM) / 20 ÷ 50 °C (FFKM)
Media	inert or corrosive liquids and gases compatible with the materials in contact
Response time	ON ≤ 10 ms - OFF ≤ 15 ms
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	PEEK
Seals	FKM - EPDM - FFKM
ELECTRICAL FEATURES	
Voltage	3 ... 24 V DC - other voltages on demand
Voltage tolerance	±10%
Power consumption	0.6 W
Duty cycle	ED 100%
Electrical connection	2 pins 0.5 x 0.5 pitch 4 mm
Protection class	IP00

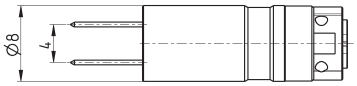
CODING EXAMPLE

K8DV	C	00	-	5	0	5	-	G	2	3

K8DV	SERIES
C	TYPE OF BODY C = cartridge version 0 = flanged version
00	NUMBER OF POSITIONS 00 = valve without housing
5	NUMBER OF WAYS - FUNCTIONS 5 = 2/2-way - NC
0	SEAL MATERIAL 0 = FKM 4 = EPDM 5 = FFKM
5	ORIFICE DIAMETER 5 = Ø 0.7 mm
G	BODY MATERIAL G = PEEK
2	ELECTRICAL CONNECTION 2 = pins - pitch 4 mm
3	VOLTAGE - POWER CONSUMPTION 1 = 6V DC - 0.6 W 2 = 12V DC - 0.6 W 3 = 24V DC - 0.6 W 4 = 3V DC - 0.6 W 5 = 5V DC - 0.6 W
	OPTIONS: = standard OX1 = for use with oxygen (non volatile residual less than 550 mg/m^2)

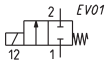
Series K8DV solenoid valve - cartridge version





DRAWING LEGEND:
1 = inlet
2 = outlet

* add
- VOLTAGE
(see CODING EXAMPLE)

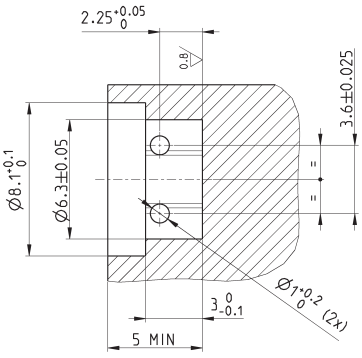


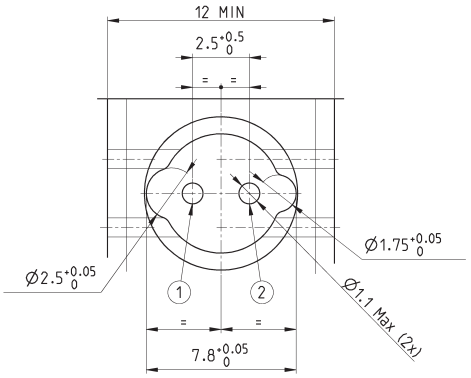
Mod.	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)	Body material	Seal material
K8DVC00-505-G2*	0.7	0.1	0 ÷ 2.1	PEEK	FKM
K8DVC00-545-G2*	0.7	0.1	0 ÷ 2.1	PEEK	EPDM
K8DVC00-555-G2*	0.7	0.1	0 ÷ 1.5	PEEK	FFKM

Series K8DV - seat dimensions cartridge version

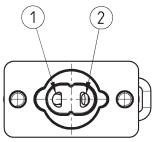
DRAWING LEGEND:

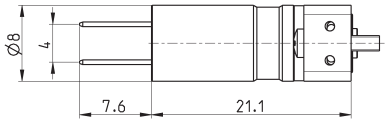
1 = inlet
2 = outlet

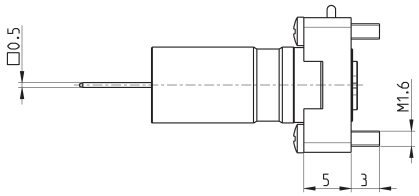


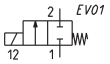


Serie K8DV solenoid valve - flanged version







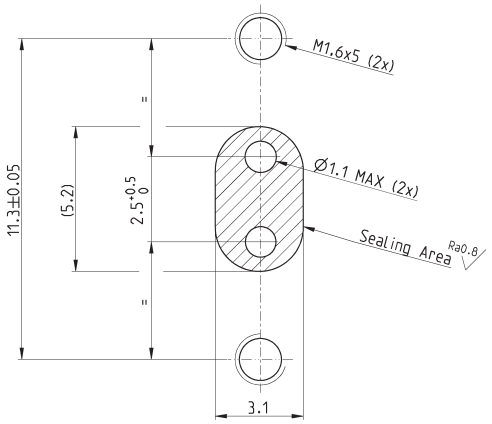


DRAWING LEGEND:
1 = inlet
2 = outlet

* add
- VOLTAGE
(see CODING EXAMPLE)

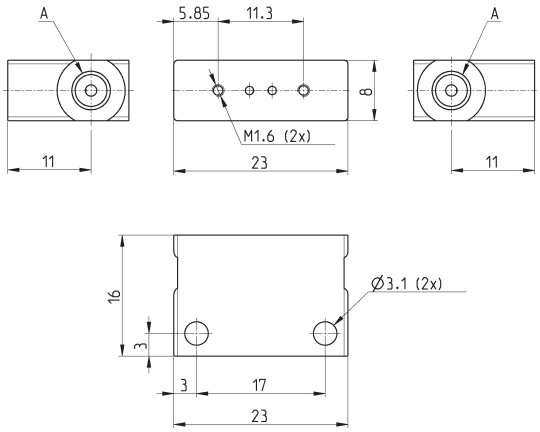
Mod.	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)	Body material	Seal material
K8DV000-505-G2*	0.7	0.1	0 ÷ 2.1	PEEK	FKM
K8DV000-545-G2*	0.7	0.1	0 ÷ 2.1	PEEK	EPDM
K8DV000-555-G2*	0.7	0.1	0 ÷ 1.5	PEEK	FFKM

Series K8DV - seat dimensions flanged version



Single sub base for flanged version

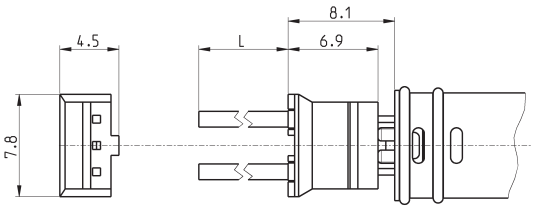
Material: PEEK
Pneumatic connections: M5 or 1/4-28 UNF threads



Mod.	Thread A
K8DV0001-1/4	1/4 - 28 UNF
K8DV0001-M5	M5

Connector with flying leads Mod. 120-J...

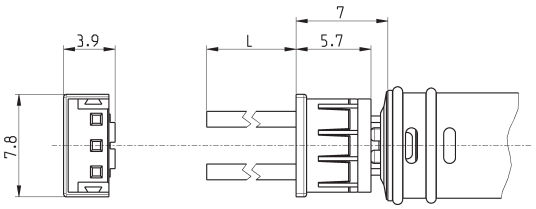
Flying leads section: 0.25 mm²
Flying lead external diameter: 1.2 mm
Material for the flying leads insulation: PVC



Mod.	description	colour	L = cable length (mm)	cable holding
120-J803	crimped cable connector J	white	300	crimping
120-J806	crimped cable connector J	white	600	crimping

Connector with flying leads Mod. 120-..

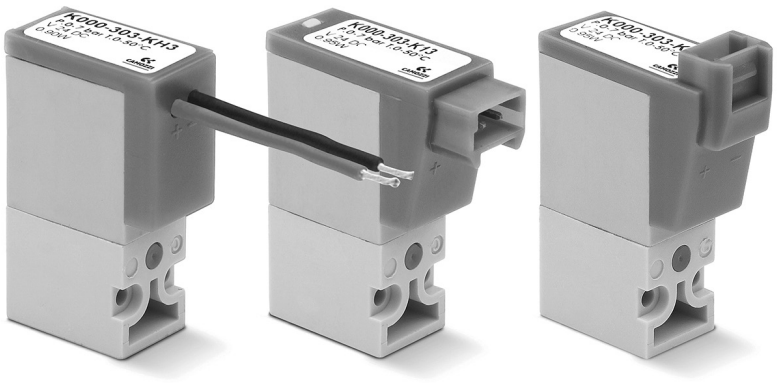
Cable section: 0.25 mm²
Cable external diameter: 1.2 mm
Material for the cable insulation: PVC



Mod.	description	colour	L = cable length (mm)	cable holding
120-803	crimped cable	white	300	crimping
120-806	crimped cable	white	600	crimping

Series K
direct acting solenoid valves

2/2-way - Normally Closed (NC)
3/2-way - Normally Closed (NC) and Normally Open (NO)



- Low power consumption
- Compact design
- Version for use with oxygen available

The Series K direct acting solenoid valves can be mounted on single sub-bases or manifolds.
Thanks to the same mounting pad 2/2-way and 3/2-way versions can be installed on the same manifold.
The manual override is available only for the 3/2-way versions.

GENERAL DATA

TECHNICAL FEATURES	
Function	2/2 NC - 3/2 NC - 3/2 NO
Operation	direct acting poppet type
Pneumatic connections	on subbase
Orifice diameter	0.6 ... 1 mm
Flow coefficient kv (l/min)	0.12 ... 0.30
Operating pressure	0 ÷ 3 ... 7 bar
Operating temperature	0 ÷ 50 °C
Media	filtered compressed air, unlubricated, according to ISO 8573-1:2010 class [3:4:3], inert gas
Response time	ON <10 ms – OFF <10 ms
Manual override	monostable - only for 3/2 versions
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	PBT
Seals	NBR - FKM
Internal parts	stainless steel
ELECTRICAL FEATURES	
Voltage	6 ... 24 V DC - other voltages on demand
Voltage tolerance	±10%
Power consumption	1 W
Duty cycle	ED 100%
Electrical connection	connector mod. 121-8... - 300 mm flying leads
Protection class	IP50
Special versions available on demand	

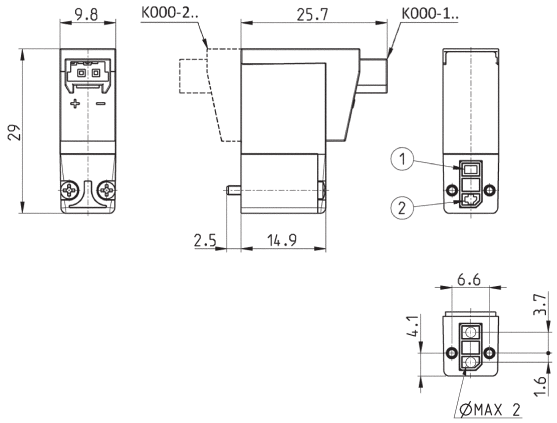
CODING EXAMPLE

K	0	00	-	3	0	3	-	K	2	3	

K	SERIES		
0	BODY DESIGN 0 = single sub-base (only M5) or interface 1 = manifold		
00	NUMBER OF POSITIONS 00 = interface 01 = single base (only M5) 02 ÷ 99 = manifold number of positions		
3	NUMBER OF WAYS - FUNCTIONS 0 = manifold or single base 1 = 2/2-way - NC 1 = 2/2-way - NC electric part revolved by 180°	3 = 3/2-way - NC 5 = 3/2-way - NC electric part revolved by 180°	4 = 3/2-way - NO 6 = 3/2-way - NO electric part revolved by 180°
0	PORTS: 0 = on subbase or manifold 2 = M5 side outlets		
3	ORIFICE DIAMETER 2 = Ø 0.6 mm 3 = Ø 0.65 mm 5 = Ø 1.0 mm		
K	MATERIALS F = PBT body - FKM poppet seal K = PBT body - HNBR poppet seal (only for 3/2-way versions)		
2	ELECTRICAL CONNECTION 1 = 90° connection with protection and led 2 = 90° connection with protection 3 = 90° connection	B = in-line connection with protection and led C = in-line connection with protection D = in-line connection	F = 300 mm flying leads with protection and led G = 300 mm flying leads with protection H = 300 mm flying leads
3	VOLTAGE - POWER CONSUMPTION 1 = 6V DC - 1W 2 = 12V DC - 1W 3 = 24V DC - 1W		
	FIXING = fixing screws for plastic M = fixing screws for metal		
	OPTIONS = standard OX1 = for use with oxygen (non volatile residual less than 550 mg/m²) OX2 = for use with oxygen (non volatile residual less than 33 mg/m²)		

Series K solenoid valve - 2/2-way NC - 90° connector

Supplied with:
1x interface seal
2x Ø1.6x16 screws for mounting on plastic
or
2x M1.6x16 screws for mounting on metal

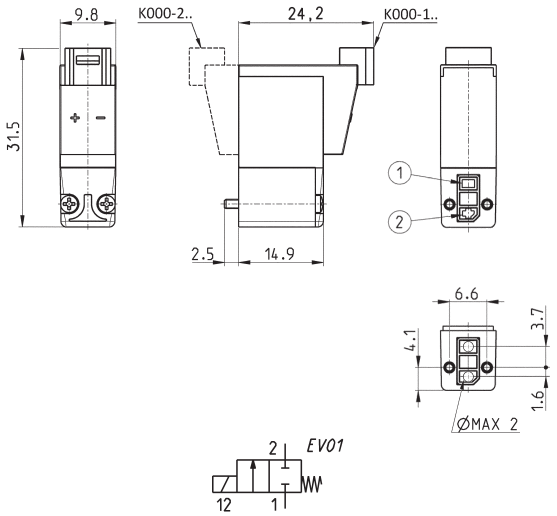


Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)
K000-102-F1*	2/2 NC	0.6	0.15	0 ÷ 6
K000-102-F2*	2/2 NC	0.6	0.15	0 ÷ 6
K000-102-F3*	2/2 NC	0.6	0.15	0 ÷ 6
K000-105-F1*	2/2 NC	1	0.30	0 ÷ 3
K000-105-F2*	2/2 NC	1	0.30	0 ÷ 3
K000-105-F3*	2/2 NC	1	0.30	0 ÷ 3

* add
- VOLTAGE
(see CODING EXAMPLE)

Series K solenoid valve - 2/2-way NC - in-line connector

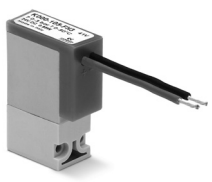
Supplied with:
1x interface seal
2x Ø1.6x16 screws for mounting on plastic
or
2x M1.6x16 screws for mounting on metal)



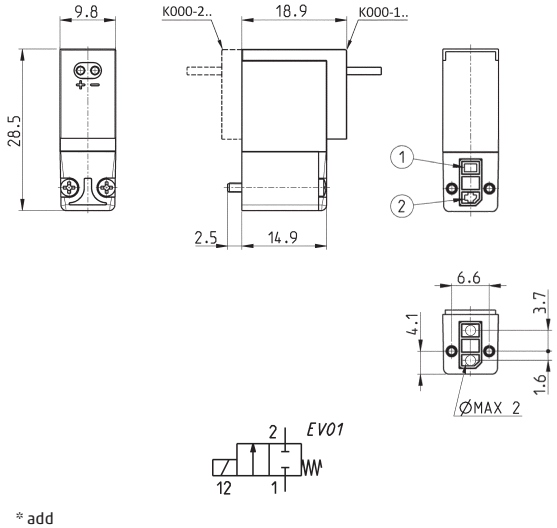
Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)
K000-102-FB*	2/2 NC	0.6	0.15	0 ÷ 6
K000-102-FC*	2/2 NC	0.6	0.15	0 ÷ 6
K000-102-FD*	2/2 NC	0.6	0.15	0 ÷ 6
K000-105-FB*	2/2 NC	1	0.30	0 ÷ 3
K000-105-FC*	2/2 NC	1	0.30	0 ÷ 3
K000-105-FD*	2/2 NC	1	0.30	0 ÷ 3

* add
- VOLTAGE
(see CODING EXAMPLE)

Series K solenoid valve - 2/2-way NC - 300 mm flying leads



Supplied with:
1x interface seal
2x Ø1.6x16 screws for mounting on plastic
or
2x M1.6x16 screws for mounting on metal

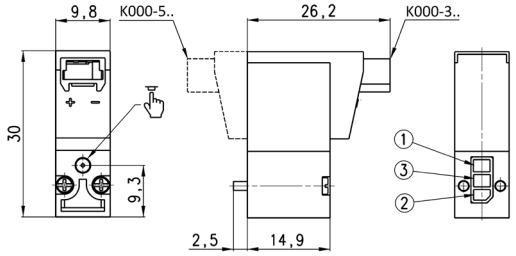


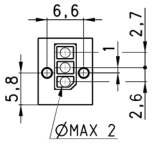
Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)
K000-102-FF*	2/2 NC	0.6	0.15	0 ÷ 6
K000-102-FG*	2/2 NC	0.6	0.15	0 ÷ 6
K000-102-FH*	2/2 NC	0.6	0.15	0 ÷ 6
K000-105-FF*	2/2 NC	1	0.30	0 ÷ 3
K000-105-FG*	2/2 NC	1	0.30	0 ÷ 3
K000-105-FH*	2/2 NC	1	0.30	0 ÷ 3

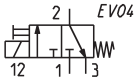
* add
- VOLTAGE
(see CODING EXAMPLE)

Seris K solenoid valve - 3/2-way NC - 90° connector

Supplied with:
1x interface seal
2x Ø1.6x16 screws for mounting on plastic
or
2x M1.6x16 screws for mounting on metal





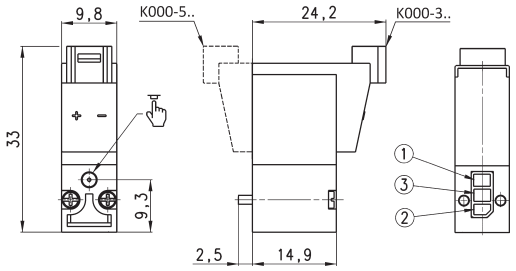


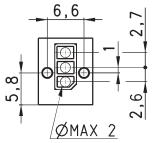
Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)
K000-303-K1*	3/2 NC	0.6	0.12	0 ÷ 7
K000-303-F1*	3/2 NC	0.6	0.12	0 ÷ 7
K000-303-K2*	3/2 NC	0.6	0.12	0 ÷ 7
K000-303-F2*	3/2 NC	0.6	0.12	0 ÷ 7
K000-303-K3*	3/2 NC	0.6	0.12	0 ÷ 7
K000-303-F3*	3/2 NC	0.6	0.12	0 ÷ 7

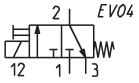
* add
- VOLTAGE
(see CODING EXAMPLE)

Series K solenoid valve - 3/2-way NC - in-line connector

Supplied with:
1x interface seal
2x Ø1.6x16 screws for mounting on plastic
or
2x M1.6x16 screws for mounting on metal





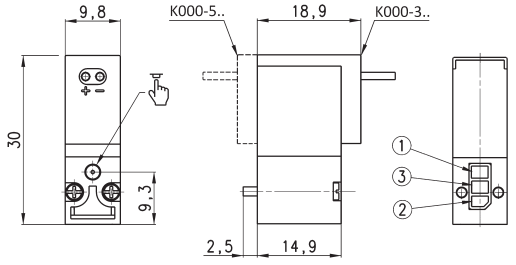


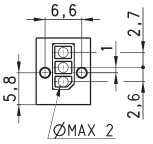
Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)
K000-303-KB*	3/2 NC	0.6	0.12	0 ÷ 7
K000-303-FB*	3/2 NC	0.6	0.12	0 ÷ 7
K000-303-KC*	3/2 NC	0.6	0.12	0 ÷ 7
K000-303-FC*	3/2 NC	0.6	0.12	0 ÷ 7
K000-303-KD*	3/2 NC	0.6	0.12	0 ÷ 7
K000-303-FD*	3/2 NC	0.6	0.12	0 ÷ 7

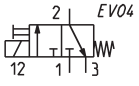
* add
- VOLTAGE
(see CODING EXAMPLE)

Series K solenoid valve - 3/2-way NC - 300 mm flying leads

Supplied with:
1x interface seal
2x Ø1.6x16 screws for mounting on plastic
or
2x M1.6x16 screws for mounting on metal





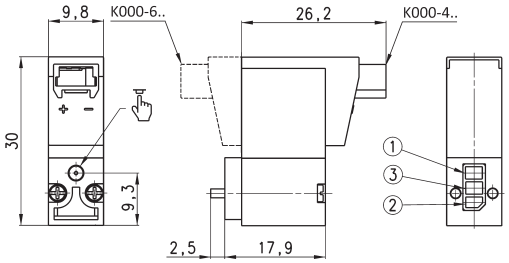


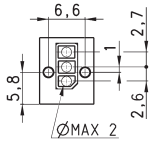
Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)
K000-303-KF*	3/2 NC	0.6	0.12	0 ÷ 7
K000-303-FF*	3/2 NC	0.6	0.12	0 ÷ 7
K000-303-KG*	3/2 NC	0.6	0.12	0 ÷ 7
K000-303-FG*	3/2 NC	0.6	0.12	0 ÷ 7
K000-303-KH*	3/2 NC	0.6	0.12	0 ÷ 7
K000-303-FH*	3/2 NC	0.6	0.12	0 ÷ 7

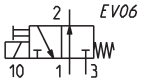
* add
- VOLTAGE
(see CODING EXAMPLE)

Series K solenoid valve - 3/2-way NO - 90° connector

Supplied with:
1x interface for NO with position ports as per NC
2x interface seals
2x Ø1.6x19 screws for mounting on plastic
or
2x M1.6x19 screws for mounting on metal
For use without port 1 and 3 inversion interface, use 16 mm long screws (see accessories)





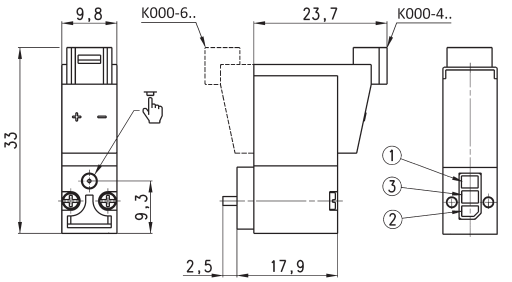


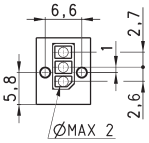
Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)
K000-403-K1*	3/2 NO	0.8	0.20	0 ÷ 5
K000-403-F1*	3/2 NO	0.8	0.20	0 ÷ 5
K000-403-K2*	3/2 NO	0.8	0.20	0 ÷ 5
K000-403-F2*	3/2 NO	0.8	0.20	0 ÷ 5
K000-403-K3*	3/2 NO	0.8	0.20	0 ÷ 5
K000-403-F3*	3/2 NO	0.8	0.20	0 ÷ 5

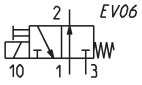
* add
- VOLTAGE
(see CODING EXAMPLE)

Series K solenoid valve - 3/2-way NO - in-line connector

Supplied with:
1x interface for NO with position ports as per NC
2x interface seals
2x Ø1.6x19 screws for mounting on plastic
or
2x M1.6x19 screws for mounting on metal
For use without port 1 and 3 inversion interface, use 16 mm long screws (see accessories)





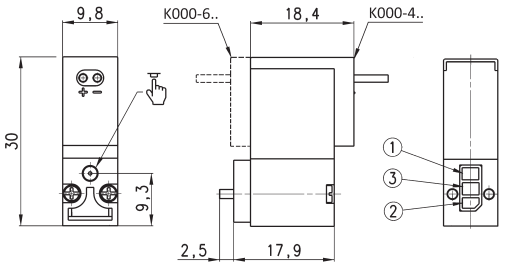


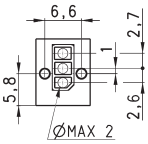
Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)
K000-403-KB*	3/2 NO	0.8	0.20	0 ÷ 5
K000-403-FB*	3/2 NO	0.8	0.20	0 ÷ 5
K000-403-KC*	3/2 NO	0.8	0.20	0 ÷ 5
K000-403-FC*	3/2 NO	0.8	0.20	0 ÷ 5
K000-403-KD*	3/2 NO	0.8	0.20	0 ÷ 5
K000-403-FD*	3/2 NO	0.8	0.20	0 ÷ 5

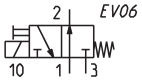
* add
- VOLTAGE
(see CODING EXAMPLE)

Series K solenoid valve - 3/2-way NO - 300 mm flying leads

Supplied with:
1x interface for NO with position ports as per NC
2x interface seals
2x Ø1.6x19 screws for mounting on plastic
or
2x M1.6x19 screws for mounting on metal
For use without port 1 and 3 inversion interface, use 16 mm long screws (see accessories)



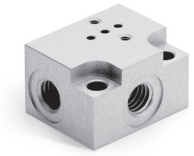




Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)
K000-403-KF*	3/2 NO	0.8	0.20	0 ÷ 5
K000-403-FF*	3/2 NO	0.8	0.20	0 ÷ 5
K000-403-KG*	3/2 NO	0.8	0.20	0 ÷ 5
K000-403-FG*	3/2 NO	0.8	0.20	0 ÷ 5
K000-403-KH*	3/2 NO	0.8	0.20	0 ÷ 5
K000-403-FH*	3/2 NO	0.8	0.20	0 ÷ 5

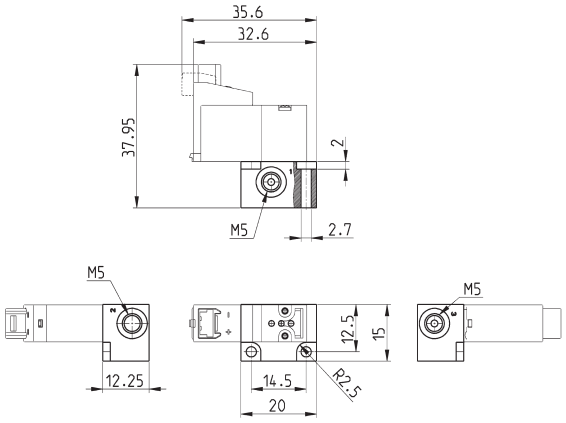
* add
- VOLTAGE
(see CODING EXAMPLE)

Single sub-base for solenoid valve size 10 mm



Single sub-base suitable for Series K 2-way or 3-way solenoid valve
Use solenoid valves with screws for mounting on metal (see coding)

Material: anodized aluminium
Connections: M5 threads



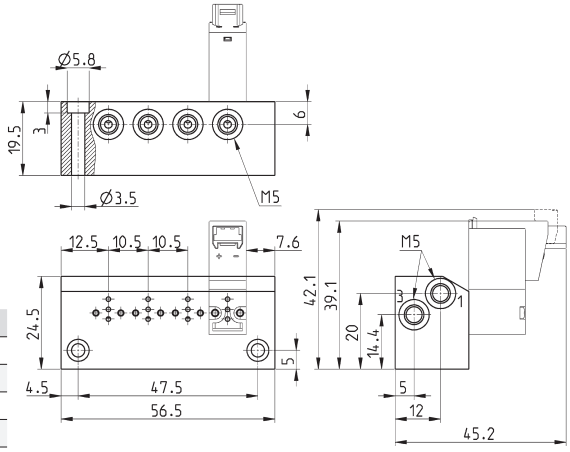
Mod.
K001-02

Manifold Mod. K1**-02

** Number of positions
With side outlets and conveyed inlet and exhaust.

Use solenoid valves with screws for mounting on metal (see coding)

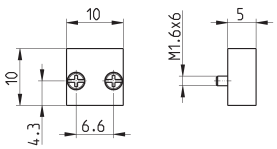
Material: anodized aluminium
Connections: M5 threads



Mod.	A	B	Number of ports
K102-02	35.5	26.5	2
K103-02	46	37	3
K104-02	56.5	47.5	4
K105-02	67	58	5
K106-02	77.5	68.5	6
K107-02	88	79	7
K108-02	98.5	89.5	8
K109-02	109	100	9
K110-02	119.5	110.5	10

Position valve cap

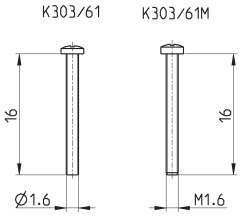
Supplied with:
1x position valve cap
3x O-Rings
2x M1.6x6 screws for mounting on metal



Mod.
K000-TP

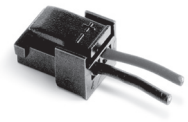
Mounting screws for Series K solenoid valves

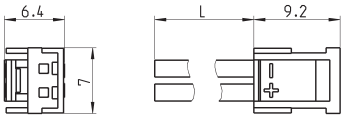
16 mm long screws for use with Series K 3/2-way NO solenoid valves without port 1 and 3 inversion interface



Mod.	
K303/61	Ø1.6x16 mm screw for mounting on plastic
K303/61M	M1.6x16 mm screw for mounting on metal

Connector with flying leads Mod. 121-8..





Mod.	description	colour	L = cable length (mm)	cable holding
121-803	crimped cable	black	300	crimping
121-806	crimped cable	black	600	crimping
121-810	crimped cable	black	1000	crimping
121-830	crimped cable	black	3000	crimping

Series KL - KLE
directly operated solenoid valves

New

2/2-way - Normally Closed (NC)
3/2-way - Normally Closed (NC) and Normally Open (NO)
3/2-way - Universal (UNI)



The new Series KL and KLE 10 mm solenoid valves offer a range with improved models and performance compared to the previous generation.
The possibility to use a longer coil allowed to increase the pressure values to which the valves can be submitted.

- Application sectors:
  - Life Science
  - Industrial Automation
- Compact design
- High flow in proportion to the size
- Extended version for higher performance
- M8 - 3 pin electric connection available
- Monostable and bistable manual override

GENERAL DATA

TECHNICAL FEATURES	
Function	2/2 NC - 3/2 NC - 3/2 NO - 3/2 UNI
Operation	direct acting poppet type
Pneumatic connections	on subbase
Orifice diameter	0.6 ... 1.6 mm
Flow coefficient kv (l/min)	0.12 ... 0.50
Operating pressure	0 ÷ 3 ... 9 bar
Operating temperature	0 ÷ 50 °C
Media	filtered compressed air, unlubricated, according to ISO 8573-1:2010 class [3:4:3], inert gas
Response time	ON <10 ms – OFF <10 ms
Manual override	monostable or bistable - only for 3/2 versions
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	PBT
Seals	FKM
Internal parts	stailess steel - brass
ELECTRICAL FEATURES	
Voltage	6 ... 24 V DC - other voltages on demand
Voltage tolerance	±10%
Power consumption	1 W - 1.3/0.3 W - 4/1 W
Duty cycle	ED 100%
Electrical connection	connector mod. 121-8... - M8 connector mod. CS... (the M8 connection of the valve accepts polarity reversal)
Protection class	IP50 with connector 121-8... - IP65 with M8 connector

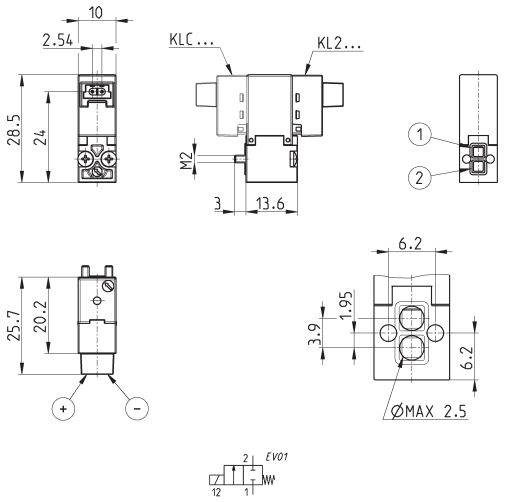
CODING EXAMPLE

KL	0	4	0	-	A6	3	A	Y	-	1	3	M

KL	SERIES KL = standard KLE = extended
0	BODY DESIGN 0 = 3/2 body - ISO 15218 A = 3/2 body - ISO 15218 - coil rotated by 180° 2 = 2/2 body C = 2/2 body - coil rotated by 180°
4	NUMBER OF WAYS - FUNCTIONS 1 = 2/2-way NC 4 = 3/2-way NC 5 = 3/2-way NO 6 = 3/2-way UNI
0	PORTS 0 = on subbase or manifold
A6	ORIFICE DIAMETER A6 = Ø 0.60 mm A8 = Ø 0.80 mm B1 = Ø 1.10 mm B2 = Ø 1.20 mm B3 = Ø 1.30 mm B6 = Ø 1.60 mm
3	SEAL MATERIAL 3 = FKM
A	BODY MATERIAL A = PBT
Y	MANUAL OVERRIDE 0 = not requested or not foreseen Y = monostable B = bistable
1	ELECTRICAL CONNECTION 1 = 90° connection with protection and led B = in-line connection with protection and led M = M8 - 3 pin connection
3	VOLTAGE - POWER CONSUMPTION 1 = 6 V DC - 1 W 2 = 12 V DC - 1 W 3 = 24 VDC - 1 W A = 6 V DC - 1.3/0.3 W B = 12 V DC - 1.3/0.3 W C = 24 VDC - 1.3/0.3 W 5 = 5 V DC - 4/1 W 6 = 6 VDC - 4/1 W 7 = 12 V DC - 4/1 W 8 = 24 V DC - 4/1 W
M	FIXING M = fixing screws for metal P = fixing screws for plastic
	OPTIONS = standard OX1 = for use with oxygen (non volatile residual less than 550 mg/m^2)

Series KL solenoid valve - 2/2-way NC - 90° connector

Supplied with:
1x interface seal
2x M2x16 screws for mounting on metal

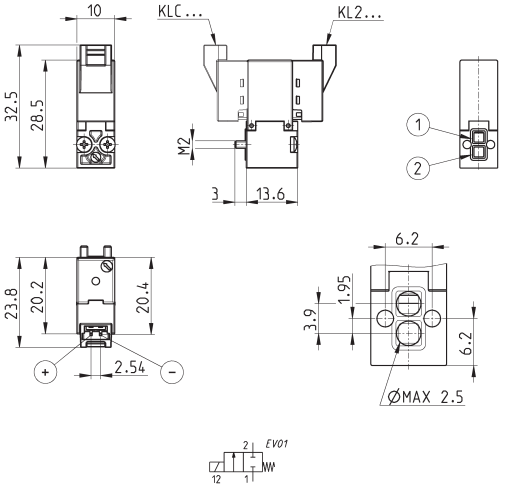


Mod.	Function	Orifice Ø (mm)	kv (l/min)	Pressure min ÷ max (bar)	Power (W)
KL210-A83A0-1*M	2/2 NC	0.8	0.25	0 ÷ 3	1.3 / 0.3
KL210-B23A0-1*M	2/2 NC	1.2	0.40	0 ÷ 6	4 / 1
KL210-B63A0-1*M	2/2 NC	1.6	0.50	0 ÷ 4	4 / 1
KLC10-A83A0-1*M	2/2 NC	0.8	0.25	0 ÷ 3	1.3 / 0.3
KLC10-B23A0-1*M	2/2 NC	1.2	0.40	0 ÷ 6	4 / 1
KLC10-B63A0-1*M	2/2 NC	1.6	0.50	0 ÷ 4	4 / 1

* add
- VOLTAGE
(see CODING EXAMPLE)

Series KL solenoid valve - 2/2-way NC - in-line connector

Supplied with:
1x interface seal
2x M2x16 screws for mounting on metal

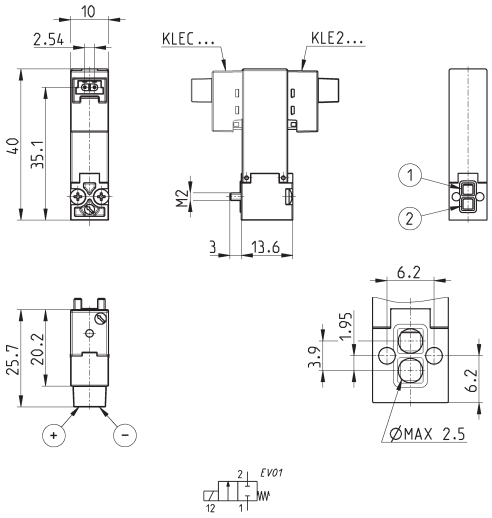


Mod.	Function	Orifice Ø (mm)	kv (l/min)	Pressure min ÷ max (bar)	Power (W)
KL210-A83A0-B*M	2/2 NC	0.8	0.25	0 ÷ 3	1.3 / 0.3
KL210-B23A0-B*M	2/2 NC	1.2	0.40	0 ÷ 6	4 / 1
KL210-B63A0-B*M	2/2 NC	1.6	0.50	0 ÷ 4	4 / 1
KLC10-A83A0-B*M	2/2 NC	0.8	0.25	0 ÷ 3	1.3 / 0.3
KLC10-B23A0-B*M	2/2 NC	1.2	0.40	0 ÷ 6	4 / 1
KLC10-B63A0-B*M	2/2 NC	1.6	0.50	0 ÷ 4	4 / 1

* add
- VOLTAGE
(see CODING EXAMPLE)

Series KLE solenoid valve - 2/2-way NC - 90° connector

Supplied with:
1x interface seal
2x M2x16 screws for mounting on metal

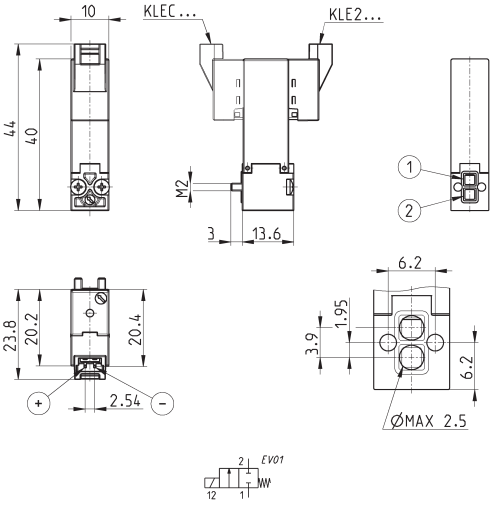


Mod.	Function	Orifice Ø (mm)	kv (l/min)	Pressure min ÷ max (bar)	Power (W)
KLE210-A83A0-1*M	2/2 NC	0.8	0.25	0 ÷ 5	1
KLE210-B23A0-1*M	2/2 NC	1.2	0.40	0 ÷ 8	4 / 1
KLE210-B63A0-1*M	2/2 NC	1.6	0.50	0 ÷ 6	4 / 1
KLEC10-A83A0-1*M	2/2 NC	0.8	0.25	0 ÷ 5	1
KLEC10-B23A0-1*M	2/2 NC	1.2	0.40	0 ÷ 8	4 / 1
KLEC10-B63A0-1*M	2/2 NC	1.6	0.50	0 ÷ 6	4 / 1

* add
- VOLTAGE
(see CODING EXAMPLE)

Series KLE solenoid valve - 2/2-way NC - in-line connector

Supplied with:
1x interface seal
2x M2x16 screws for mounting on metal

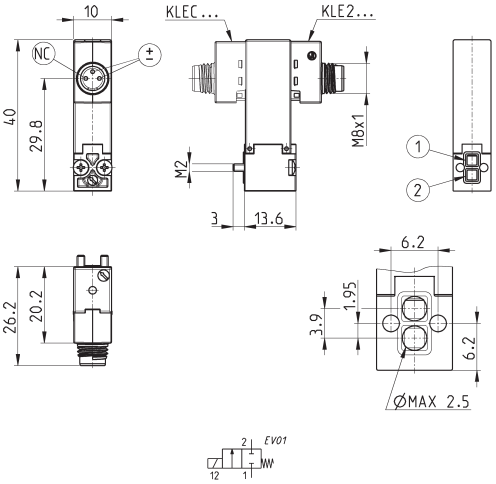


Mod.	Function	Orifice Ø (mm)	kv (l/min)	Pressure min ÷ max (bar)	Power (W)
KLE210-A83A0-B*M	2/2 NC	0.8	0.25	0 ÷ 5	1
KLE210-B23A0-B*M	2/2 NC	1.2	0.40	0 ÷ 8	4 / 1
KLE210-B63A0-B*M	2/2 NC	1.6	0.50	0 ÷ 6	4 / 1
KLEC10-A83A0-B*M	2/2 NC	0.8	0.25	0 ÷ 5	1
KLEC10-B23A0-B*M	2/2 NC	1.2	0.40	0 ÷ 8	4 / 1
KLEC10-B63A0-B*M	2/2 NC	1.6	0.50	0 ÷ 6	4 / 1

* add
- VOLTAGE
(see CODING EXAMPLE)

Series KLE solenoid valve - 2/2-way NC - M8 connector

Supplied with:
1x interface seal
2x M2x16 screws for mounting on metal



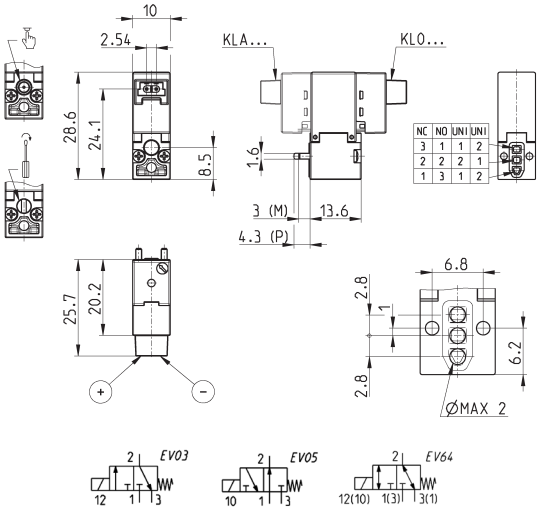
Mod.	Function	Orifice Ø (mm)	kv (l/min)	Pressure min ÷ max (bar)	Power (W)
KLE210-A83A0-M*M	2/2 NC	0.8	0.25	0 ÷ 5	1
KLEC10-A83A0-M*M	2/2 NC	0.8	0.25	0 ÷ 5	1

* add
- VOLTAGE
(see CODING EXAMPLE)

Series KL solenoid valve - 3/2-way - 90° connector

Supplied with:
1x interface seal
2x M1.6x14.7 screws for mounting on metal
or
2x Ø1.6x16 screws for mounting on plastic
3/2 UNI models can work with vacuum. The maximum pressure will be reduced by 1 bar.

Mod.	Function	Orifice Ø (mm)	kv (l/min)	Pressure min ÷ max (bar)	Power (W)
KL*40-A63A*-1**	3/2 NC	0.6	0.12	0 ÷ 7	1
KL*40-A83A*-1**	3/2 NC	0.8	0.18	0 ÷ 5	1
KL*40-B13A*-1**	3/2 NC	1.1	0.32	3 ÷ 7	4 / 1
KL*40-B33A*-1**	3/2 NC	1.3	0.37	0 ÷ 3	4 / 1
KL*50-A63A*-1**	3/2 NO	0.6	0.12	0 ÷ 7	1.3 / 0.3
KL*50-A83A*-1**	3/2 NO	0.8	0.18	0 ÷ 5	1.3 / 0.3
KL*50-B13A*-1**	3/2 NO	1.0	0.30	0 ÷ 5	4 / 1
KL*50-B33A*-1**	3/2 NO	1.3	0.37	0 ÷ 3	4 / 1
KL*60-A63A*-1**	3/2 UNI	0.6	0.12	0 ÷ 5 [-1 ÷ 4]	1.3 / 0.3
KL*60-A83A*-1**	3/2 UNI	0.8	0.18	0 ÷ 2 [-1 ÷ 1]	1.3 / 0.3
KL*60-B13A*-1**	3/2 UNI	1.1	0.30	0 ÷ 3 [-1 ÷ 2]	4 / 1
KL*60-B33A*-1**	3/2 UNI	1.3	0.37	0 ÷ 2 [-1 ÷ 1]	4 / 1

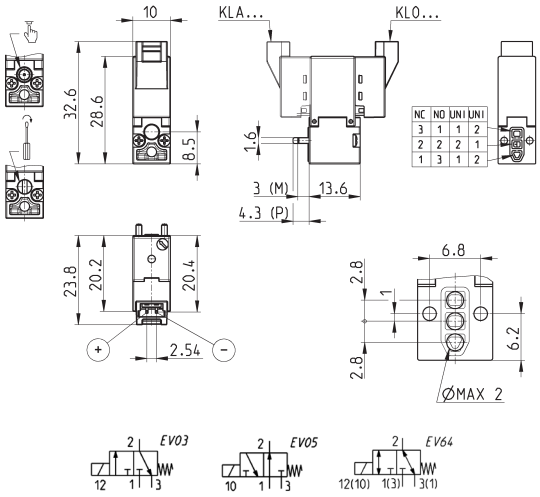


* add
- BODY DESIGN
- MANUAL OVERRIDE
- VOLTAGE
- FIXING
(see CODING EXAMPLE)

Series KL solenoid valve - 3/2-way - in-line connector

Supplied with:
1x interface seal
2x M1.6x14.7 screws for mounting on metal
or
2x Ø1.6x16 screws for mounting on plastic
3/2 UNI models can work with vacuum. The maximum pressure will be reduced by 1 bar.

Mod.	Function	Orifice Ø (mm)	kv (l/min)	Pressure min ÷ max (bar)	Power (W)
KL*40-A63A*-B**	3/2 NC	0.6	0.12	0 ÷ 7	1
KL*40-A83A*-B**	3/2 NC	0.8	0.18	0 ÷ 5	1
KL*40-B13A*-B**	3/2 NC	1.1	0.32	3 ÷ 7	4 / 1
KL*40-B33A*-B**	3/2 NC	1.3	0.37	0 ÷ 3	4 / 1
KL*50-A63A*-B**	3/2 NO	0.6	0.12	0 ÷ 7	1.3 / 0.3
KL*50-A83A*-B**	3/2 NO	0.8	0.18	0 ÷ 5	1.3 / 0.3
KL*50-B13A*-B**	3/2 NO	1.0	0.30	0 ÷ 5	4 / 1
KL*50-B33A*-B**	3/2 NO	1.3	0.37	0 ÷ 3	4 / 1
KL*60-A63A*-B**	3/2 UNI	0.6	0.12	0 ÷ 5 [-1 ÷ 4]	1.3 / 0.3
KL*60-A83A*-B**	3/2 UNI	0.8	0.18	0 ÷ 2 [-1 ÷ 1]	1.3 / 0.3
KL*60-B13A*-B**	3/2 UNI	1.1	0.30	0 ÷ 3 [-1 ÷ 2]	4 / 1
KL*60-B33A*-B**	3/2 UNI	1.3	0.37	0 ÷ 2 [-1 ÷ 1]	4 / 1

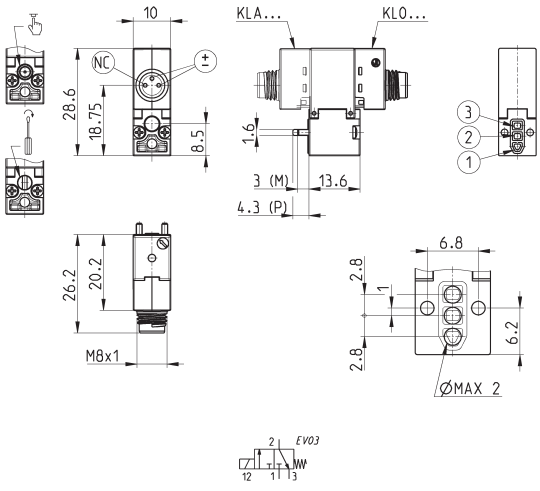


* add
- BODY DESIGN
- MANUAL OVERRIDE
- VOLTAGE
- FIXING
(see CODING EXAMPLE)

Series KL solenoid valve - 3/2-way - M8 connector

Supplied with:
1x interface seal
2x M1.6x14.7 screws for mounting on metal
or
2x Ø1.6x16 screws for mounting on plastic

Mod.	Function	Orifice Ø (mm)	kv (l/min)	Pressure min ÷ max (bar)	Power (W)
KL*40-A63A*-M**	3/2 NC	0.6	0.12	0 ÷ 7	1
KL*40-A83A*-M**	3/2 NC	0.8	0.18	0 ÷ 5	1

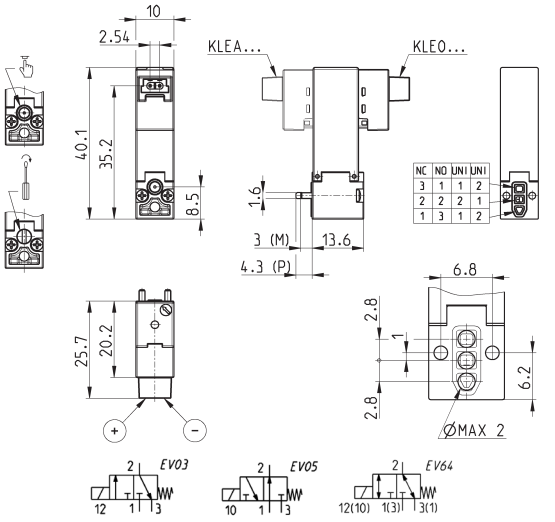


* add
- BODY DESIGN
- MANUAL OVERRIDE
- VOLTAGE
- FIXING
(see CODING EXAMPLE)

Series KLE solenoid valve - 3/2-way - 90° connector

Supplied with:
1x interface seal
2x M1.6x14.7 screws for mounting on metal
or
2x Ø1.6x16 screws for mounting on plastic
3/2 UNI models can work with vacuum. The maximum pressure will be reduced by 1 bar.

Mod.	Function	Orifice Ø (mm)	kv (l/min)	Pressure min ÷ max (bar)	Power (W)
KLE*40-A63A*-1**	3/2 NC	0.6	0.12	0 ÷ 9	1
KLE*40-A83A*-1**	3/2 NC	0.8	0.18	0 ÷ 7	1
KLE*40-B13A*-1**	3/2 NC	1.1	0.33	0 ÷ 7	4 / 1
KLE*40-B33A*-1**	3/2 NC	1.3	0.37	0 ÷ 4	4 / 1
KLE*50-A63A*-1**	3/2 NO	0.6	0.12	0 ÷ 9	1
KLE*50-A83A*-1**	3/2 NO	0.8	0.18	0 ÷ 7	1
KLE*50-B13A*-1**	3/2 NO	1.0	0.30	0 ÷ 7	4 / 1
KLE*50-B33A*-1**	3/2 NO	1.3	0.37	0 ÷ 4	4 / 1
KLE*60-A63A*-1**	3/2 UNI	0.6	0.12	0 ÷ 7 [-1 ÷ 6]	1
KLE*60-A83A*-1**	3/2 UNI	0.8	0.18	0 ÷ 4 [-1 ÷ 3]	1
KLE*60-B13A*-1**	3/2 UNI	1.1	0.30	0 ÷ 4 [-1 ÷ 3]	4 / 1
KLE*60-B33A*-1**	3/2 UNI	1.3	0.37	0 ÷ 3 [-1 ÷ 2]	4 / 1

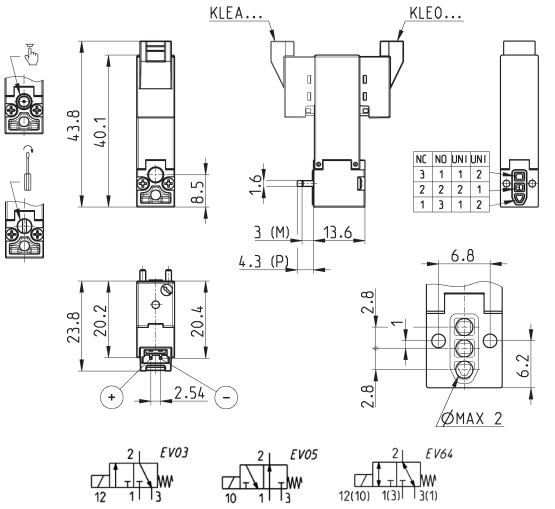


* add
- BODY DESIGN
- MANUAL OVERRIDE
- VOLTAGE
- FIXING
(see CODING EXAMPLE)

Series KLE solenoid valve - 3/2-way - in-line connector

Supplied with:
1x interface seal
2x M1.6x14.7 screws for mounting on metal
or
2x Ø1.6x16 screws for mounting on plastic
3/2 UNI models can work with vacuum. The maximum pressure will be reduced by 1 bar.

Mod.	Function	Orifice Ø (mm)	kv (l/min)	Pressure min ÷ max (bar)	Power (W)
KLE*40-A63A*-B**	3/2 NC	0.6	0.12	0 ÷ 9	1
KLE*40-A83A*-B**	3/2 NC	0.8	0.18	0 ÷ 7	1
KLE*40-B13A*-B**	3/2 NC	1.1	0.33	0 ÷ 7	4 / 1
KLE*40-B33A*-B**	3/2 NC	1.3	0.37	0 ÷ 4	4 / 1
KLE*50-A63A*-B**	3/2 NO	0.6	0.12	0 ÷ 9	1
KLE*50-A83A*-B**	3/2 NO	0.8	0.18	0 ÷ 7	1
KLE*50-B13A*-B**	3/2 NO	1.0	0.30	0 ÷ 7	4 / 1
KLE*50-B33A*-B**	3/2 NO	1.3	0.37	0 ÷ 4	4 / 1
KLE*60-A63A*-B**	3/2 UNI	0.6	0.12	0 ÷ 7 [-1 ÷ 6]	1
KLE*60-A83A*-B**	3/2 UNI	0.8	0.18	0 ÷ 4 [-1 ÷ 3]	1
KLE*60-B13A*-B**	3/2 UNI	1.1	0.30	0 ÷ 4 [-1 ÷ 3]	4 / 1
KLE*60-B33A*-B**	3/2 UNI	1.3	0.37	0 ÷ 3 [-1 ÷ 2]	4 / 1

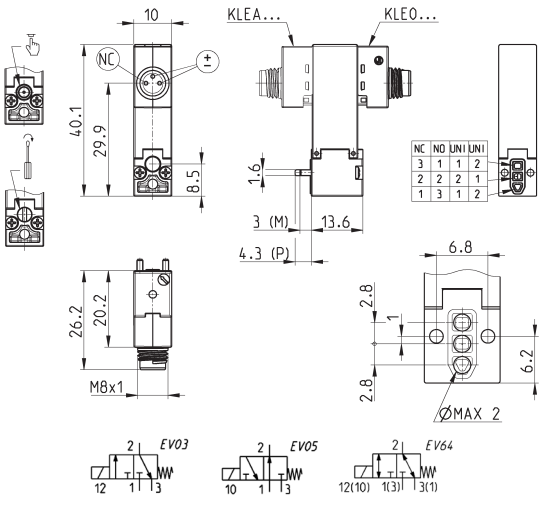


* add
- BODY DESIGN
- MANUAL OVERRIDE
- VOLTAGE
- FIXING
(see CODING EXAMPLE)

Series KLE solenoid valve - 3/2-way - M8 connector

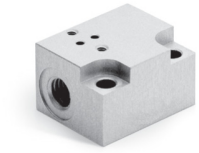
Supplied with:
1x interface seal
2x M1.6x14.7 screws for mounting on metal
or
2x Ø1.6x16 screws for mounting on plastic
3/2 UNI models can work with vacuum. The maximum pressure will be reduced by 1 bar.

Mod.	Function	Orifice Ø (mm)	kv (l/min)	Pressure min ÷ max (bar)	Power (W)
KLE*40-A63A*-M**	3/2 NC	0.6	0.12	0 ÷ 9	1
KLE*40-A83A*-M**	3/2 NC	0.8	0.18	0 ÷ 7	1
KLE*50-A63A*-M**	3/2 NO	0.6	0.12	0 ÷ 9	1
KLE*50-A83A*-M**	3/2 NO	0.8	0.18	0 ÷ 7	1
KLE*60-A63A*-M**	3/2 UNI	0.6	0.12	0 ÷ 7 [-1 ÷ 6]	1
KLE*60-A83A*-M**	3/2 UNI	0.8	0.18	0 ÷ 4 [-1 ÷ 3]	1



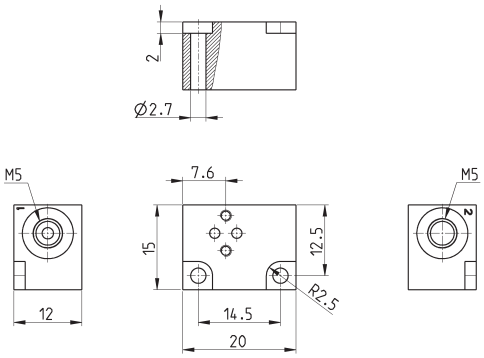
* add
- BODY DESIGN
- MANUAL OVERRIDE
- VOLTAGE
- FIXING
(see CODING EXAMPLE)

Single sub-base for 2-way solenoid valve size 10 mm



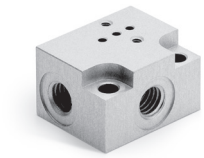
Single sub-base suitable for Series KL 2-way solenoid valve
Use solenoid valves with screws for mounting on metal (see coding)

Material: anodized aluminium
Connections: M5 threads



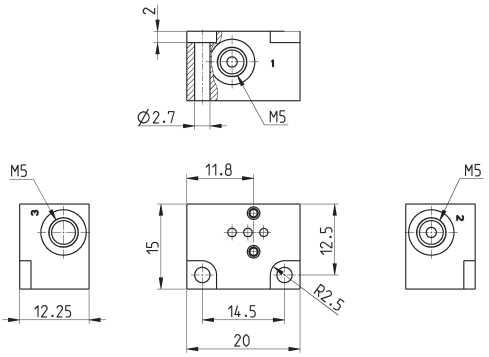
Mod.
KL01-02

Single sub-base for 3-way solenoid valve size 10 mm



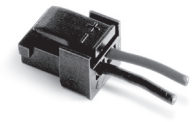
Single sub-base suitable for Series KN - KL - KLE 3-way solenoid valve
Use solenoid valves with screws for mounting on metal (see coding)

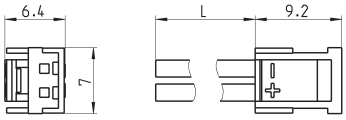
Material: anodized aluminium
Connections: M5 threads



Mod.
KN01-02

Connector with flying leads Mod. 121-8..



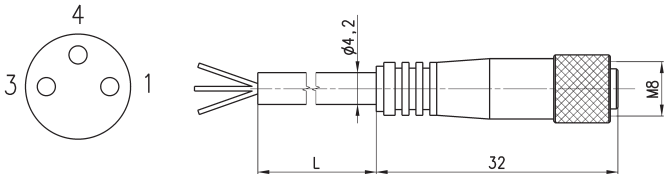


Mod.	description	colour	L = cable length (mm)	cable holding
121-803	crimped cable	black	300	crimping
121-806	crimped cable	black	600	crimping
121-810	crimped cable	black	1000	crimping
121-830	crimped cable	black	3000	crimping

3-wire extension with M8 3-pin female connector

With PU sheathing, non shielded cable.
Protection class: IP65

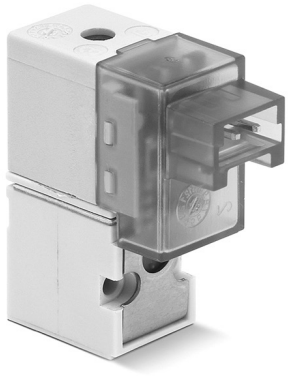
1 BN = Brown
4 BK = Black
3 BU = Blue

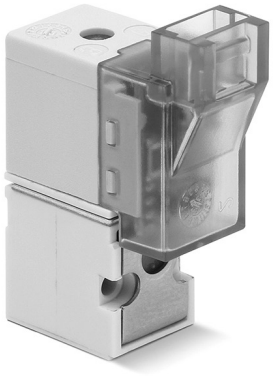


Mod.	L = cable length (m)
CS-2	2
CS-5	5
CS-10	10

Series KN and KN High Flow direct acting solenoid valves

3/2-way - Normally Closed (NC) and Normally Open (NO)
3/2-way - Universal (UNI)





- Low energy consumption
- Compact design
- High Flow
- ISO 15218 Interface
- Version for use with oxygen available

Thanks to its low energy consumption and to its compact design, the KN miniaturized solenoid valve can be used in industrial and scientific applications.

The Series KN direct acting solenoid valves are available also in the high flow version (KN High Flow).

GENERAL DATA

TECHNICAL FEATURES	
Function	3/2 NC - 3/2 NO - 3/2 UNI
Operation	direct acting poppet type
Pneumatic connections	on subbase with ISO 15218 interface
Orifice diameter	0.65 ... 1.1 mm
Flow coefficient kv (l/min)	0.15 ... 0.39
Operating pressure	0 ÷ 3 ... 7 bar
Operating temperature	0 ÷ 50 °C
Media	filtered compressed air, unlubricated, according to ISO 8573-1:2010 class [3:4:3], inert gas
Response time	ON <10 ms - OFF <10 ms
Manual override	monostable
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	PBT
Seals	NBR - FKM
Internal parts	stainless steel
ELECTRICAL FEATURES	
Voltage	5 ... 24 V DC - other voltages on demand
Voltage tolerance	±10%
Power consumption	1.3/0.25 ... 4/1 W (inrush/holding)
Duty cycle	ED 100%
Electrical connection	connector mod. 121-8...
Protection class	IP50
Special versions available on demand	

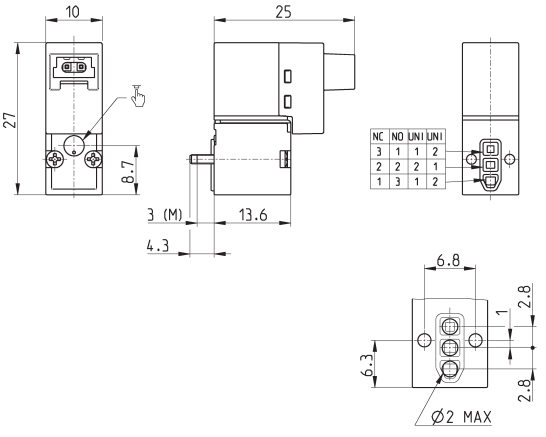
CODING EXAMPLE

KN	0	00	-	3	0	3	-	K	1	3	

KN	SERIES
0	BODY DESIGN 0 = single valve
00	NUMBER OF POSITIONS 00 = interface
3	NUMBER OF WAYS - FUNCTIONS 3 = 3/2-way - NC 4 = 3/2-way - NO 7 = 3/2-way - UNI
0	PORTS 0 = ISO 15218 on subbase or manifold
3	ORIFICE DIAMETER 3 = Ø 0.65 mm 5 = Ø 1.1 mm - only for NC version with minimum pressure required to operate 6 = Ø 1.1 mm
K	MATERIALS F = PBT body - FKM poppet - FKM other seals K = PBT body - FKM poppet - NBR other seals
1	ELECTRICAL CONNECTION 1 = 90° connection with protection and led B = in-line connection with protection and led
3	VOLTAGE - POWER CONSUMPTION 2 = 12 V DC - 1.3/0.25 W 3 = 24 V DC - 1.3/0.25 W 5 = 5 V DC - 4/1 W 7 = 12 V DC - 4/1 W 8 = 24 V DC - 4.1 W
	FIXING = fixing screws for plastic M = fixing screws for metal
	OPTIONS = standard OX2 = for use with oxygen (non volatile residual less than 33 mg/m²)

Series KN solenoid valve - 3/2-way - 90° connector

Supplied with:
1x interface seal
2x Ø1.6x16 screws for mounting on plastic
or
2x M1.6x14.7 screws for mounting on metal

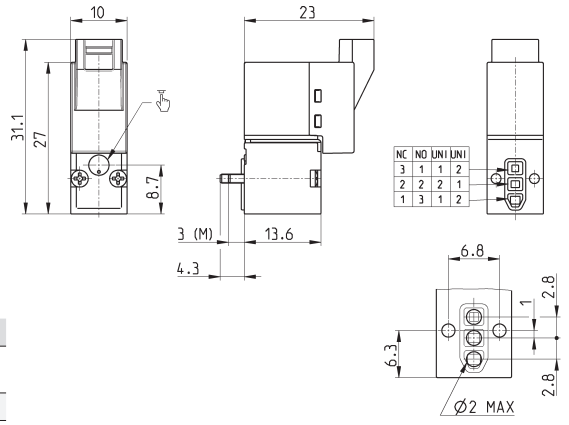


Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)	Power (W)	Symb.
KN000-303-K1*	3/2 NC	0.65	0.15	0 ÷ 7	1.3 / 0.25	EV04
KN000-303-F1*	3/2 NC	0.65	0.15	0 ÷ 7	1.3 / 0.25	EV04
KN000-305-F1*	3/2 NC	1.1	0.39	3 ÷ 7	4 / 1	EV04
KN000-306-F1*	3/2 NC	1.1	0.39	0 ÷ 3	4 / 1	EV04
KN000-403-F1*	3/2 NO	0.65	0.15	0 ÷ 7	1.3 / 0.25	EV05
KN000-703-F1*	3/2 UNI	0.65	0.15	0 ÷ 4	1.3 / 0.25	EV64
KN000-706-F1*	3/2 UNI	1.1	0.39	0 ÷ 1.5	4 / 1	EV64

* add
- VOLTAGE
(see CODING EXAMPLE)

Series KN solenoid valve - 3/2-way - in-line connector

Supplied with:
1x interface seal
2x Ø1.6x16 screws for mounting on plastic
or
2x M1.6x14.7 screws for mounting on metal



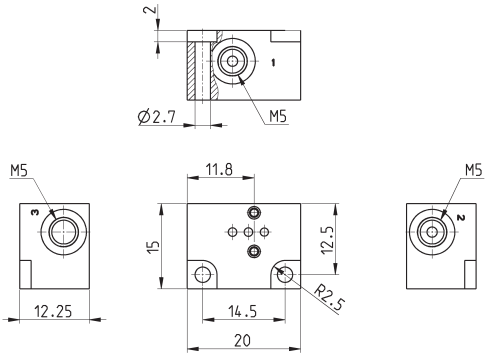
Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)	Power (W)	Symb.
KN000-303-KB*	3/2 NC	0.65	0.15	0 ÷ 7	1.3 / 0.25	EV04
KN000-303-FB*	3/2 NC	0.65	0.15	0 ÷ 7	1.3 / 0.25	EV04
KN000-305-FB*	3/2 NC	1.1	0.39	3 ÷ 7	4 / 1	EV04
KN000-306-FB*	3/2 NC	1.1	0.39	0 ÷ 3	4 / 1	EV04
KN000-403-FB*	3/2 NO	0.65	0.15	0 ÷ 7	1.3 / 0.25	EV05
KN000-703-FB*	3/2 UNI	0.65	0.15	0 ÷ 4	1.3 / 0.25	EV64
KN000-706-FB*	3/2 UNI	1.1	0.39	0 ÷ 1.5	4 / 1	EV64

* add
- VOLTAGE
(see CODING EXAMPLE)

Single sub-base for 3-way solenoid valve size 10 mm

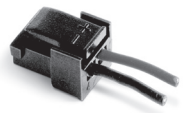
Single sub-base suitable for Series KN - KL -KLE 3-way solenoid valve
Use solenoid valves with screws for mounting on metal (see coding)

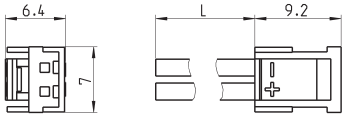
Material: anodized aluminium
Connections: M5 threads



Mod.
KN01-02

Connector with flying leads Mod. 121-8..

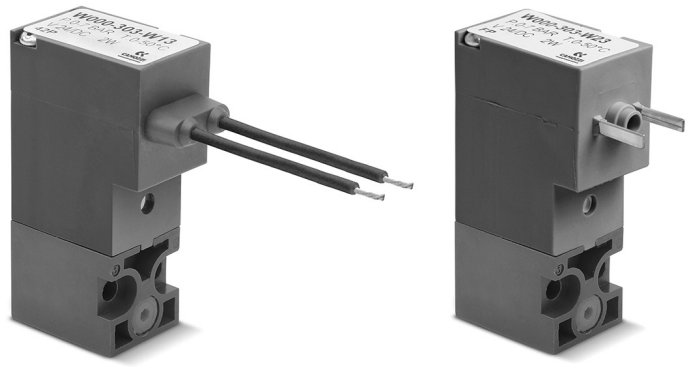




Mod.	description	colour	L = cable length (mm)	cable holding
121-803	crimped cable	black	300	crimping
121-806	crimped cable	black	600	crimping
121-810	crimped cable	black	1000	crimping
121-830	crimped cable	black	3000	crimping

Series W
direct acting solenoid valves

3/2-way - Normally Closed (NC) and Normally Open (NO)



- Can be mounted on a single base (M5 connections) or on manifold (M5 connections or fittings for Ø3 or Ø4 tube).
- Electrical connection with flyling leads or in compliance to DIN EN 175 301-803-C standard

Series W direct acting solenoid valves are available as 3/2-way either NC or NO. Both versions can be mounted on single sub-bases or manifolds and they are equipped with a monostable manual override.

GENERAL DATA

TECHNICAL FEATURES	
Function	3/2 NC - 3/2 NO
Operation	direct acting poppet type
Pneumatic connections	on subbase with ISO 15218 interface
Orifice diameter	0.8 ... 1.5 mm
Flow coefficient kv (l/min)	0.21 ... 0.54
Operating pressure	0 ÷ 5 ... 10 bar
Operating temperature	0 ÷ 50 °C
Media	filtered air class [5:4:4] according to ISO 8573-1:2010 (max oil viscosity 32 cSt), inert gas
Response time (ISO 12238)	ON <10 ms - OFF <15 ms
Manual override	monostable
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	PBT
Seals	PU - NBR - FKM - EPDM
Internal parts	stainless steel
ELECTRICAL FEATURES	
Voltage	12 ... 48 V DC - other voltages on demand
Voltage tolerance	±10%
Power consumption	2 W - 1 W (24 V DC only)
Duty cycle	ED 100%
Electrical connection	connector DIN EN 175 301-803-C (8 mm) - 300 mm flying leads
Protection class	IP65 with connector
Special versions available on demand	

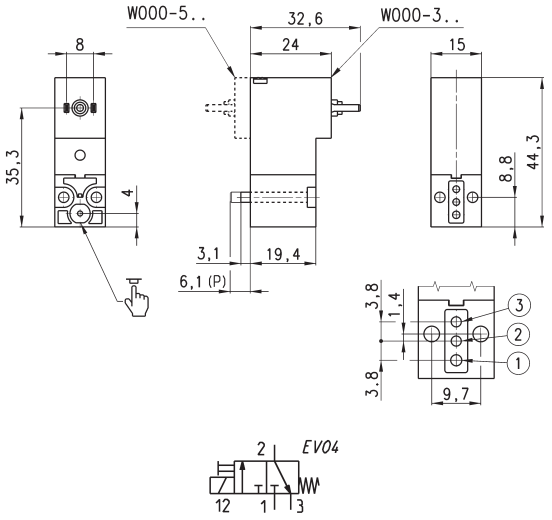
CODING EXAMPLE

W	0	00	-	3	0	3	-	W	2	3	

W	SERIES
0	BODY DESIGN 0 = single sub-base (only M5) or interface 1 = single manifold 2 = double manifold
00	NUMBER OF POSITIONS 00 = ISO 15218 interface 01 = single base (M5 only) 02 ÷ 99 = manifold number of positions
3	NUMBER OF WAYS - FUNCTIONS 0 = manifold or single sub-base 3 = 3/2-way - NC 4 = 3/2-way - NO 5 = 3/2-way - NC electric part revolved by 180° 6 = 3/2-way - NO electric part revolved by 180°
0	VALVE PORTS 0 = ISO 15218 interface MANIFOLD PORTS for P - PL - PN - W Series 2 = M5 thread - front outlets 3 = tube Ø 3 mm fittings - front outlets 4 = tube Ø 4 mm fittings - front outlets 6 = M5 thread - bottom outlets 7 = tube Ø 3 mm fittings - bottom outlets 8 = tube Ø 4 mm fittings - bottom outlets
3	ORIFICE DIAMETER 1 = Ø 0.8 mm 3 = Ø 1.5 mm 5 = Ø 1.1 mm - NC versions 6 = Ø 1.5 mm - NC versions with voltage tolerance -25% ÷ +10% 5 = Ø 0.9 mm - NO versions
W	MATERIALS E = PBT body - EPDM seals F = PBT body - FKM seals W = PBT body - NBR - FKM - PU seals
2	ELECTRICAL CONNECTION 1 = 300 mm flying leads 2 = DIN EN 175 301-803-C (8 mm)
3	VOLTAGE - POWER CONSUMPTION 2 = 12 V DC - 2 W 3 = 24 V DC - 1 W - NC Ø 0.8 mm version only 3 = 24 V DC - 2 W 4 = 48 V DC - 2 W
	FIXING = fixing screws for metal P = fixing screws for plastic
	OPTIONS: = standard OX1 = for use with oxygen (non volatile residual less than 550 mg/m²) OX2 = for use with oxygen (non volatile residual less than 33 mg/m²)

Series W solenoid valve - 3/2-way NC - DIN EN 175 301-803-C (8 mm)

Supplied with:
1x interface seal
2x M3x20 screws for mounting on metal
or
2x Ø3x23 screws for mounting on plastic



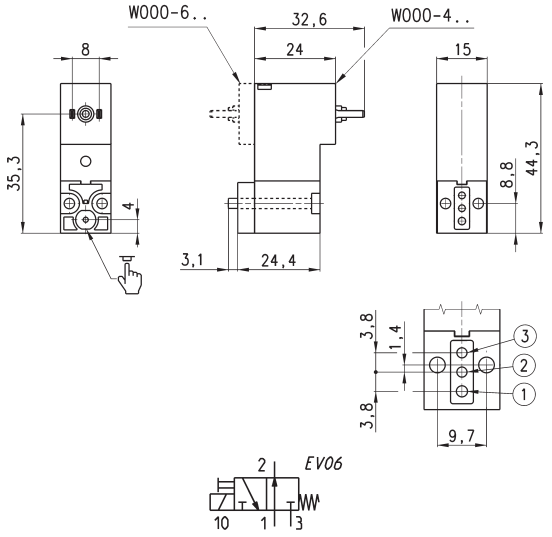
Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)	Power (W)
W000-301-*23	3/2 NC	0.8	0.21	0 ÷ 10	1
W000-305-*2*	3/2 NC	1.1	0.39	0 ÷ 10	2
W000-303-*2*	3/2 NC	1.5	0.54	0 ÷ 7	2
W000-306-*2*	3/2 NC	1.5	0.39	0 ÷ 3	2
W000-501-*23	3/2 NC	0.8	0.21	0 ÷ 10	1
W000-505-*2*	3/2 NC	1.1	0.39	0 ÷ 10	2
W000-503-*2*	3/2 NC	1.5	0.54	0 ÷ 7	2
W000-506-*2*	3/2 NC	1.5	0.39	0 ÷ 3	2
W000-303-W22	3/2 NC	1.5	0.54	0 ÷ 7	2
W000-306-W23	3/2 NC	1.5	0.39	0 ÷ 3	2

* add
- MATERIALS
- VOLTAGE

(see CODING EXAMPLE)

Series W solenoid valve - 3/2-way NO - DIN EN 175 301-803-C (8 mm)

Supplied with:
1x interface for NO with position ports as per NC
(ports 1 and 3 are inverted)
2x interface seals
2x M3x25 screws for mounting on metal

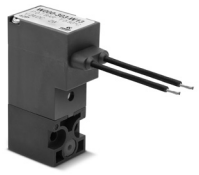


Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)	Power (W)
W000-405-*2*	3/2 NO	0.9	0.23	0÷10	2
W000-403-*2*	3/2 NO	1.5	0.39	0÷5	2
W000-605-*2*	3/2 NO	0.9	0.23	0÷10	2
W000-603-*2*	3/2 NO	1.5	0.39	0÷5	2

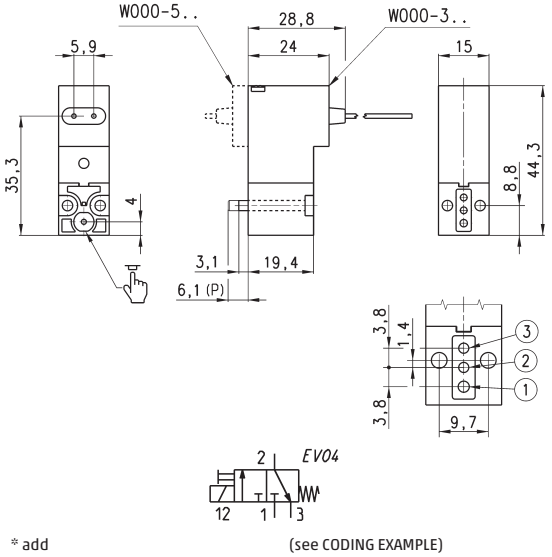
* add
- MATERIALS
- VOLTAGE

(see CODING EXAMPLE)

Series W solenoid valve - 3/2-way NC - 300 mm flying leads



Supplied with:
1x interface seal
2x M3x20 screws for mounting on metal
or
2x Ø3x23 screws for mounting on plastic

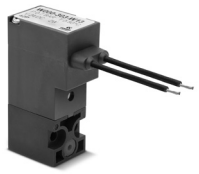


Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)	Power (W)
W000-301-*13*	3/2 NC	0.8	0.21	0÷10	1
W000-305-*1*	3/2 NC	1.1	0.39	0÷10	2
W000-303-*1*	3/2 NC	1.5	0.54	0÷7	2
W000-306-*1*	3/2 NC	1.5	0.39	0÷3	2
W000-501-*13	3/2 NC	0.8	0.21	0÷10	1
W000-505-*1*	3/2 NC	1.1	0.39	0÷10	2
W000-503-*1*	3/2 NC	1.5	0.54	0÷7	2
W000-506-*1*	3/2 NC	1.5	0.39	0÷3	2
W000-303-W12	3/2 NC	1.5	0.54	1.5	2
W000-305-W12	3/2 NC	1.1	0.39	0÷10	2

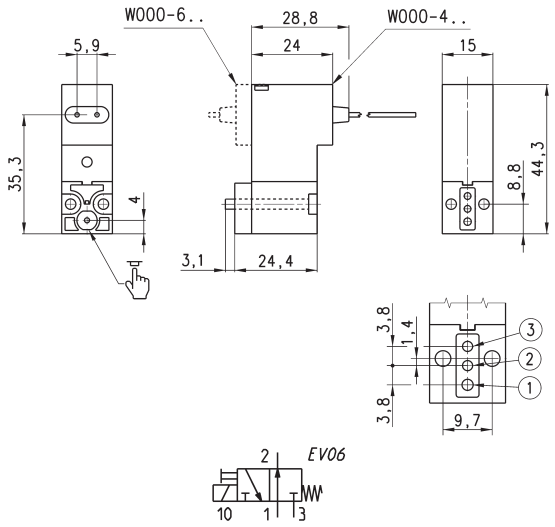
* add
- MATERIALS
- VOLTAGE

(see CODING EXAMPLE)

Series W solenoid valve - 3/2-way NO - 300 mm flying leads



Supplied with:
1x interface for NO with position ports as per NC (ports 1 and 3 are inverted)
2x interface seals
2x M3x25 screws for mounting on metal



Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)	Power (W)
W000-405-*1*	3/2 NO	0.9	0.23	0÷10	2
W000-403-*1*	3/2 NO	1.5	0.39	0÷5	2
W000-605-*1*	3/2 NO	0.9	0.23	0÷10	2
W000-603-*1*	3/2 NO	1.5	0.39	0÷5	2

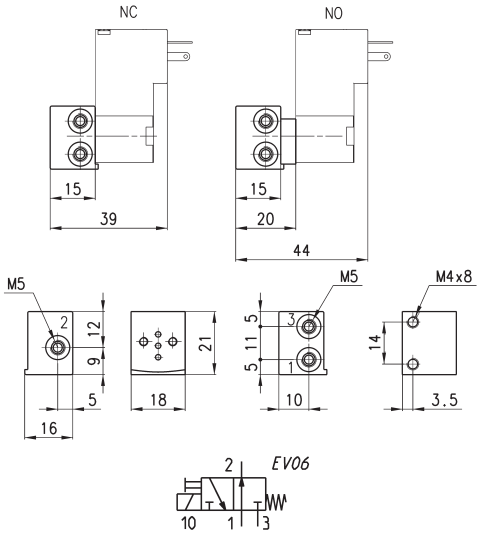
* add
- MATERIALS
- VOLTAGE

(see CODING EXAMPLE)

Single sub-base for 3-way solenoid valve size 15 mm

Single sub-base suitable for Series P - PL - PN - W 3-way solenoid valve
Use solenoid valves with screws for mounting on metal (see coding)

Material: anodized aluminium
Connections: M5 threads

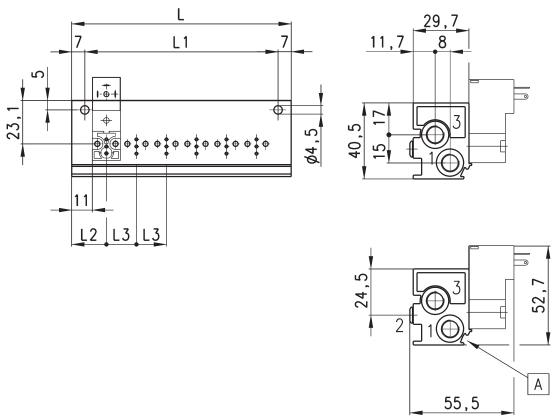


Mod.
P001-02

Manifold - single side valve - bottom outlets

Manifold suitable for Series P - PL - PN - W 3-way solenoid valve
Use solenoid valves with screws for mounting on metal (see coding)

Material: anodized aluminium



DIMENSIONS							
Mod.	Positions	L	L1	L2	L3	1 (P)	3 (R)
P102-0*	2	53	39	18,5	16	G1/8	G1/8
P103-0*	3	69	55	18,5	16	G1/8	G1/8
P104-0*	4	85	71	18,5	16	G1/8	G1/8
P105-0*	5	101	87	18,5	16	G1/8	G1/8
P106-0*	6	117	103	18,5	16	G1/8	G1/8

* add
- MANIFOLD PORTS
(see CODING EXAMPLE)

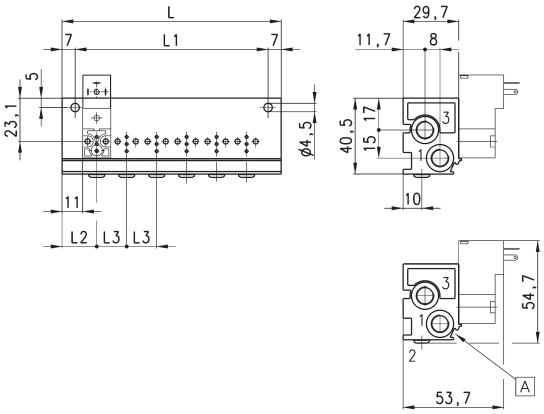
A= groove for identification label

Manifold - single side valve - frontal outlets

Manifold suitable for Series P - PL - PN - W
3-way solenoid valve
Use solenoid valves with screws for mounting on metal (see coding)

Can be fixed through DIN 46277/3 guide with the accessory PCF-E520.

Material: anodized aluminium



DIMENSIONS							
Mod.	Positions	L	L1	L2	L3	1 (P)	3 (R)
P102-0*	2	53	39	18,5	16	G1/8	G1/8
P103-0*	3	69	55	18,5	16	G1/8	G1/8
P104-0*	4	85	71	18,5	16	G1/8	G1/8
P105-0*	5	101	87	18,5	16	G1/8	G1/8
P106-0*	6	117	103	18,5	16	G1/8	G1/8

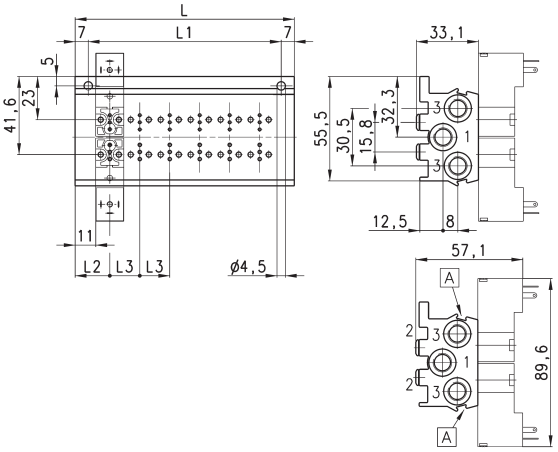
* add
- MANIFOLD PORTS
(see CODING EXAMPLE)

A= groove for identification label

Manifold - double side valve - bottom outlets

Manifold suitable for Series P - PL - PN - W
3-way solenoid valve
Use solenoid valves with screws for mounting on metal (see coding)

Material: anodized aluminium



DIMENSIONS							
Mod.	Positions	L	L1	L2	L3	1 (P)	3 (R)
P204-0*	4	53	39	18,5	16	G1/8	G1/8
P206-0*	6	69	55	18,5	16	G1/8	G1/8
P208-0*	8	85	71	18,5	16	G1/8	G1/8
P210-0*	10	101	87	18,5	16	G1/8	G1/8
P212-0*	12	117	103	18,5	16	G1/8	G1/8

* add
- MANIFOLD PORTS
(see CODING EXAMPLE)

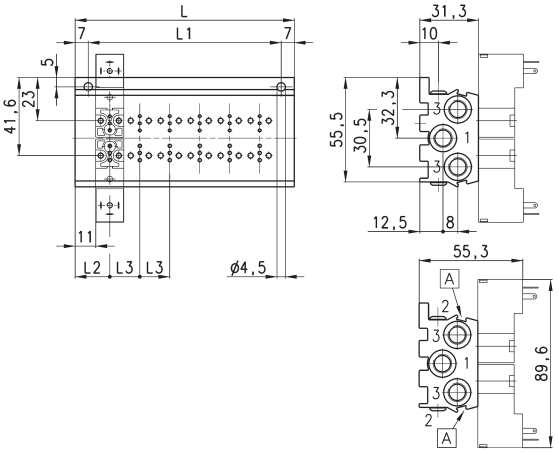
A= groove for identification label

Manifold - double side valve - frontal outlets

Manifold suitable for Series P - PL - PN - W
3-way solenoid valve
Use solenoid valves with screws for mounting on metal (see coding)

Can be fixed through DIN 46277/3 guide with the accessory PCF-E520.

Material: anodized aluminium



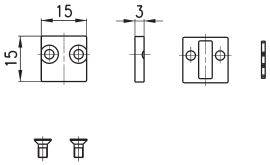
DIMENSIONS							
Mod.	Positions	L	L1	L2	L3	1 (P)	3 (R)
P204-0*	4	53	39	18,5	16	G1/8	G1/8
P206-0*	6	69	55	18,5	16	G1/8	G1/8
P208-0*	8	85	71	18,5	16	G1/8	G1/8
P210-0*	10	101	87	18,5	16	G1/8	G1/8
P212-0*	12	117	103	18,5	16	G1/8	G1/8

* add
- MANIFOLD PORTS
(see CODING EXAMPLE)

A= groove for identification label

Position valve cap

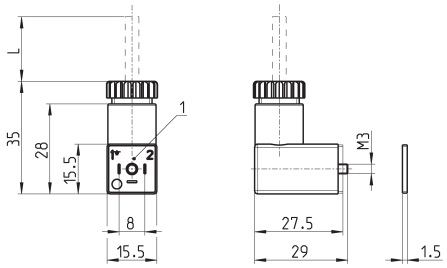
Supplied with:
1x position valve cap
1x interface seal
2x screws



Mod.
P000-TP

1 = 90° adjustable connector

Connector Mod. 126-... - DIN EN 175 301-803-C (8 mm)

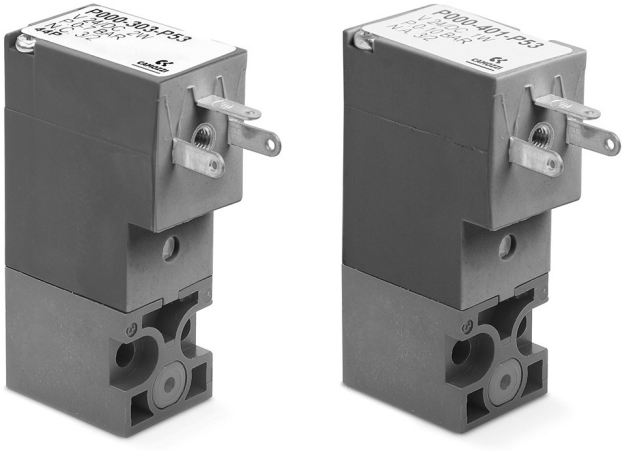


Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
126-550-1	moulded cable, without electronics	black	-	1000 mm	-	0.3 Nm
126-800	connector, without electronics	black	-	-	PG7	0.3 Nm
126-701	connector, varistor + Led	transparent	24 V AC/DC	-	PG7	0.3 Nm

1 = 90° adjustable connector

Series P
direct acting solenoid valves

3/2-way - Normally Closed (NC) and Normally Open (NO)



» Can be mounted on a single base (M5 connections) or on manifold (M5 connections or fittings for Ø3 o Ø4 tube).

Series P direct acting solenoid valves are available as 3/2-way, either NC or NO. Both versions can be mounted on single sub-bases or manifolds and they are equipped with a monostable manual override.

Please note that all Series P solenoid valves are supplied with direct current (DC).
To operate in alternating current (AC), it is necessary to use the connector with bridge rectifier Mod. 125-900.

GENERAL DATA

TECHNICAL FEATURES	
Function	3/2 NC - 3/2 NO
Operation	direct acting poppet type
Pneumatic connections	on subbase with ISO 15218 interface
Orifice diameter	0.8 ... 1.5 mm
Flow coefficient kv (l/min)	0.21 ... 0.54
Operating pressure	0 ÷ 3 ... 10 bar
Operating temperature	0 ÷ 50 °C
Media	filtered air class [5:4:4] according to ISO 8573-1:2010 (max oil viscosity 32 cSt), inert gas
Response time (ISO 12238)	ON <10 ms - OFF <15 ms
Manual override	monostable
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	PBT
Seals	PU - NBR - FKM - EPDM
Internal parts	stainless steel
ELECTRICAL FEATURES	
Voltage	12 ... 110 V DC - 24 ... 110 V AC 50/60 Hz - other voltages on demand
Voltage tolerance	±10%
Power consumption	1 ... 2 W
Duty cycle	ED 100%
Electrical connection	industrial standard connector (9.4 mm)
Protection class	IP65 with connector
Special versions available on demand	

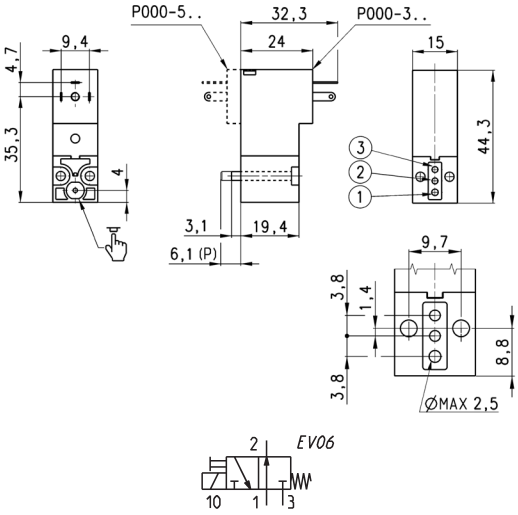
CODING EXAMPLE

P	0	00	-	3	0	3	-	P	5	3	

P	SERIES
0	BODY DESIGN 0 = single sub-base (M5 only) or interface 1 = single manifold 2 = double sided manifold
00	NUMBER OF POSITIONS 00 = ISO 15218 interface 01 = single base (M5 only) 02 ÷ 99 = manifold number of positions
3	NUMBER OF WAYS - FUNCTIONS 0 = manifold or single base 3 = 3/2-way - NC 4 = 3/2-way - NO 5 = 3/2-way - NC electric part revolved by 180° 6 = 3/2-way - NO electric part revolved by 180°
0	VALVE PORTS 0 = ISO 15218 interface MANIFOLD PORTS for P - PL - PN - W Series 2 = M5 thread - front outlets 3 = tube Ø 3 mm fittings - front outlets 4 = tube Ø 4 mm fittings - front outlets 6 = M5 thread - bottom outlets 7 = tube Ø 3 mm fittings - bottom outlets 8 = tube Ø 4 mm fittings - bottom outlets
3	ORIFICE DIAMETER 1 = Ø 0.8 mm 3 = Ø 1.5 mm 5 = Ø 1.1 mm - NC versions 6 = Ø 1.5 mm - NC versions with voltage tolerance -25% ÷ +10% 5 = Ø 0.9 mm - NO versions
P	MATERIALS E = PBT body - EPDM seals F = PBT body - FKM seals P = PBT body - NBR - FKM - PU seals
5	ELECTRICAL CONNECTION 5 = industrial standard (9.4 mm)
3	VOLTAGE - POWER CONSUMPTION 2 = 12 V DC - 2 W (1 W only for NC - Ø 0.8 mm version) 3 = 24 V DC - 2 W (1 W only for NC - Ø 0.8 mm version) 4 = 48 V DC - 2 W 6 = 110 V DC - 2 W B = 24 V 50/60 Hz - 2 W C = 48 V 50/60 Hz - 2 W D = 110 V 50/60 Hz - 2 W
	FIXING = fixing screws for metal P = fixing screws for plastic
	OPTIONS = standard OX1 = for use with oxygen (non volatile residual less than 550 mg/m²) OX2 = for use with oxygen (non volatile residual less than 33 mg/m²)

Series P solenoid valve - 3/2-way NC

Supplied with:
1x interface seal
2x M3x20 screws for mounting on metal
or
2x Ø3x23 screws for mounting on plastic



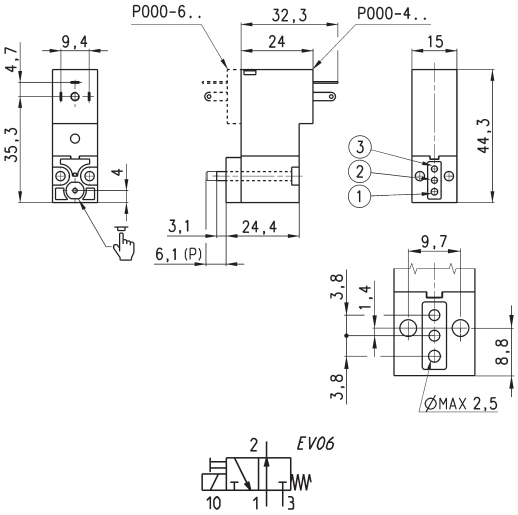
Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)	Power (W)
P000-301-*5*	3/2 NC	0.8	0.21	0 ÷ 10	1
P000-305-*5*	3/2 NC	1.1	0.39	0 ÷ 10	2
P000-303-*5*	3/2 NC	1.5	0.54	0 ÷ 7	2
P000-306-*5*	3/2 NC	1.5	0.54	0 ÷ 3	2
P000-501-*5*	3/2 NC	0.8	0.21	0 ÷ 10	1
P000-505-*5*	3/2 NC	1.1	0.39	0 ÷ 10	2
P000-503-*5*	3/2 NC	1.5	0.54	0 ÷ 7	2
P000-506-*5*	3/2 NC	1.5	0.39	0 ÷ 3	2

* add
- MATERIALS
- VOLTAGE

(see CODING EXAMPLE)

Series P solenoid valve - 3/2-way NO

Supplied with:
1x interface for NO with position ports as per NC (ports 1 and 3 are inverted)
2x interface seals
2x M3x25 screws for mounting on metal



Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)	Power (W)
P000-405-*5*	3/2 NO	0.9	0.23	0 ÷ 10	2
P000-403-*5*	3/2 NO	1.5	0.39	0 ÷ 5	2
P000-605-*5*	3/2 NO	0.9	0.23	0 ÷ 10	2
P000-603-*5*	3/2 NO	1.5	0.39	0 ÷ 5	2

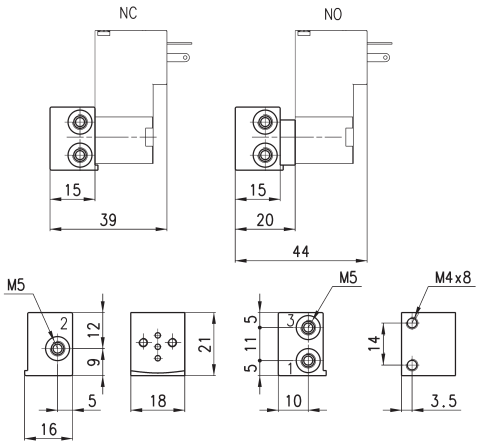
* add
- MATERIALS
- VOLTAGE

(see CODING EXAMPLE)

Single sub-base for 3-way solenoid valve size 15 mm

Single sub-base suitable for Series P - PL - PN - W 3-way solenoid valve
Use solenoid valves with screws for mounting on metal (see coding)

Material: anodized aluminium
Connections: M5 threads

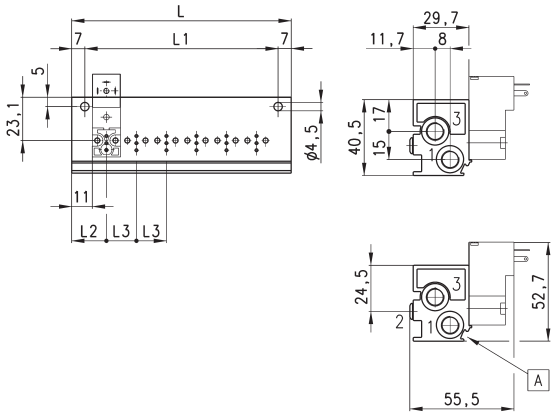


Mod.
P001-02

Manifold - single side valve - bottom outlets

Manifold suitable for Series P - PL - PN - W
3-way solenoid valve
Use solenoid valves with screws for mounting on metal (see coding)

Material: anodized aluminium



DIMENSIONS							
Mod.	Positions	L	L1	L2	L3	1 (P)	3 (R)
P102-0*	2	53	39	18.5	16	G1/8	G1/8
P103-0*	3	69	55	18.5	16	G1/8	G1/8
P104-0*	4	85	71	18.5	16	G1/8	G1/8
P105-0*	5	101	87	18.5	16	G1/8	G1/8
P106-0*	6	117	103	18.5	16	G1/8	G1/8

* add
- MANIFOLD PORTS
(see CODING EXAMPLE)

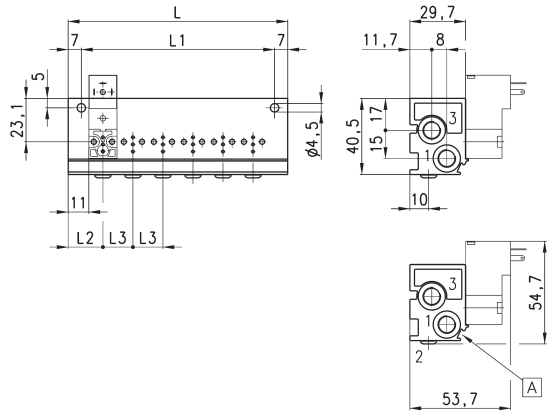
A = groove for identification label

Manifold - single side valve - frontal outlets

Manifold suitable for Series P - PL - PN - W
3-way solenoid valve
Use solenoid valves with screws for mounting on metal (see coding)

Can be fixed through DIN 46277/3 guide with the accessory PCF-E520.

Material: anodized aluminium



DIMENSIONS							
Mod.	Positions	L	L1	L2	L3	1 (P)	3 (R)
P102-0*	2	53	39	18.5	16	G1/8	G1/8
P103-0*	3	69	55	18.5	16	G1/8	G1/8
P104-0*	4	85	71	18.5	16	G1/8	G1/8
P105-0*	5	101	87	18.5	16	G1/8	G1/8
P106-0*	6	117	103	18.5	16	G1/8	G1/8

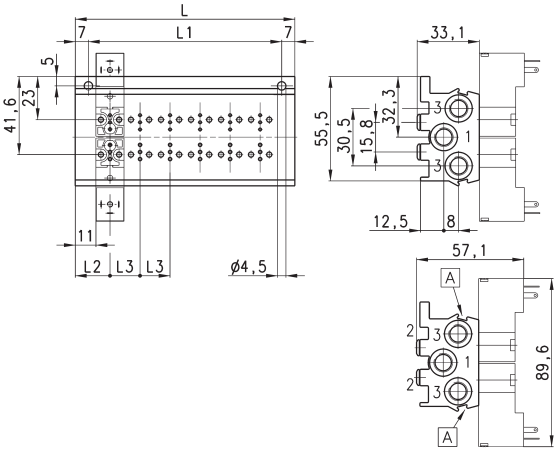
* add
- MANIFOLD PORTS
(see CODING EXAMPLE)

A = groove for identification label

Manifold - double side valve - bottom outlets

Manifold suitable for Series P - PL - PN - W
3-way solenoid valve
Use solenoid valves with screws for mounting on metal (see coding)

Material: anodized aluminium



DIMENSIONS							
Mod.	Positions	L	L1	L2	L3	1 (P)	3 (R)
P204-0*	4	53	39	18.5	16	G1/8	G1/8
P206-0*	6	69	55	18.5	16	G1/8	G1/8
P208-0*	8	85	71	18.5	16	G1/8	G1/8
P210-0*	10	101	87	18.5	16	G1/8	G1/8
P212-0*	12	117	103	18.5	16	G1/8	G1/8

* add
- MANIFOLD PORTS
(see CODING EXAMPLE)

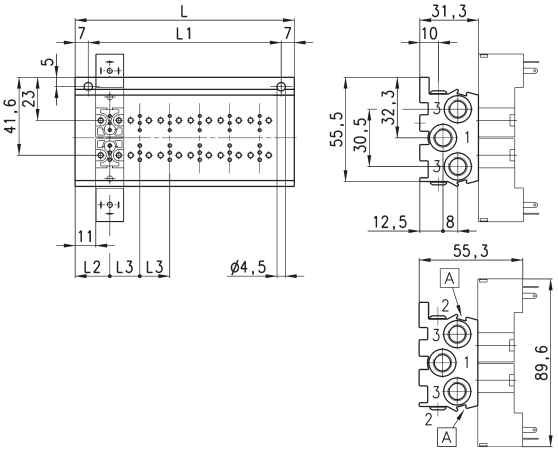
A = groove for identification label

Manifold - double side valve - frontal outlets

Manifold suitable for Series P - PL - PN - W
3-way solenoid valve
Use solenoid valves with screws for mounting on metal (see coding)

Can be fixed through DIN 46277/3 guide with the accessory PCF-E520.

Material: anodized aluminium



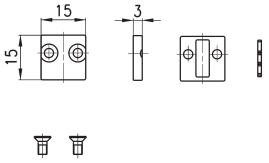
DIMENSIONS							
Mod.	Positions	L	L1	L2	L3	1 (P)	3 (R)
P204-0*	4	53	39	18.5	16	G1/8	G1/8
P206-0*	6	69	55	18.5	16	G1/8	G1/8
P208-0*	8	85	71	18.5	16	G1/8	G1/8
P210-0*	10	101	87	18.5	16	G1/8	G1/8
P212-0*	12	117	103	18.5	16	G1/8	G1/8

* add
- MANIFOLD PORTS
(see CODING EXAMPLE)

A = groove for identification label

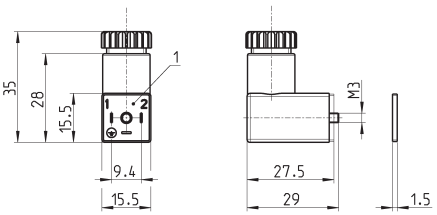
Position valve cap

Supplied with:
1x position valve cap
1x interface seal
2x screws



Mod.
P000-TP

Connector Mod. 125-... - industrial std. 9.4 mm

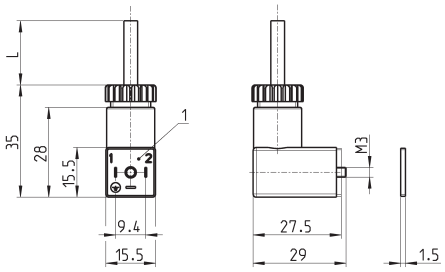


Mod.	description	colour	working voltage	cable gland	tightening torque
125-601	connector, diode + Led	transparent	10/50 V DC	PG7	0.3 Nm
125-701	connector, varistor + Led	transparent	24 V AC/DC	PG7	0.3 Nm
125-800	connector, without electronics	black	-	PG7	0.3 Nm

1 = 90° adjustable connector

Connector Mod. 125-... - industrial std. 9.4 mm - 90° cable

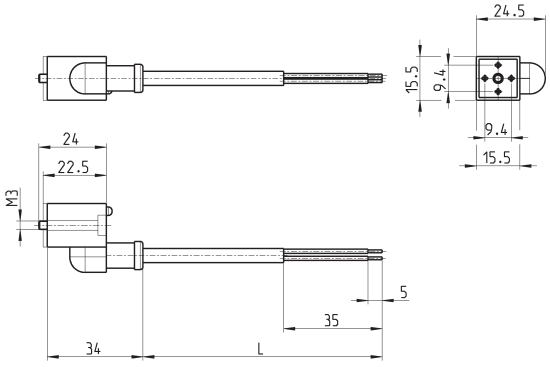
The internal rectifier circuit of the connector Mod. 125-900 allows to use solenoid valves with different AC voltage, even if the voltage indicated on the solenoid valve is DC.



Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
125-501-2	moulded cable with diode + Led	black	10/50 V DC	2000 mm	-	0.3 Nm
125-550-1	moulded cable, without electronics	black	-	1000 mm	-	0.3 Nm
125-601-2	pre-wired cable, diode + Led	transparent	10/50 V DC	2000 mm	PG7	0.3 Nm
125-571-3	moulded cable, varistor + Led	black	24 V AC/DC	3000 mm	-	0.3 Nm
125-900	pre-wired cable with voltage rectifier	black	6 V - 110 V AC/DC	2000 mm	PG7	0.3 Nm

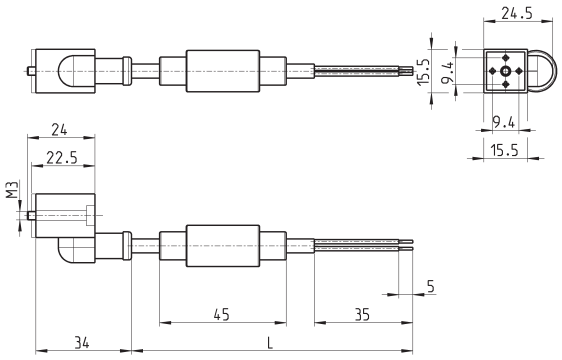
1 = 90° adjustable connector

Connector Mod. 125-... - industrial std. 9.4 mm - in-line cable



Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
125-503-2	in-line moulded cable, with diode + Led	black	24 V DC	2000 mm	-	0.3 Nm
125-503-5	in-line moulded cable, with diode + Led	black	24 V DC	5000 mm	-	0.3 Nm
125-553-2	in-line moulded cable, without electronics	black	-	2000 mm	-	0.3 Nm
125-553-5	in-line moulded cable, without electronics	black	-	5000 mm	-	0.3 Nm

Conn. Mod. 125-... - ind. std. 9.4 mm - in-line cable+rectifier



Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
125-903-2	in-line moulded cable with voltage rectifier	black	6 V - 230 V AC/DC	2000 mm	-	0.3 Nm
125-903-5	in-line moulded cable with voltage rectifier	black	6 V - 230 V AC/DC	5000 mm	-	0.3 Nm

Series PL
directly operated solenoid valves

2/2-way - Normally Open (NO)
3/2-way - Normally Closed (NC) and Normally Open (NO)
3/2-way - Universal (UNI)

» Application sectors:
- Industrial Automation
- Life Science
- Transportation

» Mounting on a single base (M5 connections) or on manifold (M5 or fittings Ø3 and Ø4)

Series PL solenoid valves are available in the normally closed, normally open and universal versions. They can be mounted on single sub-bases or manifolds.

Please note that all Series PL solenoid valves are supplied with direct current (DC).
To operate in alternating current (AC), it is necessary to use the connector with bridge rectifier Mod. 125-900.

GENERAL DATA

TECHNICAL FEATURES	
Function	2/2 NO - 3/2 NC - 3/2 NO - 3/2 UNI
Operation	direct acting poppet type
Pneumatic connections	on subbase
Orifice diameter	0.8 ... 1.6 mm
Flow coefficient kv (l/min)	0.30 ... 0.62
Operating pressure	0 ÷ 3.5 ... 10 bar
Operating temperature	0 ÷ 50 °C (FKM) / -50 ÷ 50 °C (low temperature NBR on demand)
Media	filtered air class [5:4:4] according to ISO 8573-1:2010 (max oil viscosity 32 cSt), inert gas
Response time	ON <10 ms - OFF <15 ms
Manual override	mono/bistable - PBT 3/2 versions only
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	brass - PBT - PPS
Seals	FKM - NBR - EPDM (on demand)
Internal parts	brass - stainless steel
ELECTRICAL FEATURES	
Voltage	6 ... 110 V DC - other voltages on demand
Voltage tolerance	±10%
Power consumption	1.2 ... 3 W
Duty cycle	ED 100%
Electrical connection	industry standard connector (9.4 mm)
Protection class	IP65 with connector
Special versions available on demand	

CODING EXAMPLE

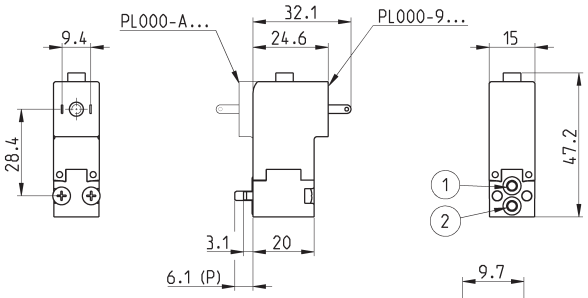
PL	0	00	-	3	0	3	-	PL	2	3	

PL	SERIES
0	BODY DESIGN 0 = single sub-base (M5 only) or interface 1 = manifold - valves single side 2 = manifold - valves double side
00	NUMBER OF POSITIONS 00 = ISO 15218 or Series PD interface 01 = single base (M5 only) 02 ÷ 99 = manifold number of positions
3	NUMBER OF WAYS - FUNCTIONS 0 = manifolds or single base 9 = 2/2-way - NO A = 2/2-way - NO electric part revolved by 180° 3 = 3/2-way - NC 5 = 3/2-way - NC electric part revolved by 180° 4 = 3/2-way - NO 6 = 3/2-way - NO electric part revolved by 180° B = 3/2-way - NO IN-LINE* C = 3/2-way - NO IN-LINE* electric part revolved by 180° 7 = 3/2-way - UNI 8 = 3/2-way - UNI electric part revolved by 180°
0	VALVE PORTS 0 = ISO 15218 interface - 3/2-way B = series PD interface - 2/2-way MANIFOLD PORTS for P - PL - PN - W Series 2 = M5 thread - front outlets 3 = tube Ø 3 mm fittings - front outlets 4 = tube Ø 4 mm fittings - front outlets 6 = M5 thread - front outlets 7 = tube Ø 3 mm fittings - bottom outlets 8 = tube Ø 4 mm fittings - bottom outlets
3	ORIFICE DIAMETER B = Ø 0.8 mm 1 = Ø 1.1 mm 3 = Ø 1.5 mm (NC version with pressure 4 ÷ 8 bar only) 5 = Ø 1.5 mm 6 = Ø 1.5 mm (NC version with pressure 0 ÷ 3.5 bar only) 7 = Ø 1.6 mm
PL	MATERIALS PL = PBT body - FKM poppet seal - NBR other seals PF = PBT body - FKM seals SF = PPS body - FKM seals ST = PPS body - Low Temperature NBR seals (on demand) BF = nickel-plated brass body - FKM seals
2	ELECTRICAL CONNECTION 2 = industrial standard connection (9.4 mm)
3	VOLTAGE - POWER CONSUMPTION - OVERMOULDING MATERIAL 4 = 6 V DC - 1.2 W - PA 5 = 12 V DC - 1.2 W - PA 6 = 24 V DC - 1.2 W - PA 1 = 6 V DC - 2.7 W - PA 2 = 12 V DC - 2.7 W - PA 3 = 24 V DC - 2.7 W - PA 7 = 6 V DC - 1.2 W - PPS 8 = 12 V DC - 1.2 W - PPS 9 = 24 V DC - 1.2 W - PPS A = 6 V DC - 2.2 W - PPS B = 12 V DC - 2.2 W - PPS C = 24 V DC - 2.2 W - PPS H = 110 V DC - 3 W - PPS (can be combined with all PPS models)
	FIXING = fixing screws for metal P = fixing screws for plastics
	MANUAL OVERRIDE = not required or not applicable T = mono/bistable (push/turn type)
	OPTIONS = standard OX1 = for use with oxygen (non volatile residual less than 550 mg/m²)

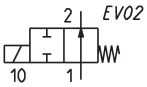
* 3/2 NO IN-LINE version: the position of the ports 1 - 2 - 3 is identical to 3/2 NC version

Series PL solenoid valve - 2/2-way NO - series PD interface

Supplied with:
2x O-Rings
2x M3x20 screws for mounting on metal
or
2x Ø3x23 screws for mounting on plastic
(opt. P)



* add
- VOLTAGE
- FIXING
(see CODING EXAMPLE)

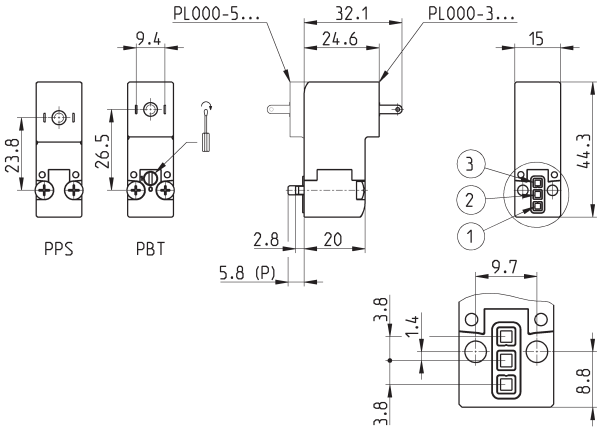


Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)	Body material	Seals material	Manual override	Power (W)	Symbol
PL000-9B7-PF2*	2/2 NO	1.6	0.62	0 ÷ 6.5	PBT	FKM	no	2.7	EV02
PL000-9B7-BF2*	2/2 NO	1.6	0.62	0 ÷ 6.5	brass	FKM	no	2.7	EV02

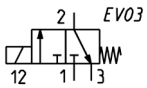
Series PL solenoid valve - 3/2-way NC

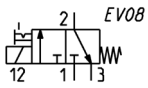
Supplied with:
1x interface seal
2x M3x20 screws for mounting on metal
or
2x Ø3x23 screws for mounting on plastic
(opt. P)

Also available ST models for
T amb. -50 ÷ 50 °C with NBR seals.



* add
- VOLTAGE
- FIXING
(see CODING EXAMPLE)



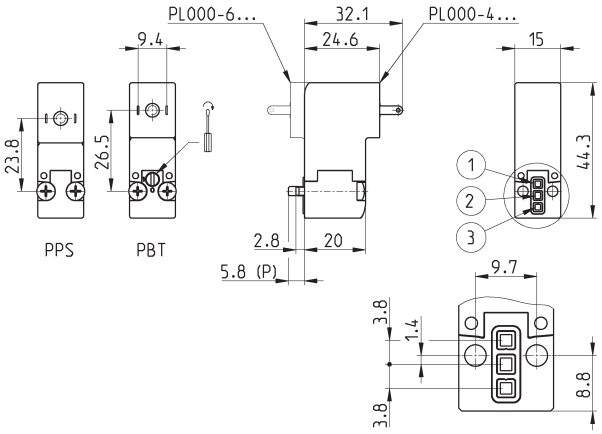


Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)	Body material	Seals material	Manual override	Power (W)	Symbol
PL000-30B-PF2*	3/2 NC	0.8	0.30	0 ÷ 10	PBT	FKM	no	1.2	EV03
PL000-30B-PF2*T	3/2 NC	0.8	0.30	0 ÷ 10	PBT	FKM	mono/bistable	1.2	EV08
PL000-30B-SF2*	3/2 NC	0.8	0.30	0 ÷ 10	PPS	FKM	no	1.2	EV03
PL000-301-PF2*	3/2 NC	1.1	0.34	0 ÷ 7	PBT	FKM	no	2.7	EV03
PL000-301-PF2*T	3/2 NC	1.1	0.34	0 ÷ 7	PBT	FKM	mono/bistable	2.7	EV08
PL000-301-SF2*	3/2 NC	1.1	0.34	0 ÷ 8	PPS	FKM	no	2.2	EV03
PL000-303-PL2*	3/2 NC	1.5	0.47	4 ÷ 8	PBT	FKM+NBR	no	2.7	EV03
PL000-303-PF2*T	3/2 NC	1.5	0.47	4 ÷ 8	PBT	FKM	mono/bistable	2.7	EV08
PL000-306-PL2*	3/2 NC	1.5	0.47	0 ÷ 3.5	PBT	FKM+NBR	no	2.7	EV03
PL000-306-PF2*T	3/2 NC	1.5	0.47	0 ÷ 3.5	PBT	FKM	mono/bistable	2.7	EV08

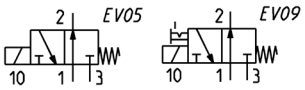
Series PL solenoid valve - 3/2-way NO

Supplied with:
1x interface seal
2x M3x20 screws for mounting on metal
or
2x Ø3x23 screws for mounting on plastic
(opt. P)

Also available ST models for
T amb. -50 ÷ 50 °C with NBR seals.



* add
- VOLTAGE
- FIXING
(see CODING EXAMPLE)

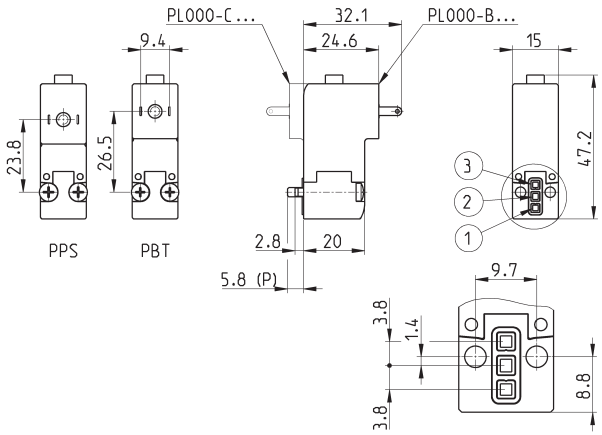


Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)	Body material	Seals material	Manual override	Power (W)	Symbol
PL000-40B-PF2*	3/2 NO	0.8	0.30	0 ÷ 10	PBT	FKM	no	2.7	EV05
PL000-40B-PF2*T	3/2 NO	0.8	0.30	0 ÷ 10	PBT	FKM	mono/bistable	2.7	EV09
PL000-40B-SF2*	3/2 NO	0.8	0.30	0 ÷ 10	PPS	FKM	no	2.2	EV05
PL000-401-PF2*	3/2 NO	1.1	0.34	0 ÷ 7	PBT	FKM	no	2.7	EV05
PL000-401-PF2*T	3/2 NO	1.1	0.34	0 ÷ 7	PBT	FKM	mono/bistable	2.7	EV09
PL000-401-SF2*	3/2 NO	1.1	0.34	0 ÷ 7	PPS	FKM	no	2.2	EV05
PL000-405-PF2*	3/2 NO	1.5	0.42	0 ÷ 6.5	PBT	FKM	no	2.7	EV05
PL000-405-PF2*T	3/2 NO	1.5	0.42	0 ÷ 6.5	PBT	FKM	mono/bistable	2.7	EV09
PL000-405-SF2*	3/2 NO	1.5	0.42	0 ÷ 6.5	PPS	FKM	no	2.2	EV05

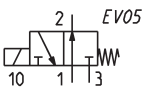
Series PL solenoid valve - 3/2-way NO IN-LINE

Supplied with:
1x interface seal
2x M3x20 screws for mounting on metal
or
2x Ø3x23 screws for mounting on plastic
(opt. P)

Also available ST models for
T amb. -50 ÷ 50 °C with NBR seals.



* add
- VOLTAGE
- FIXING
(see CODING EXAMPLE)



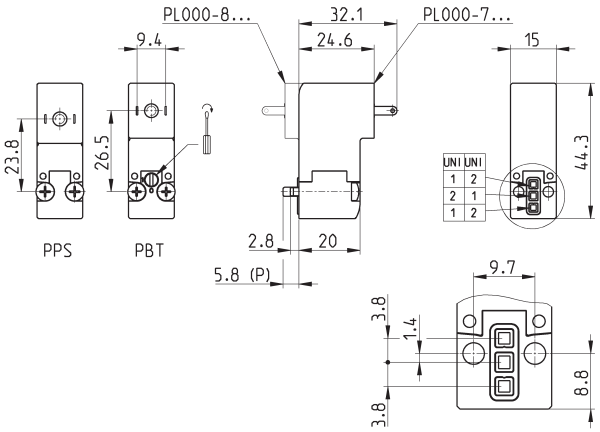
Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)	Body material	Seals material	Manual override	Power (W)	Symbol
PL000-B01-PF2*	3/2 NO IN-LINE	1.1	0.34	0 ÷ 7	PBT	FKM	no	2.7	EV05
PL000-B01-SF2*	3/2 NO IN-LINE	1.1	0.34	0 ÷ 7	PPS	FKM	no	2.2	EV05

Series PL solenoid valve - 3/2-way UNI

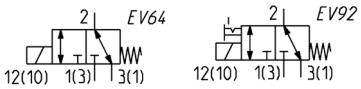
Supplied with:
1x interface seal
2x M3x20 screws for mounting on metal
or
2x Ø3x23 screws for mounting on plastic (opt. P)

Also available models for T amb.
-50 ÷ 50 °C with NBR seals

Vacuum operation with max. pressure reduction



* add
- VOLTAGE
- FIXING
(see CODING EXAMPLE)

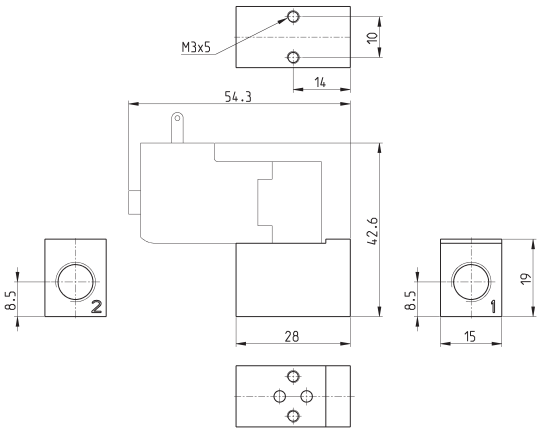


Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min÷max pressure (bar)	Body material	Seals material	Manual override	Power (W)	Symbol
PL000-705-PF2*	3/2 UNI	1.5	0.42	0 ÷ 3.5 [-1 ÷ 2.5]	PBT	FKM	no	2.7	EV64
PL000-705-PF2*T	3/2 UNI	1.5	0.42	0 ÷ 3.5 [-1 ÷ 2.5]	PBT	FKM	mono/bistable	2.7	EV92
PL000-705-SF2*	3/2 UNI	1.5	0.42	0 ÷ 3.5 [-1 ÷ 2.5]	PPS	FKM	no	2.2	EV64

Single sub-base for 15mm size 2 way interface

Single sub-base suitable for 2-way solenoid valves
Series PD and PL models PD000-2A..., PL000-9B...
Use solenoid valves with fixing screws for metal (see codification page)

Material: anodized aluminium
Connections: G1/8 threads

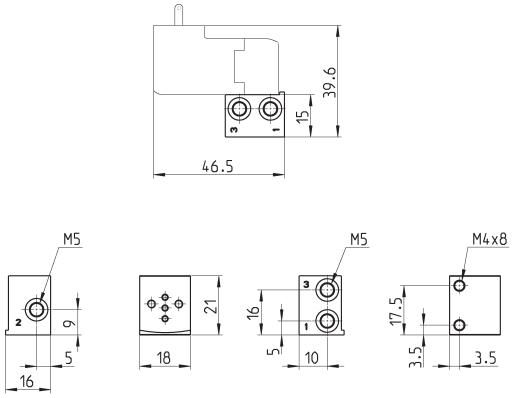


Mod.
PDA01-1/8

Single sub-base for 3-way solenoid valve size 15 mm

Single sub-base suitable for Series P - PL - PN - W
3-way solenoid valve
Use solenoid valves with screws for mounting on metal (see coding)

Material: anodized aluminium
Connections: M5 threads

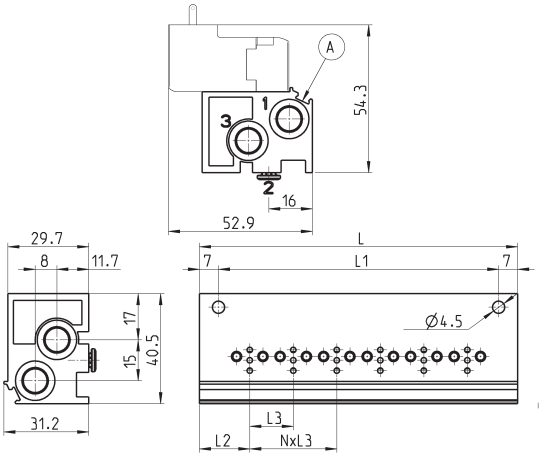


Mod.
P001-02

Single manifold with rear outlets

Manifold suitable for Series P - PL - PN - W
3-way solenoid valve
Use solenoid valves with screws for mounting on metal (see coding)

Material: anodized aluminium



DIMENSIONS							
Mod.	Positions	L	L1	L2	L3	1 (P)	3 (R)
P102-0*	2	53	39	18,5	16	G1/8	G1/8
P103-0*	3	69	55	18,5	16	G1/8	G1/8
P104-0*	4	85	71	18,5	16	G1/8	G1/8
P105-0*	5	101	87	18,5	16	G1/8	G1/8
P106-0*	6	117	103	18,5	16	G1/8	G1/8

* add
- MANIFOLD PORTS
(see CODING EXAMPLE)

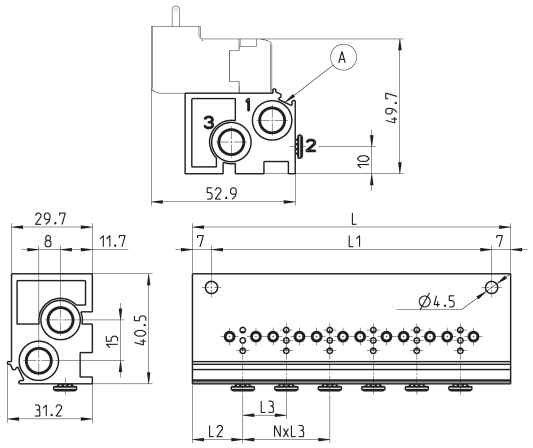
A = groove for identification label

Manifold - single side valve - frontal outlets

Manifold suitable for Series P - PL - PN - W
3-way solenoid valve
Use solenoid valves with screws for mounting on metal (see coding)

Can be fixed through DIN 46277/3 guide with the accessory PCF-E520.

Material: anodized aluminium



DIMENSIONS

Mod.	Positions	L	L1	L2	L3	1 (P)	3 (R)
P102-0*	2	53	39	18,5	16	G1/8	G1/8
P103-0*	3	69	55	18,5	16	G1/8	G1/8
P104-0*	4	85	71	18,5	16	G1/8	G1/8
P105-0*	5	101	87	18,5	16	G1/8	G1/8
P106-0*	6	117	103	18,5	16	G1/8	G1/8

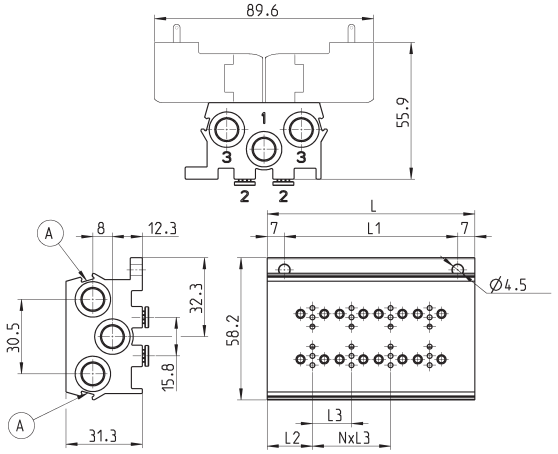
* add
- MANIFOLD PORTS
(see CODING EXAMPLE)

A = groove for identification label

Manifold - double side valve - bottom outlets

Manifold suitable for Series P - PL - PN - W
3-way solenoid valve
Use solenoid valves with screws for mounting on metal (see coding)

Material: anodized aluminium



DIMENSIONS

Mod.	Positions	L	L1	L2	L3	1 (P)	3 (R)
P204-0*	4	53	39	18,5	16	G1/8	G1/8
P206-0*	6	69	55	18,5	16	G1/8	G1/8
P208-0*	8	85	71	18,5	16	G1/8	G1/8
P210-0*	10	101	87	18,5	16	G1/8	G1/8
P212-0*	12	117	103	18,5	16	G1/8	G1/8

* add
- MANIFOLD PORTS
(see CODING EXAMPLE)

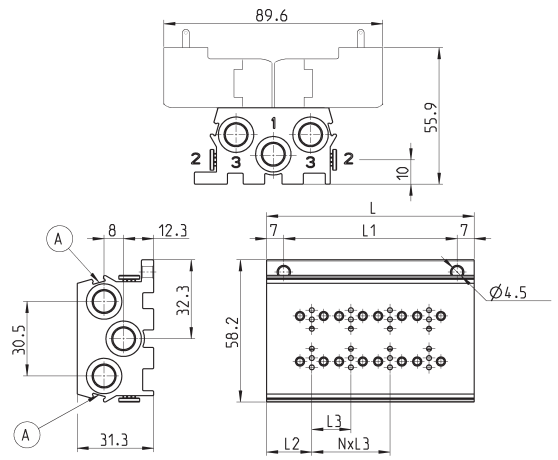
A = groove for identification label

Manifold - double side valve - frontal outlets

Manifold suitable for Series P - PL - PN - W
3-way solenoid valve
Use solenoid valves with screws for mounting on metal (see coding)

Can be fixed through DIN 46277/3 guide with the accessory PCF-E520.

Material: anodized aluminium



DIMENSIONS

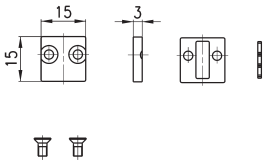
Mod.	Positions	L	L1	L2	L3	1 (P)	3 (R)
P204-0*	4	53	39	18,5	16	G1/8	G1/8
P206-0*	6	69	55	18,5	16	G1/8	G1/8
P208-0*	8	85	71	18,5	16	G1/8	G1/8
P210-0*	10	101	87	18,5	16	G1/8	G1/8
P212-0*	12	117	103	18,5	16	G1/8	G1/8

* add
- MANIFOLD PORTS
(see CODING EXAMPLE)

A = groove for identification label

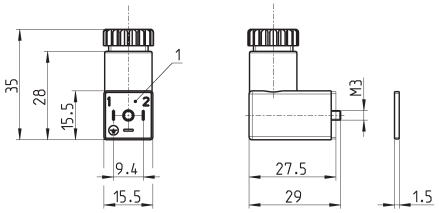
Position valve cap

Supplied with:
1x position valve cap
1x interface seal
2x screws



Mod.
P000-TP

Connector Mod. 125-... - industrial std. 9.4 mm

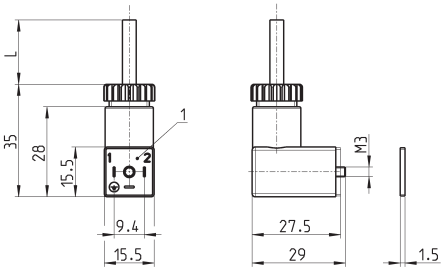


Mod.	description	colour	working voltage	cable gland	tightening torque
125-601	connector, diode + Led	transparent	10/50 V DC	PG7	0.3 Nm
125-701	connector, varistor + Led	transparent	24 V AC/DC	PG7	0.3 Nm
125-800	connector, without electronics	black	-	PG7	0.3 Nm

1 = 90° adjustable connector

Connector Mod. 125-... - industrial std. 9.4 mm - 90° cable

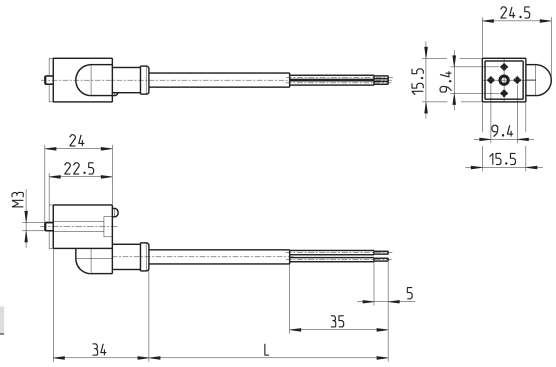
The internal rectifier circuit of the connector Mod. 125-900 allows to use solenoid valves with different AC voltage, even if the voltage indicated on the solenoid valve is DC.



Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
125-501-2	moulded cable with diode + Led	black	10/50 V DC	2000 mm	-	0.3 Nm
125-550-1	moulded cable, without electronics	black	-	1000 mm	-	0.3 Nm
125-601-2	pre-wired cable, diode + Led	transparent	10/50 V DC	2000 mm	PG7	0.3 Nm
125-571-3	moulded cable, varistor + Led	black	24 V AC/DC	3000 mm	-	0.3 Nm
125-900	pre-wired cable with voltage rectifier	black	6 V - 110 V AC/DC	2000 mm	PG7	0.3 Nm

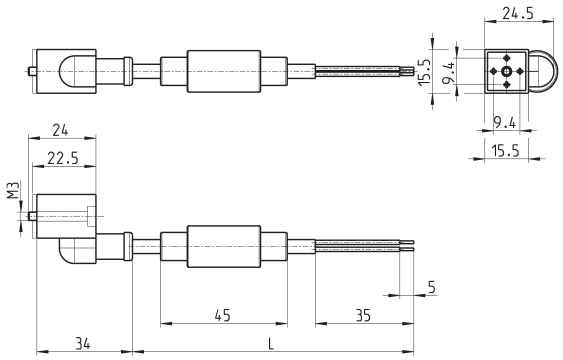
1 = 90° adjustable connector

Connector Mod. 125-... - industrial std. 9.4 mm - in-line cable



Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
125-503-2	in-line moulded cable, with diode + Led	black	24 V DC	2000 mm	-	0.3 Nm
125-503-5	in-line moulded cable, with diode + Led	black	24 V DC	5000 mm	-	0.3 Nm
125-553-2	in-line moulded cable, without electronics	black	-	2000 mm	-	0.3 Nm
125-553-5	in-line moulded cable, without electronics	black	-	5000 mm	-	0.3 Nm

Conn. Mod. 125-... - ind. std. 9.4 mm - in-line cable+rectifier



Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
125-903-2	in-line moulded cable with voltage rectifier	black	6 V - 230 V AC/DC	2000 mm	-	0.3 Nm
125-903-5	in-line moulded cable with voltage rectifier	black	6 V - 230 V AC/DC	5000 mm	-	0.3 Nm

Series PN
direct acting solenoid valves

3/2-way - Normally Closed (NC)

Series PN direct acting solenoid valves are available as 3/2-way NC.

- Can be mounted on a single base (M5 connections) or on manifold (M5 connections or fittings for Ø3 o Ø4 tube)
- Compact design suitable for use in reduced mounting space

Please note that all Series PN solenoid valves are supplied with direct current (DC).
To operate in alternating current (AC), it is necessary to use the connector with bridge rectifier Mod. 125-900.

GENERAL DATA

TECHNICAL FEATURES	
Function	3/2 NC
Operation	direct acting poppet type
Pneumatic connections	on subbase with ISO 12238 interface
Orifice diameter	0.8 mm
Flow coefficient kv (l/min)	0.19
Operating pressure	0 ÷ 10 bar
Operating temperature	0 ÷ 50 °C
Media	filtered air class [5:4:4] according to ISO 8573-1:2010 (max oil viscosity 32 cSt), inert gas
Response time (ISO 12238)	ON <10 ms - OFF <15 ms
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	PBT
Seals	FKM - NBR
Internal parts	stainless steel
ELECTRICAL FEATURES	
Voltage	24 ... 205 V DC - other voltages on demand
Voltage tolerance	±10%
Power consumption	1 ... 2 W
Duty cycle	ED 100%
Electrical connection	industrial standard connector (9.4 mm)
Protection class	IP65 with connector
Special versions available on demand	

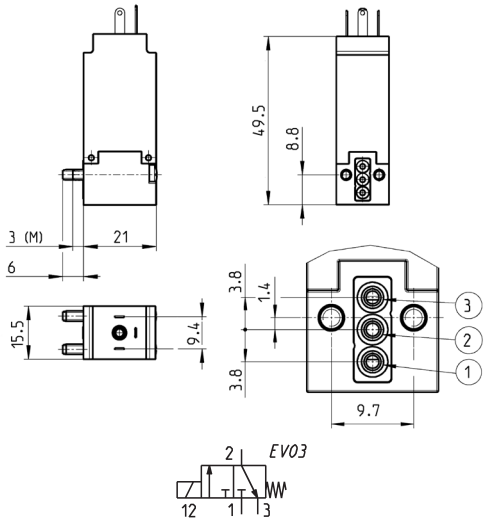
CODING EXAMPLE

PN	0	00	-	3	0	1	-	P	5	3	

PN	SERIES
0	BODY DESIGN 0 = single sub-base 1 = single manifold 2 = double sided manifold
00	NUMBER OF POSITIONS 00 = ISO 15218 interface 01 = single base (M5 only) 02 ÷ 99 = manifold number of positions
3	NUMBER OF WAYS - FUNCTIONS 0 = manifold or single base 3 = 3/2-way - NC
0	VALVE PORTS 0 = ISO 15218 interface MANIFOLD PORTS for P - PL - PN - W Series 2 = M5 thread - front outlets 3 = tube Ø 3 mm fittings - front outlets 4 = tube Ø 4 mm fittings - front outlets 6 = M5 thread - bottom outlets 7 = tube Ø 3 mm fittings - bottom outlets 8 = tube Ø 4 mm fittings - bottom outlets
1	ORIFICE DIAMETER 1 = Ø 0.8 mm
P	MATERIALS P = PBT body - seals FKM - NBR
5	ELECTRICAL CONNECTION 5 = industrial standard (9.4 mm)
3	VOLTAGE - POWER CONSUMPTION 3 = 24 V DC - 1 W 4 = 48 V DC - 2 W 6 = 110 V DC - 2 W 7 = 205 V DC - 1.7 W
	FIXING = fixing screws for plastic M = fixing screws for metal

Series PN solenoid valve - 3/2-way NC

Supplied with:
1x interface seal
2x Ø3x25 screws for mounting on plastic
or
2x M3x22 screws for mounting on metal



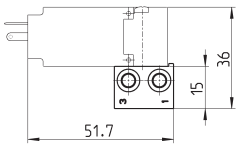
Mod.	Function	Orifice Ø (mm)	kv (l/m)	Min÷max pressure (bar)	Voltage Power
PN000-301-P53*	3/2 NC	0.8	0.19	0 ÷ 10	24 V DC 1 W
PN000-301-P54*	3/2 NC	0.8	0.19	0 ÷ 10	48 V DC 2 W
PN000-301-P56*	3/2 NC	0.8	0.19	0 ÷ 10	110 V DC 2 W
PN000-301-P57*	3/2 NC	0.8	0.19	0 ÷ 10	205 V DC 1.7 W

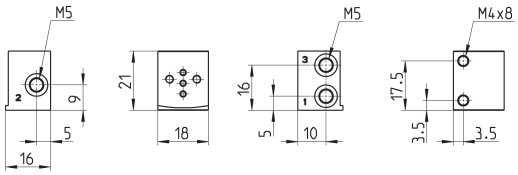
* add
- FIXING
(see CODING EXAMPLE)

Single sub-base for 3-way solenoid valve size 15 mm

Single sub-base suitable for Series P - PL - PN - W
3-way solenoid valve
Use solenoid valves with screws for mounting on metal (see coding)

Material: anodized aluminium
Connections: M5 threads



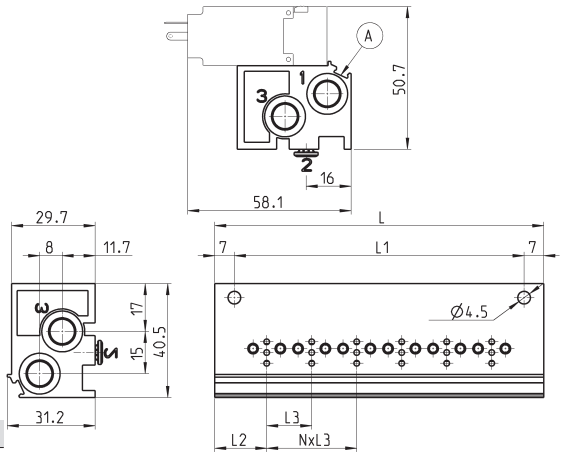


Mod.
P001-02

Manifold - single side valve - bottom outlets

Manifold suitable for Series P - PL - PN - W
3-way solenoid valve
Use solenoid valves with screws for mounting on metal (see coding)

Material: anodized aluminium



DIMENSIONS							
Mod.	Positions	L	L1	L2	L3	1 (P)	3 (R)
P102-0*	2	53	39	18,5	16	G1/8	G1/8
P103-0*	3	69	55	18,5	16	G1/8	G1/8
P104-0*	4	85	71	18,5	16	G1/8	G1/8
P105-0*	5	101	87	18,5	16	G1/8	G1/8
P106-0*	6	117	103	18,5	16	G1/8	G1/8

* add
- MANIFOLD PORTS
(see CODING EXAMPLE)

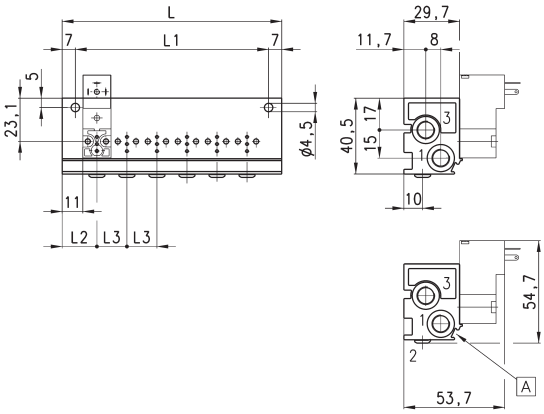
A= groove for identification label

Manifold - single side valve - frontal outlets

Manifold suitable for Series P - PL - PN - W
3-way solenoid valve
Use solenoid valves with screws for mounting on metal (see coding)

Can be fixed through DIN 46277/3 guide with the accessory PCF-E520.

Material: anodized aluminium



DIMENSIONS							
Mod.	Positions	L	L1	L2	L3	1 (P)	3 (R)
P102-0*	2	53	39	18,5	16	G1/8	G1/8
P103-0*	3	69	55	18,5	16	G1/8	G1/8
P104-0*	4	85	71	18,5	16	G1/8	G1/8
P105-0*	5	101	87	18,5	16	G1/8	G1/8
P106-0*	6	117	103	18,5	16	G1/8	G1/8

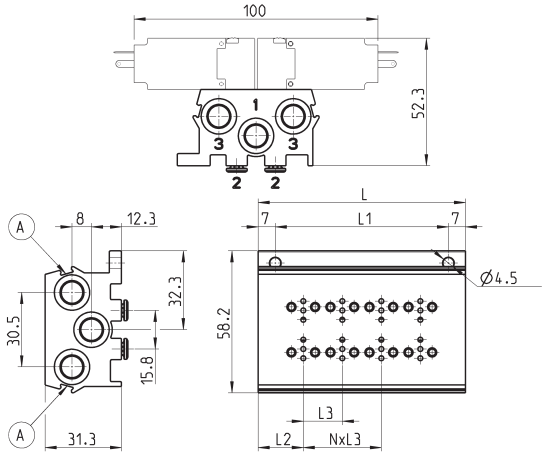
* add
- MANIFOLD PORTS
(see CODING EXAMPLE)

A= groove for identification label

Manifold - double side valve - bottom outlets

Manifold suitable for Series P - PL - PN - W
3-way solenoid valve
Use solenoid valves with screws for mounting on metal (see coding)

Material: anodized aluminium



DIMENSIONS							
Mod.	Positions	L	L1	L2	L3	1 (P)	3 (R)
P204-0*	4	53	39	18,5	16	G1/8	G1/8
P206-0*	6	69	55	18,5	16	G1/8	G1/8
P208-0*	8	85	71	18,5	16	G1/8	G1/8
P210-0*	10	101	87	18,5	16	G1/8	G1/8
P212-0*	12	117	103	18,5	16	G1/8	G1/8

* add
- MANIFOLD PORTS
(see CODING EXAMPLE)

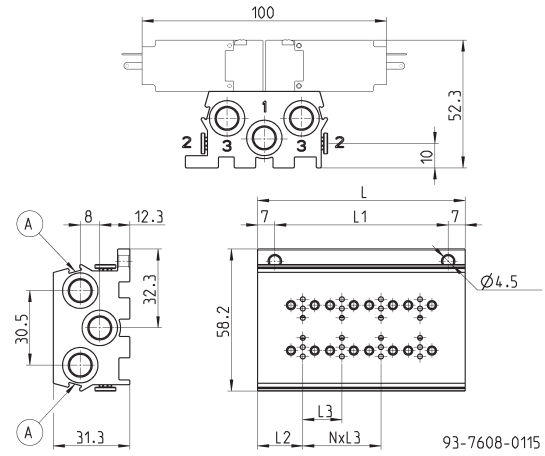
A= groove for identification label

Manifold - double side valve - frontal outlets

Manifold suitable for Series P - PL - PN - W
3-way solenoid valve
Use solenoid valves with screws for mounting on metal (see coding)

Can be fixed through DIN 46277/3 guide with the accessory PCF-E520.

Material: anodized aluminium



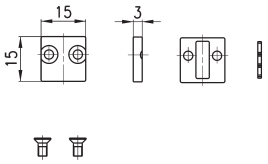
DIMENSIONS							
Mod.	Positions	L	L1	L2	L3	1 (P)	3 (R)
P204-0*	4	53	39	18,5	16	G1/8	G1/8
P206-0*	6	69	55	18,5	16	G1/8	G1/8
P208-0*	8	85	71	18,5	16	G1/8	G1/8
P210-0*	10	101	87	18,5	16	G1/8	G1/8
P212-0*	12	117	103	18,5	16	G1/8	G1/8

* add
- MANIFOLD PORTS
(see CODING EXAMPLE)

A= groove for identification label

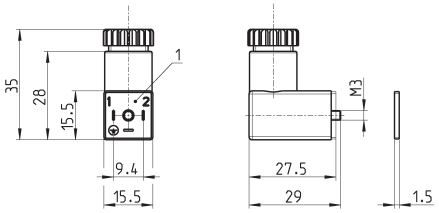
Position valve cap

Supplied with:
1x position valve cap
1x interface seal
2x screws



Mod.
P000-TP

Connector Mod. 125-... - industrial std. 9.4 mm

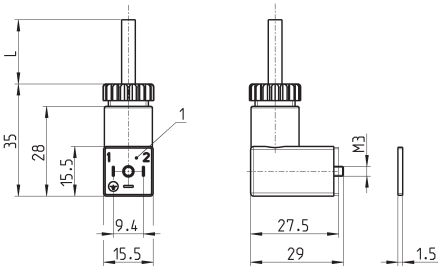


Mod.	description	colour	working voltage	cable gland	tightening torque
125-601	connector, diode + Led	transparent	10/50 V DC	PG7	0.3 Nm
125-701	connector, varistor + Led	transparent	24 V AC/DC	PG7	0.3 Nm
125-800	connector, without electronics	black	-	PG7	0.3 Nm

1 = 90° adjustable connector

Connector Mod. 125-... - industrial std. 9.4 mm - 90° cable

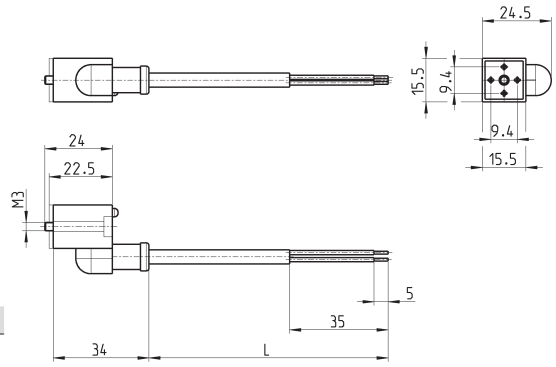
The internal rectifier circuit of the connector Mod. 125-900 allows to use solenoid valves with different AC voltage, even if the voltage indicated on the solenoid valve is DC.



Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
125-501-2	moulded cable with diode + Led	black	10/50 V DC	2000 mm	-	0.3 Nm
125-550-1	moulded cable, without electronics	black	-	1000 mm	-	0.3 Nm
125-601-2	pre-wired cable, diode + Led	transparent	10/50 V DC	2000 mm	PG7	0.3 Nm
125-571-3	moulded cable, varistor + Led	black	24 V AC/DC	3000 mm	-	0.3 Nm
125-900	pre-wired cable with voltage rectifier	black	6 V - 110 V AC/DC	2000 mm	PG7	0.3 Nm

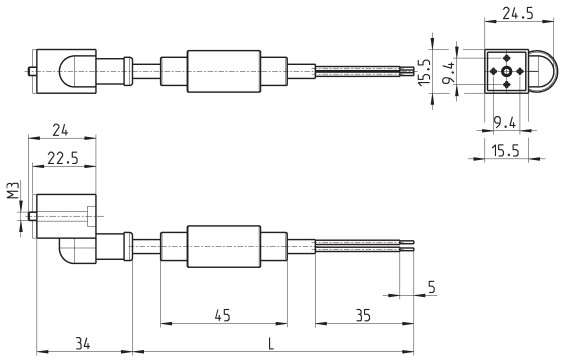
1 = 90° adjustable connector

Connector Mod. 125-... - industrial std. 9.4 mm - in-line cable



Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
125-503-2	in-line moulded cable, with diode + Led	black	24 V DC	2000 mm	-	0.3 Nm
125-503-5	in-line moulded cable, with diode + Led	black	24 V DC	5000 mm	-	0.3 Nm
125-553-2	in-line moulded cable, without electronics	black	-	2000 mm	-	0.3 Nm
125-553-5	in-line moulded cable, without electronics	black	-	5000 mm	-	0.3 Nm

Conn. Mod. 125-... - ind. std. 9.4 mm - in-line cable+rectifier

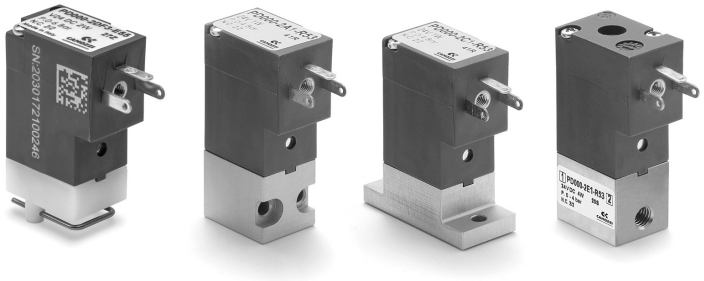


Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
125-903-2	in-line moulded cable with voltage rectifier	black	6 V - 230 V AC/DC	2000 mm	-	0.3 Nm
125-903-5	in-line moulded cable with voltage rectifier	black	6 V - 230 V AC/DC	5000 mm	-	0.3 Nm

Series PD
direct acting solenoid valves

New models

2/2-way - Normally Closed (NC)



The Series PD direct acting solenoid valves are available in the 2/2-way normally closed (NC) version. Pneumatic interfaces allow installation on manifolds in horizontal or vertical position. Also available with threaded connections.

Please note that all Series PD solenoid valves are supplied with direct current (DC).
To operate in alternating current (AC), it is necessary to use the connector with bridge rectifier Mod. 125-900.

GENERAL DATA

TECHNICAL FEATURES	
Function	2/2 NC
Operation	direct acting poppet type
Pneumatic connections	on subbase - M5 threads
Orifice diameter	0.8 ... 2.5 mm
Flow coefficient kv (l/min)	0.39 ... 1.93
Operating pressure	-0.9 ÷ 4 ... 12 bar
Operating temperature	0 ÷ 50 °C
Media	filtered air class [5:4:4] according to ISO 8573-1:2010 (max oil viscosity 32 cSt), inert gas - liquids (on demand)
Response time	<15 ms
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	brass - anodized aluminium - POM
Seals	NBR - FKM - EPDM
Internal parts	stainless steel
ELECTRICAL FEATURES	
Voltage	12 ... 24 V DC - other voltages on demand
Voltage tolerance	1 and 2 W ±10% - 4 W ±5%
Power consumption	1 ... 4 W
Duty cycle	ED 100% (1 and 2 W) - ED 50% (4W) see the ED definition diagram
Electrical connection	industrial standard connector (9.4 mm)
Protection class	IP65 with connector
Special versions available on demand	

CODING EXAMPLE

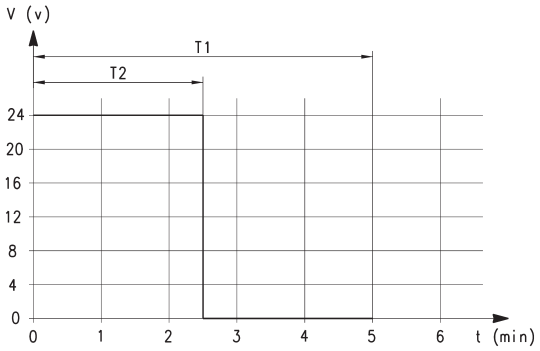
PD	0	00	-	2	A	1	-	R	5	3	

PD	SERIES
0	BODY DESIGN 0 = single body
00	NUMBER OF POSITIONS 00 = interface
2	NUMBER OF WAYS - FUNCTIONS 2 = 2/2-way - NC
A	MATERIAL - BODY CONNECTIONS A = aluminium body - lateral interface AR = aluminium body - lateral interface - electric part revolved by 180° C = aluminium body - bottom interface CR = aluminium body - bottom interface - electric part revolved by 180° DF = POM body - bottom interface DR = POM body - bottom interface - electric part revolved by 180° E = brass body - M5 threaded ports ER = brass body - M5 threaded ports - electric part revolved by 180°
1	ORIFICE DIAMETER 1 = Ø 0.8 mm 2 = Ø 1.2 mm 3 = Ø 1.6 mm 4 = Ø 2.0 mm 5 = Ø 2.5 mm
R	SEAL MATERIAL R = NBR F = FKM E = EPDM
5	ELECTRICAL CONNECTION 5 = industrial standard (9.4 mm)
3	VOLTAGE - POWER CONSUMPTION 1 = 12 V DC - 1 W 2 = 12 V DC - 2 W 3 = 24 V DC - 1 W 5 = 24 V DC - 2 W 8 = 24 V DC - 4 W
	FIXING = with screws for metal P = with screws for plastics
	OPTIONS = standard OX1 = for use with oxygen (non volatile residual less than 550 mg/m²) OX2 = for use with oxygen (non volatile residual less than 33 mg/m²)

ED definition diagram

Operating factor lower than 50%

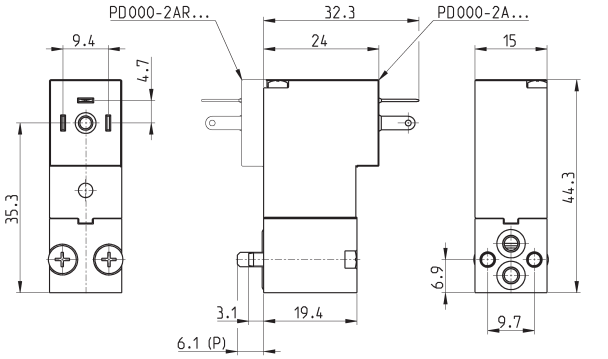
T1 = cycle time (5 minutes max)
T2 = energizing time
t = time (minutes)
V = working voltage (volt)
ED = T2/T1 x 100



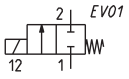
Series PD solenoid valve - aluminium body - lateral interface

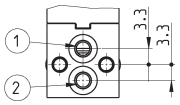
Supplied with:
2x O-Rings
2x M3x20 screws for mounting on metal
or
2x Ø3x23 screws for mounting on plastic

For vacuum applications connect the suction source to port 2



* add
- SEAL MATERIAL
- VOLTAGE
(see CODING EXAMPLE)



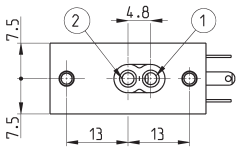


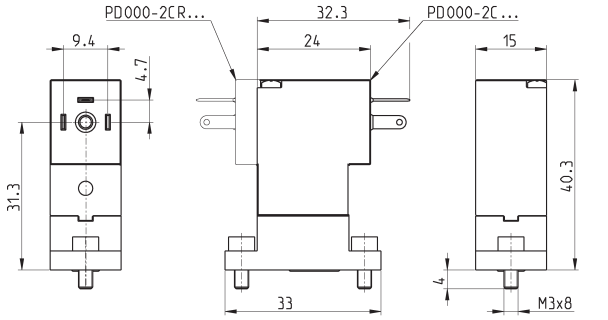
Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min ÷ max pressure (bar)	Power (W)	ED (%)
PD000-2A1-*5*	2/2 NC	0.8	0.39	0 ÷ 12	1	100
PD000-2AR1-*5*	2/2 NC	0.8	0.39	0 ÷ 12	1	100
PD000-2A2-*5*	2/2 NC	1.2	0.54	0 ÷ 12	2	100
PD000-2AR2-*5*	2/2 NC	1.2	0.54	0 ÷ 12	2	100
PD000-2A3-*5*	2/2 NC	1.6	0.70	0 ÷ 7	2	100
PD000-2AR3-*5*	2/2 NC	1.6	0.70	0 ÷ 7	2	100
PD000-2A4-*5*	2/2 NC	2.0	1.31	0 ÷ 6	4	50
PD000-2AR4-*5*	2/2 NC	2.0	1.31	0 ÷ 6	4	50
PD000-2A5-*5*	2/2 NC	2.5	1.93	0 ÷ 4	4	50
PD000-2AR5-*5*	2/2 NC	2.5	1.93	0 ÷ 4	4	50

Series PD solenoid valve - aluminium body - bottom interface

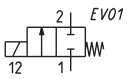
Supplied with:
1x interface seal
2x M3x8 screws for mounting on metal

For vacuum applications connect the suction source to port 2





* add
- SEAL MATERIAL
- VOLTAGE
(see CODING EXAMPLE)



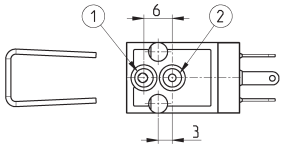
Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min ÷ max pressure (bar)	Power (W)	ED (%)
PD000-2C1-*5*	2/2 NC	0.8	0.39	0 ÷ 12	1	100
PD000-2CR1-*5*	2/2 NC	0.8	0.39	0 ÷ 12	1	100
PD000-2C2-*5*	2/2 NC	1.2	0.54	0 ÷ 12	2	100
PD000-2CR2-*5*	2/2 NC	1.2	0.54	0 ÷ 12	2	100
PD000-2C3-*5*	2/2 NC	1.6	0.70	0 ÷ 7	2	100
PD000-2CR3-*5*	2/2 NC	1.6	0.70	0 ÷ 7	2	100
PD000-2C4-*5*	2/2 NC	2.0	1.31	0 ÷ 6	4	50
PD000-2CR4-*5*	2/2 NC	2.0	1.31	0 ÷ 6	4	50
PD000-2C5-*5*	2/2 NC	2.5	1.93	0 ÷ 4	4	50
PD000-2CR5-*5*	2/2 NC	2.5	1.93	0 ÷ 4	4	50

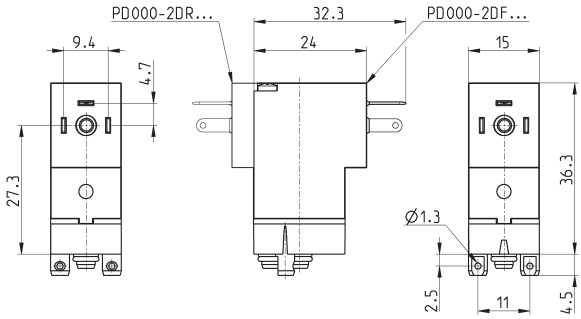
Series PD solenoid valve - POM body - bottom interface

New

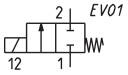
Supplied with:
2x O-Rings
1x mounting clip

For vacuum applications connect the suction source to port 2





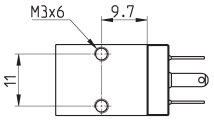
* add
- VOLTAGE
(see CODING EXAMPLE)

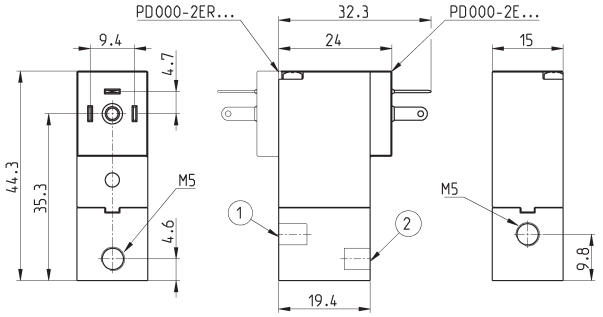


Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min ÷ max pressure (bar)	Power (W)	ED (%)
PD000-2DF3-E5*	2/2 NC	1.6	0.72	0 ÷ 6	2	100
PD000-2DR3-E5*	2/2 NC	1.6	0.72	0 ÷ 6	2	100

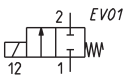
Series PD solenoid valve - brass body - M5 threaded ports

For vacuum applications connect the suction source to port 2





* add
- SEAL MATERIAL
- VOLTAGE
(see CODING EXAMPLE)

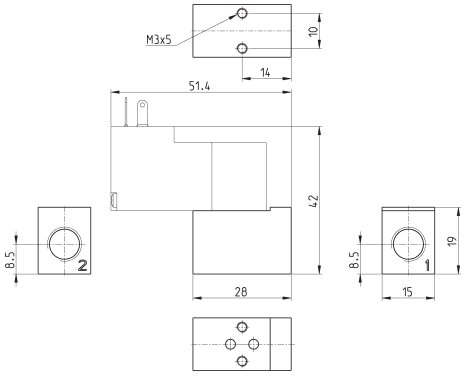


Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min ÷ max pressure (bar)	Power (W)	ED (%)
PD000-2E1-*5*	2/2 NC	0.8	0.39	0 ÷ 12	1	100
PD000-2E1R-*5*	2/2 NC	0.8	0.39	0 ÷ 12	1	100
PD000-2E2-*5*	2/2 NC	1.2	0.54	0 ÷ 12	2	100
PD000-2E2R-*5*	2/2 NC	1.2	0.54	0 ÷ 12	2	100
PD000-2E3-*5*	2/2 NC	1.6	0.70	0 ÷ 7	2	100
PD000-2E3R-*5*	2/2 NC	1.6	0.70	0 ÷ 7	2	100

Single sub-base for Series PD lateral interface

Single sub-base suitable for 2-way solenoid valves Series PD and PL models PD000-2A..., PL000-9B...
Use solenoid valves with fixing screws for metal (see codification page)

Material: anodized aluminium
Connections: G1/8 threads

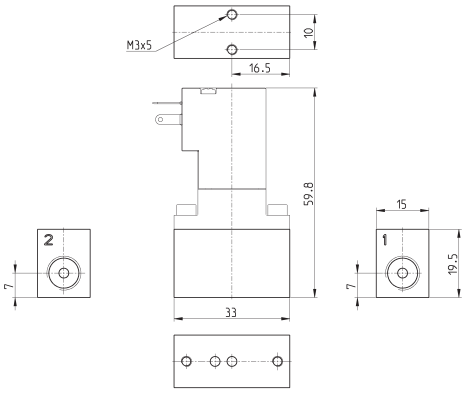


Mod.
PDA01-1/8

Single sub-base for Series PD bottom interface

Single sub-base suitable for Series PD 2-way solenoid valve models PD000-2C... and PD000-2CR...

Material: anodized aluminium
Connections: G1/8 threads

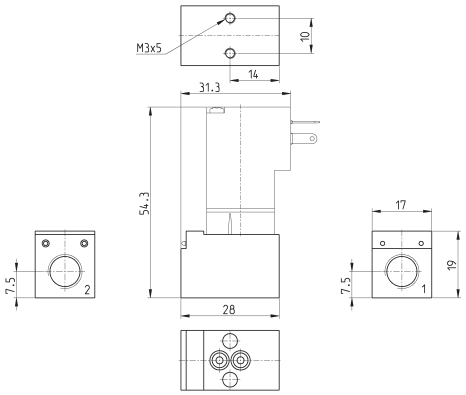


Mod.
PDC01-1/8

Single sub-base for Series PD bottom interface

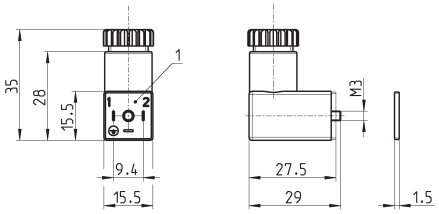
Single sub-base suitable for Series PD 2-way solenoid valve models PD000-2DF... and PD000-2DR...

Material: anodized aluminium
Connections: G1/8 threads



Mod.
PDD01-1/8

Connector Mod. 125-... - industrial std. 9.4 mm

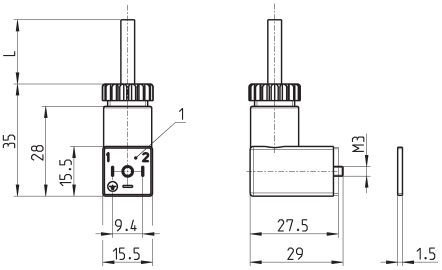


Mod.	description	colour	working voltage	cable gland	tightening torque
125-601	connector, diode + Led	transparent	10/50 V DC	PG7	0.3 Nm
125-701	connector, varistor + Led	transparent	24 V AC/DC	PG7	0.3 Nm
125-800	connector, without electronics	black	-	PG7	0.3 Nm

1 = 90° adjustable connector

Connector Mod. 125-... - industrial std. 9.4 mm - 90° cable

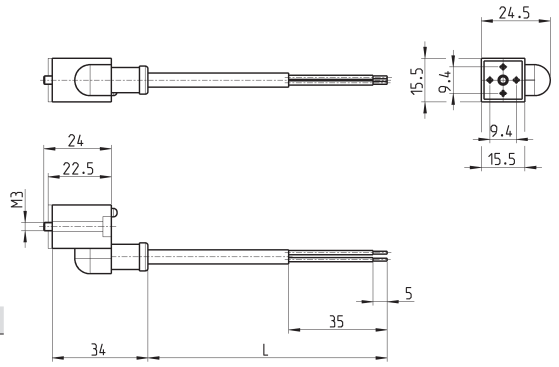
The internal rectifier circuit of the connector Mod. 125-900 allows to use solenoid valves with different AC voltage, even if the voltage indicated on the solenoid valve is DC.



Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
125-501-2	moulded cable with diode + Led	black	10/50 V DC	2000 mm	-	0.3 Nm
125-550-1	moulded cable, without electronics	black	-	1000 mm	-	0.3 Nm
125-601-2	pre-wired cable, diode + Led	transparent	10/50 V DC	2000 mm	PG7	0.3 Nm
125-571-3	moulded cable, varistor + Led	black	24 V AC/DC	3000 mm	-	0.3 Nm
125-900	pre-wired cable with voltage rectifier	black	6 V - 110 V AC/DC	2000 mm	PG7	0.3 Nm

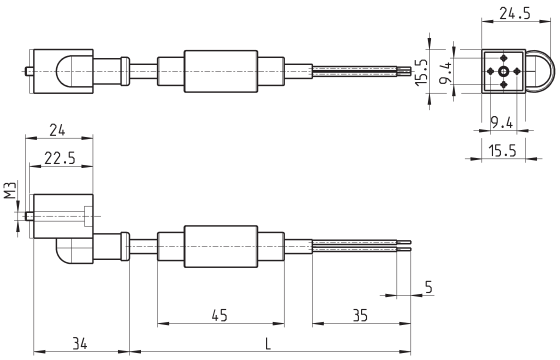
1 = 90° adjustable connector

Connector Mod. 125-... - industrial std. 9.4 mm - in-line cable



Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
125-503-2	in-line moulded cable, with diode + Led	black	24 V DC	2000 mm	-	0.3 Nm
125-503-5	in-line moulded cable, with diode + Led	black	24 V DC	5000 mm	-	0.3 Nm
125-553-2	in-line moulded cable, without electronics	black	-	2000 mm	-	0.3 Nm
125-553-5	in-line moulded cable, without electronics	black	-	5000 mm	-	0.3 Nm

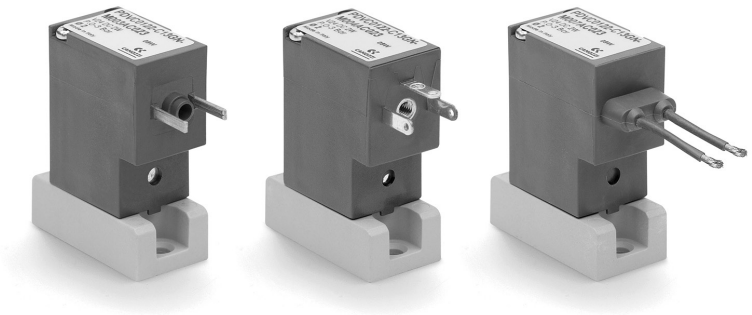
Conn. Mod. 125-... - ind. std. 9.4 mm - in-line cable+rectifier



Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
125-903-2	in-line moulded cable with voltage rectifier	black	6 V - 230 V AC/DC	2000 mm	-	0.3 Nm
125-903-5	in-line moulded cable with voltage rectifier	black	6 V - 230 V AC/DC	5000 mm	-	0.3 Nm

Series PDV
media separated solenoid valves

2/2-way - Normally Closed (NC)



- Suitable to be used with neutral or aggressive fluids
- Suitable for specific applications on medical and analytical equipment or instruments
- Compact design

To choose the most suitable model for a specific application, check the chemical compatibility of the medium with the available materials of body and seals.

Series PDV direct acting solenoid valve is available with several nominal diameters and in three different versions according to the electrical connection.
Moreover, the fluid separation membrane protects the medium from extreme changes of temperature due to heating of the solenoid.

GENERAL DATA

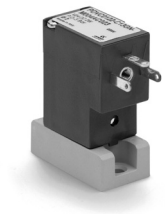
TECHNICAL FEATURES	
Function	2/2 NC
Operation	direct acting with fluid separation membrane
Pneumatic connections	on subbase
Orifice diameter	0.8 ... 2 mm
Flow coefficient kv (l/min)	0.25 ... 0.8
Operating pressure	0 ... 7 bar
Operating temperature	10 ÷ 50 °C (FKM/EPDM) / 20 ÷ 50 °C (FFKM)
Media	inert or corrosive liquids and gases compatible with the materials in contact
Response time	≤ 15 ms
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	PEEK
Seals	FKM - EPDM - FFKM
ELECTRICAL FEATURES	
Voltage	6 ... 24 V DC - other voltages on demand
Voltage tolerance	±10%
Power consumption	2 W
Duty cycle	ED 100%
Electrical connection	industrial standard (9.4 mm), DIN EN 175 301-803-C (8 mm), 300 mm flying leads
Protection class	IP65 with connector
Special versions available on request	

CODING EXAMPLE

PDV	C0	1	22	-	B7	3	G	N	-	M	00	4A	C023

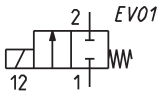
PDV	SERIES	
C0	BODY DESIGN C0 = body with interface for subbase	
1	NUMBER OF WAYS - FUNCTIONS 1 = 2/2-way - NC	
22	PNEUMATIC CONNECTIONS 22 = PDV-type interface, 2-way	
B7	ORIFICE DIAMETER A7 = Ø 0.8 mm B3 = Ø 1.2 mm B7 = Ø 1.6 mm C1 = Ø 2.0 mm	
3	SEAL MATERIAL 3 = FKM 4 = EPDM 5 = FFKM	
G	BODY MATERIAL G = PEEK	
N	MANUAL OVERRIDE N = not foreseen	
M	FIXING M = fixing screws for metal	
00	OPTIONS 00 = none	
4A	ELECTRICAL CONNECTION 3A = DIN EN 175 301-803-C (8 mm) 4A = industrial standard (9.4 mm) 7A = 300 mm flying leads	3C = DIN EN 175 301-803-C (8 mm) with coil rotated 180° 4C = industrial standard (9.4 mm) with coil rotated 180° 7C = 300 mm flying leads with coil rotated 180°
C023	VOLTAGE - POWER CONSUMPTION C017 = 6 V DC - 2 W C020 = 12 V DC - 2 W C023 = 24 V DC - 2 W	
	OPTIONS = standard OX2 = for oxygen (non-volatile residue less than 33 mg / m2)	

Series PDV solenoid valve - 2/2-way NC - industrial standard (9.4 mm)

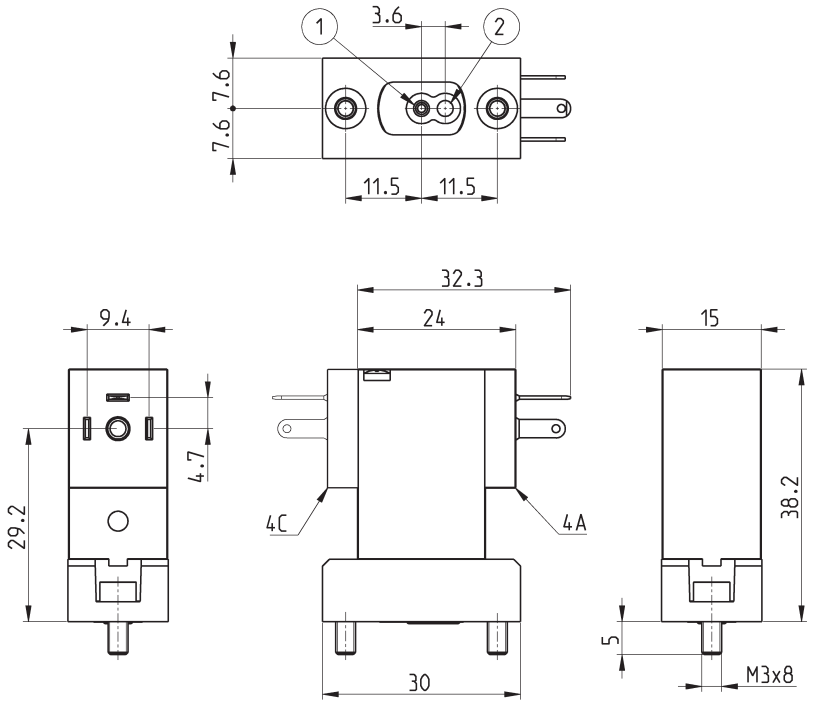


Supplied with:
1x interface seal
2x M3x8 screws for mounting on metal

* add
- ELECTRICAL CONNECTION
- VOLTAGE
(see CODING EXAMPLE)



1 = inlet
2 = outlet

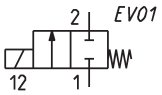


Mod.	Orifice Ø (mm)	kv (l/min)	Min ÷ max pressure (bar)	Maximum back pressure (bar)	Body material	Seal material
PDVC0122-A73GN-M00*	0.8	0.25	0 ÷ 7.0	1.2	PEEK	FKM
PDVC0122-A74GN-M00*	0.8	0.25	0 ÷ 7.0	1.2	PEEK	EPDM
PDVC0122-A75GN-M00*	0.8	0.25	0 ÷ 3.0	0.6	PEEK	FFKM
PDVC0122-B33GN-M00*	1.2	0.55	0 ÷ 4.5	1.2	PEEK	FKM
PDVC0122-B34GN-M00*	1.2	0.55	0 ÷ 4.5	1.2	PEEK	EPDM
PDVC0122-B35GN-M00*	1.2	0.55	0 ÷ 2.5	0.8	PEEK	FFKM
PDVC0122-B73GN-M00*	1.6	0.65	0 ÷ 4.0	1.2	PEEK	FKM
PDVC0122-B74GN-M00*	1.6	0.65	0 ÷ 4.0	1.2	PEEK	EPDM
PDVC0122-B75GN-M00*	1.6	0.65	0 ÷ 1.8	0.8	PEEK	FFKM
PDVC0122-C13GN-M00*	2.0	0.80	0 ÷ 3.0	1.2	PEEK	FKM
PDVC0122-C14GN-M00*	2.0	0.80	0 ÷ 3.0	1.2	PEEK	EPDM
PDVC0122-C15GN-M00*	2.0	0.80	0 ÷ 1.2	0.8	PEEK	FFKM

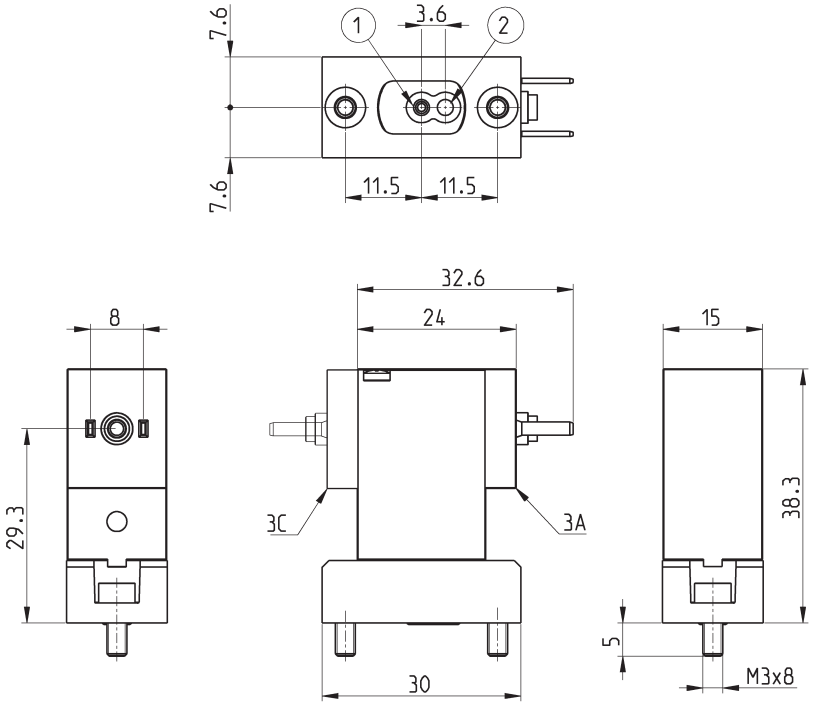
Series PDV solenoid valve - 2/2-way NC - DIN EN 175 301-803-C (8 mm)

Supplied with:
1x interface seal
2x M3x8 screws for mounting on metal

* add
- ELECTRICAL CONNECTION
- VOLTAGE
(see CODING EXAMPLE)

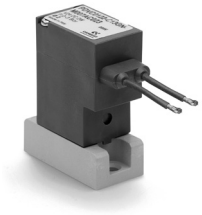


1 = inlet
2 = outlet



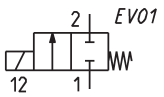
Mod.	Orifice Ø (mm)	kv (l/min)	Min ÷ max pressure (bar)	Maximum back pressure (bar)	Body material	Seal material
PDVC0122-A73GN-M00*	0.8	0.25	0 ÷ 7.0	1.2	PEEK	FKM
PDVC0122-A74GN-M00*	0.8	0.25	0 ÷ 7.0	1.2	PEEK	EPDM
PDVC0122-A75GN-M00*	0.8	0.25	0 ÷ 3.0	0.6	PEEK	FFKM
PDVC0122-B33GN-M00*	1.2	0.55	0 ÷ 4.5	1.2	PEEK	FKM
PDVC0122-B34GN-M00*	1.2	0.55	0 ÷ 4.5	1.2	PEEK	EPDM
PDVC0122-B35GN-M00*	1.2	0.55	0 ÷ 2.5	0.8	PEEK	FFKM
PDVC0122-B73GN-M00*	1.6	0.65	0 ÷ 4.0	1.2	PEEK	FKM
PDVC0122-B74GN-M00*	1.6	0.65	0 ÷ 4.0	1.2	PEEK	EPDM
PDVC0122-B75GN-M00*	1.6	0.65	0 ÷ 1.8	0.8	PEEK	FFKM
PDVC0122-C13GN-M00*	2.0	0.80	0 ÷ 3.0	1.2	PEEK	FKM
PDVC0122-C14GN-M00*	2.0	0.80	0 ÷ 3.0	1.2	PEEK	EPDM
PDVC0122-C15GN-M00*	2.0	0.80	0 ÷ 1.2	0.8	PEEK	FFKM

Series PDV solenoid valve - 2/2-way NC - 300 mm flying leads

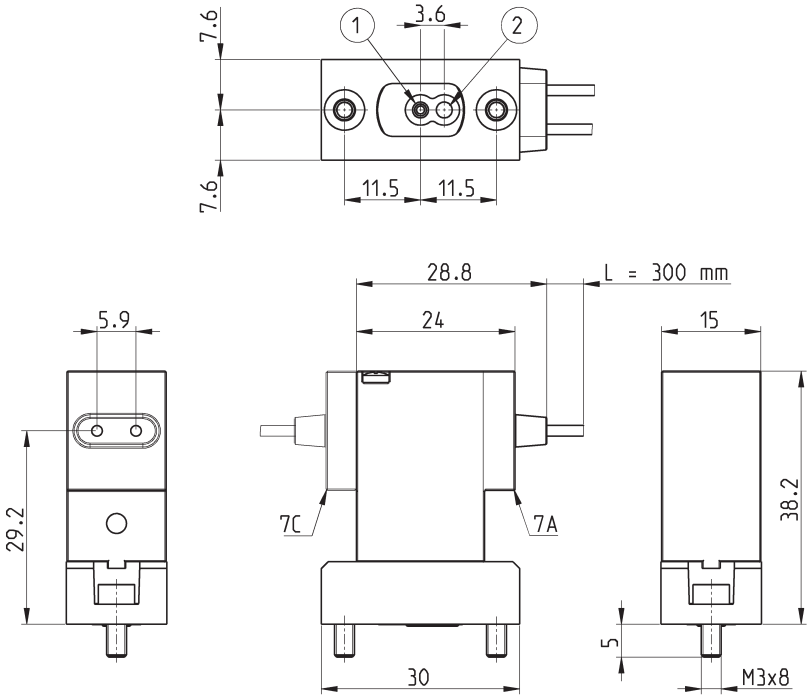


Supplied with:
1x interface seal
2x M3x8 screws for mounting on metal

* add
- ELECTRICAL CONNECTION
- VOLTAGE
(see CODING EXAMPLE)



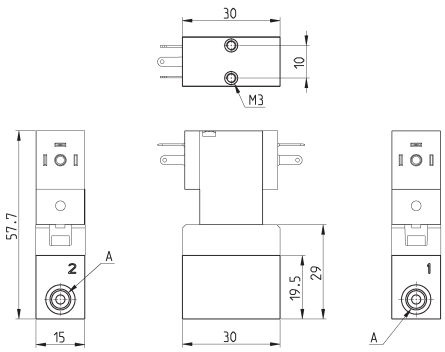
1 = inlet
2 = outlet



Mod.	Orifice Ø (mm)	kv (l/min)	Min ÷ max pressure (bar)	Maximum back pressure (bar)	Body material	Seal material
PDVC0122-A73GN-M00*	0.8	0.25	0 ÷ 7.0	1.2	PEEK	FKM
PDVC0122-A74GN-M00*	0.8	0.25	0 ÷ 7.0	1.2	PEEK	EPDM
PDVC0122-A75GN-M00*	0.8	0.25	0 ÷ 3.0	0.6	PEEK	FFKM
PDVC0122-B33GN-M00*	1.2	0.55	0 ÷ 4.5	1.2	PEEK	FKM
PDVC0122-B34GN-M00*	1.2	0.55	0 ÷ 4.5	1.2	PEEK	EPDM
PDVC0122-B35GN-M00*	1.2	0.55	0 ÷ 2.5	0.8	PEEK	FFKM
PDVC0122-B73GN-M00*	1.6	0.65	0 ÷ 4.0	1.2	PEEK	FKM
PDVC0122-B74GN-M00*	1.6	0.65	0 ÷ 4.0	1.2	PEEK	EPDM
PDVC0122-B75GN-M00*	1.6	0.65	0 ÷ 1.8	0.8	PEEK	FFKM
PDVC0122-C13GN-M00*	2.0	0.80	0 ÷ 3.0	1.2	PEEK	FKM
PDVC0122-C14GN-M00*	2.0	0.80	0 ÷ 3.0	1.2	PEEK	EPDM
PDVC0122-C15GN-M00*	2.0	0.80	0 ÷ 1.2	0.8	PEEK	FFKM

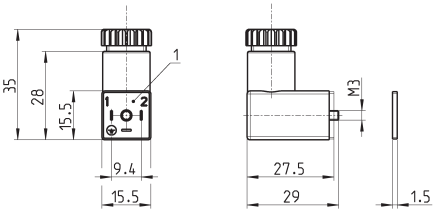
Single subbase for Series PDV solenoid valve

Material: PEEK
Connections: M5 or 1/4-28 UNF threads



Mod.	Thread A
PDV001-1/4	1/4 - 28 UNF
PDV001-M5	M5

Connector Mod. 125-... - industrial std. 9.4 mm

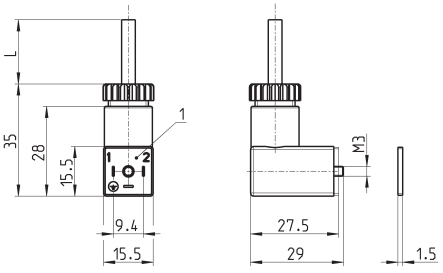


Mod.	description	colour	working voltage	cable gland	tightening torque
125-601	connector, diode + Led	transparent	10/50 V DC	PG7	0.3 Nm
125-701	connector, varistor + Led	transparent	24 V AC/DC	PG7	0.3 Nm
125-800	connector, without electronics	black	-	PG7	0.3 Nm

1 = 90° adjustable connector

Connector Mod. 125-... - industrial std. 9.4 mm - 90° cable

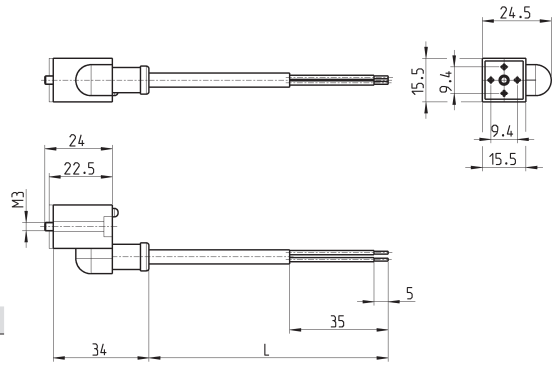
The internal rectifier circuit of the connector Mod. 125-900 allows to use solenoid valves with different AC voltage, even if the voltage indicated on the solenoid valve is DC.



Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
125-501-2	moulded cable with diode + Led	black	10/50 V DC	2000 mm	-	0.3 Nm
125-550-1	moulded cable, without electronics	black	-	1000 mm	-	0.3 Nm
125-601-2	pre-wired cable, diode + Led	transparent	10/50 V DC	2000 mm	PG7	0.3 Nm
125-571-3	moulded cable, varistor + Led	black	24 V AC/DC	3000 mm	-	0.3 Nm
125-900	pre-wired cable with voltage rectifier	black	6 V - 110 V AC/DC	2000 mm	PG7	0.3 Nm

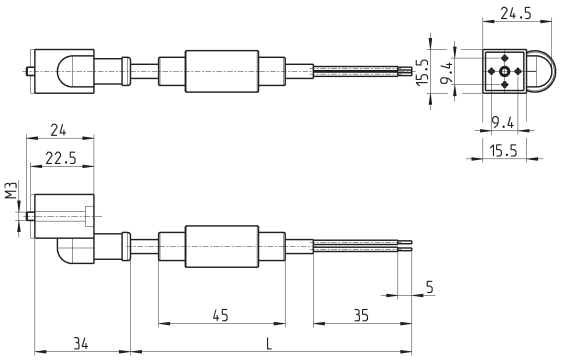
1 = 90° adjustable connector

Connector Mod. 125-... - industrial std. 9.4 mm - in-line cable



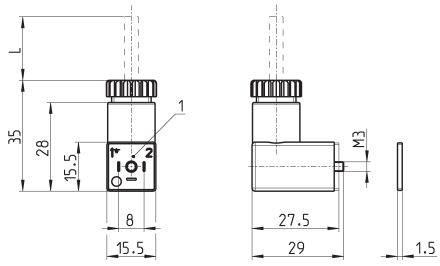
Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
125-503-2	in-line moulded cable, with diode + Led	black	24 V DC	2000 mm	-	0.3 Nm
125-503-5	in-line moulded cable, with diode + Led	black	24 V DC	5000 mm	-	0.3 Nm
125-553-2	in-line moulded cable, without electronics	black	-	2000 mm	-	0.3 Nm
125-553-5	in-line moulded cable, without electronics	black	-	5000 mm	-	0.3 Nm

Conn. Mod. 125-... - ind. std. 9.4 mm - in-line cable+rectifier



Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
125-903-2	in-line moulded cable with voltage rectifier	black	6 V - 230 V AC/DC	2000 mm	-	0.3 Nm
125-903-5	in-line moulded cable with voltage rectifier	black	6 V - 230 V AC/DC	5000 mm	-	0.3 Nm

Connector Mod. 126-... - DIN EN 175 301-803-C (8 mm)



Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
126-550-1	moulded cable, without electronics	black	-	1000 mm	-	0.3 Nm
126-800	connector, without electronics	black	-	-	PG7	0.3 Nm
126-701	connector, varistor + Led	transparent	24 V AC/DC	-	PG7	0.3 Nm

1 = 90° adjustable connector

Series A
direct acting solenoid valves

New models

2/2-way - Normally Closed (NC) and Normally Open (NO)
3/2-way - Normally Closed (NC) and Normally Open (NO)

- Ports: M5, G1/8, R1/8, cartridge Ø4
- Bistable version also available (with magnetic memory)

Series A solenoid valves are of the direct acting type and can be used with dry or lubricated air. They are available in the 2/2 and 3/2-way versions with normally closed (NC) or normally open (NO) operation.
As shown in the following tables, they are supplied in different versions according to the type of body, threaded ports and orifice. They can thus satisfy various operating and installation requirements.

The solenoid can be easily and quickly replaced without interfering with the pressurised part of the valve.
On the same mechanical part different types of solenoids can be interchanged. The choice of solenoids determines the performance of the solenoid valve in terms of consumption and pressure.

GENERAL DATA

TECHNICAL FEATURES	
Function	2/2 NC - 2/2 NO - 3/2 NC - 3/2 NO
Operation	direct acting poppet type
Pneumatic connections	M5, G1/8, R1/8 threads - Ø4 fittings - CNOMO and manifold interface- Ø6 barb fittings
Orifice diameter	1.2 ... 2.5 mm
Flow coefficient kv (l/min)	0.62 ... 2.0
Operating pressure	-0.9 ... 15 bar
Operating temperature	0 ÷ 60 °C (-20 °C with dry air)
Media	filtered air class [5:4:4] according to ISO 8573-1:2010 (max oil viscosity 32 cSt), inert gas
Response time	ON <15 ms - OFF <25 ms
Manual override	see tables
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	nickel-plated brass - burnished brass - PA6 - PBT
Seals	HNBR, FKM
Internal parts	stainless steel
ELECTRICAL FEATURES	
Voltage	12 ... 110 V DC - 24 ... 380 V AC 50/60 Hz
Voltage tolerance	±10% (DC) / -15% ÷ +10% (AC)
Power consumption	3 ... 5 W (DC) / 3.5 ... 7 VA (AC)
Duty cycle	ED 100%
Insulation class	F (155°C)
Electrical connection	DIN EN 175 301-803-A - DIN EN 175 301-803-B
Protection class	IP65 with connector
Special versions available on demand	

CODING EXAMPLE

A	3	3	1	-	0	C	2	-	U7	7

A	SERIES
3	BODY DESIGN 1 = 360° rotatable interface body (24x24 mm) 2 = fixed interface body (24x24 mm) 3 = threaded body 4 = threaded body with quick exhaust 5 = ISO interface body 6 = 360° rotatable interface body (16x16 mm) 7 = 360° rotatable interface body (21 mm) 8 = barb fittings connections body A = single manifold B = 2-part manifold C = 3-part manifold D = 4-part manifold E = 5-part manifold F = 6-part manifold G = 7-part manifold H = 8-part manifold K = 9-part manifold L = 10-part manifold M = 11-part manifold N = 12-part manifold P = 13-part manifold R = 14-part manifold S = 15-part manifold
3	NUMBER OF PORTS 2 = 2 ways 3 = 3 ways
1	FUNCTION 1 = NC - normally closed 2 = NO - normally open 3 = NO IN-LINE* - normally open
0	PORTS 0 = M5 1 = G1/8 3 = M5-R1/8 4 = M5-R1/8 with manual override A = O-Rings rotatable interface B = O-Rings fixed interface C = G1/8-fittings Ø4 mm F = Ø6 mm barb fittings
C	ORIFICE DIAMETER C = Ø 1.2 - 1.4 - 1.5 mm D = Ø 2.0 mm E = Ø 2.5 mm
2	BODY MATERIAL 2 = nickel-plated brass - burnished brass - aluminium 3 = PA6 - PBT technopolimers
U7	SOLENOIDS - OVERMOLDING MATERIAL / SIZE U7 = PET / 22 mm - solenoids available in standard version and in ATEX version for Zones 2-22 G7 = PA66 / 22 mm G9 = PA66 / 22 mm - solenoid for bistable function (not available for 2/2 NO function) A8 = PPS / 30 mm H8 = PA6 V0 / 30 mm - solenoids ATEX version for Zones 1-21
7	VOLTAGE - POWER CONSUMPTION See following page for U7 / G7 solenoids and dedicated section 2.35

* 3/2 NO IN-LINE version: port position 1 - 2 - 3 are identical to port positions of 3/2 NC versions

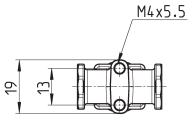
PRESSURE RANGES AND SOLENOIDS - VALVES BODY MATCHING TABLE

For vacuum applications:
2/2-way function connect the suction source to port 2
3/2-way function connect the suction source to port 1

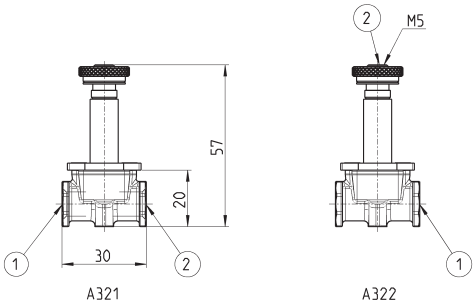
Mod.	Min ÷ max working pressure (bar) allowed with solenoids DC >3 W	Min ÷ max working pressure (bar) allowed with solenoids DC >4 W	Min ÷ max working pressure (bar) allowed with solenoids AC >3.5 VA
Function 2/2 NC	-	-	-
A321-0C2-*	-0.9 ÷ 8	-0.9 ÷ 15	-0.9 ÷ 15
A321-1C2-*	-0.9 ÷ 8	-0.9 ÷ 15	-0.9 ÷ 15
A321-1D2-*	-0.9 ÷ 4	-0.9 ÷ 9	-0.9 ÷ 9
A321-1E2-*	-0.9 ÷ 1	-0.9 ÷ 6	-0.9 ÷ 6
A821-FE3-*	-0.9 ÷ 1	-0.9 ÷ 6	-0.9 ÷ 6
-	-	-	-
Function 2/2 NO	-	-	-
A322-0C2-*	2 ÷ 10	-0.9 ÷ 10	-0.9 ÷ 10
A322-1C2-*	2 ÷ 10	-0.9 ÷ 10	-0.9 ÷ 10
-	-	-	-
Function 3/2 NC	-	-	-
A131-AC2-*	-	-	-
A231-BC2-*	-	-	-
A331-0C2-*	2 ÷ 10	-0.9 ÷ 10	-0.9 ÷ 10
A331-1C2-*	2 ÷ 10	-0.9 ÷ 10	-0.9 ÷ 10
A331-1D2-*	-	-0,9 ÷ 6	-0.9 ÷ 6
A331-1E2-*	-	-0.9 ÷ 4	-0.9 ÷ 4
A331-3C2-*	2 ÷ 10	-0.9 ÷ 10	-0.9 ÷ 10
A331-4C2-*	2 ÷ 10	-0.9 ÷ 10	-0.9 ÷ 10
A431-1C2-*	2 ÷ 10	2 ÷ 10	2 ÷ 10
A531-BC2-*	2 ÷ 10	-0.9 ÷ 10	-0.9 ÷ 10
A631-AC2-*	2 ÷ 10	-0.9 ÷ 10	-0.9 ÷ 10
A731-AC2-*	2 ÷ 10	-0,9 ÷ 10	-0,9 ÷ 10
A831-FE3-*	-	-0.9 ÷ 4	-0.9 ÷ 4
AA31-0C2-*	2 ÷ 10	-0.9 ÷ 10	-0.9 ÷ 10
AA31-0C3-*	2 ÷ 8	-0.9 ÷ 8	-0.9 ÷ 8
AA31-CC2-*	2 ÷ 10	-0.9 ÷ 10	-0.9 ÷ 10
AA31-CC3-*	2 ÷ 8	-0.9 ÷ 8	-0.9 ÷ 8
-	-	-	-
Function 3/2 NO	-	-	-
A332-0C2-*	-0.9 ÷ 7	-0.9 ÷ 7	-0.9 ÷ 7
A332-1C2-*	-0.9 ÷ 7	-0.9 ÷ 7	-0.9 ÷ 7
AA32-0C2-*	-0.9 ÷ 7	-0.9 ÷ 7	-0.9 ÷ 7
AA32-0C3-*	-0.9 ÷ 7	-0.9 ÷ 7	-0.9 ÷ 7
AA32-CC2-*	-0.9 ÷ 7	-0.9 ÷ 7	-0.9 ÷ 7
AA32-CC3-*	-0.9 ÷ 7	-0.9 ÷ 7	-0.9 ÷ 7
-	-	-	-
Function 3/2 NO IN-LINE	-	-	-
A333-0C2-*	-0.9 ÷ 6	-	-0.9 ÷ 9
A333-1C2-*	-0.9 ÷ 6	-	-0.9 ÷ 9
AA33-0C2-*	-0.9 ÷ 6	-	-0.9 ÷ 9
AA33-0C3-*	-0.9 ÷ 6	-	-0.9 ÷ 8
AA33-CC2-*	-0.9 ÷ 6	-	-0.9 ÷ 9
AA33-CC3-*	-0.9 ÷ 6	-	-0.9 ÷ 8
-	-	-	-
Solenoids for functions 2/2 NC - 2/2 NO - 3/2 NC - 3/2 NO	-	-	-
12 V DC - 3.1 W	G7H - U7H - U7HEX	-	-
24 V DC - 3.1 W	G77 - U77 - U77EX	-	-
48 V DC - 3.1 W	G79 - U79 - U79EX	-	-
110 V DC - 3.2 W	G710 - U710 - U710EX	-	-
6 V DC - 5.1 W	-	U71 - U71EX	-
12 V DC - 5 W	-	G72 - U72 - U72EX	-
24 V DC - 5 W	-	G73 - U73 - U73EX	-
48 V DC - 5.3 W	-	U74 - U74EX	-
72 V DC - 4.8 W	-	G7K - U7K - U7KEX	-
110 V DC - 4.2 W	-	G76 - U76 - U76EX	-
48 V 50/60 Hz - 3.8 VA	-	-	G77 - U77 - U77EX
110 V 50/60 Hz - 3.8 VA	-	-	G7K - U7K - U7KEX
125 V 50/60 Hz - 5.5 VA	-	-	G7K - U7K - U7KEX
230 V 50/60 Hz - 3.5 VA	-	-	G7J - U7J - U7JEX
240 V 50/60 Hz - 4 VA	-	-	G7J - U7J - U7JEX
-	-	-	-
Solenoids for 3/2 NO IN LINE functions	-	-	-

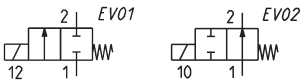
Series A solenoid valve - 2/2-way - Mod. A32

Available in the 2/2-way version NC (normally closed), NO (normally open).
In the 2/2-way NO version the M5 threaded output port 2 is located on the upper side of the coil.



* choose the most suitable solenoid.

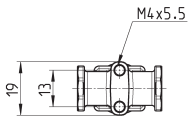




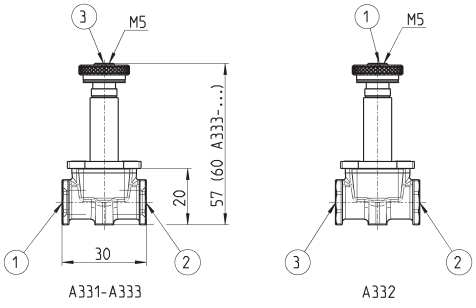
Mod.	Function	Ports	Orifice Ø (mm)	kv (l/min)	Body material	Manual override	Symbol
A321-0C2-*	2/2 NC	M5	1.5	0.77	nickel plated brass	no	EV01
A321-1C2-*	2/2 NC	G1/8	1.5	0.85	nickel plated brass	no	EV01
A321-1D2-*	2/2 NC	G1/8	2.0	1.55	nickel plated brass	no	EV01
A321-1E2-*	2/2 NC	G1/8	2.5	2.00	nickel plated brass	no	EV01
A322-0C2-*	2/2 NO	M5	1.8	1.08	nickel plated brass	no	EV02
A322-1C2-*	2/2 NO	G1/8	1.8	1.24	nickel plated brass	no	EV02

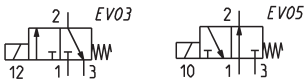
Series A solenoid valve - 3/2-way - Mod. A33

The 3/2-way NC and NO IN-LINE versions have inlet, outlet and exhaust ports in the same position.
In the 3/2-way NO version, the M5 threaded inlet port 1, is located on the upper side of the coil.



* choose the most suitable solenoid.



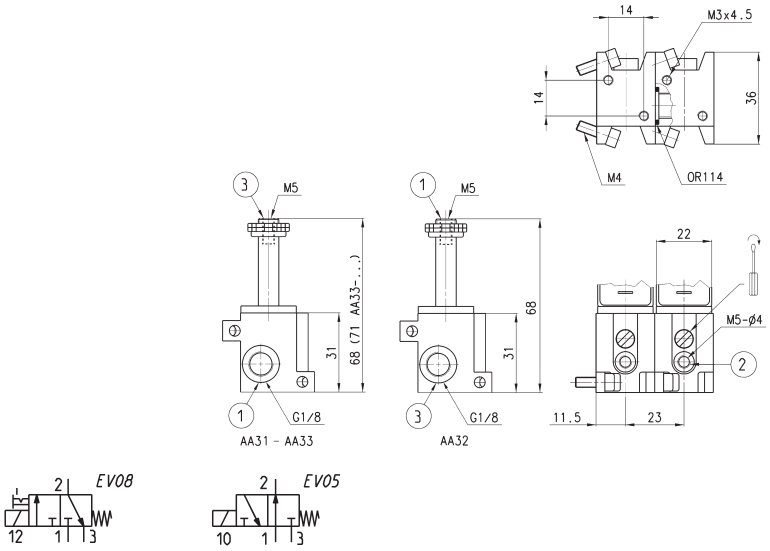


Mod.	Function	Ports	Orifice Ø (mm)	kv (l/min)	Body material	Manual override	Symbol
A331-0C2-*	3/2 NC	M5	1.5	0.77	nickel plated brass	no	EV03
A331-1C2-*	3/2 NC	G1/8	1.5	0.93	nickel plated brass	no	EV03
A331-1D2-*	3/2 NC	G1/8	2.0	1.45	nickel plated brass	no	EV03
A331-1E2-*	3/2 NC	G1/8	2.5	1.90	nickel plated brass	no	EV03
A332-0C2-*	3/2 NO	M5	1.5	0.85	nickel plated brass	no	EV05
A332-1C2-*	3/2 NO	M5-G1/8	1.5	0.85	nickel plated brass	no	EV05
A333-0C2-*	3/2 NO IN-LINE	M5	1.5	0.93	nickel plated brass	no	EV05

Series A solenoid valve - 3/2-way - Mod. AA3 - modular brass body

* choose the most suitable solenoid.

3/2-way NC and NO IN-LINE versions with G1/8 common inlet port located on the valve body.
3/2-way NO versions with M5 single inlets located on the upper side of the coil.

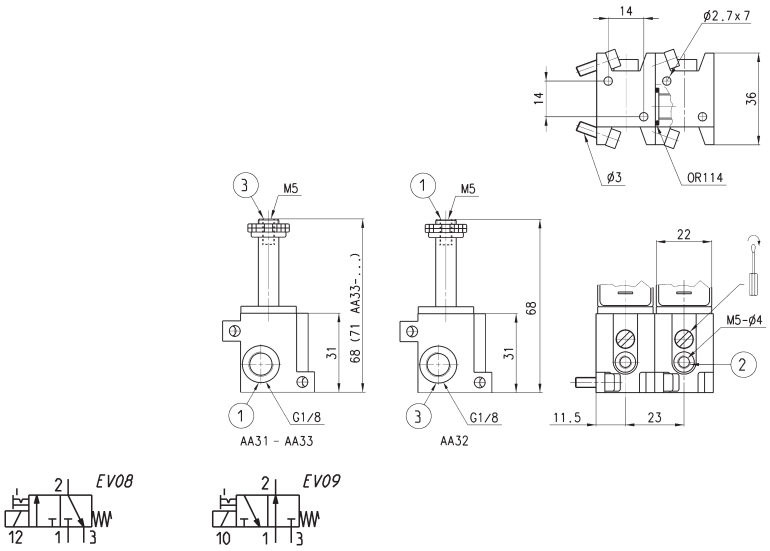


Mod.	Function	Ports	Orifice Ø (mm)	kv (l/min)	Body material	Manual override	Symbol
AA31-0C2-*	3/2 NC	G1/8-M5	1.5	0.85	nickel plated brass	bistable	EV08
AA31-CC2-*	3/2 NC	G1/8-Ø4	1.5	0.85	nickel plated brass	bistable	EV08
AA32-0C2-*	3/2 NO	M5-M5	1.4	0.75	nickel plated brass	bistable	EV05
AA32-CC2-*	3/2 NO	M5-Ø4	1.4	0.75	nickel plated brass	bistable	EV05
AA33-0C2-*	3/2 NO IN-LINE	G1/8-M5	1.5	1.00	nickel plated brass	no	EV05
AA33-CC2-*	3/2 NO IN-LINE	G1/8-Ø4	1.5	1.00	nickel plated brass	no	EV05

Series A solenoid valve - 3/2-way - Mod. AA3 - modular technopolymer body

* choose the most suitable solenoid.

3/2-way NC and NO IN-LINE versions with G1/8 common inlet port located on the valve body.
3/2-way NO versions with M5 single inlets located on the upper side of the coil.

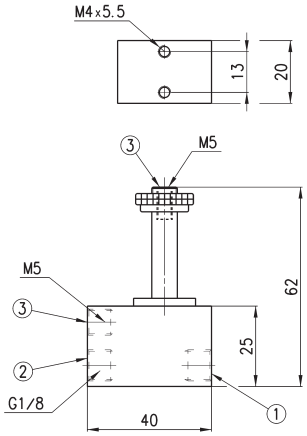


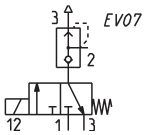
Mod.	Function	Ports	Orifice Ø (mm)	kv (l/min)	Body material	Manual override	Symbol
AA31-0C3-*	3/2 NC	G1/8-M5	1.5	0.85	PA6	bistable	EV08
AA31-CC3-*	3/2 NC	G1/8-Ø4	1.5	0.85	PA6	bistable	EV08
AA32-0C3-*	3/2 NO	M5-M5	1.4	0.75	PA6	bistable	EV05
AA32-CC3-*	3/2 NO	M5-Ø4	1.4	0.75	PA6	bistable	EV05
AA33-0C3-*	3/2 NO IN-LINE	G1/8-M5	1.5	1.00	PA6	no	EV05
AA33-CC3-*	3/2 NO IN-LINE	G1/8-Ø4	1.5	1.00	PA6	no	EV05

Series A solenid valve - 3/2-way NC - Mod. A43 - quick exhaust

The 3/2-way NC solenoid valve, with G1/8 ports, incorporates a rapid exhaust valve.
It is particularly suitable for operating small single-acting cylinders.

* choose the most suitable solenoid.





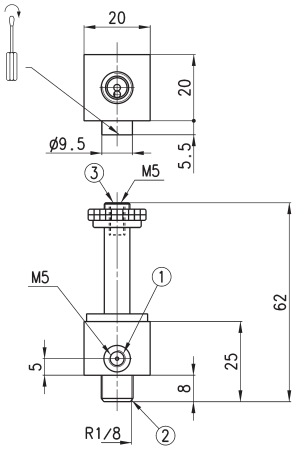
Mod.	Function	Ports	Orifice Ø (mm)	kv (l/min)	Body material	Manual override	Symbol
A431-1C2-*	3/2 NC	G1/8	1.5	0.77	aluminium	no	EV07

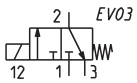
Series A solenoid valve - 3/2-way NC - Mod. A33

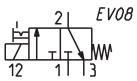
They are particularly suitable for the actuation of small single-acting cylinders and the operation of pneumatic valves with very low operating pressures.

M5 thread inlet
R1/8 thread outlet
The valve can be screwed directly onto the component to be operated.

* choose the most suitable solenoid.





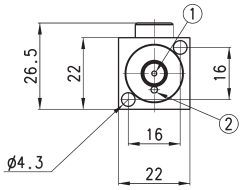


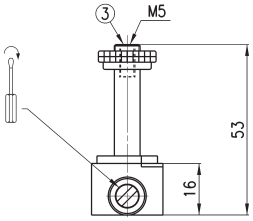
Mod.	Function	Ports	Orifice Ø (mm)	kv (l/min)	Body material	Manual override	Symbol
A331-3C2-*	3/2 NC	M5-R1/8	1.5	0.85	nickel plated brass	no	EV03
A331-4C2-*	3/2 NC	M5-R1/8	1.5	0.85	nickel plated brass	yes	EV08

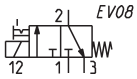
Series A solenoid valve - 3/2-way NC - Mod. A63 - rotatable interface

* choose the most suitable solenoid.

Ideal for direct installation on manifold by means of 2 screws. Seal ensured by 2 concentric O-Rings that allow 360° body orientation. Equipped with a bistable manual override.







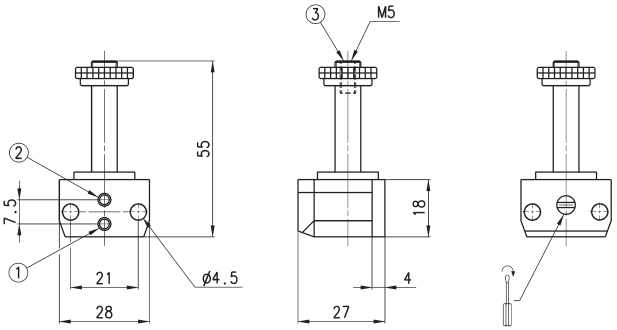
Mod.	Function	Interface	Orifice Ø (mm)	kv (l/min)	Body material	Manual override	Symbol
A631-AC2-*	3/2 NC	OR rotatable	1.2	0.62	burnished brass	bistable	EV08

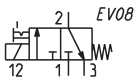
Series A solenoid valve - 3/2-way NC - Mod. A53 - fixed interface

The body only is in technopolymer.

* choose the most suitable solenoid.

Equipped with a bistable manual override, it is suitable to be mounted on Series 9 valves with an ISO interface. The interface which complies CNOMO norms is interchangeable with all ISO versions.





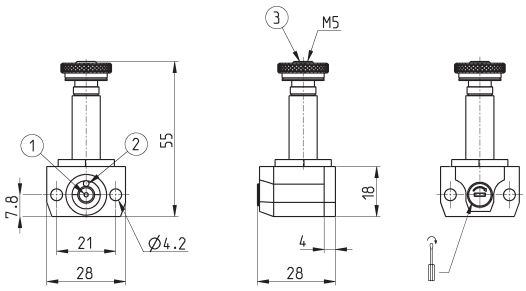
Mod.	Function	Interface	Orifice Ø (mm)	kv (l/min)	Body material	Manual override	Symbol
A531-BC2-*	3/2 NC	OR fixed	1.2	0.62	PA6	bistable	EV08

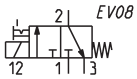
Series A solenoid valve - 3/2-way NC - Mod. A73 - rotatable interface

New

* choose the most suitable solenoid.

Ideal for direct installation on manifold by means of 2 screws. Seal ensured by 2 concentric O-Rings that allow 360° body orientation. Equipped with a bistable manual override.





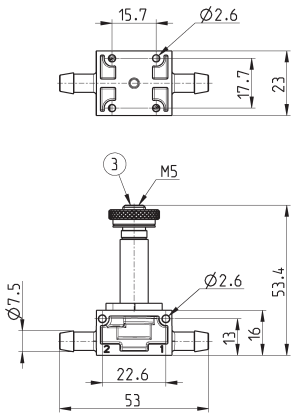
Mod.	Function	Interface	Orifice Ø (mm)	kv (l/min)	Body material	Manual override	Symbol
A731-AC2-*	3/2 NC	OR rotatable	1.2	0.62	PA6	bistable	EV08

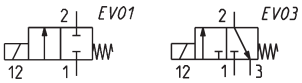
Series A solenoid valve - 2/2 e 3/2-way NC - Mod. A82 e A83 - barb fittings

New

* Choose the most suitable solenoid.
** The performances shown in the table refer to the use with inlet from "2" and outlet from "1".

Solenoid valve with technopolymer body and integrated barb fittings for quick connections.



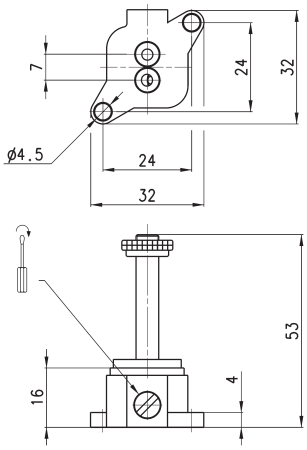


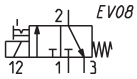
Mod.	Function	Ports	Orifice Ø (mm)	kv (l/min)	Body material	Manual override	Symbol
A821-FE3-*	2/2 NC	barb fittings Ø6	2.5	2.0	PBT	no	EV01
A831-FE3-*	3/2 NC **	barb fittings Ø6	2.5	1.8	PBT	no	EV03

Series A solenoid valve - 3/2-way - Mod. A231 - fixed interface

* choose the most suitable solenoid.

Equipped with a bistable manual override. Ideal for direct installation on manifold by means of 2 screws.



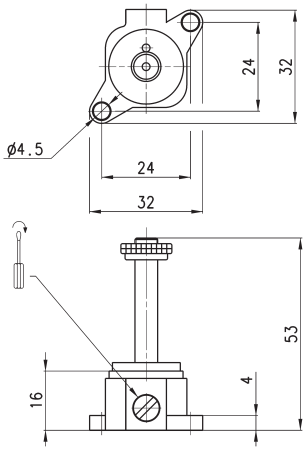


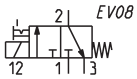
Mod.	Function	Interface	Orifice Ø (mm)	kv (l/min)	Body material	Manual override	Symbol
A231-BC2-*	3/2 NC	OR fixed	1.5	1.1	nichel plated brass	bistable	EV08

Series A solenoid valve - 3/2-way - Mod. A231 - rotatable interface

* choose the most suitable solenoid.

Equipped with a bistable manual override. Ideal for direct installation on manifold by means of 2 screws. Seal ensured by 2 concentric O-Rings that allow 360° body orientation.





Mod.	Function	Interface	Orifice Ø (mm)	kv (l/min)	Body material	Manual override	Symbol
A131-AC2-*	3/2 NC	OR rotatable	1.5	1.1	nichel plated brass	bistable	EV08

Series 6
direct acting solenoid valves

2/2-way - Normally Closed (NC)
3/2-way - Normally Closed (NC), Normally Open (NO)

- Ports: G1/8, G3/8, cartridge Ø4
- Available also in version for the low temperatures up to -50°C

Series 6 solenoid valves are available as 2/2 and 3/2-way, either NC or NO.
These direct acting solenoid valves can be used either with or without lubrication.

The bodies of these valves can be used either individually or in manifolds.
The latter are provided with G1/8 threaded ports or an inbuilt diameter 4 cartridge(G3/8 for 2-way only).

GENERAL DATA

TECHNICAL FEATURES	
Function	2/2 NC - 3/2 NC - 3/2 NO
Operation	direct acting poppet type
Pneumatic connections	G1/8, G3/8 threads - ø4 fitting - CNOMO interface
Orifice diameter	2 ... 4 mm
Flow coefficient kv (l/min)	1.2 ... 5.4
Operating pressure	0 ÷ 4 ... 15 bar
Operating temperature	0 ÷ 60 °C (FKM seals) / -50 ÷ 50 °C (NBR seals)
Media	filtered air class [5:4:4] ([5:1:4] for versions -50°C) according to ISO 8573-1:2010 (max oil viscosity 32 cSt), inert gas
Response time	ON <15 ms - OFF <15 ms
Manual override	see tables
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	nickel-plated brass - anodized aluminium
Seals	FKM (NBR for versions -50 °C)
Internal parts	stainless steel
ELECTRICAL FEATURES	
Voltage	12 ... 110 V DC - 24 ... 230 V AC 50/60 Hz
Voltage tolerance	±10% (DC) - +10% ÷ -15% (AC)
Power consumption	10 W (DC) - 19 VA (inrush AC), 12 VA (holding AC)
Duty cycle	ED 100%
Insulation class	H (180°C)
Electrical connection	connector DIN EN 175 301-803-A
Protection class	IP65 with connector
Special versions available on demand	

CODING EXAMPLE

6	3	8	M	-	105	-	A	6	B	

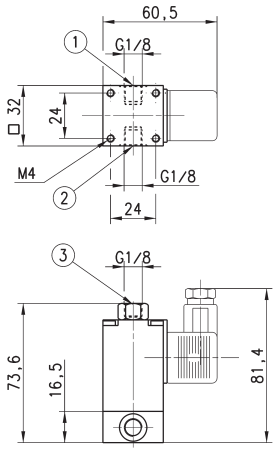
6	SERIES
3	NUMBER OF PORTS AND FUNCTIONS 0 = interface 2 = 2/2-way - NC 3 = 3/2-way - NC 4 = 3/2-way - NO
8	CONNECTION 0 = interface 3 = G3/8 8 = G1/8 C = cartridge Ø 4
M	M = manifold
105	TYPE OF BODY 150 = threaded body G1/8 - orifice Ø 2 mm 15E = threaded body G3/8 - orifice Ø 2.5 mm 15F = threaded body G3/8 - orifice Ø 3 mm 15G = threaded body G3/8 - orifice Ø 4 mm 450 = rotatable interface body - Ø 2 mm orifice 45E = rotatable interface body - Ø 2.5 mm orifice 457 = fixed interface body - Ø 2 mm orifice 101 = single manifold 102 = manifold - 2 pieces 103 = manifold - 3 pieces 104 = manifold - 4 pieces 105 = manifold - 5 pieces 106 = manifold - 6 pieces 107 = manifold - 7 pieces 108 = manifold - 8 pieces 109 = manifold - 9 pieces 110 = manifold - 10 pieces 111 = manifold - 11 pieces 112 = manifold - 12 pieces 113 = manifold - 13 pieces 114 = manifold - 14 pieces 115 = manifold - 15 pieces
A	COIL MATERIAL: A = PPS
6	SOLENOID DIMENSIONS 6 = 32x32
B	VOLTAGE - POWER CONSUMPTION B = 24 V 50/60 Hz - 12 VA C = 48 V 50/60 Hz - 12 VA D = 110 V 50/60 Hz - 12 VA E = 230 V 50/60 Hz - 12 VA 2 = 12 V DC - 10 W 3 = 24 V DC - 10 W 4 = 48 V DC - 10 W 5 = 72 V DC - 10 W 6 = 110 V DC - 10 W 8 = 160 V DC - 10 W
	VERSIONS = standard LT = for low temperatures

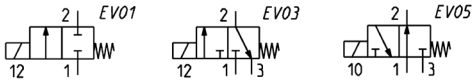
Series 6 solenoid valve - 2/2 and 3/2-way NC - Mod. 628 - 638 - 648

These valves are particularly suitable for operating single-acting cylinders or for use as signal valves.

In the mod. 648-150-A6* (NO) connections 1 and 3 are inverted.

* add
- VOLTAGE
(see CODING EXAMPLE)



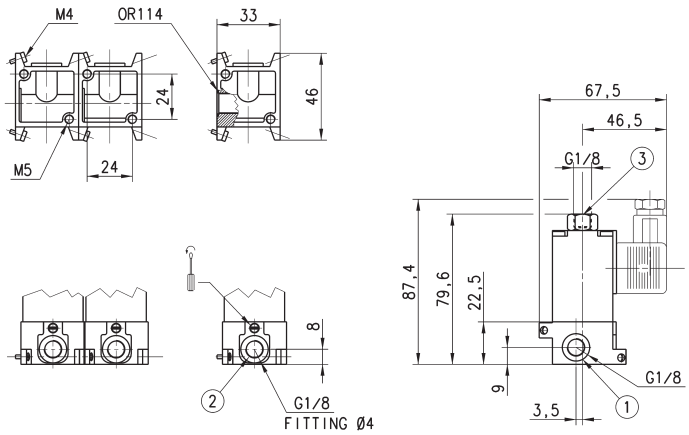


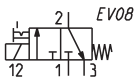
Mod.	Ports	Function	Orifice Ø (mm)	kv (l/min)	Qn (Nl/min)	Pressure min-max (bar)	Symbol
628-150-A6*	G1/8	2/2 NC	2	2.0	130	0 ÷ 10 [DC] - 0 ÷ 7 [AC]	EV01
638-150-A6*	G1/8	3/2 NC	2	2.0	130	0 ÷ 10 [DC]	EV03
648-150-A6*	G1/8	3/2 NO	2	1.2	80	0 ÷ 8 [DC] - 0 ÷ 6 [AC]	EV05

Series 6 solenoid valve - 3/2-way NC - Mod. 638M - 63CM

These solenoid valves are equipped with a manual override and are available with G1/8 inlet ports and with G1/8 outlets or with a diameter 4 cartridge. The body is supplied complete with screws and O-ring.

* add
- VOLTAGE
(see CODING EXAMPLE)

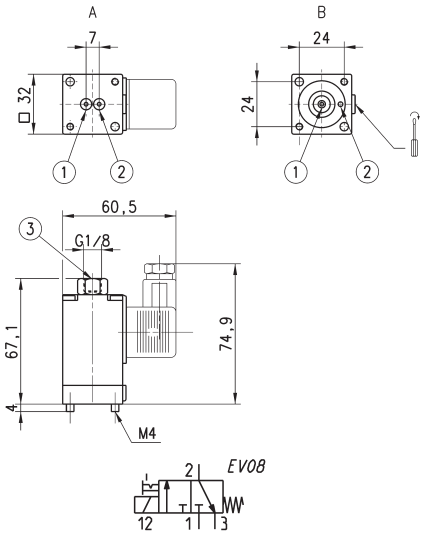




Mod.	Inlet	Outlet	Orifice Ø (mm)	kv (l/min)	Qn (Nl/min)	Pressure min-max (bar)
638M-101-A6*	G1/8	G1/8	2	1.8	120	0 ÷ 10
63CM-101-A6*	G1/8	cartridge Ø 4	2	1.6	108	0 ÷ 10

Series 6 solenoid valve - 3/2-way NC - Mod. 600

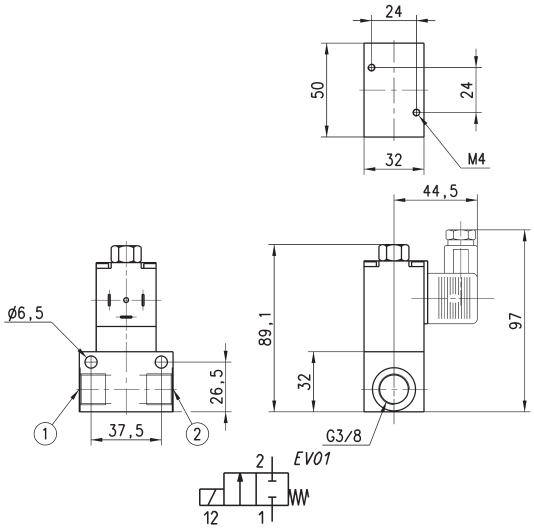
These solenoid valves are equipped with an override and are available with two types of interface:
A = fixed interface
B = rotatable interface



Mod.	Interface	Orifice Ø (mm)	kv (l/min)	Qn (Nl/min)	Pressure min-max (bar)
600-450-A6*	rotatable	2	1.6	106	0 ÷ 10
600-45E-A6*	rotatable	2.5	2.0	130	0 ÷ 8
600-457-A6*	fixed	2	1.6	106	0 ÷ 10

* add
- VOLTAGE
(see CODING EXAMPLE)

Series 6 solenoid valve - 2/2-way NC - Mod. 623

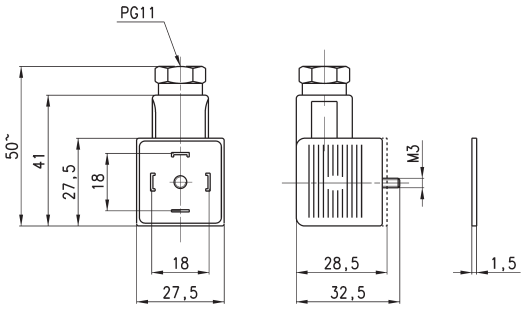


Mod.	Orifice Ø (mm)	kv (l/min)	Qn (Nl/min)	Min-max pressure (bar)
623-15E-A6*	2.5	3.4	220	0 ÷ 12 [AC 50Hz] - 0 ÷ 15 [DC]
623-15F-A6*	3	4.5	290	0 ÷ 10 [AC 50Hz] - 0 ÷ 14 [DC]
623-15G-A6*	4	5.4	350	0 ÷ 4 [AC 50Hz] - 0 ÷ 7 [DC]

* add
- VOLTAGE
(see CODING EXAMPLE)

Connector Mod. 124-... DIN EN 175 301-803-A

Protection class IP65



Mod.	description	colour	working voltage	cable gland	tightening torque
124-800	connector, without electronics	black	-	PG9/PG11	0.5 Nm
124-702	connector, varistor + Led	black	110 V AC/DC	PG9/PG11	0.5 Nm
124-701	connector, varistor + Led	black	24 V AC/DC	PG9/PG11	0.5 Nm
124-703	connector, varistor + Led	black	230 V AC/DC	PG9/PG11	0.5 Nm

Series CFB solenoid valves

New models

2/2-way - Normally Closed (NC) and Normally Open (NO)
3/2-way - Normally Closed (NC) and Normally Open (NO)

- Solenoid valves for air and water
- Great reliability over time, even in heavy working conditions

Series CFB solenoid valves for general purpose are available in the NC and NO version, 2/2 and 3/2-way.
Special versions are available on demand for the protection against the water hammer or with specific traitments for the interception of aggressive fluids.

The valve function is determined by a poppet or by a diaphragm with operation direct or indirect.
Different versions are available according to the nominal diameter and to the threaded ports, as shown in the following tables.
They can thus satisfy various requirements in terms of flow rates and working pressures.

GENERAL DATA

TECHNICAL FEATURES	
Function	2/2 NC - 2/2 NO - 3/2 NC
Operation	direct acting poppet type - servo-assisted with diaphragm
Pneumatic connections	G1/8 ... G2 threads
Orifice diameter	1.4 ... 50 mm
Flow coefficient Kv (m^3/h)	0.14 ... 45
Operating pressure	0 ÷ 0.8 ... 22 bar
Operating temperature	-10 ÷ 90 ... 140 °C
Media	air, water, liquid and gaseous fluids with max viscosity 37 cSt (5° E)
Response time	ON <15 ms - OFF <25 ms
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	brass (alimentary or anti-limestone nickel-platings on demand)
Seals	NBR (CFB-A, CFB-E) - FKM (CFB-B, CFB-D) - EPDM (on demand)
Internal parts	stainless steel - stainless steel and brass (CFB-D1)
ELECTRICAL FEATURES	
Voltage	12 V DC, 24 V DC - 24 V 50 Hz, 110 V 50/60 Hz, 220/230 V 50/60 Hz
Voltage tolerance	±5% (DC) - ±10% (AC)
Power consumption	10 ... 30 W (DC) - 9 ... 29 VA (AC)
Duty cycle	ED 100%
Insulation class	H (180°C)
Electrical connection	DIN EN 175 301-803-A - DIN EN 175 301-803-B
Protection class	IP65 with connector
Special versions available on demand	

It is recommended to use connections with internal diameters bigger than valve orifices, otherwise there may be a performance change.

CODING EXAMPLE

CFB	-	A	1	3	L	-	R	1	-	B7	E

CFB	SERIES
A	OPERATION A = indirect B = direct with linked diaphragm D = direct E = indirect with coil for heavy-duty applications
1	NUMBER OF WAYS - POSITIONS 1 = 2/2-way - NO 2 = 2/2-way - NC 3 = 3/2-way - NC
3	CONNECTIONS 1 = G1/8 2 = G1/4 3 = G3/8 4 = G1/2 5 = G3/4 6 = G1 7 = G1 1/4 8 = G1 1/2 9 = G2
L	ORIFICE DIAMETER A = 1.4 mm B = 2 mm C = 2.5 mm D = 2.8 mm F = 4 mm G = 6 mm J = 8 mm L = 11.5 mm M = 13 mm N = 13.5 mm P = 18 mm R = 26 mm T = 32 mm X = 45 mm Z = 50 mm
R	SEALS MATERIAL R = NBR W = FKM E = EPDM (on demand)
1	BODY MATERIAL 1 = brass 2 = alimentary anti-limestone nickel-plated brass for high temperatures (on demand) 3 = alimentary nickel-plated brass (on demand)
B7	SOLENOID DIMENSION B7 = 22 mm B8 = 30 mm B9 = 36 mm
E	SOLENOID VOLTAGE B = 24 V AC 50 Hz D = 110 V AC 50/60 Hz E = 230 V AC 50/60 Hz 2 = 12 V DC 3 = 24 V DC

TABLE FOR THE COUPLING BETWEEN SOLENOIDS AND VALVES

For solenoids and their connectors voir la section dédiée.
Coil mod. B8... / B9... - DIN EN 175 301-803-A = connector mod. 124-...
Coil mod. B7... - DIN EN 175 301-803-B = connector mod. 122-...

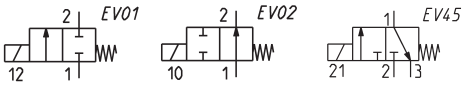
Mod.	24V AC 50 Hz	110V AC 50/60 Hz	220/230V AC 50/60 Hz	12V DC	24V DC
Direct acting solenoid valve, 2/2 NC - 2/2 NO - 3/2 NC					
CFB-D21C-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D21F-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D22C-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D22F-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D22G-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D23J-*	B9B (29VA)	B9D (29VA)	B9E (29VA) **	not available	B93 (30W)
CFB-D24J-*	B9B (29VA)	B9D (29VA)	B9E (29VA) **	not available	B93 (30W)
CFB-D24M-*	B9B (29VA)	B9D (29VA)	B9E (29VA) **	not available	not available
CFB-D11A-*	B8BK (15VA)	B8DK (15VA)	B8EK (15VA)	B82K (19W)	B83K (19W)
CFB-D12D-*	B8BK (15VA)	B8DK (15VA)	B8EK (15VA)	B82K (19W)	B83K (19W)
CFB-D13J-*	B8BK (15VA)	B8DK (15VA)	B8EK (15VA)	non disponibile	non disponibile
CFB-D31A-*	B8B (15VA)	B8D (15VA)	B8EK (15VA)	B82 (19W)	B83 (19W)
CFB-D31D-*	B8B (15VA)	B8D (15VA)	B8EK (15VA)	B82 (19W)	B83 (19W)
CFB-D32A-*	B8B (15VA)	B8D (15VA)	B8EK (15VA)	B82 (19W)	B83 (19W)
CFB-D32D-*	B8B (15VA)	B8D (15VA)	B8EK (15VA)	B82 (19W)	B83 (19W)
Direct acting solenoid valve with constrained diaphragm, 2/2 NC					
CFB-B23L-*	B9B (29VA)	B9D (29VA)	B9E (29VA)	not available	B93 (30W)
CFB-B24N-*	B9B (29VA)	B9D (29VA)	B9E (29VA)	not available	B93 (30W)
CFB-B25P-*	B9B (29VA)	B9D (29VA)	B9E (29VA)	not available	B93 (30W)
CFB-B26R-*	B9B (29VA)	B9D (29VA)	B9E (29VA)	not available	B93 (30W)
Indirect acting solenoid valve, 2/2 NC					
CFB-A23L-*	B7B (9VA) *	B7D (9VA)	B7E (9VA)	B72 (10W)	B73 (10W)
CFB-A24N-*	B7B (9VA) *	B7D (9VA)	B7E (9VA)	B72 (10W)	B73 (10W)
CFB-A25P-*	B7B (9VA) *	B7D (9VA)	B7E (9VA)	B72 (10W)	B73 (10W)
CFB-A26R-*	B7B (9VA) *	B7D (9VA)	B7E (9VA)	B72 (10W)	B73 (10W)
CFB-A27T-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-A28X-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-A29Z-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
Indirect acting solenoid valve, for heavy-duty applications, 2/2 NC					
CFB-E23L-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-E24N-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-E25P-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-E26R-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-E27T-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-E28X-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-E29Z-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
Indirect acting solenoid valve, 2/2 NO					
CFB-A13L-*	B7B (9VA) *	B7D (9VA)	B7E (9VA)	B721 (14W)	B731 (14W)
CFB-A14N-*	B7B (9VA) *	B7D (9VA)	B7E (9VA)	B721 (14W)	B731 (14W)
CFB-A15P-*	B7B (9VA) *	B7D (9VA)	B7E (9VA)	B721 (14W)	B731 (14W)
CFB-A17T-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-A16R-*	B7B (9VA) *	B7D (9VA)	B7E (9VA)	B721 (14W)	B731 (14W)
CFB-A18X-*	B9B (29VA)	B9D (29VA)	B9E (29VA)	not available	B93 (30W)
CFB-A19Z-*	B9B (29VA)	B9D (29VA)	B9E (29VA)	not available	B93 (30W)

* B7B solenoid with nominal bifrequency of 50/60 Hz

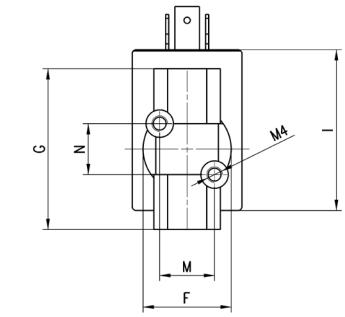
** only to be used with nominal frequency of 50 Hz

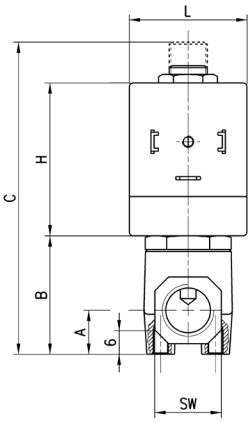
Series CFB solenoid valve - direct acting - 2/2 NC-NO e 3/2 NC

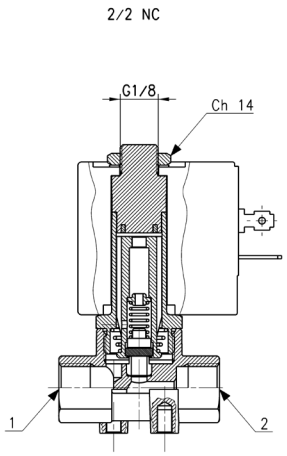
The direct control of these solenoid valves enables them to work with operating pressures which are equal to zero. Ports: G1/8 and G1/2.

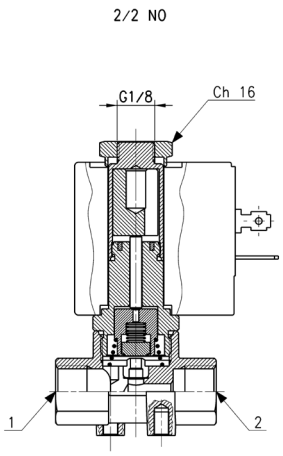


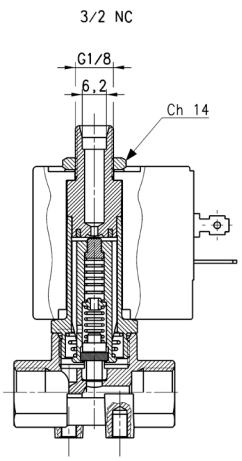
* = choose the suitable solenoid according to the TABLE FOR THE COUPLING BETWEEN SOLENOID AND VALVES
** = the performances shown in the table refer to the use with inlet from "2" and outlet from "1".
*** = 0 ÷ 4 with B9... solenoid











Mod.	Function	Ports	Ø Orifice (mm)	Kv (m³/h)	Pressure min÷max (bar)	A	B	C	F	G	SW	H	I	L	N	M	Symbol
CFB-D21C-W1-*	2/2 NC	G1/8	2.5	0.14	0 ÷ 15 [AC / DC]	11	30	73.8	23	41	17	39	41	30	13	14	EV01
CFB-D21F-W1-*	2/2 NC	G1/8	4	0.25	0 ÷ 6 [AC / DC]	11	30	73.8	23	41	17	39	41	30	13	14	EV01
CFB-D22C-W1-*	2/2 NC	G1/4	2.5	0.14	0 ÷ 15 [AC / DC]	11	30	73.8	23	41	17	39	41	30	13	14	EV01
CFB-D22F-W1-*	2/2 NC	G1/4	4	0.25	0 ÷ 6 [AC / DC]	12	31.5	75	26	41	17	39	41	30	13	14	EV01
CFB-D22G-W1-*	2/2 NC	G1/4	6	0.6	0 ÷ 2.5 [AC / DC] ***	12	31.5	75	26	41	17	39	41	30	13	14	EV01
CFB-D23J-R1-*	2/2 NC	G3/8	8	1	0 ÷ 2 [AC] - 0 ÷ 0.8 [DC]	15	45	89	37	55	27	39	47	36	22	22	EV01
CFB-D24J-R1-*	2/2 NC	G1/2	8	1	0 ÷ 2 [AC] - 0 ÷ 0.8 [DC]	15	45	89	37	55	27	39	47	36	22	22	EV01
CFB-D24M-R1-*	2/2 NC	G1/2	13	2.4	0 ÷ 1 [AC] - /	15	45	89	37	55	27	39	47	36	22	22	EV01
CFB-D11A-W1-*	2/2 NO	G1/8	1.4	0.07	0 ÷ 22 [AC 50Hz / DC]	11	30	75	23	41	17	39	41	30	13	14	EV02
CFB-D12D-W1-*	2/2 NO	G1/4	2.8	0.20	0 ÷ 7.5 [AC 50Hz / DC]	11	30	75	23	41	17	39	41	30	13	14	EV02
CFB-D13J-W1-*	2/2 NO	G3/8	8	1	0 ÷ 1.5 [AC 50Hz]	15	45	89	37	55	27	39	47	36	22	22	EV02
CFB-D31A-W1-*	3/2 NC **	G1/8	1.4	0.06	0 ÷ 14 [AC / DC]	11	30	79.6	23	41	17	39	41	30	13	14	EV45
CFB-D31D-W1-*	3/2 NC **	G1/8	2.8	0.14	0 ÷ 5 [AC / DC]	11	30	79.6	23	41	17	39	41	30	13	14	EV45
CFB-D32A-W1-*	3/2 NC **	G1/4	1.4	0.06	0 ÷ 14 [AC / DC]	11	30	79.6	23	41	17	39	41	30	13	14	EV45
CFB-D32D-W1-*	3/2 NC **	G1/4	2.8	0.14	0 ÷ 5 [AC / DC]	11	30	79.6	23	41	17	39	41	30	13	14	EV45

Series CFB solenoid valve - with linked diaphragm - 2/2 NC

The diaphragm which is linked to the mobile plunger is a good arrangement between high fluid flow rates and working pressures (zero pressures as well).
Ports: from G3/8 to G1.
The standard diaphragm is supplied in FKM.

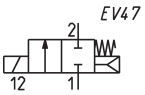
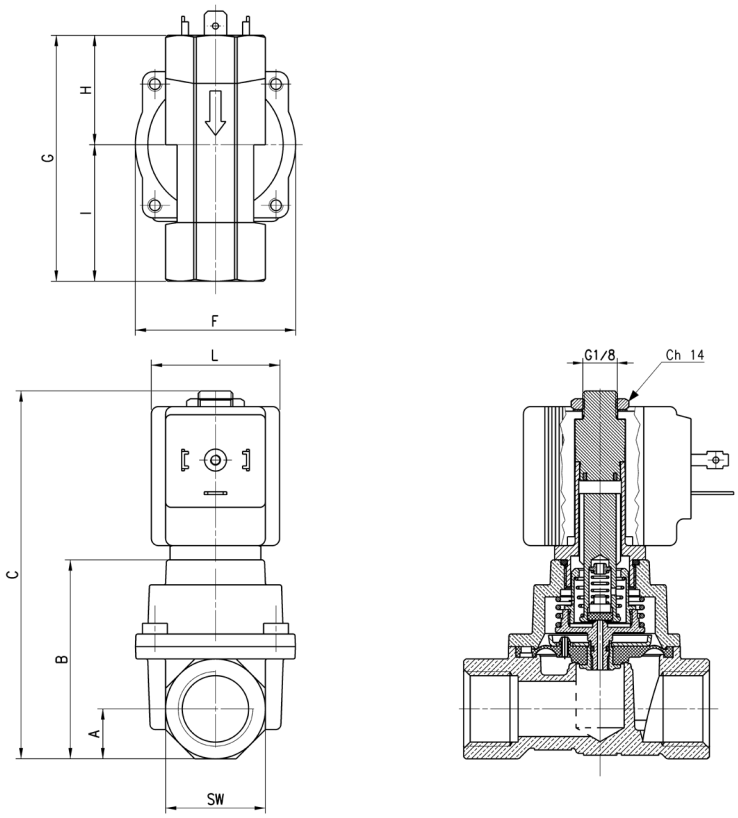
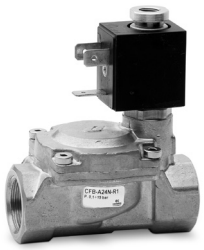


TABLE NOTE:
* = choose the suitable solenoid according to the TABLE FOR THE COUPLING BETWEEN SOLENOID AND VALVES



Mod.	Function	Ports	Ø Orifice (mm)	Kv (m³/h)	Pressure min÷max (bar)	A	B	C	F	G	H	I	L	SW
CFB-B23L-W1-*	2/2 NC	G3/8	11.5	2.1	0 ÷ 15 [AC] - 0 ÷ 8 [DC]	14	55.8	103.2	45	64	28.2	35.8	36	28
CFB-B24N-W1-*	2/2 NC	G1/2	13.5	2.5	0 ÷ 15 [AC] - 0 ÷ 8 [DC]	14	55.8	103.2	45	69	30.7	38.3	36	28
CFB-B25P-W1-*	2/2 NC	G3/4	18	5	0 ÷ 15 [AC] - 0 ÷ 5 [DC]	21	72	119.4	71	93	43.5	49.5	36	42
CFB-B26R-W1-*	2/2 NC	G1	26	8	0 ÷ 15 [AC] - 0 ÷ 5 [DC]	21	72	119.4	71	93	43.5	49.5	36	42

Series CFB - indirect acting - 2/2 NC



The pilot of these indirect acting solenoid valves controls the diaphragm position through a differential pressure. These valves are therefore particularly suitable for controlling high fluid flow rates and require very low working pressures to operate.
Ports: from G3/8 to G2.
The standard diaphragm is supplied in NBR.
On demand it can be supplied in FKM or EPDM.

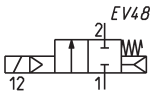
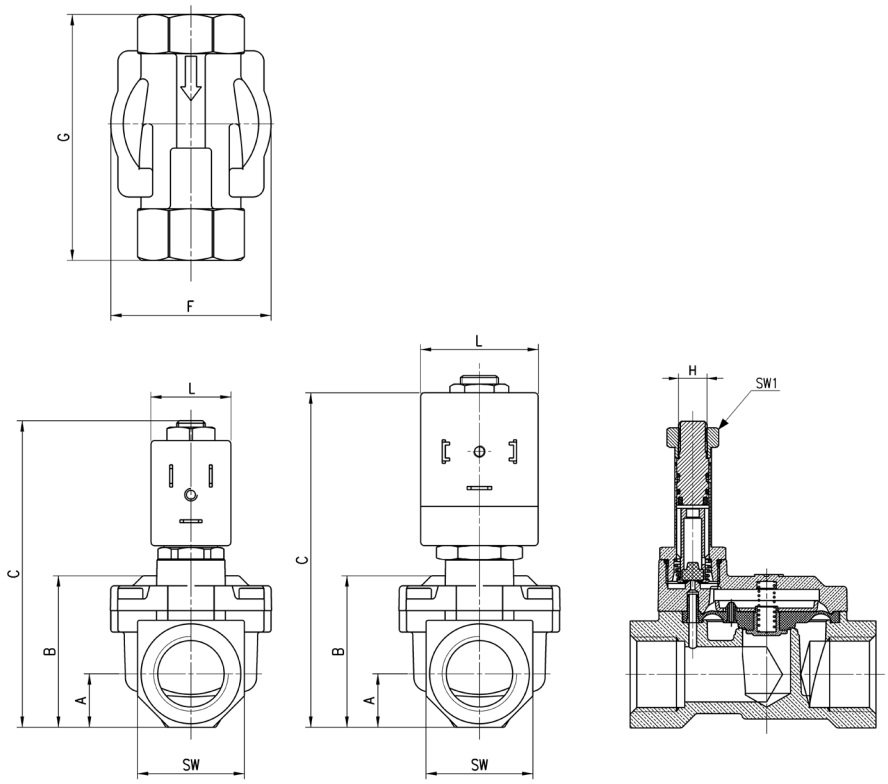


TABLE NOTE:
* = choose the suitable solenoid according to the TABLE FOR THE COUPLING BETWEEN SOLENOID AND VALVES



G3/8 . . . G1/2
DIN EN 175 301-803-B

G1-1/4 . . . G2
DIN EN 175 301-803-A

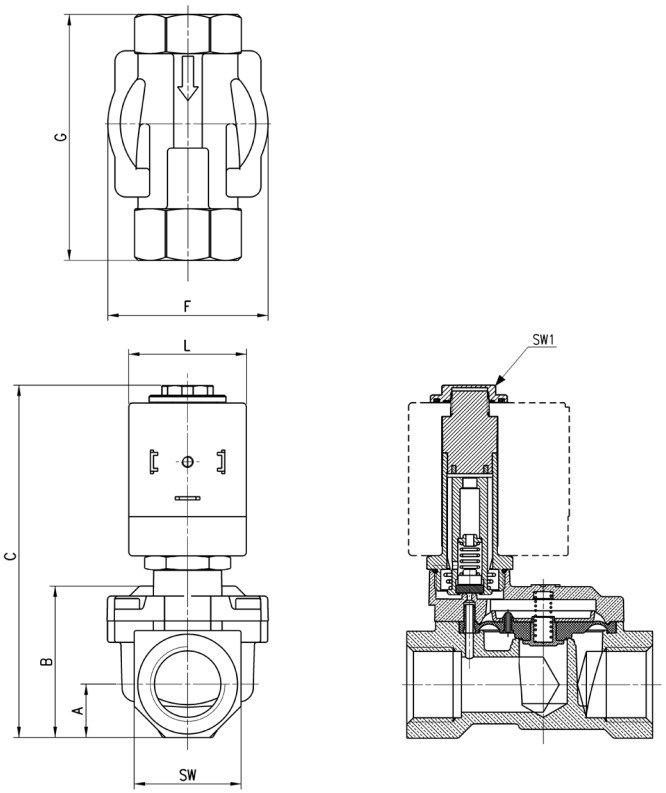
Mod.	Function	Ports	Ø Orifice (mm)	Kv (m³/h)	Pressure min÷max (bar)	A	B	C	F	G	H	L	SW	SW1
CFB-A23L-R1-*	2/2 NC	G3/8	11.5	2.6	0.1 ÷ 15 [AC / DC]	12	32.5	78.5	41.9	57	M8x0.75	22	24	13
CFB-A24N-R1-*	2/2 NC	G1/2	13.5	3.5	0.1 ÷ 15 [AC / DC]	15	39.7	85.7	45	69	M8x0.75	22	30	13
CFB-A25P-R1-*	2/2 NC	G3/4	18	5.8	0.2 ÷ 15 [AC / DC]	18	46.5	91.5	54.4	74	M8x0.75	22	34	13
CFB-A26R-R1-*	2/2 NC	G1	26	9.5	0.2 ÷ 12 [AC / DC]	22.5	59.8	104.5	71	93	M8x0.75	22	45	13
CFB-A27T-R1-*	2/2 NC	G1 1/4	32	12.5	0.4 ÷ 12 [AC 50 Hz / DC] - 0.4 ÷ 6 [AC 60 Hz]	27.5	73.5	130	86.6	111	G1/8	30	55	14
CFB-A28X-R1-*	2/2 NC	G1 1/2	45	31	0.4 ÷ 10 [AC 50 Hz / DC] - 0.4 ÷ 3.5 [AC 60 Hz]	31	85	138.3	110	138	G1/8	30	62	14
CFB-A29Z-R1-*	2/2 NC	G2	50	45	0.4 ÷ 10 [AC 50 Hz / DC] - 0.4 ÷ 3.5 [AC 60 Hz]	37.5	98.8	152	110	145	G1/8	30	75	14

Series CFB solenoid valve - indirect acting for heavy-duty applications - 2/2

New

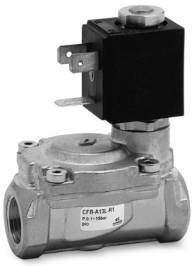
These solenoid valves have a solenoid protection system suitable to be used in particularly humid environments and in harsh conditions.
The system consists of two gaskets placed above and below the coil and a lock nut that integrates the upper gasket.
The standard diaphragm valve supplied is in NBR.
On demand it can be supplied in FKM or EPDM.

TABLE NOTE:
* = choose the suitable solenoid according to the TABLE FOR THE COUPLING BETWEEN SOLENOID AND VALVES



Mod.	Function	Ports	Ø Orifice (mm)	Kv (m³/h)	Pressure min÷max (bar)	A	B	C	F	G	H	L	SW	SW1
CFB-E23L-R1-*	2/2 NC	G3/8	11.5	2.6	0.1 ÷ 15 [AC / DC]	12	32.5	78.5	41.9	57	M8x0.75	30	24	13
CFB-E24N-R1-*	2/2 NC	G1/2	13.5	3.5	0.1 ÷ 15 [AC / DC]	15	39.7	85.7	45	69	M8x0.75	30	30	13
CFB-E25P-R1-*	2/2 NC	G3/4	18	5.8	0.2 ÷ 15 [AC / DC]	18	46.5	91.5	54.4	74	M8x0.75	30	34	13
CFB-E26R-R1-*	2/2 NC	G1	26	9.5	0.2 ÷ 12 [AC / DC]	22.5	59.8	104.5	71	93	M8x0.75	30	45	13
CFB-E27T-R1-*	2/2 NC	G1 1/4	32	12.5	0.4 ÷ 12 [AC 50 Hz / DC] - 0.4 ÷ 6 [AC 60 Hz]	27.5	73.5	130	86.6	111	G1/8	30	55	14
CFB-E28X-R1-*	2/2 NC	G1 1/2	45	31	0.4 ÷ 10 [AC 50 Hz / DC] - 0.4 ÷ 3.5 [AC 60 Hz]	31	85	138.3	110	138	G1/8	30	62	14
CFB-E29Z-R1-*	2/2 NC	G2	50	45	0.4 ÷ 10 [AC 50 Hz / DC] - 0.4 ÷ 3.5 [AC 60 Hz]	37.5	98.8	152	110	145	G1/8	30	75	14

Series CFB - indirect acting - 2/2 NO



The pilot of these indirect acting solenoid valves controls the diaphragm position through a differential pressure. These valves are therefore particularly suitable for controlling high fluid flow rates and require very low working pressures to operate.
Ports: from G3/8 to G2.
The standard diaphragm is supplied in NBR.
On demand it can be supplied in FKM or EPDM.

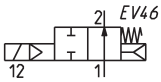
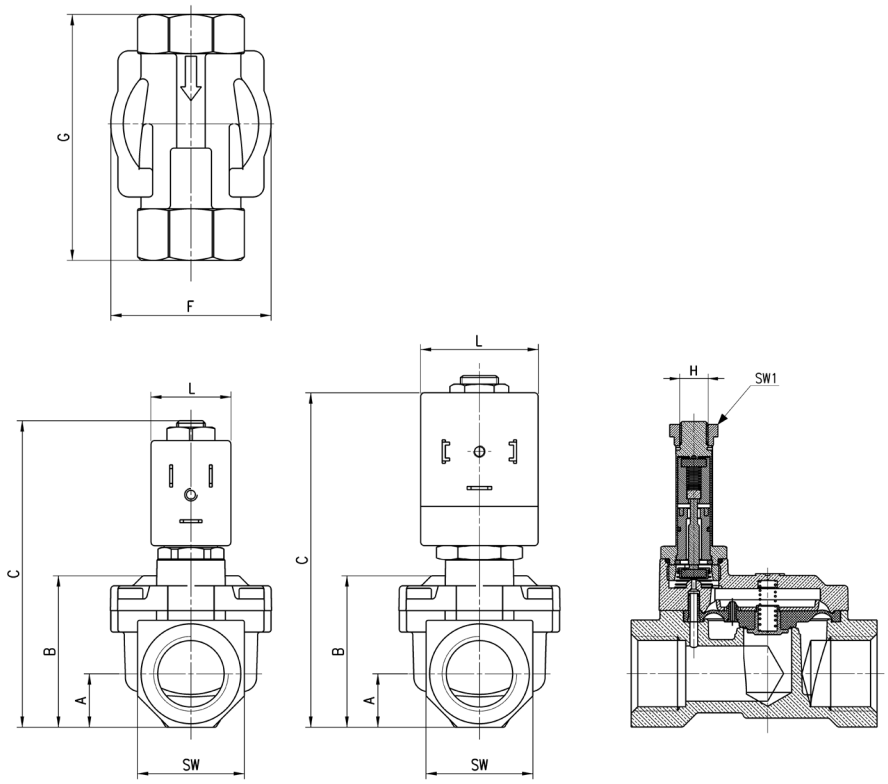


TABLE NOTE:
* = choose the suitable solenoid according to the TABLE FOR THE COUPLING BETWEEN SOLENOID AND VALVES



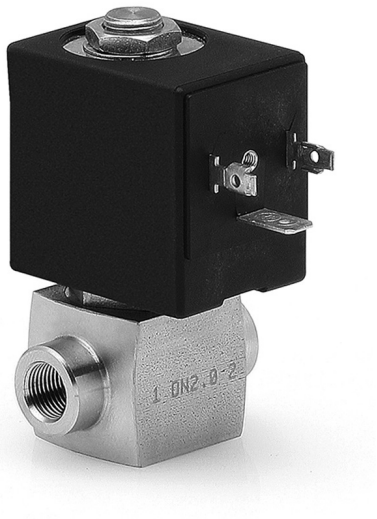
G3/8 . . . G1/2
DIN EN 175 301-803-B

G1-1/4 . . . G2
DIN EN 175 301-803-A

Mod.	Function	Ports	Ø Orifice (mm)	Kv (m³/h)	Pressure min÷max (bar)	A	B	C	F	G	H	L	SW	SW1
CFB-A13L-R1-*	2/2 NO	G3/8	11.5	2.6	0.1 ÷ 15 [AC / DC]	12	32.5	78.5	41.9	57	M8x0.75	22	24	13.5
CFB-A14N-R1-*	2/2 NO	G1/2	13.5	3.5	0.1 ÷ 15 [AC / DC]	15	39.7	85.7	45	69	M8x0.75	22	30	13.5
CFB-A15P-R1-*	2/2 NO	G3/4	18	5.8	0.2 ÷ 15 [AC / DC]	18	46.5	92.7	54.4	74	M8x0.75	22	36	13.5
CFB-A16R-R1-*	2/2 NO	G1	26	9.5	0.2 ÷ 12 [AC / DC]	22.5	59.8	104.5	71	93	M8x0.75	22	45	13.5
CFB-A17T-R1-*	2/2 NO	G1 1/4	32	12.5	0.4 ÷ 12 [AC / DC]	27.5	73.5	130	86.6	111	G1/8	30	55	14
CFB-A18X-R1-*	2/2 NO	G1 1/2	45	31	0.4 ÷ 10 [AC / DC]	31	85	138.3	110	138	G1/8	36	62	14
CFB-A19Z-R1-*	2/2 NO	G2	50	45	0.4 ÷ 10 [AC / DC]	37.5	98.8	152	110	145	G1/8	36	75	14

Series CFB stainless steel solenoid valves

2/2-way - Normally Closed (NC)
3/2-way - Normally Closed (NC)



- Stainless steel version for particularly aggressive environment and fluids
- High reliability over time, even in hard working conditions
- Compact dimensions
- Suitable to control inert and medical gases, alimentary fluids and beverages

Series CFB Stainless Steel direct acting solenoid valves for general purpose, 2/2-way and 3/2-way NC, are the ideal solution for a wide range of applications whereby the environment and fluids used can be particularly aggressive and contaminating. Special versions are available on demand.

The valve function is determined by a poppet and the operation is direct.
Different versions are available according to the nominal diameter and to the threaded ports, as shown in the following tables.
They can thus satisfy various requirements in terms of flow rates and working pressures.

GENERAL DATA

TECHNICAL FEATURES	
Function	2/2 NC - 3/2 NC
Operation	direct acting poppet type
Pneumatic connections	G1/8 ... G1/2 threads
Orifice diameter	1.5 ... 4 mm
Flow coefficient Kv (m^3/h)	0.08 ... 0.28
Operating pressure	0 ÷ 4 ... 25 bar
Operating temperature	-10 ÷ 140 °C
Media	air, water, liquid and gaseous fluids with max viscosity 37 cSt (5° E)
Response time	ON <15 ms - OFF <25 ms
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	stainless steel 316L
Seals	FKM - EPDM
Internal parts	stainless steel
ELECTRICAL FEATURES	
Voltage	12 V DC, 24 V DC - 24V AC 50 Hz, 110 V AC 50/60 Hz, 220/230 V AC 50/60 Hz
Voltage tolerance	±5% (DC) - ±10% (AC)
Power consumption	19 W (DC) - 15 VA (AC)
Duty cycle	ED 100%
Insulation class	H (180°C)
Electrical connection	DIN EN 175-301-803-A connector
Protection class	IP65 with connector
Special versions available on demand	

It is recommended to use connections with internal diameters bigger than valve orifices, otherwise there may be a performance change.

CODING EXAMPLE

CFB	-	D	2	1	A	-	W	X	-	B8	E

CFB	SERIES
D	OPERATION D = direct
2	NUMBER OF WAYS - POSITIONS 2 = 2/2-way - NC 3 = 3/2-way - NC
1	CONNECTIONS 1 = G1/8 2 = G1/4 3 = G3/8 4 = G1/2
A	ORIFICE DIAMETER A = 1.5 mm B = 2 mm C = 2.5 mm E = 3 mm F = 4 mm
W	SEALS MATERIAL W = FKM E = EPDM
X	BODY MATERIAL X = 316L stainless steel
B8	SOLENOID DIMENSION B8 = 30 mm
E	VOLTAGE - POWER CONSUMPTION B = 24 V 50/60 Hz - 15 VA D = 110 V 50/60 Hz - 15 VA E = 230 V 50/60 Hz - 15 VA 2 = 12 V DC - 19 W 3 = 24 V DC - 19 W

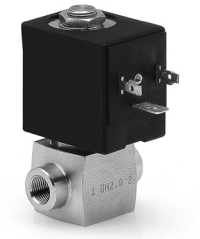
TABLE FOR THE COUPLING BETWEEN SOLENOIDS AND VALVES

For solenoids and their connectors see the dedicated section.
Coil mod. B8... - DIN EN 175 301-803-A = connector mod. 124-...

* = complete the code according to coding example

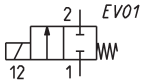
Mod.	24V AC 50 Hz	110V AC 50/60 Hz	220/230V AC 50/60 Hz	12V DC	24V DC
CFB-D21A-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D21B-.*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D21C-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D22B-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D22C-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D22E-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D23E-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D23F-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D24E-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D24F-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D32A-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D32B-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D32C-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)
CFB-D32E-*	B8B (15VA)	B8D (15VA)	B8E (15VA)	B82 (19W)	B83 (19W)

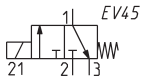
Series CFB solenoid valve - direct acting - 2/2 and 3/2 NC



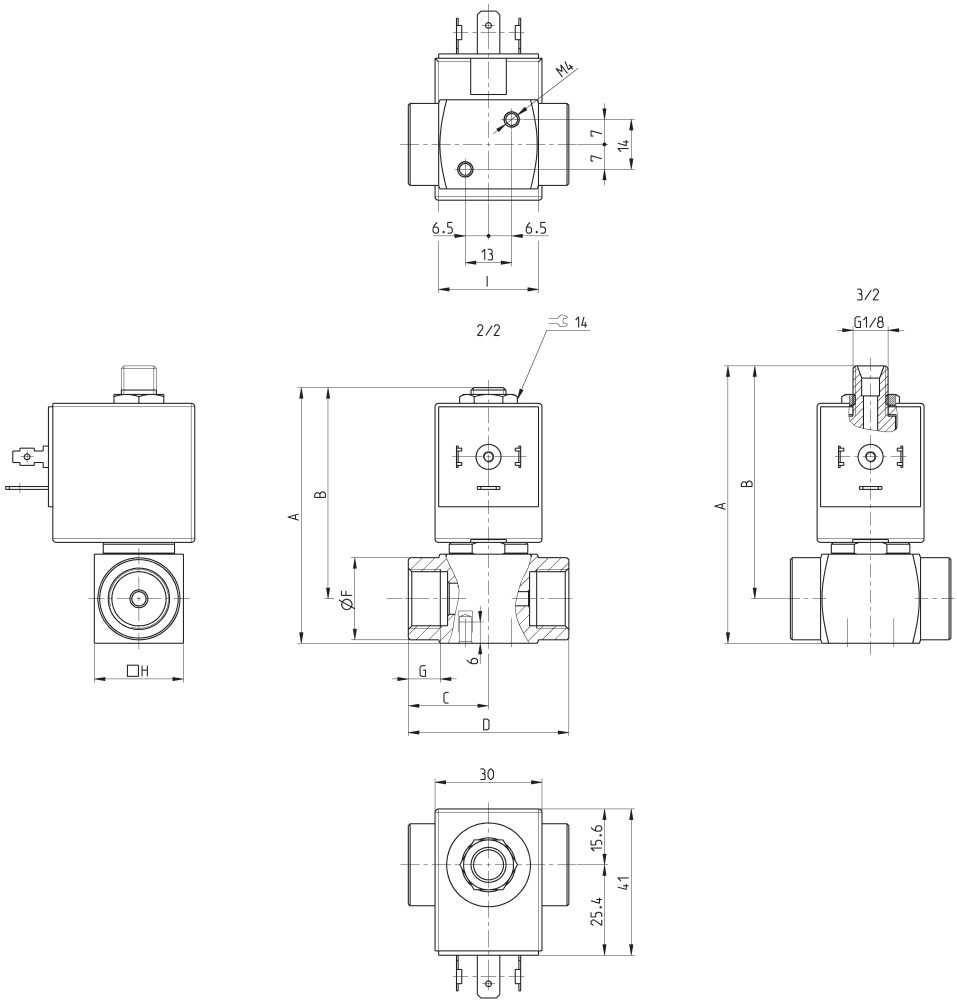
The direct control of these solenoid valves allows to operate with working pressures that are equal to zero.

Ports: from G1/8 to G1/2.





* add
- SEALS MATERIAL
- VOLTAGE
(see CODING EXAMPLE)



Mod.	Function	Connections	Orifice Ø (mm)	Kv (m³/h)	Pressure min-max (bar)	A	B	C	D	F	G	H	I	Pneumatic symbol
CFB-D21A-...X-*	2/2 NC	G1/8	1.5	0.08	0 ÷ 25	71.7	59.2	21	42	15	8	25	29	EV01
CFB-D21B-...X-*	2/2 NC	G1/8	2	0.10	0 ÷ 22	71.7	59.2	21	42	15	8	25	29	EV01
CFB-D21C-...X-*	2/2 NC	G1/8	2.5	0.14	0 ÷ 15	71.7	59.2	21	42	15	8	25	29	EV01
CFB-D22B-...X-*	2/2 NC	G1/4	2	0.10	0 ÷ 22	71.7	59.2	21	42	18	8	25	28	EV01
CFB-D22C-...X-*	2/2 NC	G1/4	2.5	0.14	0 ÷ 15	71.7	59.2	21	42	18	8	25	28	EV01
CFB-D22E-...X-*	2/2 NC	G1/4	3	0.18	0 ÷ 10	71.7	59.2	21	42	18	8	25	28	EV01
CFB-D23E-...X-*	2/2 NC	G3/8	3	0.18	0 ÷ 10	71.7	59.2	22.5	45	23	9.5	25	28	EV01
CFB-D23F-...X-*	2/2 NC	G3/8	4	0.28	0 ÷ 6	71.7	59.2	22.5	45	23	9.5	25	28	EV01
CFB-D24E-...X-*	2/2 NC	G1/2	3	0.18	0 ÷ 10	76.7	61.7	24.5	49	27.5	11	30	31	EV01
CFB-D24F-...X-*	2/2 NC	G1/2	4	0.28	0 ÷ 6	76.7	61.7	24.5	49	27.5	11	30	31	EV01
CFB-D32A-...X-*	3/2 NC	G1/4	1.5	0.08	0÷13	77.8	65.3	21	42	18	8	25	28	EV45
CFB-D32B-...X-*	3/2 NC	G1/4	2	0.1	0÷9	77.8	65.3	21	42	18	8	25	28	EV45
CFB-D32C-...X-*	3/2 NC	G1/4	2.5	0.14	0÷5.5	77.8	65.3	21	42	18	8	25	28	EV45
CFB-D32E-...X-*	3/2 NC	G1/4	3	0.18	0÷4	77.8	65.3	21	42	18	8	25	28	EV45

Series 8 pneumatic operated cartridge valves

New Models

2/2-way - Normally Closed (NC)
3/2-way - Normally Closed (NC)

Series 8 pneumatic operated valves are particularly suitable for applications requiring high flow combined wtih compact design.
The valve is pneumatic operated by electro-pilots which are dimensioned according to the size.
The cartridge design, which is ideal for manifold assembly, allows to reduce both dimensions and the number of pneumatic connections.

The standard function of the valve is 2/2-way NC.
It can however fulfill the 3/2-way NC function if inserted in a proper seat (see the following pages).

- New versions with PPS body
- High flow
- Manifold assembly
- Oxygen use
- Suitable also for general purpose

GENERAL DATA

TECHNICAL FEATURES	
Function	2/2 NC - 3/2 NC
Operation	pneumatic operated poppet type
Pneumatic connections	cartridge seat in manifold
Orifice diameter	5 ... 9 mm
Nominal flow	420 ... 1480 Nl/min (air at 6 bar ΔP 1 bar)
Flow coefficient kv (l/min)	6.5 ... 23
Operating pressure	3 ÷ 6 bar (0 ÷ 6 bar with external pilot supply)
Piloting pressure	3 ÷ 6 bar
Operating temperature	0 ÷ 50 °C
Media	filtered air class [5:4:4] according to ISO 8573-1:2010 (max oil viscosity 32 cSt), inert gas, oxigen
Installation	in any position

MATERIALS IN CONTACT WITH THE MEDIUM	
Body	PPS - brass
Internal parts	aluminium
Seals	FKM

CODING EXAMPLE

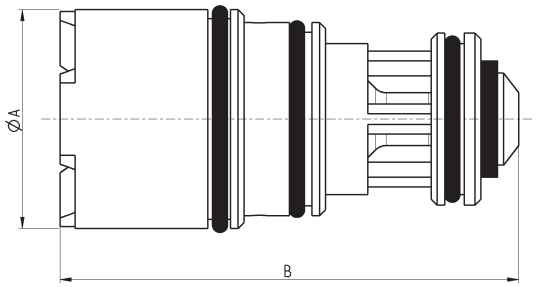
8	10	C5	1	00	-	F1	3	2	-	OX2

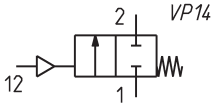
8	SERIES
10	SIZE 10 = size 1 - Ø 10.0 mm 20 = size 2 - Ø 14.5 mm 30 = size 3 - Ø 22.0 mm
C5	BODY DESIGN C5 = cartridge
1	NUMBER OF WAYS - FUNCTIONS 1 = 2/2 or 3/2-way - NC NOTE: the function 2/2 o 3/2-way depends on the seat used (see the following pages)
00	PNEUMATIC CONNECTIONS 00 = cartridge
F1	ORIFICE DIAMETER F1 = Ø 5.0 mm - size 1 only G7 = Ø 6.6 mm - size 2 only K1 = Ø 9.0 mm - size 3 only
3	SEAL MATERIAL 3 = FKM
2	BODY MATERIAL 2 = brass B = PPS - size 2 and size 3 only
OX2	OX2 = for use with oxygen (non volatile residual less than 33 mg/m²) NOTE: the OX2 suffix must be added also in case of use with air/gas.

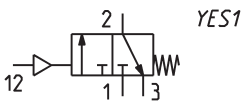
Series 8 pneumatic cartridge valve - 2/2-way NC and 3/2-way NC

New

For 2/2-way (pneumatic symbol VP14) or 3/2-way (pneumatic symbol YES1) function, see the seat dimensioning in the next pages.



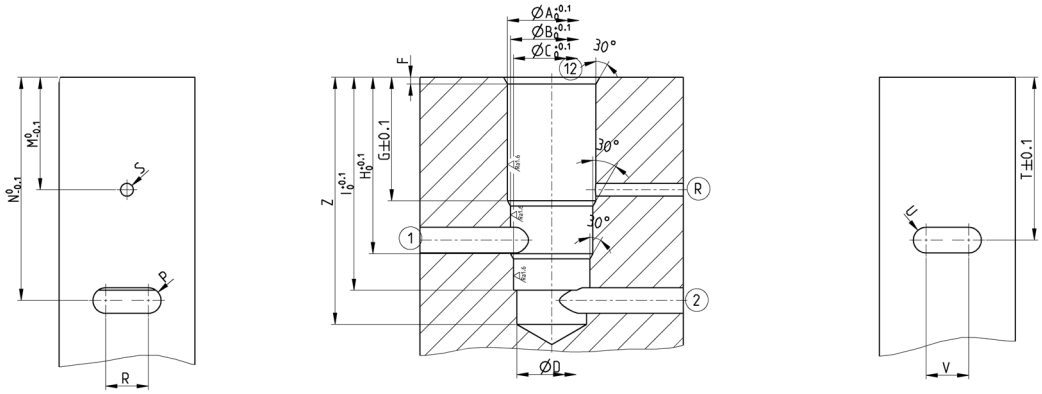




Mod.	Function	Orifice Ø (mm)	kv (l/min)	Min ÷ max pressure (bar)	Min ÷ max pilot pressure (bar)	Body material	A Ø (mm)	B (mm)
810C5100-F132-OX2	2/2 - 3/2 NC	5.0	6.5	0 ÷ 6	3 ÷ 6	brass	10	26.7
820C5100-G73B-OX2	2/2 - 3/2 NC	6.6	12.5	0 ÷ 6	3 ÷ 6	PPS	14.5	30.3
820C5100-G732-OX2	2/2 - 3/2 NC	6.6	12.5	0 ÷ 6	3 ÷ 6	brass	14.5	30.3
830C5100-K13B-OX2	2/2 - 3/2 NC	9.0	23	0 ÷ 6	3 ÷ 6	PPS	22	34.8
830C5100-K132-OX2	2/2 - 3/2 NC	9.0	23	0 ÷ 6	3 ÷ 6	brass	22	34.8

Series 8 pneumatic cartridge valve - 2/2-way NC - valve seat dimensions

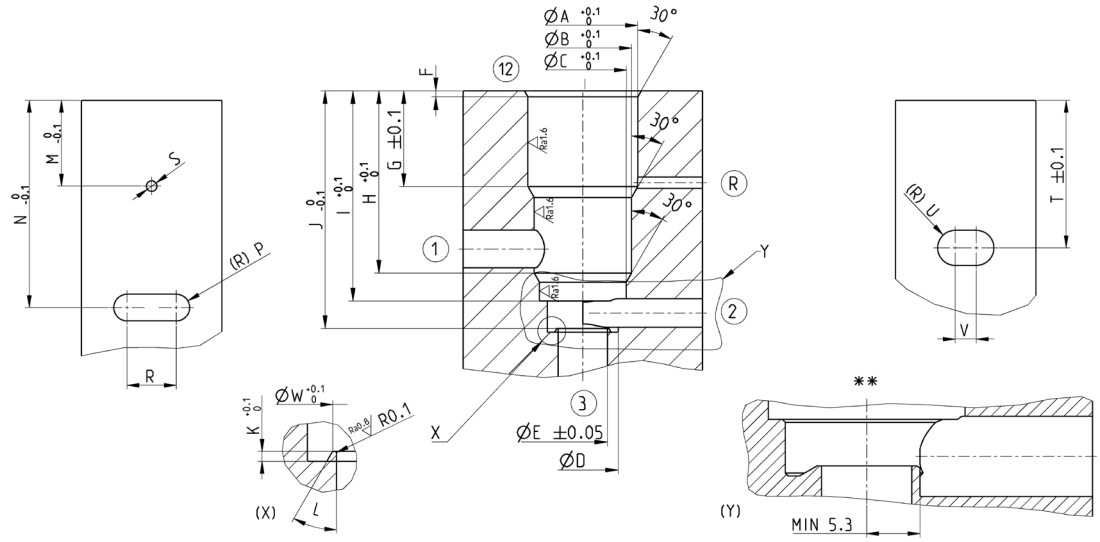
1 = inlet
2 = outlet
12 = piloting
R = poppet chamber exhaust



SERIES 8																	
Size	A	B	C	D	F	G	H	I	M	N	P	R	S	T	U	V	Z
1	10.4	9.7	9	8.2	0.8	14.5	20.7	25	13.2	26.2	1.5	5	1.5	19.1	1.5	5	30
2	14.65	12.95	11.55	9.5	0.8	12.8	24.2	27.9	12.2	29.3	1.9	7	1.5	20.5	2.5	4	33
3	22.1	20.6	19.6	16.2	0.5	15	28.7	33.4	12.5	37.1	4	4.4	2.5	24.8	3.75	5	41

Series 8 pneumatic cartridge valve - 3/2-way NC - valve seat dimensions

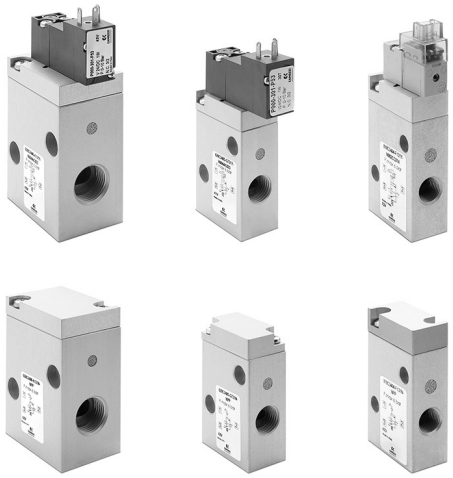
1 = inlet
2 = outlet
3 = exhaust
12 = piloting
R = poppet chamber exhaust



SERIES 8																					
Size	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	R	S	T	U	V	W
1	10.4	9.7	9	8.2	5	0.8	14.5	20.7	25	28	0.3	45	13.2	26.2	1.5	5	1.5	19.1	1.5	5	5.4
2	14.65	12.95	11.55	9.5	6.6	0.8	12.8	24.2	27.9	31.55	0.5	45	12.2	29.3	1.9	7	1.5	20.5	2.5	4	7
3	22.1	20.6	19.6	16.2	9	0.5	15	28.7	33.4	38.05	1	60	12.5	37.1	4	4.4	2.5	24.8	3.75	5	10

Series 8 pneumatically and electropneumatically operated valves

2/2-way - Normally Closed (NC)
3/2-way - Normally Closed (NC)



- High flow
- Available in 3 different sizes for general purpose
- Version for use with oxygen available

The Series 8 enlarges the range of versions available with the cartridge valve directly integrated in an anodized aluminium body comprising also the pilot solenoid valve. The new bodies enable to have pneumatically operated versions with external piloting or electropneumatically operated versions with both external and internal piloting.

GENERAL DATA

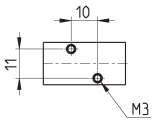
TECHNICAL SPECIFICATIONS	
Function	2/2 NC – 3/2 NC
Operation	pneumatic or electropneumatic
Pneumatic connections	G1/8 – G1/4 – G3/8
Nominal diameter	5 ... 9 mm
Flow coefficient kv (l/min)	6.5 ... 23
Nominal flow	420 ... 1480 Nl/min (air at 6 bar ΔP 1 bar)
Operating pressure	3 ÷ 6 bar (0 ÷ 6 bar with external pilot supply)
External pilot pressure	3 ÷ 6 bar
Operating temperature	0 ÷ 50 °C
Fluid	filtered air class [5:4:4] according to ISO 8573-1:2010 (oil viscosity max. 32 cSt), inert gases
Response times	ON <10 ms - OFF <10 ms
Installation	any position
MATERIALS IN CONTACT WITH FLUID	
Body	aluminium
Seals	FKM
Internal parts	aluminium – brass
ELECTRICAL SPECIFICATIONS	
Voltage	24 V DC – other voltages on demand
Voltage tolerance	Size 1 = ±10% - Size 2 and 3 = -10% +15%
Power consumption	Size 1 = 1.3 W (inrush) 0.25 W (holding) – Size 2 and 3 = 2 W
Duty cycle	ED 100%
Electrical connection	connectors – 300 mm flying leads
Protection class	Size 1 = IP50 – Size 2 and 3 = IP65 (with connector)

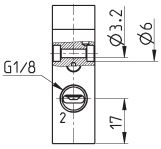
CODING EXAMPLE

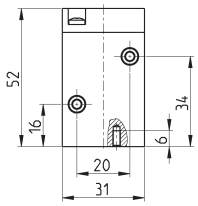
8	10	C3	4	04	-	F1	3	1	Y	-	N	00	2C	C014	

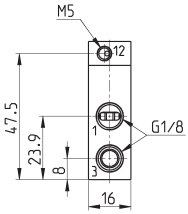
8	SERIES
10	SIZE 10 = size 1 20 = size 2 30 = size 3
C3	TYPE OF BODY C3 = valve with aluminium body threaded connections
4	NUMBER OF WAYS - FUNCTIONS 1 = 2/2-way - NC 4 = 3/2-way - NC
04	PNEUMATIC CONNECTIONS 04 = G1/8 (size 1) 05 = G1/4 (size 2) 06 = G3/8 (size 3)
F1	ORIFICE DIAMETER F1 = 5.0 mm (size 1) G7 = 6.6 mm (size 2) K1 = 9.0 mm (size 3)
3	SEAL MATERIAL 3 = FKM
1	BODY MATERIAL 1 = aluminium
Y	MANUAL OVERRIDE N = not provided Y = provided monostable
N	MOUNTING ACCESSORIES N = not provided
00	OPTIONS 00 = no option PP = pneumatic piloting PE = electropilot with external piloting
2C	ELECTRICAL CONNECTION 2C = KN 90° type + protection + led - only for size 1 2F = KN in line type + protection + led - only for size 1 3A = DIN EN 175 301-803-C (8 mm) - only for size 2 and 3 4A = industrial standard (9.4 mm) - only for size 2 and 3 7A = 300 mm flying leads - only for size 2 and 3
C014	VOLTAGE - POWER CONSUMPTION C012 = 12V DC - 1.3/0.25W (size 1) C014 = 24V DC - 1.3/0.25W (size 1) C020 = 12V DC - 2W (size 2 - 3) C023 = 24V DC - 2W (size 2 - 3) C025 = 48V DC - 2W (size 2 - 3)
	VERSION = standard OX1 = for use with oxygen (non volatile residual less than 550 mg/m²) OX2 = for use with oxygen (non volatile residual less than 33 mg/m²)

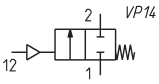
Series 8 pneumatic valve - size 1 - 2/2 and 3/2-ways NC

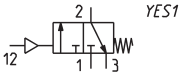






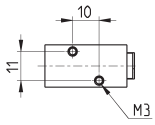




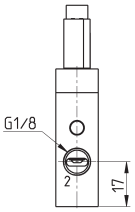


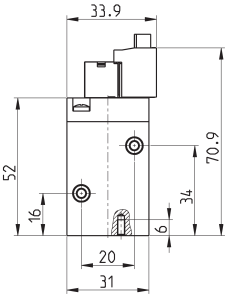
Mod.	Function	Ports	Orifice Ø (mm)	kv (l/min)	Qn (Nl/min)	Min÷max pressure (bar)	Min÷max pilot pressure (bar)	Pilot supply	Symbol
810C3104-F131N-NPP	2/2 NC	G1/8	5.0	6.5	420	0 ÷ 6	3 ÷ 6	External	VP14
810C3404-F131N-NPP	3/2 NC	G1/8	5.0	6.5	420	0 ÷ 6	3 ÷ 6	External	YES1

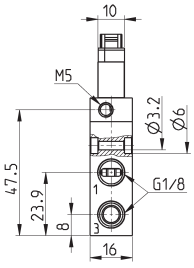
Series 8 solenoid valve - size 1 - 2/2 and 3/2-ways NC

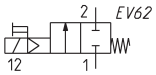


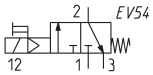
* add
- ELECTRICAL CONNECTION
- VOLTAGE
(see CODING EXAMPLE)

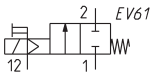


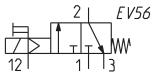






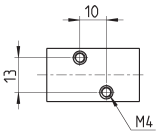


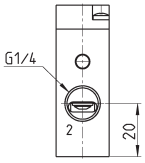


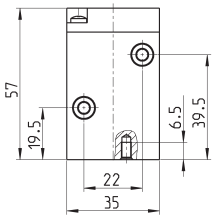


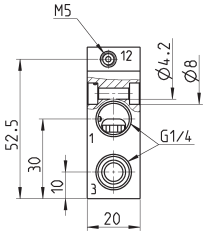
Mod.	Function	Ports	Orifice Ø (mm)	kv (l/min)	Qn (Nl/min)	Min÷max pressure (bar)	Min÷max pilot pressure (bar)	Pilot supply	Symbol
810C3104-F131Y-N00*	2/2 NC	G1/8	5.0	6.5	420	3 ÷ 6	-	Internal	EV62
810C3404-F131Y-N00*	3/2 NC	G1/8	5.0	6.5	420	3 ÷ 6	-	Internal	EV54
810C3104-F131Y-NPE*	2/2 NC	G1/8	5.0	6.5	420	0 ÷ 6	3 ÷ 6	External	EV61
810C3404-F131Y-NPE*	3/2 NC	G1/8	5.0	6.5	420	0 ÷ 6	3 ÷ 6	External	EV56

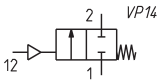
Series 8 pneumatic valve - size 2 - 2/2 and 3/2-ways NC

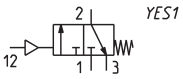








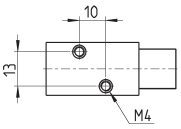


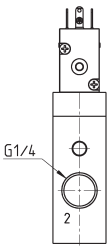


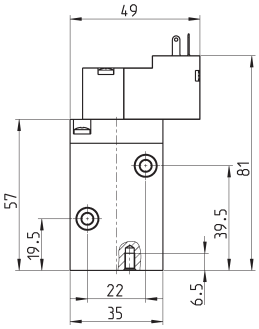
Mod.	Function	Ports	Orifice Ø (mm)	kv (l/min)	Qn (Nl/min)	Min÷max pressure (bar)	Min÷max pilot pressure (bar)	Pilot supply	Symbol
820C3105-G731N-NPP	2/2 NC	G1/4	6.6	12.5	800	0 ÷ 6	3 ÷ 6	External	VP14
820C3405-G731N-NPP	3/2 NC	G1/4	6.6	12.5	800	0 ÷ 6	3 ÷ 6	External	YES1

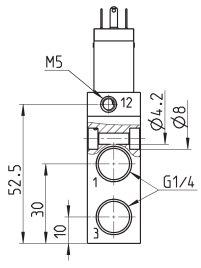
Series 8 solenoid valve - size 2 - 2/2 and 3/2-ways NC

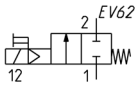
* add
- ELECTRICAL CONNECTION
- VOLTAGE
(see CODING EXAMPLE)

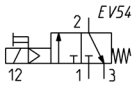


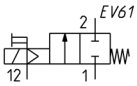


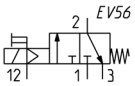






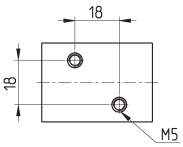


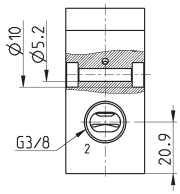


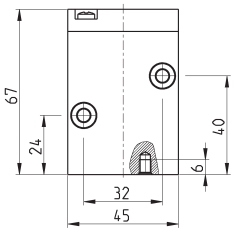


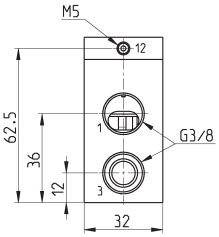
Mod.	Function	Ports	Orifice Ø (mm)	kv (l/min)	Qn (Nl/min)	Min÷max pressure (bar)	Min÷max pilot pressure (bar)	Pilot supply	Symbol
820C3105-G731Y-N00*	2/2 NC	G1/4	6.6	12.5	800	3 ÷ 6	-	Internal	EV62
820C3405-G731Y-N00*	3/2 NC	G1/4	6.6	12.5	800	3 ÷ 6	-	Internal	EV54
820C3105-G731Y-NPE*	2/2 NC	G1/4	6.6	12.5	800	0 ÷ 6	3 ÷ 6	External	EV61
820C3405-G731Y-NPE*	3/2 NC	G1/4	6.6	12.5	800	0 ÷ 6	3 ÷ 6	External	EV56

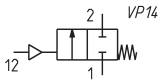
Series 8 pneumatic valve - size 3 - 2/2 and 3/2-ways NC

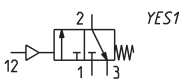








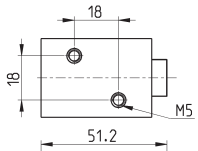


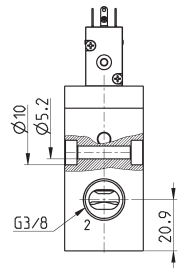


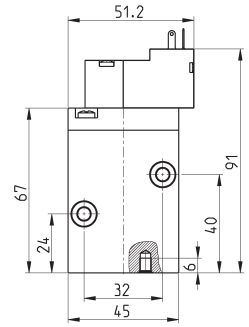
Mod.	Function	Ports	Orifice Ø (mm)	kv (l/min)	Qn (Nl/min)	Min÷max pressure (bar)	Min÷max pilot pressure (bar)	Pilot supply	Symbol
830C3106-K131N-NPP	2/2 NC	G3/8	9.0	23	1480	0 ÷ 6	3 ÷ 6	External	VP14
830C3406-K131N-NPP	3/2 NC	G3/8	9.0	23	1480	0 ÷ 6	3 ÷ 6	External	YES1

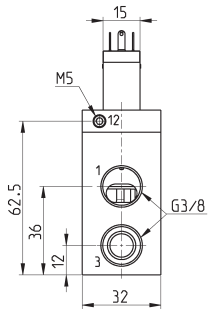
Series 8 solenoid valve - size 3 - 2/2 and 3/2-ways NC

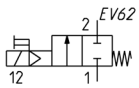
* add
- ELECTRICAL CONNECTION
- VOLTAGE
(see CODING EXAMPLE)

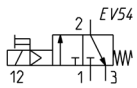


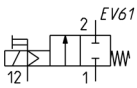


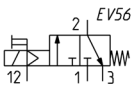












Mod.	Function	Ports	Orifice Ø (mm)	kv (l/min)	Qn (Nl/min)	Min÷max pressure (bar)	Min÷max pilot pressure (bar)	Pilot supply	Symbol
830C3106-K131Y-N00*	2/2 NC	G3/8	9.0	23	1480	3 ÷ 6	-	Internal	EV62
830C3406-K131Y-N00*	3/2 NC	G3/8	9.0	23	1480	3 ÷ 6	-	Internal	EV54
830C3106-K131Y-NPE*	2/2 NC	G3/8	9.0	23	1480	0 ÷ 6	3 ÷ 6	External	EV61
830C3406-K131Y-NPE*	3/2 NC	G3/8	9.0	23	1480	0 ÷ 6	3 ÷ 6	External	EV56

Series TC
shut-off micro-valves

2/2-way - Normally Closed (NC)

- Compact design
- High performance
- Ease of installation
- Compatibility between materials used and several gaseous fluids
- Suitable for applications with oxygen

The principle of the Series TC1-V shut-off micro-valves is based on the actuation of a poppet by means of an operating pressure applied above it.

The poppet, once actuated, moves away from the tightening seal, permitting the flow of the intercepted fluid.

By removing the actuation pressure, the poppet repositions itself on the tightening seal by means of a spring positioned below that closes the flow of the fluid.

For its realization the most suitable materials for contact with fluids were selected. The body in PPS and the FKM tightening seals guarantee full compatibility with a wide range of gaseous fluids.

GENERAL DATA

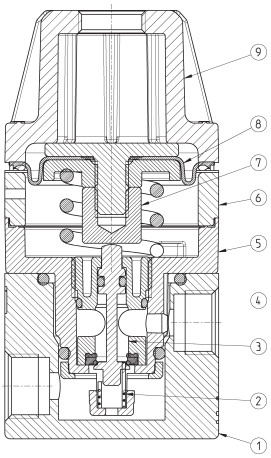
Construction	compact with pre-formed diaphragm
Materials	see the TABLE OF MATERIALS
Ports	cartridge construction in manifold - G1/8 or 1/8NPTF (only for aluminium body version)
Mounting	in-line or cartridge (any position)
Operating temperature	-5°C ÷ 50°C
Inlet pressure	0 ÷ 10 bar
Pilot pressure	0.6 ÷ 10 bar
Nominal flow	240 Nl/min (6 bar ΔP 1 bar)
Medium	air, inert/medical gases and oxygen

CODING EXAMPLE

TC	1	-	V	36	-	C	-	V	-	OX2

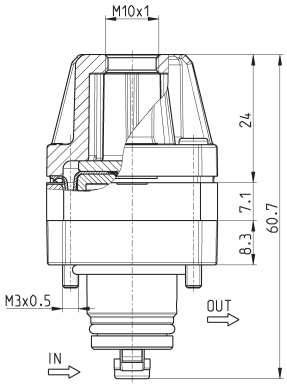
TC	SERIES
1	SIZE
V	VALVE
36	CONSTRUCTION: 36 = pneumatic command
C	PORTS: C = Cartridge 1/8 = G1/8 1/8TF = 1/8NPTF
V	SEALS MATERIAL: V = FKM
OX2	VERSIONS: OX1 = for oxygen (non-volatile residue lower than 550 mg/m^2) OX2 = for oxygen (non-volatile residue lower than 33 mg/m^2)

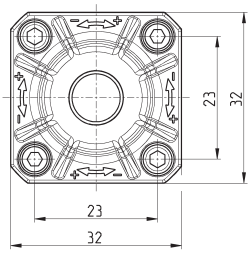
Series TC shut-off micro-valves - materials

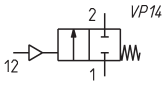


PARTS	MATERIALS
1. Base body	Anodized aluminium
2. Lower spring	Stainless steel
3. Insert	PPS
4. Poppet	Stainless steel
5. Body	PPS
6 Intermediate body	Anodized aluminium
7. Valve guide	Polyamide
8. Diaphragm	FKM
9. Bell	Polyamide
Seals	FKM

Series TC cartridge shut-off micro-valves



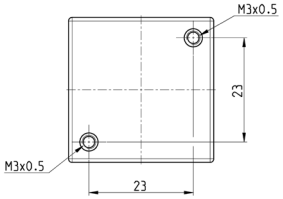


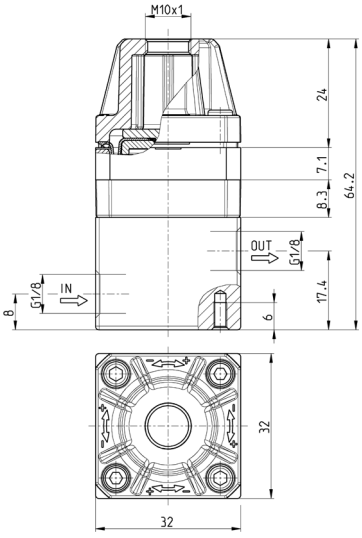


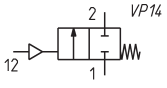
Mod.
TC1-V36-C-V-OX1
TC1-V36-C-V-OX2

Series TC shut-off micro-valves with aluminium body

* to choose the type of thread (G1/8 or 1/8 NPTF) see the Coding example

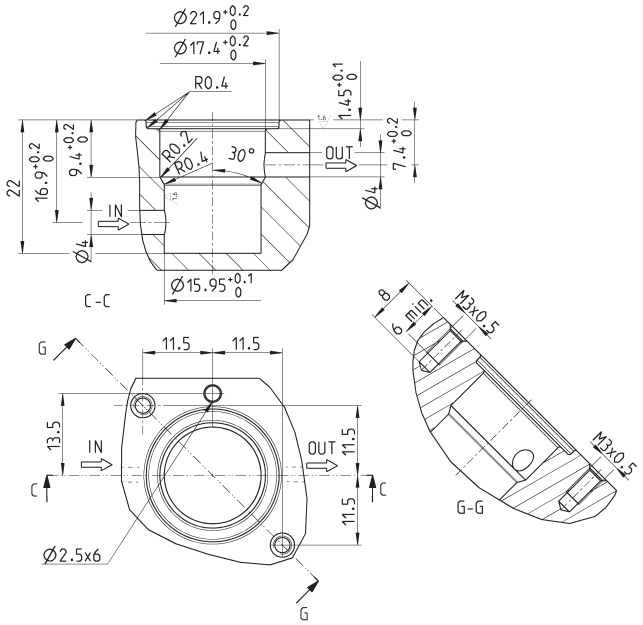






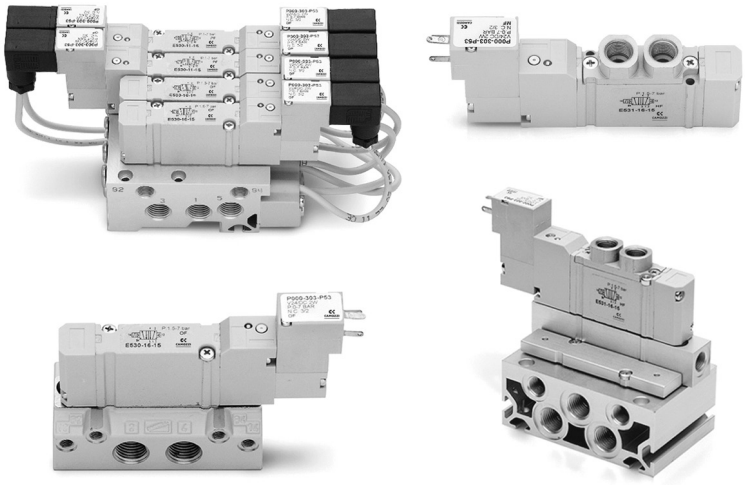
Mod.
TC1-V36-*-V-OX1
TC1-V36-*-V-OX2

Seat dimensions for Series TC cartridge valve



Series E
valves and solenoid valves

5/2-way monostable/bistable - 5/3 CC, CO, CP
With outlets on the body - For individual or manifold assembly
Size 10,5 mm



Series E valves have been designed to allow high flows with small overall dimensions. These valves are manufactured in three different sizes and are suitable for individual use or for mounting on manifolds.
The manifolds allow a common inlet as well as the two exhausts and the pilot exhaust in common.

GENERAL DATA

Construction	spool-type
Valve functions	5/2, 5/3 CC CO CP
Materials	zamak body, aluminium spool and sub-bases; technopolymer end-covers, joints NBR
Ports	valve = M5; manifold = M5 - tube Ø4; sub-base = G1/8
Temperature	0°C min + 50°C max
Fluid	filtered air (5 µm or lower), without lubricant; if lubricated air is used, it is recommended to use ISOVG32 oil. Once applied the lubrication should never be interrupted.
Solenoid voltage	see coding
Voltage tolerance	± 10%
Power consumption	1W
Class of insulation	class F
Protection class	IP50

CODING EXAMPLE

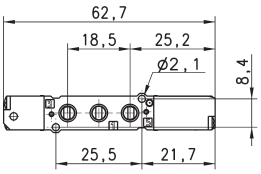
E	5	2	1	-	11	-	10	-	K	1	3

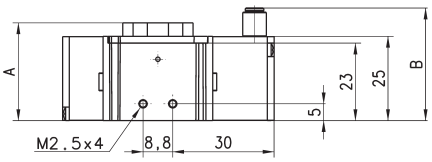
E	SERIES
5	FUNCTION: 5 = 5/2 6 = 5/3 Centres Closed 7 = 5/3 Centres Open 8 = 5/3 Centres in Pressure
2	SIZE: 2 = 10,5 mm
1	BODY TYPE: 1 = body with threaded plate
11	ACTUATION: 11 = electro-pneumatic, bistable 16 = electro-pneumatic, monostable 33 = pneumatic bistable - tube 3 36 = pneumatic monostable - tube 4 C33 = pneumatic bistable - tube 4 C36 = pneumatic monostable - tube 4
10	INTERFACE: 10
K	TYPE OF SOLENOID: K
1	SOLENOID DIMENSION: 1 = 10x10
3	SOLENOID VOLTAGE: 1 = 6V DC 2 = 12V DC 3 = 24V DC

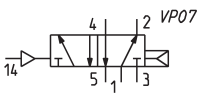
Pneumatically actuated valve, monostable - size 10,5

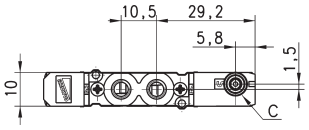
5/2-way

Note: the pilot pressure should never be lower than the operating pressure.





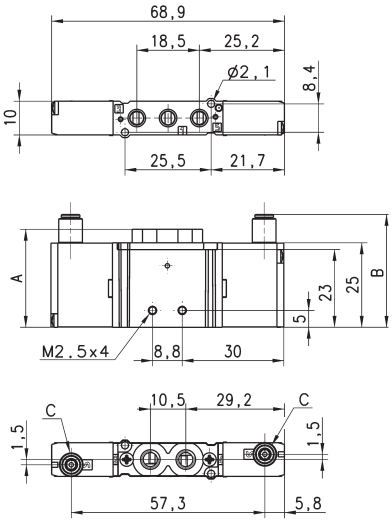


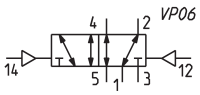


Mod.	A	B	C	Ports 1-3-5	Ports 2-4	Min pilot pressure (bar)	Working pressure (bar)	Flow rate (Nl/min)
E521-36	29	33,4	Ø 3	M5	M5	2,5	2,5 ÷ 7	200
E521-C36	29	39,1	Ø 4	M5	M5	2,5	2,5 ÷ 7	200

Pneumatically actuated valve, bistable - size 10,5

5/2-way

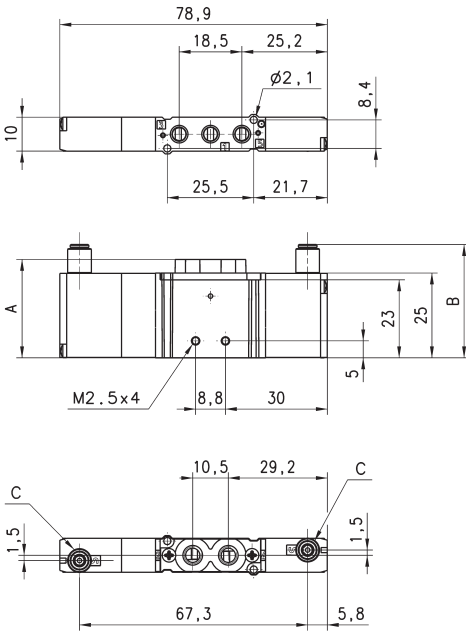


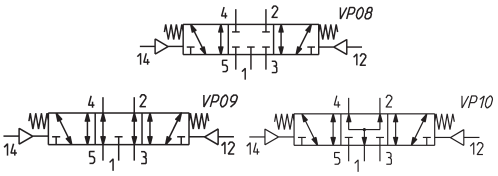


Mod.	A	B	C	Ports 1-3-5	Ports 2-4	Min pilot pressure (bar)	Working pressure (bar)	Flow rate (Nl/min)
E521-33	29	33,4	Ø 3	M5	M5	1	-09 ÷ 7	200
E521-C33	29	39,1	Ø 4	M5	M5	1	-09 ÷ 7	200

Pneumatically actuated valve - size 10,5

5/3-way
CC = Centres closed
CO = Centres open
CP = Pressure centres

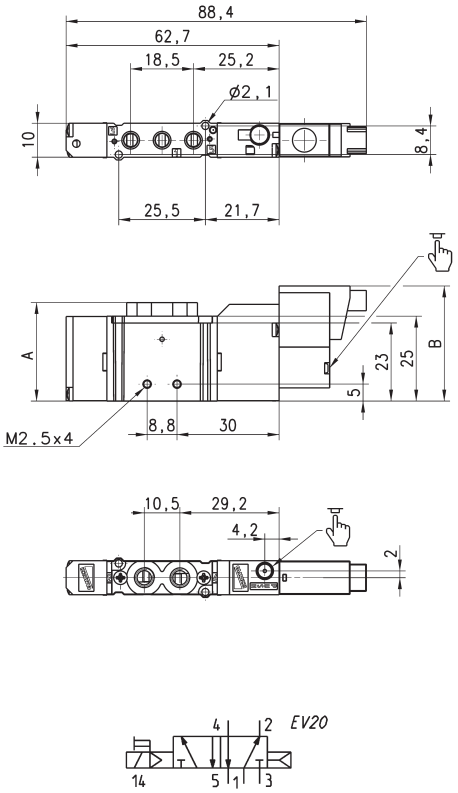




Mod.	A	B	C	Ports 1-3-5	Ports 2-4	Min pilot pressure (bar)	Working pressure (bar)	Flow rate NL/min	Symbol
E621-33	29	33.4	Ø 3	M5	M5	2	-0.9 ÷ 7	200	VP08
E621-C33	29	39.1	Ø 4	M5	M5	2	-0.9 ÷ 7	200	VP08
E721-33	29	33.4	Ø 3	M5	M5	2	-0.9 ÷ 7	200	VP09
E721-C33	29	39.1	Ø 4	M5	M5	2	-0.9 ÷ 7	200	VP09
E821-33	29	33.4	Ø 3	M5	M5	2	-0.9 ÷ 7	200	VP10
E821-C33	29	39.1	Ø 4	M5	M5	2	-0.9 ÷ 7	200	VP10

Electropneumatically actuated valve, monostable - size 10,5

5/2-way



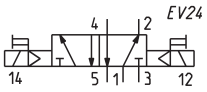
For solenoid valves with solenoid type K, use connector 121-8...

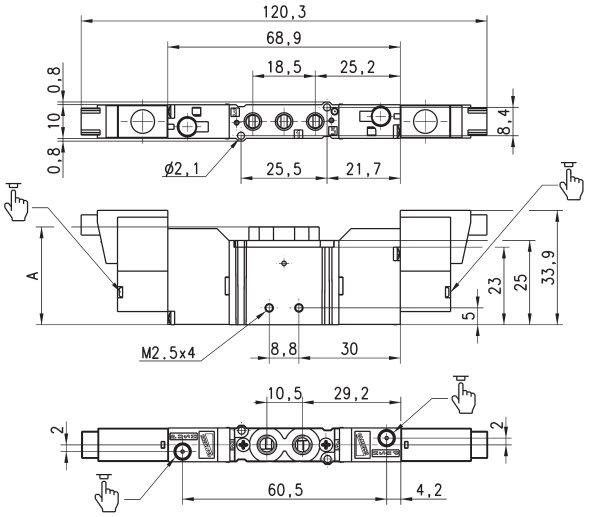
DIMENSIONS					
Mod.	A	Ports 1-3-5	Ports 2-4	working P. (bar)	Flow rate (Nl/min)
E521-16-10-K1..	29	M5	M5	2,5 ÷ 7	200

Electropneumatically actuated valve, bistable - size 10,5

5/2-way

Use connector Mod. Mod. 121-8..

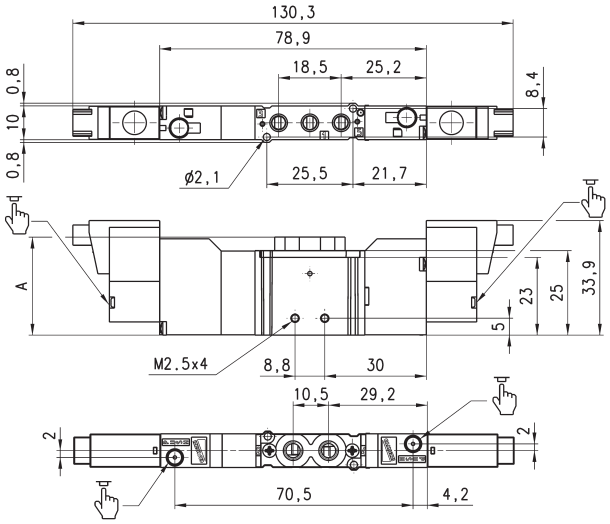




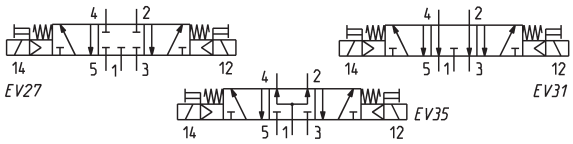
Mod.	A			working P. (bar)	Flow rate (Nl/min)
E521-11-10-K1..	29	M5	M5	1 ÷ 7	200

Electropneumatically actuated valve - size 10,5

5/3-way
CC = Centres Closed
CO = Centres Open
CP = Centres in Pressure



Use connector Mod. 121-8...



Mod.	A	Ports 1-3-5	Ports 2-4	working P. (bar)	Flow rate (Nl/min)	Symbol
E621-11-10-K1..	29	M5	M5	2 ÷ 7	200	EV27
E721-11-10-K1..	29	M5	M5	2 ÷ 7	200	EV31
E821-11-10-K1..	29	M5	M5	2 ÷ 7	200	EV35

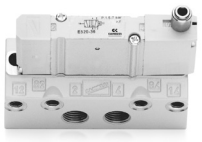
CODING EXAMPLE

E	5	2	0	-	11	-	10	-	K	1	3

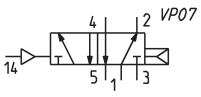
E	SERIES:
5	FUNCTION: 5 = 5/2 6 = 5/3 Centres Closed 7 = 5/3 Centres Open 8 = 5/3 Centres in Pressure
2	SIZE: 2 = 10,5 mm
0	BODY TYPE: 0 = body for sub-base
11	ACTUATION: 11 = electropneumatic bistable 16 = electropneumatic monostable 33 = pneumatic bistable - tube Ø 3 36 = pneumatic monostable - tube Ø 3 C33 = pneumatic bistable - tube Ø 4 C36 = pneumatic monostable - tube Ø 4
10	INTERFACE: 10
K	TYPE OF SOLENOID: K
1	SOLENOID DIMENSIONS: 1 = 10x10
3	SOLENOID VOLTAGE: 1 = 6V DC 2 = 12V DC 3 = 24V DC

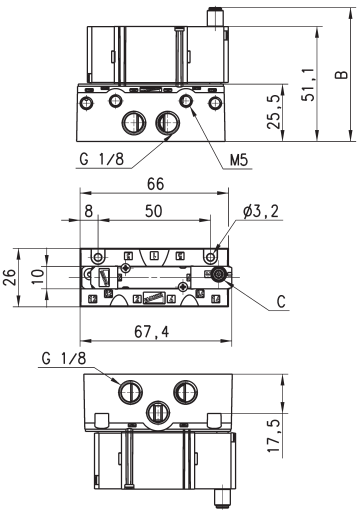
Pneumatically actuated valve, monostable - size 10,5

5/2-way



The single base is ordered separately from the valve. The pilot pressure should never be lower than the operating pressure.

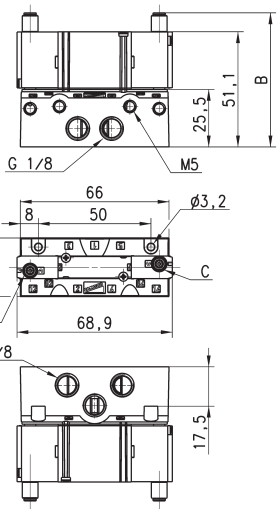




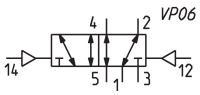
DIMENSIONS					
Mod.	B	C	min. pil P. (bar)	working P. bar	Flow rate (Nl/min)
E520-36	59,5	Ø3	2,5	2,5 ÷ 7	280
E520-C36	65,2	Ø4	2,5	2,5 ÷ 7	280

Pneumatically actuated valve, bistable - size 10,5

5/2-way

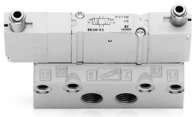


The single base is ordered separately from the valve.

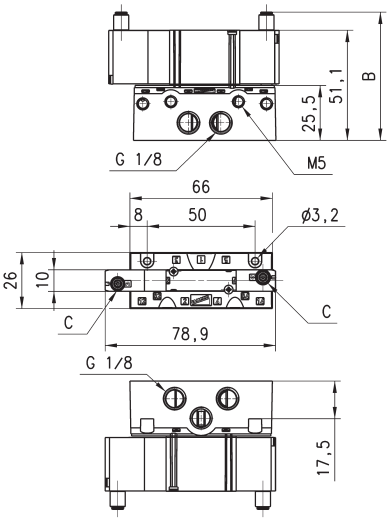


DIMENSIONS					
Mod.	B	C	min. pil P. (bar)	working P. (bar)	Flow rate (Nl/min)
E520-33	59,5	Ø3	1	-0,9 ÷ 7	280
E520-C33	65,2	Ø4	1	-0,9 ÷ 7	280

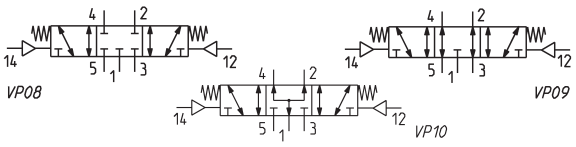
Pneumatically actuated valve - size 10,5



5/3-way
CC = Centres Closed
CO = Centres Open
CP = Centres in Pressure

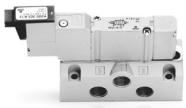


The single base is ordered separately from the valve.



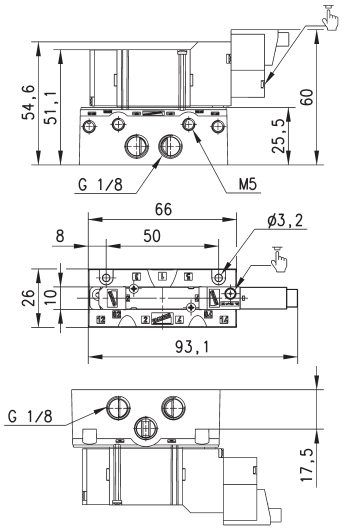
DIMENSIONS						
Mod.	B	C	min. pil P. (bar)	working P. (bar)	Flow rate (Nl/min)	Symbol
E620-33	59,5	Ø3	2	-0,9 ÷ 7	280	VP08
E620-C33	65,5	Ø4	2	-0,9 ÷ 7	280	VP08
E720-33	59,5	Ø3	2	-0,9 ÷ 7	280	VP09
E720-C33	65,5	Ø4	2	-0,9 ÷ 7	280	VP09
E820-33	59,5	Ø3	2	-0;9 ÷ 7	280	VP10
E820-C33	65,5	Ø4	2	-0,9 ÷ 7	280	VP10

Electropneumatically actuated valve, monostable - size 10,5

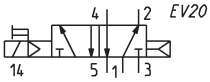


5/2-way

In case of separate pilot supply, the pilot pressure should never be lower than the operating pressure.



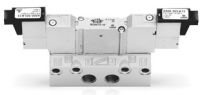
The single base is ordered separately from the valve.

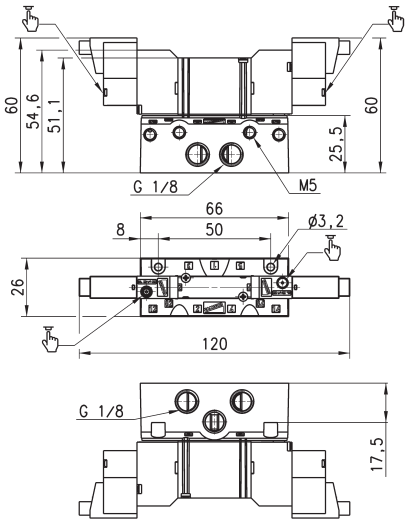


DIMENSIONS		
Mod.	working P. (bar)	Flow rate (Nl/min)
E520-16-10-K1..	2 ÷ 7	280

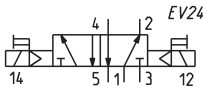
Electropneumatically actuated valve, bistable - size 10,5

5/2-way





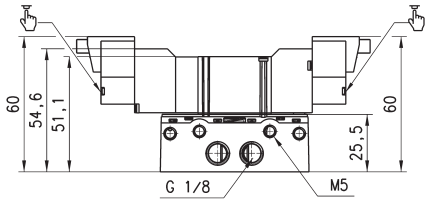
The single base is ordered separately from the valve.

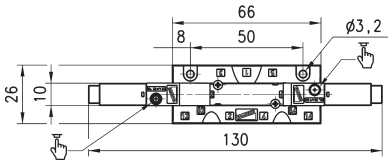


Mod.	working P. bar	Flow rate Nl/min
E520-11-10-K1..	2 ÷ 7	280

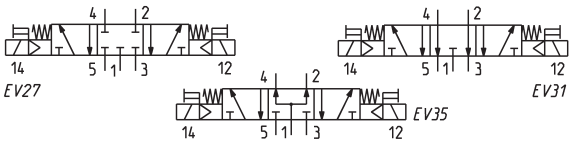
Electropneumatically actuated valve - size 10,5

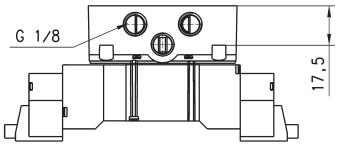
5/3-way
CC = Centres Closed
CO = Centres Open
CP = Centres in Pressure





The single base is ordered separately from the valve





Mod.	working P. bar	Flow rate Nl/min	Symbol
E620-11-10-K1..	2 ÷ 7	280	EV27
E720-11-10-K1..	2 ÷ 7	280	EV31
E820-11-10-K1..	2 ÷ 7	280	EV35

Torque for securing screws on manifolds and single sub-base

Mod.	Size (mm)	Torque (Nm)
E52...	10,5	0,3 ÷ 0,35

CODING EXAMPLE

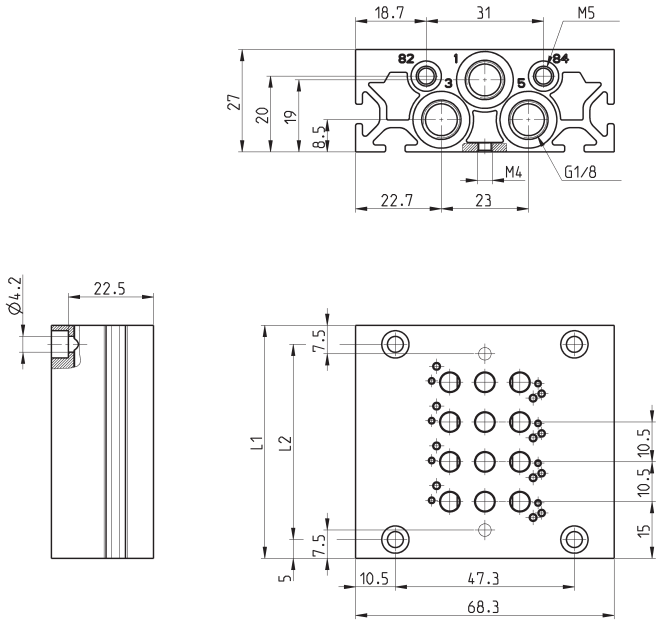
E5	2	1	-	1	0	02

E5	SERIES
2	SIZE: 2 = size 10,5
1	BODY TYPE: 0 = body for sub-base assembly 1 = body with threads or tube port
1	TYPE OF SUB-BASE: 0 = single sub-base with side outlets 1 = manifold for threaded valve 2 = manifold for body mounted valve
0	PORTS: 0 = for valves with outlets on the body 1 = threaded C = tube 4
02	N° OF POSITIONS: 01 = single 03, 04, 06, 08, 10, 12 = multiple

NOTE: When constructing manifolds with 10 or more stations, it is recommended, in order to reduce the risk of pressure drop within the assembly, that pressure is supplied to port 1 at each end of the block. The exhaust ports 3 and 5 at each end should also be utilized (size 10,5 and 16 mm). The same provision should be made for 5 station manifolds of the 19 mm valves. Manifolds complete with ports for external pilot supply are available on request.

Manifolds for valves with outlets on the body Size 10,5

The manifolds have been manufactured with common inlet and exhausts 3 and 5. There are also common exhausts for pilots 82 and 84.

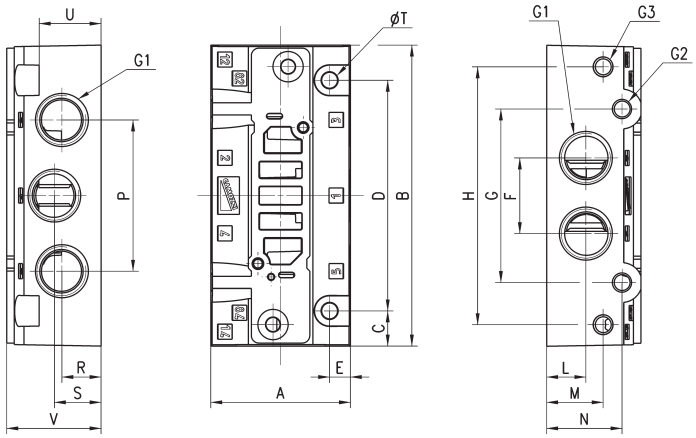


Note: the manifolds are supplied complete with the seals and the valves, fixing screws.

DIMENSIONS													
Mod.	Size	Nr positions	02	03	04	05	06	07	08	09	10	11	12
E521-10..	10.5	L1	40.5	51	61.5	72	82.5	93	103.5	114	124.5	135	145.5
E521-10..	10.5	L2	30.5	41	51.5	62	72.5	83	93.5	104	114.5	125	135.5

Single sub-base for base mounted valves - size 10,5

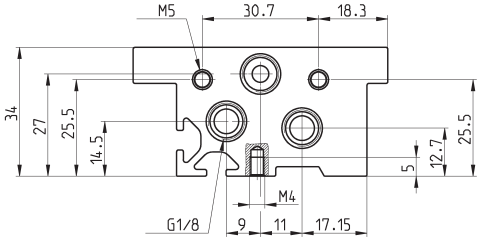
Note: The valve and its single sub-base are available on request.

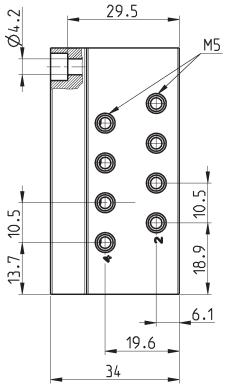


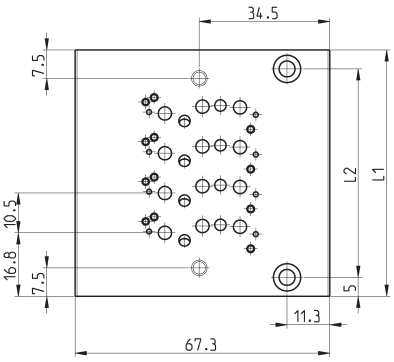
DIMENSIONS																					
Mod.	Size	G1	G2	G3	A	B	C	D	E	F	G	H	L	M	N	P	R	S	T	U	V
E520-0101	10,5	G1/8	M5	M5	26	66	8	50	4	15	37,3	57,3	8,2	17	18	24,5	8,2	17,2	32	17,5	25,5

Manifolds for base mounted valves size 10,5

The manifolds have been manufactured with common inlet 1 and exhaust 3 and 5. There are also common exhausts for pilots 82 and 84.



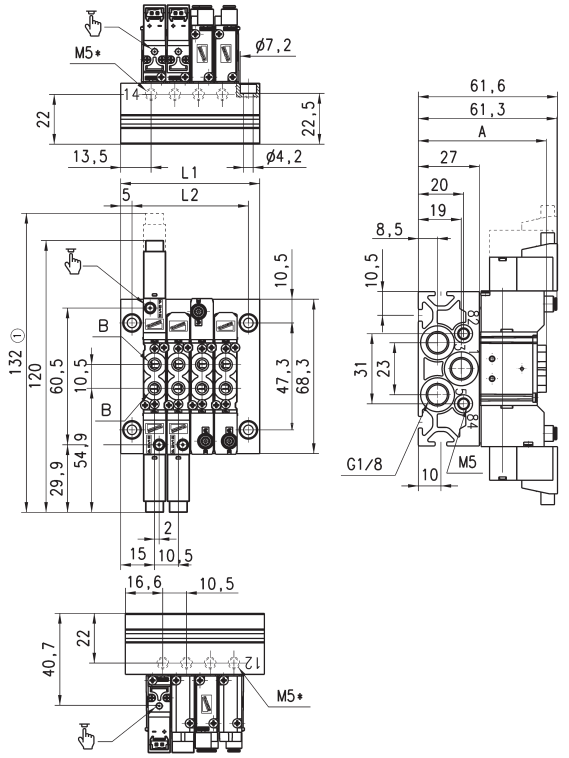




DIMENSIONS													
Mod.	Size	Nr positions	02	03	04	05	06	07	08	09	10	11	12
E520-21..	10.5	L1	44	54.5	65	75.5	86	96.5	107	117.5	128	138.5	149
E520-21..	10.5	L2	34	44.5	55	65.5	76	86.5	97	107.5	118	128.5	139
E520-2C..	10.5	L1	44	54.5	65	75.5	86	96.5	107	117.5	128	138.5	149
E520-2C..	10.5	L2	34	44.5	55	65.5	76	86.5	97	107.5	118	128.5	139

Manifolds with valves with outlets on the body - size 10.5

5/2 and 5/3, ports M5

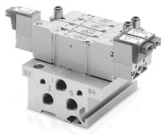


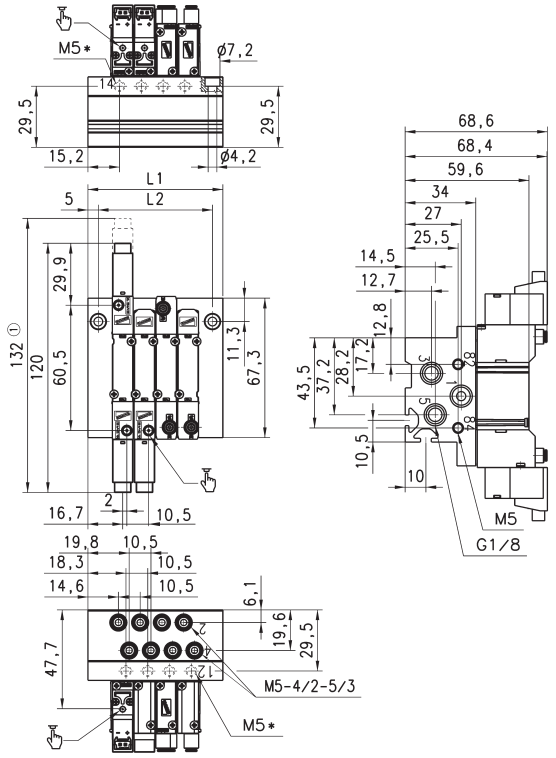
DIMENSIONS					
Mod.	A	B	L1 - L2 N° 1 Position	L1 - L2 N° 2 Positions	Fixed quote for position
E521	56,6	M5	40,5 - 30,5	51 - 41	10,5
E52C	65,1	4/2	40,5 - 30,5	51 - 41	10,5

Size referred to 5/3 valve M5*
Separate pilot supply on request.

Manifolds with valves for subbase - size 10.5

5/2 and 5/3





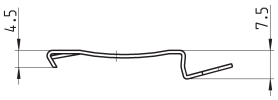
DIMENSIONS											
N° Positions	2	3	4	5	6	7	8	9	10	11	12
L1	44	54,5	65	75,5	86	96,5	107	117,5	128	138,5	149
L2	34	44,5	55	65,5	76	86,5	97	107,5	118	128,5	139

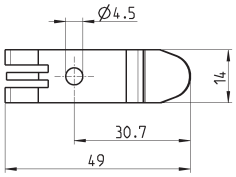
(1) Size referred to 5/3 valve M5* Separate pilot supply on request.

Mounting brackets for DIN rail

DIN EN 50022 (7,5mm x 35mm - width 1)
Suitable for all manifolds.

Supplied with:
2x plates
2x screws M4x6 UNI 5931

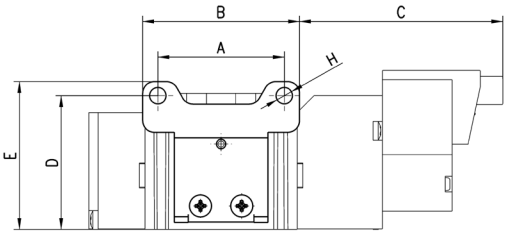


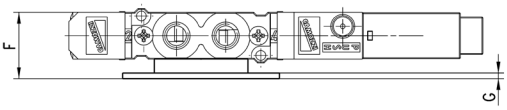


Mod.
PCF-E520

Horizontal mounting foot bracket for valves with outlets on the body

The following is supplied:
1x foot bracket
2x screws.

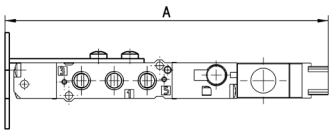


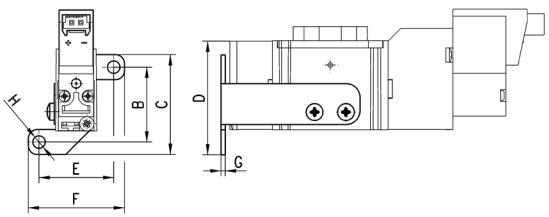


DIMENSIONS									
Mod.	Size	A	B	C	D	E	F	G	H
B1-E521	10,5	27	33,5	43,4	28,5	31,5	14,2	1,2	3,5

Vertical mounting foot bracket for valves with outlets on the body

The following is supplied:
1x foot bracket
2x screws
Monostable valves only.

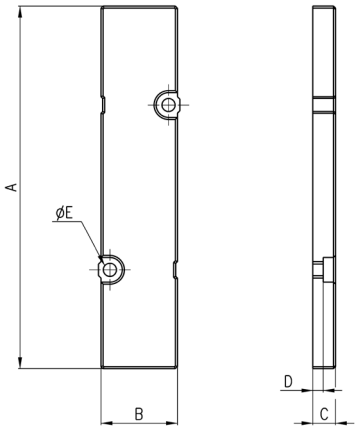




DIMENSIONS									
Mod.	Size	A	B	C	D	E	F	G	H
B2-E521	10,5	90,8	21	28	31,9	21	27	1,2	3.5

Blanking plate for manifolds - valves with outlets on the body

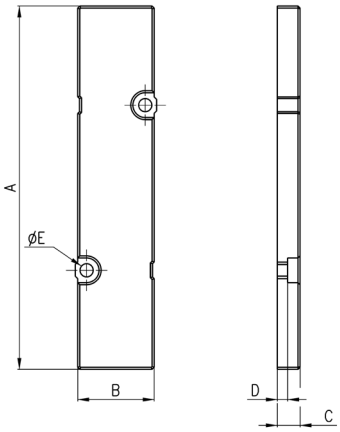
The following is supplied:
1x blanking plate
2x screws
1x seal.



DIMENSIONS					
Mod.	Size	A	B	D	øE
TP-E521	10,5	66	10	3,5	2,1

Blanking plate for manifolds - base mounted valves

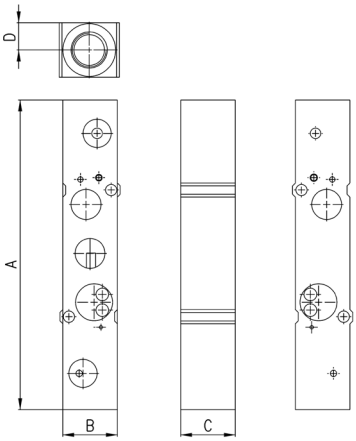
The following is supplied:
1x blanking plate
2x screws
1x seal.



DIMENSIONS						
Mod.	Size	A	B	C	D	øE
TP-E520	10,5	66	10	6	3,5	2,1

Intermediate plate for valves to provide a separate supply in 1

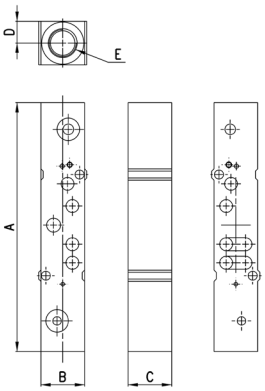
Base mounted valves.
The following is supplied:
1x plate
2x screws
1x interface seal
2x O-Ring.



DIMENSIONS						
Mod.	Size	A	B	C	D	E
PCP-E521	10,5	72,5	10	10	5	M5

Intermediate plate for valves to provide a separate supply in 1

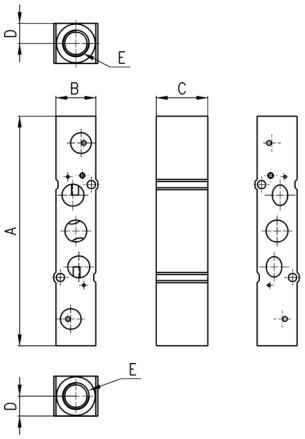
Base mounted valves.
The following is supplied:
1x plate
2x screws
1x interface seal
2x OR.



DIMENSIONS						
Mod.	Size	A	B	C	D	E
PCP-E520	10,5	72,5	10	10	5	M5

Intermediate plate for valves to provide separate supply in 3 and 5

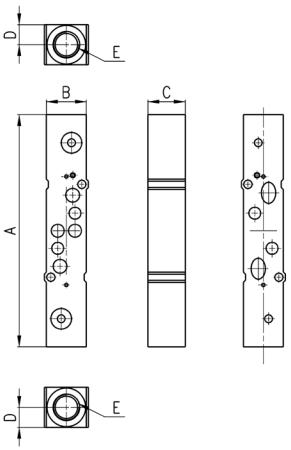
Kits for valves with outlets on the body
Mod. E2*1-**.
The following is supplied:
1x plate
2x screws
1x interface seal
2x OR.



DIMENSIONS						
Mod.	Size	A	B	C	D	E
PCS-E521	10,5	76	10	10	5	M5

Intermediate plate for valves to provide separate supply in 3 and 5

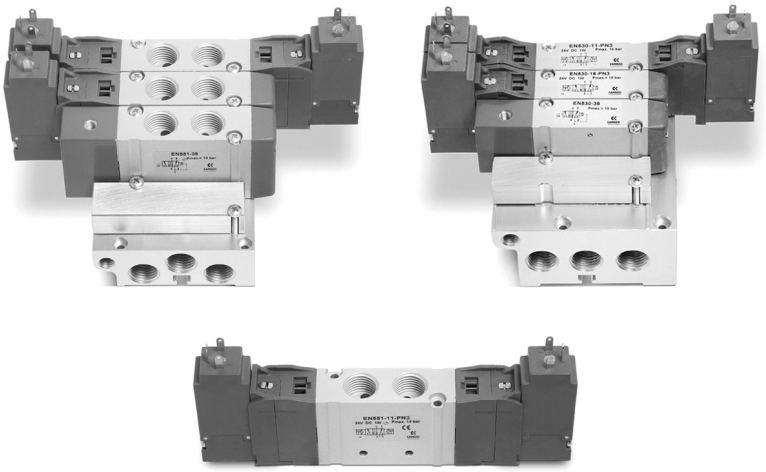
Kits for valves mounted on sub-base
Mod. E2*0-**.
The following is supplied:
1x plate
2x screws
1x interface seal
2x OR.



DIMENSIONS						
Mod.	Size	A	B	C	D	E
PCS-E520	10,5	76	10	10	5	M5

Series EN
valves and solenoid valves

5/2-way - 5/3-way CC, CO, CP
With outlets on the body - For individual or manifold assembly
Size 16 - 19 mm



- Mounting on any flat surface
- Reduced dimensions
- Aluminium body and end-covers in technopolymer
- Space saving

Camozzi has developed a new series of valves to be used in applications requiring a reduced space of installation and in situations where the valves need to be located as near as possible to the operating elements. The single valves can be mounted on any flat surface, allowing compact machine design, which is also enhanced by the reduced dimensions of the valve itself.
Thanks to their robust aluminium bodies, the valves Series EN offer the highest reliability.

This new generation of solenoid valves is the evolution of the previous Series E, size 16 - 19 mm valve with ports threaded into the body. As this valve is completely interchangeable with Series E, part of the code is maintained though the valve has a completely new shape and new components.

GENERAL DATA

Construction	spool-type
Valve functions	5/2 - 5/3 CC - 5/3 CO - 5/3 CP
Materials	body, spool, bases = AL end-covers = tecnnopolymer joints = NBR PU
Ports	G1/8 - G1/4
Temperature	0°C min. + 50° C max
Fluid	filtered air without lubricant. If lubricated air is used, it is recommended to use ISOVG32 oil and to never interrupt lubrication.
Voltage	see coding
Voltage tolerance	± 10%
Power consumption	2W, 1W
Class of insulation	class F
Protection class	IP65 with connector DIN 40050

CODING EXAMPLE

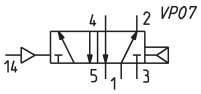
EN	5	3	1	-	11	-	PN3

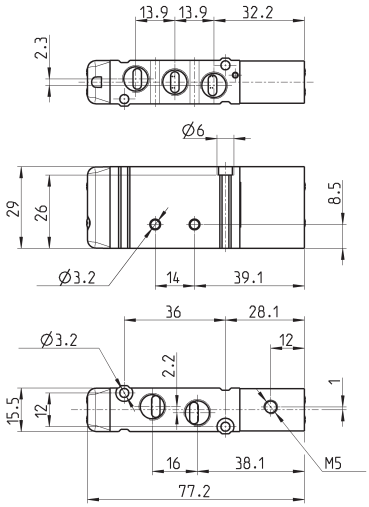
EN	SERIES
5	FUNCTION: 5 = 5/2 6 = 5/3 Centre Closed 7 = 5/3 Centre Open 8 = 5/3 Pressure Centre
3	SIZE: 3 = size 16 5 = size 19
1	BODY TYPE: 1 = body with threaded plate
11	ACTUATION: 11 = electro-pneumatic, bistable 16 = electro-pneumatic, monostable 33 = pneumatic bistable 36 = pneumatic monostable E11 = electro-pneumatic, bistable with external servo-pilot supply E16 = electro-pneumatic, monostable with external servo-pilot supply
PN3	TYPE OF SOLENOID: PN3 = 24V DC - 1W P13 = 24V DC - 1W PN4 = 48V DC - 2W PN6 = 110V DC - 2W PN7 = 230V - 2W P53 = 24V DC - 2W P54 = 48V DC - 2W P56 = 110V DC - 2W W53 = 24V DC - 2W W54 = 48V DC - 2W In case of applications with alternate current, use a bridge rectifier connector (see the connectors at the end of the section)

Pneumatically actuated valve, monostable - size 16

5/2-way

Note: the pilot pressure should never be lower than the operating pressure.

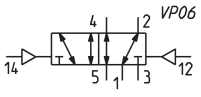


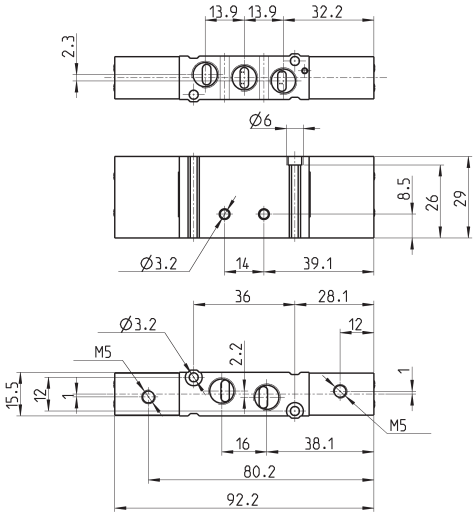


Mod.	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)
EN531-36	G1/8	M5	2,5 ÷ 10	-0.9 ÷ 10	550

Pneumatically actuated valve, bistable - size 16

5/2-way

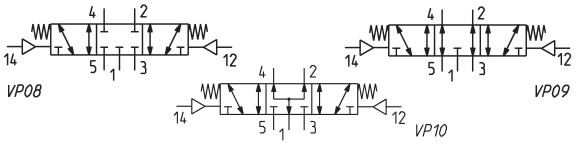


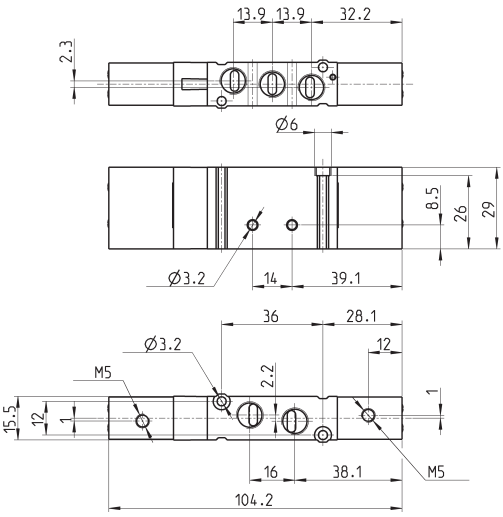


Mod.	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)
EN531-33	G1/8	M5	2 ÷ 10	-0.9 ÷ 10	550

Pneumatically actuated valve - size 16

5/3-way
CC = Centres closed
CO = Centres open
CP = Pressure Centres



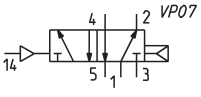


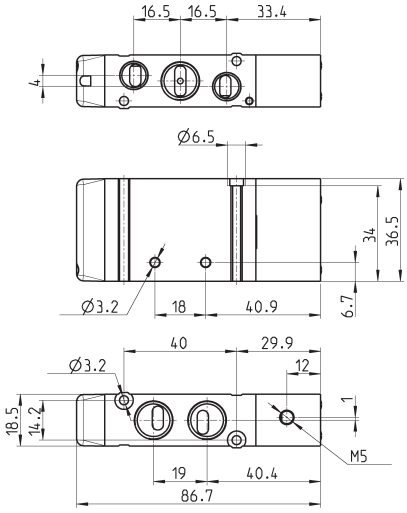
Mod.	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
EN631-33	G1/8	M5	3 ÷ 10	-0.9 ÷ 10	550	VP08
EN731-33	G1/8	M5	3 ÷ 10	-0.9 ÷ 10	550	VP09
EN831-33	G1/8	M5	3 ÷ 10	-0,9 ÷ 10	550	VP10

Pneumatically actuated valve, monostable - size 19

5/2-way

Note: the pilot pressure should never be lower than the operating pressure.

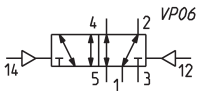


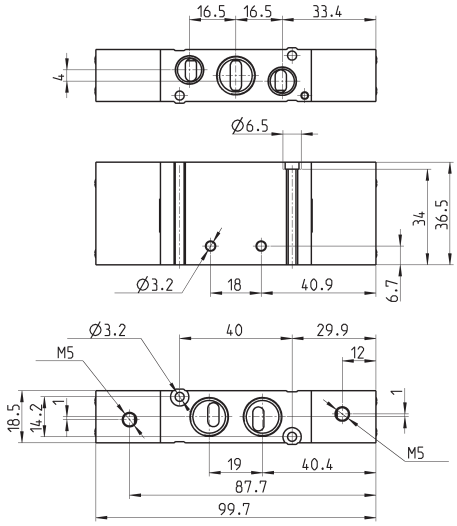


Mod.	Ports 1-2-4	Ports 3-5	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)
EN551-36	G1/4	G1/8	M5	2.5 ÷ 10	-0.9 ÷ 10	920

Pneumatically actuated valve, bistable - size 19

5/2-way

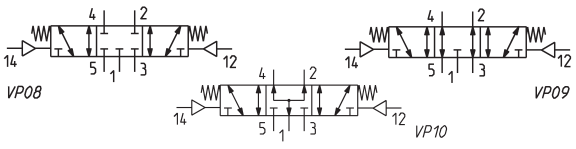


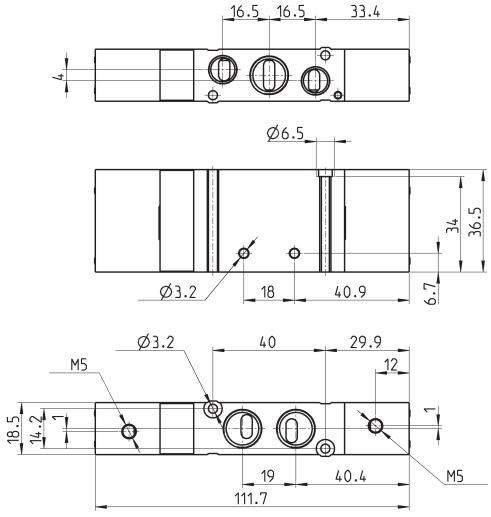


Mod.	Ports 1-2-4	Ports 3-5	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)
EN551-33	G1/4	G1/8	M5	2 ÷ 10	-0,9 ÷ 10	920

Pneumatically actuated valve - size 19

5/3-way
CC = Centres closed
CO = Centres open
CP = Pressure Centres



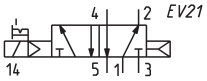


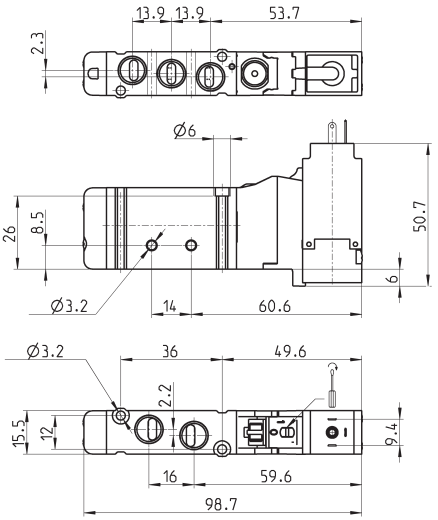
Mod.	Ports 1-2-4	Ports 3-5	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
EN651-33	G1/4	G1/8	M5	3 ÷ 10	-0,9 ÷ 10	920	VP08
EN751-33	G1/4	G1/8	M5	3 ÷ 10	-0,9 ÷ 10	920	VP09
EN851-33	G1/4	G1/8	M5	3 ÷ 10	-0,9 ÷ 10	920	VP10

Electro-pneumatically actuated valve, monostable - size 16

5/2-way

Connectors at the end of this section



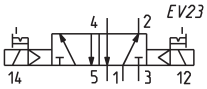


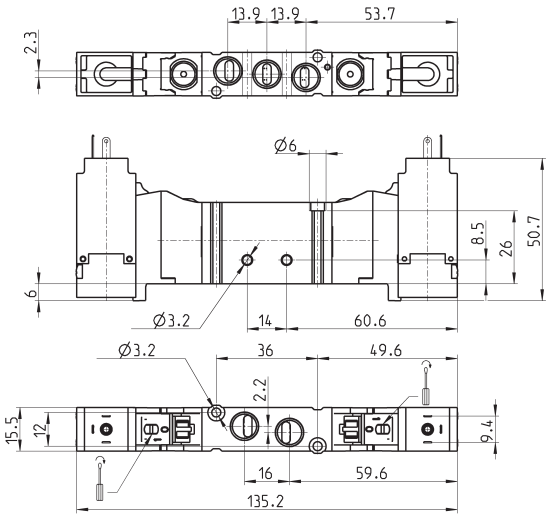
Mod.	Ports	Operating pressure (bar)	Flow (Nl/min)
EN531-16-PN..	G1/8	2,5 ÷ 10	550

Electro-pneumatically actuated valve, bistable - size 16

5/2-way

Connectors at the end of this section

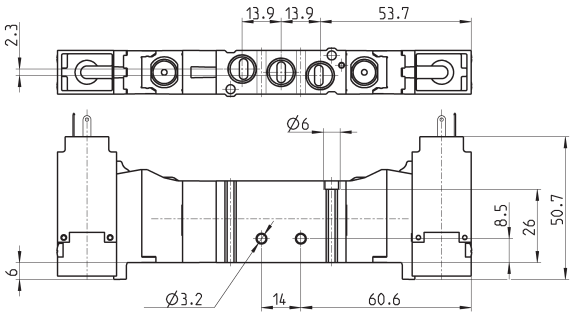




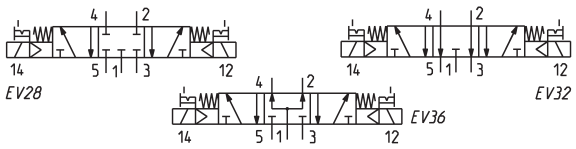
Mod.	Ports	Operating pressure (bar)	Flow (Nl/min)
EN531-11-PN..	G1/8	2 ÷ 10	550

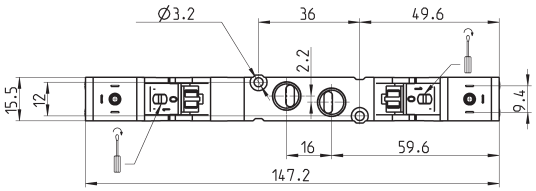
Electro-pneumatically actuated valve - size 16

5/3-way
CC = Centres Closed
CO = Centres Open
CP = Pressure Centres



Connectors at the end of this section

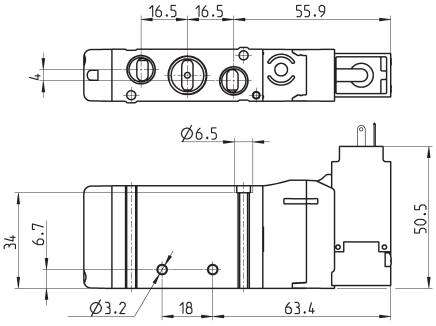




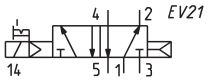
Mod.	Ports	Operating pressure (bar)	Flow (Nl/min)	Symbol
EN631-11-PN..	G1/8	3 ÷ 10	550	EV28
EN731-11-PN..	G1/8	3 ÷ 10	550	EV32
EN831-11-PN..	G1/8	3 ÷ 10	550	EV36

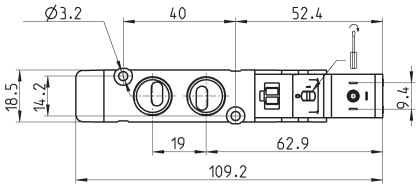
Electro-pneumatically actuated valve, monostable - size 19

5/2-way



Connectors at the end of this section



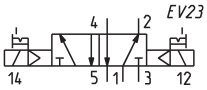


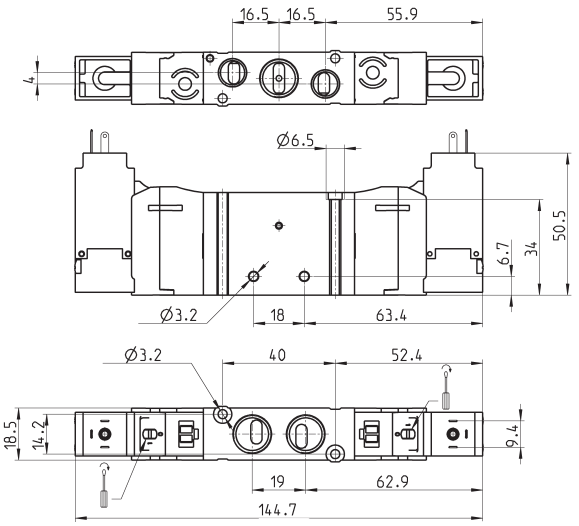
Mod.	Ports 1-2-4	Ports 3-5	Operating pressure (bar)	Flow (Nl/min)
EN551-16-PN..	G1/4	G1/8	2,5 ÷ 10	920

Electro-pneumatically actuated valve, bistable - size 19

5/2-way

Connectors at the end of this section



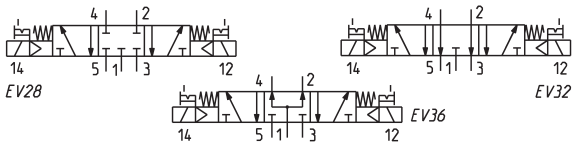


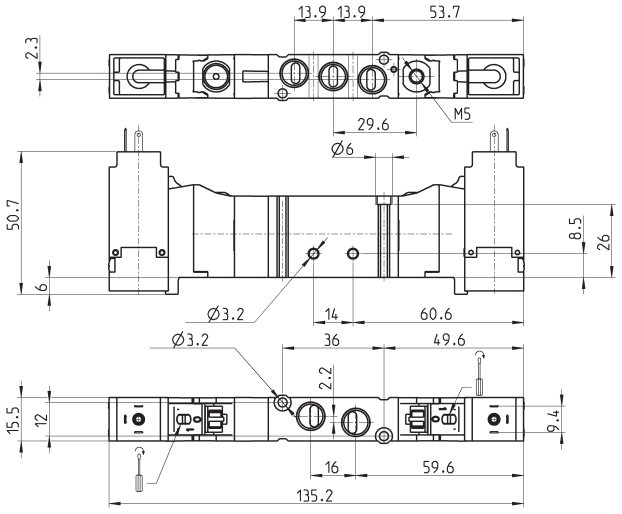
Mod.	Ports 1-2-4	Ports 3-5	Operating pressure (bar)	Flow (Nl/min)
EN551-11-PN..	G1/4	G1/8	2 ÷ 10	920

Electro-pneumatically actuated valve - size 19

5/3-way
CC = Centres Closed
CO = Centres Open
CP = Pressure Centres

Connectors at the end of this section



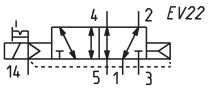


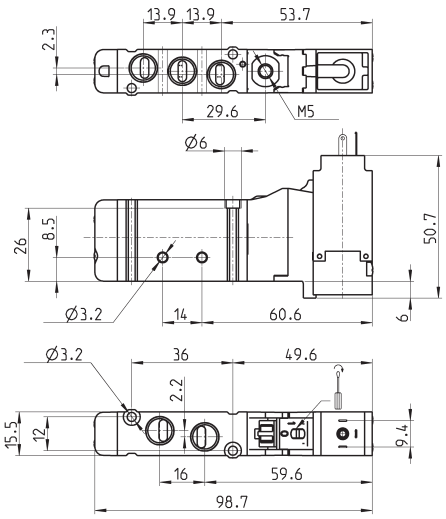
Mod.	Ports 1-2-4	Ports 3-5	Operating pressure (bar)	Flow (Nl/min)	Symbol
EN651-11-PN..	G1/4	G1/8	3 ÷ 10	920	EV28
EN751-11-PN..	G1/4	G1/8	3 ÷ 10	920	EV32
EN851-11-PN..	G1/4	G1/8	3 ÷ 10	920	EV36

Electro-pneum. valve, monostable - ext. servo-pilot supply - size 16

5/2-way

Connectors at the end of this section



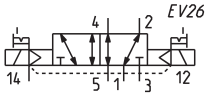


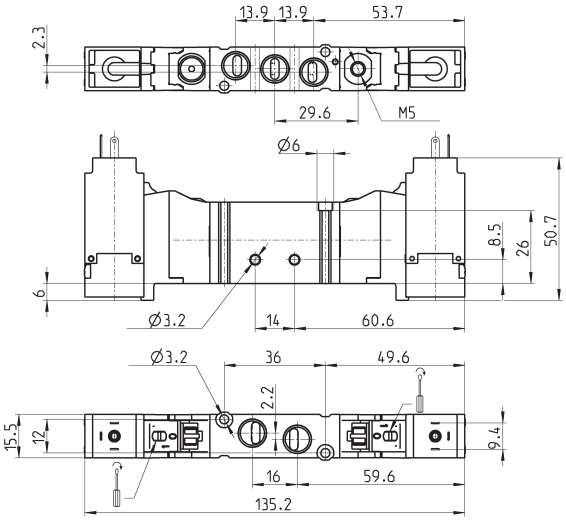
Mod.	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)
EN531-E16-PN..	G1/8	M5	2,5 ÷ 10	- 0,9 ÷ 10	550

Electro-pneum. valve, bistable - ext. servo-pilot supply - size 16

5/2-way

Connectors at the end of this section

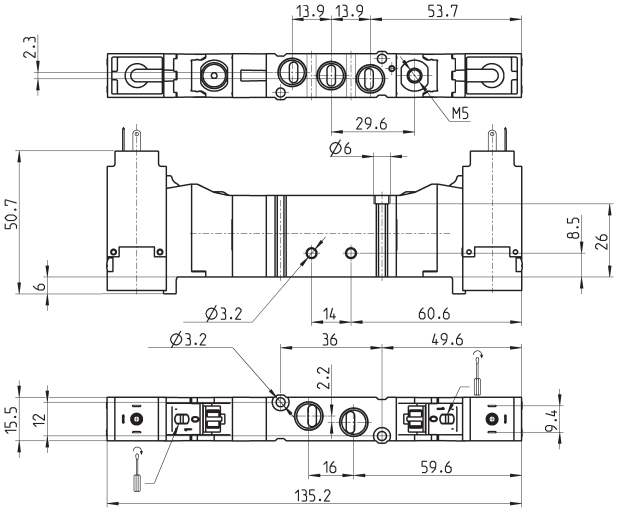




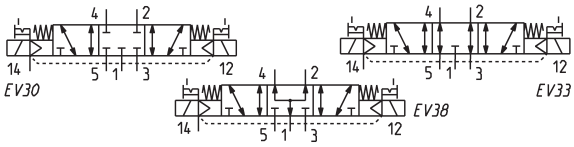
Mod.	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)
EN531-E11-PN..	G1/8	M5	2 ÷ 10	-0,9 ÷ 10	550

Electro-pneum. valve - ext. servo-pilot supply - size 16

5/3-way
CC = Centres Closed
CO = Centres Open
CP = Pressure Centres



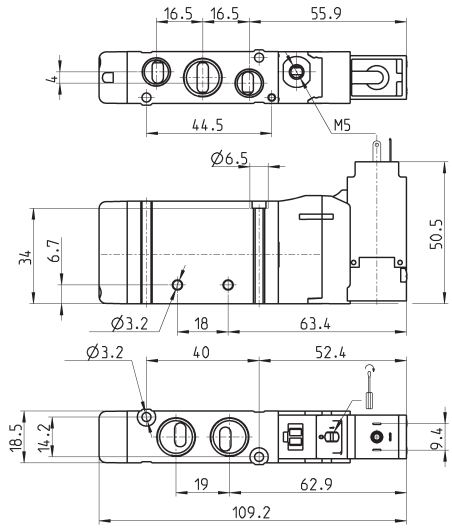
Connectors at the end of this section



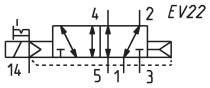
Mod.	Function	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
EN631-E11-PN..		G1/8	M5	3 ÷ 10	-0,9 ÷ 10	550	EV30
EN731-E11-PN..		G1/8	M5	3 ÷ 10	-0,9 ÷ 10	550	EV33
EN831-E11-PN..		G1/8	M5	3 ÷ 10	-0,9 ÷ 10	550	EV38

Electro-pneum. valve, monostable - ext. servo-pilot supply - size 19

5/2-way



Connectors at the end of this section

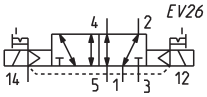


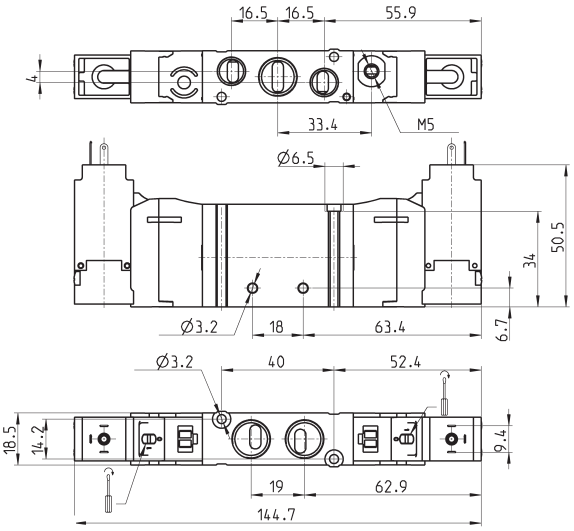
Mod.	Ports 1-2-4	Ports 3-5	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)
EN551-E16-PN..	G1/4	G1/8	M5	2,5 ÷ 10	- 0,9 ÷ 10	920

Electro-pneum. valve, bistable - ext. servo-pilot supply - size 19

5/2-way

Connectors at the end of this section



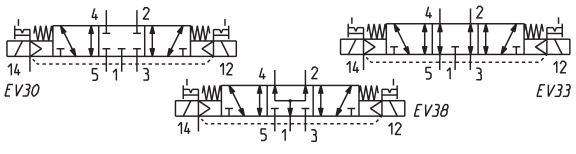


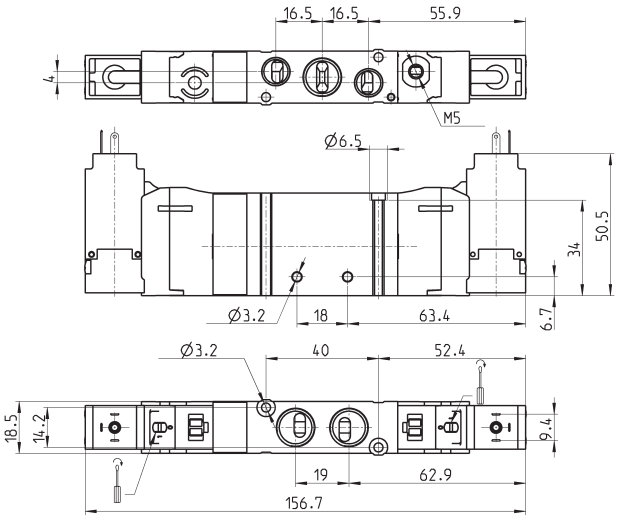
Mod.	Ports 1-2-4	Ports 3-5	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)
EN551-E11-PN..	G1/4	G1/8	M5	2 ÷ 10	-0,9 ÷ 10	920

Electro-pneum. valve - ext. servo-pilot supply - size 19

5/3-way
CC = Centres Closed
CO = Centres Open
CP = Pressure Centres

Connectors at the end of this section



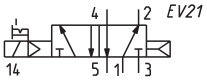


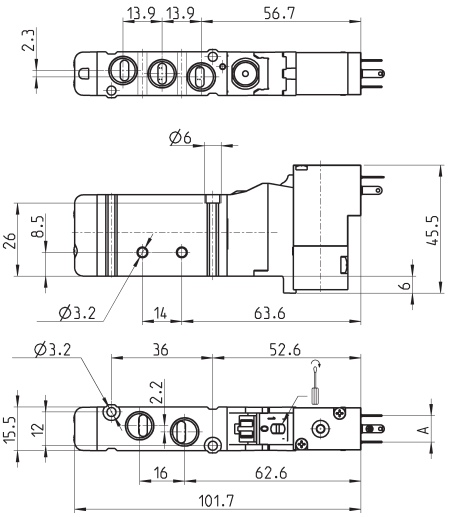
Mod.	Ports 1-2-4	Ports 3-5	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
EN651-E11-PN..	G1/4	G1/8	M5	3 ÷ 10	-0,9 ÷ 10	920	EV30
EN751-E11-PN..	G1/4	G1/8	M5	3 ÷ 10	-0,9 ÷ 10	920	EV33
EN851-E11-PN..	G1/4	G1/8	M5	3 ÷ 10	-0,9 ÷ 10	920	EV38

Electro-pneum. valve, monostable, solenoid P, W - size 16

5/2-way

Connectors at the end of this section



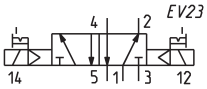


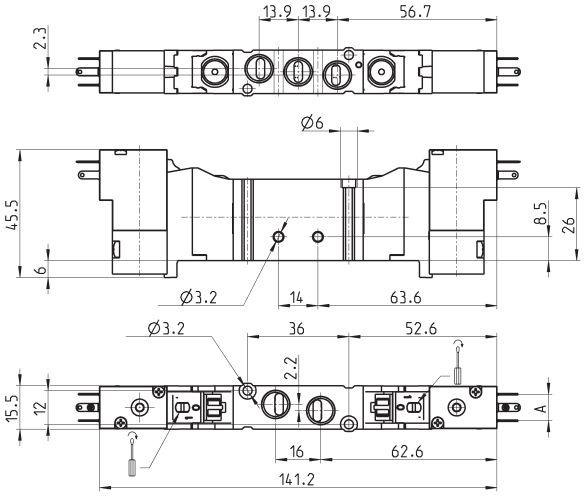
Mod.	Ports	A	Operating pressure (bar)	Flow (Nl/min)
EN531-16-P13	G1/8	9,4	2,5 ÷ 10	550
EN531-16-P54	G1/8	9,4	2,5 ÷ 10	550
EN531-16-P56	G1/8	9,4	2,5 ÷ 10	550
EN531-16-W53	G1/8	8	2,5 ÷ 10	550
EN531-16-W54	G1/8	8	2,5 ÷ 10	550

Electro-pneum. valve, bistable, solenoid P, W - size 16

5/2-way

Connectors at the end of this section

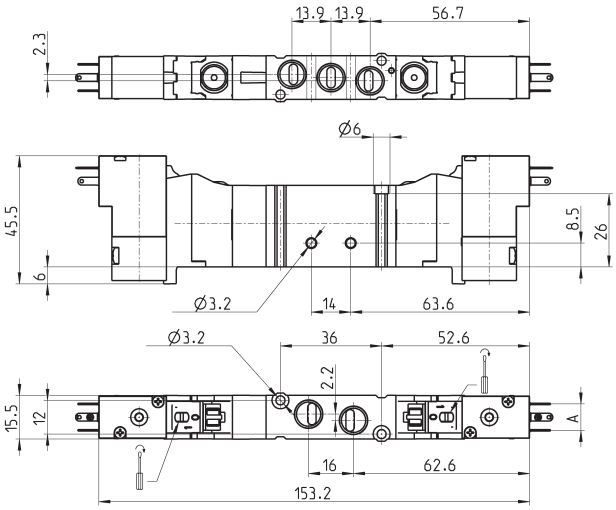




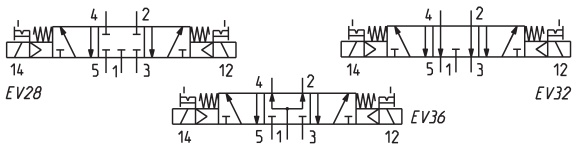
Mod.	Ports	A	Operating pressure (bar)	Flow (Nl/min)
EN531-11-P13	G1/8	9,4	2 ÷ 10	550
EN531-11-P54	G1/8	9,4	2 ÷ 10	550
EN531-11-P56	G1/8	9,4	2 ÷ 10	550
EN531-11-W53	G1/8	8	2 ÷ 10	550
EN531-11-W54	G1/8	8	2 ÷ 10	550

Electro-pneumatic valve, solenoid P, W - size 16

5/3-way
CC = Centres Closed
CO = Centres Open
CP = Pressure Centres



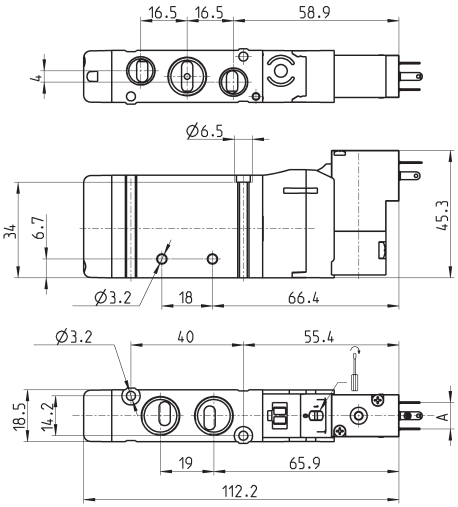
Connectors at the end of this section



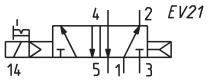
Mod.	Ports	A	Operating pressure (bar)	Flow (Nl/min)	Symbol
EN631-11-P..	G1/8	9,4	3 ÷ 10	550	EV28
EN731-11-P..	G1/8	9,4	3 ÷ 10	550	EV32
EN831-11-P..	G1/8	9,4	3 ÷ 10	550	EV36
EN631-11-W..	G1/8	8	3 ÷ 10	550	EV28
EN731-11-W..	G1/8	8	3 ÷ 10	550	EV32
EN831-11-W..	G1/8	8	3 ÷ 10	550	EV36

Electro-pneum. valve, monostable, solenoid P, W - size 19

5/2-way



Connectors at the end of this section

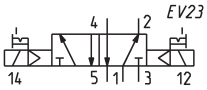


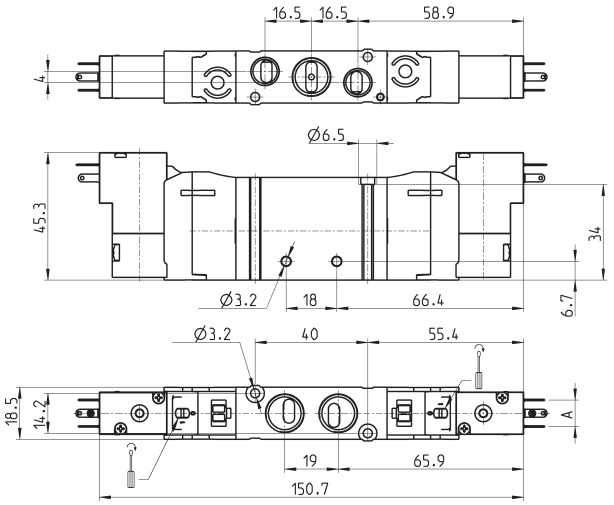
Mod.	Ports 1-2-4	Ports 3-5	A	Operating pressure (bar)	Flow (Nl/min)
EN551-16-P13	G1/4	G1/8	9,4	2,5 ÷ 10	920
EN551-16-P54	G1/4	G1/8	9,4	2,5 ÷ 10	920
EN551-16-P56	G1/4	G1/8	9,4	2,5 ÷ 10	920
EN551-16-W53	G1/4	G1/8	8	2,5 ÷ 10	920
EN551-16-W54	G1/4	G1/8	8	2,5 ÷ 10	920

Electro-pneum. valve, bistable, solenoid P, W - size 19

5/2-way

Connectors at the end of this section



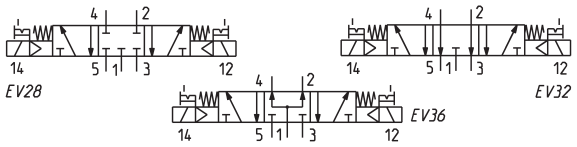


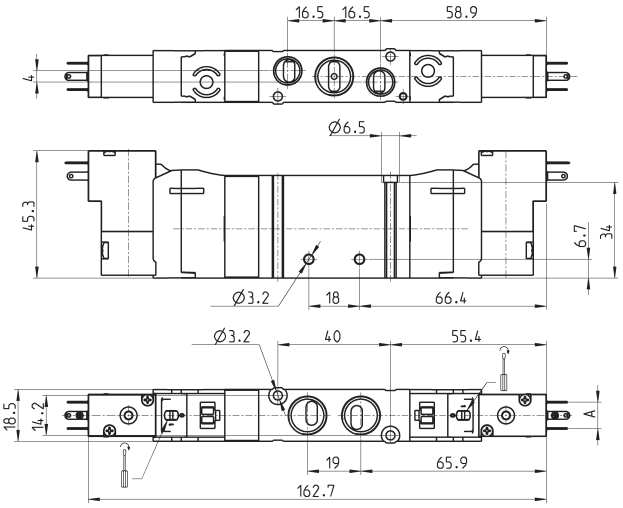
Mod.	Ports 1-2-4	Ports 3-5	A	Operating pressure (bar)	Flow (Nl/min)
EN551-11-P13	G1/4	G1/8	9,4	2 ÷ 10	920
EN551-11-P54	G1/4	G1/8	9,4	2 ÷ 10	920
EN551-11-P56	G1/4	G1/8	9,4	2 ÷ 10	920
EN551-11-W53	G1/4	G1/8	8	2 ÷ 10	920
EN551-11-W54	G1/4	G1/8	8	2 ÷ 10	920

Electro-pneumatic valve, solenoid P, W - size 19

5/3-way
CC = Centres Closed
CO = Centres Open
CP = Pressure Centres

Connectors at the end of this section



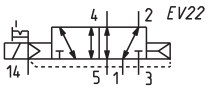


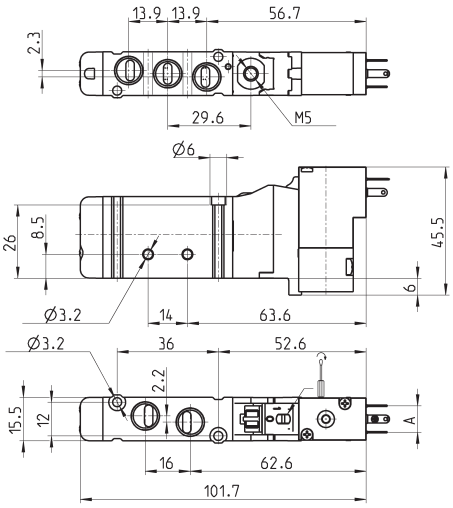
Mod.	Ports 1-2-4	Ports 3-5	A	Operating pressure (bar)	Flow (Nl/min)	Symbol
EN651-11-P..	G1/4	G1/8	9,4	3 ÷ 10	920	EV28
EN751-11-P..	G1/4	G1/8	9,4	3 ÷ 10	920	EV32
EN851-11-P..	G1/4	G1/8	9,4	3 ÷ 10	920	EV36
EN651-11-W..	G1/4	G1/8	8	3 ÷ 10	920	EV28
EN751-11-W..	G1/4	G1/8	8	3 ÷ 10	920	EV32
EN851-11-W..	G1/4	G1/8	8	3 ÷ 10	920	EV36

Electro-pneum. valve, monost. ext. servo-pilot sup., sol. P/W - size 16

5/2-way

Connectors at the end of this section



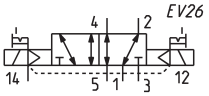


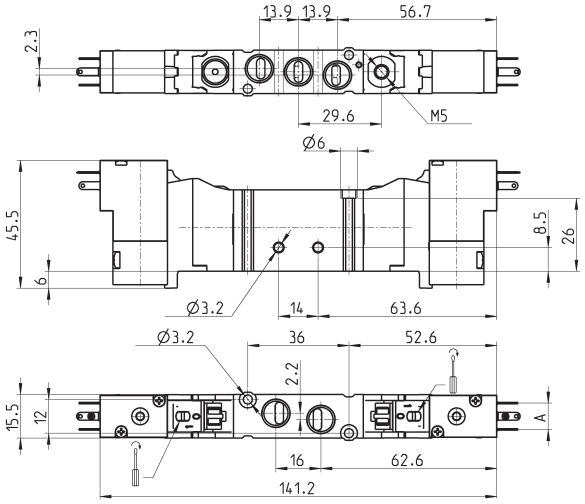
Mod.	Ports	A	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)
EN531-E16-P..	G1/8	9,4	M5	2,5 ÷ 10	-0,9 ÷ 10	550
EN531-E16-W..	G1/8	8	M5	2,5 ÷ 10	-0,9 ÷ 10	550

Electro-pneum. valve, bistable ext. servo-pilot sup., sol. P/W - size 16

5/2-way

Connectors at the end of this section

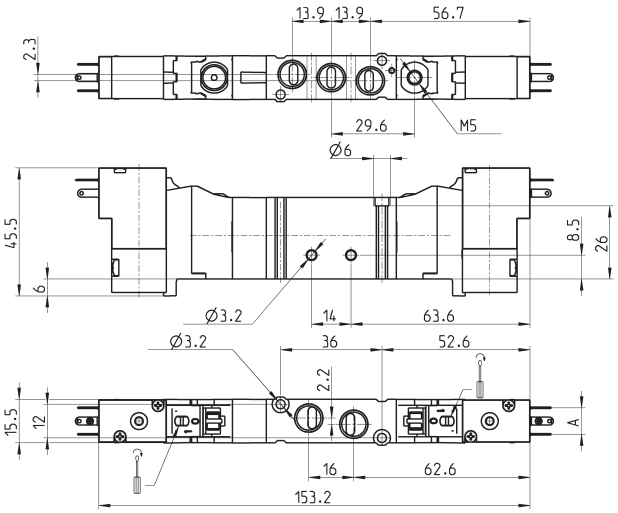




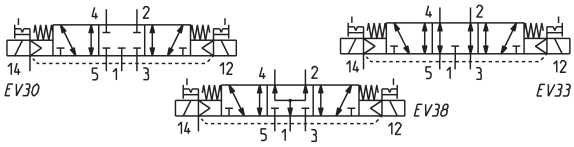
Mod.	Ports	A	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)
EN531-E11-P..	G1/8	9,4	M5	2 ÷ 10	-0,9 ÷ 10	550
EN531-E11-W..	G1/8	8	M5	2 ÷ 10	-0,9 ÷ 10	550

Electro-pneum. valve, ext. servo-pilot supply, solenoid P, W - size 16

5/3-way
CC = Centres Closed
CO = Centres Open
CP = Pressure Centres



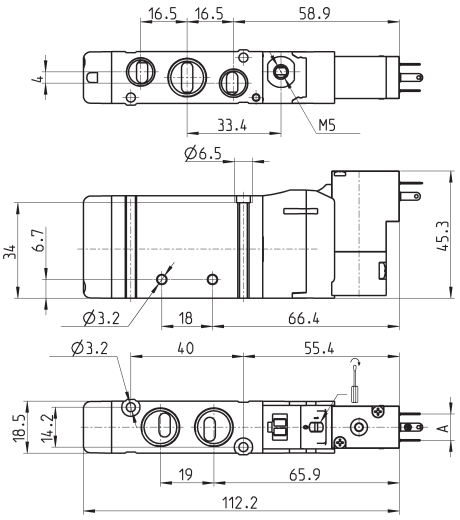
Connectors at the end of this section



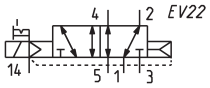
Mod.	Ports	A	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
EN631-E11-P..	G1/8	9,4	M5	3 ÷ 10	-0,9 ÷ 10	550	EV30
EN731-E11-P..	G1/8	9,4	M5	3 ÷ 10	-0,9 ÷ 10	550	EV33
EN831-E11-P..	G1/8	9,4	M5	3 ÷ 10	-0,9 ÷ 10	550	EV38
EN631-E11-W..	G1/8	8	M5	3 ÷ 10	-0,9 ÷ 10	550	EV30
EN731-E11-W..	G1/8	8	M5	3 ÷ 10	-0,9 ÷ 10	550	EV33
EN831-E11-W..	G1/8	8	M5	3 ÷ 10	-0,9 ÷ 10	550	EV38

Electro-pneum. valve, monost. ext. servo-pilot sup., sol. P/W - size 19

5/2-way



Connectors at the end of this section

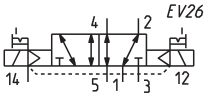


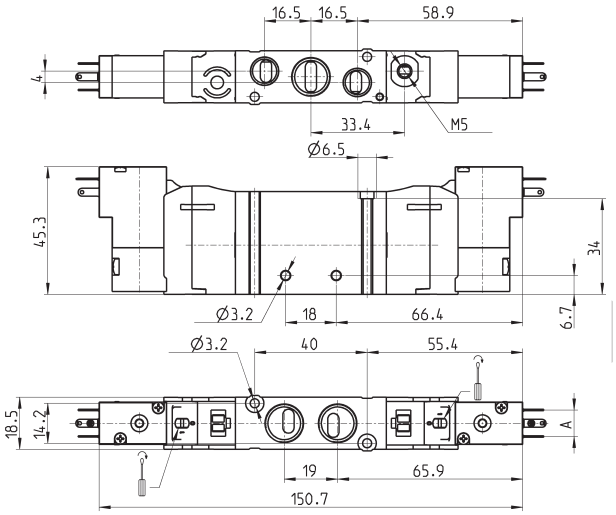
Mod.	Ports 1-2-4	Ports 3-5	A	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)
EN551-E16-P..	G1/4	G1/8	9,4	M5	2,5 ÷ 10	-0,9 ÷ 10	920
EN551-E16-W..	G1/4	G1/8	8	M5	2,5 ÷ 10	-0,9 ÷ 10	920

Electro-pneum. valve, bistable ext. servo-pilot sup., sol. P/W - size 19

5/2-way

Connectors at the end of this section



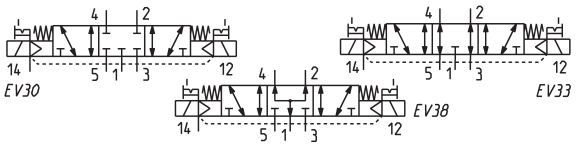


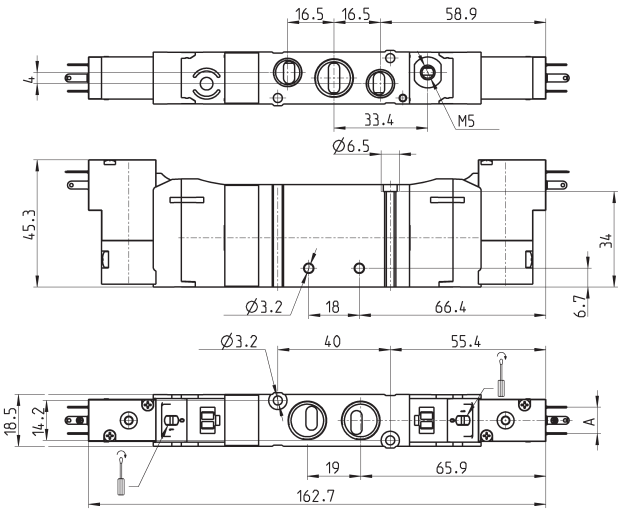
Mod.	Ports 1-2-4	Ports 3-5	A	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)
EN551-E11-P..	G1/4	G1/8	9,4	M5	2 ÷ 10	-0,9 ÷ 10	920
EN551-E11-W..	G1/4	G1/8	8	M5	2 ÷ 10	-0,9 ÷ 10	920

Electro-pneum. valve, ext. servo-pilot supply, solenoid P, W - size 19

5/3-way
CC = Centres Closed
CO = Centres Open
CP = Pressure Centres

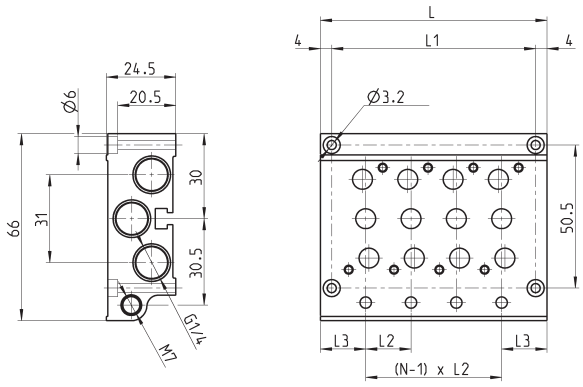
Connectors at the end of this section





Mod.	Ports 1-2-4	Ports 3-5	A	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
EN651-E11-P..	G1/4	G1/8	9,4	M5	3 ÷ 10	-0,9 ÷ 10	920	EV30
EN751-E11-P..	G1/4	G1/8	9,4	M5	3 ÷ 10	-0,9 ÷ 10	920	EV33
EN851-E11-P..	G1/4	G1/8	9,4	M5	3 ÷ 10	-0,9 ÷ 10	920	EV38
EN651-E11-W..	G1/4	G1/8	8	M5	3 ÷ 10	-0,9 ÷ 10	920	EV30
EN751-E11-W..	G1/4	G1/8	8	M5	3 ÷ 10	-0,9 ÷ 10	920	EV33
EN851-E11-W..	G1/4	G1/8	8	M5	3 ÷ 10	-0,9 ÷ 10	920	EV38

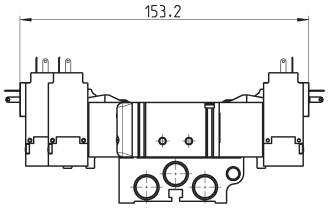
Manifold for valves size 16 and 19 (outlets on the body valve)

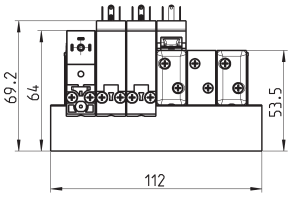


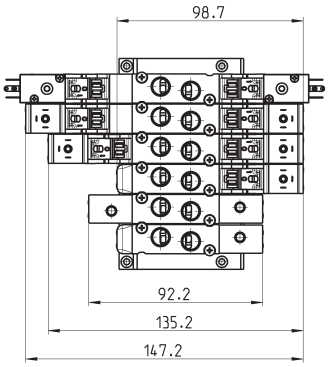
Mod.	Nr of valve positions	L	L1	L2	L3
EN531-1002	2	48	40	16	16
EN531-1003	3	64	56	16	16
EN531-1004	4	80	72	16	16
EN531-1005	5	96	88	16	16
EN531-1006	6	112	104	16	16
EN531-1008	8	144	136	16	16
EN531-1010	10	176	168	16	16
EN531-1012	12	208	200	16	16
EN551-1002	2	53	45	19	17
EN551-1003	3	72	64	19	17
EN551-1004	4	91	83	19	17
EN551-1005	5	110	102	19	17
EN551-1006	6	129	121	19	17
EN551-1008	8	167	159	19	17
EN551-1010	10	205	197	19	17
EN551-1012	12	243	235	19	17

Manifolds complete with valves with outlets on the body - size 16

ports G1/8

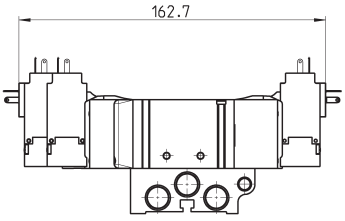


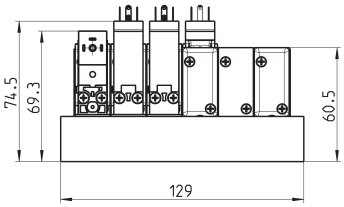


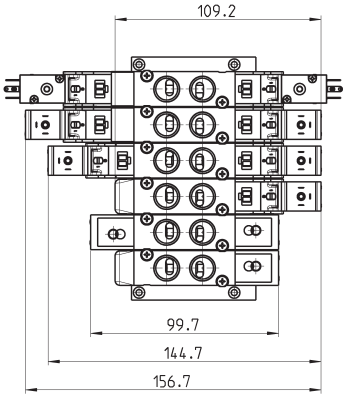


Manifolds complete with valves with outlets on the body - size 19

ports G1/4







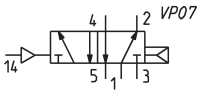
CODING EXAMPLE

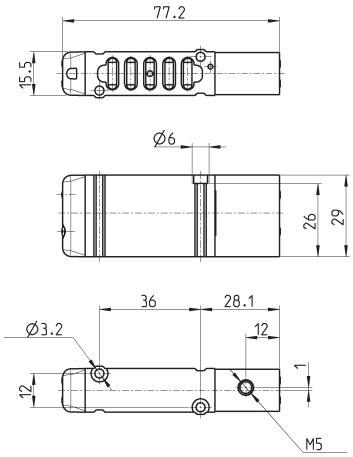
EN	5	3	0	-	11	-	PN3

EN	SERIES
5	FUNCTION: 5 = 5/2 6 = 5/3 Centre Closed 7 = 5/3 Centre Open 8 = 5/3 Pressure Centre
3	SIZE: 3 = size 16 5 = size 19
0	BODY TYPE: 0 = body for sub-base
11	ACTUATION: 11 = electro-pneumatic, bistable 16 = electro-pneumatic, monostable 33 = pneumatic bistable 36 = pneumatic monostable E11 = electro-pneumatic, bistable with external servo-pilot supply E16 = electro-pneumatic, monostable with external servo-pilot supply
PN3	TYPE OF SOLENOID: PN3 = 24V DC - 1W PN4 = 48V DC - 2W PN6 = 110V DC - 2W PN7 = 230V - 2W P13 = 24V DC - 1W P54 = 48V DC - 2W P56 = 110V DC - 2W W53 = 24V DC - 2W W54 = 48V DC - 2W In case of applications with alternate current, use a bridge rectifier connector (see connectors at the end of this section)

Monostable pneumatic valve with outlets on sub-base - size 16

5/2-way

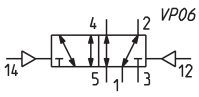


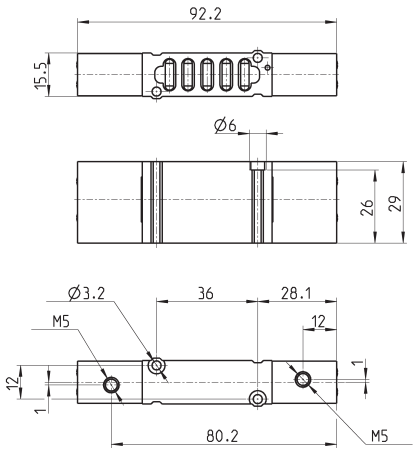


Mod.	Pilot supply	min. pilot Pressure (bar)	Working pressure (bar)	Flow rate (Nl/min)
EN530-36	M5	2,5	2,5 ÷ 10	610

Bistable pneumatic valve with outlets on sub-base - size 16

5/2-way

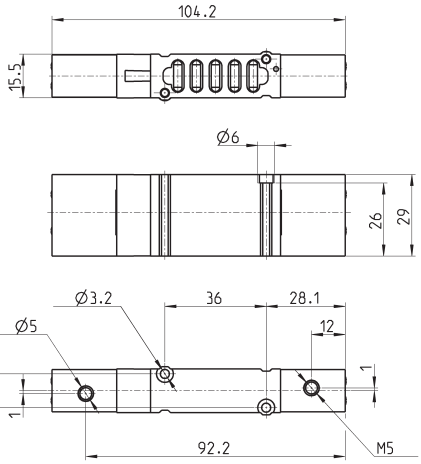


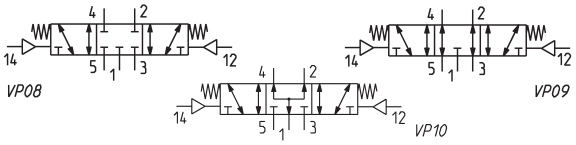


Mod.	Pilot supply	min. pilot pressure (bar)	Working pressure (bar)	Flow rate (Nl/min)
EN530-33	M5	2	-0,9 ÷ 10	610

Pneumatically actuated valve with outlets on sub-base - size 16

5/3-way
CC = Centres Closed
CO = Centres Open
CP = Centres in Pressure

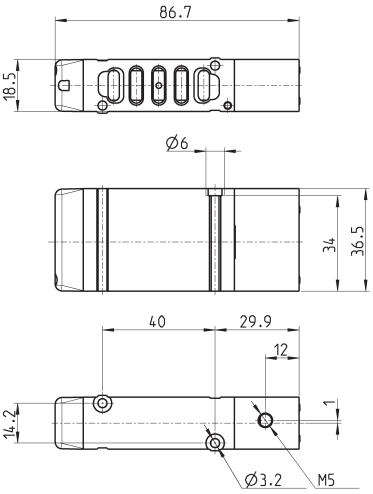


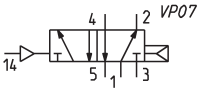


Mod.	Pilot supply	min. pilot pressure (bar)	Working pressure (bar)	Flow rate (Nl/min)	Symbol
EN630-33	M5	3	-0,9 ÷ 10	610	VP08
EN730-33	M5	3	-0,9 ÷ 10	610	VP09
EN830-33	M5	3	-0,9 ÷ 10	610	VP10

Pneumatic valve, monostable with outlets on sub-base - size 19

5/2-way

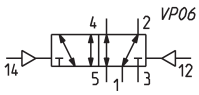


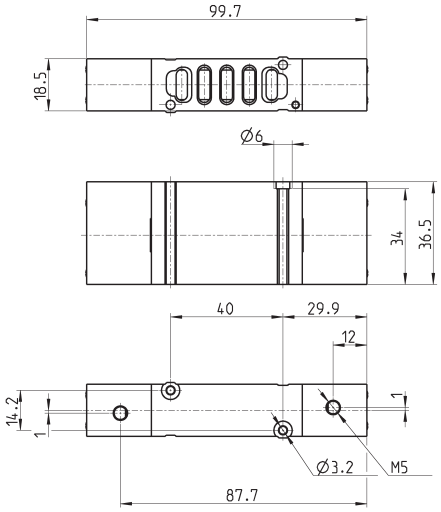


Mod.	Pilot supply	min. pilot pressure (bar)	working P. (bar)	Flow rate (Nl/min)
EN550-36	M5	2,5	2 ÷ 10	1000

Pneumatic valve, bistable with outlets on sub-base - size 19

5/2-way

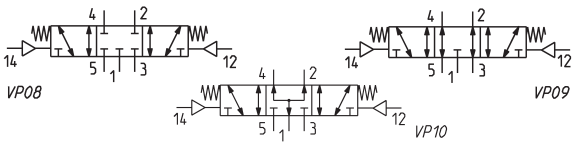


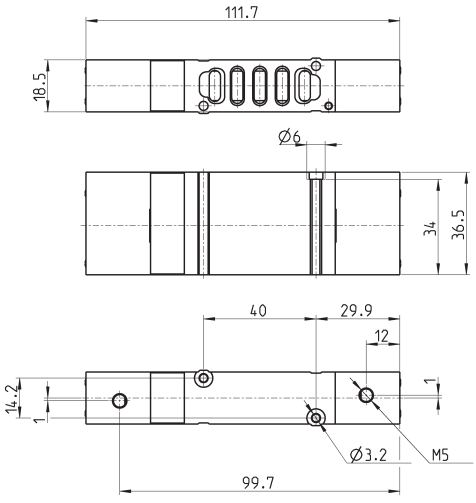


Mod.	Pilot supply	min. pilot pressure (bar)	Working pressure (bar)	Flow rate Nl/min
EN550-33	M5	2	-0,9 ÷ 10	1000

Pneumatically actuated valve with outlets on sub-base - size 19

5/3-way
CC = Centres Closed
CO = Centres Open
CP = Centres in Pressure



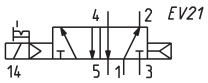


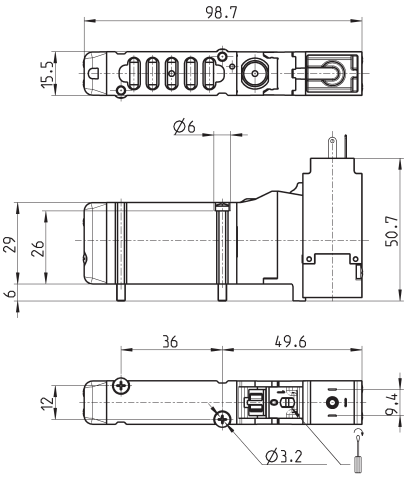
Mod.	Pilot supply	min. pilot pressure (bar)	working P. bar	Flow rate Nl/min	Symbol
EN650-33	M5	3	-0,9 ÷ 10	1000	VP08
EN750-33	M5	3	-0,9 ÷ 10	1000	VP09
EN850-33	M5	3	-0,9 ÷ 10	1000	VP10

Electropneumatic valve, monostable with outlets on sub-base - s. 16

5/2-way

Connectors at the end of this section



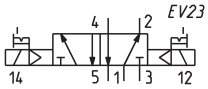


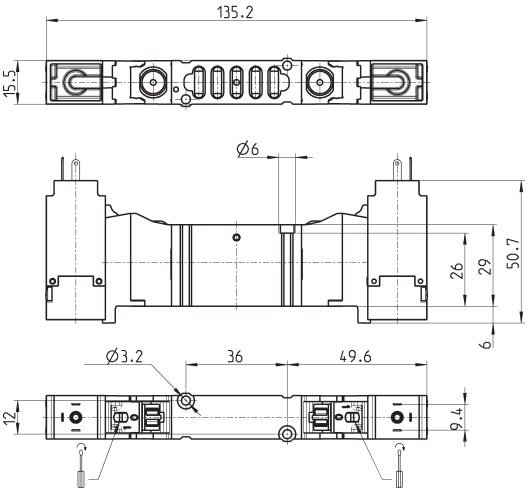
Mod.	Working pressure (bar)	Flow rate (Nl/min)
EN530-16-PN..	2,5 ÷ 10	610

Electropneumatic valve, bistable with outlets on sub-base - size 16

5/2-way

Connectors at the end of this section

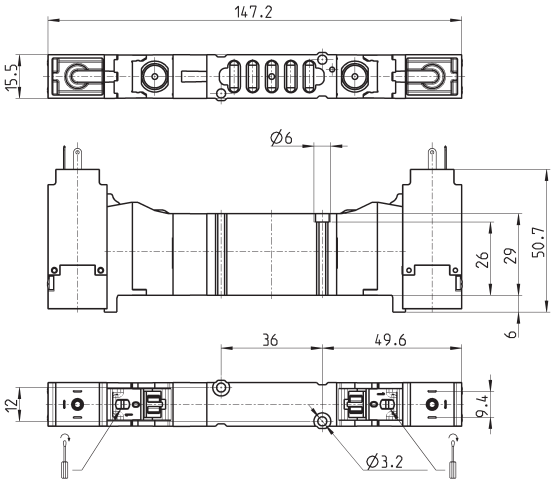




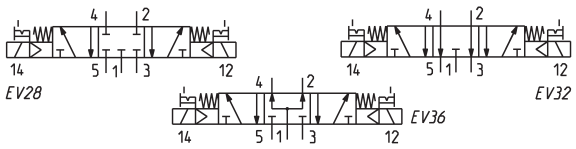
Mod.	Working pressure (bar)	Flow rate (Nl/min)
EN530-11-PN..	2 ÷ 10	610

Electropneumatical valve with outlets on sub-base - size 16

5/3-way
CC = Centres Closed
CO = Centres Open
CP = Centres in Pressure



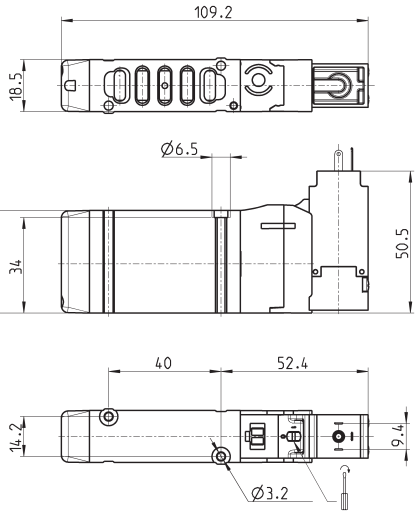
Connectors at the end of this section



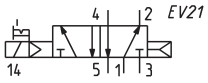
Mod.	Working pressure (bar)	Flow rate (Nl/min)	Symbol
EN630-11-PN..	3 ÷ 10	610	EV28
EN730-11-PN..	3 ÷ 10	610	EV32
EN830-11-PN..	3 ÷ 10	610	EV36

Electropneumatic valve, monostable with outlets on sub-base - s. 19

5/2-way



Connectors at the end of this section

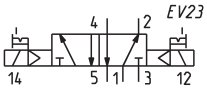


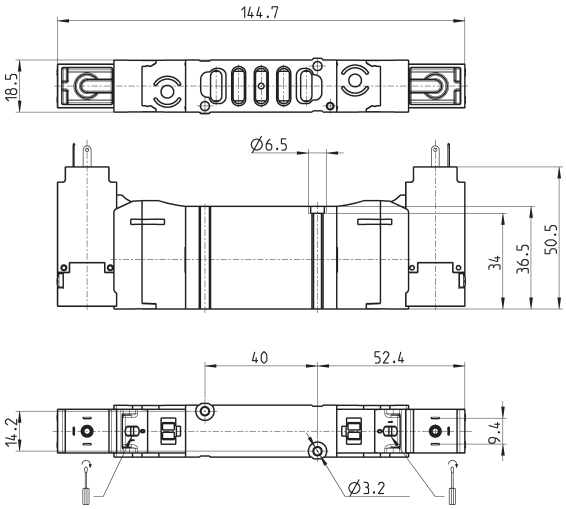
Mod.	Working pressure (bar)	Flow rate (Nl/min)
EN550-16-PN..	2,5 ÷ 10	1000

Electropneumatic valve, bistable with outlets on sub-base - size 19

5/2-way

Connectors at the end of this section



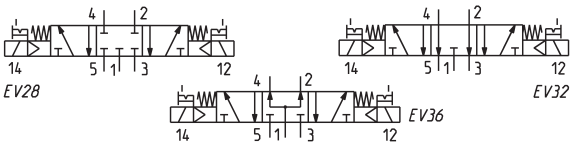


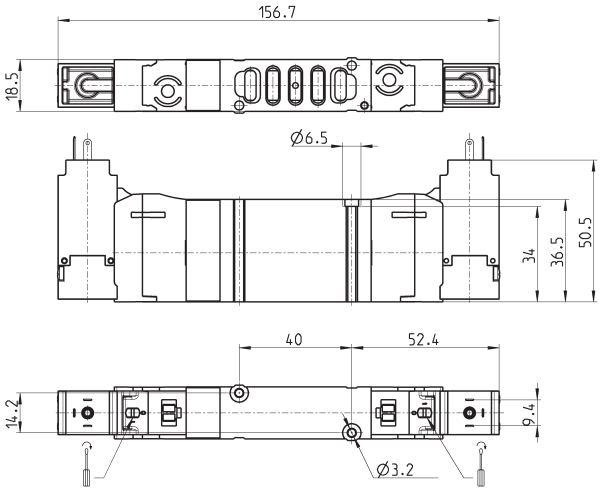
Mod.	Working presure (bar)	Flow rate (Nl/min)
EN550-11-PN..	2 ÷ 10	1000

Electropneumatical valve with outlets on sub-base - size 19

5/3-way
CC = Centres Closed
CO = Centres Open
CP = Centres in Pressure

Connectors at the end of this section

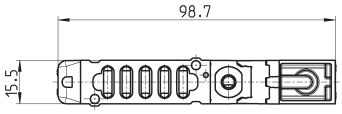


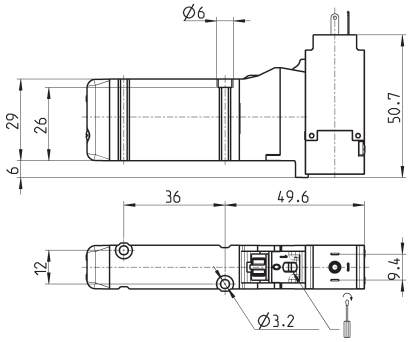


Mod.	Working pressure (bar)	Flow rate (Nl/min)	Symbol
EN650-11-PN..	3 ÷ 10	1000	EV28
EN750-11-PN..	3 ÷ 10	1000	EV32
EN850-11-PN..	3 ÷ 10	1000	EV36

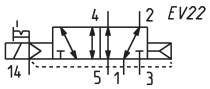
Electro-pn. monost. valve, ext. pilot supply, outlets on sub-base - s. 16

5/2-way





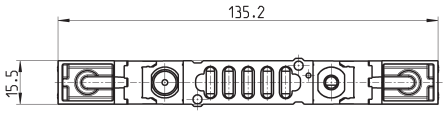
Connectors at the end of this section

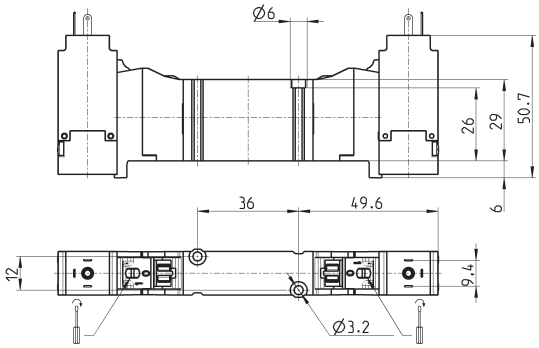


Mod.	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)
EN530-E16-PN..	2,5 ÷ 10	- 0,9 ÷ 10	610

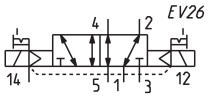
Electro-pn. bistable valve, ext. pilot supply, outlets on sub-base - s. 16

5/2-way





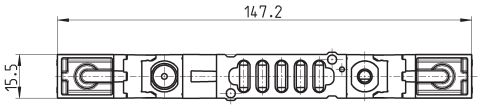
Connectors at the end of this section

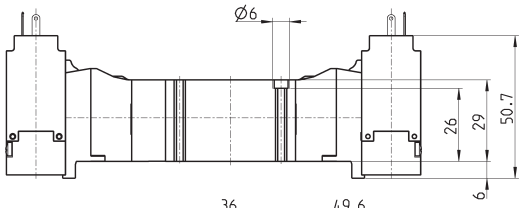


Mod.	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)
EN530-E11-PN..	2 ÷ 10	-0,9 ÷ 10	610

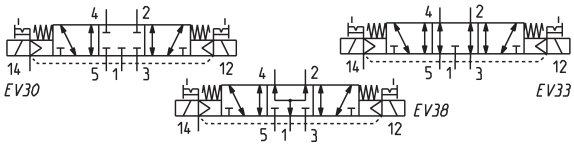
Electro-pneumatic valve, ext. pilot supply, outlets on sub-base - s. 16

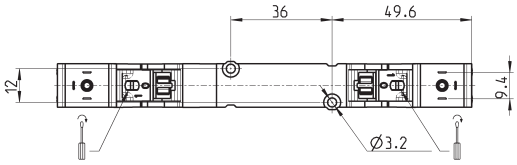
5/3-way
CC = Centres Closed
CO = Centres Open
CP = Centres in Pressure





Connectors at the end of this section

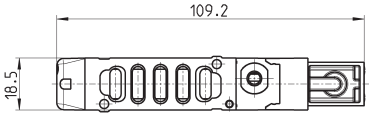


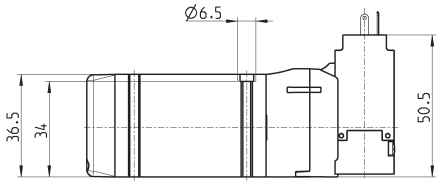


Mod.	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
EN630-E11-PN..	3 ÷ 10	-0,9 ÷ 10	610	EV30
EN730-E11-PN..	3 ÷ 10	-0,9 ÷ 10	610	EV33
EN830-E11-PN..	3 ÷ 10	-0,9 ÷ 10	610	EV38

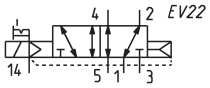
Electro-pn. monost. valve, ext. pilot supply, outlets on sub-base - s. 19

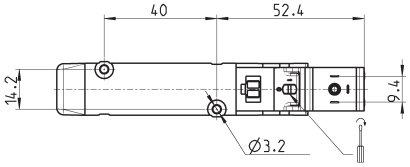
5/2-way





Connectors at the end of this section



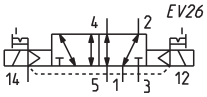


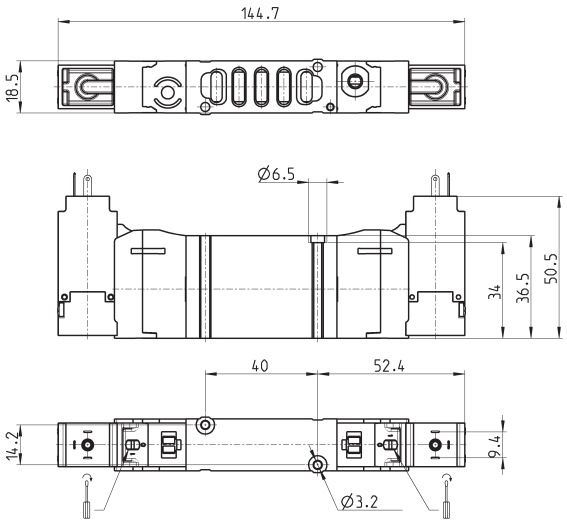
Mod.	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)
EN550-E16-PN..	2,5 ÷ 10	- 0,9 ÷ 10	1000

Electro-pn. bistable valve, ext. pilot supply, outlets on sub-base - s. 19

5/2-way

Connectors at the end of this section



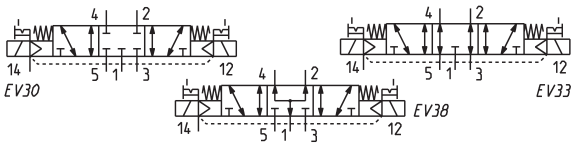


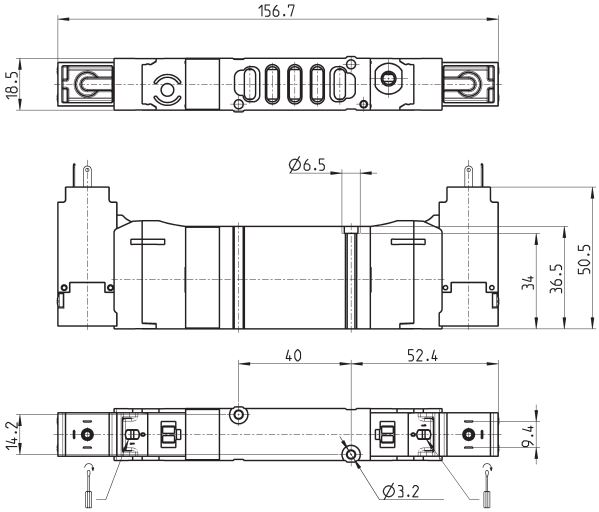
Mod.	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)
EN550-E11-PN..	2 ÷ 10	-0,9 ÷ 10	1000

Electro-pneumatic valve, ext. pilot supply, outlets on sub-base - s. 19

5/3-way
CC = Centres Closed
CO = Centres Open
CP = Centres in Pressure

Connectors at the end of this section



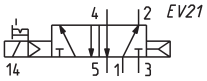


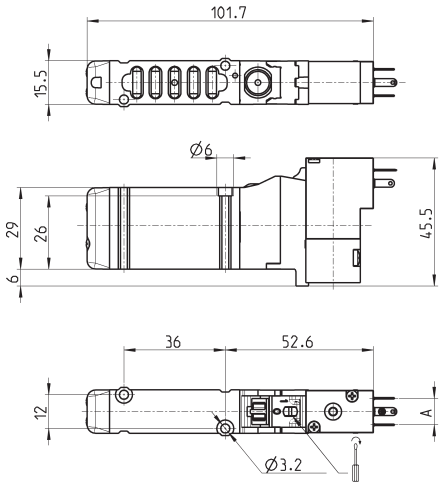
Mod.	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
EN650-E11-PN..	3 ÷ 10	-0,9 ÷ 10	1000	EV30
EN750-E11-PN..	3 ÷ 10	-0,9 ÷ 10	1000	EV33
EN850-E11-PN..	3 ÷ 10	-0,9 ÷ 10	1000	EV38

Electro-pn. monostable valve, sol. P / W, outlets on sub-base - s. 16

5/2-way

Connectors at the end of this section



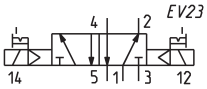


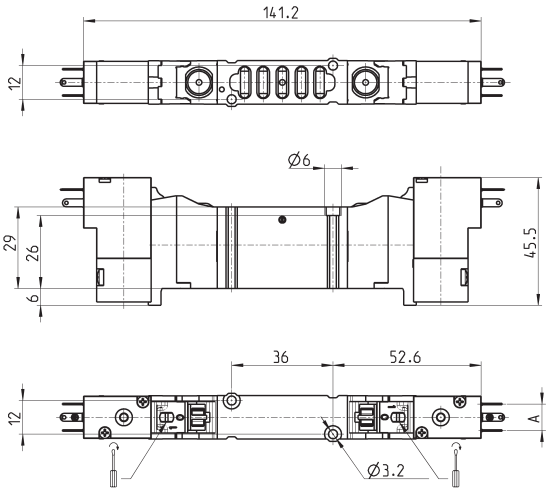
Mod.	A	Operating pressure (bar)	Flow (Nl/min)
EN530-16-P13	9,4	2,5 ÷ 10	610
EN530-16-P54	9,4	2,5 ÷ 10	610
EN530-16-P56	9,4	2,5 ÷ 10	610
EN530-16-W53	8	2,5 ÷ 10	610
EN530-16-W54	8	2,5 ÷ 10	610

Electro-pn. bistable valve, sol. P / W, outlets on sub-base - size 16

5/2-way

Connectors at the end of this section

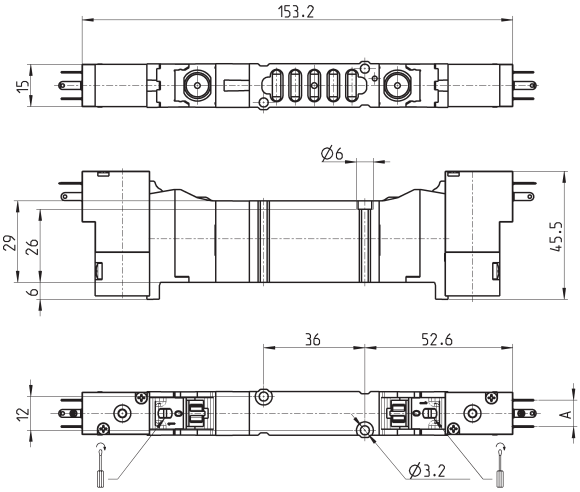




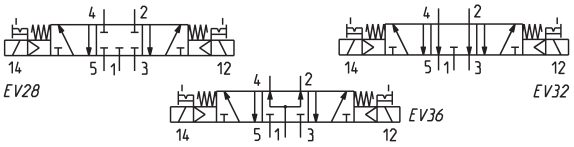
Mod.	A	Operating pressure (bar)	Flow (Nl/min)
EN530-11-P13	9,4	2 ÷ 10	610
EN530-11-P54	9,4	2 ÷ 10	610
EN530-11-P56	9,4	2 ÷ 10	610
EN530-11-W53	8	2 ÷ 10	610
EN530-11-W54	8	2 ÷ 10	610

Electro-pneumatic valve, sol. P / W, outlets on sub-base - size 16

5/3-way
CC = Centres Closed
CO = Centres Open
CP = Centres in Pressure



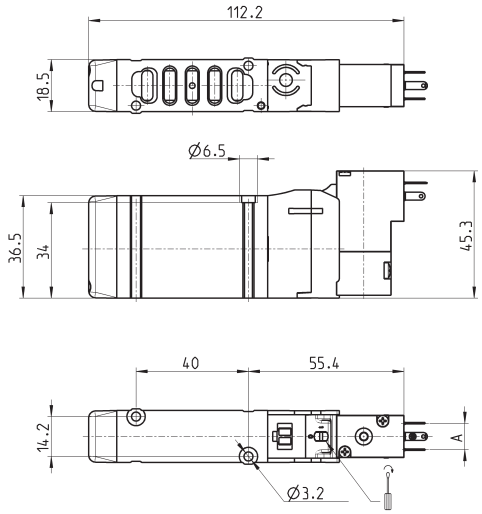
Connectors at the end of this section



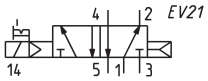
Mod.	A	Operating pressure (bar)	Flow (Nl/min)	Symbol
EN630-11-P..	9,4	3 ÷ 10	610	EV28
EN730-11-P..	9,4	3 ÷ 10	610	EV32
EN830-11-P..	9,4	3 ÷ 10	610	EV36
EN630-11-W..	8	3 ÷ 10	610	EV28
EN730-11-W..	8	3 ÷ 10	610	EV32
EN830-11-W..	8	3 ÷ 10	610	EV36

Electro-pn. monostable valve, sol. P / W, outlets on sub-base - s. 19

5/2-way



Connectors at the end of this section

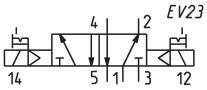


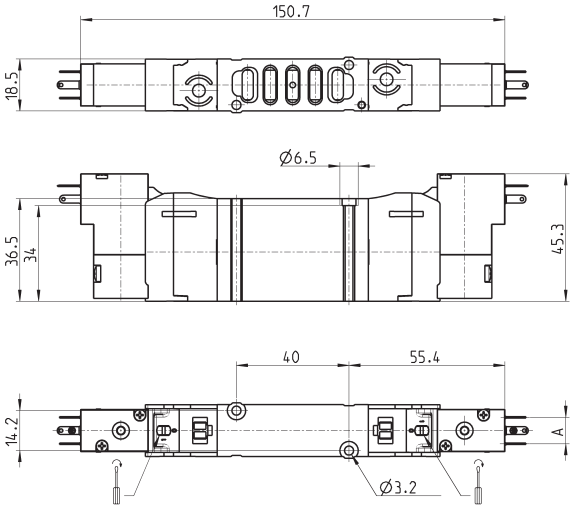
Mod.	Operating pressure (bar)	Flow (Nl/min)
EN550-16-P13	2,5 ÷ 10	1000
EN550-16-P54	2,5 ÷ 10	1000
EN550-16-P56	2,5 ÷ 10	1000
EN550-16-W53	2,5 ÷ 10	1000
EN550-16-W54	2,5 ÷ 10	1000

Electro-pn. bistable valve, sol. P / W, outlets on sub-base - size 19

5/2-way

Connectors at the end of this section



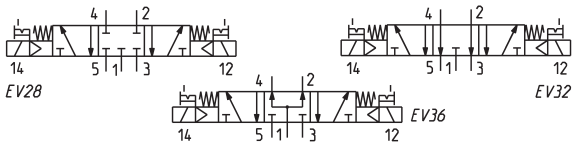


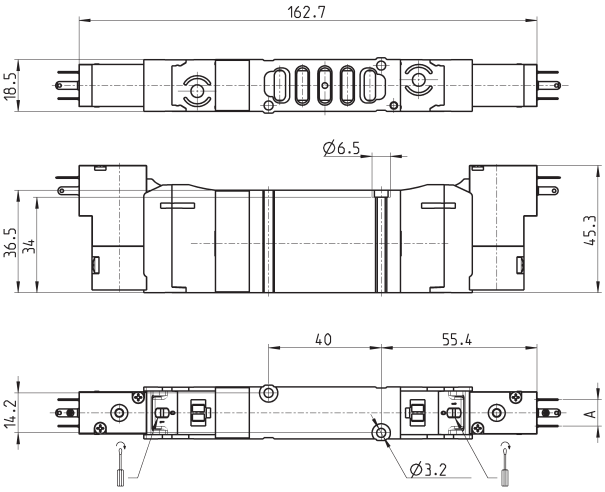
Mod.	A	Operating pressure (bar)	Flow (Nl/min)
EN550-11-P13	9,4	2 ÷ 10	1000
EN550-11-P54	9,4	2 ÷ 10	1000
EN550-11-P56	9,4	2 ÷ 10	1000
EN550-11-W53	8	2 ÷ 10	1000
EN550-11-W54	8	2 ÷ 10	1000

Electro-pneumatic valve, sol. P / W, outlets on sub-base - size 19

5/3-way
CC = Centres Closed
CO = Centres Open
CP = Centres in Pressure

Connectors at the end of this section

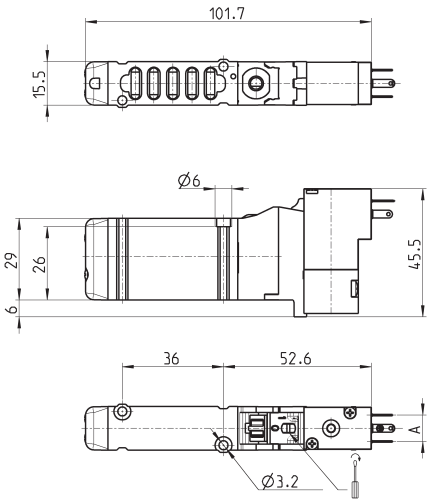




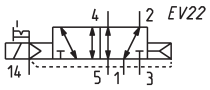
Mod.	A	Operating pressure (bar)	Flow (Nl/min)	Symbol
EN650-11-P..	9,4	3 ÷ 10	1000	EV28
EN750-11-P..	9,4	3 ÷ 10	1000	EV32
EN850-11-P..	9,4	3 ÷ 10	1000	EV36
EN650-11-W..	8	3 ÷ 10	1000	EV28
EN750-11-W..	8	3 ÷ 10	1000	EV32
EN850-11-W..	8	3 ÷ 10	1000	EV36

Electro-pn. mono. valve, pilot sup. sol. P / W, outlets on base - s. 16

5/2-way



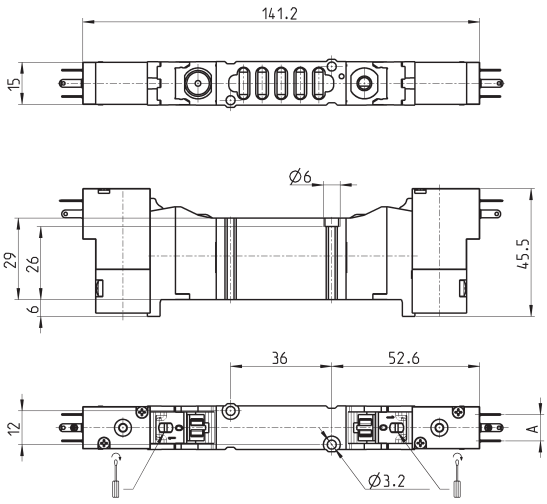
Connectors at the end of this section



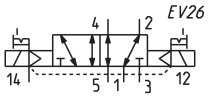
Mod.	A	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)
EN530-E16-P..	9,4	2,5 ÷ 10	-0,9 ÷ 10	610
EN530-E16-W..	8	2,5 ÷ 10	-0,9 ÷ 10	610

Electro-pn. bistab. valve, pilot sup. sol. P / W, outlets on base - s. 16

5/2-way



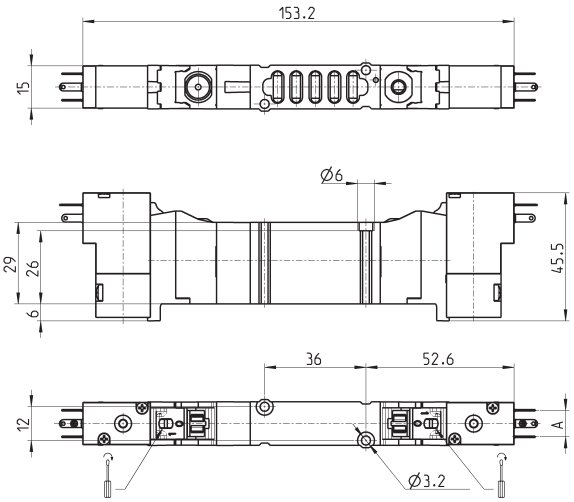
Connectors at the end of this section



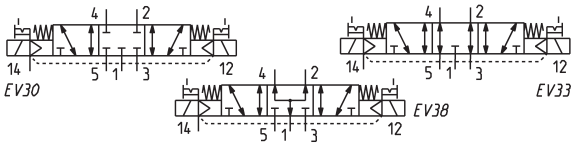
Mod.	A	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)
EN530-E11-P..	9,4	2 ÷ 10	-0,9 ÷ 10	610
EN530-E11-W..	8	2 ÷ 10	-0,9 ÷ 10	610

Electro-pneum. valve, pilot sup. sol. P / W, outlets on base - s. 16

5/3-way
CC = Centres Closed
CO = Centres Open
CP = Centres in Pressure



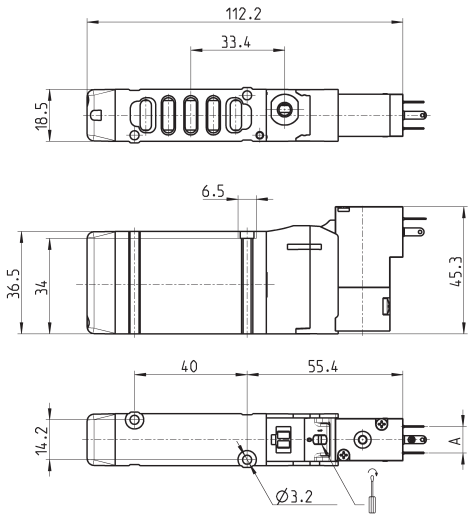
Connectors at the end of this section



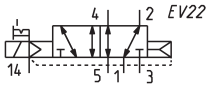
Mod.	A	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
EN630-E11-P..	9,4	3 ÷ 10	-0,9 ÷ 10	610	EV30
EN730-E11-P..	9,4	3 ÷ 10	-0,9 ÷ 10	610	EV33
EN830-E11-P..	9,4	3 ÷ 10	-0,9 ÷ 10	610	EV38
EN630-E11-W..	8	3 ÷ 10	-0,9 ÷ 10	610	EV30
EN730-E11-W..	8	3 ÷ 10	-0,9 ÷ 10	610	EV33
EN830-E11-W..	8	3 ÷ 10	-0,9 ÷ 10	610	EV38

Electro-pn. mono. valve, pilot sup. sol. P / W, outlets on base - s. 19

5/2-way



Connectors at the end of this section

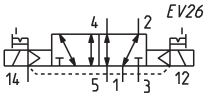


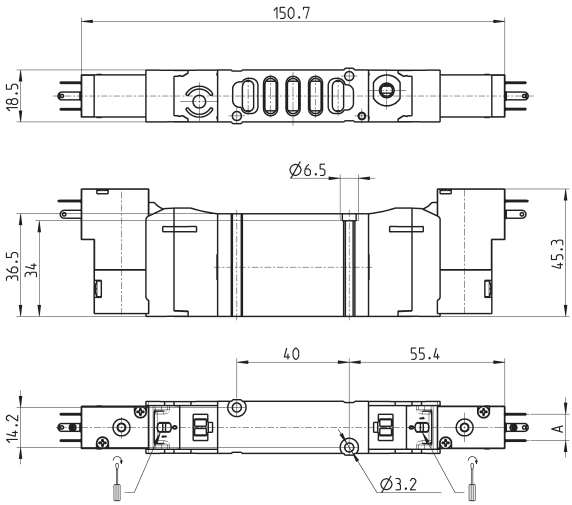
Mod.	A	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)
EN550-E16-P..	9,4	2,5 ÷ 10	-0,9 ÷ 10	1000
EN550-E16-W..	8	2,5 ÷ 10	-0,9 ÷ 10	1000

Electro-pn. bistab. valve, pilot sup. sol. P / W, outlets on base - s. 19

5/2-way

Connectors at the end of this section



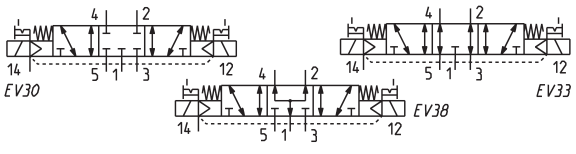


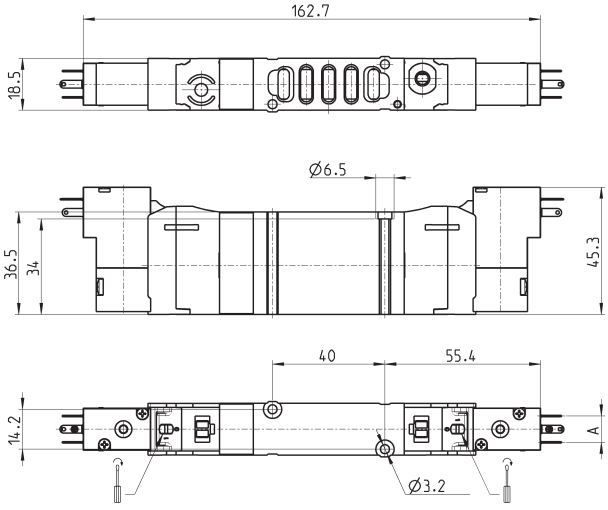
Mod.	A	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)
EN550-E11-P..	9,4	2 ÷ 10	-0,9 ÷ 10	1000
EN550-E11-W..	8	2 ÷ 10	-0,9 ÷ 10	1000

Electro-pneum. valve, pilot sup. sol. P / W, outlets on base - s. 19

5/3-way
CC = Centres Closed
CO = Centres Open
CP = Centres in Pressure

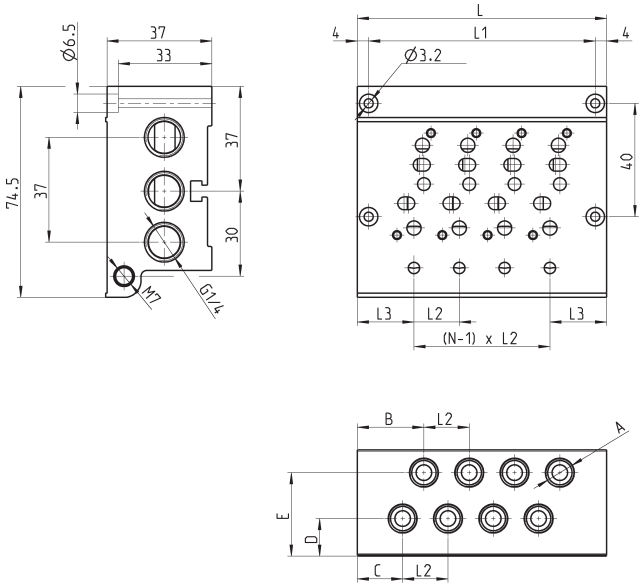
Connectors at the end of this section





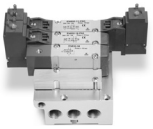
Mod.	A	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
EN650-E11-P..	9,4	3 ÷ 10	-0,9 ÷ 10	1000	EV30
EN750-E11-P..	9,4	3 ÷ 10	-0,9 ÷ 10	1000	EV33
EN850-E11-P..	9,4	3 ÷ 10	-0,9 ÷ 10	1000	EV38
EN650-E11-W..	8	3 ÷ 10	-0,9 ÷ 10	1000	EV30
EN750-E11-W..	8	3 ÷ 10	-0,9 ÷ 10	1000	EV33
EN850-E11-W..	8	3 ÷ 10	-0,9 ÷ 10	1000	EV38

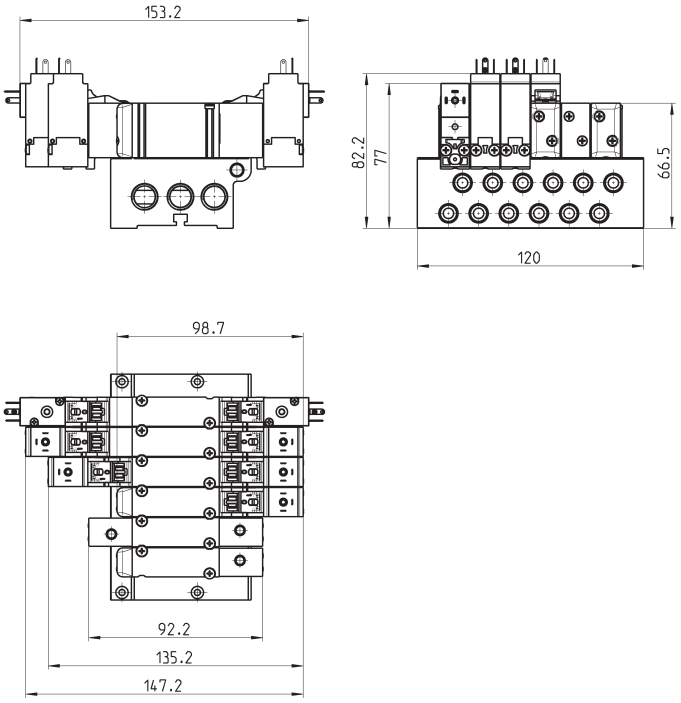
Manifold for valves size 16 and 19 (outlets on manifolds)



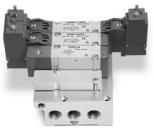
Mod.	Nr of valve positions	A	B	C	D	E	L	L1	L2	L3
EN530-2102	2	G1/8	23,5	16	12,8	29	56	48	16	20
EN530-2103	3	G1/8	23,5	16	12,8	29	72	64	16	20
EN530-2104	4	G1/8	23,5	16	12,8	29	88	80	16	20
EN530-2105	5	G1/8	23,5	16	12,8	29	104	96	16	20
EN530-2106	6	G1/8	23,5	16	12,8	29	120	112	16	20
EN530-2108	8	G1/8	23,5	16	12,8	29	152	144	16	20
EN530-2110	10	G1/8	23,5	16	12,8	29	184	176	16	20
EN530-2112	12	G1/8	23,5	16	12,8	29	216	208	16	20
EN550-2102	2	G1/4	23	15,5	10,5	28,2	59	51	19	20
EN550-2103	3	G1/4	23	15,5	10,5	28,2	78	70	19	20
EN550-2104	4	G1/4	23	15,5	10,5	28,2	97	89	19	20
EN550-2105	5	G1/4	23	15,5	10,5	28,2	116	108	19	20
EN550-2106	6	G1/4	23	15,5	10,5	28,2	135	127	19	20
EN550-2108	8	G1/4	23	15,5	10,5	28,2	173	165	19	20
EN550-2110	10	G1/4	23	15,5	10,5	28,2	211	203	19	20
EN550-2112	12	G1/4	23	15,5	10,5	28,2	249	241	19	20

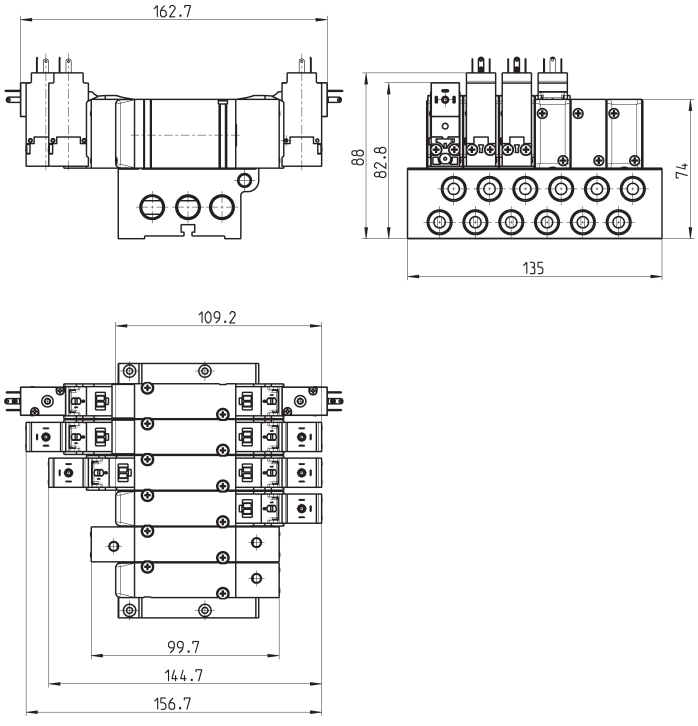
Manifolds complete with base moutend valves - size 16





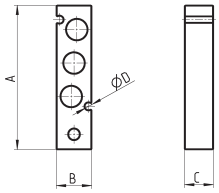
Manifolds complete with base moutend valves - size 19





Blanking plate for manifolds - valves with outlets on the body

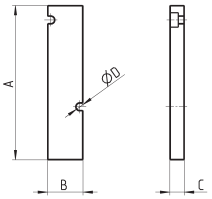
The following is supplied:
1x blanking plate
2x screws
1x seal



Mod.	Size	A	B	C	ØD
TP-EN531	16	60	14,5	12	3,2
TP-EN551	19	62	17,3	12	3,2

Blanking plate for manifolds - base mounted valves

The following is supplied:
1x blanking plate
2x screws
1x seal

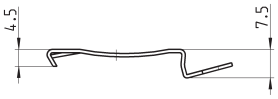


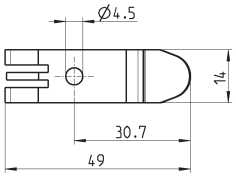
Mod.	Size	A	B	C	ØD
TP-EN530	16	64	14,7	6	3,2
TP-EN550	19	64	17	6	3,2

Mounting brackets for DIN rail

DIN EN 50022 (7,5mm x 35mm - width 1)
Suitable for all manifolds.

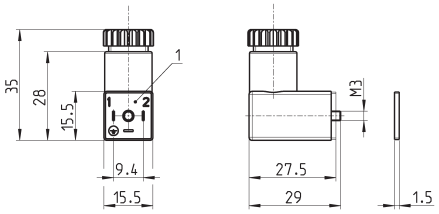
Supplied with:
2x plates
2x screws M4x6 UNI 5931
2x nuts





Mod.
PCF-EN531

Connector Mod. 125-... DIN 43650 pitch 9.4 mm

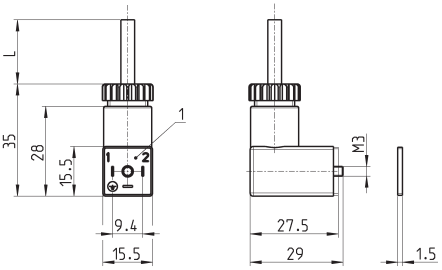


Mod.	description	colour	working voltage	cable gland	tightening torque
125-601	connector, diode + Led	transparent	10/50 V DC	PG7	0.3 Nm
125-701	connector, varistor + Led	transparent	24 V AC/DC	PG7	0.3 Nm
125-800	connector, without electronics	black	-	PG7	0.3 Nm

1 = 90° adjustable connector

Connector Mod. 125-... DIN 43650 pitch 9.4 mm with cable

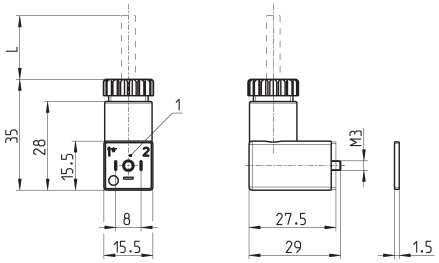
The internal rectifier circuit of the connector Mod. 125-900 allows to use solenoid valves with different AC voltage, even if the voltage indicated on the solenoid valve is DC.



Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
125-501-2	moulded cable with diode + Led	black	10/50 V DC	2000 mm	-	0.3 Nm
125-550-1	moulded cable, without electronics	black	-	1000 mm	-	0.3 Nm
125-601-2	pre-wired cable, diode + Led	transparent	10/50 V DC	2000 mm	PG7	0.3 Nm
125-571-3	moulded cable, varistor + Led	black	24 V AC/DC	3000 mm	-	0.3 Nm
125-900	pre-wired cable with voltage rectifier	black	6 V - 110 V AC/DC	2000 mm	PG7	0.3 Nm

1 = 90° adjustable connector

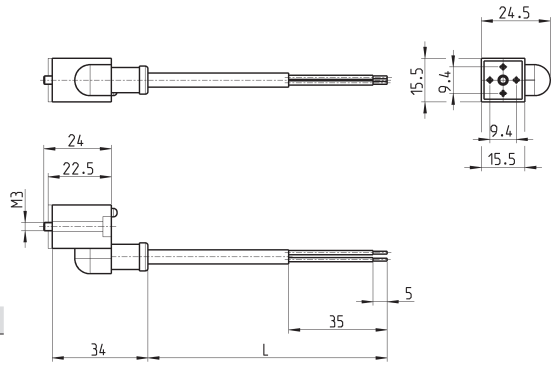
Connector Mod. 126-... DIN 43650 pitch 8 mm



Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
126-550-1	moulded cable, without electronics	black	-	1000 mm	-	0.3 Nm
126-800	connector, without electronics	black	-	-	PG7	0.3 Nm
126-701	connector, varistor + Led	transparent	24 V AC/DC	-	PG7	0.3 Nm

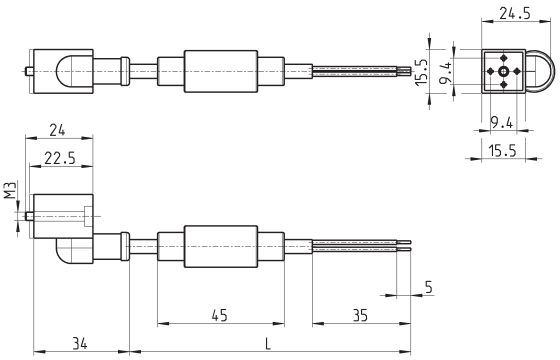
1 = 90° adjustable connector

In-line connectors with cable



Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
125-503-2	in-line moulded cable, with diode + Led	black	24 V DC	2000 mm	-	0.3 Nm
125-503-5	in-line moulded cable, with diode + Led	black	24 V DC	5000 mm	-	0.3 Nm
125-553-2	in-line moulded cable, without electronics	black	-	2000 mm	-	0.3 Nm
125-553-5	in-line moulded cable, without electronics	black	-	5000 mm	-	0.3 Nm

In-line connectors with bridge rectifier

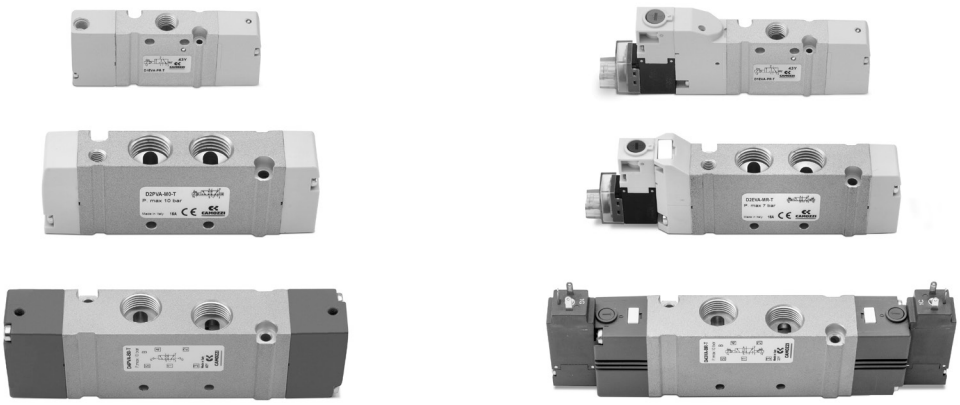


Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
125-903-2	in-line moulded cable with voltage rectifier	black	6 V - 230 V AC/DC	2000 mm	-	0.3 Nm
125-903-5	in-line moulded cable with voltage rectifier	black	6 V - 230 V AC/DC	5000 mm	-	0.3 Nm

New

Series D valves and solenoid valves VA version

3/2; 2x3/2; 5/2; 5/3-way
With outlets on the body - For individual or manifold assembly
Size 10,5 - 16 - 25 mm



Camozzi has developed a new series of valves for applications with limited installation space where it is necessary to have the control elements as close to the actuator as possible.
Valves with threads on the body can be used individually or assembled on manifold. The sub-base version allows a better cleaning of the application.
Thanks to the extreme robust aluminium body, the Series D valves guarantee maximum reliability even under difficult operating conditions.

- Can be used individually or in parallel groups
- Pneumatic and electric version
- Flow up to 2000 Nl/min
- Aluminium body and technolpolymer end caps
- Installation in narrow spaces
- Electric connection also with M8 connector

GENERAL DATA

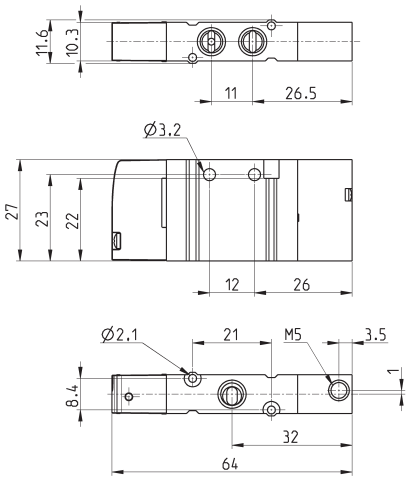
Valve construction	spool- type
Valve functions	3/2 NC/NO; 2x3/2 NC/NO/NC+NO; 5/2; 5/3 CC/CO/CP
Materials	body, spool, bases = AL; end caps = technopolymer; seals = HNBR
Ports	M7 - G1/4 - G3/8
Ambient temperature	0°C min. + 50° C max
Medium	compressed, filtered and non-lubricated air in class [7:4:4] according to ISO 8573-1:2010. In case lubrication should be necessary, only use oils with a maximum viscosity of 32 Cst and the version with external servo pilot. The air quality for the servo pilot should be of class [7:4:4] according to ISO 8573-1:2010
Voltage	24V DC
Voltage tolerance	± 10%
Power consumption	1W
Class of insulation	class F
Protection class	IP65 with EN 175301 C connector (“3” actuation. Ex DIN 43650)* IP65 with M8 connector (“C” actuation)* IP40 with micro connector (“E” actuation)* *See coding example

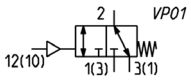
CODING EXAMPLE

D	1	E	VA	-	B	P	-	BS

D	SERIES		
1	SIZE: 1 = 10.5 mm 2 = 16 mm 4 = 25 mm		
E	ACTUATION: E = electric (D1 and D2) 3 = electric 15 mm (D2 and D4) C = electric with M8 connections (D1 and D2) P = pneumatic		
VA	COMPONENT: VA = Valve with threaded body		
B	TYPE OF SOLENOID VALVE: M = 5/2 Monostable B = 5/2 Bistable P = 3/2 NC Q = 3/2 NO C = 2 x 3/2 NC A = 2 x 3/2 NO G = 2 x 3/2 (NC+NO) N = 5/3 CP V = 5/3 CC K = 5/3 CO	SOLENOID VALVE WITH EXTERNAL SERVO-PILOT SUPPLY MZ = 5/2 Monostabile BZ = 5/2 Bistabile PZ = 3/2 NC QZ = 3/2 NO CZ = 2 x 3/2 NC AZ = 2 x 3/2 NO GZ = 2 x 3/2 (NC+NO) NZ = 5/3 CP VZ = 5/3 CC KZ = 5/3 CO	
P	TYPE OF MANUAL OVERRIDE: P = push button (not for D4) R = with push and turn device 0 = for P actuation		
BS	CONNECTIONS: T = Thread A = Ø4 (D1) fittings 6512 4-M7-M B = Ø6 (D1) fittings 6512 6-M7-M Ø6 (D2) S6510 6-1/4 C = Ø8 (D2) fittings 6510 8-1/4 D = Ø10 (D4) fittings 6512 10-1/4-M Ø10 (D4) S6510 10-3/8 E = Ø12 (D4) fittings 6510 12-3/8 F = Ø14 (D4) fittings 6510 14-3/8	AS = Ø4 (D1) fittings 6512 4-M7-M + silencers 2931 M7 BS = Ø6 (D1) fittings 6512 6-M7-M + silencers 2931 M7 Ø6 (D2) S6510 6-1/4 + 2921 1/4 CS = Ø8 (D2) fittings S6510 8-1/4-M + silencers 2921 1/4 DS = Ø10 (D2) fittings 6512 10-1/4-M + silencers 2921 1/4 Ø10 S6510 10-3/8 + 2921 3/8 ES = Ø12 (D4) fittings S6510 12-3/8 + silencers 2931 3/8 FS = Ø14 (D4) fittings S6510 14-3/8 + silencers 2931 3/8	The pneumatically operated solenoid valves with external servo-pilot supply with connections from A to F are already equipped with fittings on the pilot ports Ø4 (D1 and D2) 6512 4 – M5 Ø6 (D4) 6512 6 – M5
	VERSION 3, through the connector with rectifier bridge 125-571-3, can be used for AC applications. (see the connectors at the end of the section)		

3/2-way pneumatically operated valve, monostable - size 10,5

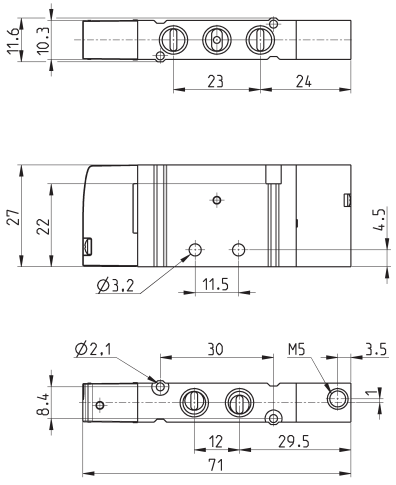


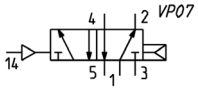


Mod.	Function	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D1PVA-P0-T	NC	M7	M5	2.5 ÷ 10	-0.9 ÷ 10	200	VP01
D1PVA-Q0-T	NO	M7	M5	2.5 ÷ 10	-0.9 ÷ 10	200	VP01

5/2-way pneumatically operated valve, monostable - size 10,5

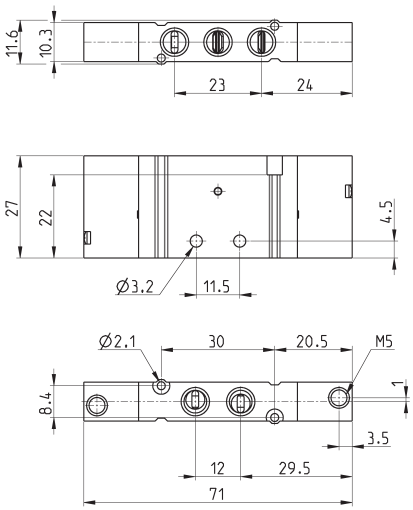
N.B. the pilot pressure should never be lower than the operating pressure.

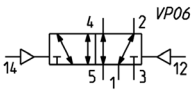




Mod.	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)
D1PVA-M0-T	M7	M5	2.5 ÷ 10	2.5 ÷ 10	270

5/2-way operated actuated valve, bistable - size 10,5

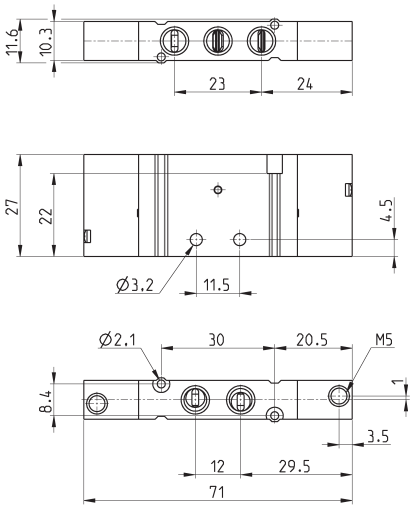


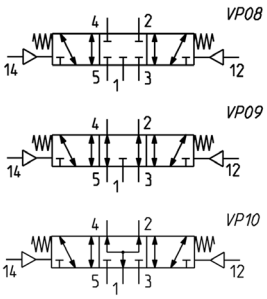


Mod.	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)
D1PVA-B0-T	M7	M5	1.5 ÷ 10	-0.9 ÷ 10	270

5/3-way pneumatically operated valve - size 10,5

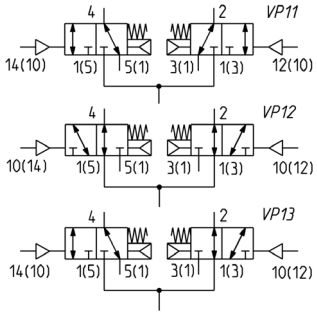
CC = Centres Closed
CO = Centres Open
CP = Centres Pressurized

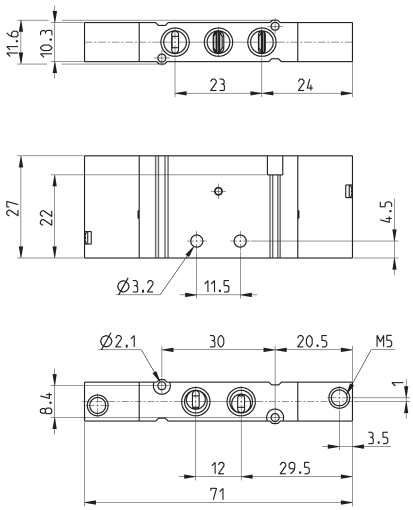




Mod.	Function	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D1PVA-V0-T	CC	M7	M5	2.5 ÷ 10	-0.9 ÷ 10	250	VP08
D1PVA-K0-T	CO	M7	M5	2.5 ÷ 10	-0.9 ÷ 10	220	VP09
D1PVA-N0-T	CP	M7	M5	2.5 ÷ 10	-0.9 ÷ 10	220	VP10

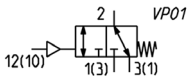
2X3/2 -way pneumatically operated valve - size 10,5

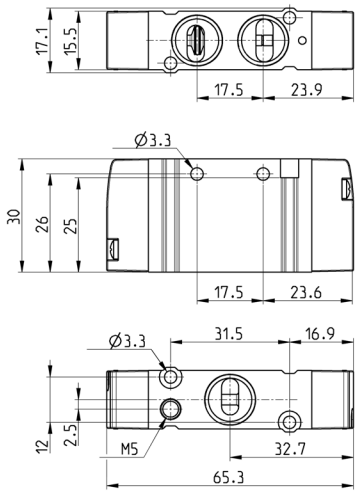




Mod.	Function	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D1PVA-C0-T	NC	M7	M5	2.5 ÷ 10	-0.9 ÷ 10	250	VP11
D1PVA-A0-T	NO	M7	M5	2.5 ÷ 10	-0.9 ÷ 10	220	VP12
D1PVA-G0-T	NC+NO	M7	M5	2.5 ÷ 10	-0.9 ÷ 10	220	VP13

3/2-way pneumatically operated valve, monostable - size 16

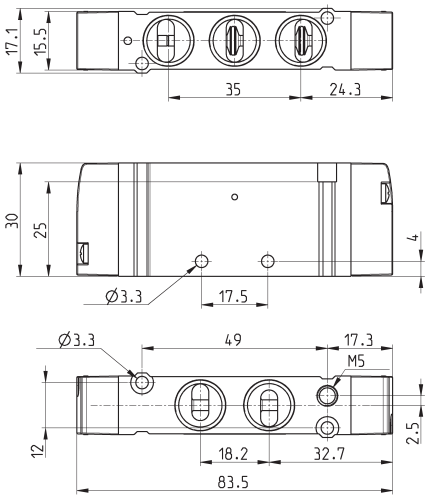


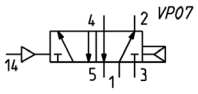


Mod.	Function	Ports	Pilot supply	Operating pressure (bar)	Flow (Nl/min)	Symbol
D2PVA-P0-T	NC	G1/4	M5	-0.9 ÷ 10	950	VP01
D2PVA-Q0-T	NO	G1/4	M5	-0.9 ÷ 10	950	VP01

5/2-way pneumatically operated valve, monostable - size 16

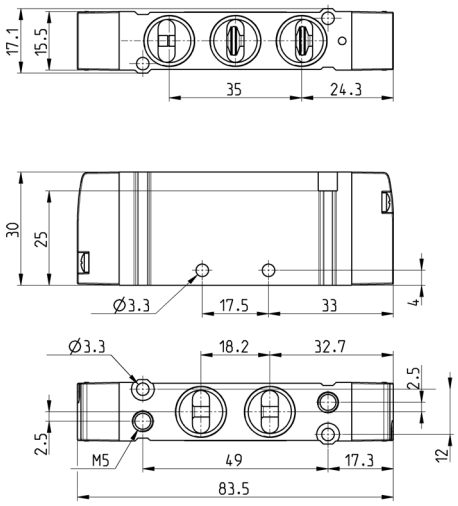
N.B. the pilot pressure should never be lower than the operating pressure.

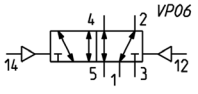




Mod.	Ports	Pilot supply	Operating pressure (bar)	Flow (Nl/min)
D2PVA-M0-T	G1/4	M5	3 ÷ 10	950

5/2-way pneumatically operated valve, bistable - size 16

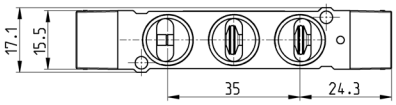


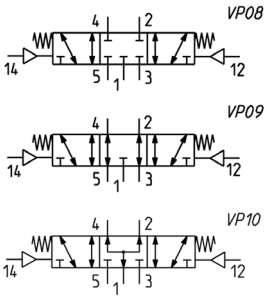


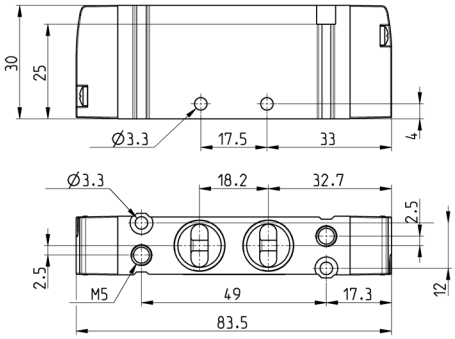
Mod.	Ports	Pilot supply	Operating pressure (bar)	Flow (Nl/min)
D2PVA-B0-T	G1/4	M5	-0.9 ÷ 10	950

5/3-way pneumatically operated valve - size 16

CC = Centres Closed
CO = Centres Open
CP = Centres Pressurized

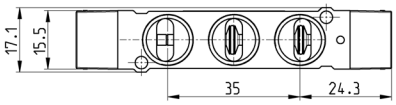


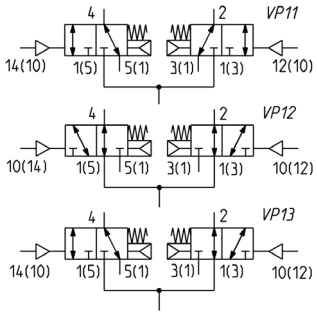


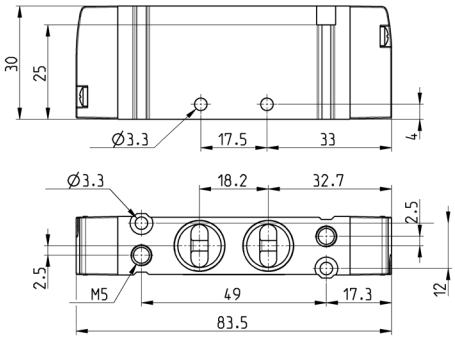


Mod.	Function	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D2PVA-V0-T	CC	G1/4	M5	1.5 ÷ 10	-0.9 ÷ 10	950	VP08
D2PVA-K0-T	CO	G1/4	M5	1.5 ÷ 10	-0.9 ÷ 10	950	VP09
D2PVA-N0-T	CP	G1/4	M5	1.5 ÷ 10	-0.9 ÷ 10	950	VP10

2X3/2 -way pneumatically operated valve - size 16

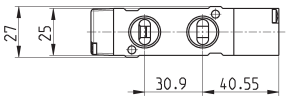


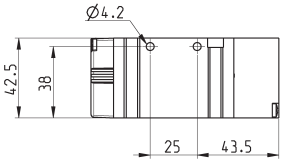


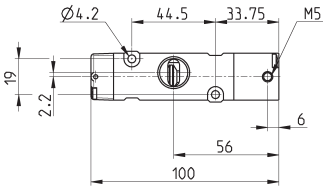


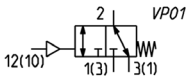
Mod.	Function	Ports	Pilot supply	Operating pressure (bar)	Flow (Nl/min)	Symbol
D2PVA-C0-T	NC	G1/4	M5	-0.9 ÷ 10	950	VP11
D2PVA-A0-T	NO	G1/4	M5	-0.9 ÷ 10	950	VP12
D2PVA-G0-T	NC+NO	G1/4	M5	-0.9 ÷ 10	950	VP13

3/2-way pneumatically operated valve, monostable - size 25





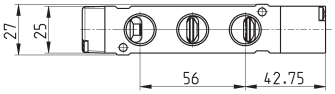


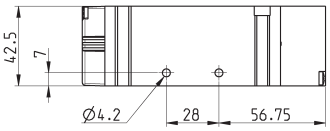


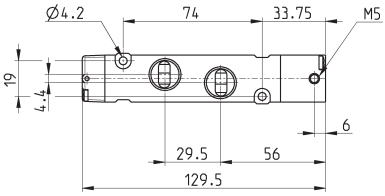
Mod.	Function	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D4PVA-P0-T	NC	G3/8	M5	2.5 ÷ 10	-0.9 ÷ 10	1800	VP01
D4PVA-Q0-T	NO	G3/8	M5	2.5 ÷ 10	-0.9 ÷ 10	1800	VP01

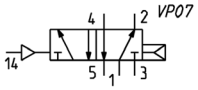
5/2-way pneumatically operated valve, monostable - size 25

Note: the pilot pressure should never be lower than the operating pressure.



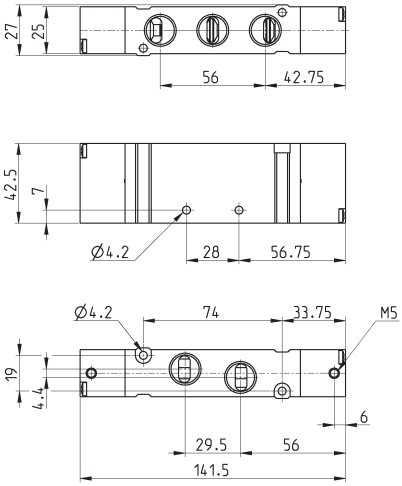


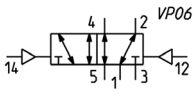




Mod.	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)
D4PVA-M0-T	G3/8	M5	2.5 ÷ 10	2.5 ÷ 10	2000

5/2-way pneumatically operated valve, bistable - size 25

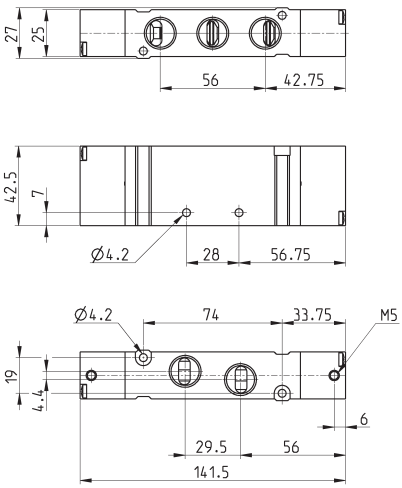


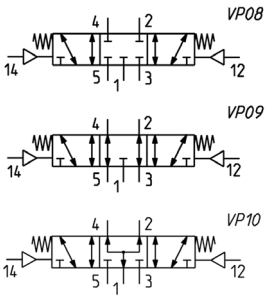


Mod.	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)
D4PVA-B0-T	G3/8	M5	1.5 ÷ 10	-0.9 ÷ 10	2000

5/3-way pneumatically operated valve - size 25

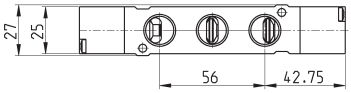
CC = Centres Closed
CO = Centres Open
CP = Centres Pressurized

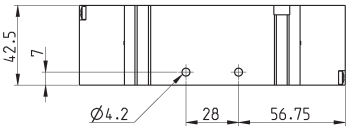


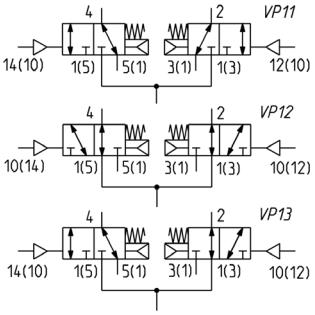


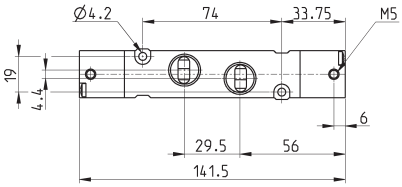
Mod.	Function	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D4PVA-V0-T	CC	G3/8	M5	2.5 ÷ 10	-0.9 ÷ 10	1800	VP08
D4PVA-K0-T	CO	G3/8	M5	2.5 ÷ 10	-0.9 ÷ 10	1800	VP09
D4PVA-N0-T	CP	G3/8	M5	2.5 ÷ 10	-0.9 ÷ 10	1800	VP10

2X3/2-way pneumatically operated valve - size 25







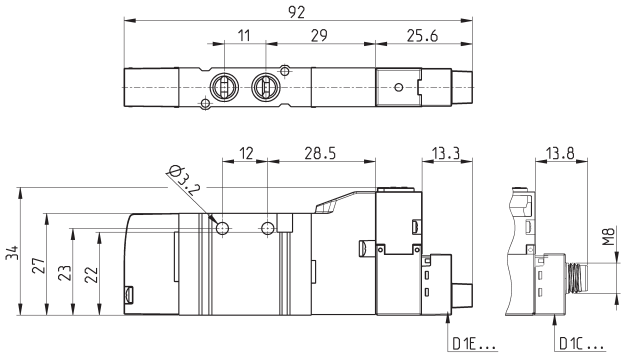


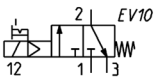
Mod.	Function	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D4PVA-C0-T	NC	G3/8	M5	3 ÷ 10	-0.7 ÷ 10	1800	VP11
D4PVA-A0-T	NO	G3/8	M5	3 ÷ 10	-0.7 ÷ 10	1800	VP12
D4PVA-G0-T	NO+NC	G3/8	M5	3 ÷ 10	-0.7 ÷ 10	1800	VP13

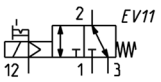
3/2-way solenoid valve, monostable - size 10,5

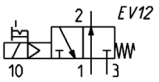
The indications given are valid for the versions D1EVA and D1CVA. The symbols of the versions with manual override type P are shown in the Appendix.

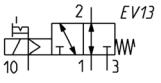
Connectors at the end of this section

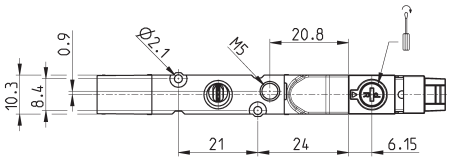










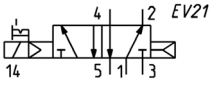


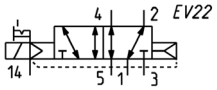
Mod.	Function	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D1EVA-PR-T / D1CVA-PR-T	NC	M7	-	-	2.5 ÷ 7	200	EV10
D1EVA-PZR-T / D1CVA-PZR-T	NC	M7	M5	2.5 ÷ 7	-0.9 ÷ 10	200	EV11
D1EVA-QR-T / D1CVA-QR-T	NO	M7	-	-	2.5 ÷ 7	200	EV12
D1EVA-QZR-T - D1CVA-QZR-T	NO	M7	M5	2.5 ÷ 7	-0.9 ÷ 10	200	EV13

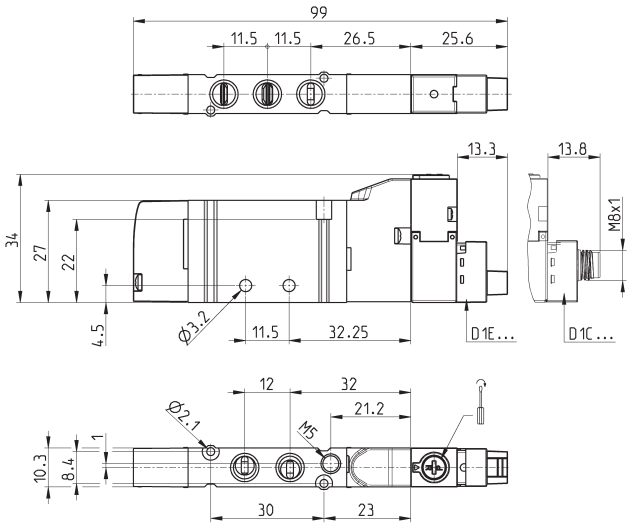
5/2-way solenoid valve, monostable - size 10,5

The indications given are valid for the versions D1EVA and D1CVA. The symbols of the versions with manual override type P are shown in the Appendix.

Connectors at the end of this section





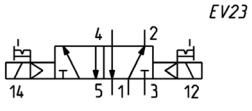


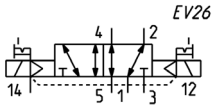
Mod.	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D1EVA-MR-T / D1CVA-MR-T	M7	-	-	2.5 ÷ 7	270	EV21
D1EVA-MZR-T / D1CVA-MZR-T	M7	M5	2.5 ÷ 7	-0.9 ÷ 10	270	EV22

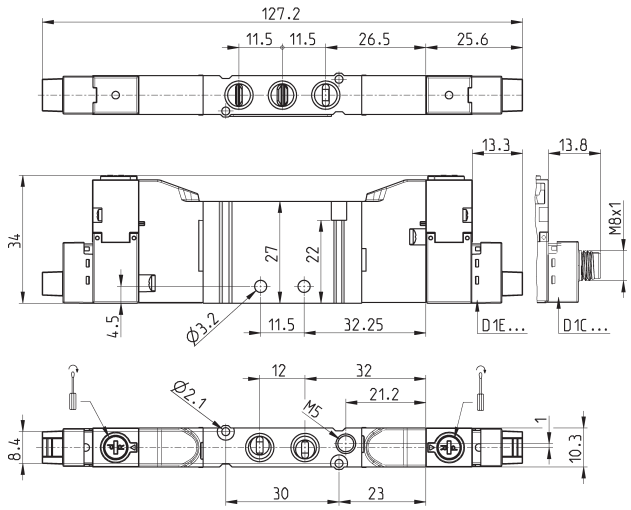
5/2-way solenoid valve, bistable - size 10,5

The indications given are valid for the versions D1EVA and D1CVA. The symbols of the versions with manual override type P are shown in the Appendix.

Connectors at the end of this section





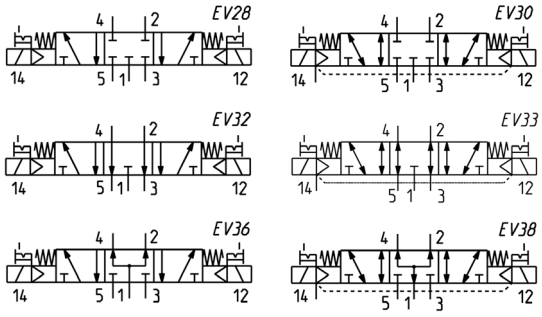


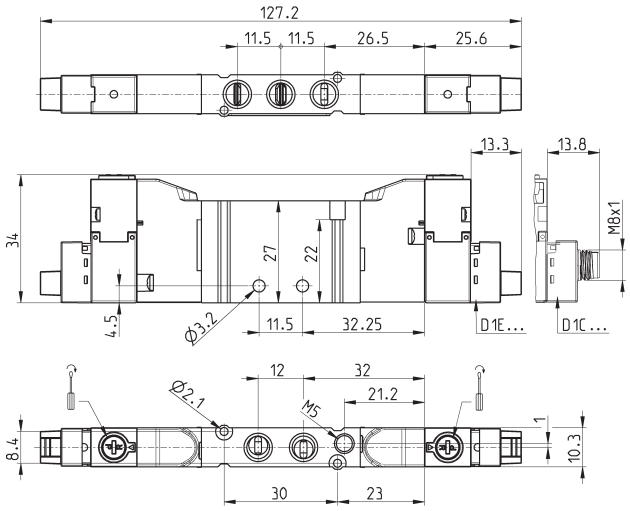
Mod.	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D1EVA-BR-T / D1CVA-BR-T	M7	-	-	1.5 ÷ 7	270	EV23
D1EVA-BZR-T / D1CVA-BZR-T	M7	M5	1.5 ÷ 7	-0.9 ÷ 10	270	EV26

5/3 - way solenoid valve - size 10,5

CC = Centres Closed
CO = Centres Open
CP = Centres Pressurized
The indications given are valid for the versions D1EVA and D1CVA.
The symbols of the versions with manual override type P are shown in the Appendix.

Connectors at the end of this section



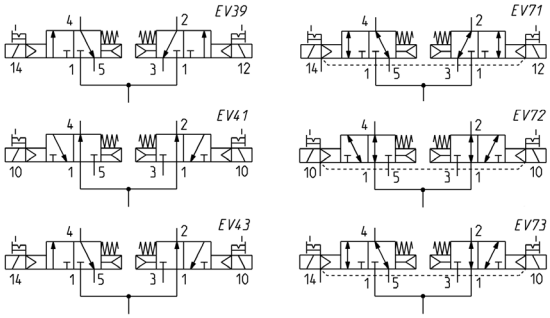


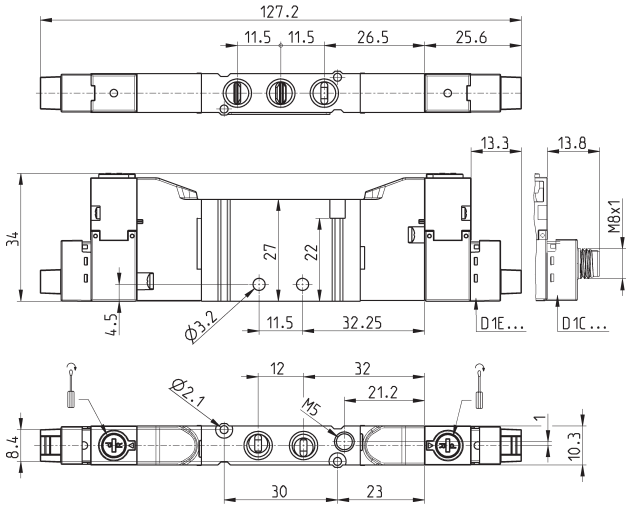
Mod.	Function	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D1EVA-VR-T / D1CVA-VR-T	CC	M7	-	-	2.5 ÷ 7	250	EV28
D1EVA-VZR-T / D1CVA-VZR-T	CC	M7	M5	2.5 ÷ 7	-0.9 ÷ 10	250	EV30
D1EVA-KR-T / D1CVA-KR-T	CO	M7	-	-	2.5 ÷ 7	220	EV32
D1EVA-KZR-T / D1CVA-KZR-T	CO	M7	M5	2.5 ÷ 7	-0.9 ÷ 10	220	EV33
D1EVA-NR-T / D1CVA-NR-T	CP	M7	-	-	2.5 ÷ 7	220	EV36
D1EVA-NZR-T / D1CVA-NZR-T	CP	M7	M5	2.5 ÷ 7	-0.9 ÷ 10	220	EV38

2x3/2-way solenoid valve - size 10,5

These solenoid valves integrate two independent 3/2-way functions in the same body.
The indications given are valid for the versions D1EVA and D1CVA.
The symbols of the versions with manual override type P are shown in the Appendix.

Connectors at the end of this section

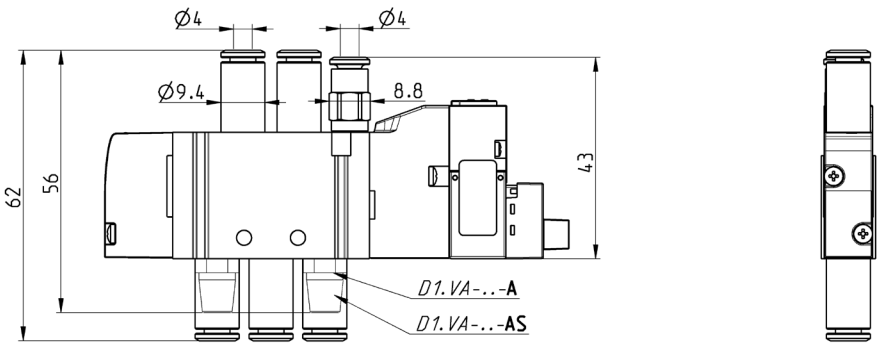


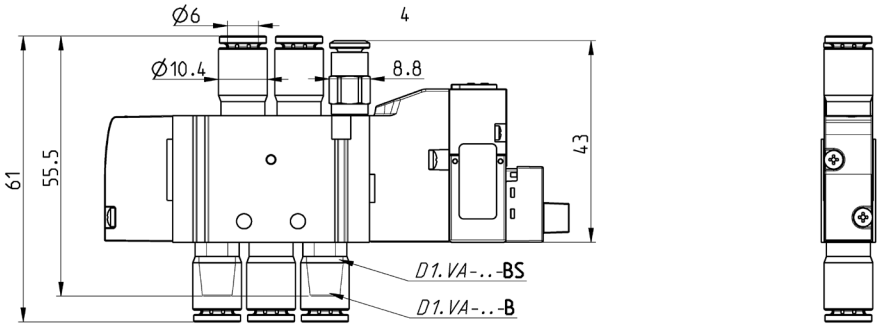


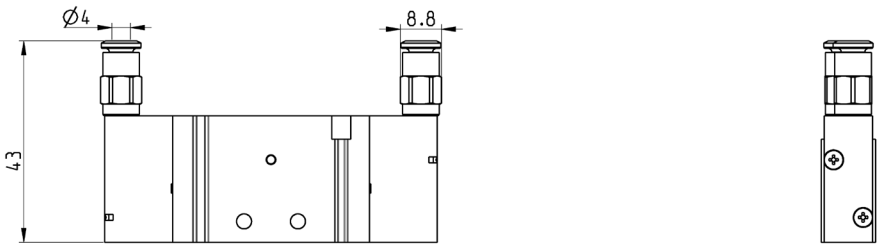
Mod.	Function	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D1EVA-CR-T / D1CVA-CR-T	2 x 3/2 NC	M7	-	-	2.5 - 7	250	EV39
D1EVA-CZR-T / D1CVA-CZR-T	2 x 3/2 NC	M7	M5	2.5 - 7	-0.9 ÷ 10	250	EV71
D1EVA-AR-T / D1CVA-AR-T	2 x 3/2 NO	M7	-	-	2.5 - 7	220	EV41
D1EVA-AZR-T / D1CVA-AZR-T	2 x 3/2 NO	M7	M5	2.5 - 7	-0.9 ÷ 10	220	EV72
D1EVA-GR-T / D1CVA-GR-T	1 x 3/2 NC + 1 x 3/2 NO	M7	-	-	2.5 - 7	220	EV43
D1EVA-GZR-T / D1CVA-GZR-T	1 x 3/2 NC + 1 x 3/2 NO	M7	M5	2.5 - 7	-0.9 ÷ 10	220	EV73

Dimensions of the different versions with fittings / fitt. + silencer – size 10,5

See coding at the beginning of this section
The dimensions are also valid for pneumatically operated versions

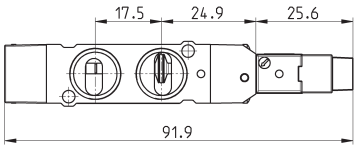




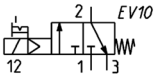


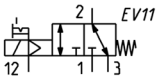
3/2-way solenoid valve, monostable - size 16

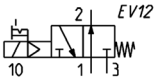
The indications given are valid for the versions D2EVA and D2CVA. The symbols of the versions with manual override type P are shown in the Appendix.

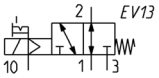


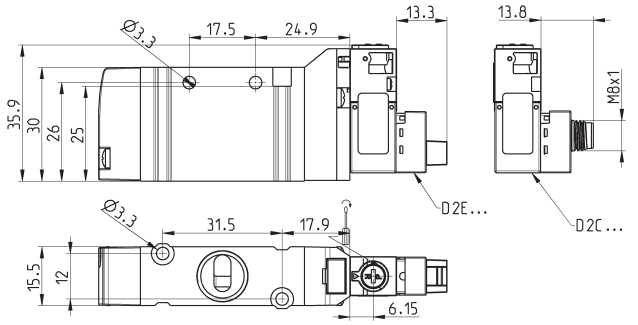
Connectors at the end of this section





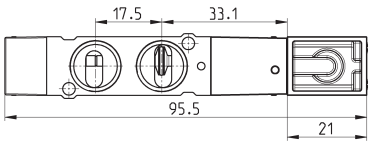




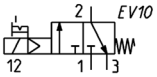


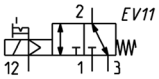
Mod.	Function	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D2EVA-PR-T / D2CVA-PR-T	NC	G1/4	-	-	3 ÷ 7	950	EV10
D2EVA-PZR-T / D2CVA-PZR-T	NC	G1/4	M5	3 ÷ 7	-0.9 ÷ 10	950	EV11
D2EVA-QR-T / D2CVA-PR-T	NO	G1/4	-	-	3 ÷ 7	950	EV12
D2EVA-QZR-T / D2CVA-PZR-T	NO	G1/4	M5	3 ÷ 7	-0.9 ÷ 10	950	EV13

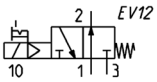
3/2-way solenoid valve, monostable - size 16

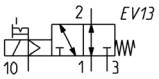


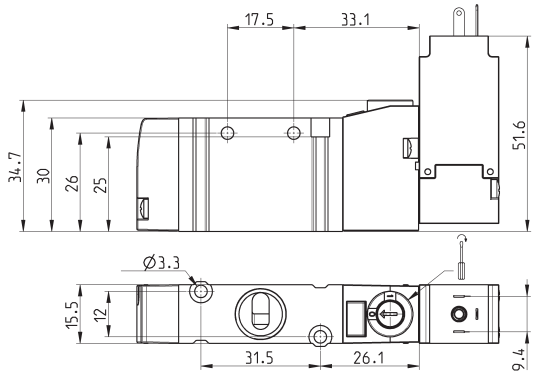
Connectors at the end of this section









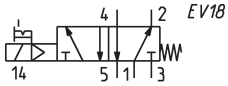


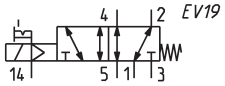
Mod.	Function	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D23VA-PR-T	NC	G1/4	-	-	3 ÷ 10	950	EV10
D23VA-PZR-T	NC	G1/4	M5	3 ÷ 10	-0.9 ÷ 10	950	EV11
D23VA-QR-T	NO	G1/4	-	-	3 ÷ 10	950	EV12
D23VA-QZR-T	NO	G1/4	M5	3 ÷ 10	-0.9 ÷ 10	950	EV13

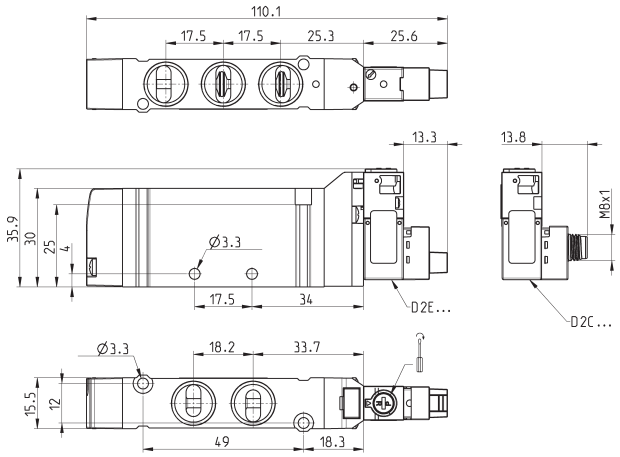
5/2-way solenoid valve, monostable - size 16

The indications given are valid for the versions D2EVA and D2CVA. The symbols of the versions with manual override type P are shown in the Appendix.

Connectors at the end of this section



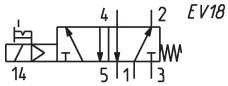


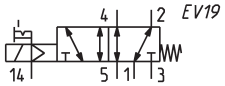


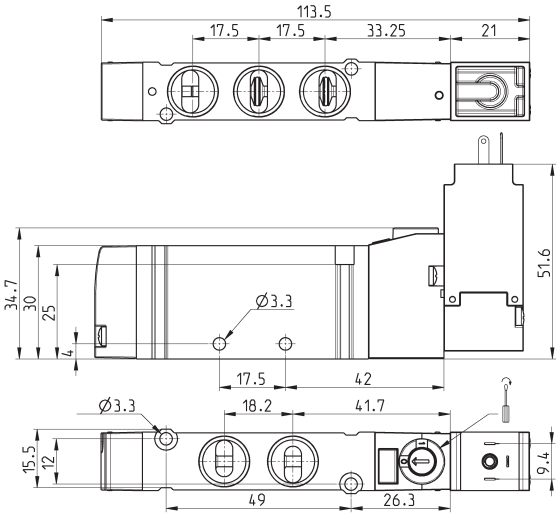
Mod.	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D2EVA-MR-T / D2CVA-MR-T	G1/4	-	-	3 ÷ 7	950	EV18
D2EVA-MZR-T / D2CVA-MZR-T	G1/4	M5	3 ÷ 7	-0.9 ÷ 10	950	EV19

5/2-way solenoid valve, monostable with 15 mm coil - size 16

Connectors at the end of this section





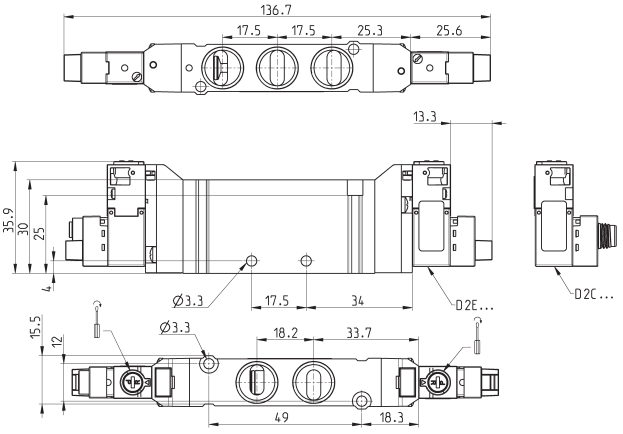


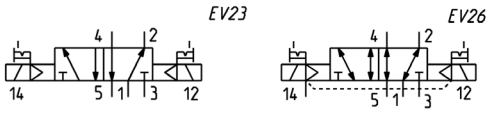
Mod.	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D23VA-MR-T	G1/4	-	-	3 ÷ 10	950	EV18
D23VA-MZR-T	G1/4	M5	3 ÷ 10	-0.9 ÷ 10	950	EV19

5/2-way solenoid valve, bistable - size 16

The indications given are valid for the versions D2EVA and D2CVA. The symbols of the versions with manual override type P are shown in the Appendix.

Connectors at the end of this section

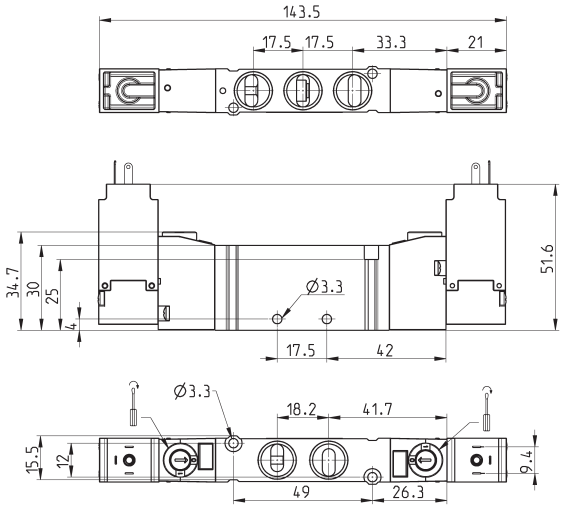


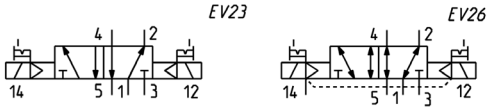


Mod.	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D2EVA-BR-T / D2CVA-BR-T	G1/4	-	-	1.5 ÷ 7	950	EV23
D2EVA-BZR-T / D2CVA-BZR-T	G1/4	M5	1.5 ÷ 7	-0.9 ÷ 10	950	EV26

5/2-way solenoid valve, bistable with 15 mm coil - size 16

Connectors at the end of this section

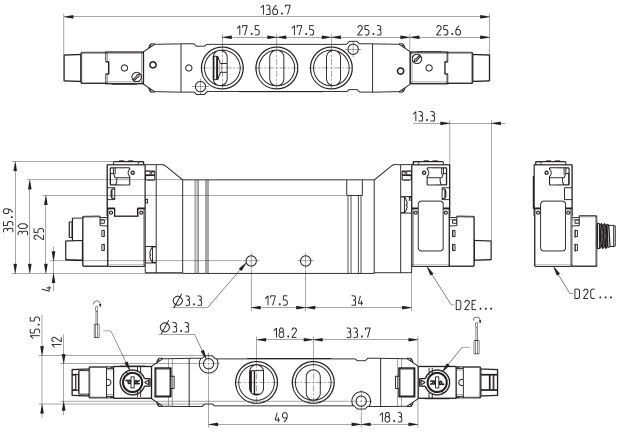




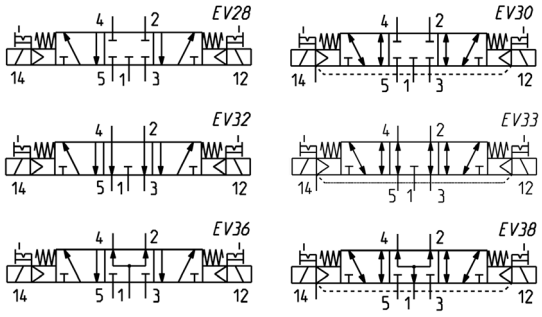
Mod.	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D23VA-BR-T	G1/4	-	-	1.5 ÷ 10	950	EV23
D23VA-BZR-T	G1/4	M5	1.5 ÷ 10	-0.9 ÷ 10	950	EV26

5/3 - way solenoid valve - size 16

CC = Centres Closed
CO = Centres Open
CP = Centres Pressurized
The indications given are valid for the versions D2EVA and D2CVA.
The symbols of the versions with manual override type P are shown in the Appendix.



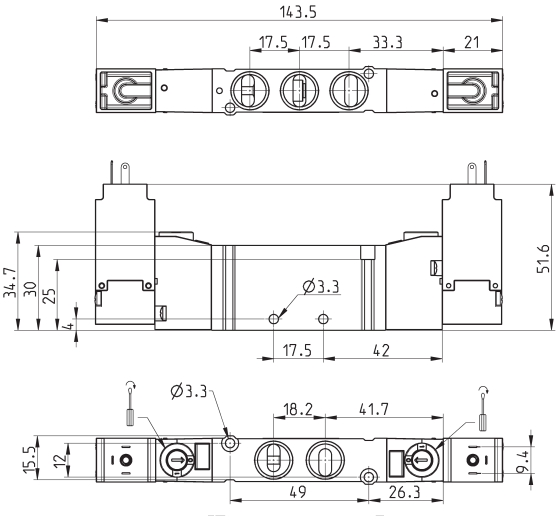
Connectors at the end of this section



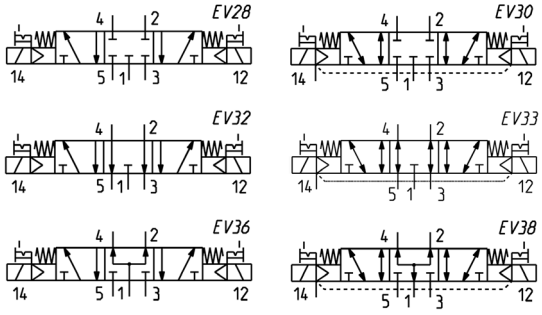
Mod.	Function	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D2EVA-VR-T / D2CVA-VR-T	CC	G1/4	-	-	1.5 ÷ 7	950	EV28
D2EVA-VZR-T / D2CVA-VZR-T	CC	G1/4	M5	1.5 ÷ 7	-0.9 ÷ 10	950	EV30
D2EVA-KR-T / D2CVA-KR-T	CO	G1/4	-	-	1.5 ÷ 7	950	EV32
D2EVA-KZR-T / D2CVA-KZR-T	CO	G1/4	M5	1.5 ÷ 7	-0.9 ÷ 10	950	EV33
D2EVA-NR-T / D2CVA-NR-T	CP	G1/4	-	-	1.5 ÷ 7	950	EV36
D2EVA-NZR-T / D2CVA-NZR-T	CP	G1/4	M5	1.5 ÷ 7	-0.9 ÷ 10	950	EV38

5/3 - way solenoid valve with 15 mm coil - size 16

CC = Centres Closed
CO = Centres Open
CP = Centres Pressurized



Connectors at the end of this section

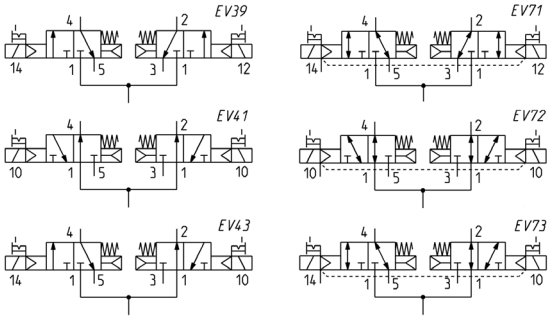


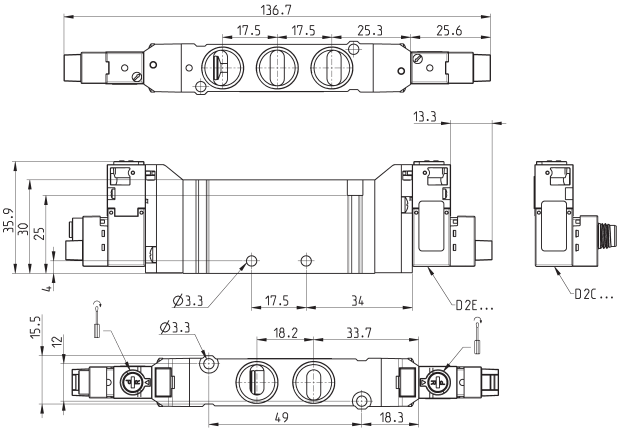
Mod.	Function	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D23VA-VR-T	CC	G1/4	-	-	1.5 ÷ 10	950	EV28
D23VA-VZR-T	CC	G1/4	M5	1.5 ÷ 10	-0.9 ÷ 10	950	EV30
D23VA-KR-T	CO	G1/4	-	-	1.5 ÷ 10	950	EV32
D23VA-KZR-T	CO	G1/4	M5	1.5 ÷ 10	-0.9 ÷ 10	950	EV33
D23VA-NR-T	CP	G1/4	-	-	1.5 ÷ 10	950	EV36
D23VA-NZR-T	CP	G1/4	M5	1.5 ÷ 10	-0.9 ÷ 10	950	EV38

2x3/2-way solenoid valve - size 16

These solenoid valves integrate two independent 3/2-way functions in the same body.
The indications given are valid for the versions D2EVA and D2CVA.
The symbols of the versions with manual override type P are shown in the Appendix.

Connectors at the end of this section



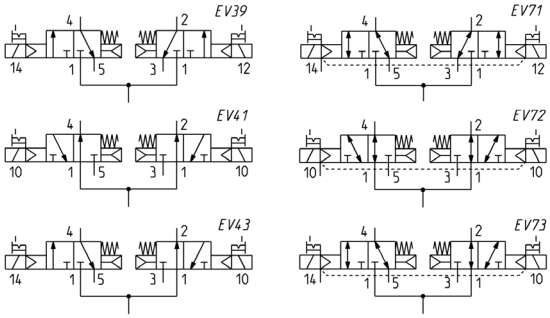


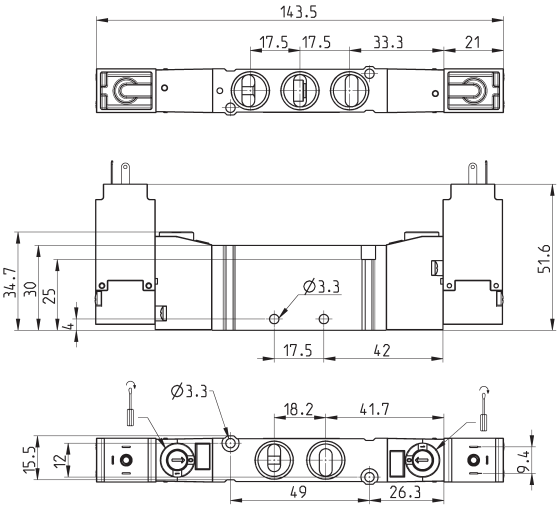
Mod.	Function	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D2EVA-CR-T / D2CVA-CR-T	2 x 3/2 NC	G1/4	-	-	1.5 ÷ 7	950	EV39
D2EVA-CZR-T / D2CVA-CZR-T	2 x 3/2 NC	G1/4	M5	1.5 ÷ 7	-0.9 ÷ 10	950	EV71
D2EVA-AR-T / D2CVA-AR-T	2 x 3/2 NO	G1/4	-	-	1.5 ÷ 7	950	EV41
D2EVA-AZR-T / D2CVA-AZR-T	2 x 3/2 NO	G1/4	M5	1.5 ÷ 7	-0.9 ÷ 10	950	EV72
D2EVA-GR-T / D2CVA-GR-T	1 x 3/2 NC + 1 x 3/2 NO	G1/4	-	-	1.5 ÷ 7	950	EV43
D2EVA-GZR-T / D2CVA-GZR-T	1 x 3/2 NC + 1 x 3/2 NO	G1/4	M5	1.5 - 7	-0.9 ÷ 10	220	EV73

2x3/2-way solenoid valve with 15 mm coil - size 16

These solenoid valves integrate two independent 3/2-way functions in the same body.
The symbols of the versions with manual override type P are shown in the Appendix.

Connectors at the end of this section

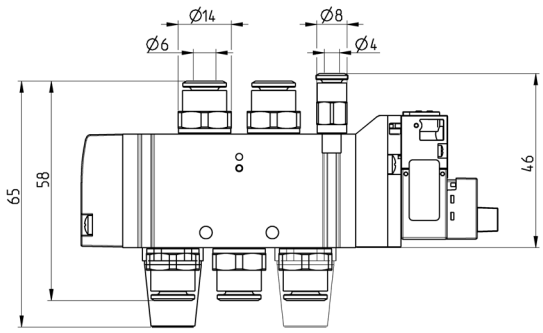


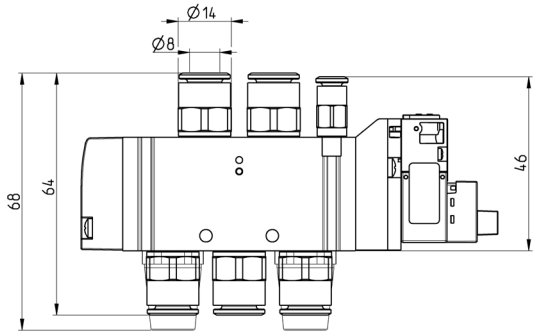


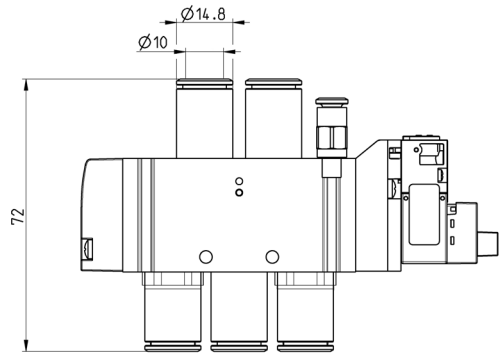
Mod.	Function	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D23VA-CR-T	2 x 3/2 NC	G1/4	-	-	1.5 ÷ 10	950	EV39
D23VA-CZR-T	2 x 3/2 NC	G1/4	M5	1.5 ÷ 10	-0.9 ÷ 10	950	EV71
D23VA-AR-T	2 x 3/2 NO	G1/4	-	-	1.5 ÷ 10	950	EV41
D23VA-AZR-T	2 x 3/2 NO	G1/4	M5	1.5 ÷ 10	-0.9 ÷ 10	950	EV72
D23VA-GR-T	1 x 3/2 NC + 1 x 3/2 NO	G1/4	-	-	1.5 ÷ 10	950	EV43
D23VA-GZR-T	1 x 3/2 NC + 1 x 3/2 NO	G1/4	M5	1.5 ÷ 10	-0.9 ÷ 10	950	EV73

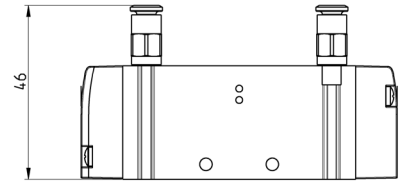
Dimensions of the different versions with fittings / fitt. + silencer – size 16

See coding table at the beginning of this section
The dimensions are also valid for pneumatically operated versions



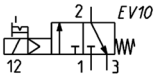


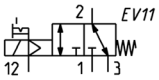


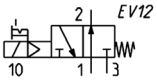


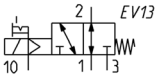
3/2-way solenoid valve, monostable - size 25

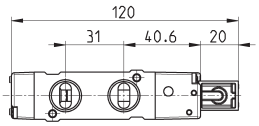
Connectors at the end of this section

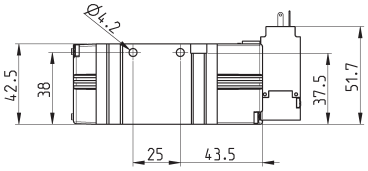


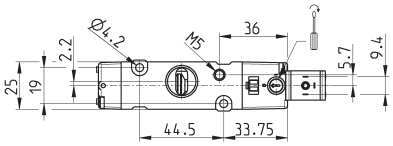








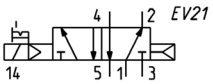


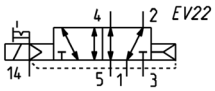


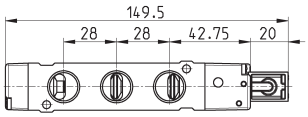
Mod.	Function	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D43VA-PR-T	NC	G3/8	-	-	2.5 ÷ 10	1800	EV10
D43VA-PZR-T	NC	G3/8	M5	2.5 ÷ 10	-0.9 ÷ 10	1800	EV11
D43VA-QR-T	NO	G3/8	-	-	2.5 ÷ 10	1800	EV12
D43VA-QZR-T	NO	G3/8	M5	2.5 ÷ 10	-0.9 ÷ 10	1800	EV13

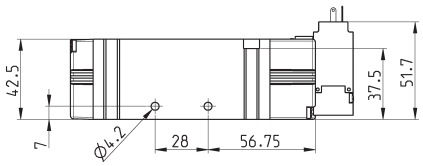
5/2-way solenoid valve, monostable - size 25

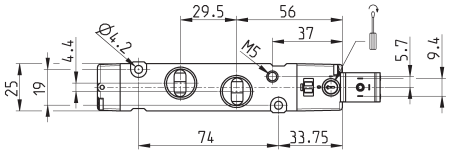
Connectors at the end of this section





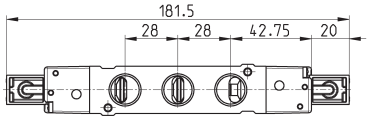




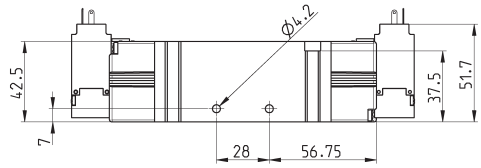


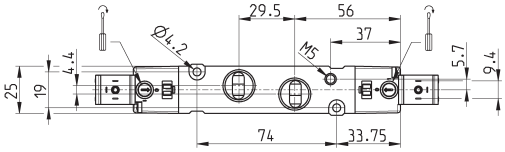
Mod.	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D43VA-MR-T	G3/8	-	-	2.5 ÷ 10	2000	EV21
D43VA-MZR-T	G3/8	M5	2.5 ÷ 10	-0.9 ÷ 10	2000	EV22

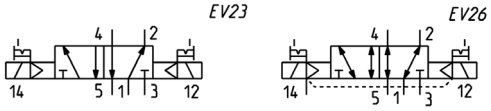
5/2-way solenoid valve, bistable - size 25



Connectors at the end of this section



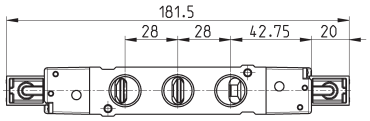




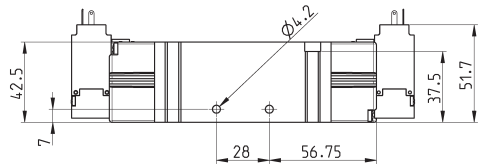
Mod.	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D43VA-BR-T	G3/8	-	-	1.5 ÷ 10	2000	EV23
D43VA-BZR-T	G3/8	M5	1.5 ÷ 10	-0.9 ÷ 10	2000	EV26

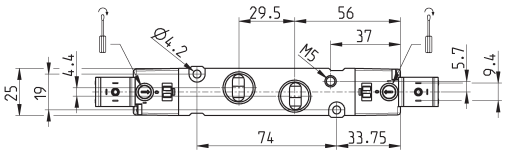
5/3-way solenoid valve – size 25

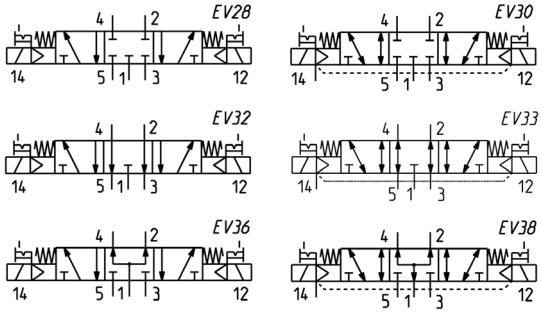
CC = Centres Closed
CO = Centres Open
CP = Centres Pressurized



Connectors at the end of this section



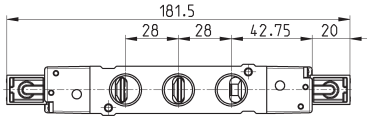




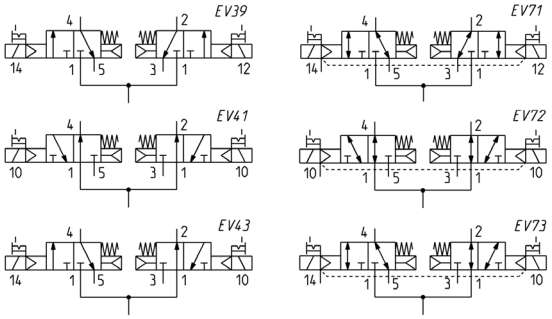
Mod.	Function	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D43VA-VR-T	CC	G3/8	-	-	2.5 ÷ 10	1800	EV28
D43VA-VZR-T	CC	G3/8	M5	2.5 ÷ 10	-0.9 ÷ 10	1800	EV30
D43VA-KR-T	CO	G3/8	-	-	2.5 ÷ 10	1800	EV32
D43VA-KZR-T	CO	G3/8	M5	2.5 ÷ 10	-0.9 ÷ 10	1800	EV33
D43VA-NR-T	CP	G3/8	-	-	2.5 ÷ 10	1800	EV36
D43VA-NZR-T	CP	G3/8	M5	2.5 ÷ 10	-0.9 ÷ 10	1800	EV38

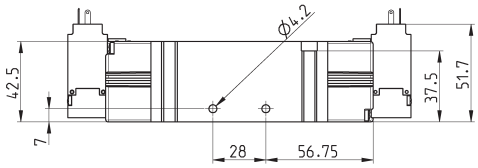
2x3/2-way solenoid valve - size 25

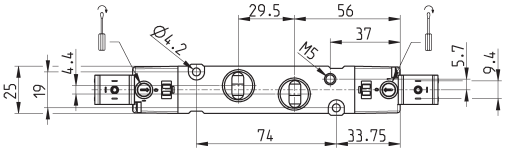
These solenoid valves integrate two indipendent 3/2-way functions in the same body.



Connectors at the end of this section



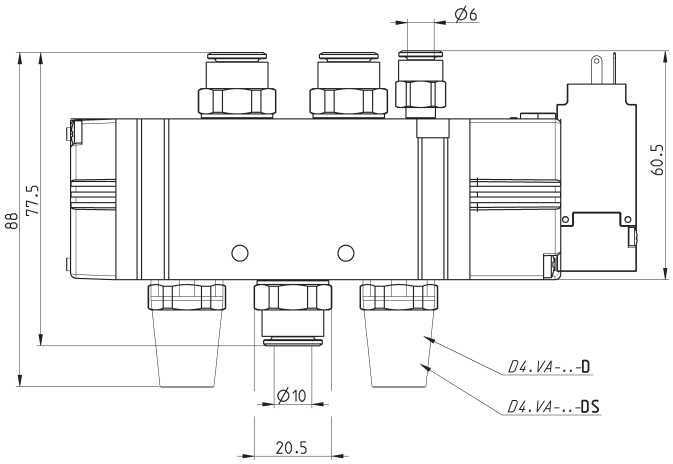


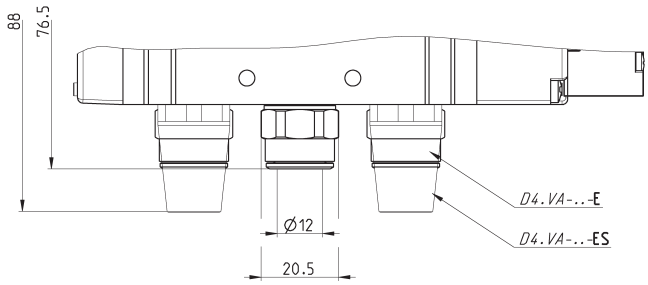


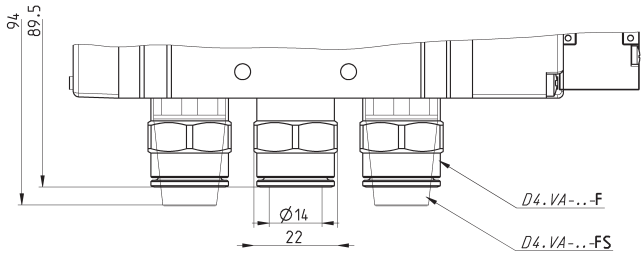
Mod.	Function	Ports	Pilot supply	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D43VA-CR-T	2 x 3/2 NC	G3/8	-	-	3.5 ÷ 10	1800	EV39
D43VA-CZR-T	2 x 3/2 NC	G3/8	M5	3.5 ÷ 10	-0.7 ÷ 10	1800	EV71
D43VA-AR-T	2 x 3/2 NO	G3/8	-	-	3.5 ÷ 10	1800	EV41
D43VA-AZR-T	2 x 3/2 NO	G3/8	M5	3.5 ÷ 10	-0.7 ÷ 10	1800	EV72
D43VA-GR-T	1 x 3/2 NC + 1 x 3/2 NO	G3/8	-	-	3.5 ÷ 10	1800	EV43
D43VA-GZR-T	1 x 3/2 NC + 1 x 3/2 NO	G3/8	M5	3.5 ÷ 10	-0.7 ÷ 10	1800	EV73

Dimensions of the different versions with fittings / fitt. + silencer - size 25

See coding table at the beginning of this section
The dimensions are also valid for pneumatically operated versions







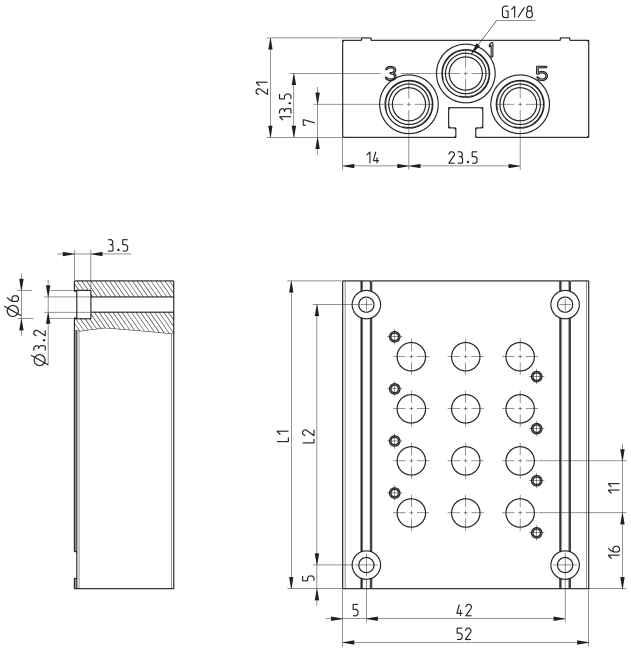
CODING EXAMPLE

DC	A	1	0	-	12

DC	SERIES
A	MANIFOLD: A = For type VA valves
1	SIZE 1 = 10.5 mm 2 = 16 mm 4 = 25 mm
0	BODY TYPE 0 = body for sub-base assembly
12	N° OF POSITIONS: 2 3 4 ... 16 17 (no D4) 18 (no D4) 19 (no D4)

Manifolds for valves model VA, Size 10,5

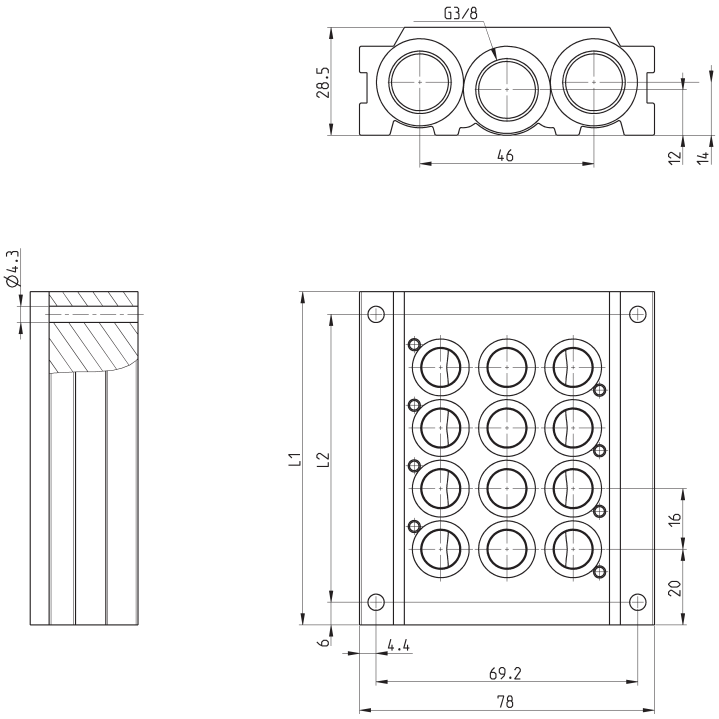
Note: the manifolds are supplied with seals and valves fixing screws.



DIMENSIONS			
Mod.	Nr positions	L1	L2
DCA10-2	2	43	33
DCA10-3	3	54	44
DCA10-4	4	65	55
DCA10-5	5	76	66
DCA10-6	6	87	77
DCA10-7	7	98	88
DCA10-8	8	109	99
DCA10-9	9	120	110
DCA10-10	10	131	121
DCA10-11	11	142	132
DCA10-12	12	153	143
DCA10-13	13	164	154
DCA10-14	14	175	165
DCA10-15	15	186	176
DCA10-16	16	197	187
DCA10-17	17	208	198
DCA10-18	18	219	209
DCA10-19	19	230	220

Manifolds for valves model VA, Size 16

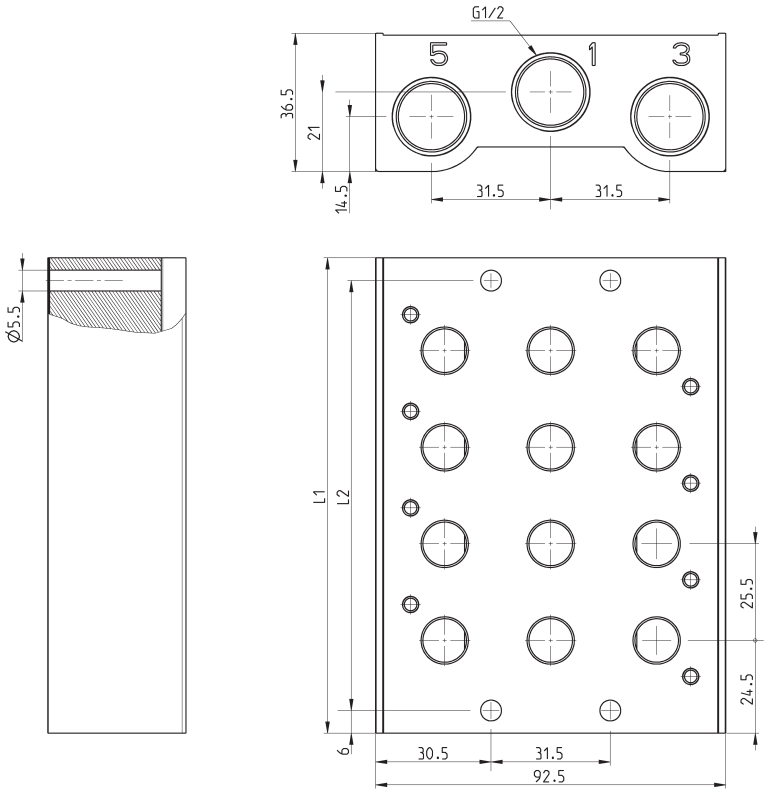
Note: the manifolds are supplied with seals and valves fixing screws.



DIMENSIONS			
Mod.	Nr positions	L1	L2
DCA20-2	2	56	44
DCA20-3	3	72	60
DCA20-4	4	88	76
DCA20-5	5	104	92
DCA20-6	6	120	108
DCA20-7	7	136	124
DCA20-8	8	152	140
DCA20-9	9	168	156
DCA20-10	10	184	172
DCA20-11	11	200	188
DCA20-12	12	216	204
DCA20-13	13	232	220
DCA20-14	14	248	236
DCA20-15	15	264	252
DCA20-16	16	280	268
DCA20-17	17	296	284
DCA20-18	18	312	300
DCA20-19	19	328	316

Manifolds for valves model VA, Size 25

Note: the manifolds are supplied with seals and valves fixing screws.



DIMENSIONS			
Mod.	Nr positions	L1	L2
DCA40-2	2	74.5	62.5
DCA40-3	3	100	88
DCA40-4	4	125.5	113.5
DCA40-5	5	151	139
DCA40-6	6	176.5	164.5
DCA40-7	7	202	190
DCA40-8	8	227.5	215.5
DCA40-9	9	253	241
DCA40-10	10	278	266.5
DCA40-11	11	304	292
DCA40-12	12	329.5	317.5
DCA40-13	13	355	343
DCA40-14	14	380.5	368.5
DCA40-15	15	406	394
DCA40-16	16	431.5	419.5

KIT CONTAINING SEAL + VALVE FIXING SCREWS

DCA10-K1

DCA20-K1

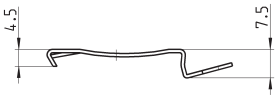
DCA40-K1

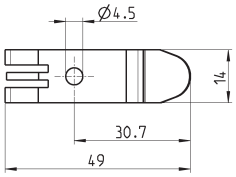
kit to be purchased in case of replacing L-X-Y
with valve

Mounting brackets for DIN rail

DIN EN 50022 (7,5mm x 35mm - width 1)

Supplied with:
2x plates
2x screws M4x6 UNI 5931
2x nuts

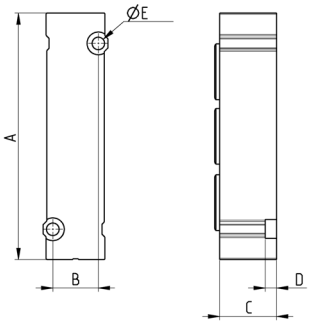




Mod.	
PCF-E531	(only for D1)

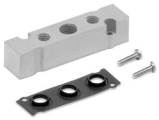
Blanking plate for manifolds - free position L

The following is supplied:
1x plate
2x screws
1x seal.

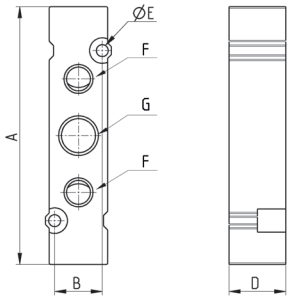


DIMENSIONS						
Mod.	Pitch	A	B	D	øE	C
D1AVA-L	10,5	45.5	8.4	5	2.1	10
D2AVA-L	16	65	12	3	3.3	15
D4AVA-L	25	92.5	19	5	4.2	20

Module X for additional supply and exhaust for size 10,5



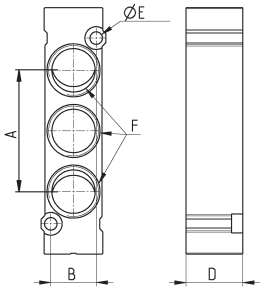
The following is supplied:
1x plate
2x screws
1x seal



DIMENSIONS							
Mod.	Pitch	A	B	D	øE	F	G
D1AVA-X	10.5	45.5	8.4	10	2.1	M5	1/8

Module X for additional supply and exhaust for size 16

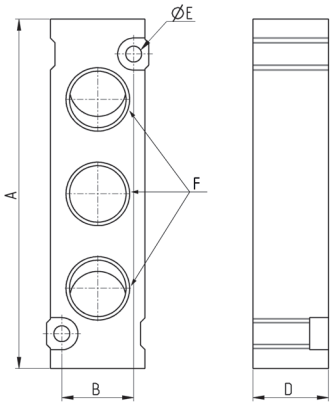
The following is supplied:
1x plate
2x screws
1x seal



DIMENSIONS						
Mod.	Pitch	A	B	D	øE	F
D2AVA-X	16	65	12	15	3,3	G1/4

Module X for additional supply and exhaust for size 25

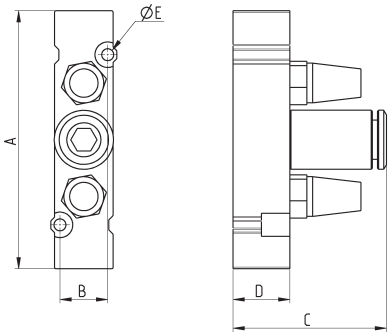
The following is supplied:
1x plate
2x screws
1x seal.



DIMENSIONS						
Mod.	Pitch	A	B	D	øE	F
D4AVA-X	25	92.5	19	20	4.2	G3/8

Module Y for additional supply and exhaust with silencer for size 10,5

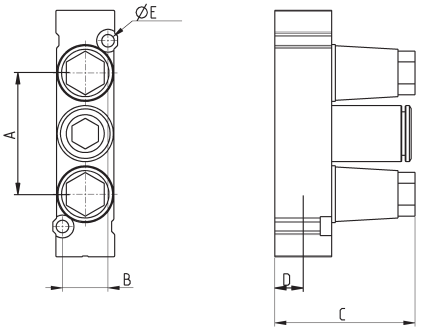
The following is supplied:
1x plate
2x screws
1x seal.
2x silencers 2931 M5
1x fitting 6512 6-M7



DIMENSIONS						
Mod.	Pitch	A	B	C	D	øE
D1AVA-Y	10.5	45.5	8.4	27	10	2.1

Module Y for additional supply and exhaust with silencer for size 16

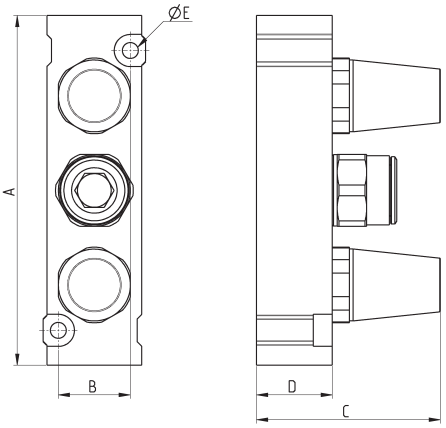
The following is supplied:
1x plate
2x screws
1x seal.
2x silencers 2931 M5
1x fitting 6512 6-M7



DIMENSIONS						
Mod.	Pitch	A	B	C	D	øE
D2AVA-Y	16	65	12	37	15	3,3

Module Y for additional supply and exhaust with silencer for size 25

The following is supplied:
1x plate
2x screws
1x seal.
2x silencers 2931 3/8
1x fitting 6512 12-3/8



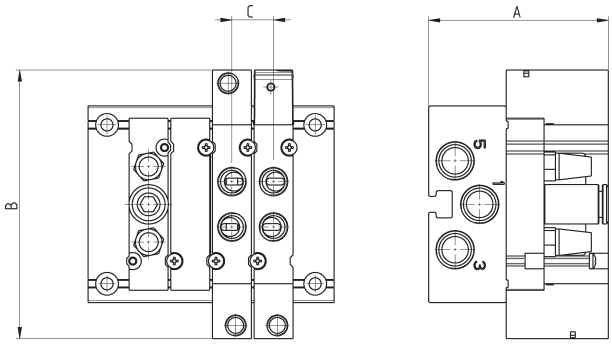
DIMENSIONS						
Mod.	Pitch	A	B	C	D	øE
D4AVA-Y	25	92.5	19	48.5	20	4.2

CODING EXAMPLE MANIFOLD WITH VALVES AND FITTINGS

DC	A	1	E	P	-	MBMXCVB	-	3BX2AB	-	CSL	-	R

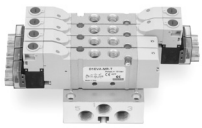
DC	SERIES		
A	MANIFOLD WITH VALVES A = For type VA valve		
1	SIZE/DIMENSION 1 = 10.5 mm 2 = 16 mm 4 = 25 mm		
E	ACTUATION E = Electric (D1 and D2) 3 = Electric with solenoid 15 mm (D2 and D4) C = Electric with M8 connector (D1 and D2) P = Pneumatic		
P	TYPE OF MANUAL OVERRIDE P = push button (not for "3" actuation) R = with push and turn device 0 = without manual override (for "P" actuation)		
MBMXCVB	TYPE OF VALVE / SOLENOID VALVE M = 5/2 Monostable B = 5/2 Bistable C = 2 x 3/2 NC A = 2 x 3/2 NO G = 2 x 3/2 (NC + NO) V = 5/3 CC K = 5/3 CO N = 5/3 CP L= Free position X = Additional supply and exhaust Y = Additional supply and exhaust with silencer	SOLENOID VALVE WITH EXTERNAL SERVO-PILOT SUPPLY MZ = 5/2 Monostable BZ = 5/2 Bistable CZ = 2 x 3/2 NC AZ = A = 2 x 3/2 NO GZ = 2 x 3/2 (NC + NO) VZ = 5/3 CC KZ = 5/3 CO NZ = 5/3 CP	
3BX2AB	CONNECTIONS ON VALVE POSITIONS T = Thread A = Ø4 (D1) Fittings 6512 4-M7-M B = Ø6 (D1) Fittings 6512 6-M7-M C = Ø8 (D2) Fittings S6510 8-1/4 D = Ø10 (D2) Fittings 6512 10-1/4-M E = Ø12 (D4) Fittings S6510 12-3/8 F = Ø14 (D4) Fittings S6510 14-3/8 L = Free position X = Threaded plate Y = See code D1AVA-Y / D2AVA-Y / D4AVA-Y	(D2) S6510 6-1/4 (D4) S6510 10-3/8	The pneumatically operated solenoid valves with external servo-pilot supply with connections from A to F are already equipped with fittings on the pilot ports Ø4 (D1 and D2) 6512 4 – M5 Ø6 (D4) 6512 6 – M5
CSL	MANIFOLD CONNECTIONS T = Thread (on both sides) C = Fittings on connections 1;3;5 CS = Fittings Ø 8 - Silencer 2931 1/8 on supply + silencers on exhausts D = Fittings Ø 10 on connections 1;3;5 DS = Fittings Ø 10 on supply + silencers on exhausts E = Fittings Ø 12 on connections 1;3;5 ES = Fittings Ø 12 on supply + silencers on exhausts F = Fittings Ø 14 on connections 1;3;5 FS = Fittings Ø 14 on supply + silencers on exhausts G = Fittings Ø 16 (D4), S6510 16-1/2 GS = Fittings Ø 16 on supply + silencers on exhausts CONNECTION SIDE = Both L = Fittings on the Left (right side covered) R = Fittings on the Right (left side covered)	(D1) 6512 8-1/8-M (D1) 6512 8-1/8-M + 2921 1/8 (D2) S6510 10-3/8 (D2) S6510 10-3/8 + 2921 3/8 (D4) S6510 12-1/2 (D4) S6510 12-1/2 + 2921 1/2 (D4) S6510 14-1/2 (D4) S6510 14-1/2 + 2921 1/2 (D4) S6510 16-1/2 (D4) S6510 16-1/2 + 2921 1/2	(D2) S6510 8-3/8 (D2) S6510 8-3/8 + 2921 3/8 (D4) S6510 10-1/2 (D4) S6510 10-1/2 + 2921 1/2
R	FIXING: = Direct R = Port for DIN rail (only for D1)		
	In case of the same consecutive codes, group them and indicate the total quantity, for example: DCA1EP-MMMYCCVG-BBBYBAAA-CSL-R DCA1EP-3MY2CVG-3BYB3A-CSL-R VERSION 3, through the connector with rectifier bridge, can be used for AC applications. (see the connectors at the end of the section)		

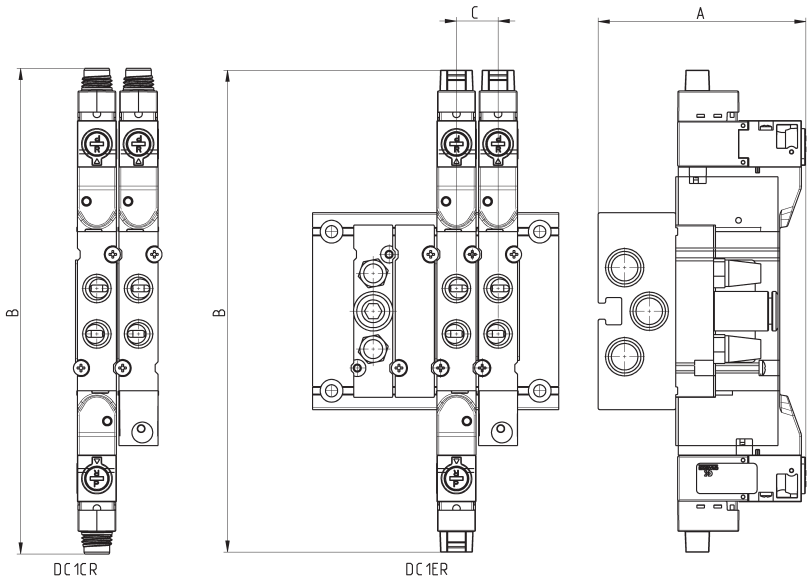
Manifold with valves, outlets on the body - size 10,5



DIMENSIONS			
Mod.	A	B	C
DCA1P0-.	47.5	71	11

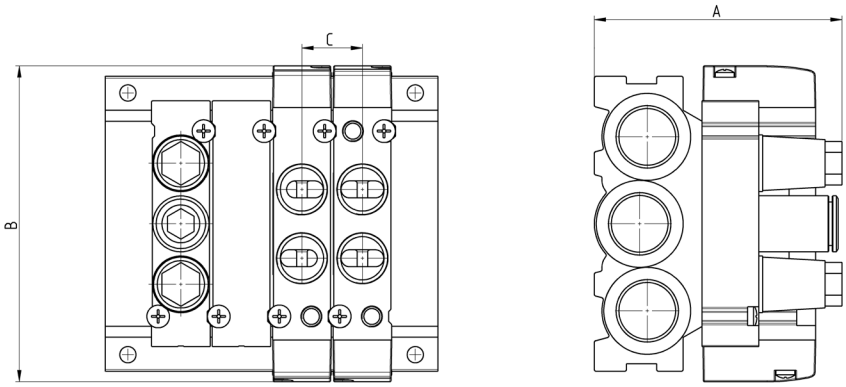
Manifold with solenoid valves, outlets on the body - size 10,5





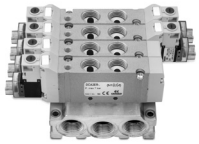
DIMENSIONS			
Mod.	A	B	C
DCA1ER-.	55	127.2	11
DCA1CR-.	55	128.2	11

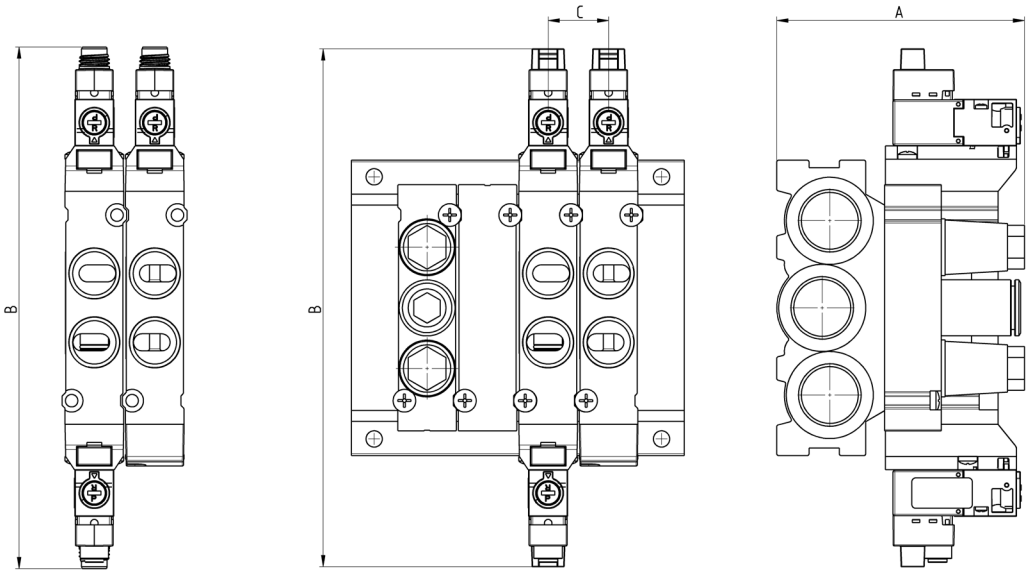
Manifold with valves, outlets on the body - size 16



DIMENSIONS			
Mod.	A	B	C
DCA2P0-.	65,5	83,5	16

Manifold with solenoid valves, outlets on the body - size 16

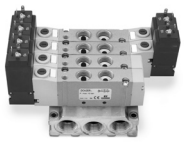


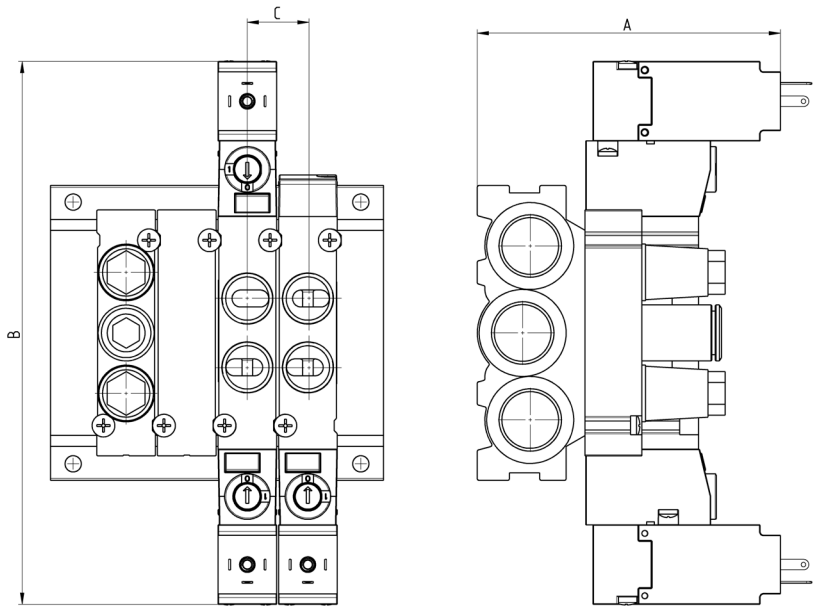


DC2CR DC2ER

DIMENSIONS			
Mod.	A	B	C
DCA2ER-.	65.5	136.7	16
DCA2CR-.	65.5	137.7	16

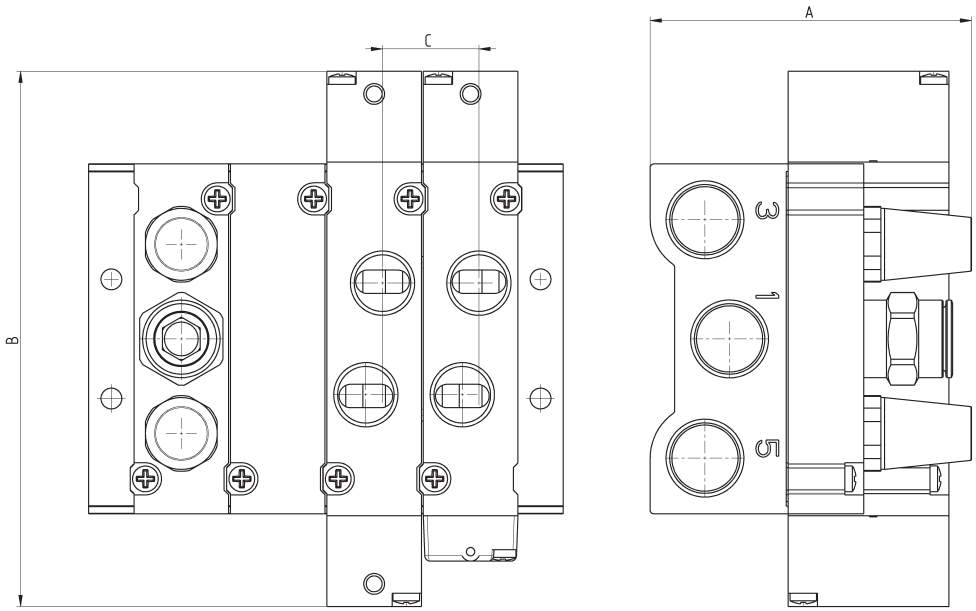
Manifold with solenoid valves, outlets on the body - size 16





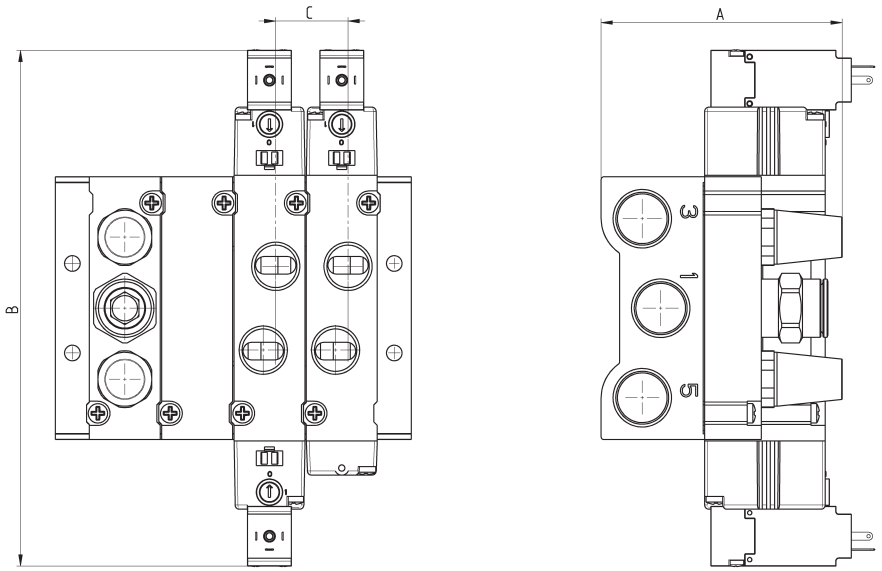
DIMENSIONS			
Mod.	A	B	C
DCA23R-.	80.2	143.5	16

Manifold with valves, outlets on the body - size 25



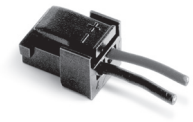
DIMENSIONS			
Mod.	A	B	C
DCA4P0-.	85	141.5	25,5

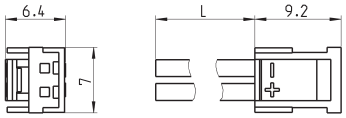
Manifold with solenoid valves, outlets on the body - size 25



DIMENSIONS			
Mod.	A	B	C
DCA43R-.	85	181.5	25,5

Connector Mod. 121-8.. for "E" actuation



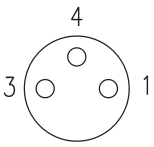


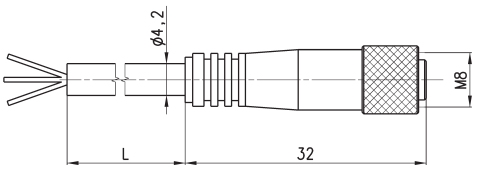
Mod.	description	colour	L = cable length (mm)	cable holding
121-803	crimped cable	black	300	crimping
121-806	crimped cable	black	600	crimping
121-810	crimped cable	black	1000	crimping
121-830	crimped cable	black	3000	crimping

3-wire extension with M8 3-pin female connector for "C" actuation

With PU sheathing, non shielded cable.
Protection class: IP65

1 BN = Brown +/-
4 BK = Black +/-
3 BU = Blue NC

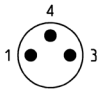


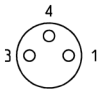


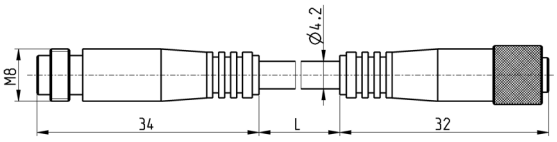
Mod.	L = cable length (m)
CS-2	2
CS-5	5
CS-10	10

Extension with M8 connector, 3 pin male/female for "C" actuation

Non shielded

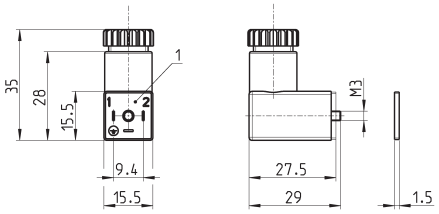






Mod.	description	type of connector	connection	L [cable length] (m)
CS-DW03HB-C250	moulded cable	straight	M8 3 pin male / female	2.5
CS-DW03HB-C500	moulded cable	straight	M8 3 pin male / female	5

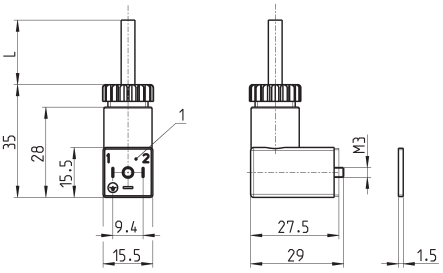
Connector Mod. 125-... for "3" actuation



Mod.	description	colour	working voltage	cable gland	tightening torque
125-601	connector, diode + Led	transparent	10/50 V DC	PG7	0.3 Nm
125-701	connector, varistor + Led	transparent	24 V AC/DC	PG7	0.3 Nm
125-800	connector, without electronics	black	-	PG7	0.3 Nm

1 = 90° adjustable connector

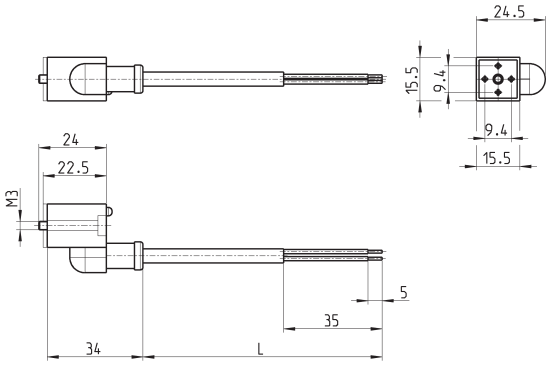
Connector ..... Mod. 125-... for 3 actuation



Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
125-501-2	moulded cable with diode + Led	black	10/50 V DC	2000 mm	-	0.3 Nm
125-550-1	moulded cable, without electronics	black	-	1000 mm	-	0.3 Nm
-						

1 = 90° adjustable connector

In-line connectors with cable for 3 actuation

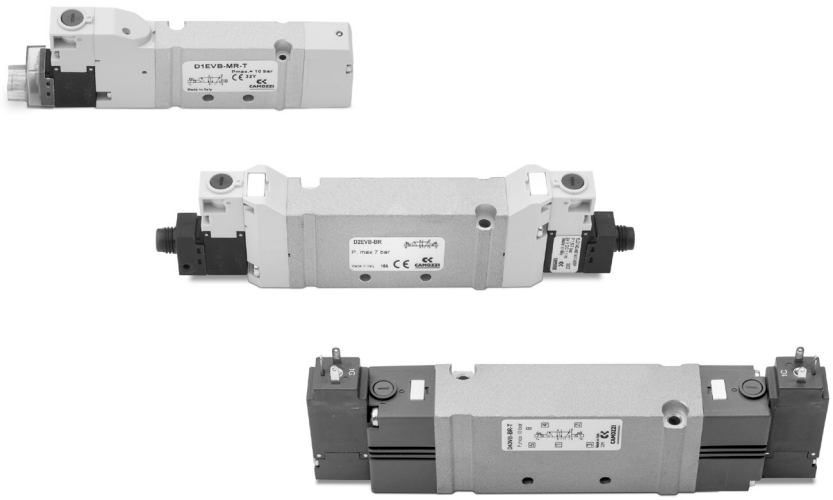


Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
125-503-2	in-line moulded cable, with diode + Led	black	24 V DC	2000 mm	-	0.3 Nm
125-503-5	in-line moulded cable, with diode + Led	black	24 V DC	5000 mm	-	0.3 Nm
125-553-2	in-line moulded cable, without electronics	black	-	2000 mm	-	0.3 Nm
125-553-5	in-line moulded cable, without electronics	black	-	5000 mm	-	0.3 Nm

New

Series D
Solenoid valves
VB version

2x3/2; 5/2; 5/3-way
Manifold assembly
Size 10,5 - 16 - 25 mm



Camozzi has developed a new series of valves for applications with limited installation space where it is necessary to have the control elements as close to the actuator as possible.
Thanks to the extreme robust aluminium body, the Series D valves guarantee maximum reliability even under difficult operating conditions.

- Flow up to 2000 Nl/min
- Aluminium body and technolpolymer end caps
- Installation in narrow spaces
- Electric connection also with M8 connector

GENERAL DATA

Valve construction	spool- type
Valve functions	2x3/2 NC/NO/NC+NO; 5/2; 5/3 CC/CO/CP
Materials	body, spool, bases = AL; end caps = technopolymer; seals = HNBR
Ambient temperature	0°C ÷ 50° C
Medium	compressed, filtered and non-lubricated air in class [7:4:4] according to ISO 8573-1:2010. In case lubrication should be necessary, only use oils with a maximum viscosity of 32 Cst and the version with external servo pilot. The air quality for the servo pilot should be of class [7:4:4] according to ISO 8573-1:2010
Voltage	24V DC
Voltage tolerance	± 10%
Power consumption	1W
Class of insulation	class F
Protection class	IP65 with EN 175301 C connector (“3” actuation. Ex DIN 43650)* IP65 with M8 connector (“C” actuation)* IP40 with micro connector (“E” actuation)* *See coding example

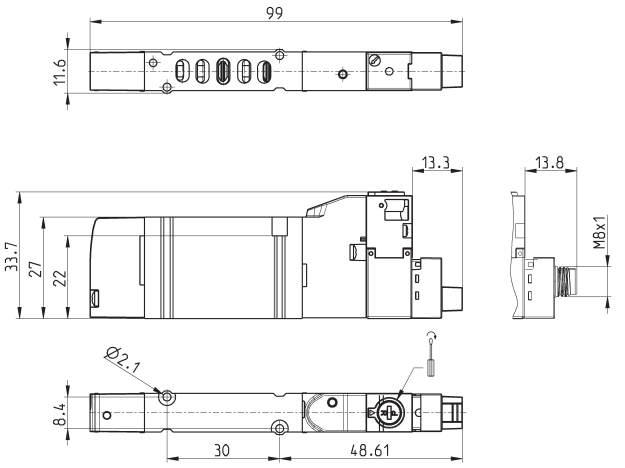
CODING EXAMPLE

D	1	E	VB	-	B	P

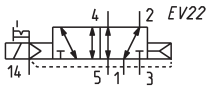
D	SERIES
1	SIZE: 1 = 10,5 mm 2 = 16 mm 4 = 25 mm
E	ACTUATION: E = electric (D1 and D2) 3 = electric 15 mm (D2 and D4) C = electric with M8 connections (D1 and D2)
VB	COMPONENT: VB = Valve with body for sub-base
B	TYPE OF SOLENOID VALVE: M = 5/2 Monostable B = 5/2 Bistable C = 2 x 3/2 NC A = 2 x 3/2 NO G = 2 x 3/2 (NC+NO) N = 5/3 CP V = 5/3 CC K = 5/3 CO
P	TYPE OF MANUAL OVERRIDE: P = push button (not for D4) R = with push and turn device
	VERSION 3, through the connector with rectifier bridge 125-571-3, can be used for AC applications. (see the connectors at the end of the section)

5/2-way solenoid valve, monostable, outlets on subbase - size 10.5

The symbols of the versions with manual override type P are shown in the Appendix.



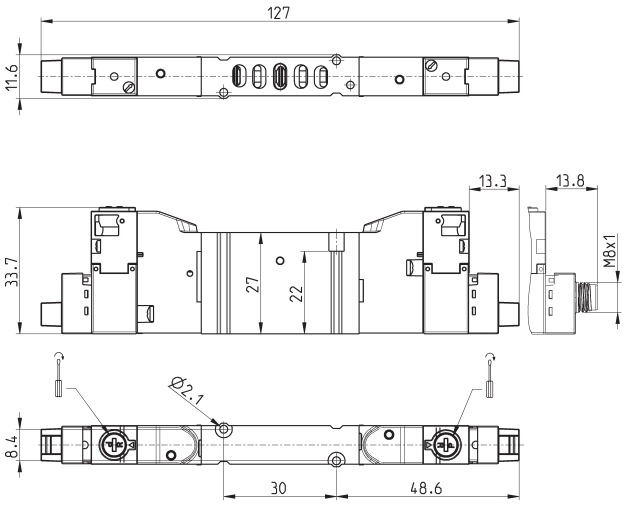
Connectors at the end of this section



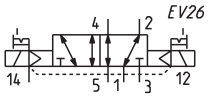
Mod.	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D1EVB-MR / D1CVB-MR	2.5 ÷ 7	2.5 ÷ 10	300	EV22

5/2-way solenoid valve, bistable, outlets on subbase - size 10.5

The symbols of the versions with manual override type P are shown in the Appendix.



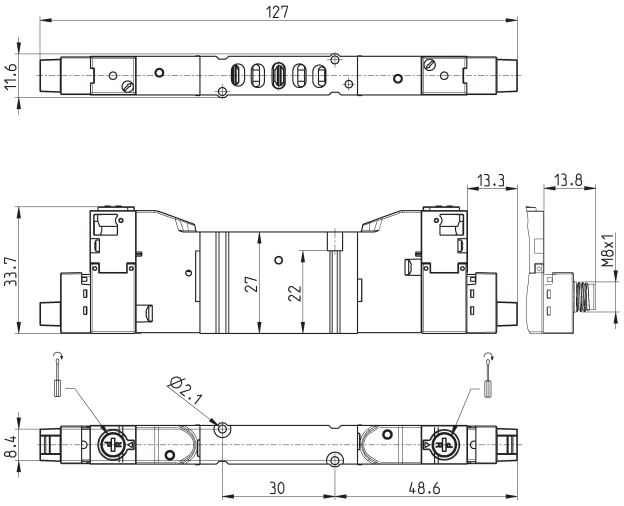
Connectors at the end of this section



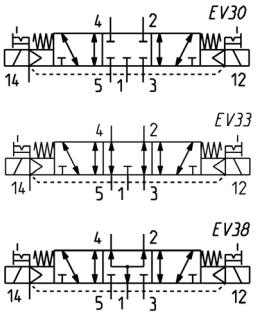
Mod.	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D1EVB-BR / D1CVB-BR	2.5 ÷ 7	2.5 ÷ 10	300	EV26

5/3-way solenoid valve, outlets on subbase - size 10.5

CC = Centres Closed
CO = Centres Open
CP = Centres Pressurized
The symbols of the versions with manual override type P are shown in the Appendix.



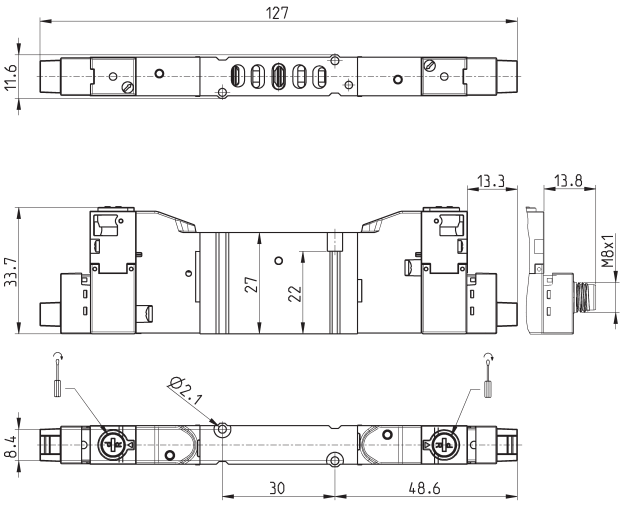
Connectors at the end of this section



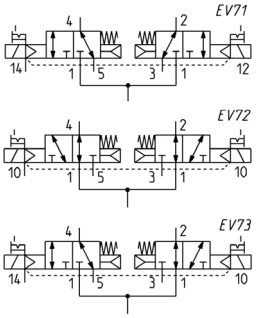
Mod.	Function	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D1EVB-VR / D1CVB-VR	CC	2.5 ÷ 7	2.5 ÷ 10	260	EV30
D1EVB-KR / D1CVB-KR	CO	2.5 ÷ 7	2.5 ÷ 10	260	EV33
D1EVB-NR / D1CVB-NR	CP	2.5 ÷ 7	2.5 ÷ 10	260	EV38

2x3/2-way solenoid valve, outlets on subbase - size 10.5

These solenoid valves integrate two 3/2-way functions in the same body.
The symbols of the versions with manual override type P are shown in the Appendix.



Connectors at the end of this section

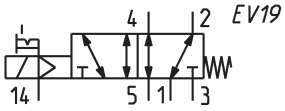


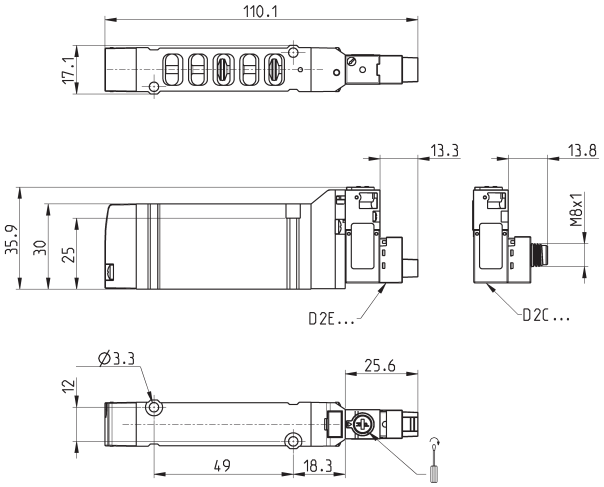
Mod.	Function	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D1EVB-CR / D1CVB-CR	2 x 3/2 NC	2.5 ÷ 7	2.5 ÷ 10	280	EV71
D1EVB-AR / D1CVB-AR	2 x 3/2 NO	2.5 ÷ 7	2.5 ÷ 10	280	EV72
D1EVB-GR / D1CVB-GR	1 x 3/2 NC + 1 x 3/2 NO	2.5 ÷ 7	2.5 ÷ 10	280	EV73

5/2-way solenoid valve, monostable, outlets on subbase - size 16

The symbols of the versions with manual override type P are shown in the Appendix

Connectors at the end of this section



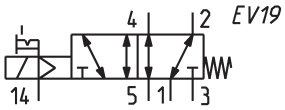


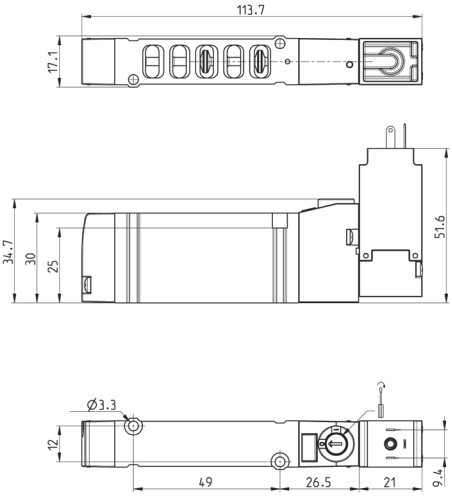
Mod.	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D2EVB-MR / D2CVB-MR	3 ÷ 7	-0.9 ÷ 10	950	EV19

5/2-way solenoid valve, monostable, outlets on subbase with 15 mm coil - size 16

The symbols of the versions with manual override type P are shown in the Appendix

Connectors at the end of this section

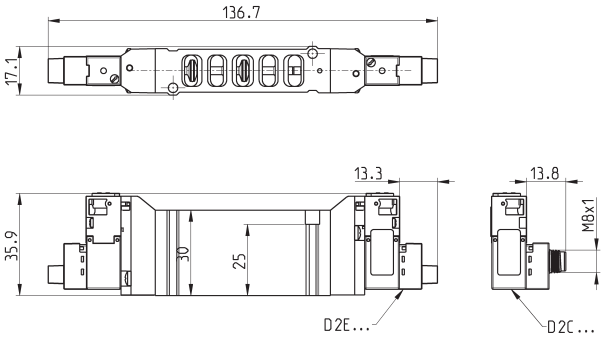




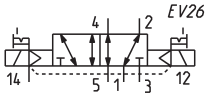
Mod.	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D23VB-MR	3 ÷ 10	-0.9 ÷ 10	950	EV19

5/2-way solenoid valve, bistable, outlets on subbase - size 16

The symbols of the versions with manual override type P are shown in the Appendix



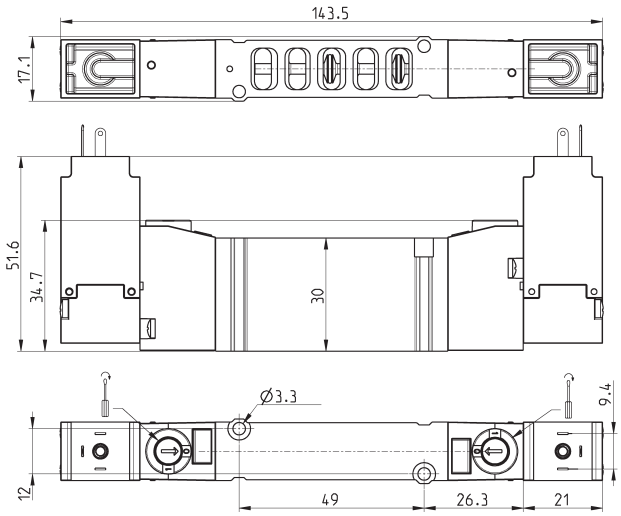
Connectors at the end of this section



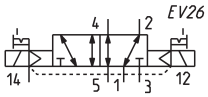
Mod.	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D2EVB-BR / D2CVB-BR	1.5 ÷ 7	-0.9 ÷ 10	950	EV26

5/2-way solenoid valve, bistable, outlets on subbase with 15 mm coil - size 16

The symbols of the versions with manual override type P are shown in the Appendix



Connectors at the end of this section

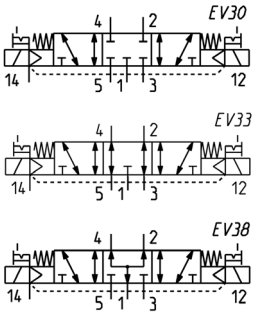


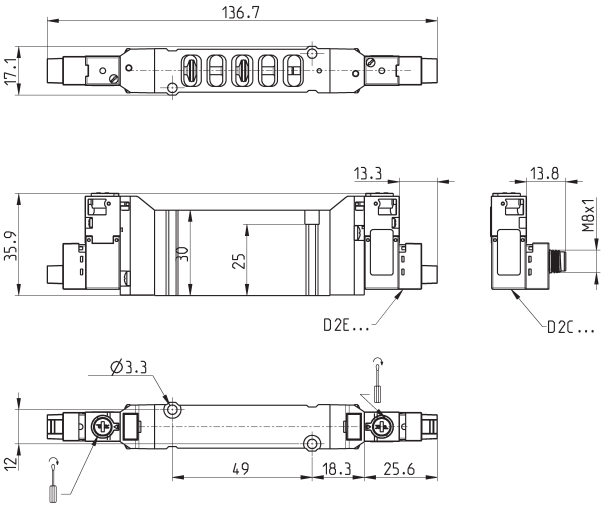
Mod.	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D23VB-BR	1.5 ÷ 10	-0.9 ÷ 10	950	EV26

5/3-way solenoid valve, outlets on subbase - size 16

CC = Centres Closed
CO = Centres Open
CP = Centres Pressurized
The indications given are valid for versions: D2EVB and D2CVB
The symbols of the versions with manual override type P are available in the “appendix” section

Connectors at the end of this section

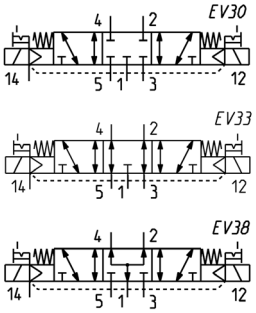


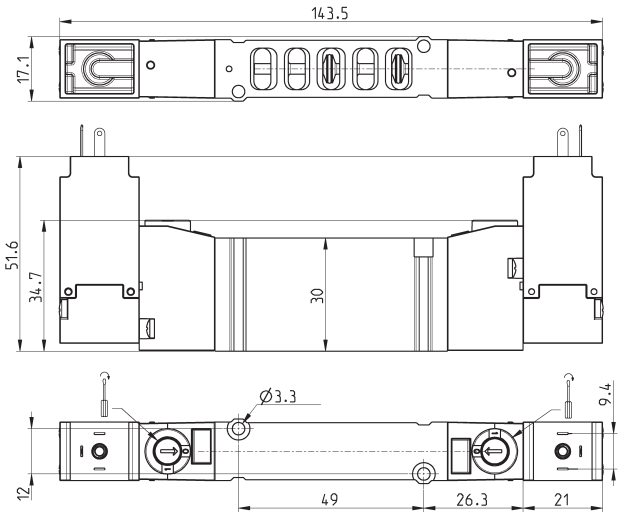


Mod.	Function	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D2EVB-VR / D2CVB-VR	CC	1.5 ÷ 7	-0.9 ÷ 10	950	EV30
D2EVB-KR / D2CVB-KR	CO	1.5 ÷ 7	-0.9 ÷ 10	950	EV33
D2EVB-NR / D2CVB-NR	CP	1.5 ÷ 7	-0.9 ÷ 10	950	EV38

5/3-way solenoid valve, outlets on subbase with 15 mm coil - size 16

CC = Centres Closed
CO = Centres Open
CP = Centres Pressurized
The symbols of the versions with manual override type P are available in the “appendix” section

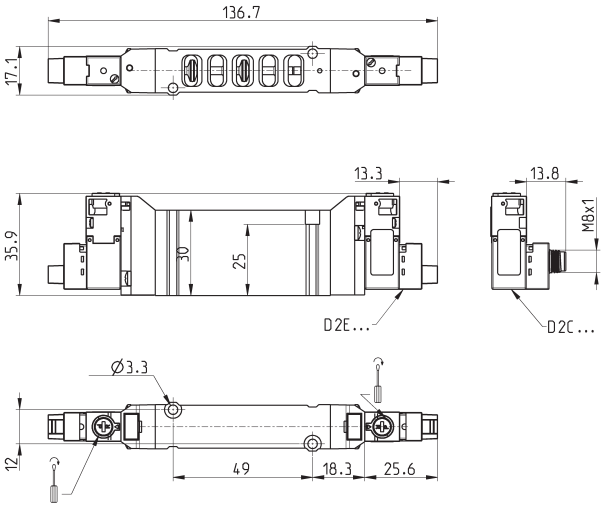




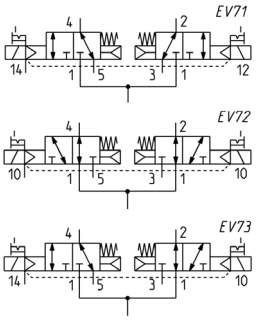
Mod.	Function	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D23VB-VR	CC	1.5 ÷ 10	-0.9 ÷ 10	950	EV30
D23VB-KR	CO	1.5 ÷ 10	-0.9 ÷ 10	950	EV33
D23VB-NR	CP	1.5 ÷ 10	-0.9 ÷ 10	950	EV38

2x3/2-way solenoid valve, outlets on subbase - size 16

These solenoid valves integrate two 3/2-way functions in the same body.
The symbols of the versions with manual override type P are shown in the Appendix.



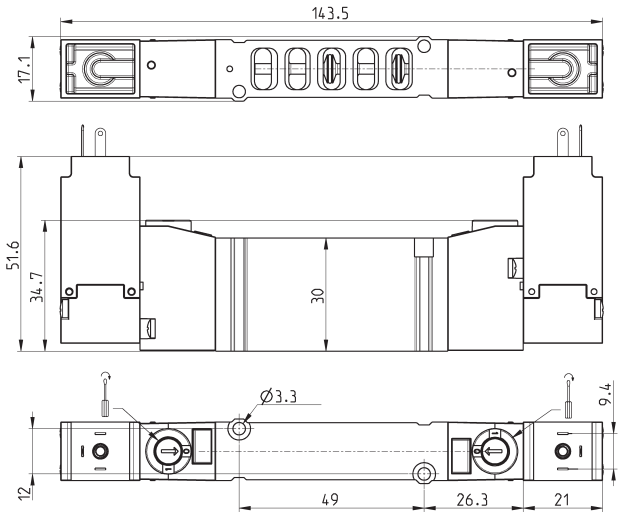
Connectors at the end of this section



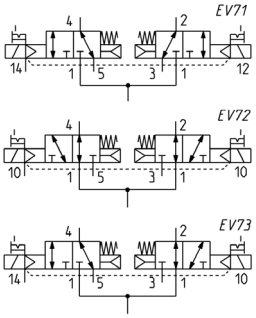
Mod.	Function	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D2EVB-CR / D2CVB-CR	2 x 3/2 NC	1.5 ÷ 7	-0.9 ÷ 10	950	EV71
D2EVB-AR / D2CVB-AR	2 x 3/2 NO	1.5 ÷ 7	-0.9 ÷ 10	950	EV72
D2EVB-GR / D2CVB-GR	1 x 3/2 NC + 1 x 3/2 NO	1.5 ÷ 7	-0.9 ÷ 10	950	EV73

2x3/2-way solenoid valve, outlets on subbase with 15 mm coil - size 16

These solenoid valves integrate two 3/2-way functions in the same body.
The symbols of the versions with manual override type P are shown in the Appendix.

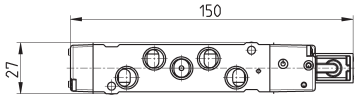


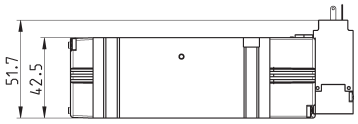
Connectors at the end of this section



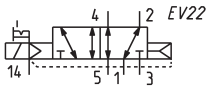
Mod.	Function	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D23VB-CR	2 x 3/2 NC	1.5 ÷ 10	-0.9 ÷ 10	950	EV71
D23VB-AR	2 x 3/2 NO	1.5 ÷ 10	-0.9 ÷ 10	950	EV72
D23VB-GR	1 x 3/2 NC + 1 x 3/2 NO	1.5 ÷ 10	-0.9 ÷ 10	950	EV73

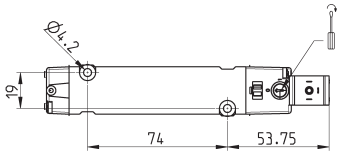
5/2-way solenoid valve, monostable, outlets on subbase - size 25





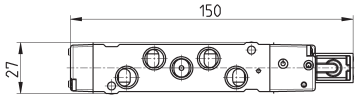
Connectors at the end of this section

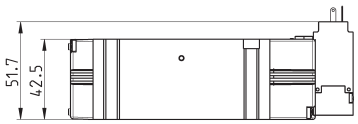




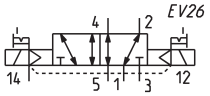
Mod.	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D43VB-MR	2.5 ÷ 10	2.5 ÷ 10	2000	EV22

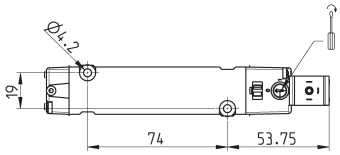
5/2-way solenoid valve, bistable, outlets on subbase - size 25





Connectors at the end of this section

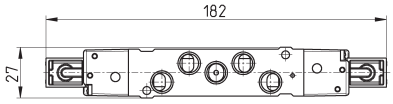




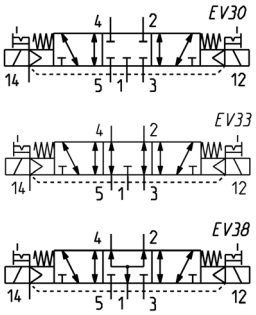
Mod.	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D43VB-BR	2.5 ÷ 10	2.5 ÷ 10	2000	EV26

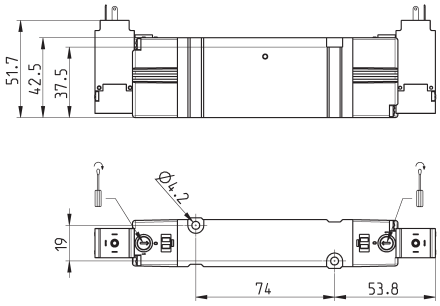
5/3-way solenoid valve, outlets on subbase - size 25

CC = Centres Closed
CO = Centres Open
CP = Centres Pressurized



Connectors at the end of this section

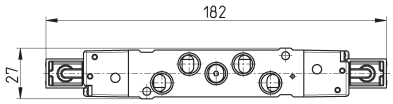




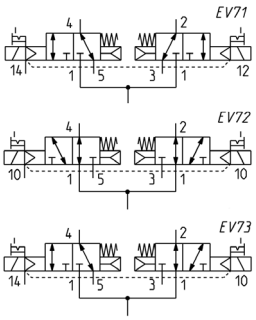
Mod.	Function	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D43VB-VR	CC	2.5 ÷ 10	2.5 ÷ 10	1800	EV30
D43VB-KR	CO	2.5 ÷ 10	2.5 ÷ 10	1800	EV33
D43VB-NR	CP	2.5 ÷ 10	2.5 ÷ 10	1800	EV38

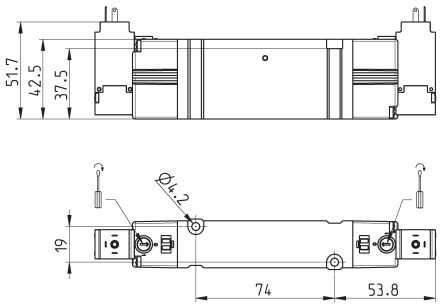
2x3/2-way solenoid valve, outlets on subbase - size 25

Solenoid valves available in versions with 2x3/2-way valves on the same valve body



Connectors at the end of this section





Mod.	Function	Pilot supply pressure (bar)	Operating pressure (bar)	Flow (Nl/min)	Symbol
D43VB-CR	2x3/2NC	2.5 ÷ 10	2.5 ÷ 10	1800	EV71
D43VB-AR	2x3/2NO	2.5 ÷ 10	2.5 ÷ 10	1800	EV72
D43VB-GR	1 x 3/2 NC + 1 x 3/2 NO	2.5 ÷ 10	2.5 ÷ 10	1800	EV73

CODING EXAMPLE

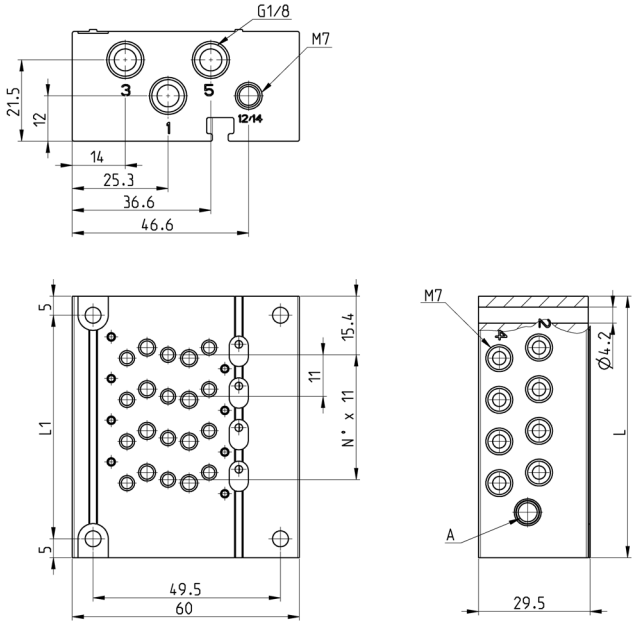
DC	B	1	0	-	12

DC	SERIES
B	MANIFOLD: B = For type VB solenoid valves
1	SIZE 1 = 10.5 mm 2 = 16 mm 4 = 25 mm
0	SERVO-PILOT 0 = Kit included for internal/external servo-pilot supply
12	N° OF POSITIONS: 2 3 4 ... 16 17 (no D4) 18 (no D4) 19 (no D4)

Manifolds for solenoid valves model VB, Size 10,5

The Manifold package includes a closing cap and a spool to insert in position A, necessary to establish internal or external pilot supply. In the configuration with the cap only, pilot supply is established through connection 1, channels 12/14 must be closed.

In the other variant with cap and spool, channels 1 and 12/14 are separated and must be supplied individually.

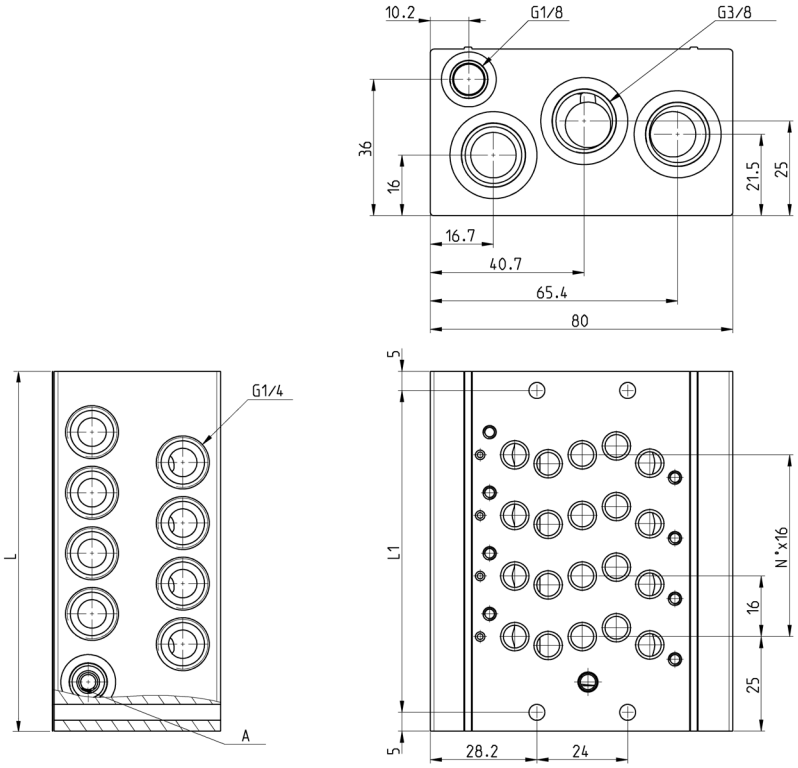


DIMENSIONS			
Mod.	Nr positions	L	L1
DCB10-2	2	47	37
DCB10-3	3	58	48
DCB10-4	4	69	59
DCB10-5	5	80	70
DCB10-6	6	91	81
DCB10-7	7	102	92
DCB10-8	8	113	103
DCB10-9	9	124	114
DCB10-10	10	135	125
DCB10-11	11	146	136
DCB10-12	12	157	147
DCB10-13	13	168	158
DCB10-14	14	179	169
DCB10-15	15	190	180
DCB10-16	16	201	191
DCB10-17	17	212	202
DCB10-18	18	223	213
DCB10-19	19	234	224

Manifolds for solenoid valves model VB, Size 16

The Manifold package includes a closing cap and a spool to insert in position A, necessary to establish internal or external pilot supply. In the configuration with the cap only, pilot supply is established through connection 1, channels 12/14 must be closed.

In the other variant with cap and spool, channels 1 and 12/14 are separated and must be supplied individually.

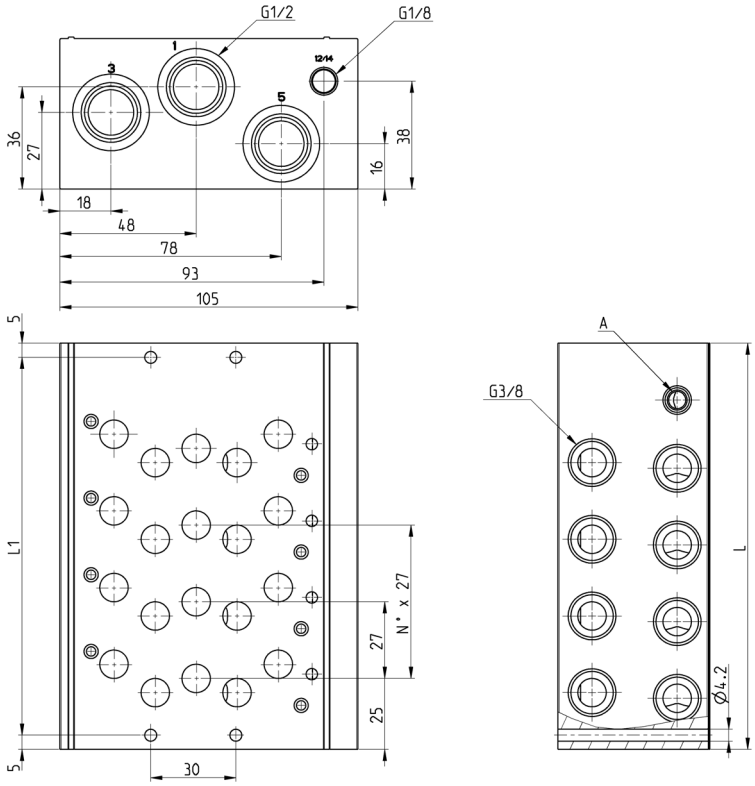


DIMENSIONS			
Mod.	Nr positions	L	L1
DCB20-2	2	63	53
DCB20-3	3	79	69
DCB10-4	4	95	85
DCB20-5	5	111	101
DCB20-6	6	127	117
DCB20-7	7	143	133
DCB20-8	8	159	149
DCB20-9	9	175	165
DCB20-10	10	191	181
DCB20-11	11	207	197
DCB20-12	12	223	213
DCB20-13	13	239	229
DCB20-14	14	255	245
DCB20-15	15	271	261
DCB20-16	16	287	277
DCB20-17	17	303	293
DCB20-18	18	319	309
DCB20-19	19	335	325

Manifolds for solenoid valves model VB, Size 25

The Manifold package includes a closing cap and a spool to insert in position A, necessary to establish internal or external pilot supply. In the configuration with the cap only, pilot supply is established through connection 1, channels 12/14 must be closed.

In the other variant with cap and spool, channels 1 and 12/14 are separated and must be supplied individually.



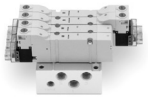
DIMENSIONS			
Mod.	Nr positions	L	L1
DCB40-2	2	89	79
DCB40-3	3	116	106
DCB40-4	4	143	133
DCB40-5	5	170	160
DCB40-6	6	197	187
DCB40-7	7	224	214
DCB40-8	8	251	241
DCB40-9	9	278	268
DCB40-10	10	305	295
DCB40-11	11	332	322
DCB40-12	12	359	349
DCB40-13	13	386	376
DCB40-14	14	413	403
DCB40-15	15	440	430
DCB40-16	16	467	457

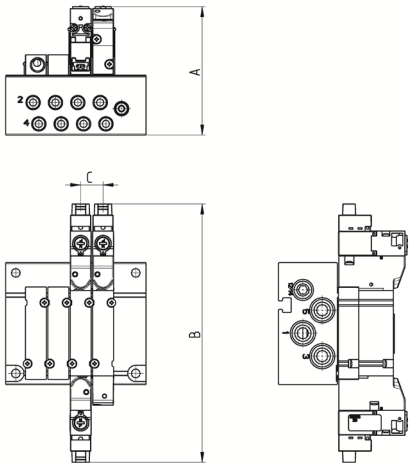
CODING EXAMPLE MANIFOLD WITH SOLENOID VALVES AND FITTINGS

DC	B	1	E	R	A	-	MBMXCVB	-	3BX2AB	-	CSL	-	R

DC	SERIES
B	MANIFOLD WITH SOLENOID VALVES B = For type VB solenoid valve
1	SIZE 1 = 10.5 mm 2 = 16 mm 4 = 25 mm
E	ACTUATION E = Electric (D1 and D2) 3 = Electric 15 mm (D2 and D4) C = Electric with M8 connector (D1 and D2)
R	TYPE OF MANUAL OVERRIDE P = push button (not for 3 actuation) R = with push and turn device
A	SERVO-PILOT SUPPLY A = internal B = external
MBMXCVB	TYPE OF SOLENOID VALVE M = 5/2 Monostable B = 5/2 Bistable C = 2 x 3/2 NC A = 2 x 3/2 NO G = 2 x 3/2 (NC + NO) V = 5/3 CC K = 5/3 CO N = 5/3 CP L= Free position X = Additional supply and exhaust Y = Additional supply and exhaust with silencer
3BX2AB	CONNECTIONS ON VALVE POSITIONS (OUTLETS 2 AND 4 ON MANIFOLD) T = Thread A = Ø4 (D1) Fittings 6512 4-M7-M B = Ø6 (D1) Fittings 6512 6-M7-M; (D2) S6510 6-1/4 C = Ø8 (D2) Fittings S6510 8-1/4 D = Ø10 (D2) Fittings 6512 10 1/4-M; (D4) S6510 10-3/8 E = Ø12 (D4) Fittings S6510 12-3/8 F = Ø14 (D4) Fittings S6510 14-3/8 L = Free position X = Threaded plate Y = See codes D1AVB-Y / D2AVB-Y / D4AVB-Y
CSL	MANIFOLD CONNECTIONS (supply and exhausts) T = Thread (on both sides) C = Fittings Ø8 on connections 1;3;5 — (D1) 6512 8-1/8-M — (D2) S6510 8-3/8 CS = Fittings Ø8 on supply + silencers on exhausts — (D1) 6512 8-1/8-M + 2921 1/8 — (D2) S6510 8-3/8 + 2921 3/8 D = Fittings Ø10 on connections 1;3;5 — (D2) S6510 10-3/8 — (D4) S6510 10-1/2 DS = Fittings Ø10 on supply + silencers on exhausts — (D2) S6510 10-3/8 + 2921 3/8 — (D4) S6510 10-1/2 + 2921 1/2 E = Fittings Ø12 on connections 1;3;5 — (D4) S6510 12-1/2 ES = Fittings Ø12 on supply + silencers on exhausts — (D4) S6510 12-1/2 + 2921 1/2 F = Fittings Ø14 on connections 1;3;5 — (D4) S6510 14-1/2 FS = Fittings Ø14 on supply + silencers on exhausts — (D4) S6510 14-1/2 + 2921 1/2 G = Fittings Ø16 on connections 1;3;5 — (D4) S6510 16-1/2 GS = Fittings Ø16 on supply + silencers on exhausts — (D4) S6510 16-1/2 + 2921 1/2 CONNECTION SIDE = Both (The servo-pilot fitting will be mounted on the right side) L = Fittings on the Left (right side covered) R = Fittings on the Right (left side covered) Servo-pilot fittings: Ø6 (D1) 6512 6–M7-M; (D2) S6510 6–1/8; Ø8 (D4) S6510 8 –1/8
R	FIXING: = Direct R = Port for DIN rail
	VERSION 3, through the connector with rectifier bridge, can be used for AC applications. (see the connectors at the end of the section)

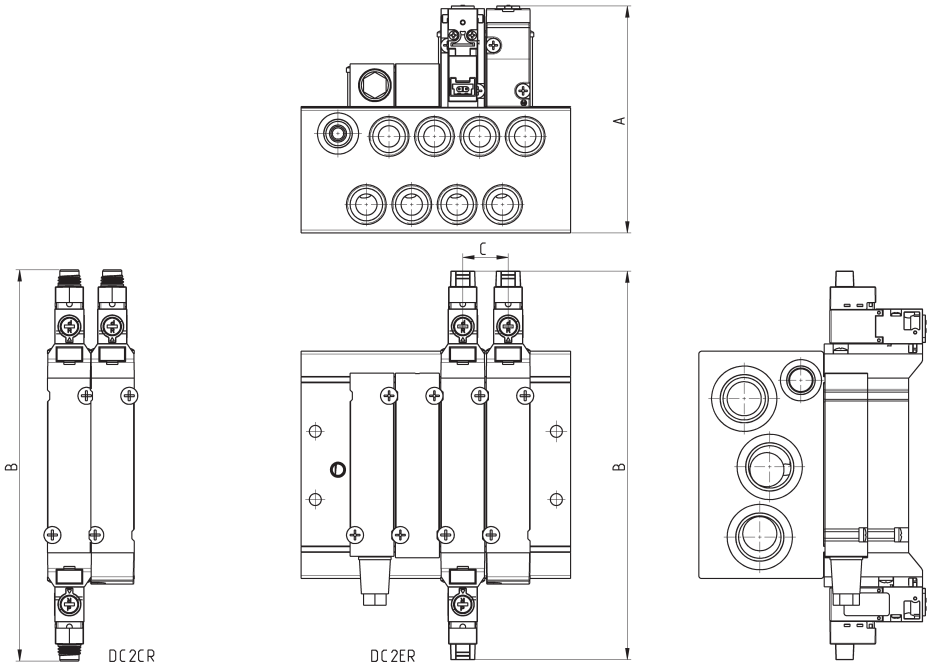
Manifold with solenoid valves, outlets on subbase - size 10,5





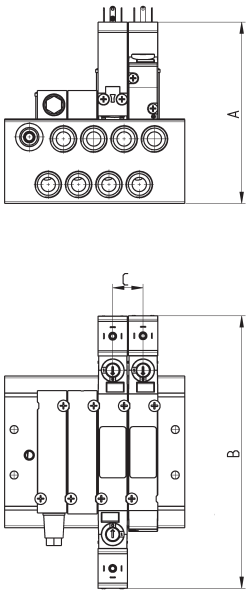
DIMENSIONS			
Mod.	A	B	C
DCB1ER-.	63	127.2	11
DCB1CR-.	63	128.2	11

Manifold with solenoid valves, outlets on base - size 16



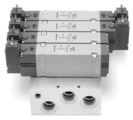
DIMENSIONS			
Mod.	A	B	C
DCB2ER.-.	105	136.7	16
DCB2CR.-.	105	137.7	16

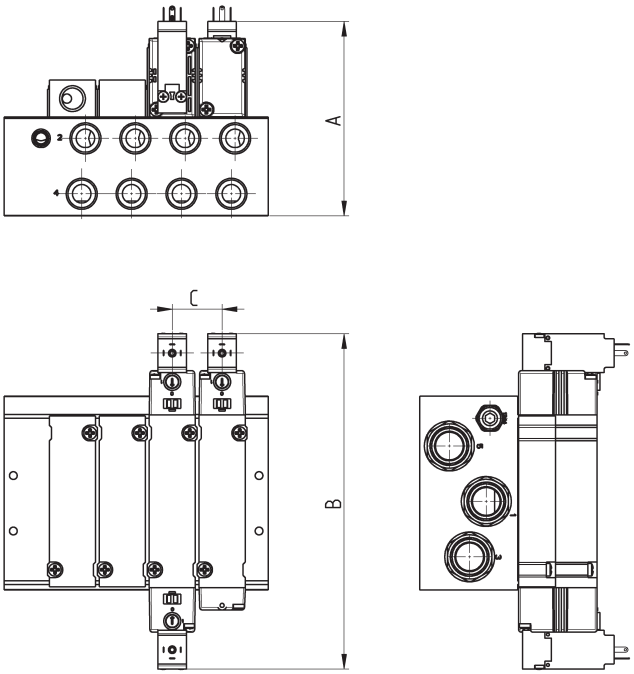
Manifold with solenoid valves, outlets on base - size 16



DIMENSIONS			
Mod.	A	B	C
DCB23R.-.	105	181.5	16

Manifold with solenoid valves, outlets on base - size 25



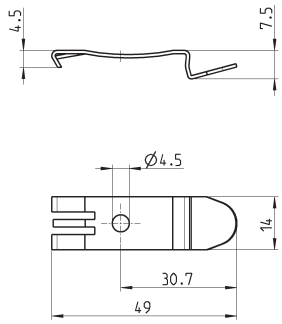


DIMENSIONS			
Mod.	A	B	C
DCB43R-.	51.7	150	27

Mounting brackets for DIN rail

DIN EN 50022 (7,5mm x 35mm - width 1)

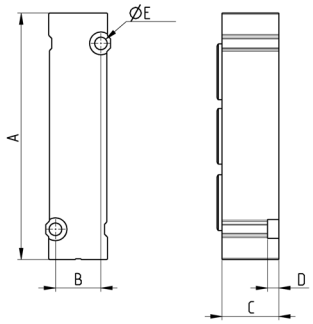
Supplied with:
2x plates
2x screws M4 UNI 5931
2x nuts (D2 and D4)
2x M4 UNI EN ISO 7089 (D2) washers



Mod.	
PCF-D1	(only for D1)
PCF-D2	(only for D2)
PCF-D4	(only for D4)

Blanking plate for manifolds - free position L

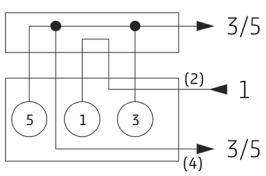
The following is supplied:
1x plate
2x screws
1x seal.

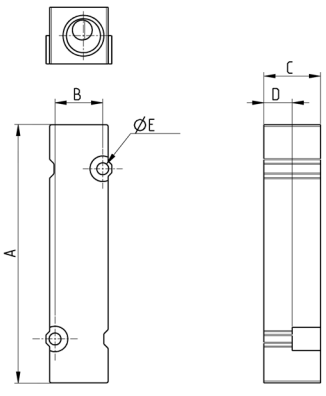


DIMENSIONS						
Mod.	Size	A	B	C	D	øE
D1AVA-L	10.5	45.5	8.4	10	5	2.1
D2AVB-L	16	65	12	15	3	3.3
D4AVA-L	25	92.5	19	20	5	4.2

Module X for additional supply and exhaust for size 10,5

The following is supplied:
1x plate
2x screws
1x seal

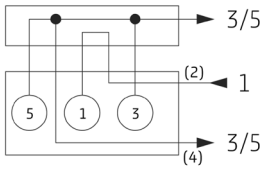


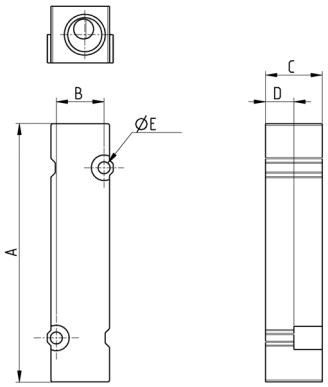


DIMENSIONS						
Mod.	Size	A	B	C	D	øE
D1AVB-X	10.5	45	8.4	10	5	2.1

Module X for additional supply and exhaust for size 16

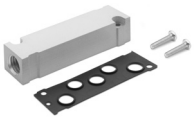
The following is supplied:
1x plate
2x screws
1x seal



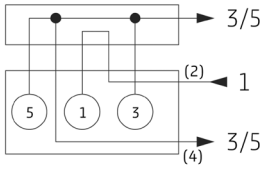


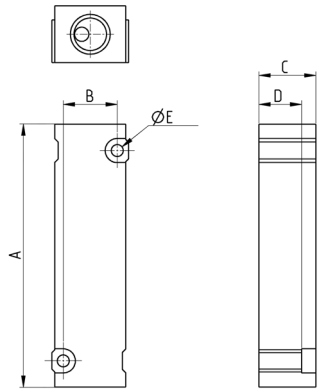
DIMENSIONS						
Mod.	Size	A	B	C	D	øE
D2AVB-X	16	65	12	15	12	3,3

Module X for additional supply and exhaust for size 25



The following is supplied:
1x plate
2x screws
1x seal

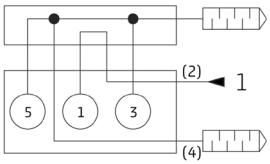


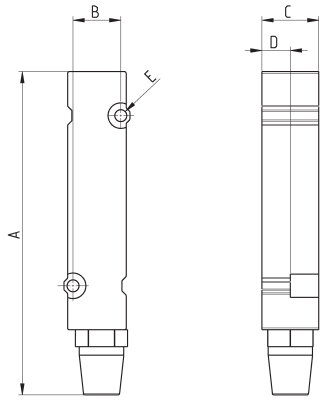


DIMENSIONS						
Mod.	Size	A	B	C	D	øE
D4AVB-X	25	65	19	20	15	4.2

Module Y for additional supply and exhaust with silencer for size 10,5

The following is supplied:
1x plate
2x screws
1x seal
2x silencers 2931 M7
1x fitting 6512 6-M7-M

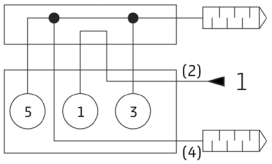


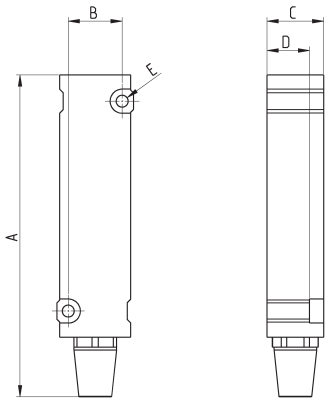


DIMENSIONS						
Mod.	Size	A	B	C	D	øE
D1AVB-Y	10.5	57	8.4	10	5	2.1

Module Y for additional supply and exhaust with silencer for size 16

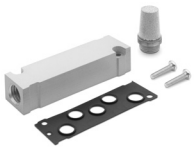
The following is supplied:
1x plate
2x screws
1x seal
1x silencers 2931 1/4
1x silencers 2931 1/4
1x fitting 6512 1/4



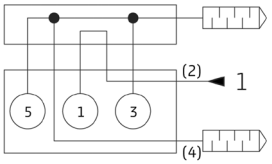


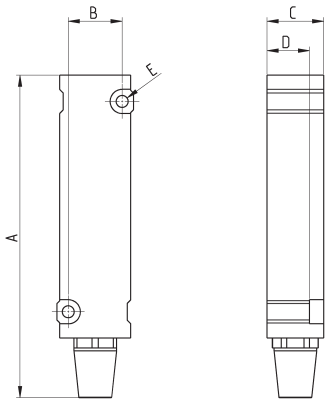
DIMENSIONS						
Mod.	Size	A	B	C	D	øE
D2AVB-Y	16	81,4	12	15	12	3.3

Module Y for additional supply and exhaust with silencer for size 25



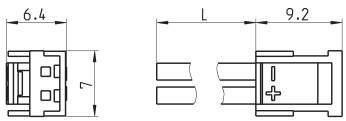
The following is supplied:
1x plate
2x screws
1x seal.
1x silencer 2931 1/4
1x silencer 2931 3/8
1x fitting 6512 12-3/8





DIMENSIONS						
Mod.	Size	A	B	C	D	øE
D4AVB-Y	25	113,5	19	20	15	4.2

Connector Mod. 121-8..

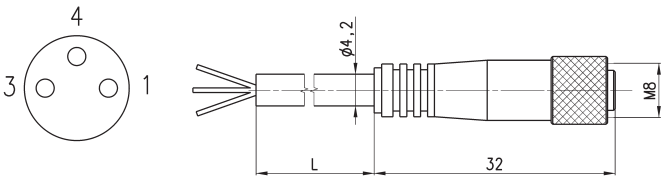


Mod.	description	colour	L = cable length (mm)	cable holding
121-803	crimped cable	black	300	crimping
121-806	crimped cable	black	600	crimping
121-810	crimped cable	black	1000	crimping
121-830	crimped cable	black	3000	crimping

3-wire extension with M8 3-pin female connector for "C" actuation

With PU sheathing, non shielded cable.
Protection class: IP65

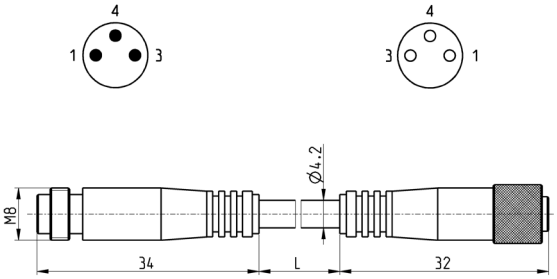
1 BN = Brown +/-
4 BK = Black +/-
3 BU = Blue NC



Mod.	L = cable length (m)
CS-2	2
CS-5	5
CS-10	10

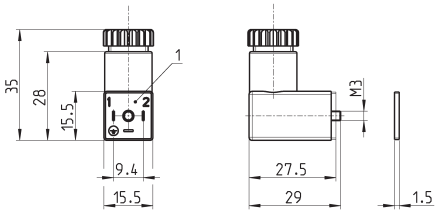
Extension with M8 connector, 3 pin male/female for "C" actuation

Non shielded



Mod.	description	type of connector	connection	L [cable length] (m)
CS-DW03HB-C250	moulded cable	straight	M8 3 pin male / female	2.5
CS-DW03HB-C500	moulded cable	straight	M8 3 pin male / female	5

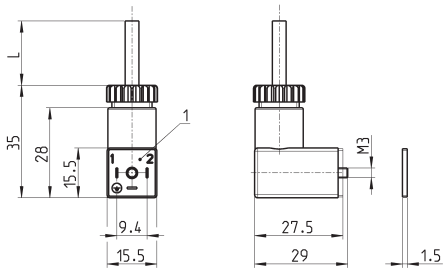
Connector Mod. 125-... for "3" actuation



Mod.	description	colour	working voltage	cable gland	tightening torque
125-601	connector, diode + Led	transparent	10/50 V DC	PG7	0.3 Nm
125-701	connector, varistor + Led	transparent	24 V AC/DC	PG7	0.3 Nm
125-800	connector, without electronics	black	-	PG7	0.3 Nm

1 = 90° adjustable connector

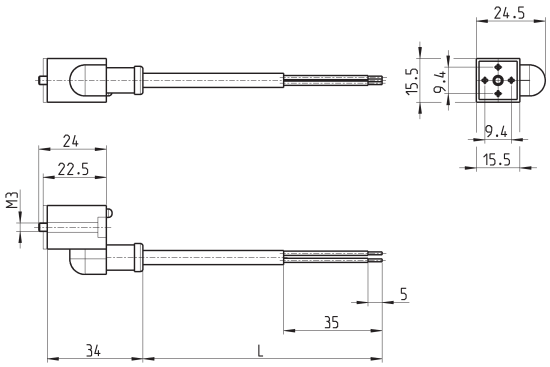
Connector Mod. 125-... pitch 9.4 mm with cable for "C" actuation



Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
125-501-2	moulded cable with diode + Led	black	10/50 V DC	2000 mm	-	0.3 Nm
125-550-1	moulded cable, without electronics	black	-	1000 mm	-	0.3 Nm
.						

1 = 90° adjustable connector

In-line connectors with cable for "E" actuation



Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
125-503-2	in-line moulded cable, with diode + Led	black	24 V DC	2000 mm	-	0.3 Nm
125-503-5	in-line moulded cable, with diode + Led	black	24 V DC	5000 mm	-	0.3 Nm
125-553-2	in-line moulded cable, without electronics	black	-	2000 mm	-	0.3 Nm
125-553-5	in-line moulded cable, without electronics	black	-	5000 mm	-	0.3 Nm

Series 3
valves and solenoid valves

2x3/2, 3/2, 5/2 and 5/3-way CC CO CP
Ports: G1/8 and G1/4

Series 3 solenoid valves with G1/8 and G1/4 ports have been designed in the 3/2, 2 x 3/2, 5/2, 5/3 versions and with the following two devices of actuation:
- Electropneumatically actuated with mechanical spring return
- Electropneumatically actuated with external and internal air pressure supply

Series 3 valves are equipped with a manual override which allows a stable operation and they can use Series U or G solenoids (22x22).

Pneumatically actuated valves 3/2 NC become NO when the supply is on connection 3.

GENERAL DATA

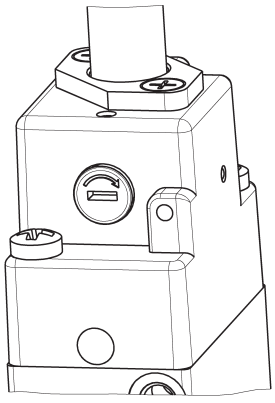
Construction	spool - type
Valve group	2x3/2 - 3/2 - 5/2 - 5/3-way CC CO CP
Materials	AL body, stainless steel spool, NBR seals
Ports	G1/8 - G1/4
Installation	in any position
Operating temperature	0 ÷ 60°C (with dry air at -20°C)
Operating pressure	see tables
Fluid	filtered air, without lubrication. If lubricated air is used, it is recommended to use ISOVG32 oil. Once applied the lubrication should never be interrupted.

CODING EXAMPLE

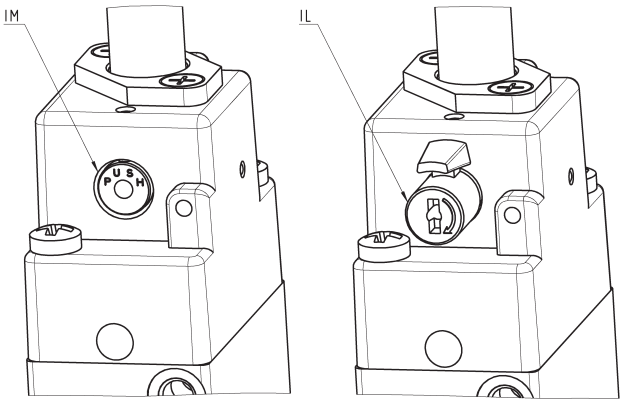
3	3	8	D	-	015	-	02	IL	-	U7	7

3	SERIES
3	NUMBER OF WAYS - POSITIONS: 3 = 3/2 NC 4 = 3/2 NO 5 = 5/2 6 = 5/3 CC 7 = 5/3 CO 8 = 5/3 CP 9 = 1x3/2 NC + 1x3/2 NO
8	PORTS: 8 = G1/8 4 = G1/4
D	VERSION: = standard D = double valve 2x3/2 L = for manifold assembly (only for solenoid valves 3/2 with G1/8 ports)
015	ACTUATION: 011 = double solenoid 015 = single solenoid, spring return 016 = single solenoid, pneumatic spring return E11 = double solenoid external servo-command E15 = single solenoid, external servo-command 033 = pneumatic pneumatic 035 = pneumatic spring
02	SOLENOID INTERFACE: 02 = mech. sol. 22 x 22
IL	TYPE OF MANUAL OVERRIDE: = bistable, standard IL = bistable, lever type (available on demand) IM = monostable (available on demand)
U7	ENCAPSULATING MATERIAL / SOLENOID DIMENSIONS: A8 = PPS / 30 x 30 G7 = PA / 22 x 22 G8 = PA / 30 x 30 (24 V DC only) G9 = PA / 22 x 58 H8 = PA 6 V0 / 30 x 30 U7 = PET / 22 x 22
7	SOLENOID VOLTAGE (see the dedicated section 2.35)

TYPES OF MANUAL OVERRIDE



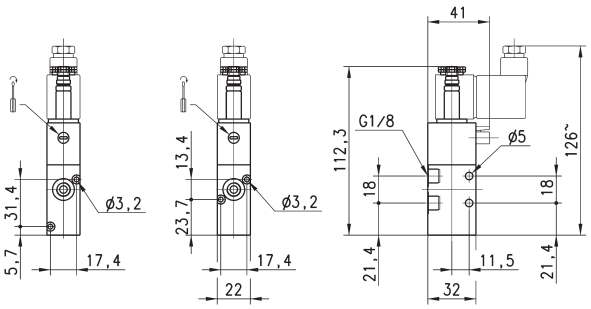
Example of solenoid valve with a bistable standard manual override.

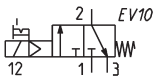


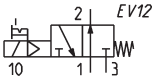
Example of solenoid monostable valve (IM) and bistable valve with a lever type manual override (IL).

3/2-way solenoid valve, G1/8, monostable - Mod. 338..., Mod 348...

These solenoid valves, which have electropneumatic actuation and spring return, are available in the NC (closed) or NO (open) version.
*Side fixing holes not present



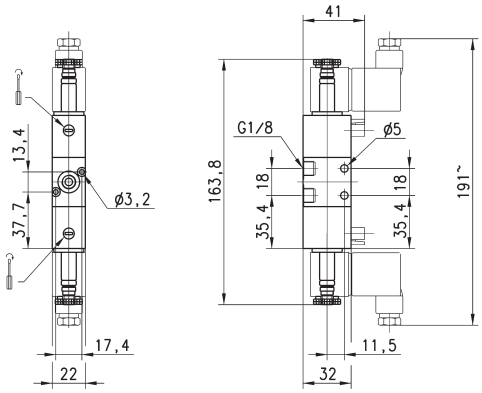


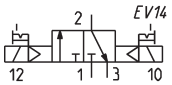


Mod.	Mounting	Function	Flow rate (Nl/min)	Operating pressure (bar)	Symbol
338-015-02	in-line	3/2 NC	700	2,5 ÷ 10	EV10
338L-015-02*	on manifold	3/2 NC	700	2,5 ÷ 10	EV10
348-015-02	in-line	3/2 NO	700	2,5 ÷ 10	EV12
348L-015-02	on manifold	3/2 NO	700	2,5 ÷ 10	EV12
338L-015-02IL*	in-line	3/2 NC	700	2,5 ÷ 10	EV10
348-015-02IL*	on manifold	3/2 NO	700	2,5 ÷ 10	EV12

3/2-way solenoid valve, G1/8, bistable - Mod. 338...

These solenoid valves, which have electropneumatic actuation and return, assume the NC (closed) or NO (open) position depending on the last pulse received.

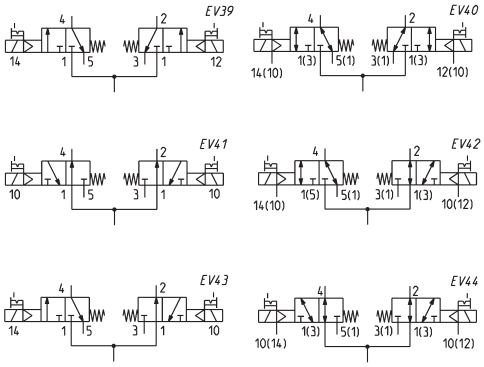


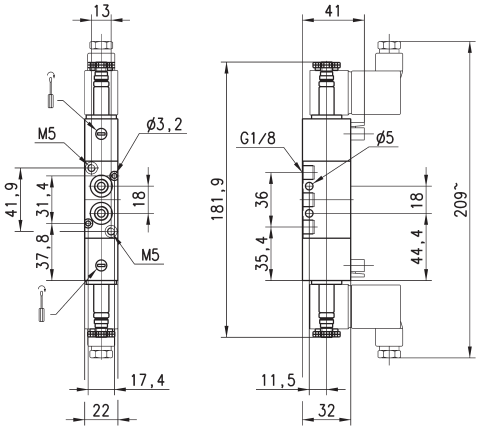


Mod.	Mounting	Function	Flow rate (Nl/min)	Operating pressure (bar)
338-011-02	in-line	3/2	700	1,5 ÷ 10
338L-011-02	on manifold	3/2	700	1,5 ÷ 10

2 x 3/2-way solenoid valve, G1/8 - Mod. 338D..., 348D... e 398D...

These solenoid valves are available in versions with 2 x 3/2 valves in the same valve.

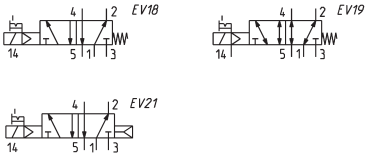


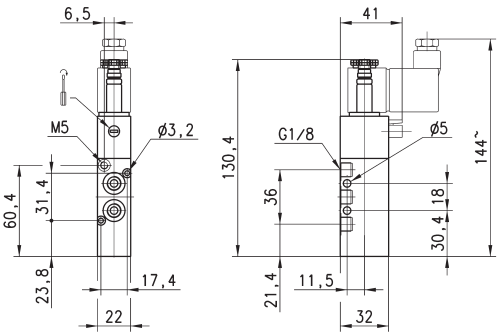


Mod.	Function	Flow rate (Nl/min)	Operating pressure (bar)	Pilot pressure (bar)	Symbol
338D-015-02	2 x 3/2 NC	700	2,5 ÷ 10	-	EV39
348D-015-02	2 x 3/2 NO	700	2,5 ÷ 10	-	EV41
338D-E15-02	2 x 3/2 NC	700	-0,9 ÷ 10	2,5 ÷ 10	EV40
348D-E15-02	2 x 3/2 NO	700	-0,9 ÷ 10	2,5 ÷ 10	EV44
398D-015-02	1 x 3/2 NC + 1 x 3/2 NO	700	2,5 ÷ 10	-	EV43
398D-E15-02	1 x 3/2 NC + 1 x 3/2 NO	700	-0,9 ÷ 10	2,5 ÷ 10	EV42

5/2-way solenoid valve, G1/8, monostable - Mod. 358...

These solenoid valves with electropneumatic actuation and mechanical or pneumatic spring return are suitable for controlling double-acting cylinders.

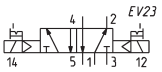


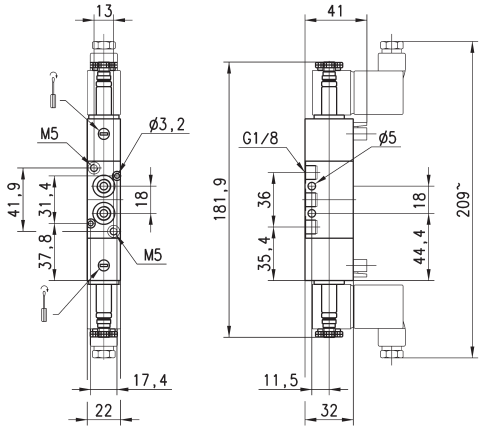


Mod.	Function	Flow rate (Nl/min)	Operating pressure (bar)	Pilot pressure (bar)	Symbol
358-015-02	5/2	700	2,5 ÷ 10	-	EV18
358-E15-02	5/2	700	-0,9 ÷ 10	2,5 ÷ 10	EV19
358-016-02	5/2	700	2,5 ÷ 10	-	EV21
358-015-02IL	5/2	700	2,5 ÷ 10	-	EV18
358-015-02EX	5/2	700	2,5 ÷ 10	-	EV18

5/2-way solenoid valve, G1/8, bistable - Mod. 358...

These solenoid valves with electropneumatic actuation and return are suitable for controlling double-acting cylinders.

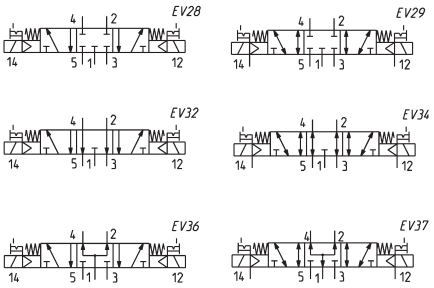


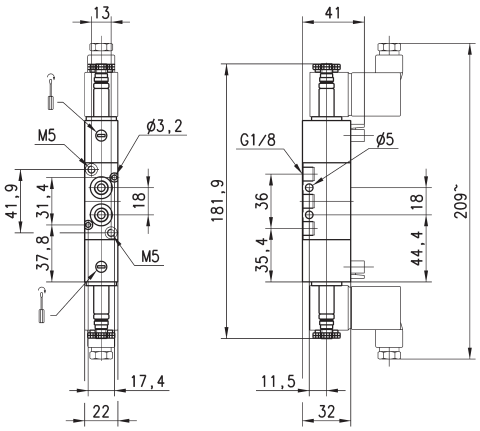


Mod.	Function	Flow rate (Nl/min)	Operating pressure (bar)	Pilot pressure (bar)	Symbol
358-011-02	5/2	700	1,5 ÷ 10	-	EV23
358-E11-02	5/2	700	-0,9 ÷ 10	1,5 ÷ 10	EV25
358-011-02IL	5/2	700	1,5 ÷ 10	-	EV23

5/3-way solenoid valve, G1/8, - Mod. 368... Mod. 378... Mod. 388...

CC = Centres Closed CO = Centres Open CP = Pressure Centres

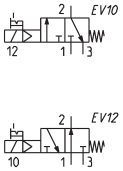


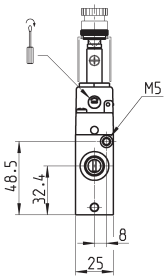


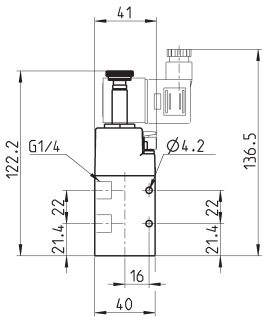
Mod.	Function	Flow rate (Nl/min)	Operating pressure (bar)	Pilot pressure (bar)	Symbol
368-011-02	5/3 CC	700	2 ÷ 10	-	EV28
368-E11-02	5/3 CC	700	-0,9 ÷ 10	2 ÷ 10	EV29
378-011-02	5/3 CO	700	2-10	-	EV32
378-E11-02	5/3 CO	700	-0,9 ÷ 10	2 ÷ 10	EV34
388-011-02	5/3 CP	700	2 ÷ 10	-	EV36
388-E11-02	5/3 CP	700	-0,9 ÷ 10	2 ÷ 10	EV37

3/2-way solenoid valve, G1/4, monostable - Mod. 334... Mod 344...

These solenoid valves, which have electropneumatic actuation and spring return, are available in the NC (closed) or NO (open) version.



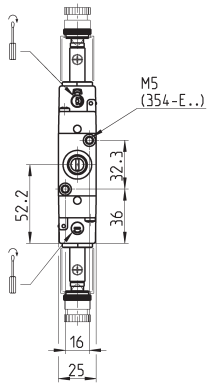


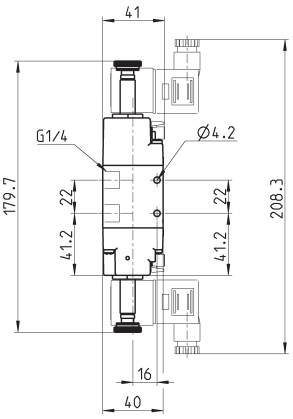


Mod.	Mounting	Function	Flow rate (Nl/min)	Operating pressure (bar)	Pilot pressure (bar)	Symbol
334-015-02	in-line	3/2 NC	1300	2.5 ÷ 10	-	EV10
334-E15-02	in-line	3/2 NC	1300	-0.9 ÷ 10	2.5 ÷ 10	EV11
344-015-02	in-line	3/2 NO	1300	2.5 ÷ 10	-	EV12
344-E15-02	in-line	3/2 NO	1300	-0.9 ÷10	2.5 ÷ 10	EV13

3/2-way solenoid valve, G1/4, bistable - Mod. 334...

These solenoid valves, which have electropneumatic actuation and return assume the NC (closed) or NO (open) position depending on ther last pulse received.

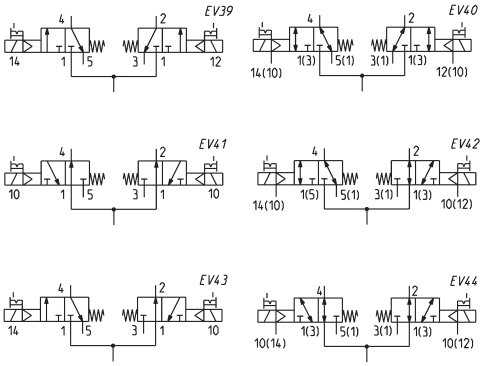


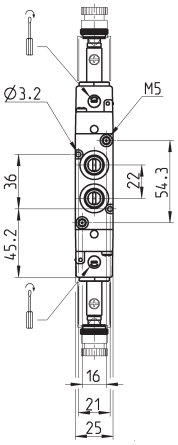


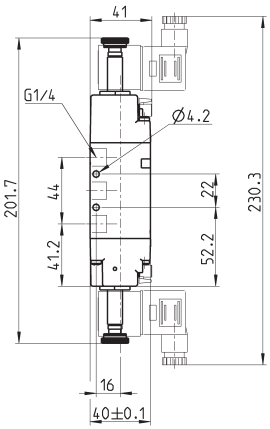
Mod.	Mounting	Function	Flow rate (Nl/min)	Operating pressure (bar)	Pilot pressure (bar)	Symbol
334-011-02	in-line	3/2	1300	1.5 ÷ 10	-	EV14
334-E11-02	in-line	3/2	1300	1.5 ÷ 10	2.5 ÷ 10	EV15

2 x 3/2-way solenoid valve, G1/4 Mod. 334D... 344D... and 394D...

These solenoid valves are available in versions with 2 x 3/2 valves in the same valve.



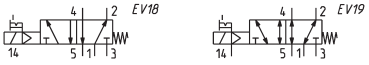


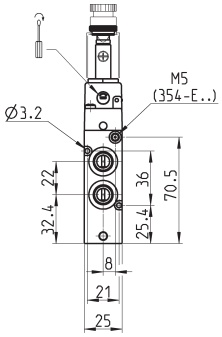


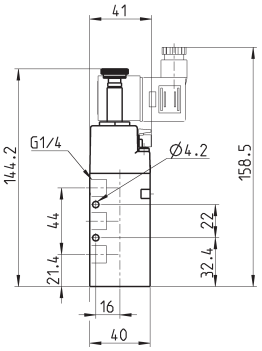
Mod.	Function	Flow rate (Nl/min)	Operating pressure (bar)	Pilot pressure (bar)	Symbol
334D-015-02	2 x 3/2 NC	1200	2,5 ÷ 10	-	EV39
344D-015-02	2 x 3/2 NO	1050	2,5 ÷ 10	-	EV41
334D-E15-02	2 x 3/2 NC	1200	-0,9 ÷ 10	2,5 ÷ 10	EV40
344D-E15-02	2 x 3/2 NO	1050	-0,9 ÷ 10	2,5 ÷ 10	EV44
394D-015-02	1 x 3/2 NC + 1 x 3/2 NO	1050	2 ÷ 10	-	EV43
394D-E15-02	1 x 3/2 NC + 1 x 3/2 NO	1050	-0,9 ÷ 10	2,5 ÷ 10	EV42

5/2-way solenoid valve, G1/4, monostable - Mod. 354...

These solenoid valves, which have electropneumatic actuation and spring return, are suitable for operating double-acting cylinders.



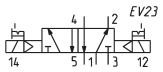


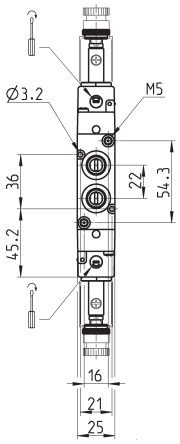


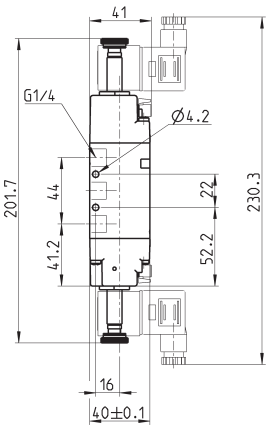
Mod.	Function	Flow rate (Nl/min)	Operating pressure (bar)	Pilot pressure (bar)	Symbol
354-015-02	5/2	1300	2,5 ÷ 10	-	EV18
354-E15-02	5/2	1300	-0,9 ÷ 10	2,5 ÷ 10	EV19

5/2-way solenoid valve, G1/4, bistable - Mod. 354...

These solenoid valves, which have electropneumatic actuation and spring return, are suitable for operating double-acting cylinders.



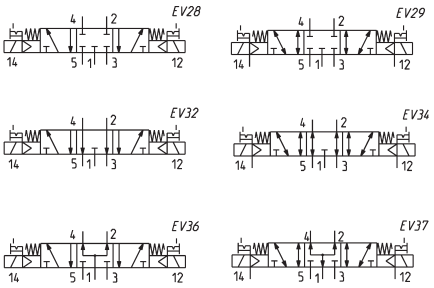


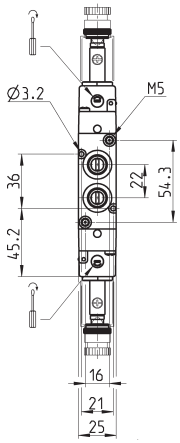


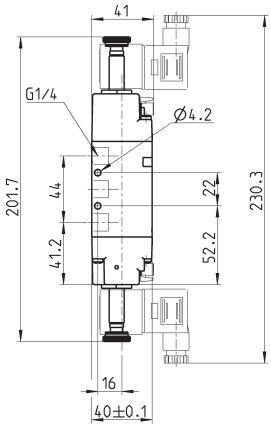
Mod.	Function	Flow rate (Nl/min)	Operating pressure (bar)	Pilot pressure (bar)	Symbol
354-011-02	5/2	1300	1,5 ÷ 10	-	EV23
354-E11-02	5/2	1300	-0,9 ÷ 10	2,5 ÷ 10	EV25

5/3-way solenoid valve, G1/4, - Mod. 364... Mod. 374... Mod. 384...

CC = Centres Closed CO = Centres Open CP = Pressure Centres

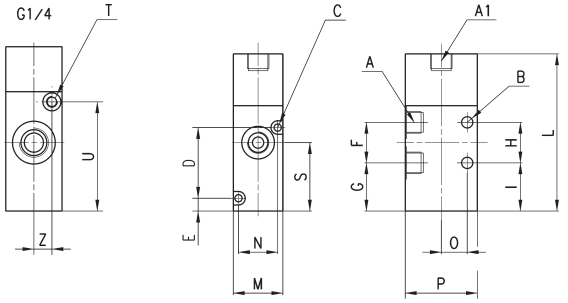


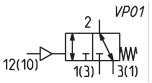




Mod.	Function	Flow rate (Nl/min)	Operating pressure (bar)	Pilot pressure (bar)	Symbol
364-011-02	5/3 CC	1200	2,5 ÷ 10	-	EV28
364-E11-02	5/3 CC	1200	-0,9 ÷ 10	2,5 ÷ 10	EV29
374-011-02	5/3 CO	1200	2,5 ÷ 10	-	EV32
374-E11-02	5/3 CO	1200	-0,9 ÷ 10	2,5 ÷ 10	EV34
384-011-02	5/3 CP	1200	2,5 ÷ 10	-	EV36
384-E11-02	5/3 CP	1200	-0,9 ÷ 10	2,5 ÷ 10	EV37

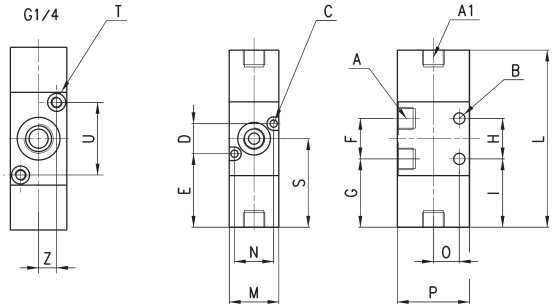
3/2-way valve, G1/8 or G1/4, monostable

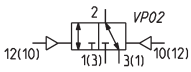




DIMENSIONS																								
Mod.	Mounting	Function	Flow rate (Nl/min)	Min. pilot press. (bar)	Working press. (bar)	A	A1	B	C	D	E	F	G	H	I	L	M	N	O	P	S	T	U	Z
338-035	in-line	3/2 NC	700	2.5	-0.9 ÷ 10	G1/8	G1/8	5	3.2	-	5.7	18	21.4	18	21.4	69.8	22	-	11.5	32	30.4	-	-	-
338L-035	on manifold	3/2 NC	700	2.5	-0.9 ÷ 10	G1/8	G1/8	-	3.2	31.4	5.7	18	21.4	-	21.4	69.8	22	17.4	11.5	32	30.4	-	-	-
334-035	in-line	3/2 NC	1300	3	-0.9 ÷ 10	G1/4	-	4.1	-	-	-	22	21.4	22	21.4	73	25	-	16	40	32.4	M5	48.5	8

3/2-way valve, G1/8 or G1/4, bistable

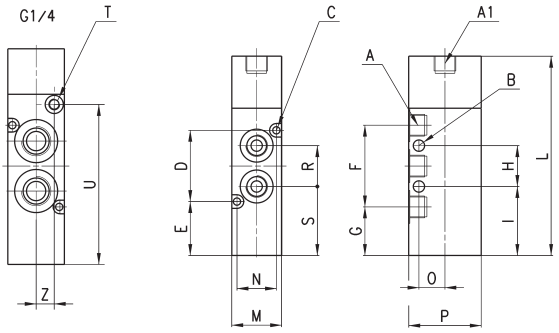


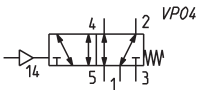


DIMENSIONS																								
Mod.	Mounting	Function	Flow rate (Nl/min)	Min. pilot press. (bar)	Working press. (bar)	A	A1	B	C	D	E	F	G	H	I	L	M	N	O	P	S	T	U	Z
338-033	in-line	3/2	700	1.5	-0.9 ÷ 10	G1/8	G1/8	5	-	-	-	18	30.4	18	30.4	78.8	22	-	11.5	32	41.7	-	-	-
338L-033	on manifold	3/2	700	1.5	-0.9 ÷ 10	G1/8	G1/8	5	3.2	13.4	32.7	18	30.4	-	30.4	78.8	22	17.4	-	32	41.7	-	-	-
334-033	in-line	3/2	1300	2.5	-0.9 ÷ 10	G1/4	-	4.1	-	-	-	22	29.7	22	29.7	81.3	25	-	16	40	40.7	M5	32.3	8

5/2-way valve, G1/8 or G1/4, monostable

In-line or manifold mounting

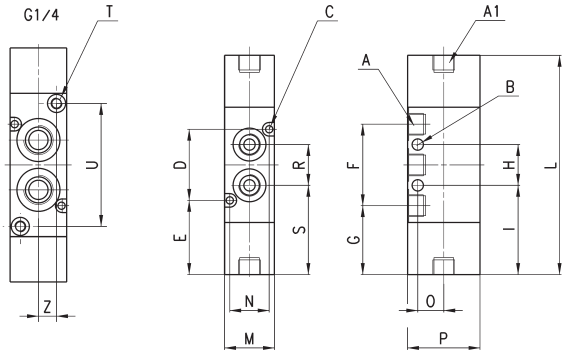


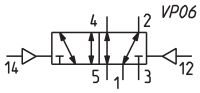


DIMENSIONS																								
Mod.	Function	Flow rate (Nl/min)	min pilot press. (bar)	Working press. (bar)	A	A1	B	C	D	E	F	G	H	I	L	M	N	O	P	S	T	U	Z
358-035	5/2	700	2,5	-0,9 ÷ 10	G1/8	G1/8	5	3,2	31,4	23,8	36	21,4	18	30,4	87,8	22	17,4	11,5	32	30,4	-	-	-
354-035	5/2	1300	3	-0,9 ÷ 10	G1/4	-	4,1	3,2	36	25,4	44	21,4	22	30,4	95	25	21	16	40	32,4	M5	70,5	8

5/2-way valve, G1/8 or G1/4, bistable

In-line or manifold mounting

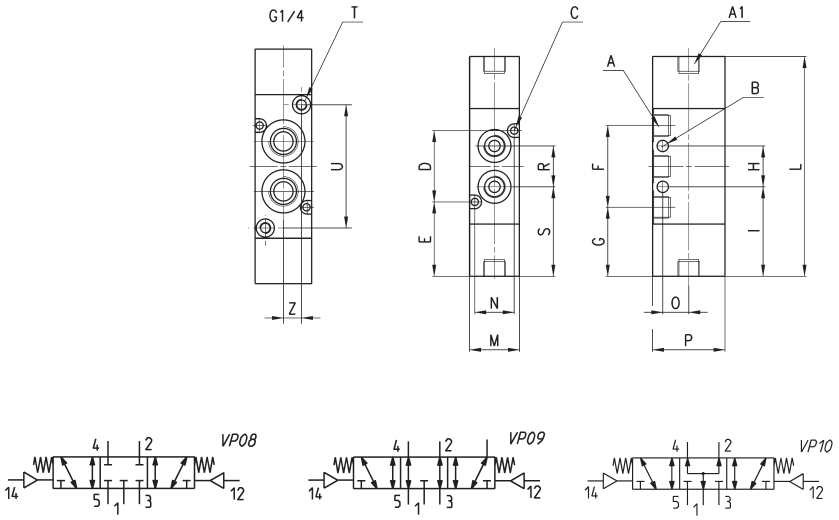




DIMENSIONS																								
Mod.	Function	Flow rate (Nl/min)	min. pilot pressure (bar)	Working pressure (bar)	A	A1	B	C	D	E	F	G	H	I	L	M	N	O	P	S	T	U	Z
358-033	5/2	700	1,5	-0,9 ÷ 10	G1/8	G1/8	5	3,2	31,4	32,8	36	30,4	18	39,4	96,8	22	17,4	11,5	32	39,4	-	-	-
354-033	5/2	1300	2,5	-0,9 ÷ 10	G1/4		4,1	3,2	36	33,7	44	29,7	22	40,7	103,3	25	21	16	40	40,7	M5	54,3	8

5/3-way valve, G1/8 or G1/4

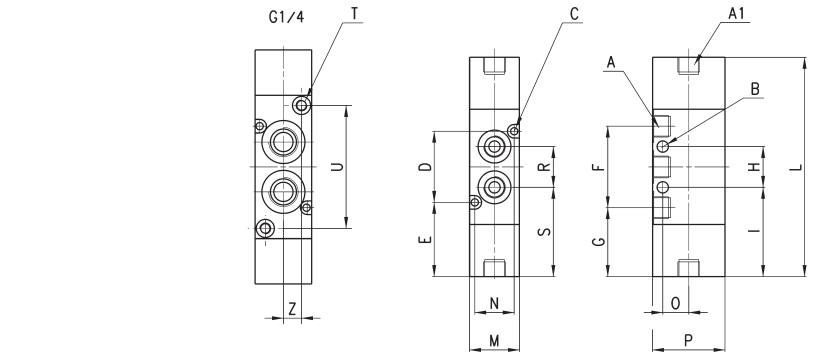
In-line or manifold mounting

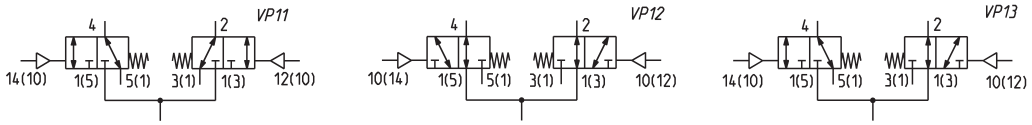


DIMENSIONS																								
Mod.	Function	Flow rate (Nl/min)	Min. pilot pr. (bar)	Working pr. (bar)	A	A1	B	C	D	E	F	G	H	I	L	M	N	O	P	S	T	U	Z	Symb.
368-033	5/3 CC	700	2,5	-0,9 ÷ 10	G1/8	G1/8	5	3,2	31,4	32,8	36	30,4	18	39,4	96,8	22	17,4	11,5	32	39,4	-	-	-	VP08
364-033	5/3 CC	1200	2,5	-0,9 ÷ 10	G1/4	-	4,1	3,2	36	33,7	44	29,7	22	40,7	103,3	25	21	16	40	40,7	M5	54,3	8	VP08
378-033	5/3 CO	700	2,5	-0,9 ÷ 10	G1/8	G1/8	5	3,2	31,4	32,8	36	30,4	18	39,4	96,8	22	17,4	11,5	32	39,4	-	-	-	VP09
374-033	5/3 CO	1050	2,5	-0,9 ÷ 10	G1/4	-	4,1	3,2	36	33,7	44	29,7	22	40,7	103,3	25	21	16	40	40,7	M5	54,3	8	VP09
388-033	5/3 CP	700	2,5	-0,9 ÷ 10	G1/8	G1/8	5	3,2	31,4	32,8	36	30,4	18	39,4	96,8	22	17,4	11,5	32	39,4	-	-	-	VP10
384-033	5/3 CP	1050	2,5	-0,9 ÷ 10	G1/4	-	4,1	3,2	36	33,7	44	29,7	22	40,7	103,3	25	21	16	40	40,7	M5	54,3	8	VP10

2 x 3/2-way valve, G1/8 or G1/4

In-line or manifold mounting

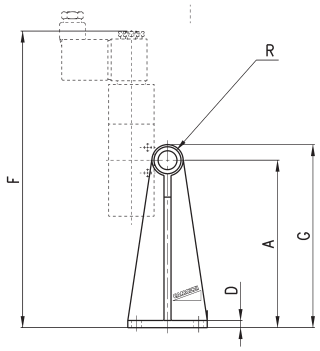


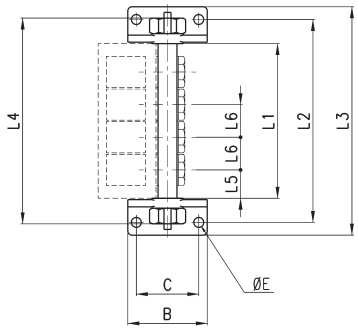


DIMENSIONS																								
Mod.	Function	Flow rate (Nl/min)	min. pilot pr. (bar)	Working pr. (bar)	A	A1	B	C	D	E	F	G	H	I	L	M	N	O	P	S	T	U	Z	Symb.
338D-035	2x3/2 NC	700	2,5	-0,9 ÷ 10	G1/8	G1/8	5	3,2	31,4	32,8	36	30,4	18	39,4	96,8	22	17,4	11,5	32	39,4	-	-	-	VP11
334D-035	2x3/2 NC	1050	2,5	-0,9 ÷ 10	G1/4	-	4,1	3,2	36	33,7	44	29,7	22	40,7	103,3	25	21	16	40	40,7	M5	54,3	8	VP11
348D-035	2x3/2 NO	700	2,5	-0,9 ÷ 10	G1/8	G1/8	5	3,2	31,4	32,8	36	30,4	18	39,4	96,8	22	17,4	11,5	32	39,4	-	-	-	VP12
344D-035	2x3/2 NO	1050	2,5	-0,9 ÷ 10	G1/4	-	4,1	3,2	36	33,7	44	29,7	22	40,7	103,3	25	21	16	40	40,7	M5	54,3	8	VP12
398D-035	2x3/2 NC/NO	700	2,5	-0,9 ÷ 10	G1/8	G1/8	5	3,2	31,4	32,8	36	30,4	18	39,4	96,8	22	17,4	11,5	32	39,4	-	-	-	VP13
394D-035	2x3/2 NC/NO	1050	2,5	-0,9 ÷ 10	G1/4	-	4,1	3,2	36	33,7	44	29,7	22	40,7	103,3	25	21	16	40	40,7	M5	54,3	8	VP13

Manifold bars with separate exhausts (low version)

The following is supplied:
2x feet
1x manifold
1x inlet fitting
1x plug
4x washers



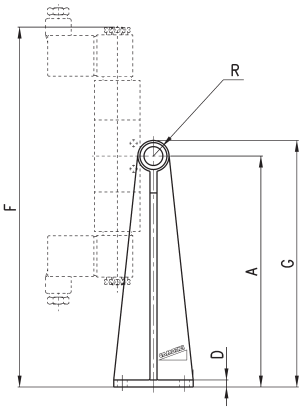


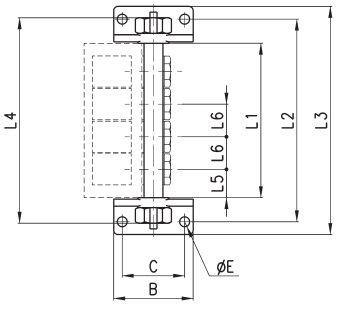
DIMENSIONS																	
Mod.	Nr of valves	A	B	C	D	ØE	F	G	R	L1	L2	L3	L4	L5	L6	Suitable for Series
CNV-318-2	2	73	56	44	5	7	178	83	G1/4	63	97	115	99	20	23	3 - G1/8
CNV-318-3	3	73	56	44	5	7	178	83	G1/4	86	120	138	119	20	23	3 - G1/8
CNV-318-4	4	73	56	44	5	7	178	83	G1/4	109	143	161	142	20	23	3 - G1/8
CNV-318-5	5	73	56	44	5	7	178	83	G1/4	132	166	184	165	20	23	3 - G1/8
CNV-318-6	6	73	56	44	5	7	178	83	G1/4	155	189	207	188	20	23	3 - G1/8

The fixing screws of the valves Mod. 1631 01-1/8 must be ordered separately.

Manifold bars with separate exhausts (high version)

The following is supplied:
2x feet
1x manifold
1x inlet fitting
1x plug
4x washers



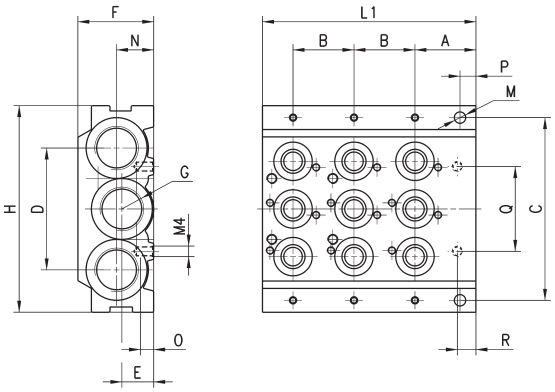


DIMENSIONS																	
Mod.	Nr of valves	A	B	C	D	ØE	F	G	R	L1	L2	L3	L4	L5	L6	Suitable for Series
CNV-328-2	2	118	56	44	5	7	223	128	G1/4	63	97	115	99	20	23	3 - G1/8
CNV-328-3	3	118	56	44	5	7	223	128	G1/4	86	120	138	119	20	23	3 - G1/8
CNV-328-4	4	118	56	44	5	7	223	128	G1/4	109	143	161	142	20	23	3 - G1/8
CNV-328-5	5	118	56	44	5	7	223	128	G1/4	132	166	184	165	20	23	3 - G1/8
CNV-328-6	6	118	56	44	5	7	223	128	G1/4	155	189	207	188	20	23	3 - G1/8

The fixing screws of the valves Mod. 1631 01-1/8 must be ordered separately.

Initial / final Module with three positions - Mod. CNVL-...

The following is supplied:
3x interface O-Rings manifold/manifold;
2x fixing nuts;
2x junction plugs;
9x interface seals valve/manifold (CNVL-3H3)
or 3x interface seals valve/manif. (CNVL-4H3);
6x fixing screws for valves



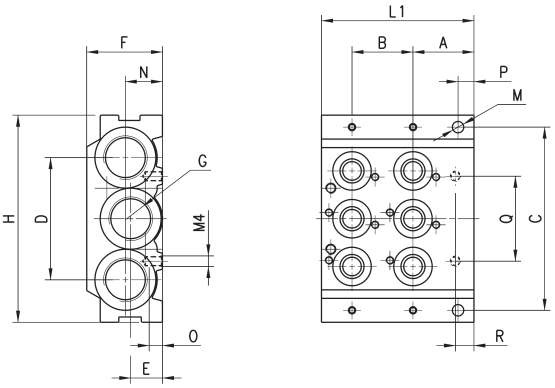
DIMENSIONS

Mod.	A	B	C	D	E	F	H	L1	M	N	O	P	Q	R	G
CNVL-3H3	23	23	69,2	46	12	29	78	80,5	4,3	14	5	6	32	7	3/8
CNVL-4H3	26	26	88	60	14	29	98	91	4,3	-	5	5	38	7	1/2

CNVL-3H3: for Series 3, G1/8
CNVL-4H3: for Series 3, G1/4

Initial / final Module with 2 positions - Mod. CNVL-...

Initial module with 2 positions
The following is supplied:
3x interface O-Rings manifold/manifold;
2x fixing nuts;
2x junction plugs;
6x interface seals valve/manifold (CNVL-3H2)
or 2x interface seals valve/manif. (CNVL-4H2);
4x fixing screws for valves



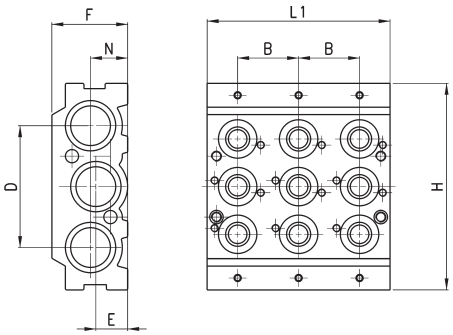
DIMENSIONS

Mod.	A	B	C	D	E	F	H	L1	M	N	O	P	Q	R	G
CNVL-3H2	23	23	69,2	46	12	29	78	57,5	4,3	14	5	6	32	7	3/8
CNVL-4H2	26	26	88	60	14	29	98	65	4,3	-	5	5	38	7	1/2

CNVL-3H2: for Series 3, G1/8
CNVL-4H2: for Series 3, G1/4

Intermediate module with 3 positions - Mod. CNVL-...

The following is supplied:
3x interface O-Rings manifold/manifold;
2x fixing nuts;
2x junction plugs;
9x interface seals valve/manifold (CNVL-3I3)
or 3x interface seals valve/manif. (CNVL-4I3);
6x fixing screws for valves



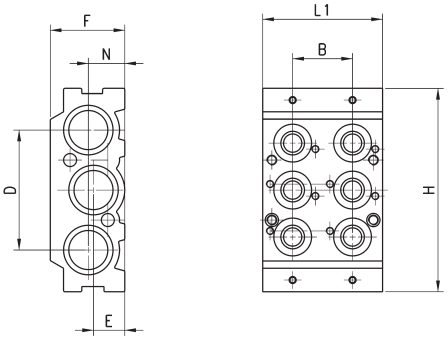
DIMENSIONS

Mod.	B	D	E	F	H	L1	N
CNVL-3I3	23	46	12	29	78	69	14
CNVL-4I3	26	60	14	29	98	78	-

CNVL-3I3: for Series 3, G1/8
CNVL-4I3: for Series 3, G1/4

Intermediate module with 2 positions - Mod. CNVL-...

The following is supplied:
3x interface O-Rings manifold/manifold;
2x fixing nuts;
2x junction plugs;
6x interface seals valve/manifold (CNVL-3I2)
or 2x interface seals valve/manif. (CNVL-4I2);
4x fixing screws for valves

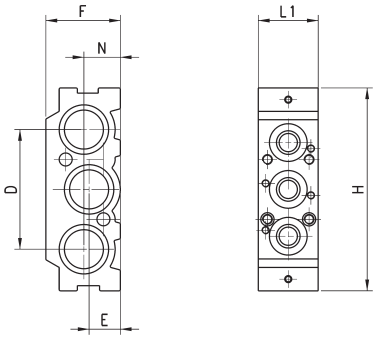


DIMENSIONS							
Mod.	B	D	E	F	H	L1	N
CNVL-3I2	23	46	12	29	78	46	14
CNVL-4I2	26	60	14	29	98	52	-

CNVL-3I2: for Series 3, G1/8
CNVL-4I2: for Series 3, G1/4

Intermediate module with 1 position - Mod. CNVL-...

The following is supplied:
3x interface O-Rings manifold/manifold;
2x fixing nuts;
2x junction plugs;
3x interface seals valve/manifold (CNVL-3I1)
or 1x interface seal valve/manif. (CNVL-4I1);
2x fixing screws for valves

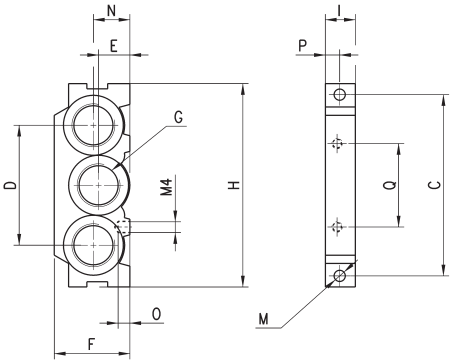


DIMENSIONS						
Mod.	D	E	F	H	L1	N
CNVL-3I1	46	12	29	78	23	14
CNVL-4I1	60	14	29	98	26	-

CNVL-3I1: for Series 3, G1/8
CNVL-4I1: for Series 3, G1/4

Terminal module Mod. CNVL-*H

The following is supplied:
2x fixing nuts

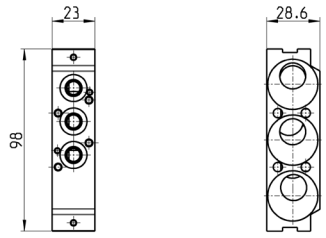


DIMENSIONS												
Mod.	C	D	E	F	H	I	M	N	O	P	Q	G
CNVL-3H	69,5	46	12	29	78	11,5	4,3	14	5	6	32	3/8
CNVL-4H	88	60	14	29	98	13	4,3	-	5	8	29	1/2

CNVL-3H: for Series 3, G1/8
CNVL-4H: for Series 3, G1/4

Interface module manifold between Series 3 G1/8 and G1/4

The following is supplied:
3x interface seal
2x screws
2x pins
4x plugs
6x O-Rings

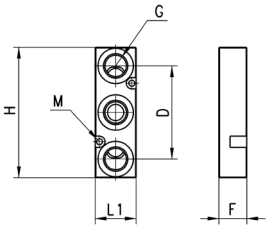


Mod.
CNVL-4H-3H

It is possible to seat 1 valve, series 3 with G1/8 port.

Intermediate plate for additional inlet and exhaust pressure

The following is supplied:
3x O-Rings
2x fixing screws



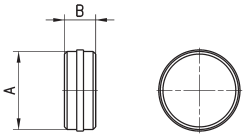
DIMENSIONS							
Mod.	G	H	M	F	L1	D	F
CNVL-3P	G1/4	70	3.2	29	22	50	15
CNVL-4P	G1/4	73	3.2	29	25	50	20

CNVL-3P: for Series 3, G1/8
CNVL-4P: for Series 3, G1/4

Separation diaphragm

For separation of channel: 1 - 3 - 5.

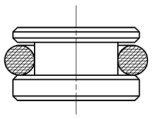
The following is supplied:
1x diaphragm



DIMENSIONS			
Mod.	A	B	
CNVL-3H-TP	15.6	6	for Series 3, G1/8
CNVL-4H-TP	23.8	8	for Series 3, G1/4

Blanking plug Mod. TCNVL for manifolds

The following is supplied:
1x blanking plug
1x O-Ring



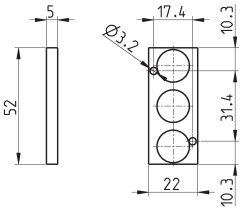
Mod.	
TCNVL/3	for Series 3, G1/8
TCNVL/5	for Series 3, G1/4

Blanking plate Mod. CNVL for manifolds

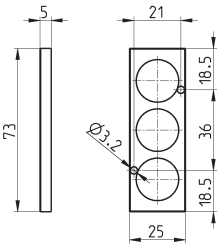
It is used to blank vacant positions of a manifold.

The following is supplied:
2x fixing screws
3x O-Rings

CNVL/1



CNVL/4



Mod.	
CNVL/1	for Series 3, G1/8
CNVL/4	for Series 3, G1/4

Series 4
valves and solenoid valves

New models

3/2, 5/2 and 5/3-way CC, CO
Ports: G1/8, G1/4, G3/8, G1/2

Series 4 solenoid valves have been designed in the 3/2, 5/2, 5/3 versions and with the following two devices of actuation:
- electropneumatically actuated with mechanical spring return
- electropneumatically actuated and return with external and internal air pressure supply

Series 4 valves are equipped with a manual override which allows a stable operation and they are particularly suitable for mounting in arduous conditions.

All these valves can be operated by solenoids Series U, G A8 and H8.

Pneumatically actuated valves 3/2 NC become NO when the supply is on connection 3.

» The different ports allow flows from 650 to 4000 Nl/min

» New models available: with G3/8 ports and 1800 Nl/min flow

GENERAL DATA

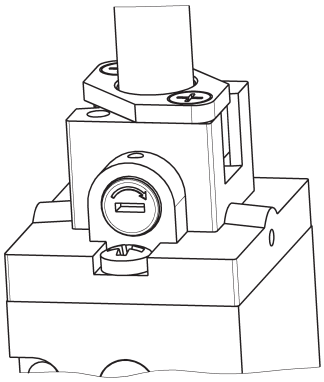
Construction	balanced spool type
Valve functions	3/2 - 5/2 - 5/3-way CC, CO
Materials	AL body and subbases stainless steel spool technopolymer end cover NBR PU seals
Ports	G1/8 - G1/4 - G3/8 - G1/2
Installation	in any position
Operating temperature	0 ÷ 60°C (with dry air at -20°C)
Operating pressure	see table
Medium	filtered air, without lubrication. If lubricated air is used, it is recommended to use ISOVG32 oil. Once applied the lubrication should never be interrupted.

CODING EXAMPLE

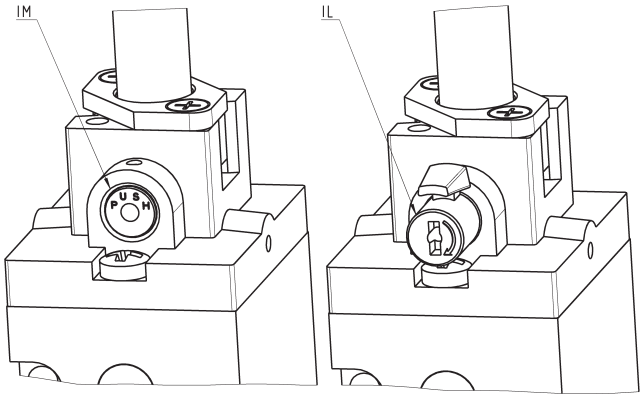
4	5	4	-	015	-	22	IL	-	U7	7

4	SERIES
5	NUMBER OF WAYS - POSITIONS: 3 = 3/2 NC 4 = 3/2 NO 5 = 5/2 6 = 5/3 CC 7 = 5/3 CO
4	PORTS: 2C = G1/2 2N = G1/2 (high flow) 3 = G3/8 4 = G1/4 8 = G1/8
015	ACTUATION: 011 = double solenoid (horizontal solenoids) V11 = double solenoid (vertical solenoids) for G1/4 port only E11 = double solenoid external servo-command E15 = single solenoid external servo-command 015 = single solenoid, spring return (horizontal solenoids) V15 = single solenoid, spring return (vertical solenoid) for G1/4 port only 016 = single solenoid, pneumatic spring return (horizontal solenoid) V16 = single solenoid, pneumatic spring return (vertical solenoid) for G1/4 port only 33 = pneumatic pneumatic 34 = pneumatic differential 35 = pneumatic spring
22	SOLENOID INTERFACE:: 22 = mech. sol. 22 x 22 50 = mech. sol. 32 x 32 (only for 452C version)
IL	TYPE OF MANUAL OVERRIDE: = bistable, standard IL = bistable, lever type (available on demand) IM = monostable (available on demand)
U7	ENCAPSULATING MATERIAL / SOLENOID DIMENSIONS: A6 = PPS / 32 x 32 (only for 452C version) A8 = PPS / 30 x 30 G7 = PA / 22 x 22 G8 = PA / 30 x 30 (24 V DC only) G9 = PA / 22 x 58 H8 = PA 6 V0 / 30 x 30 U7 = PET / 22 x 22
7	SOLENOID VOLTAGE (see the dedicated section 2.35)

TYPES OF MANUAL OVERRIDE



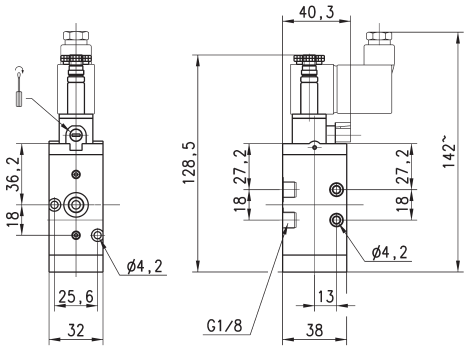
Example of solenoid valve with a bistable standard manual override.

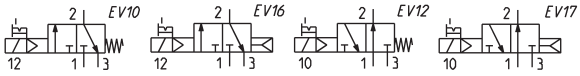


Example of solenoid monostable valve (IM) and bistable valve with a lever type manual override (IL).

3/2-way solenoid valve G1/8, monostable - Mod. 438... and 448...

These solenoid valves, which have electropneumatic actuation and spring return, are available in the NC (closed) or NO (open) version.

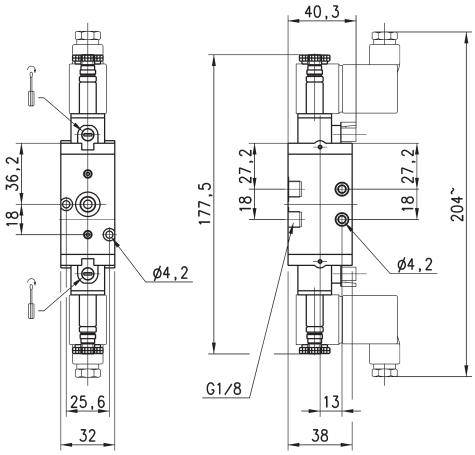


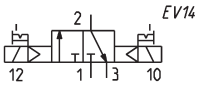


Mod.	Function	Flow rate Qn (Nl/min)	Operating pressure (bar)	Symbol
438-015-22	3/2 NC	650	2.5 ÷ 10	EV10
438-016-22	3/2 NC	650	2.5 ÷ 10	EV16
448-015-22	3/2 NO	650	2.5 ÷ 10	EV12
448-016-22	3/2 NO	650	2.5 ÷ 10	EV17

3/2-way solenoid valve G1/8, bistable - Mod. 438-011...

These solenoid valves, which have electropneumatic actuation and return, assume the NC (closed) or NO (open) operating status depending on the last pulse received.

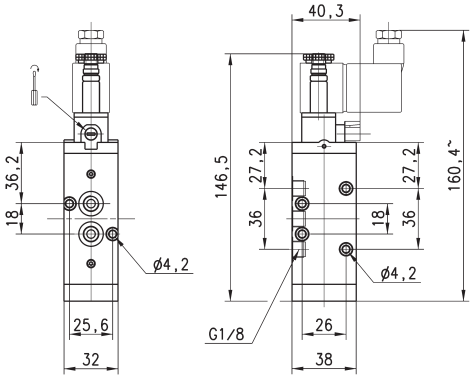


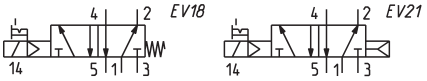


Mod.	Function	Flow rate Qn (Nl/min)	Operating pressure (bar)
438-011-22	3/2	650	2 ÷ 10

5/2-way solenoid valves, G1/8, monostable - Mod 458...

These solenoid valves, which have electropneumatic actuation and spring return, are suitable for operating double-acting cylinders.

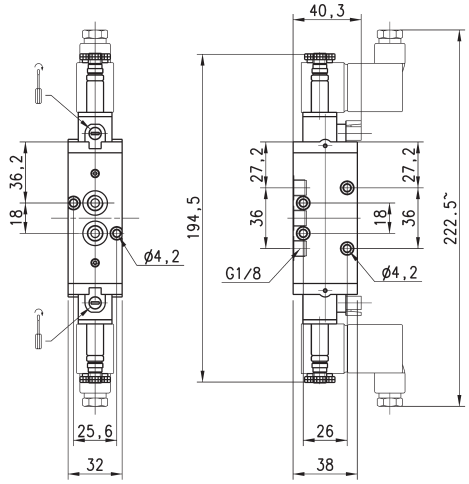


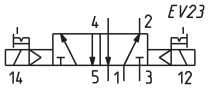


Mod.	Function	Flow rate Qn (Nl/min)	Operating pressure (bar)	Symbol
458-015-22	5/2	650	2.5 ÷ 10	EV18
458-016-22	5/2	650	2.5 ÷ 10	EV21
458-015-22IL	5/2	650	2.5 ÷ 10	EV18

5/2-way solenoid valves, G1/8, bistable - Mod 458-011...

These solenoid valves, with electropneumatic actuation and return, are suitable for operating double-acting cylinders.

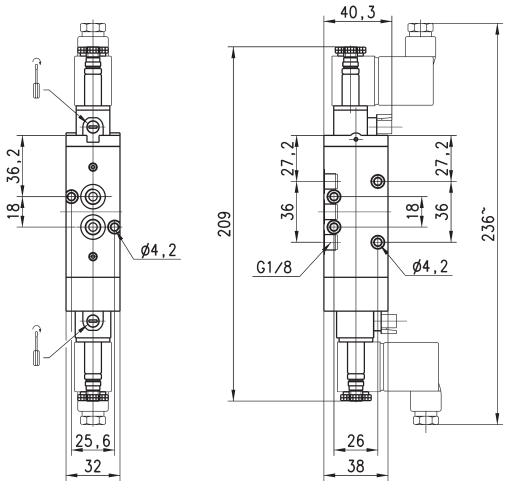


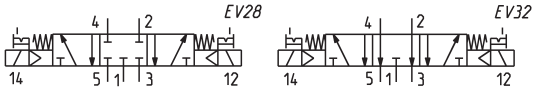


Mod.	Function	Flow rate Qn (Nl/min)	Operating pressure (bar)
458-011-22	5/2	650	2 ÷ 10

5/3-way solenoid valve, G1/8 - Mod. 468-011... and 478-011...

CC = Centres Closed
CO = Centres Open

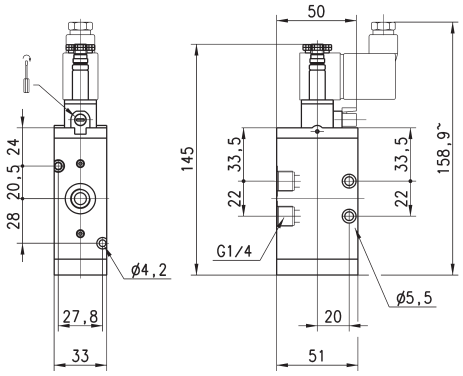


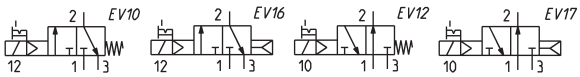


Mod.	Function	Flow rate Qn (Nl/min)	Operating pressure (bar)	Symbol
468-011-22	5/3 CC	600	2.5 ÷ 10	EV28
478-011-22	5/3 CO	600	2.5 ÷ 10	EV32

3/2-way solenoid valve, G1/4, monostable Mod. 434 and Mod. 444

These solenoid valves, which have electropneumatic actuation and spring return, are available in the NC (closed) or NO (open) version.

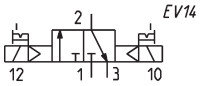


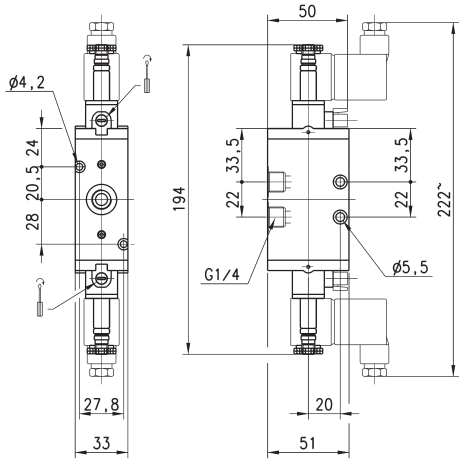


Mod.	Function	Flow rate Qn (Nl/min)	Operating pressure (bar)	Symbol
434-015-22	3/2 NC	1250	2.5 ÷ 10	EV10
434-016-22	3/2 NC	1250	2.5 ÷ 10	EV16
444-015-22	3/2 NO	1250	2.5 ÷ 10	EV12
444-016-22	3/2 NO	1250	2.5 ÷ 10	EV17
434-015-22IL	3/2 NC	1250	2.5 ÷ 10	EV10

3/2-way solenoid valve, G1/4, bistable - Mod. 434-011...

These solenoid valves, which have electropneumatic actuation and return, assume the NC (closed) or NO (open) position depending on the last pulse received.

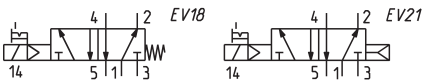


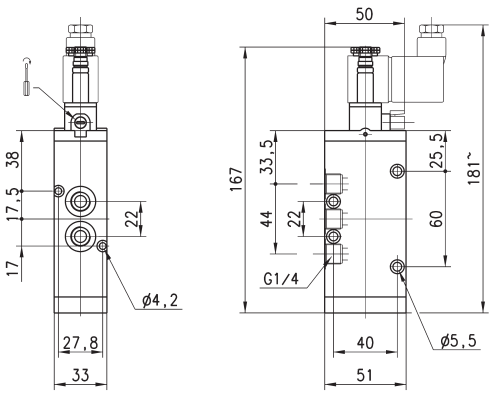


Mod.	Function	Flow rate Qn (Nl/min)	Operating pressure (bar)
434-011-22	3/2	1250	2 ÷ 10

5/2-way solenoid valve, G1/4, monostable - Mod. 454...

These solenoid valves, which have electropneumatic actuation and spring return, are suitable for operating double-acting cylinders.

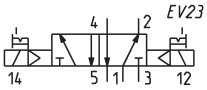


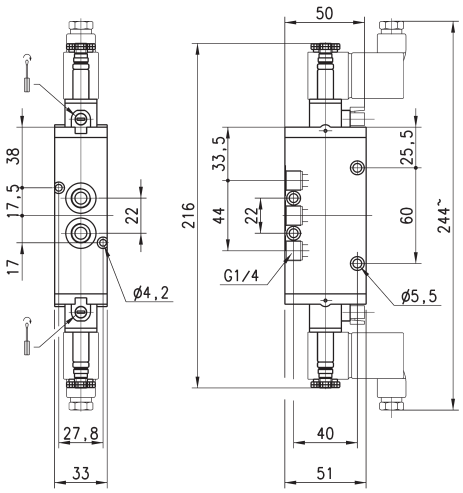


Mod.	Function	Flow rate Qn (Nl/min)	Operating pressure (bar)	Symbol
454-015-22	5/2	1250	2.5 ÷ 10	EV18
454-016-22	5/2	1250	2.5 ÷ 10	EV21

5/2-way solenoid valve, G1/4, bistable - Mod. 454-011...

These solenoid valves, which have electropneumatic actuation and return, are suitable for operating double-acting cylinders.

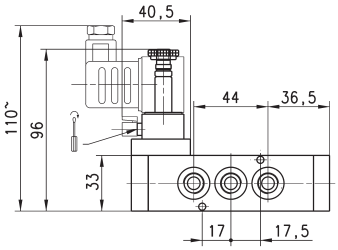


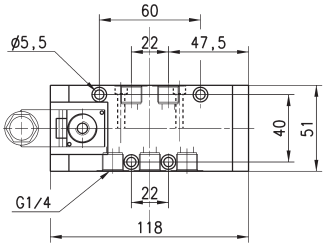


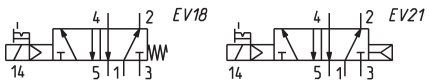
Mod.	Function	Flow rate Qn (Nl/min)	Operating pressure (bar)
454-011-22	5/2	1250	2 ÷ 10
454-011-22IL	5/2	1250	2 ÷ 10

5/2-way solenoid valve, G1/4, monostable - Mod. 454-V...

These solenoid valves, which have electropneumatic actuation and spring or pneumatic spring return are suitable for operating double-acting cylinders.



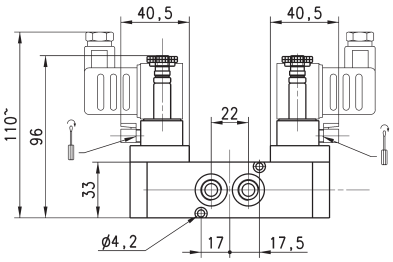


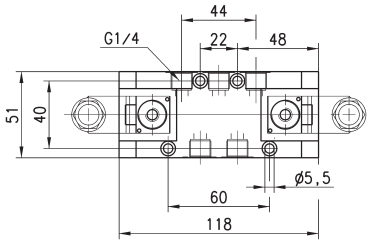


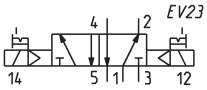
Mod.	Function	Flow rate Qn (Nl/min)	Operating pressure (bar)	Symbol
454-V15-22	5/2	1250	2.5 ÷ 10	EV18
454-V16-22	5/2	1250	2.5 ÷ 10	EV21

5/2-way solenoid valve, G1/4, bistable - Mod. 454-V11...

These solenoid valves, which have electropneumatic actuation and return, are suitable for operating double-acting cylinders.



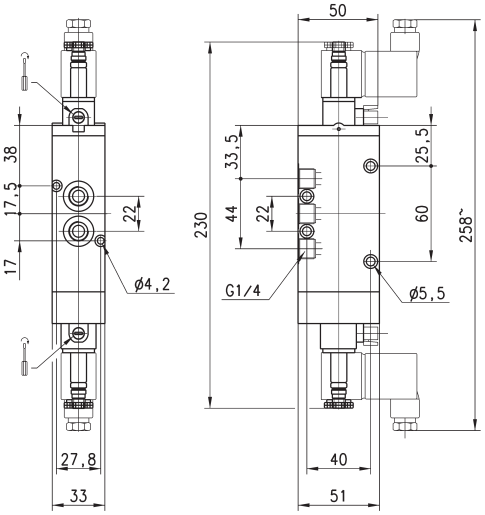


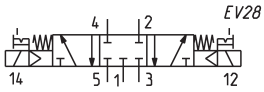


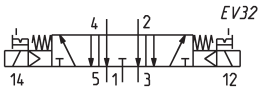
Mod.	Function	Flow rate Qn (Nl/min)	Operating pressure (bar)
454-V11-22	5/2	1250	2 ÷ 10

5/3-way solenoid valve, G1/4 - Mod. 464-011... e 474-011...

CC = Centres Closed
CO = Centres Open





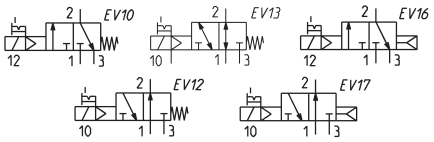


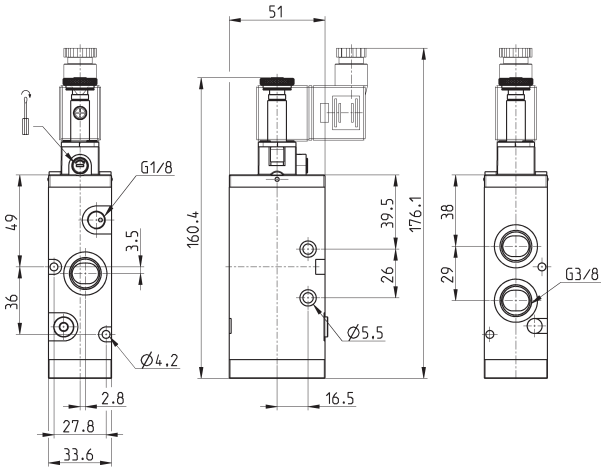
Mod.	Function	Flow rate Qn (Nl/min)	Operating pressure (bar)	Symbol
464-011-22	5/3 CC	1250	2.5 ÷ 10	EV28
474-011-22	5/3 CO	1250	2.5 ÷ 10	EV32

3/2-way solenoid valve, G3/8, monostable Mod. 433... and Mod. 443...

New

These solenoid valves, which have electropneumatic actuation and spring return, are available in the NC (closed) or NO (open) version.
The E15 version can work both NC and NO.



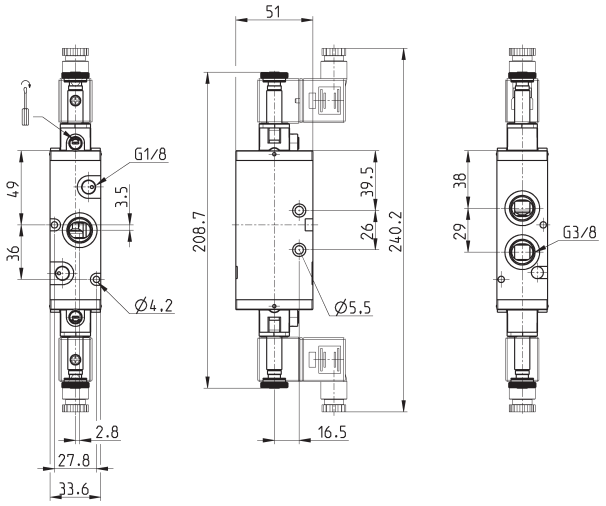


Mod.	Function	Flow Qn (Nl/min)	Working pressure (bar)	Min. pilot pressure (bar)	Symbol
433-015-22	3/2 NC	1800	2.5 ÷ 10	-	EV10
433-E15-22	3/2	1800	-0.9 ÷ 10	2.5	EV13
433-016-22	3/2 NC	1800	2.5 ÷ 10	-	EV16
443-015-22	3/2 NO	1800	2.5 ÷ 10	-	EV12
443-016-22	3/2 NO	1800	2.5 ÷ 10	-	EV17

3/2-way solenoid valve, G3/8, bistable - Mod. 433...

New

These solenoid valves, which have electropneumatic actuation and return, assume the NC (closed) or NO (open) position depending on the last pulse received.
The E11 version can work both NC and NO.

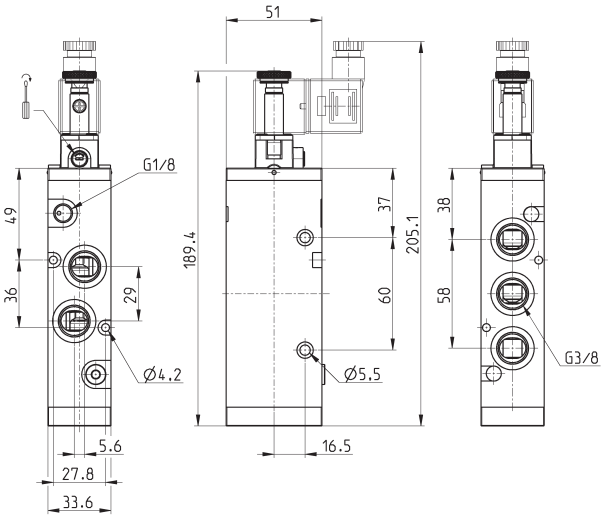


Mod.	Function	Flow Qn (Nl/min)	Working pressure (bar)	Min. pilot pressure (bar)	Symbol
433-011-22	3/2	1800	2 ÷ 10	-	EV14
433-E11-22	3/2	1800	-0.9 ÷ 10	2	EV15

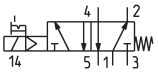
5/2-way solenoid valve, G3/8, monostable - Mod. 453...

New

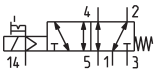
These solenoid valves, which have electropneumatic actuation and spring return, are suitable for operating double-acting cylinders.



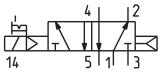
EV18



EV19



EV21

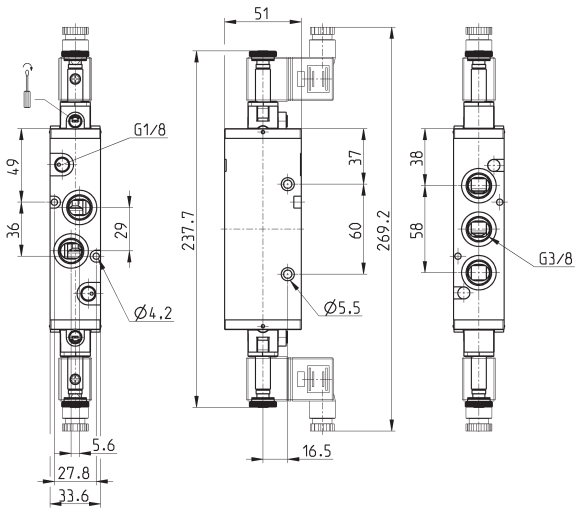


Mod.	Function	Flow Qn (Nl/min)	Working pressure (bar)	Min. pilot pressure (bar)	Symbol
453-015-22	5/2	1800	2.5 ÷ 10	-	EV18
453-E15-22	5/2	1800	-0.9 ÷ 10	2.5	EV19
453-016-22	5/2	1800	2.5 ÷ 10	-	EV21

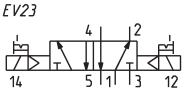
5/2-way solenoid valve, G3/8, bistable - Mod. 453...

New

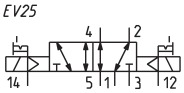
These solenoid valves, which have electropneumatic actuation and return, are suitable for operating double-acting cylinders.



EV23



EV25

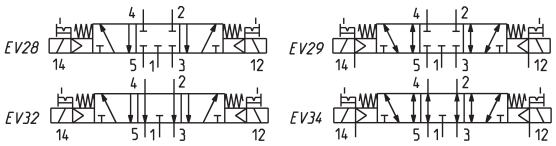


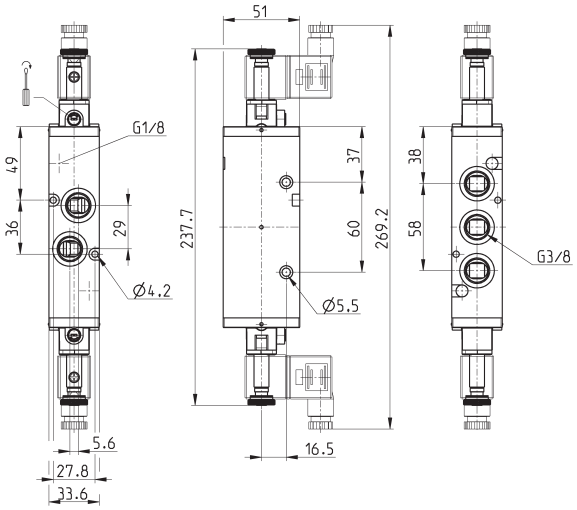
Mod.	Function	Flow Qn (Nl/min)	Working pressure (bar)	Min. pilot pressure (bar)	Symbol
453-011-22	5/2	1800	2 ÷ 10	-	EV23
453-E11-22	5/2	1800	-0.9 ÷ 10	2	EV25

5/3-way solenoid valve, G3/8 - Mod. 463-... and 473-...

New

CC = Centres Closed
CO = Centres Open

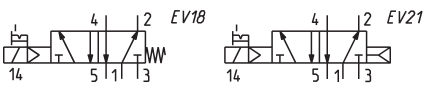


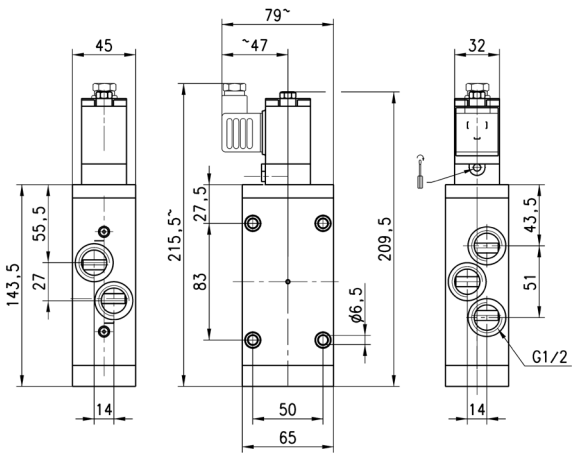


Mod.	Function	Flow Qn (Nl/min)	Working pressure (bar)	Min. pilot pressure (bar)	Symbol
463-011-22	5/3 CC	1600	2.5 ÷ 10	-	EV28
463-E11-22	5/3 CC	1600	-0.9 ÷ 10	2.5	EV29
473-011-22	5/3 CO	1600	2.5 ÷ 10	-	EV32
473-E11-22	5/3 CO	1600	-0.9 ÷ 10	2.5	EV34

5/2-way solenoid valve, G1/2, monostable - Mod. 452C...

These solenoid valves, which have electropneumatic actuation and spring or pneumatic spring return are suitable for operating double-acting cylinders.

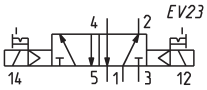


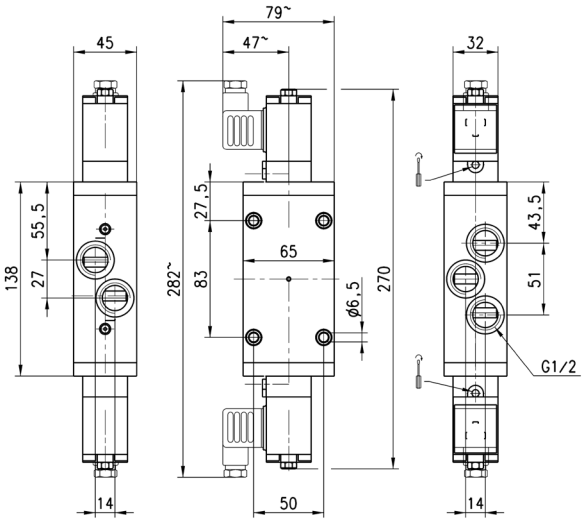


Mod.	Function	Flow rate Qn (Nl/min)	Operating pressure (bar)	Symbol	
452C-015-50-A6*	5/2	2500	2.5 ÷ 10	EV18	* choose the desired voltage
452C-016-50-A6*	5/2	2500	2.5 ÷ 10	EV21	* choose the desired voltage
452C-015	5/2	2500	2.5 ÷ 10		* choose the desired voltage
452C-015-22	5/2	2500	2.5 ÷ 10		* choose the desired voltage
452C-016	5/2	2500	2.5 ÷ 10		* choose the desired voltage

5/2-way solenoid valve, G1/2, bistable - Mod. 452C-011...

These solenoid valves, which have electropneumatic actuation and return, are suitable for operating double-acting cylinders.

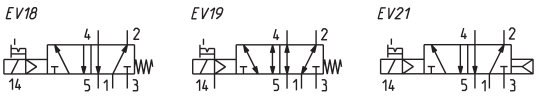


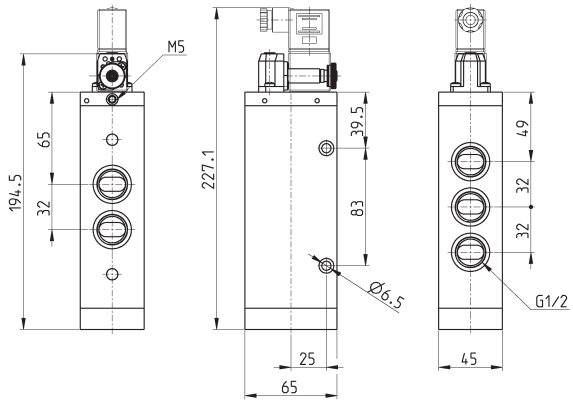


Mod.	Function	Flow rate Qn (Nl/min)	Operating pressure (bar)	
452C-011-50-A6*	5/2	2500	2 ÷ 10	* choose the desired voltage
452C-011-22	5/2	2500	2 ÷ 10	* choose the desired voltage
452C-011	5/2	2500	2 ÷ 10	* choose the desired voltage

5/2-way solenoid valve, G1/2, monostable - Mod. 452N-...

These solenoid valves, which have electropneumatic actuation and spring or pneumatic spring return are suitable for operating double-acting cylinders.

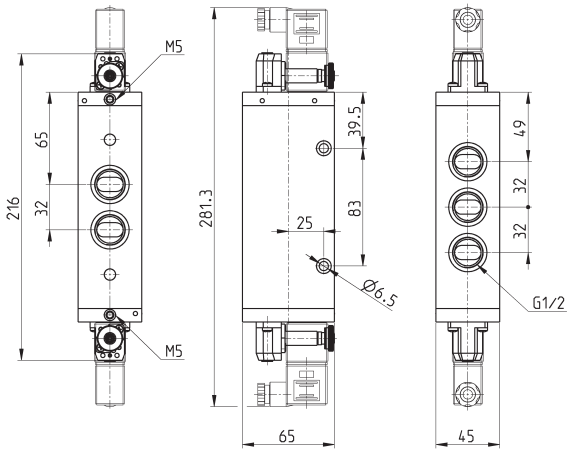




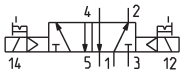
Mod.	Function	Flow rate Qn (Nl/min)	min. pilot Pressure (bar)	Working pressure (bar)	Symbol
452N-015-22	5/2	4000	-	2.5 ÷ 10	EV18
452N-016-22	5/2	4000	-	2.5 ÷ 10	EV21
452N-E15-22	5/2	4000	2.5	-0.9 ÷ 10	EV19

5/2-way solenoid valve, G1/2, bistable - Mod. 452N-...

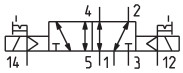
These solenoid valves, which have electropneumatic actuation and return, are suitable for operating double-acting cylinders.



EV23



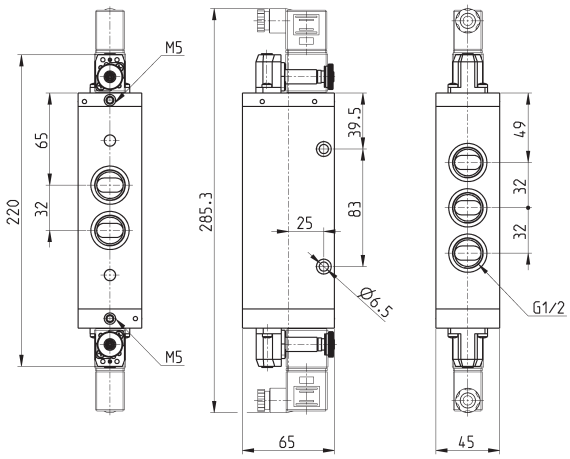
EV25



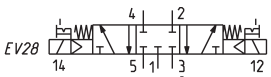
Mod.	Function	Flow rate Qn (Nl/min)	min. pilot Pressure (bar)	Working pressure (bar)	Symbol
452N-011-22	5/2	4000	-	2 ÷ 10	EV23
452N-E11-22	5/2	4000	2	-0.9 ÷ 10	EV25

5/3-way solenoid valve, G1/2, bistable - Mod. 462N-..., 472N-...

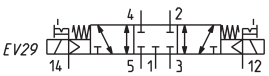
These solenoid valves, which have electropneumatic actuation and return, are suitable for operating double-acting cylinders.



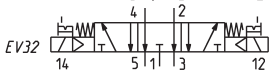
EV28



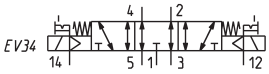
EV29



EV32

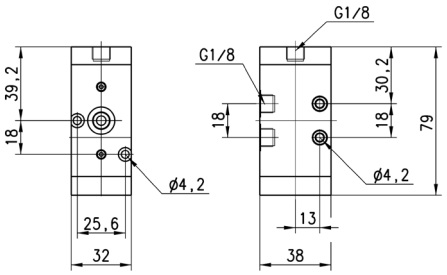


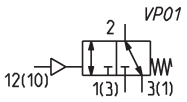
EV34



Mod.	Function	Flow rate Qn (Nl/min)	min. pilot Pressure (bar)	Working pressure (bar)	Symbol
462N-011-22	5/3 CC	3300	-	2.5 ÷ 10	EV28
462N-E11-22	5/3 CC	3300	2.5	-0.9 ÷ 10	EV29
472N-011-22	5/3 CO	3300	-	2.5 ÷ 10	EV32
472N-E11-22	5/3 CO	3300	2.5	-0.9 ÷ 10	EV34

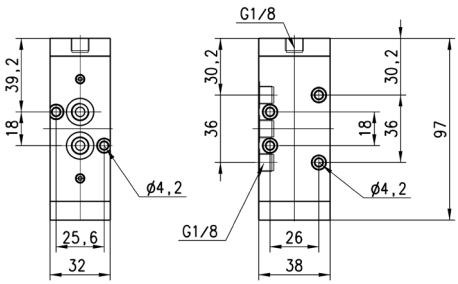
3/2-way valve, G1/8 port, monostable Mod. 438-35

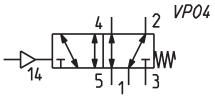




Mod.	Mounting	Function	Flow rate Qn (Nl/min)	Min. pilot pressure (bar)	Working pressure (bar)
438-35	in-line/on manifold	3/2 NC	700	2.5	-0.9 ÷ 10

5/2-way valve, G1/8 port, monostable Mod. 458-35

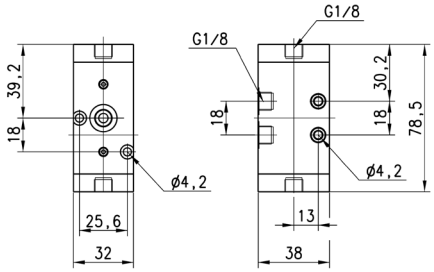


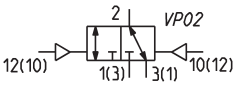


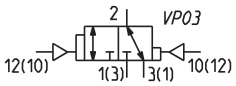
Mod.	Mounting	Function	Flow rate Qn (Nl/min)	Min. pilot pressure (bar)	Working pressure (bar)
458-35	in-line/manifold	5/2	700	2.5	-0.9 ÷ 10

3/2-way valve, G1/8 port, bistable Mod. 438

These valves can work NC or NO according to the last pilot signal.

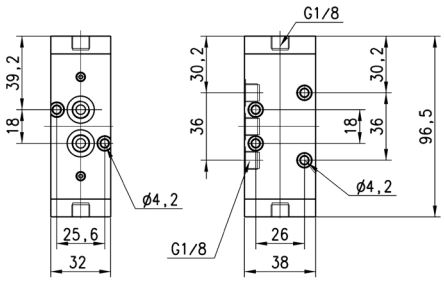


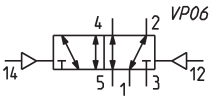


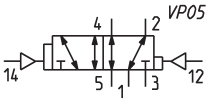


Mod.	Mounting	Function	Flow rate Qn (Nl/min)	min. pilot Pressure (bar)	Working pressure (bar)	Symbol
438-33	in-line/on manifold	3/2	700	2	-0.9 ÷ 10	VP02
438-34	in-line/on manifold	3/2	700	2	-0.9 ÷ 10	VP03

5/2-way valve, G1/8 port, bistable Mod. 458



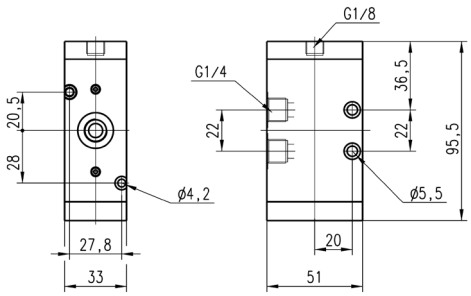


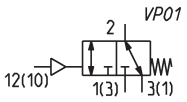


Mod.	Mounting	Function	Flow rate Qn (Nl/min)	min. pilot Pressure (bar)	Working pressure (bar)	Symbol
458-33	in-line/on manifold	5/2	700	2	-0.9 ÷ 10	VP06
458-34	in-line/on manifold	5/2	700	2	-0.9 ÷ 10	VP05

3/2-way valve, G1/4 port, monostable Mod. 434-35

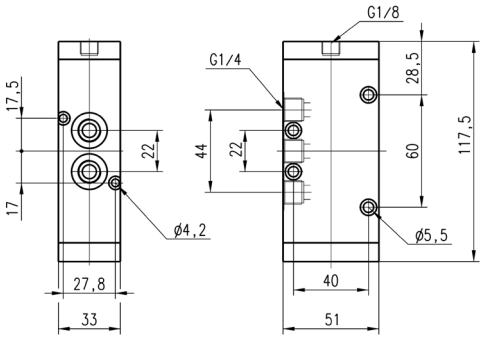
This valve can work NC or NO depending on where the power supply is connected.

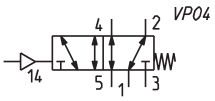




Mod.	Mounting	Function	Flow rate Qn (Nl/min)	min. pilot Pressure (bar)	Working pressure (bar)
434-35	in-line/on manifold	3/2 NC	1250	2.5	-0.9 ÷ 10

5/2-way valve, G1/4 port, monostable Mod. 454-35

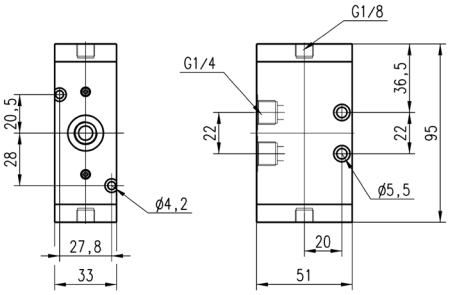


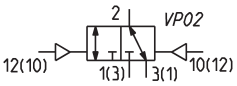


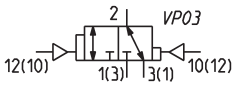
Mod.	Mounting	Function	Flow rate Qn (Nl/min)	Min. pilot pressure (bar)	Working pressure (bar)
454-35	in-line/on manifold	5/2	1250	2.5	-0.9 ÷ 10

3/2-way valve, G1/4 port, bistable Mod. 434

These valves can work NC or NO according to the last pilot signal.

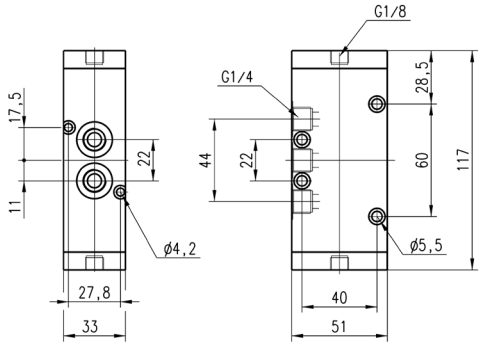


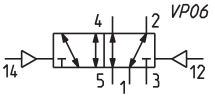


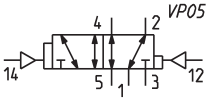


Mod.	Mounting	Function	Flow rate Qn (Nl/min)	min. pilot Pressure (bar)	Working pressure (bar)	Symbol
434-33	in-line/on manifold	3/2 NC	1250	2	-0.9 ÷ 10	VP02
434-34	in-line/on manifold	3/2 NC	1250	2	-0.9 ÷ 10	VP03

5/2-way valve, G1/4 port, bistable Mod. 454



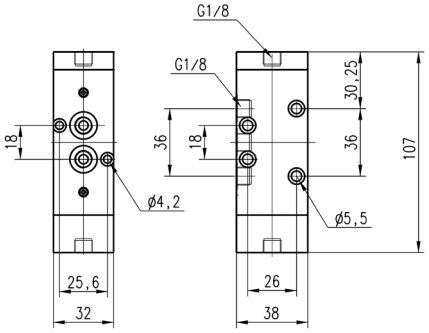


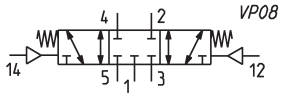


Mod.	Mounting	Function	Flow rate Qn (Nl/min)	min. pilot Pressure (bar)	Working pressure (bar)	Symbol
454-33	in-line/on manifold	5/2	1250	2	-0.9 ÷ 10	VP06
454-34	in-line/on manifold	5/2	1250	2	-0.9 ÷ 10	VP05

5/3-way C.C. valve, G1/8, monostable, with central stable position

CC = Centres Closed

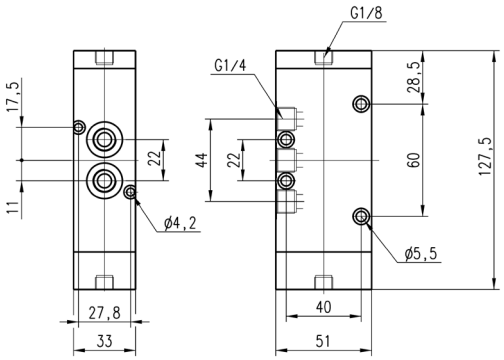


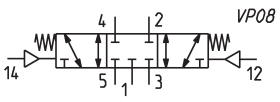


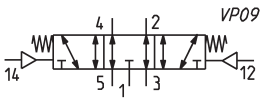
Mod.	Mounting	Function	Flow rate Qn (Nl/min)	min. pilot Pressure (bar)	Working pressure (bar)
468-33	in-line/on manifold	5/3 CC	700	2.5	-0.9 ÷ 10

5/3-way CC CO valve, G1/4, monostable, central stable position

CC = Centres Closed
CO = Centres Open





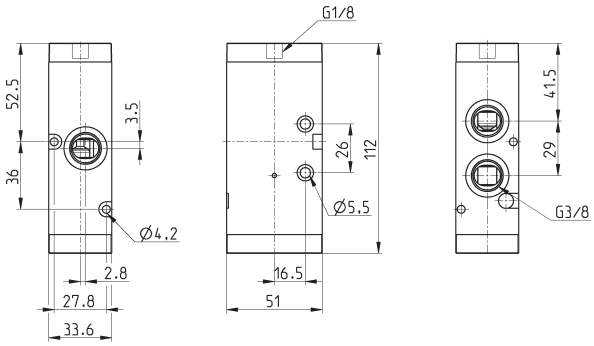


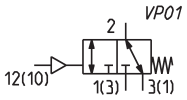
Mod.	Mounting	Function	Flow rate Qn (Nl/min)	min. pilot Pressure (bar)	Working pressure (bar)	Symbol
464-33	in-line/on manifold	5/3 CC	1250	2.5	-0.9 ÷ 10	VP08
474-33	in-line/on manifold	5/3 CO	1200	2.5	-0.9 ÷ 10	VP09

3/2-way valve, G3/8 port, monostable Mod. 433-35

New

This valve can work NC or NO depending on where the power supply is connected.

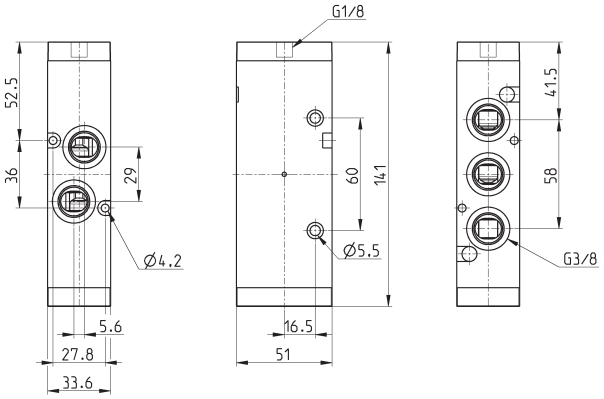


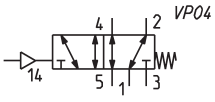


Mod.	Mounting	Function	Flow rate Qn (Nl/min)	min. pilot Pressure (bar)	Working pressure (bar)
433-35	in-line/on manifold	3/2 NC	1800	2.5	-0.9 ÷ 10

5/2-way valve, G3/8 port, monostable Mod. 453-35

New



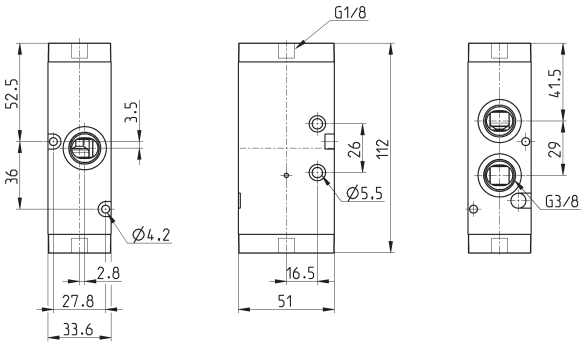


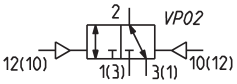
Mod.	Mounting	Function	Flow rate Qn (Nl/min)	Min. pilot pressure (bar)	Working pressure (bar)
453-35	in-line/on manifold	5/2	1800	2.5	-0.9 ÷ 10

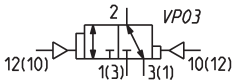
3/2-way valve, G3/8 port, bistable Mod. 433

New

These valves can work NC or NO according to the last pilot signal.



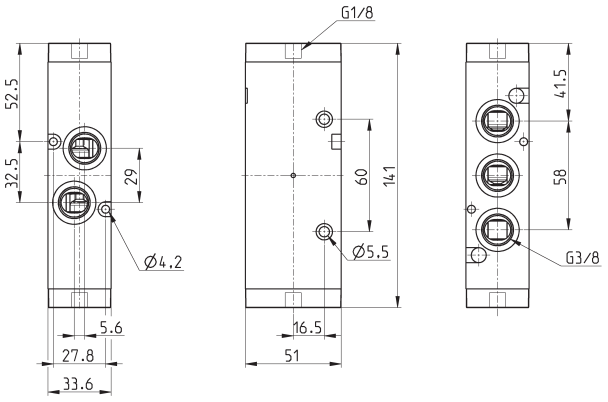


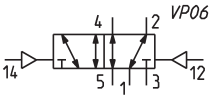


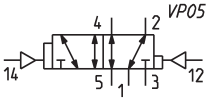
Mod.	Mounting	Function	Flow rate Qn (Nl/min)	min. pilot Pressure (bar)	Working pressure (bar)	Symbol
433-33	in-line/on manifold	3/2 NC	1800	2	-0.9 ÷ 10	VP02
433-34	in-line/on manifold	3/2 NC	1800	2	-0.9 ÷ 10	VP03

5/2-way valve, G3/8 port, bistable Mod. 453

New



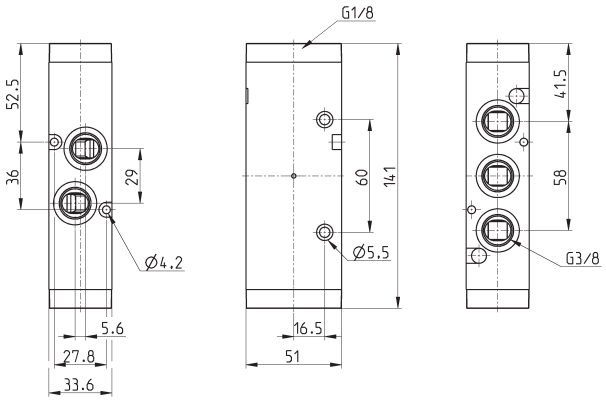


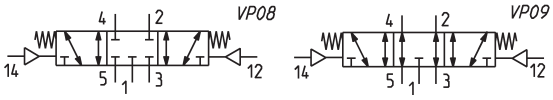


Mod.	Mounting	Function	Flow rate Qn (Nl/min)	min. pilot Pressure (bar)	Working pressure (bar)	Symbol
453-33	in-line/on manifold	5/2	1800	2	-0.9 ÷ 10	VP06
453-34	in-line/on manifold	5/2	1800	2	-0.9 ÷ 10	VP05

5/3-way CC CO valve, G3/8, monostable, central stable position

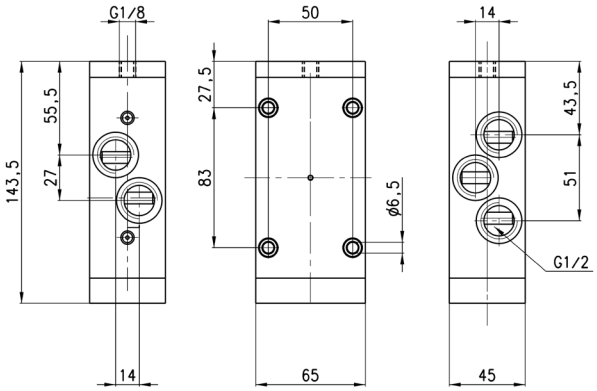
CC = Centres Closed
CO = Centres Open

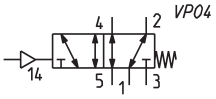




Mod.	Mounting	Function	Flow rate Qn (Nl/min)	min. pilot Pressure (bar)	Working pressure (bar)	Symbol
463-33	in-line/on manifold	5/3 CC	1600	2.5	-0.9 ÷ 10	VP08
473-33	in-line/on manifold	5/3 CO	1600	2.5	-0.9 ÷ 10	VP09

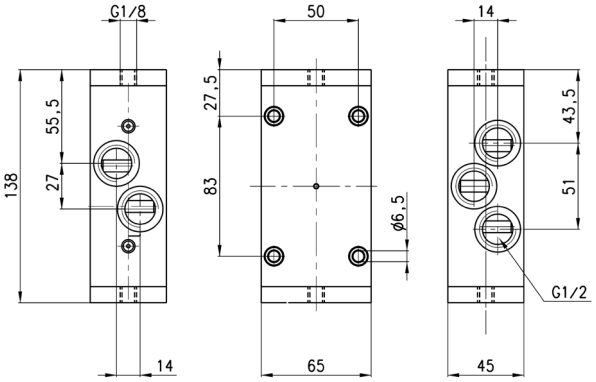
5/2-way valve, G1/2 port, monostable Mod. 452C-35

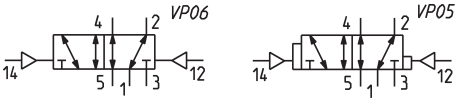




Mod.	Mounting	Function	Flow rate Qn (Nl/min)	Min. pilot pressure (bar)	Working pressure (bar)
452C-35	in-line	5/2	2500	2.5	-0.9 ÷ 10

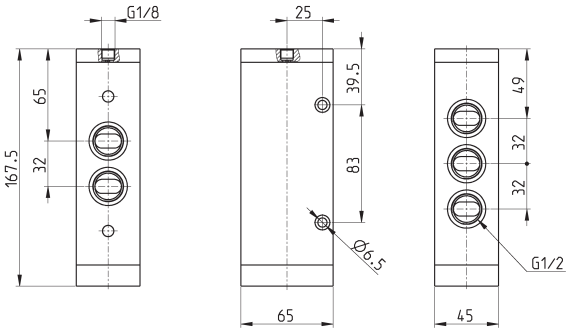
5/2-way valve, G1/2 port, bistable Mod. 452C

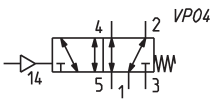




Mod.	Mounting	Function	Flow rate Qn (Nl/min)	min. pilot Pressure (bar)	Working pressure (bar)	Symbol
452C-33	in-line	5/2	2500	2	-0.9 ÷ 10	VP06
452C-34	in-line	5/2	2500	2	-0.9 ÷ 10	VP05

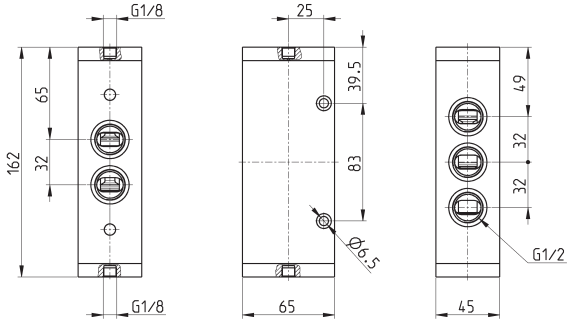
5/2-way valve, G1/2 port, monostable Mod. 452N-35

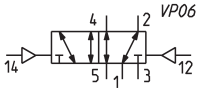




Mod.	Mounting	Function	Flow rate Qn (Nl/min)	Min. pilot pressure (bar)	Working pressure (bar)
452N-35	in-line	5/2	4000	2.5	-0.9 ÷ 10

5/2-way valve, G1/2 port, bistable Mod. 452N-33

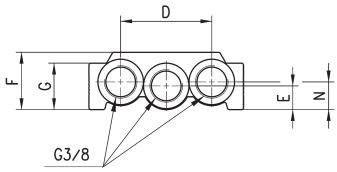


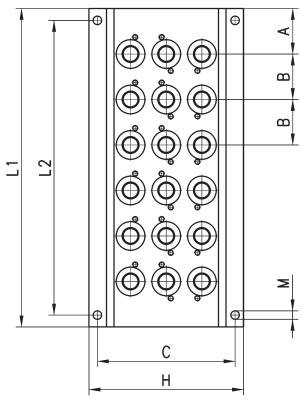


Mod.	Mounting	Function	Flow rate Qn (Nl/min)	min. pilot Pressure (bar)	Working pressure (bar)	Symbol
452N-33	in-line	5/2	4000	2	-0.9 ÷ 10	VP06

Manifold base with common exhausts

For valves Series 4, G1/8 (3/2, 5/2 or 5/3-way)
The following is supplied with:
1x manifold
1x pair of fixing screws for valve position
1x interface seal for valve positions
2x guides for valve position



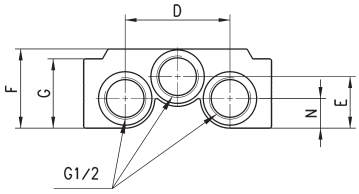


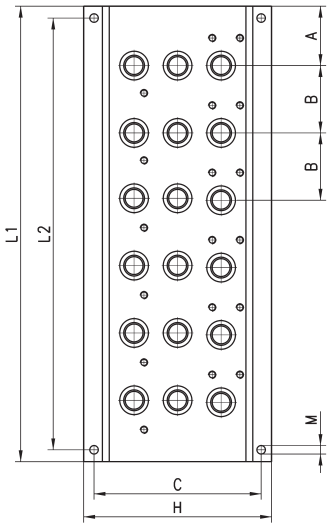
DIMENSIONS

Mod.	A	B	C	D	E	F	G	H	L1	L2	M	N
CNVL-42	28	33	69.2	46	12	29	23.5	78	89	77	4.3	14
CNVL-43	28	33	69.2	46	12	29	23.5	78	122	110	4.3	14
CNVL-44	28	33	69.2	46	12	29	23.5	78	155	143	4.3	14
CNVL-45	28	33	69.2	46	12	29	23.5	78	188	176	4.3	14
CNVL-46	28	33	69.2	46	12	29	23.5	78	221	209	4.3	14

Manifold base with common exhausts

For valves Series 4, G1/4 (3/2, 5/2 or 5/3-way)
The following is supplied :
1x manifold
1x pair of fixing screws for valve position
1x interface seal for valve positions
2x guides for valve position





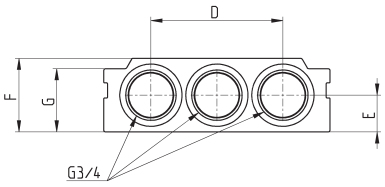
DIMENSIONS

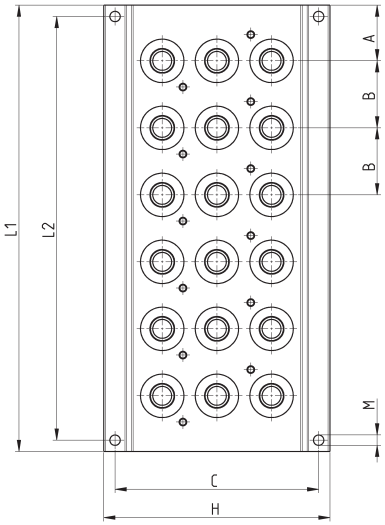
Mod.	A	B	C	D	E	F	G	H	L1	L2	M	N
CNVL-52	30	34	84.5	53	26	40	35	95	94	82	4.3	15
CNVL-53	30	34	84.5	53	26	40	35	95	128	116	4.3	15
CNVL-54	30	34	84.5	53	26	40	35	95	162	150	4.3	15
CNVL-55	30	34	84.5	53	26	40	35	95	196	184	4.3	15
CNVL-56	30	34	84.5	53	26	40	35	95	230	218	4.3	15

Manifold base with common exhausts

New

For valves Series 4, G3/8 (3/2, 5/2 or 5/3-way)
The following is supplied with:
1x manifold
1x pair of fixing screws for valve position
1x interface seal for valve positions
2x guides for valve position



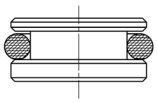


Mod.	A	B	C	D	E	F	G	H	L1	L2	M
CNVL-62	29.5	35	108	70	19.5	39	33.5	120	94.5	82.5	5.5
CNVL-63	29.5	35	108	70	19.5	39	33.5	120	130	118	5.5
CNVL-64	29.5	35	108	70	19.5	39	33.5	120	166	154	5.5
CNVL-65	29.5	35	108	70	19.5	39	33.5	120	201	189	5.5
CNVL-66	29.5	35	108	70	19.5	39	33.5	120	237	225	5.5

Blanking plug Mod. TCNVL for manifolds

The following is supplied:
1x blanking plug
1x O-Ring

TCNVL/3: for Series 4, G1/8
TCNVL/5: for Series 4, G1/4
TCNVL/6: for Series 4, G3/8

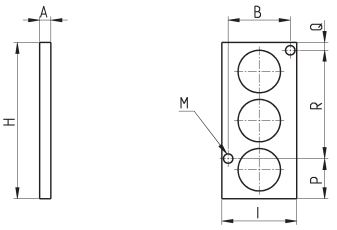


Mod.
TCNVL/3
TCNVL/5
TCNVL/6

Blanking plate Mod. CNVL for manifolds

The following is supplied:
2x fixing screws
3x O-Rings

CNVL/2: for Series 4, G1/8
CNVL/3: for Series 4, G1/4
CNVL/6: for Series 4, G3/8



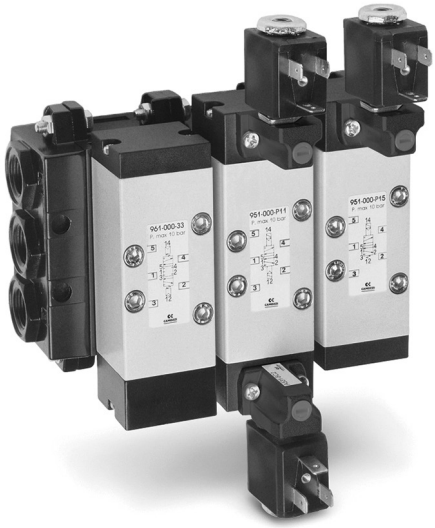
DIMENSIONS

Mod.	A	B	H	I	M	P	Q	R
CNVL/2	5	25.6	52	32	4.2	17	17	18
CNVL/3	5	27.8	70	33.5	4.2	18	3.5	48.5
CNVL/6	5	27.8	85	33.5	4.2	24.5	24.5	36

It is used to blank vacant positions of a manifold.

Series 9
valves and solenoid valves

5/2 and 5/3-way CC CO
Sizes 1 - 2 - 3
According to the standard ISO 5599/1



Series 9 electropneumatically or pneumatically operated valves have been designed with sizes 1, 2 and 3, as recommended by the ISO Standards. The ease of pneumatic and electrical wiring makes these valves extremely flexible.

GENERAL DATA

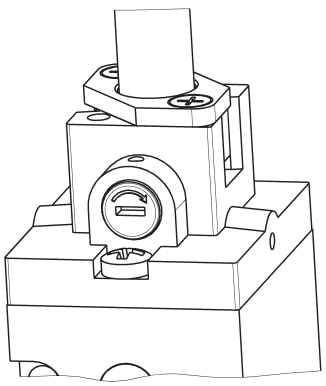
Operating pressure	max. press. 10 bar (for minimum pressures see descriptions)
Nominal pressure	6 bar
Nominal flow	ISO 1 = 900 Nl/min ISO 2 = 1610 Nl/min ISO 3 = 4350 Nl/min
Operating temperature	0 ÷ 60°C (with dry air at -20°C)
Fluid	filtered air, without lubrication. If lubricated air is used, it is recommended to use ISOVG32 oil and to never interrupt the lubrication.
Electropneumatic interface	according CNOMO Standards

CODING EXAMPLE

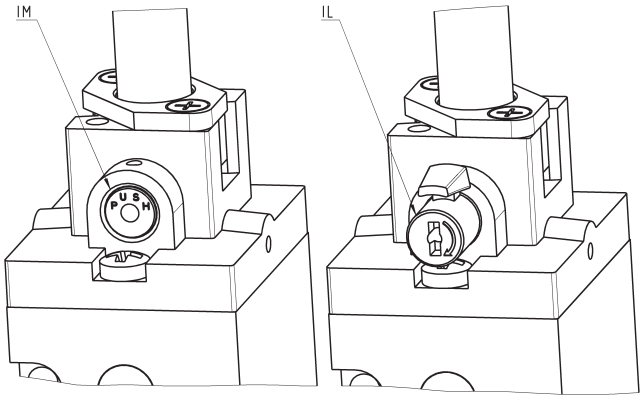
9	5	1	-	000	-	P16	-	23	-	U7	7

9	SERIES
5	NUMBER OF WAYS - POSITIONS: 5 = 5/2 6 = 5/3 CC 7 = 5/3 CO
1	SIZE: 1 = size 1 2 = size 2 3 = size 3
000	BODY DESIGN: 000 = valve body
P16	ACTUATION: 33 = pneumatic, pneumatic return 34 = pneumatic, differential pneumatic return 35 = pneumatic, mechanical spring return P11 = double solenoid (horizontal solenoids) P15 = single solenoid, spring return (horizontal solenoids) P16 = solenoid, pneumatic spring return (horizontal solenoids)
23	SOLENOID INTERFACE AND MANUAL COMMAND: 23 = A531-BC2 standard bistable manual override 23IL = A531-BC2 lever type bistable manual override 23IM = A531-BC2 monostable manual override
U7	SOLENOID MATERIAL / SOLENOID DIMENSIONS: A8 = PPS / 30 x 30 G7 = PA / 22 x 22 G8 = PA / 30 x 30 (24 V DC only) G9 = PA / 22 x 58 H8 = PA 6 V0 / 30 x 30 U7 = PET / 22 x 22
7	SOLENOID VOLTAGE (see the dedicated section 2.35)

TYPES OF MANUAL OVERRIDE



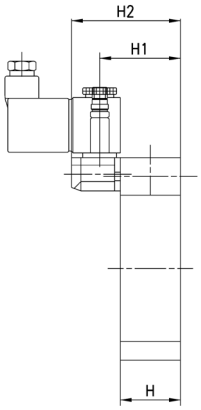
Example of solenoid valve with a bistable standard manual override.

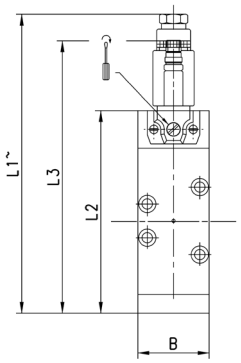


Example of solenoid monostable valve (IM) and bistable valve with a lever type manual override (IL).

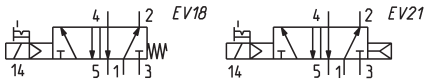
5/2-way solenoid valves, monostable - ISO 1, ISO 2, ISO 3

Available with electropneumatic actuation and spring return, they are suitable for mounting on a sub-base.





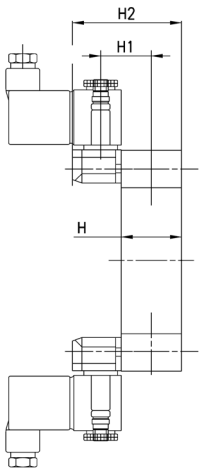
The following is supplied:
1x interface seal
4x fixing screws

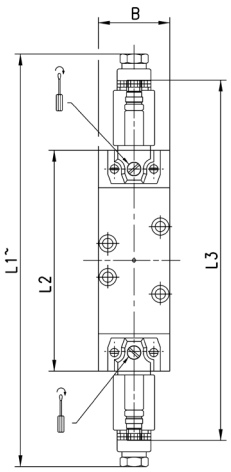


DIMENSIONS										
Mod.	Size ISO	B	L1	L2	L3	H	H1	H2	Min. operating pressure	Symbol
951-000-P15-23	1	38	153	108	146	32	43	58	2.5	EV18
952-000-P15-23	2	51	173	128	166	33	44	59	2.5	EV18
953-000-P15-23	3	65	218	173	211	45	56	71	2.5	EV18
951-000-P16-23	1	38	153	108	146	32	43	58	2.5	EV21
952-000-P16-23	2	51	173	128	166	33	44	59	2.5	EV21
953-000-P16-23	3	65	218	173	211	45	56	71	2.5	EV21
953-000-P16-23IL	3	65	218	173	211	45	56	71	2.5	EV21

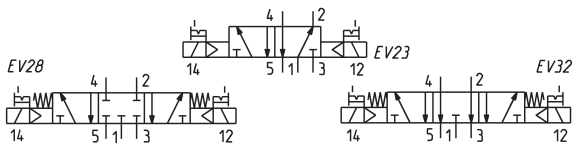
5/2-way, 5/3-way solenoid valves, bistable - ISO 1, ISO 2, ISO 3

Available with electropneumatic actuation and spring return, they are suitable for mounting on a sub-base.





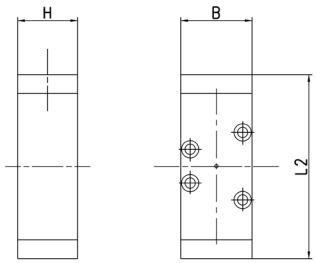
The following is supplied:
1x interface seal
4x fixing screws



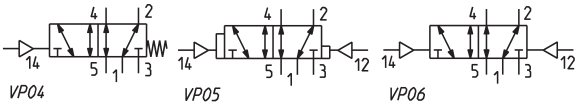
DIMENSIONS										
Mod.	Size ISO	B	L1	L2	L3	H	H1	H2	Min. operating pressure	Symbol
951-000-P11-23	1	38	208	118	194	32	43	58	2	EV23
952-000-P11-23	2	51	228	138	214	33	44	59	2	EV23
953-000-P11-23	3	65	273	183	259	45	56	71	2	EV23
961-000-P11-23	1	38	208	118	194	32	43	58	2.5	EV28
962-000-P11-23	2	51	228	138	214	33	44	59	2.5	EV28
963-000-P11-23	3	65	273	183	259	45	56	71	2.5	EV28
971-000-P11-23	1	38	208	118	194	32	43	58	2.5	EV32
972-000-P11-23	2	51	228	138	214	33	44	59	2.5	EV32
973-000-P11-23	3	65	273	183	259	45	56	71	2.5	EV32

5/2 -way valves, monostable, bistable - ISO 1, ISO 2, ISO 3

The Series 9 valves with ISO interface, size 1, 2 and 3, are available with the following types of actuation:
- pneumatic, with spring return
- pneumatic actuation and differential return
- pneumatic actuation and return



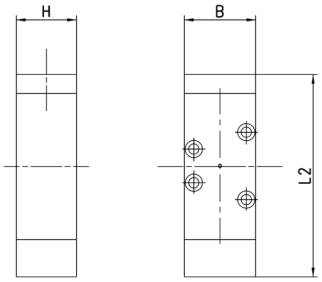
The following is supplied:
1x interface seal
4x fixing screws



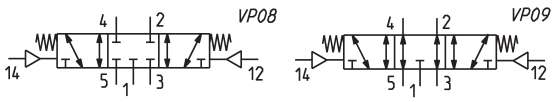
DIMENSIONS							
Mod.	Size ISO	B	L2	H	Min. pilot pressure (bar)	Working pressure (bar)	Symbol
951-000-35	1	38	98	32	2.5	-0.9 ÷ 10	VP04
952-000-35	2	51	118	33	2.5	-0.9 ÷ 10	VP04
953-000-35	3	65	163	45	2.5	-0.9 ÷ 10	VP04
951-000-34	1	38	98	32	2	-0.9 ÷ 10	VP05
952-000-34	2	51	118	33	2	-0.9 ÷ 10	VP05
953-000-34	3	65	163	45	2	-0.9 ÷ 10	VP05
951-000-33	1	38	98	32	2	-0.9 ÷ 10	VP06
952-000-33	2	51	118	33	2	-0.9 ÷ 10	VP06
953-000-33	3	65	163	45	2	-0.9 ÷ 10	VP06

5/3-way valve, monostable, with stable central position - ISO 1, 2, 3

The Series 9 valves with ISO interface, size l, 2 and 3, are available with pneumatic actuation and central resetting by a spring. There are two types of function:
- with closed centres
- with open centres

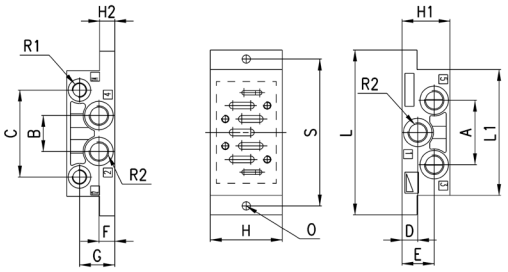


The following is supplied:
1x interface seal
4x fixing screws



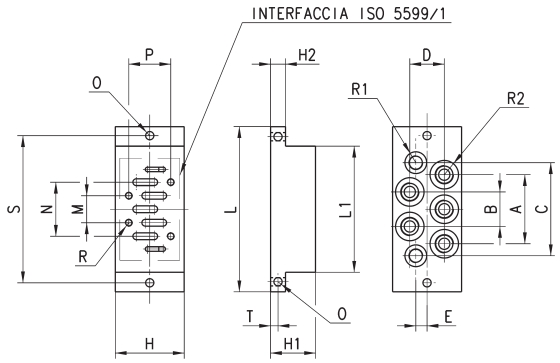
DIMENSIONS							
Mod.	Size ISO	B	L2	H	Min. pilot pressure (bar)	Working pressure (bar)	Symbol
961-000-33	1	38	108	32	2.5	-0.9 ÷ 10	VP08
962-000-33	2	51	128	33	2.5	-0.9 ÷ 10	VP08
963-000-33	3	65	173	45	2.5	-0.9 ÷ 10	VP08
971-000-33	1	38	108	32	2.5	-0.9 ÷ 10	VP09
972-000-33	2	51	128	33	2.5	-0.9 ÷ 10	VP09
973-000-33	3	65	173	45	2.5	-0.9 ÷ 10	VP09

Single sub-base side outlets (VDMA 24345)



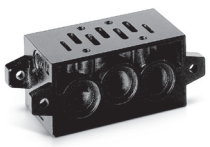
DIMENSIONS																		
Mod.	Size	A	B	C	D	E	F	G	H	H1	H2	L	L1	O	R1	R2	S	
901-F1A	1	43	24	58	10.5	21.5	10.5	23.5	48	32	10	110	84	5.5	G1/8	G1/4	98	
902-F2A	2	56	30	74	14	26	14	30	57	40	13	124	95	6.5	G1/8	G3/8	112	
903-F3A	3	68	32	90	17	17	17	22	71	32	18	149	119	6.5	G1/8	G1/2	136	

Single sub-base with rear outlets (VDMA 24345)

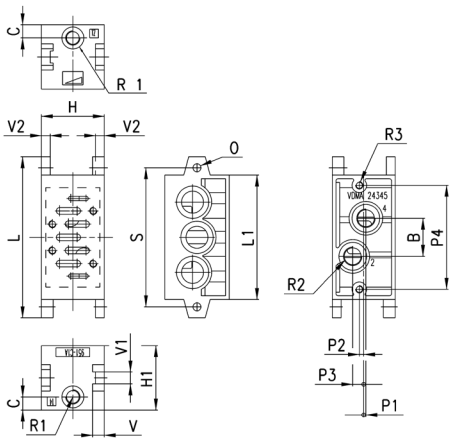


DIMENSIONS																			
Mod.	Size	A	B	C	D	E	H	H1	H2	L	L1	M	N	O	P	R	R1	R2	S	T
901-G1A	1	46	23	61	23	7.5	46	30	10	110	84	18	36	5.5	28	M5	G1/8	G1/4	98	5
902-G2A	2	56	28	72	28	8	56	35	13	124	95	24	48	6.5	38	M6	G1/8	G3/8	112	6.5
903-G3A	3	68	34	90	34	10	71	32	18	149	119	32	64	6.5	48	M8	G1/8	G1/2	136	9

Manifold sub-base with com. exhausts and inlet (VDMA 24345)



The following is supplied:
2x fixing screws
3x O-ring

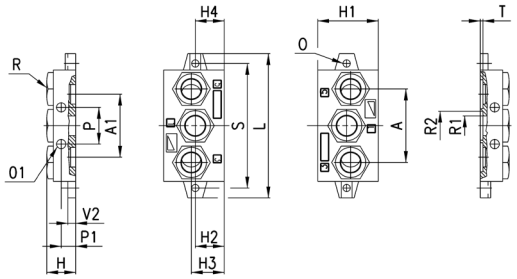


DIMENSIONS																			
Mod.	Size	B	C	H	H1	L	L1	O	P1	P2	P3	P4	R1	R2	R3	S	V	V1	V2
901-C1A	1	26	8.5	43	44	110	85	5.5	1.5	3	7.5	71	G1/8	G1/4	M5	95	8	8	6
902-C2A	2	30	9	56	45	135	100	6.5	5	3	6	86	G1/8	G3/8	M6	115	11	11	8
903-C3A	3	38	10	71	54	190	140	9	6	3	8	130	G1/8	G1/2	M8	168	13	13	8

Note: complete with fixing screws and O-ring.

End block for manifold sub-base (VDMA 24345)

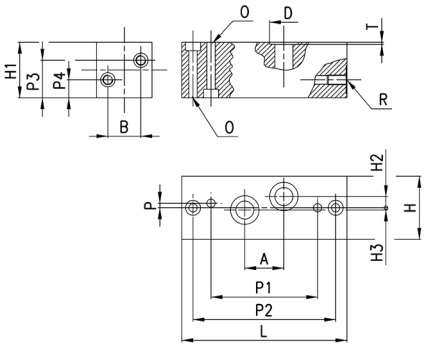
The following is supplied:
2x end blocks (1 pair)
2x fixing screws
3x OR



DIMENSIONS																		
Mod.	Size	A	A1	H	H1	H2	H3	H4	L	O	O1	P	P1	R	ØR1	ØR2	S	T	V2
901-H1	1	56	48	22	46	22	25	22	110	5,5	7	28	11	G3/8	15	22,1	95	2	6
902-H2	2	68	63	26	47	23	25	24	135	6,5	9	35	13	G1/2	18,5	28,7	115	2	8
903-H3	3	104	94	30	56	22	25	25	190	9	12	52	15	G1	28	38	168	2,7	8

Interface with front outlets (VDMA 24345)

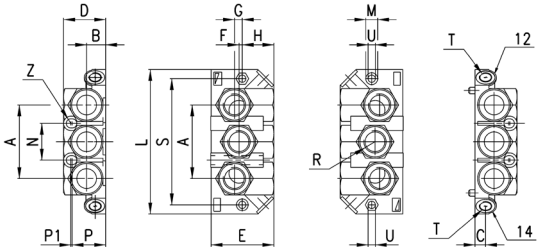
The following is supplied:
2x fixing screws
2x OR



DIMENSIONS																	
Mod.	Size	A	B	D	H	H1	H2	H3	L	O	P	P1	P2	P3	P4	R	T
901-N1	1	26	22	19	42	37	7.5	1.5	110	5.5	3	71	95	25	12	G1/4	1.4
902-N2	2	30	29	23	55	40	6	5	135	6.5	3	86	115	26	14	G3/8	1.4
903-N3	3	38	36	27	70	45	8	6	190	9	3	130	168	29	17	G1/2	1.4

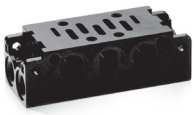
End blocks for manifold bases with front outlets

The following is supplied:
2x end blocks (1 pair)
2x fixing screws
3x OR

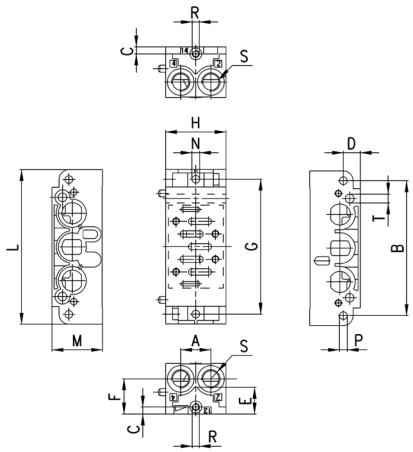


DIMENSIONS																		
Mod.	Size	A	B	C	D	E	F	G	H	L	M	N	P	P1	R	S	T	U	Z
901-HN1	1	56	14.5	8	32	48	2.5	6	24	110	9	28	25.5	1	3/8"	96	G1/8	5,5	3,5

Manifold bases with comm. inlet and exhaust ports and front outlet



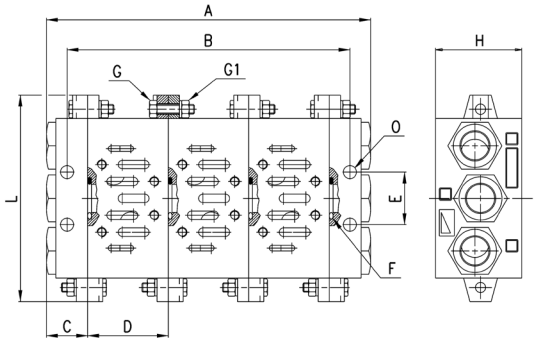
The following is supplied:
2x fixing screws
3x OR



DIMENSIONS

Mod.	Size	A	B	C	D	E	F	G	H	L	M	N	P	R	S	T
901-N1A	1	21.5	96	5	12	19	25	96	43	110	36	5.5	5.5	M5	G1/4	6.2

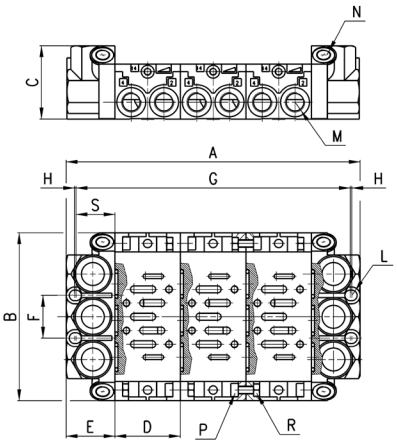
Assembly of manifold sub-base (VDMA 24345)



DIMENSIONS

Size	A	B	C	D	E	FOR	UNI 5739 G	UNI 57588 G1	H	L	O
1	n°D+2C	n°D+C	22	43	28	3068	M5X20	M5	46	110	7
2	n°D+2C	n°D+C	26	56	35	3093	M6X25	M6	47	135	9
3	n°D+2C	n°D+C	30	71	52	4125	M8X25	M8	56	190	12

Assembly for front outlet manifold sub-bases

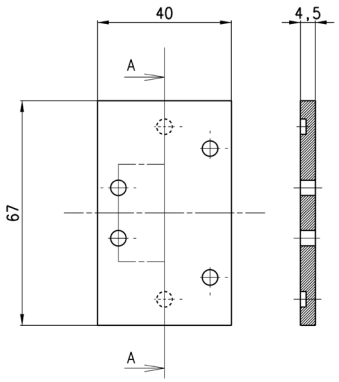


DIMENSIONS

Size	A	B	C	D	E	F	G	H	L	M	N	UNI 5931 P.	UNI 5588 R	S
1	N° D+2E	110	48	43	32	28	n°D+25	1	3,5	G1/4	G1/8	M5X14	M5	25,5

Cover plate for unused positions

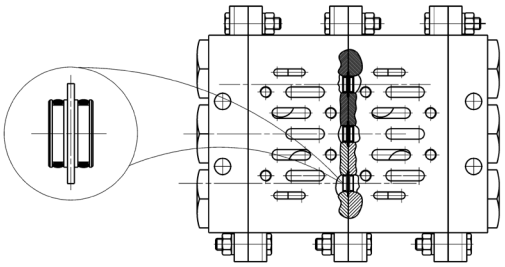
The following is supplied:
1x seal
4x screws



Mod.
901-TP

Mounting example

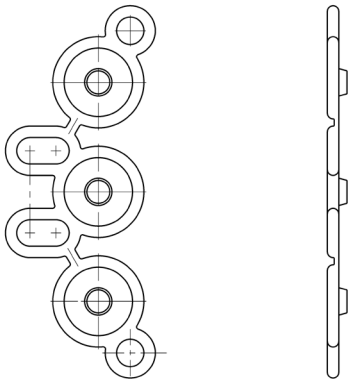
Separation tap lines 1 - 3 - 5 to be used with manifold type 901-C1A and 902-C2A



Mod.
901-C1A/TP
902-C2A/TP

Separation joint

Separation joint to be used with manifold type 901N

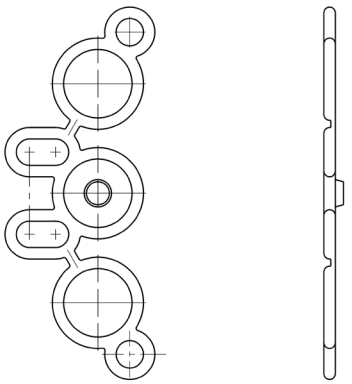


1 - 3 - 5 closed

Mod.
901-N1A/T

Separation joint

Separation joint to be used with manifold type 901N.
P plugged.

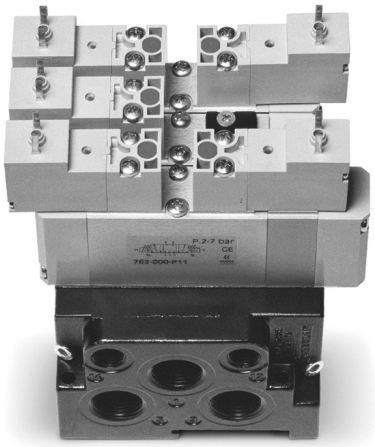


1 closed

Mod.
901-N1A/TP

Series 7
valves and solenoid valves

VDMA 24563 (ISO 15407-1)
5/2 - 5/3-way CC CO CP



Size 26 mm (VDMA 24563-01)
Size 18 mm (VDMA 24563-02)

GENERAL DATA

Construction	balanced spool type
Valve functions	5/2 - 5/3-way CC CO CP
Materials	AL body, spool base, polyamide endcovers, NBR seals
Mounting	by means of screws on the base
Ports	on sub-base
Operating temperature	0° C min. +50° C max
Fluid	filtered air (5 micron or less), without lubrication. If lubricated air is used, it is recommended to use ISOVG32 oil. Once applied the lubrication should never be interrupted.
Size	26 mm 18 mm
Installation	in any position
Operating pressure	P. max 7 bar
Nominal pressure	6 bar
Nominal flow	Qn Size 26 mm = 900 Nl/min Qn Size 18 mm = 450 Nl/min
Voltage	see coding
Voltage tolerance	± 10%
Power consumption	2W
Class of insulation	class F
Protection	IP54 (IP65 with connector DIN 40050)

CODING EXAMPLE

7	5	1	-	N	1	A	-	P16	-	15	-	W	2	3

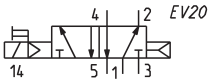
7	SERIES:
5	NUMBER OF WAYS - POSITIONS: 5 = 5/2 6 = 5/3 CC 7 = 5/3 CO 8 = 5/3 CP
1	SIZES: 1 = size 26 mm 2 = size 18 mm
N	SUBBASE: N = sub-base with front outlets
1	PORTS: 1 = G1/4 (Size 26 mm) 2 = G1/8 (Size 18 mm)
A	NUMBER OF SUBBASES: A = 1 * B = 2 * C = 3 * D = 4 * E = 5 * F = 6 * G = 7 * H = 8 * K = 9 * L = 10 * M = 11 * N = 12 * P = 13 * R = 14 * S = 15 *
P16	ACTUATION: 33 = pneumatic, bistable 36 = pneumatic, monostable P11 = electro-pneumatic, bistable P16 = electro-pneumatic, monostable
15	SOLENOID INTERFACE: 15 = 15x15
W	SOLENOID TYPES: W = Series W (24V - 48V DC only) P = Series P **
2	CONNECTION: 1 = wire 300 mm (Series W, 24V DC only) ** 2 = 2 pins (Series W, 24V - 48V DC) 5 = 2 pins+earth (Series P) **
3	SOLENOID VOLTAGE: 3 = 24V DC 4 = 48V DC ** 6 = 110V DC (with Series P solenoids only) ** B = 24V 50/60 Hz (with Series P solenoids only) ** C = 48V 50/60 Hz (with Series P solenoids only) ** D = 110V 50/60 Hz (with Series P solenoids only) **
	NOTES: * complete with the two end blocks ** on request

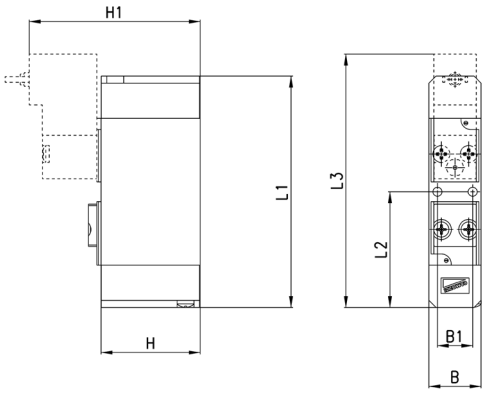
5/2-way solenoid valve, ISO 26 mm - 18 mm monostable

The Series 7 solenoid valves with interface ISO 26 mm and 18 mm which have electropneumatic actuation and spring return are suitable for mounting on a sub-base. For electrical actuation, 2 types of solenoid, Series W and Series P (available with a wide range of voltages, on request).

Connector Mod. 126-800.

The following is supplied:
1x interface seal
2x fixing screws





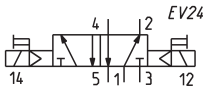
DIMENSIONS									
Mod.	Size ISO	B	B1	L1	L2	L3	H	H1	Min. operating pressure
751-000-P16-15-W20	26 mm	26,5	19	99,7	49,85	98,8	39	64,3	3 bar
752-000-P16-15-W20	18 mm	18,5	12,5	82,2	41,1	90	35,2	60,5	3 bar

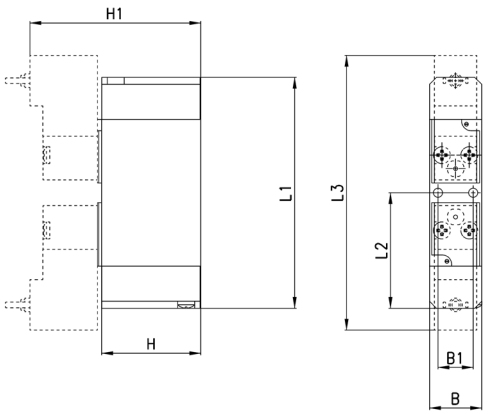
5/2-way solenoid valves, ISO 26 mm - 18 mm, bistable

The Series 7 solenoid valves with ISO 26 mm and 18 mm interface which have electropneumatic actuation and return are suitable for mounting on a sub-base.
For electrical actuation, 2 types of solenoid Series W and Series P (available with a wide range of voltages, on request).

Connector Mod. 126-800.

The following is supplied:
1x interface seal
2x fixing screws





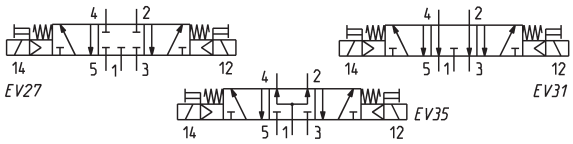
DIMENSIONS									
Mod.	Size ISO	B	B1	L1	L2	L3	H	H1	Min. operating pressure
751-000-P11-15-W20	26 mm	26,5	19	99,7	49,85	98,8	39	64,3	2 bar
752-000-P11-15-W20	18 mm	18,5	12,5	82,2	41,1	97,8	35,2	60,5	2 bar

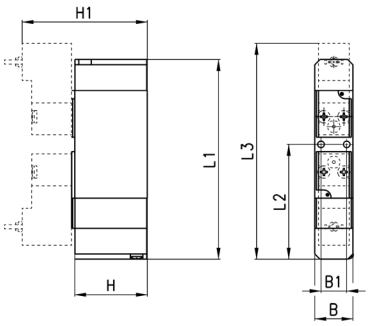
5/3-way solenoid valves, ISO 26 mm - 18 mm

The Series 7 solenoid valves with ISO 26 mm - 18 mm interface which have electropneumatic actuation and spring return are suitable for mounting on a sub-base. For electrical actuation, two types of solenoid Series W and Series P (are available with a large range of voltages, on request).

Connector Mod. 126-800.

The following is supplied:
1x interface seal
2x fixing screws



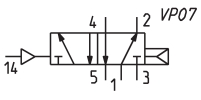


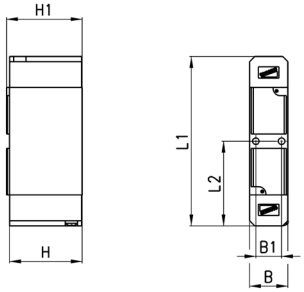
DIMENSIONS										
Mod.	Size ISO	B	B1	L1	L2	L3	H	H1	Min. operating pressure	Symbol
761-000-P11-15-W20	26 mm	26,5	19	111,7	61,85	110,8	39	64,3	3 bar	EV27
762-000-P11-15-W20	18 mm	18,5	12,5	96,7	55,6	104,5	35,2	60,5	3 bar	EV27
771-000-P11-15-W20	26 mm	26,5	19	111,7	61,85	110,8	39	64,3	3 bar	EV31
772-000-P11-15-W20	18 mm	18,5	12,5	96,7	55,6	104,5	35,2	60,5	3 bar	EV31
781-000-P11-15-W20	26 mm	26,5	19	111,7	61,85	110,8	39	64,3	3 bar	EV35
782-000-P11-15-W20	18 mm	18,5	12,5	96,7	55,6	104,5	35,2	60,5	3 bar	EV35

5/2-way solenoid valves ISO 26 mm - 18 mm, monostable

The Series 7 solenoid valves with ISO 26 mm and 18 mm interface which have pneumatic actuation and pneumatic spring return are suitable for mounting on a sub-base.
For the correct use of the valve, the pilot pressure must be the same or higher than the operating pressure.

The following is supplied:
1x interface seal
2x fixing screws

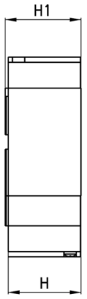


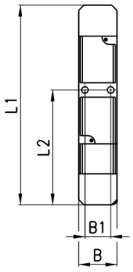


DIMENSIONS								
Mod.	Size ISO	B	B1	L1	L2	H	H1	Min. operating pressure
751-000-36	26 mm	26,5	19	99,7	49,85	39	40,5	3 bar
752-000-36	18 mm	18,5	12,5	82,2	41,1	35,2	36,7	3 bar

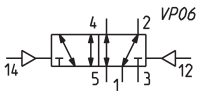
5/2-way solenoid valves ISO 26 mm - 18 mm, bistable

The Series 7 solenoid valves with ISO 26 mm and 18 mm interface which have pneumatic actuation and return are suitable for mounting on a sub-base.





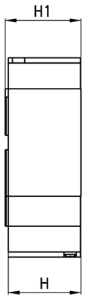
The following is supplied:
1x interface seal
2x fixing screws

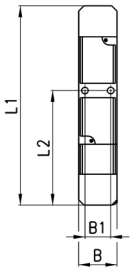


DIMENSIONS								
Mod.	Size ISO	B	B1	L1	L2	H	H1	Min. operating pressure
751-000-33	26 mm	26,5	19	99,7	49,85	39	40,5	2 bar
752-000-33	18 mm	18,5	12,5	82,2	41,1	35,2	36,7	2 bar

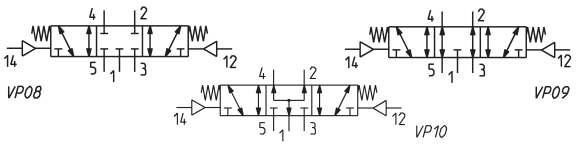
5/3-way solenoid valves, ISO 26 mm - 18 mm

The Series 7 solenoid valves with ISO 26 mm and 18 mm interface which have pneumatic actuation and mechanical spring return are suitable for mounting on a sub-base.





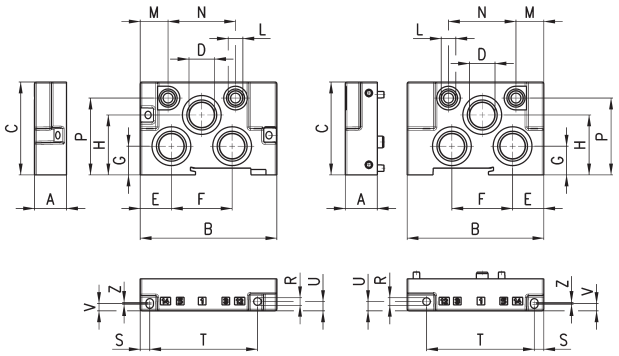
The following is supplied:
1x interface seal
2x fixing screws



DIMENSIONS									
Mod.	Size ISO	B	B1	L1	L2	H	H1	Min. operating pressure	Symbol
761-000-33	26 mm	26,5	19	117,7	61,85	39	40,5	3 bar	VP08
762-000-33	18 mm	18,5	12,5	96,7	55,6	35,2	36,7	3 bar	VP08
771-000-33	26 mm	26,5	19	117,7	61,85	39	40,5	3 bar	VP09
772-000-33	18 mm	18,5	12,5	96,7	55,6	35,2	36,7	3 bar	VP09
781-000-33	26 mm	26,5	19	117,7	61,85	39	40,5	3 bar	VP10
782-000-33	18 mm	18,5	12,5	96,7	55,6	35,2	36,7	3 bar	VP10

End blocks for subbase

End blocks for subbase with conveyed inlets and exhausts and front outlets.

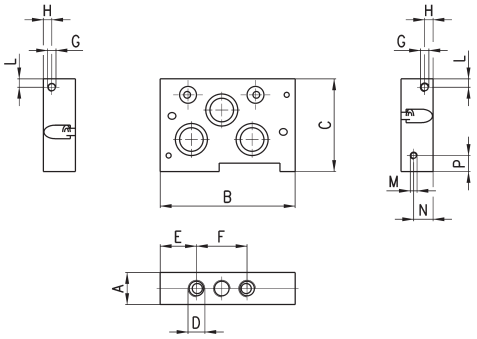


The following is supplied:
1x seal
2x fixing screws

DIMENSIONS																				
Mod.	Size ISO	A	B	C	D	E	F	G	H	L	M	N	P	R	S	T	U	V	Z
701C-HN1	26 mm	27	107	65	G1/2	23	60	24,5	43	G1/8	21,5	58	55,5	4,5	7,5	61,5	6	6,2	4
702C-HN2	18 mm	19	81	55	G3/8	18,5	36	17	35,5	G1/8	16,5	40	45,5	4,5	4,65	63,85	5,5	4,,35	1,3

Intermediate supply module

Intermediate supply module for manifold bases with conveyed inlets and exhausts and front outlets.

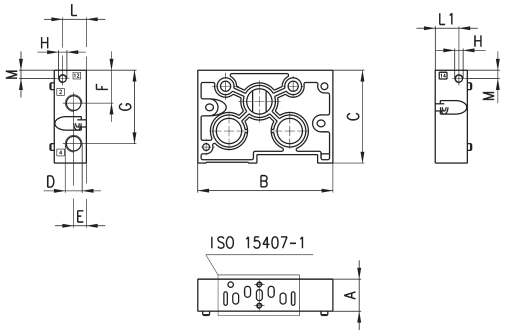


The following is supplied:
1x seal
2x fixing screws

DIMENSIONS													
Mod.	Size ISO	A	B	C	D	E	F	G	H	L	M	N	P
701C-N1N	26 mm	27	100	65	G1/4	29	42	M5	6,5	10	M4	10	10
702C-N2N	18 mm	19	81	55	G1/8	22,5	28	M5	5	5	M4	11,5	9,5

Subbase for manifolds

Manifold subbase with conveyed inlets and exhausts and front outlets.

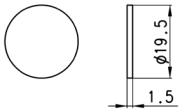


The following is supplied:
1x seal
2x fixing screws

DIMENSIONS													
Mod.		Size ISO	A	B	C	D	E	F	G	H	L	L1	M
701C-N1A	for pneumatic valves	26 mm	27	107	65	G1/4	11	23	53	M5	20,7	20,7	6,5
702C-N2A	for pneumatic valves	18 mm	19	81	55	G1/8	7,5	19,5	44,5	M5	13	6	7
701C-N1C		26 mm	27	107	65	G1/4	11	23	53	M5	20,7	20,7	6,5
702C-N2C		18 mm	19	81	55	G1/8	7,5	19,5	44,5	M5	13	6	7

Diaphragm cover for subbase

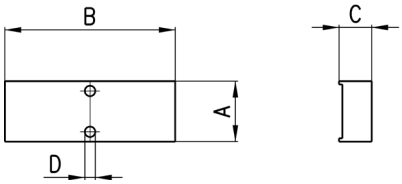
Diaphragm for subbase with conveyed inlet and exhausts and side outlets.



Mod.
701C-N1A-TP
702C-N2A-TP

Excluder tap for subbase

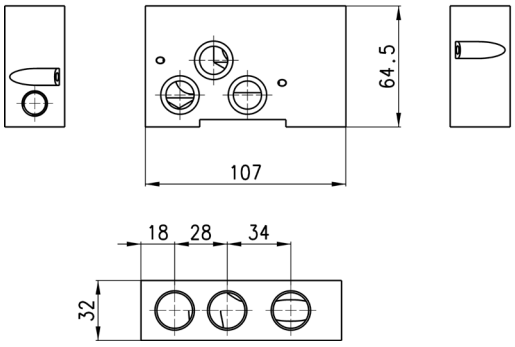
The following is supplied:
1x seal
2x screws



DIMENSIONS					
Mod.	Size ISO	A	B	C	D
701-TP	26 mm	26,5	61,7	10	4,2
702-TP	18 mm	18,5	52,2	10	3,2

Interface between ISO 01 and ISO 02

The following is supplied:
1x tap S2610 3/8
5x OR
2x screws



Mod.
701C-702C-A

Series NA
valves and solenoid valves

3/2 - 5/2 - 5/3-way CC CO CP
with holes configured according NAMUR standards

The pneumatic interface connection complies with NAMUR standards.
These solenoid valves can be equipped with solenoids that are in compliance with UL or ATEX standards.

GENERAL DATA

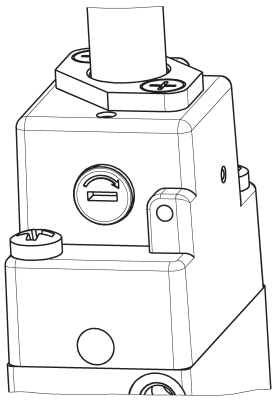
Construction	spool type (servo-pilot operated)
Valve functions	3/2-way NC, NO - 5/2-way - 5/3-way CC, CO, CP
Materials	AL body - stainless steel spool - NBR seals
Mounting	through 2 Ø5 holes in the valve body
Ports	2 - 4 = NAMUR 1 - 3 - 5 = G1/4
Installation	directly on a Namur Interface
Operating temperature	0 ÷ 60°C (using dry air -20°C)
Operating pressure	1,5 - 10 bar double solenoid 2,5 - 10 bar single solenoid
Nominal pressure	6 bar
Nominal flow	Qn = 1000 Nl/min
Nominal diameter	8 mm
Fluid	filtered air without lubrication. If lubricated air is used, it is recommended to use ISOVG32 oil, and to never interrupt the lubrication.

CODING EXAMPLE

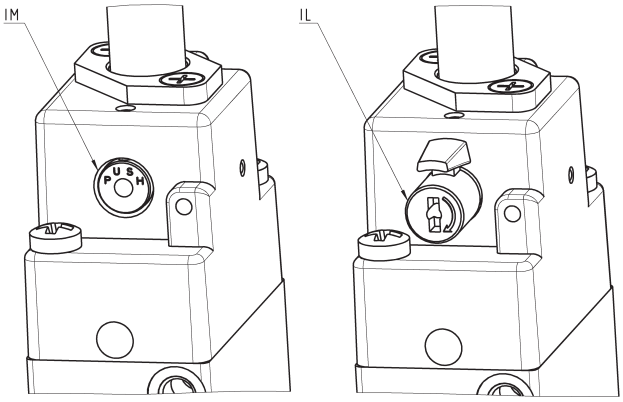
NA	5	4N	-	15	-	02	IL	-	U7	7

NA	SERIES NAMUR
5	NUMBER OF WAYS - POSITIONS: 3 = 3/2 NC 4 = 3/2 NO 5 = 5/2 6 = 5/3 CC 7 = 5/3 CO 8 = 5/3 CP
4N	PORTS: 4N = G1/4 supply ports according NAMUR standards
15	ACTUATION: 11 = double solenoid 15 = single solenoid, spring return 33 = pneumatic pneumatic 35 = pneumatic, spring
02	SOLENOID INTERFACE: 02 = mech. sol. 22 x 22
IL	TYPE OF MANUAL OVERRIDE: = bistable, standard IL = bistable, lever type (available on demand) IM = monostable (available on demand)
U7	SOLENOID MATERIAL / SOLENOID DIMENSIONS: A8 = PPS / 30 x 30 G7 = PA / 22 x 22 G8 = PA / 30 x 30 (24 V DC only) G9 = PA / 22 x 58 H8 = Self-extinguishing PA, Explosion-proof / 30 x 30 U7 = PET / 22 x 22
7	SOLENOID VOLTAGE (see the dedicated section 2.35)

TYPES OF MANUAL OVERRIDE

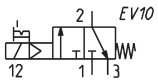


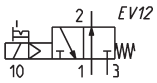
Example of solenoid valve with a bistable standard manual override.

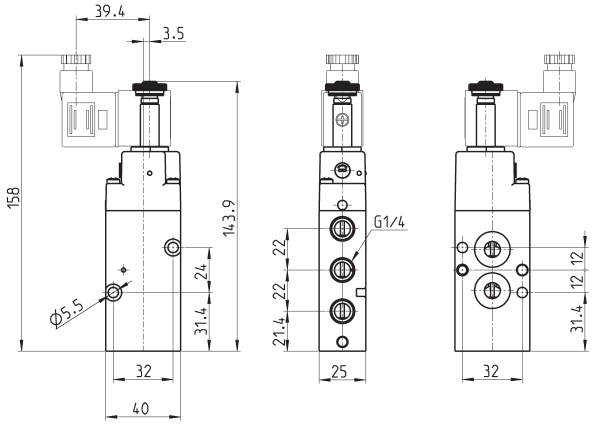


Example of solenoid monostable valve (IM) and bistable valve with a lever type manual override (IL).

3/2-way solenoid valve NC and NO

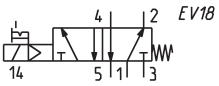


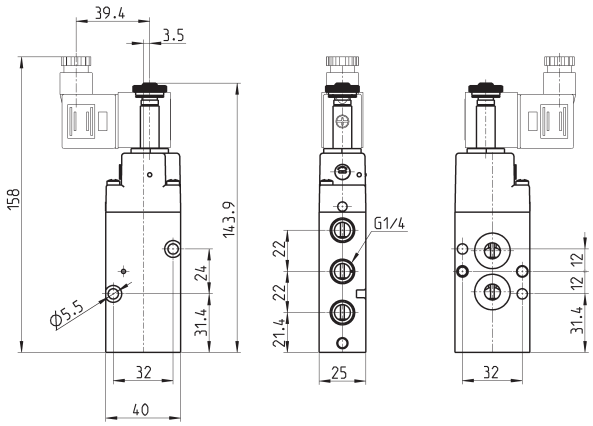




Mod.	Symbol
NA34N-15-02	EV10
NA44N-15-02	EV12

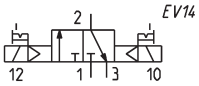
5/2-way solenoid valve, monostable

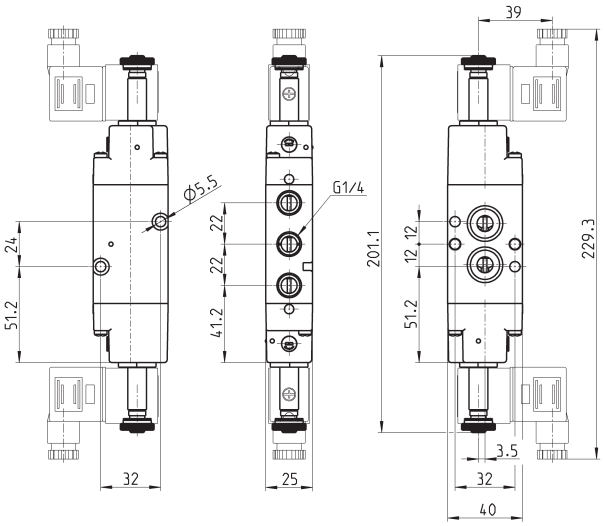




Mod.
NA54N-15-02

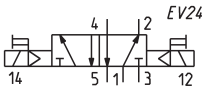
3/2-way solenoid valve, bistable

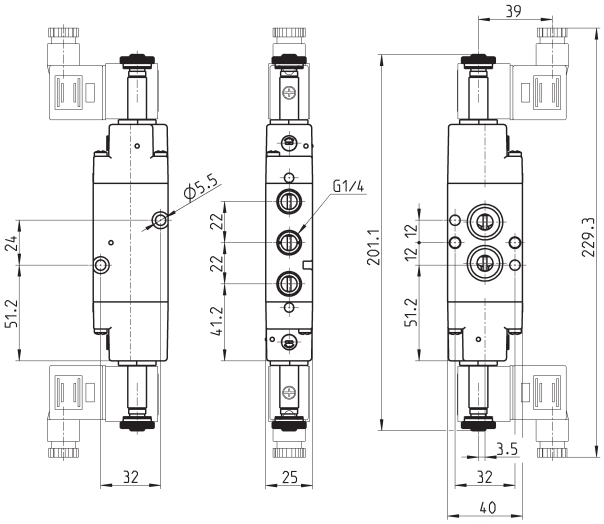




Mod.
NA34N-11-02

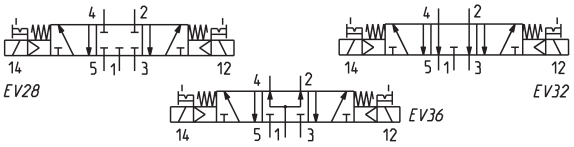
5/2-way, solenoid valve, bistable

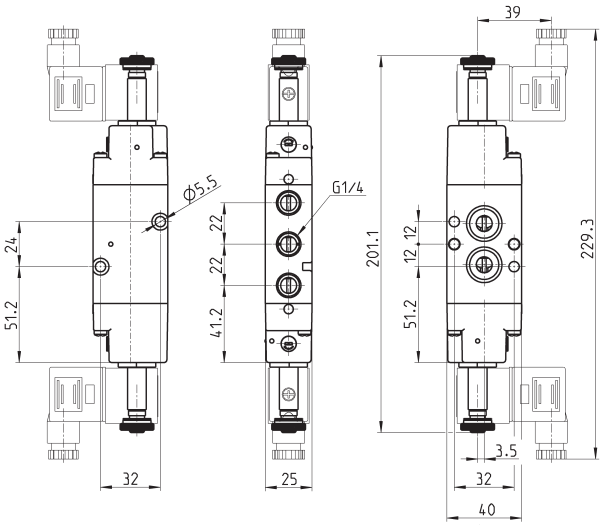




Mod.
NA54N-11-02

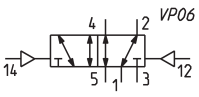
5/3-way solenoid valve CC CO CP

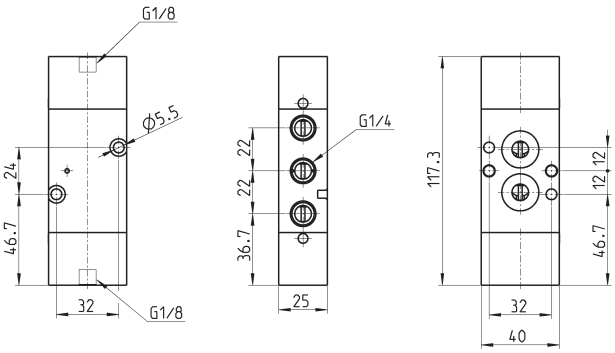




Mod.	Symbol
NA64N-11-02	EV28
NA74N-11-02	EV32
NA84N-11-02	EV36

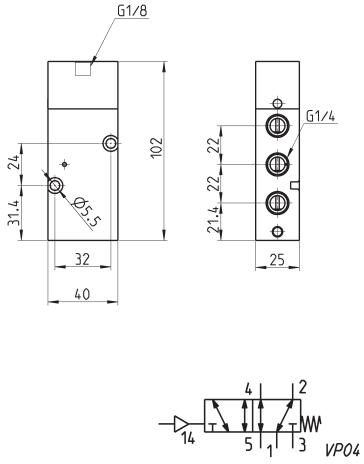
5/2-way pneumatic valve, bistable





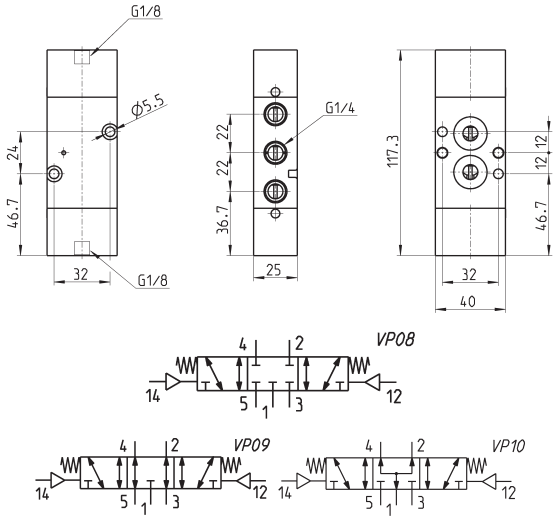
Mod.
NA54N-33

5/2-way pneumatic valve, monostable



Mod.
NA54N-35

5/3-way pneumatic valve CC CO CP

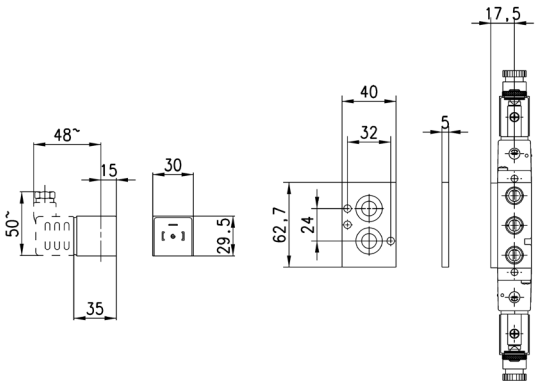


Mod.	
NA64N-33	VP08
NA74N-33	VP09
NA84N-33	VP10

Single subbase Mod. NA54-PC

Distance plate for the mounting of Series H8 solenoids

Supplied with:
2x screws
2x O-rings



Mod.
NA54-PC

Series ASX
angle seat valves

New

2/2-way - Normally Closed (NC) and Normally Open (NO)
2/2-way - Double Acting (DA)

- High flow
- Low resistance of the flow
- Anti-water hammer design
- Compliant with Directive PED 2014/68/UE
- Compliant with Directive ATEX for Zones 1/21 - II 2G Ex h IIC T4 Gb and II 2D Ex h IIIC T135 °C Db -10≤ Ta ≤+80 °C

Angle seat valves are available in different versions with regard to nominal diameter, type of fluid and process connections.
They are able to manage media that are corrosive or contain suspended solid particulate matter and can be used in applications with high operating temperatures.

The operation is determined by the pneumatic drive of a single acting, guided piston actuator with spring return.
There are also models available with double acting actuators, without spring.
For liquid media we recommend the models with flow direction under the seat.
For gas or steam we recommend the models with flow direction above the seat.

GENERAL DATA

TECHNICAL FEATURES	
Function	2/2 NC - 2/2 NO - 2/2 Double Acting
Operation	pneumatic, poppet type
Pneumatic connections	1/4 ... 4" with BSP/BSPT/NPT threads, flanged, welding ends, tri-clamp
Nominal diameter	DN8 ... DN100
Flow coefficient Kv (m^3/h)	2.2 ... 132
Operating pressure	0 ÷ 2 ... 16 bar
Operating temperature	-10 ÷ 180 °C (standard seals) / 25 ÷ 220 °C (high temperature seals)
Media	water, air, steam, inert or corrosive liquids and gases (compatible with the materials in contact)
Viscosity	600 cSt. max
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	316 stainless steel (DN8 ÷ DN80) / 304 stainless steel (DN100)
Seals	PTFE
Internal parts	316 stainless steel
SPECIFICATIONS PNEUMATIC ACTUATOR	
Actuator dimensions	Ø40 - Ø50 - Ø63 - Ø90 - Ø125 mm
Actuator material	304 stainless steel / aluminium (only for Ø125 mm)
Piston material	aluminium
Piston seal material	FKM
Piloting fluid	air or inert gases
Piloting pressure	10 bar max.
Actuator position	360° rotatable

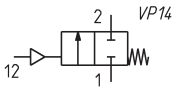
CODING EXAMPLE

AS	X	2	1	-	W	015	G1	-	040	1	2	-	

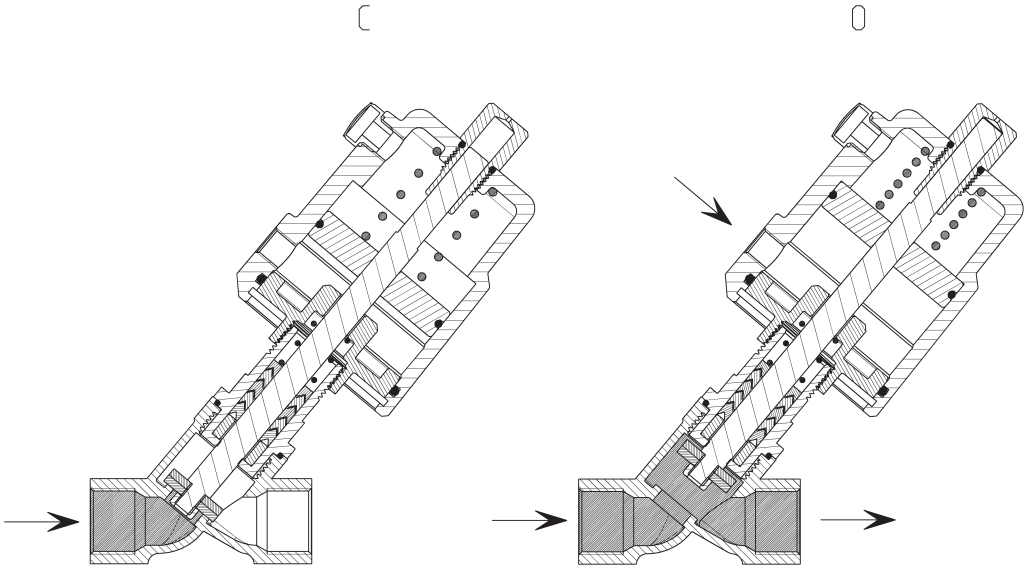
AS	SERIES
X	TYPE OF ACTUATOR X = metal actuator
2	BODY MATERIAL 1 = 304 stainless steel (DN 100) 2 = 316 stainless steel (DN8 ÷ DN80)
1	NUMBER OF WAYS - FUNCTIONS 0 = 2/2-way NO 1 = 2/2-way NC 3 = 2/2-way DA (Double Acting)
W	FLOW DIRECTION W = under the seat (anti-water hammer) Y = above the seat
015	NOMINAL DIAMETER 008 = DN 8 010 = DN 10 015 = DN 15 020 = DN 20 025 = DN 25 032 = DN 32 040 = DN 40 050 = DN 50 065 = DN 65 080 = DN 80 100 = DN 100 - only for flanged version with NC and DA function and pressure under the seat
G1	BODY CONNECTION G1 = BSP thread DIN 228-1 T1 = BSPT thread DIN 2999-1 N1 = NPT thread ASME B1.20.1 H7 = welding ends DIN 11850-2 / DIN 11866-A H8 = welding ends DIN 11850-3 K7 = tri-clamp ISO 2852 F2 = flange DIN 2543
040	ACTUATOR DIMENSION 040 = Ø40 mm 050 = Ø50 mm 063 = Ø63 mm 090 = Ø90 mm 125 = Ø125 mm
1	ACTUATOR MATERIAL 1 = 304 stainless steel 8 = aluminium
2	SEALS 2 = for standard temperatures -10 ÷ 180 °C 3 = for high temperatures 25 ÷ 220 °C
	OPTIONS = none PS1 = NPN type proximity switch - NO contact - 10 ÷ 30 V DC power supply PS2 = NPN type proximity switch - NC contact - 10 ÷ 30 V DC power supply PS3 = PNP type proximity switch - NO contact - 10 ÷ 30 V DC power supply PS4 = NPN type proximity switch - NC contact - 10 ÷ 30 V DC power supply PS5 = SCR type proximity switch - NO contact - 20 ÷ 250 V AC power supply PS6 = SCR type proximity switch - NC contact - 20 ÷ 250 V AC power supply SL1 = stroke limiter for Ø50 - Ø63 mm actuators SL2 = stroke limiter for Ø90 mm actuators PI1 = position indicator for Ø40 - Ø50 - Ø63 - Ø90 mm actuators PI2 = position indicator for Ø125 mm actuators

Series ASX angle seat valve - 2/2-way NC - pressure under the seat

The valves with flow direction under the seat are suitable for uncompressible fluids. This function prevents the hydraulic water hammer effect.
NOTE TO THE TABLE:
The indicated models are suitable for operating temperatures from -10 to +180 °C. For higher temperatures, please see the CODING EXAMPLE.
* to complete the code add BODY CONNECTION.



DRAWING LEGEND:
C = valve in closed position
O = valve in open position



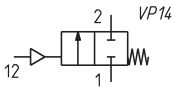
DIMENSIONS

Mod.	Function	DN	Ports	Orifice Ø (mm)	Kv (m^3/h)	Differential pressure min ÷ max (bar)	Minimum piloting pressure (bar)	Actuator Ø (mm)	Actuator material
ASX21-W008*-04012	2/2 NC	8	1/4"	13	2.2	0 ÷ 13	≥ 4	40	304 stainless steel
ASX21-W008*-05012	2/2 NC	8	1/4"	13	2.2	0 ÷ 14	≥ 4.5	50	304 stainless steel
ASX21-W010*-04012	2/2 NC	10	3/8"	13	3.9	0 ÷ 13	≥ 4	40	304 stainless steel
ASX21-W010*-05012	2/2 NC	10	3/8"	13	3.9	0 ÷ 14	≥ 4.5	50	304 stainless steel
ASX21-W015*-04012	2/2 NC	15	1/2"	13	4.3	0 ÷ 13	≥ 4	40	304 stainless steel
ASX21-W015*-05012	2/2 NC	15	1/2"	13	4.3	0 ÷ 14	≥ 4.5	50	304 stainless steel
ASX21-W020*-05012	2/2 NC	20	3/4"	18	7.6	0 ÷ 14	≥ 4.5	50	304 stainless steel
ASX21-W025*-05012	2/2 NC	25	1"	24	15.8	0 ÷ 8	≥ 4.5	50	304 stainless steel
ASX21-W025*-06312	2/2 NC	25	1"	24	15.8	0 ÷ 13	≥ 5	63	304 stainless steel
ASX21-W032*-06312	2/2 NC	32	1 1/4"	31	26	0 ÷ 6	≥ 5	63	304 stainless steel
ASX21-W032*-09012	2/2 NC	32	1 1/4"	31	26	0 ÷ 16	≥ 6	90	304 stainless steel
ASX21-W040*-06312	2/2 NC	40	1 1/2"	35	32	0 ÷ 5	≥ 5	63	304 stainless steel
ASX21-W040*-09012	2/2 NC	40	1 1/2"	35	32	0 ÷ 16	≥ 6	90	304 stainless steel
ASX21-W050*-06312	2/2 NC	50	2"	45	52	0 ÷ 5	≥ 5	63	304 stainless steel
ASX21-W050*-09012	2/2 NC	50	2"	45	52	0 ÷ 10	≥ 6	90	304 stainless steel
ASX21-W050*-12582	2/2 NC	50	2"	45	52	0 ÷ 16	≥ 5.5	125	aluminium
ASX21-W065*-09012	2/2 NC	65	2 1/2"	61	83.2	0 ÷ 5	≥ 6	90	304 stainless steel
ASX21-W065*-12582	2/2 NC	65	2 1/2"	61	83.2	0 ÷ 9	≥ 5.5	125	aluminium
ASX21-W080*-12582	2/2 NC	80	3"	80	119	0 ÷ 5	≥ 5.5	125	aluminium
ASX11-W100F2-12582	2/2 NC	100	4"	90	132	0 ÷ 2.5	≥ 5.5	125	aluminium

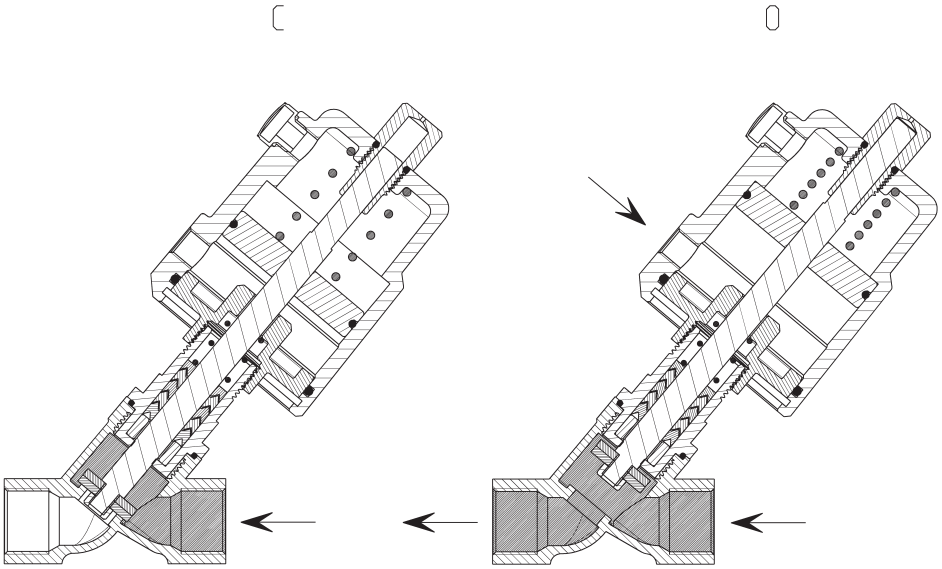
Series ASX angle seat valve - 2/2-way NC - pressure above the seat

The valves with flow direction above the seat are suitable for compressible fluids.

NOTE TO THE TABLE:
The indicated models are suitable for operating temperatures from -10 to +180 °C. For higher temperatures, please see the CODING EXAMPLE.
* to complete the code add BODY CONNECTION.



DRAWING LEGEND:
C = valve in closed position
O = valve in open position

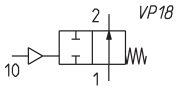


DIMENSIONS

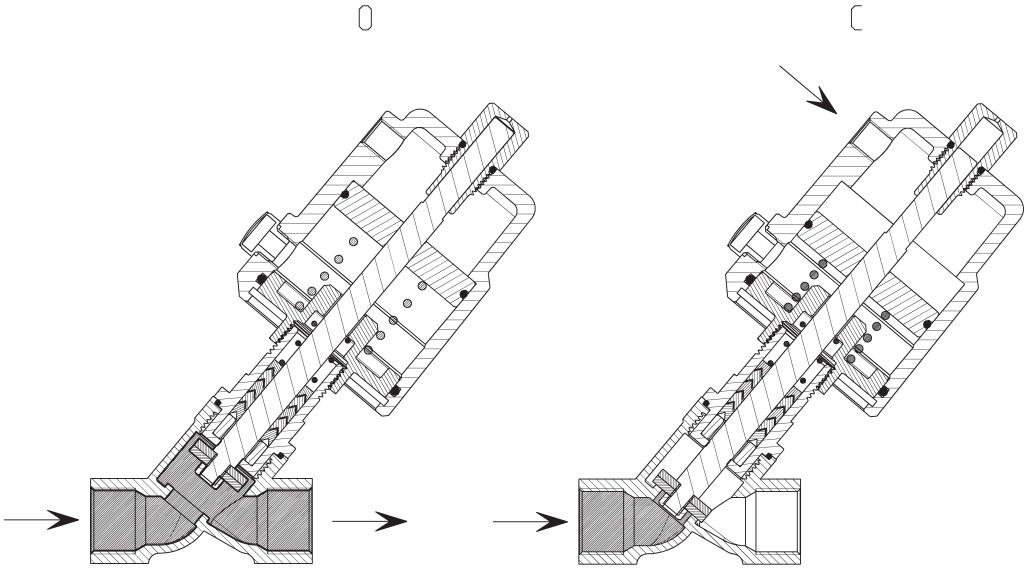
Mod.	Function	DN	Ports	Orifice Ø (mm)	Kv (m^3/h)	Differential pressure min ÷ max (bar)	Minimum piloting pressure (bar)	Actuator Ø (mm)	Actuator material
ASX21-Y008*-04012	2/2 NC	8	1/4"	13	2.2	0 ÷ 16	3 ÷ 4.5	40	304 stainless steel
ASX21-Y008*-05012	2/2 NC	8	1/4"	13	2.2	0 ÷ 16	3 ÷ 3.5	50	304 stainless steel
ASX21-Y010*-04012	2/2 NC	10	3/8"	13	3.9	0 ÷ 16	3 ÷ 4.5	40	304 stainless steel
ASX21-Y010*-05012	2/2 NC	10	3/8"	13	3.9	0 ÷ 16	3 ÷ 3.5	50	304 stainless steel
ASX21-Y015*-04012	2/2 NC	15	1/2"	13	4.3	0 ÷ 16	3 ÷ 4.5	40	304 stainless steel
ASX21-Y015*-05012	2/2 NC	15	1/2"	13	4.3	0 ÷ 16	3 ÷ 3.5	50	304 stainless steel
ASX21-Y020*-05012	2/2 NC	20	3/4"	18	7.6	0 ÷ 16	3 ÷ 4	50	304 stainless steel
ASX21-Y025*-05012	2/2 NC	25	1"	24	15.8	0 ÷ 16	3 ÷ 4.5	50	304 stainless steel
ASX21-Y025*-06312	2/2 NC	25	1"	24	15.8	0 ÷ 16	3 ÷ 3.5	63	304 stainless steel
ASX21-Y032*-06312	2/2 NC	32	1 1/4"	31	26	0 ÷ 16	3 ÷ 5.5	63	304 stainless steel
ASX21-Y032*-09012	2/2 NC	32	1 1/4"	31	26	0 ÷ 16	3 ÷ 3.5	90	304 stainless steel
ASX21-Y040*-06312	2/2 NC	40	1 1/2"	35	32	0 ÷ 16	3 ÷ 6.5	63	304 stainless steel
ASX21-Y040*-09012	2/2 NC	40	1 1/2"	35	32	0 ÷ 16	3 ÷ 4	90	304 stainless steel
ASX21-Y050*-06312	2/2 NC	50	2"	45	52	0 ÷ 9	3 ÷ 7	63	304 stainless steel
ASX21-Y050*-09012	2/2 NC	50	2"	45	52	0 ÷ 16	3 ÷ 4.5	90	304 stainless steel
ASX21-Y050*-12582	2/2 NC	50	2"	45	52	0 ÷ 16	3 ÷ 4	125	aluminium
ASX21-Y065*-09012	2/2 NC	65	2 1/2"	61	83.2	0 ÷ 10	3 ÷ 6	90	304 stainless steel
ASX21-Y065*-12582	2/2 NC	65	2 1/2"	61	83.2	0 ÷ 16	3 ÷ 4	125	aluminium
ASX21-Y080*-12582	2/2 NC	80	3"	80	119	0 ÷ 12	3 ÷ 7	125	aluminium

Series ASX angle seat valve - 2/2-way NO - pressure under the seat

The valves with flow direction under the seat are suitable for uncompressible fluids. This function prevents the hydraulic water hammer effect.
NOTE TO THE TABLE:
The indicated models are suitable for operating temperatures from -10 to +180 °C. For higher temperatures, please see the CODING EXAMPLE.
* to complete the code add BODY CONNECTION.



DRAWING LEGEND:
C = valve in closed position
O = valve in open position



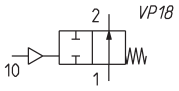
DIMENSIONS

Mod.	Function	DN	Ports	Orifice Ø (mm)	Kv (m^3/h)	Differential pressure min ÷ max (bar)	Minimum piloting pressure (bar)	Actuator Ø (mm)	Actuator material
ASX20-W008*-04012	2/2 NO	8	1/4"	13	2.2	0 ÷ 16	3 ÷ 5	40	304 stainless steel
ASX20-W008*-05012	2/2 NO	8	1/4"	13	2.2	0 ÷ 16	3 ÷ 4	50	304 stainless steel
ASX20-W010*-04012	2/2 NO	10	3/8"	13	3.9	0 ÷ 16	3 ÷ 5	40	304 stainless steel
ASX20-W010*-05012	2/2 NO	10	3/8"	13	3.9	0 ÷ 16	3 ÷ 4	50	304 stainless steel
ASX20-W015*-04012	2/2 NO	15	1/2"	13	4.3	0 ÷ 16	3 ÷ 5	40	304 stainless steel
ASX20-W015*-05012	2/2 NO	15	1/2"	13	4.3	0 ÷ 16	3 ÷ 4	50	304 stainless steel
ASX20-W020*-05012	2/2 NO	20	3/4"	18	7.6	0 ÷ 16	3 ÷ 6	50	304 stainless steel
ASX20-W025*-05012	2/2 NO	25	1"	24	15.8	0 ÷ 13	3 ÷ 6	50	304 stainless steel
ASX20-W025*-06312	2/2 NO	25	1"	24	15.8	0 ÷ 16	3 ÷ 5	63	304 stainless steel
ASX20-W032*-06312	2/2 NO	32	1 1/4"	31	26	0 ÷ 13	3 ÷ 6	63	304 stainless steel
ASX20-W040*-06312	2/2 NO	40	1 1/2"	35	32	0 ÷ 7	3 ÷ 6	63	304 stainless steel
ASX20-W040*-09012	2/2 NO	40	1 1/2"	35	32	0 ÷ 16	3 ÷ 3.5	90	304 stainless steel
ASX20-W050*-06312	2/2 NO	50	2"	45	52	0 ÷ 5	3 ÷ 6	63	304 stainless steel
ASX20-W050*-09012	2/2 NO	50	2"	45	52	0 ÷ 12	3 ÷ 6	90	304 stainless steel
ASX20-W065*-09012	2/2 NO	65	2 1/2"	61	83.2	0 ÷ 7.5	3 ÷ 5	90	304 stainless steel
ASX20-W065*-12582	2/2 NO	65	2 1/2"	61	83.2	0 ÷ 14	3 ÷ 7	125	aluminium
ASX20-W080*-12582	2/2 NO	80	3"	80	119	0 ÷ 12	3 ÷ 7	125	aluminium

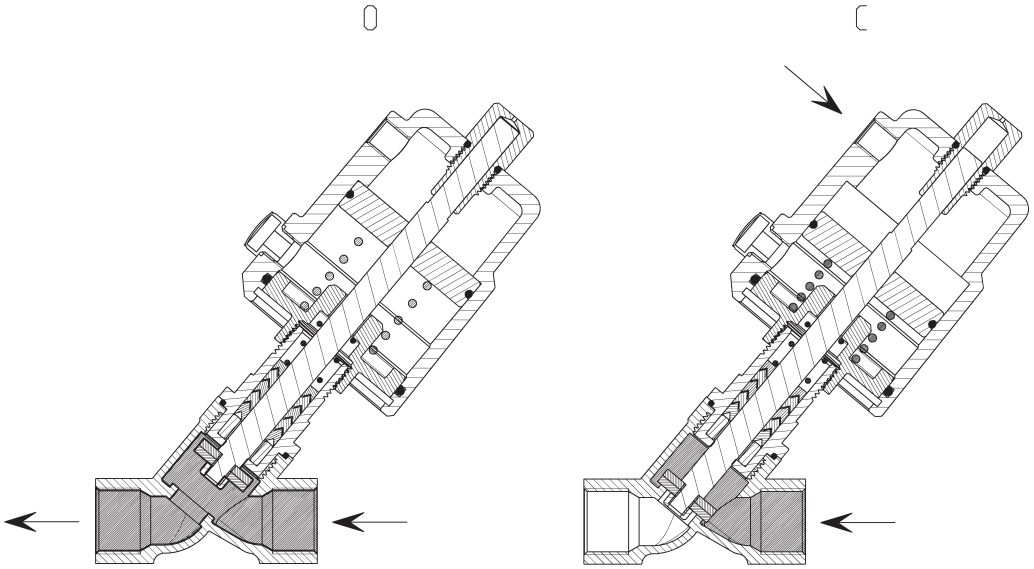
Series ASX angle seat valve - 2/2-way NO - pressure above the seat

The valves with flow direction above the seat are suitable for compressible fluids.

NOTE TO THE TABLE:
The indicated models are suitable for operating temperatures from -10 to +180 °C. For higher temperatures, please see the CODING EXAMPLE.
* to complete the code add BODY CONNECTION.



DRAWING LEGEND:
C = valve in closed position
O = valve in open position

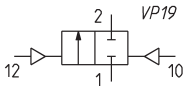


DIMENSIONS

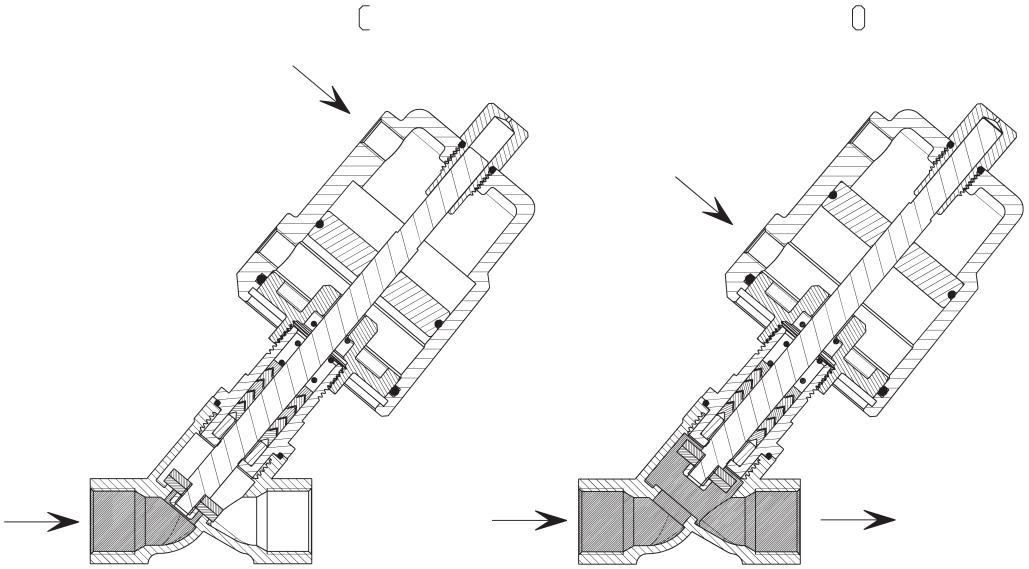
Mod.	Function	DN	Ports	Orifice Ø (mm)	Kv (m^3/h)	Differential pressure min ÷ max (bar)	Minimum piloting pressure (bar)	Actuator Ø (mm)	Actuator material
ASX20-Y008*-04012	2/2 NO	8	1/4"	13	2.2	0 ÷ 16	≥ 3	40	304 stainless steel
ASX20-Y008*-05012	2/2 NO	8	1/4"	13	2.2	0 ÷ 16	≥ 3	50	304 stainless steel
ASX20-Y010*-04012	2/2 NO	10	3/8"	13	3.9	0 ÷ 16	≥ 3	40	304 stainless steel
ASX20-Y010*-05012	2/2 NO	10	3/8"	13	3.9	0 ÷ 16	≥ 3	50	304 stainless steel
ASX20-Y015*-04012	2/2 NO	15	1/2"	13	4.3	0 ÷ 16	≥ 3	40	304 stainless steel
ASX20-Y015*-05012	2/2 NO	15	1/2"	13	4.3	0 ÷ 16	≥ 3	50	304 stainless steel
ASX20-Y020*-05012	2/2 NO	20	3/4"	18	7.6	0 ÷ 12	≥ 3	50	304 stainless steel
ASX20-Y025*-05012	2/2 NO	25	1"	24	15.8	0 ÷ 3	≥ 3	50	304 stainless steel
ASX20-Y025*-06312	2/2 NO	25	1"	24	15.8	0 ÷ 16	≥ 4.5	63	304 stainless steel
ASX20-Y032*-06312	2/2 NO	32	1 1/4"	31	26	0 ÷ 14	≥ 4.5	63	304 stainless steel
ASX20-Y040*-06312	2/2 NO	40	1 1/2"	35	32	0 ÷ 14	≥ 4.5	63	304 stainless steel
ASX20-Y050*-06312	2/2 NO	50	2"	45	52	0 ÷ 6	≥ 4.5	63	304 stainless steel

Series ASX angle seat valve - 2/2-way DA - pressure under the seat

The valves with flow direction under the seat are suitable for uncompressible fluids. This function prevents the hydraulic water hammer effect.
NOTE TO THE TABLE:
The indicated models are suitable for operating temperatures from -10 to +180 °C. For higher temperatures, please see the CODING EXAMPLE.
* to complete the code add BODY CONNECTION.



DRAWING LEGEND:
C = valve in closed position
O = valve in open position



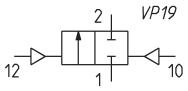
DIMENSIONS

Mod.	Function	DN	Ports	Orifice Ø (mm)	Kv (m^3/h)	Differential pressure min ÷ max (bar)	Minimum piloting pressure (bar)	Actuator Ø (mm)	Actuator material
ASX23-W008*-04012	2/2 DA	8	1/4"	13	2.2	0 ÷ 16	3 ÷ 4	40	304 stainless steel
ASX23-W008*-05012	2/2 DA	8	1/4"	13	2.2	0 ÷ 16	3 ÷ 4	50	304 stainless steel
ASX23-W010*-04012	2/2 DA	10	3/8"	13	3.9	0 ÷ 16	3 ÷ 4	40	304 stainless steel
ASX23-W010*-05012	2/2 DA	10	3/8"	13	3.9	0 ÷ 16	3 ÷ 4	50	304 stainless steel
ASX23-W015*-04012	2/2 DA	15	1/2"	13	4.3	0 ÷ 16	3 ÷ 4	40	304 stainless steel
ASX23-W015*-05012	2/2 DA	15	1/2"	13	4.3	0 ÷ 16	3 ÷ 4	50	304 stainless steel
ASX23-W020*-05012	2/2 DA	20	3/4"	18	7.6	0 ÷ 16	3 ÷ 4	50	304 stainless steel
ASX23-W025*-05012	2/2 DA	25	1"	24	15.8	0 ÷ 16	3 ÷ 6.5	50	304 stainless steel
ASX23-W025*-06312	2/2 DA	25	1"	24	15.8	0 ÷ 16	3 ÷ 5.5	63	304 stainless steel
ASX23-W032*-06312	2/2 DA	32	1 1/4"	31	26	0 ÷ 16	3 ÷ 7	63	304 stainless steel
ASX23-W032*-09012	2/2 DA	32	1 1/4"	31	26	0 ÷ 16	3 ÷ 4.5	90	304 stainless steel
ASX23-W040*-06312	2/2 DA	40	1 1/2"	35	32	0 ÷ 12	3 ÷ 7.5	63	304 stainless steel
ASX23-W040*-09012	2/2 DA	40	1 1/2"	35	32	0 ÷ 16	3 ÷ 5	90	304 stainless steel
ASX23-W050*-06312	2/2 DA	50	2"	45	52	0 ÷ 4	3 ÷ 7.5	63	304 stainless steel
ASX23-W050*-09012	2/2 DA	50	2"	45	52	0 ÷ 16	3 ÷ 6	90	304 stainless steel
ASX23-W050*-12582	2/2 DA	50	2"	45	52	0 ÷ 16	3 ÷ 4	125	aluminium
ASX23-W065*-09012	2/2 DA	65	2 1/2"	61	83.2	0 ÷ 10	3 ÷ 7.5	90	304 stainless steel
ASX23-W065*-12582	2/2 DA	65	2 1/2"	61	83.2	0 ÷ 16	3 ÷ 6	125	aluminium
ASX23-W080*-12582	2/2 DA	80	3"	80	119	0 ÷ 10	3 ÷ 7	125	aluminium
ASX13-W100F2-12582	2/2 DA	100	4"	90	132	0 ÷ 8	3 ÷ 7.5	125	aluminium

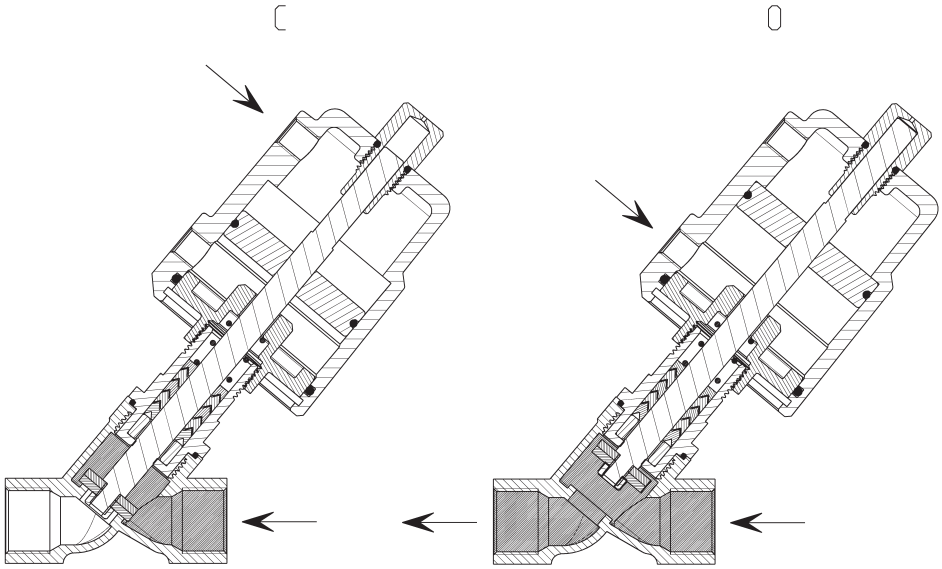
Series ASX angle seat valve - 2/2-way DA - pressure above the seat

The valves with flow direction above the seat are suitable for compressible fluids.

NOTE TO THE TABLE:
The indicated models are suitable for operating temperatures from -10 to +180 °C. For higher temperatures, please see the CODING EXAMPLE.
* to complete the code add BODY CONNECTION.

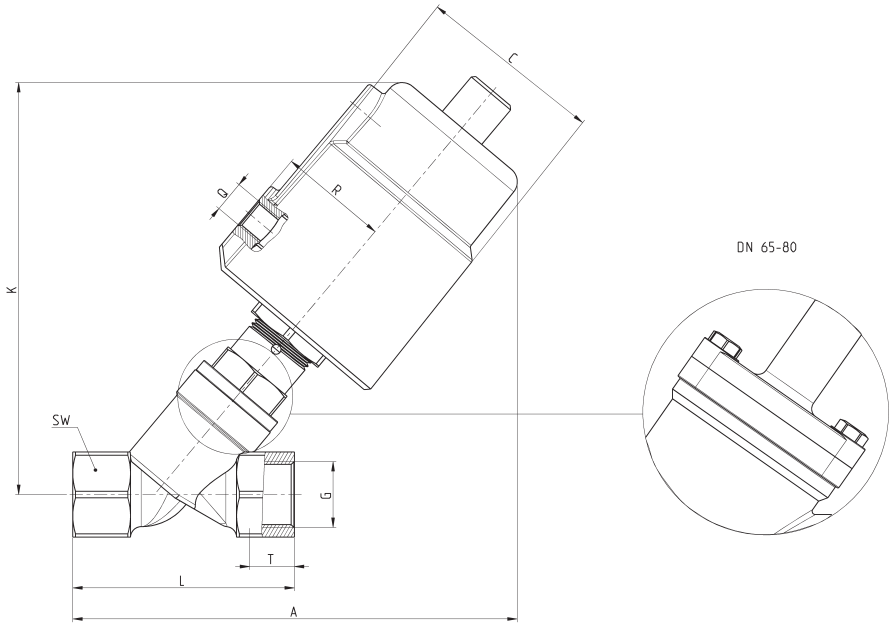


DRAWING LEGEND:
C = valve in closed position
O = valve in open position



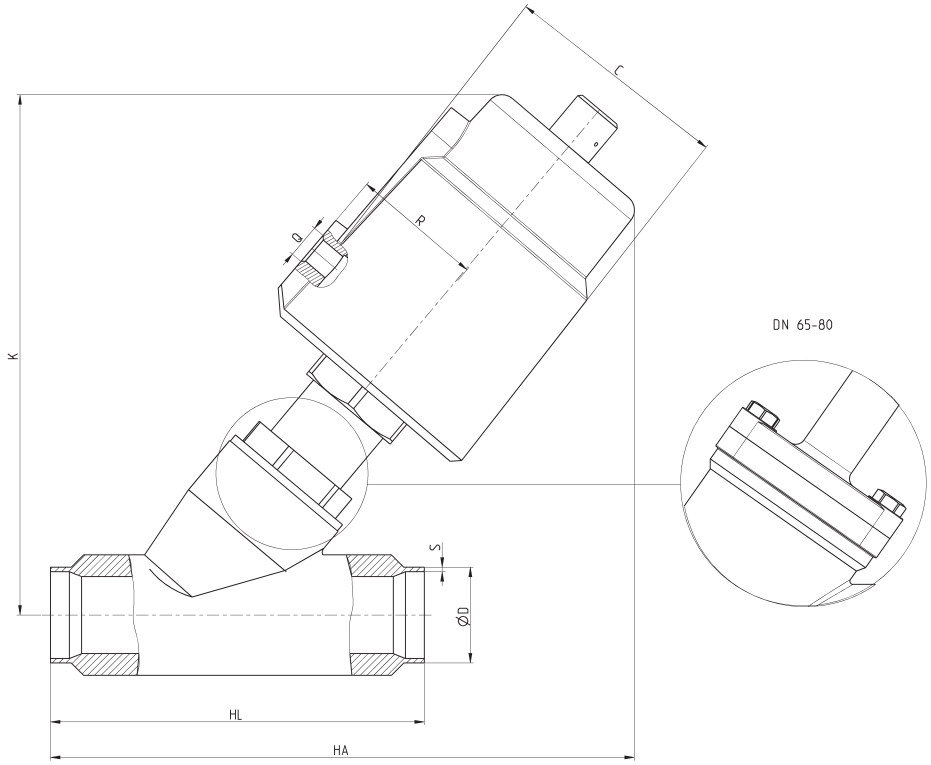
DIMENSIONS									
Mod.	Function	DN	Ports	Orifice Ø (mm)	Kv (m^3/h)	Differential pressure min ÷ max (bar)	Minimum piloting pressure (bar)	Actuator Ø (mm)	Actuator material
ASX23-Y008*-04012	2/2 DA	8	1/4"	13	2.2	0 ÷ 16	3 ÷ 4.5	40	304 stainless steel
ASX23-Y008*-05012	2/2 DA	8	1/4"	13	2.2	0 ÷ 16	3 ÷ 3.5	50	304 stainless steel
ASX23-Y010*-04012	2/2 DA	10	3/8"	13	3.9	0 ÷ 16	3 ÷ 4.5	40	304 stainless steel
ASX23-Y010*-05012	2/2 DA	10	3/8"	13	3.9	0 ÷ 16	3 ÷ 3.5	50	304 stainless steel
ASX23-Y015*-04012	2/2 DA	15	1/2"	13	4.3	0 ÷ 16	3 ÷ 4.5	40	304 stainless steel
ASX23-Y015*-05012	2/2 DA	15	1/2"	13	4.3	0 ÷ 16	3 ÷ 3.5	50	304 stainless steel
ASX23-Y020*-05012	2/2 DA	20	3/4"	18	7.6	0 ÷ 16	3 ÷ 4	50	304 stainless steel
ASX23-Y025*-05012	2/2 DA	25	1"	24	15.8	0 ÷ 16	3 ÷ 4.5	50	304 stainless steel
ASX23-Y025*-06312	2/2 DA	25	1"	24	15.8	0 ÷ 16	3 ÷ 3.5	63	304 stainless steel
ASX23-Y032*-06312	2/2 DA	32	1 1/4"	31	26	0 ÷ 16	3 ÷ 5.5	63	304 stainless steel
ASX23-Y032*-09012	2/2 DA	32	1 1/4"	31	26	0 ÷ 16	3 ÷ 4	90	304 stainless steel
ASX23-Y040*-06312	2/2 DA	40	1 1/2"	35	32	0 ÷ 16	3 ÷ 6.5	63	304 stainless steel
ASX23-Y040*-09012	2/2 DA	40	1 1/2"	35	32	0 ÷ 16	3 ÷ 4	90	304 stainless steel
ASX23-Y050*-06312	2/2 DA	50	2"	45	52	0 ÷ 10	3 ÷ 7	63	304 stainless steel
ASX23-Y050*-09012	2/2 DA	50	2"	45	52	0 ÷ 16	3 ÷ 4.5	90	304 stainless steel
ASX23-Y050*-12582	2/2 DA	50	2"	45	52	0 ÷ 16	3 ÷ 4	125	aluminium
ASX23-Y065*-09012	2/2 DA	65	2 1/2"	61	83.2	0 ÷ 10	3 ÷ 6	90	304 stainless steel
ASX23-Y065*-12582	2/2 DA	65	2 1/2"	61	83.2	0 ÷ 16	3 ÷ 4	125	aluminium
ASX23-Y080*-12582	2/2 DA	80	3"	80	119	0 ÷ 12	3 ÷ 7	125	aluminium

Series ASX angle seat valve - dimensions and weight - threaded version



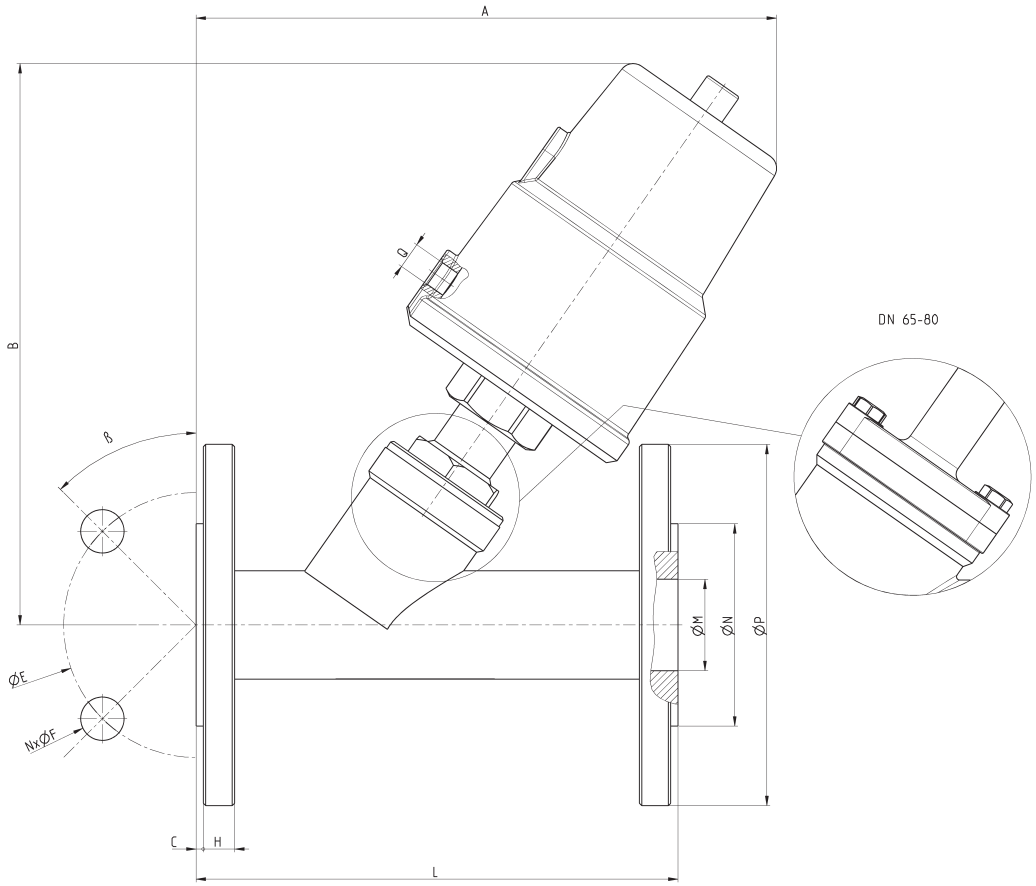
DIMENSIONS											WEIGHT	
DN	Actuator Ø (mm)	G	T	A	L	SW	C	R	K	Q	Below seat (Kgs)	Above seat (Kgs)
8	40	1/4"	12	124	68	27	50.5	27	112	1/8"	0.9	0.9
8	50	1/4"	12	135	68	27	60	33	125	1/8"	1.1	1.1
10	40	3/8"	12	124	68	27	50.5	27	112	1/8"	0.9	0.9
10	50	3/8"	12	135	68	27	60	33	125	1/8"	1.1	1.1
15	40	1/2"	15	124	68	27	50.5	27	112	1/8"	0.9	0.9
15	50	1/2"	15	135	68	27	60	33	125	1/8"	1.1	1.1
20	50	3/4"	16	140	75	32	60	33	132	1/8"	1.2	1.2
25	50	1"	17	150	90	40	60	33	136	1/8"	1.5	1.5
25	63	1"	17	172	90	40	75	41	162	1/8"	2.2	2.1
32	63	1 1/4"	21	190	116	50	75	41	174	1/8"	2.8	2.7
32	90	1 1/4"	21	235	116	50	106	55	223	1/8"	5.0	4.3
40	63	1 1/2"	21	190	116	56	75	41	175	1/8"	2.8	2.8
40	90	1 1/2"	21	235	116	56	106	55	223	1/8"	5.2	4.5
50	63	2"	22	205	138	69	75	41	183	1/8"	3.5	3.5
50	90	2"	22	250	138	69	106	55	232	1/8"	6.1	5.4
50	125	2"	22	305	138	69	170	85	300	1/4"	6.8	6.5
65	90	2 1/2"	26	275	178	85	106	55	280	1/8"	8.5	8.0
65	125	2 1/2"	26	320	178	85	170	85	330	1/4"	10.7	-
80	125	3"	27	340	210	100	170	85	355	1/4"	14.1	-

Series ASX angle seat valve - dimensions and weight - welding ends version



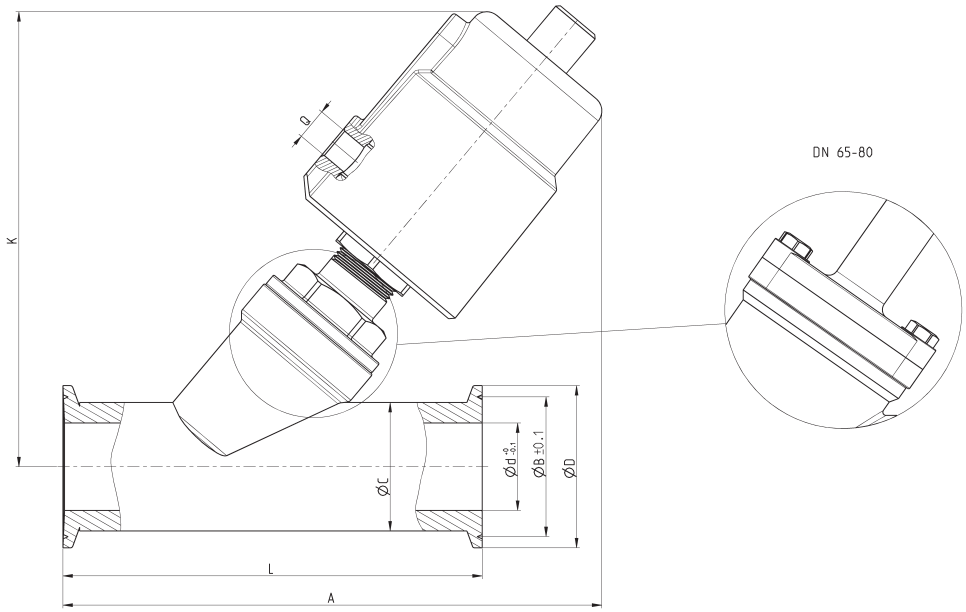
DIMENSIONS												WEIGHT	
DN	Actuator Ø (mm)	DIN11850-2 ØD	DIN11850-2 S	DIN11850-3 ØD	DIN11850-3 S	HA	HL	C	R	K	Q	Below seat (Kgs)	Above seat (Kgs)
15	40	19	1.5	20	2	118	70	50.5	27	112	1/8"	0.9	0.9
15	50	19	1.5	20	2	128	70	60	33	125	1/8"	1.1	1.1
20	50	23	1.5	24	2	135	82	60	33	132	1/8"	1.2	1.2
25	50	29	1.5	30	2	150	100	60	33	136	1/8"	1.5	1.5
25	63	29	1.5	30	2	175	100	75	41	162	1/8"	2.2	2.1
32	63	35	1.5	36	2	186	125	75	41	174	1/8"	2.6	2.5
32	90	35	1.5	36	2	232	125	106	55	223	1/8"	4.9	4.2
40	63	41	1.5	42	2	190	130	75	41	175	1/8"	2.8	2.8
40	90	41	1.5	42	2	235	130	106	55	223	1/8"	5.1	4.4
50	63	53	1.5	54	2	206	155	75	41	183	1/8"	3.4	3.4
50	90	53	1.5	54	2	250	155	106	55	232	1/8"	6.0	5.3
50	125	53	1.5	54	2	307	155	170	85	300	1/4"	6.7	6.5
65	90	70	2	-	-	320	270	106	55	280	1/8"	8.8	12.9
65	125	70	2	-	-	360	270	170	85	330	1/4"	10.7	-
80	125	85	2	-	-	360	284	170	85	355	1/4"	14.0	-

Series ASX angle seat valve - dimensions and weight - flanged version



DIMENSIONS														WEIGHT	
DN	Actuator Ø (mm)	ØM	ØN	ØP	ØE	NxØF	ß	A	B	L	C	H	Q	Below seat (Kgs)	Above seat (Kgs)
15	40	16	45	95	65	4x14	45°	135	125	130	2	14	1/8"	2.1	2.1
15	50	16	45	95	65	4x14	45°	145	140	130	2	14	1/8"	2.4	2.4
20	50	19	56	105	75	4x14	45°	165	140	150	2	14	1/8"	2.9	2.9
25	50	26	65	115	85	4x14	45°	170	145	160	2	14	1/8"	3.5	3.5
25	63	26	65	115	85	4x14	45°	190	175	160	2	14	1/8"	5.6	5.5
32	63	31	78	140	100	4x18	45°	190	188	180	2	16	1/8"	5.8	5.7
32	90	31	78	140	100	4x18	45°	230	235	180	2	16	1/8"	8.0	7.3
40	63	38	84	150	110	4x18	45°	206	190	200	3	16	1/8"	6.6	6.5
40	90	38	84	150	110	4x18	45°	250	240	200	3	16	1/8"	9.0	8.3
50	63	49	100	165	125	4x18	45°	235	195	230	3	16	1/8"	8.1	8.0
50	90	49	100	165	125	4x18	45°	277	245	230	3	16	1/8"	10.4	9.7
50	125	49	100	165	125	4x18	45°	330	310	230	3	16	1/4"	13.3	13.0
65	90	66	120	185	145	4x18	45°	330	280	290	3	18	1/8"	13.8	12.9
65	125	66	120	185	145	4x18	45°	375	330	290	3	18	1/4"	14.7	-
80	125	78	135	200	160	8x18	22.5°	380	355	310	3	20	1/4"	21.9	-
100	125	96	155	215	180	8x18	22.5°	420	395	350	3	20	1/4"	-	-

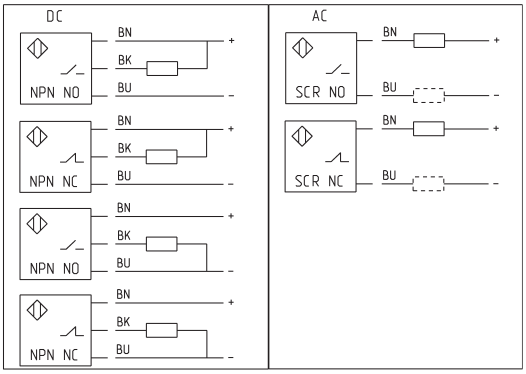
Series ASX angle seat valve - dimensions and weight - tri-clamp version



DIMENSIONS										WEIGHT	
DN	Actuator Ø (mm)	ØC	ØB	Ød	ØD	A	K	L	Q	Below seat (Kgs)	Above seat (Kgs)
15	40	19	27.5	15	34	130	115	80	1/8"	0.9	0.9
15	50	19	27.5	15	34	140	126	80	1/8"	1.1	1.1
20	50	25	43.5	19	50.5	158	148	130	1/8"	1.4	1.4
25	50	32	43.5	27	50.5	165	140	130	1/8"	1.6	1.6
25	63	32	43.5	27	50.5	188	166	130	1/8"	2.3	2.2
32	63	37	43.5	31	50.5	200	174	146	1/8"	2.7	2.6
32	90	37	43.5	31	50.5	245	223	146	1/8"	5.0	4.3
40	63	40	56.5	33	64	210	175	160	1/8"	3.0	2.9
40	90	40	56.5	33	64	255	223	160	1/8"	5.3	4.5
50	63	53	56.5	45	64	221	185	175	1/8"	3.4	2.4
50	90	53	56.5	45	64	265	235	175	1/8"	6.2	5.2
50	125	53	56.5	45	64	325	296	175	1/4"	7.0	6.7
65	90	75	83.5	66	91	325	280	278	1/8"	7.9	7.6
65	125	75	83.5	66	91	360	330	278	1/4"	11.3	-
80	125	89	97	78	106	360	352	290	1/4"	-	-

Series ASX angle seat valve - options - proximity switch

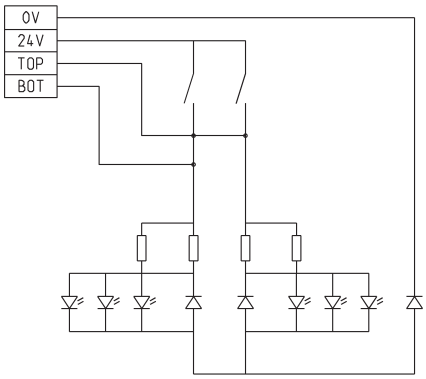
Available on all models of angle seat valves
to control the state of the open valve.
Type: NPN, NO or NC - PNP, NO or NC - SCR, NO o NC
Switching distance: 3 mm ± 10%
Operating temperature: -25 ÷ 70 °C
Body material: nickel-plated brass
Sensor material: ABS
Protection class: IP67



PS1	NPN type - NO contact - 10 ÷ 30 V DC power supply
PS2	NPN type - NC contact - 10 ÷ 30 V DC power supply
PS3	PNP type - NO contact - 10 ÷ 30 V DC power supply
PS4	PNP type - NC contact - 10 ÷ 30 V DC power supply
PS5	SCR type - NO contact - 20 ÷ 250 V AC power supply
PS6	SCR type - NC contact - 20 ÷ 250 V AC power supply

Series ASX angle seat valve - options - position indicator

Available on all models of angle seat valves
to control the state of the open and closed valve.
Type of limit switch: mechanical micro-switch
Operating voltage: 12 ÷ 36 V DC
Operating current: 25 mA / 24 V DC
Adjustment range: 5 ÷ 30 mm
Operating temperature: -30 ÷ 80 °C
Housing material: PA6/GF30 + PC
Protection class: IP65



Pl1	Position indicator for Ø40 - Ø50 - Ø63 - Ø90 mm actuators
Pl2	Position indicator for Ø125 mm actuators

Series ASX angle seat valve - options - stroke limiter

Available only for Ø50 - Ø63 - Ø90 mm actuators
to limit the actuator's stroke from 0 to 100%
in order to adjust the maximum flow.

SL1	Stroke limiter for Ø50 - Ø63 mm actuators
SL2	Stroke limiter for Ø90 mm actuators

Series ASP
angle seat valves

New

2/2-way - Normally Closed (NC) and Normally Open (NO)
2/2-way - Double Acting (DA)

- Differential pressure up to 20 bar
- High flow
- Low resistance of the flow
- Anti-water hammer design
- Compliant with Directive PED 2014/68/UE

The Series ASP angle seat valves are an efficient and cost-effective solution for fluid control. Their robustness is suitable for the most varied applications with inert gases and liquids, with steam or with fluids having solid particulates in suspension. Available with 3/8" to 2-1/2" threaded connections.

The operation is determined by the pneumatic drive of a single acting, guided piston actuator with spring return.
There are also models available with double acting actuators, without spring.
For liquid media we recommend the models with flow direction under the seat.
For gas or steam we recommend the models with flow direction above the seat.

GENERAL DATA

TECHNICAL FEATURES	
Function	2/2 NC - 2/2 NO - 2/2 Double Acting
Operation	pneumatic, poppet type
Pneumatic connections	3/8 ... 2-1/2" with BSP thread (NPT on demand)
Nominal diameter	DN10 ... DN65
Flow coefficient Kv (m^3/h)	2.6 ... 65
Operating pressure	0 ÷ 6 ... 20 bar
Operating temperature	-20 ÷ 130 °C
Media	water, air, steam, inert liquids and gases (compatible with the materials in contact)
Viscosity	600 cSt. max
Installation	in any position
MATERIALS IN CONTACT WITH THE MEDIUM	
Body	brass
Seals	EPDM
Internal parts	304 stainless steel
SPECIFICATIONS PNEUMATIC ACTUATOR	
Actuator dimensions	Ø50 - Ø63 - Ø80 - Ø100 mm
Actuator material	PA66 polyamide 30% GF
Piston material	aluminium
Piston seal material	PUR
Piloting fluid	air or inert gases
Piloting pressure	10 bar max.
Actuator position	360° rotatable

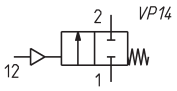
CODING EXAMPLE

AS	P	A	1	-	W	015	G1	-	050	P	2

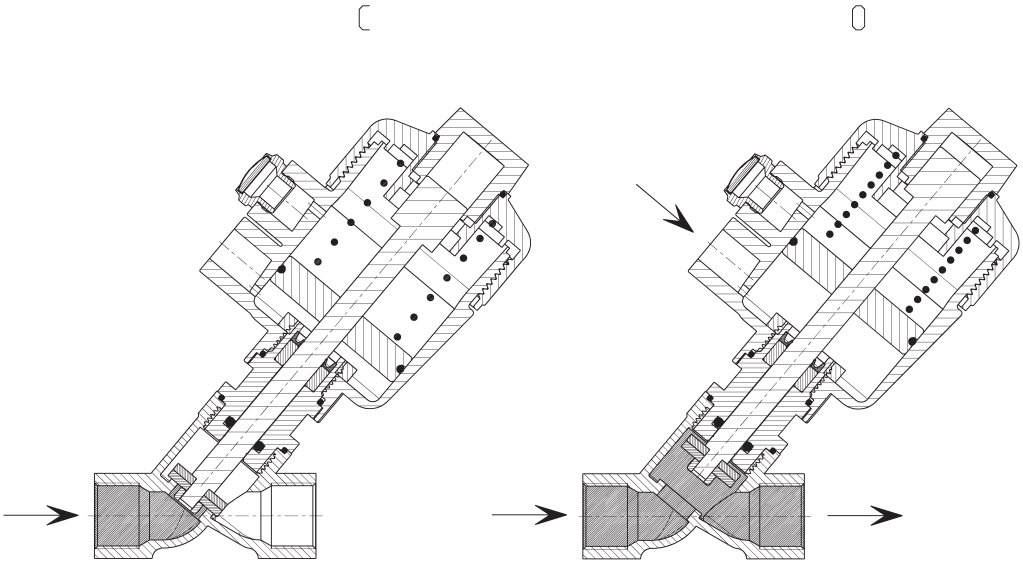
AS	SERIES
P	TYPE OF ACTUATOR P = technopolymer actuator
A	BODY MATERIAL A = brass
1	NUMBER OF WAYS - FUNCTIONS 0 = 2/2-way NO 1 = 2/2-way NC 3 = 2/2-way DA (Double Acting)
W	FLOW DIRECTION W = under the seat (liquids and gases, anti-water hammer) Y = above the seat (gases)
015	NOMINAL DIAMETER 010 = DN 10 015 = DN 15 020 = DN 20 025 = DN 25 032 = DN 32 040 = DN 40 050 = DN 50 065 = DN 65
G1	BODY CONNECTION G1 = BSP thread DIN 228-1 N1 = NPT thread ASME B1.20.1 (on demand)
050	ACTUATOR DIMENSION 050 = Ø50 mm 063 = Ø63 mm 080 = Ø80 mm 100 = Ø100 mm
P	ACTUATOR MATERIAL P = PA66 polyammide 30% GF
2	SEALS 2 = for standard temperatures -20 ÷ 130 °C

Series ASP angle seat valve - 2/2-way NC - pressure under the seat

The valves with flow direction under the seat are suitable for uncompressible fluids. This function prevents the hydraulic water hammer effect.



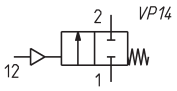
DRAWING LEGEND:
C = valve in closed position
O = valve in open position



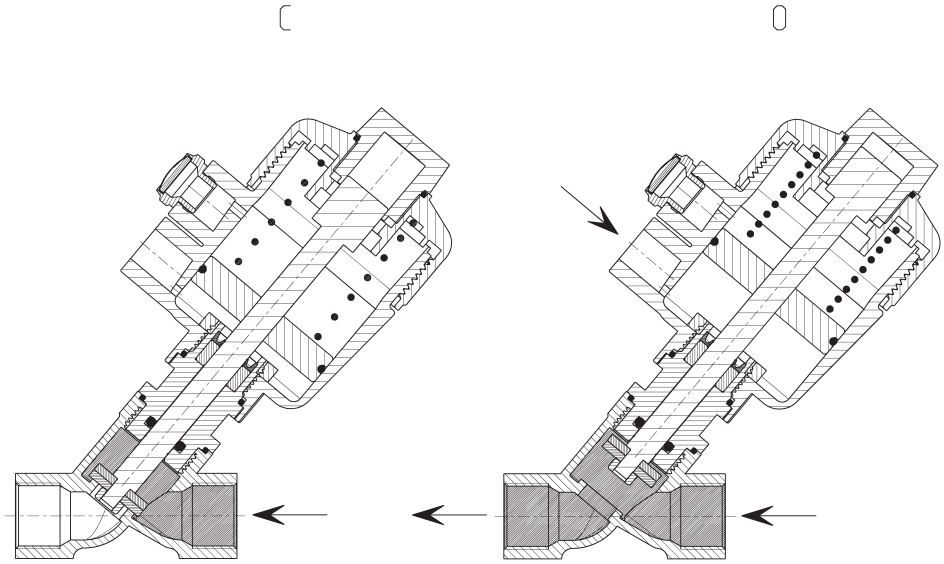
Mod.	Function	DN	Ports	Orifice Ø (mm)	Kv (m^3/h)	Differential pressure min ÷ max (bar)	Minimum piloting pressure (bar)	Actuator Ø(mm)	Actuator material
ASPA1-W010G1-050P2	2/2 NC	10	G3/8"	12	2.6	0 ÷ 20	≥ 6	50	PA66
ASPA1-W015G1-050P2	2/2 NC	15	G1/2"	12	3.5	0 ÷ 18	≥ 6	50	PA66
ASPA1-W015G1-063P2	2/2 NC	15	G1/2"	12	3.5	0 ÷ 20	≥ 6	63	PA66
ASPA1-W020G1-050P2	2/2 NC	20	G3/4"	17	8.6	0 ÷ 14	≥ 6	50	PA66
ASPA1-W020G1-063P2	2/2 NC	20	G3/4"	17	8.6	0 ÷ 18	≥ 6	63	PA66
ASPA1-W025G1-050P2	2/2 NC	25	G1"	21	9.7	0 ÷ 9	≥ 6	50	PA66
ASPA1-W025G1-063P2	2/2 NC	25	G1"	21	9.7	0 ÷ 14	≥ 6	63	PA66
ASPA1-W032G1-063P2	2/2 NC	32	G1 1/4"	30	26.7	0 ÷ 10	≥ 6	63	PA66
ASPA1-W032G1-080P2	2/2 NC	32	G1 1/4"	30	26.7	0 ÷ 16	≥ 6	80	PA66
ASPA1-W040G1-080P2	2/2 NC	40	G1 1/2"	37	40.4	0 ÷ 11	≥ 6	80	PA66
ASPA1-W040G1-100P2	2/2 NC	40	G1 1/2"	37	40.4	0 ÷ 20	≥ 6	100	PA66
ASPA1-W050G1-080P2	2/2 NC	50	G2"	46	55	0 ÷ 6	≥ 6	80	PA66
ASPA1-W050G1-100P2	2/2 NC	50	G2"	46	55	0 ÷ 12	≥ 6	100	PA66
ASPA1-W065G1-100P2	2/2 NC	65	2 1/2"	59	65	0 ÷ 6	≥ 6	100	PA66

Series ASP angle seat valve - 2/2-way NC - pressure above the seat

The valves with flow direction above the seat are suitable for compressible fluids.



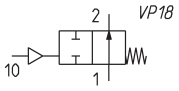
DRAWING LEGEND:
C = valve in closed position
O = valve in open position



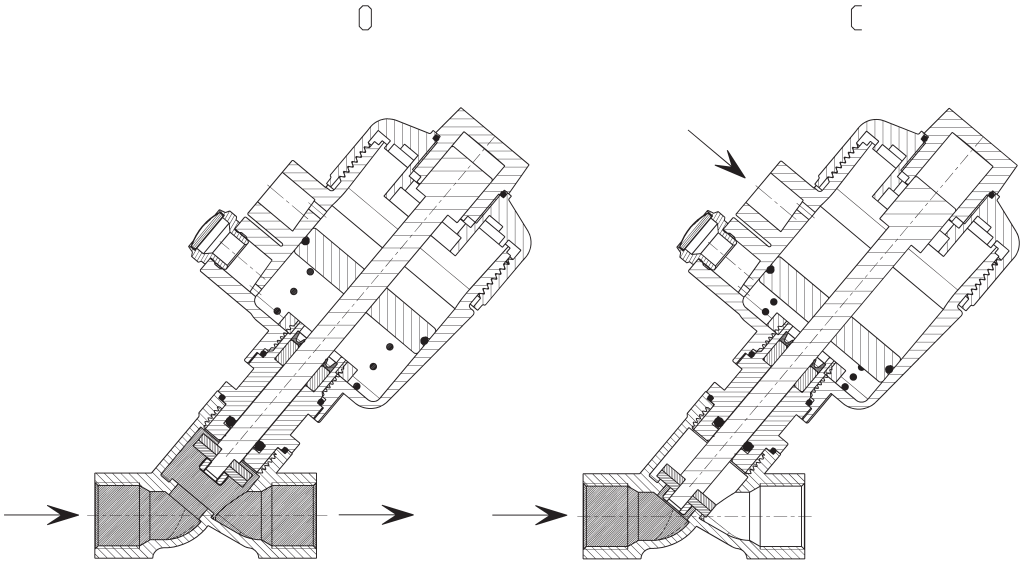
Mod.	Function	DN	Ports	Orifice Ø (mm)	Kv (m^3/h)	Differential pressure min ÷ max (bar)	Minimum piloting pressure (bar)	Actuator Ø(mm)	Actuator material
ASPA1-Y010G1-050P2	2/2 NC	10	G3/8"	12	2.6	0 ÷ 20	≥ 6	50	PA66
ASPA1-Y015G1-050P2	2/2 NC	15	G1/2"	12	3.5	0 ÷ 20	≥ 6	50	PA66
ASPA1-Y015G1-063P2	2/2 NC	15	G1/2"	12	3.5	0 ÷ 20	≥ 6	63	PA66
ASPA1-Y020G1-050P2	2/2 NC	20	G3/4"	17	8.6	0 ÷ 20	≥ 6	50	PA66
ASPA1-Y020G1-063P2	2/2 NC	20	G3/4"	17	8.6	0 ÷ 20	≥ 6	63	PA66
ASPA1-Y025G1-050P2	2/2 NC	25	G1"	21	9.7	0 ÷ 20	6 ÷ 8.8	50	PA66
ASPA1-Y025G1-063P2	2/2 NC	25	G1"	21	9.7	0 ÷ 20	≥ 6	63	PA66
ASPA1-Y032G1-063P2	2/2 NC	32	G1 1/4"	30	26.7	0 ÷ 20	6 ÷ 8	63	PA66
ASPA1-Y032G1-080P2	2/2 NC	32	G1 1/4"	30	26.7	0 ÷ 20	6 ÷ 7.5	80	PA66
ASPA1-Y040G1-080P2	2/2 NC	40	G1 1/2"	37	40.4	0 ÷ 20	6 ÷ 9	80	PA66
ASPA1-Y040G1-100P2	2/2 NC	40	G1 1/2"	37	40.4	0 ÷ 20	6 ÷ 6.7	100	PA66
ASPA1-Y050G1-080P2	2/2 NC	50	G2"	46	55	0 ÷ 14	6 ÷ 10	80	PA66
ASPA1-Y050G1-100P2	2/2 NC	50	G2"	46	55	0 ÷ 20	6 ÷ 7.8	100	PA66
ASPA1-Y065G1-100P2	2/2 NC	65	2 1/2"	59	65	0 ÷ 16	6 ÷ 8.2	100	PA66

Series ASP angle seat valve - 2/2-way NO - pressure under the seat

The valves with flow direction under the seat are suitable for uncompressible fluids. This function prevents the hydraulic water hammer effect.



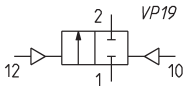
DRAWING LEGEND:
C = valve in closed position
O = valve in open position



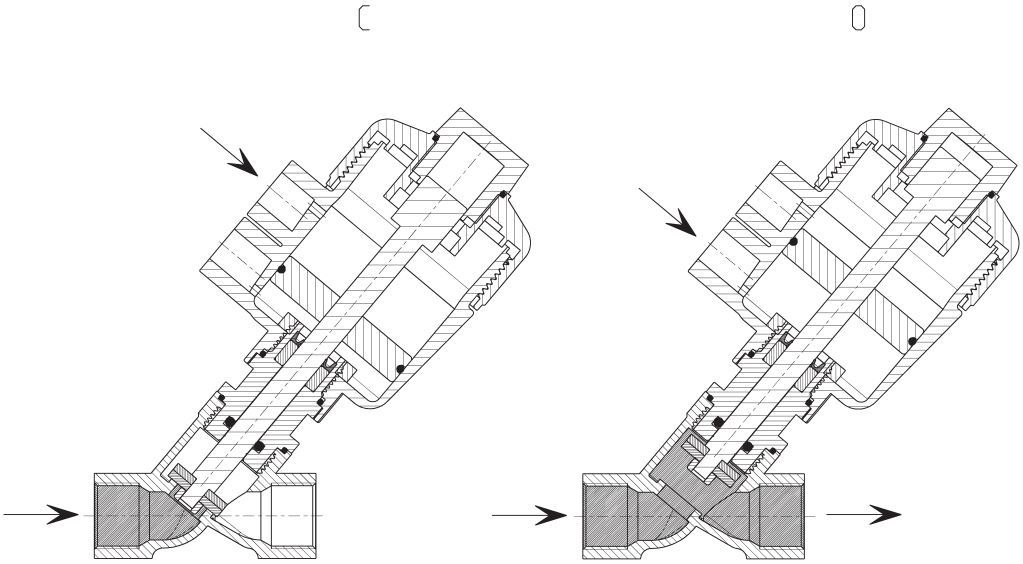
Mod.	Function	DN	Ports	Orifice Ø (mm)	Kv (m^3/h)	Differential pressure min ÷ max (bar)	Minimum piloting pressure (bar)	Actuator Ø(mm)	Actuator material
ASPA0-W010G1-050P2	2/2 NO	10	G3/8"	12	2.6	0 ÷ 20	≥ 6	50	PA66
ASPA0-W015G1-050P2	2/2 NO	15	G1/2"	12	3.5	0 ÷ 20	≥ 6	50	PA66
ASPA0-W015G1-063P2	2/2 NO	15	G1/2"	12	3.5	0 ÷ 20	≥ 6	63	PA66
ASPA0-W020G1-050P2	2/2 NO	20	G3/4"	17	8.6	0 ÷ 20	6 ÷ 6.3	50	PA66
ASPA0-W020G1-063P2	2/2 NO	20	G3/4"	17	8.6	0 ÷ 20	≥ 6	63	PA66
ASPA0-W025G1-050P2	2/2 NO	25	G1"	21	9.7	0 ÷ 20	6 ÷ 8.7	50	PA66
ASPA0-W025G1-063P2	2/2 NO	25	G1"	21	9.7	0 ÷ 20	6 ÷ 6.3	63	PA66
ASPA0-W032G1-063P2	2/2 NO	32	G1 1/4"	30	26.7	0 ÷ 20	6 ÷ 9.3	63	PA66
ASPA0-W032G1-080P2	2/2 NO	32	G1 1/4"	30	26.7	0 ÷ 20	≥ 6	80	PA66
ASPA0-W040G1-080P2	2/2 NO	40	G1 1/2"	37	40.4	0 ÷ 20	6 ÷ 8.5	80	PA66
ASPA0-W040G1-100P2	2/2 NO	40	G1 1/2"	37	40.4	0 ÷ 20	≥ 6	100	PA66
ASP01-W050G1-080P2	2/2 NO	50	G2"	46	55	0 ÷ 16	6 ÷ 10	80	PA66
ASPA0-W050G1-100P2	2/2 NO	50	G2"	46	55	0 ÷ 20	6 ÷ 7.4	100	PA66
ASPA0-W065G1-100P2	2/2 NO	65	2 1/2"	59	65	0 ÷ 14	6 ÷ 10	100	PA66

Series ASP angle seat valve - 2/2-way DA - pressure under the seat

The valves with flow direction under the seat are suitable for uncompressible fluids. This function prevents the hydraulic water hammer effect.



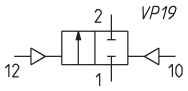
DRAWING LEGEND:
C = valve in closed position
O = valve in open position



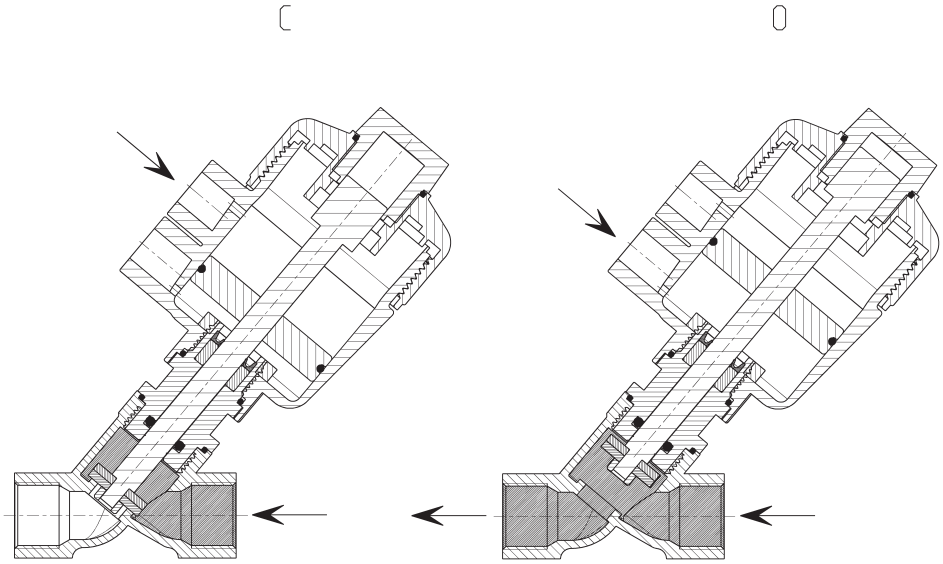
Mod.	Function	DN	Ports	Orifice Ø (mm)	Kv (m^3/h)	Differential pressure min ÷ max (bar)	Minimum piloting pressure (bar)	Actuator Ø(mm)	Actuator material
ASPA3-W010G1-050P2	2/2 DE	10	G3/8"	12	2.6	0 ÷ 20	≥ 6	50	PA66
ASPA3-W015G1-050P2	2/2 DE	15	G1/2"	12	3.5	0 ÷ 20	≥ 6	50	PA66
ASPA3-W015G1-063P2	2/2 DE	15	G1/2"	12	3.5	0 ÷ 20	≥ 6	63	PA66
ASPA3-W020G1-050P2	2/2 DE	20	G3/4"	17	8.6	0 ÷ 20	≥ 6	50	PA66
ASPA3-W020G1-063P2	2/2 DE	20	G3/4"	17	8.6	0 ÷ 20	≥ 6	63	PA66
ASPA3-W025G1-050P2	2/2 DE	25	G1"	21	9.7	0 ÷ 20	6 ÷ 8.3	50	PA66
ASPA3-W025G1-063P2	2/2 DE	25	G1"	21	9.7	0 ÷ 20	≥ 6	63	PA66
ASPA3-W032G1-063P2	2/2 DE	32	G1 1/4"	30	26.7	0 ÷ 20	6 ÷ 8	63	PA66
ASPA3-W032G1-080P2	2/2 DE	32	G1 1/4"	30	26.7	0 ÷ 20	≥ 6	80	PA66
ASPA3-W040G1-080P2	2/2 DE	40	G1 1/2"	37	40.4	0 ÷ 20	6 ÷ 7.7	80	PA66
ASPA3-W040G1-100P2	2/2 DE	40	G1 1/2"	37	40.4	0 ÷ 20	≥ 6	100	PA66
ASPA3-W050G1-080P2	2/2 DE	50	G2"	46	55	0 ÷ 16	6 ÷ 10	80	PA66
ASPA3-W050G1-100P2	2/2 DE	50	G2"	46	55	0 ÷ 20	6 ÷ 6.7	100	PA66
ASPA3-W065G1-100P2	2/2 DE	65	2 1/2"	59	65	0 ÷ 14.5	6 ÷ 10	100	PA66

Series ASP angle seat valve - 2/2-way DA - pressure above the seat

The valves with flow direction above the seat are suitable for compressible fluids.

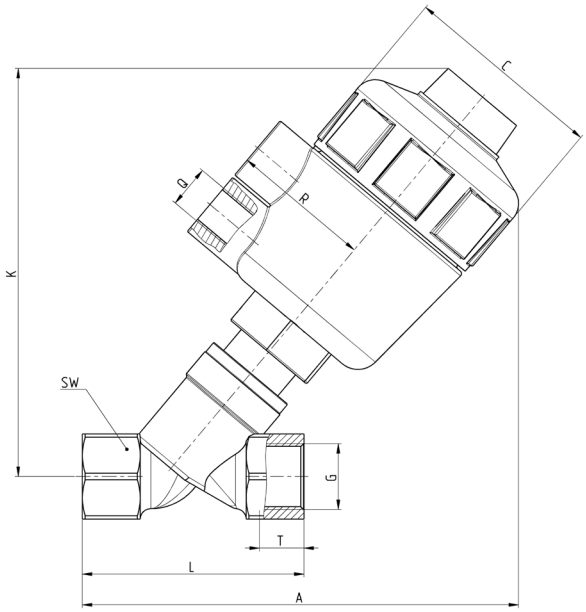


DRAWING LEGEND:
C = valve in closed position
O = valve in open position



Mod.	Function	DN	Ports	Orifice Ø (mm)	Kv (m^3/h)	Differential pressure min ÷ max (bar)	Minimum piloting pressure (bar)	Actuator Ø(mm)	Actuator material
ASPA3-Y010G1-050P2	2/2 DE	10	G3/8"	12	2.6	0 ÷ 20	≥ 6	50	PA66
ASPA3-Y015G1-050P2	2/2 DE	15	G1/2"	12	3.5	0 ÷ 20	≥ 6	50	PA66
ASPA3-Y015G1-063P2	2/2 DE	15	G1/2"	12	3.5	0 ÷ 20	≥ 6	63	PA66
ASPA3-Y020G1-050P2	2/2 DE	20	G3/4"	17	8.6	0 ÷ 20	≥ 6	50	PA66
ASPA3-Y020G1-063P2	2/2 DE	20	G3/4"	17	8.6	0 ÷ 20	≥ 6	63	PA66
ASPA3-Y025G1-050P2	2/2 DE	25	G1"	21	9.7	0 ÷ 20	6 ÷ 8.3	50	PA66
ASPA3-Y025G1-063P2	2/2 DE	25	G1"	21	9.7	0 ÷ 20	≥ 6	63	PA66
ASPA3-Y032G1-063P2	2/2 DE	32	G1 1/4"	30	26.7	0 ÷ 20	6 ÷ 8	63	PA66
ASPA3-Y032G1-080P2	2/2 DE	32	G1 1/4"	30	26.7	0 ÷ 20	≥ 6	80	PA66
ASPA3-Y040G1-080P2	2/2 DE	40	G1 1/2"	37	40.4	0 ÷ 20	6 ÷ 7.7	80	PA66
ASPA3-Y040G1-100P2	2/2 DE	40	G1 1/2"	37	40.4	0 ÷ 20	≥ 6	100	PA66
ASPA3-Y050G1-080P2	2/2 DE	50	G2"	46	55	0 ÷ 16	6 ÷ 10	80	PA66
ASPA3-Y050G1-100P2	2/2 DE	50	G2"	46	55	0 ÷ 20	6 ÷ 6.7	100	PA66
ASPA3-Y065G1-100P2	2/2 DE	65	2 1/2"	59	65	0 ÷ 14.5	6 ÷ 10	100	PA66

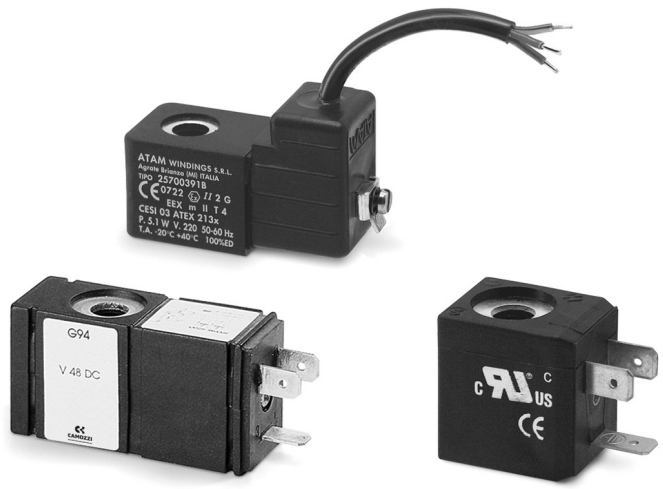
Series ASP angle seat valve - dimensions and weight



DIMENSIONS											WEIGHT
DN	Actuator Ø (mm)	G	T	A	L	SW	C	R	K	Q	Kg
10	50	3/8"	12	125	49	21	66	45	115	G1/4"	0.8
15	50	1/2"	13	130	55	26	66	45	115	G1/4"	0.9
15	63	1/2"	13	160	55	26	83	52	150	G1/4"	1.2
20	50	3/4"	13.5	135	65.5	31	66	45	115	G1/4"	1.0
20	63	3/4"	13.5	165	65.5	31	83	52	150	G1/4"	1.3
25	50	1"	16	140	76	38	66	45	115	G1/4"	1.3
25	63	1"	16	170	76	38	83	52	150	G1/4"	1.6
32	63	1 1/4"	18	180	96	48	83	52	180	G1/4"	2.1
32	80	1 1/4"	18	210	96	48	103	60	210	G1/4"	1.6
40	80	1 1/2"	18.5	220	101	54	103	60	220	G1/4"	2.6
40	100	1 1/2"	18.5	230	101	54	130	73	230	G1/4"	4.5
50	80	2"	19	230	120	67	103	60	230	G1/4"	2.9
50	100	2"	19	240	120	67	130	73	240	G1/4"	5.3
65	100	2 1/2"	23	250	149	85	130	73	240	G1/4"	6.5

Solenoids
GP... - B7... - G93 - U7... - U7...EX - G7... - A8... - B8... - H8... - B9...

Version A and B
Connections according to industrial standard and to DIN EN 175 301-803 standards



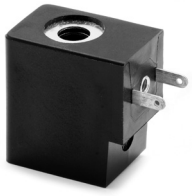
The mechanical part of the tube in the solenoid valves Series A, 3, 4, 9 and NA allows the mounting of various types of solenoids.

- Mod. GP...: in compliance with industrial standard (9.4mm) and designed to be mounted only on Series AP proportional valves, size 16 mm.
- Mod. B...: to be used only with Series CFB solenoid valves (2/1.30).
- Mod. G93: special solenoids with incorporated memory for pulsed operation.
- Mod. U7...: standard solenoids are certified by UL as Recognized Component for USA and Canada. Solenoids Mod. U7 are available also with ATEX certification.
- Mod. H8...: explosion-proof solenoids suitable for potentially explosive ambients (ATEX, IECEx).

GENERAL DATA

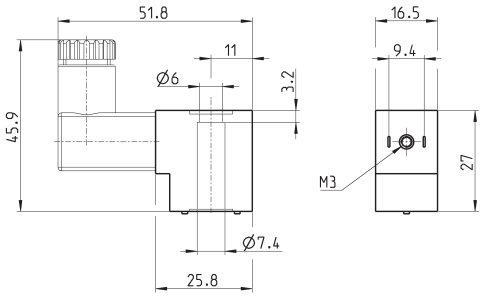
	U7... / G7... / G93	A8...	B...	H8...
Wire insulation	class F (155° C)	class H (180° C)	class H (200° C)	class H (200° C)
Protection class	IP54 - DIN 40050 IP65 (with connector Mod. 122-800 and Mod. 122-800EX)	IP54 - DIN 40050 IP65 (with connector Mod. 124-800)	IP54 - DIN 40050 IP65 (with connector Mod. 124-800)	IP64
Operation	ED 100%	ED 100%	ED 100%	ED 100%
Tolerance V AC	-15% / +10%	-15% / +10%	±10%	-
Tolerance V DC	±10%	±10%	±5%	-

Solenoids Mod. GP...



Electrical connection: bipolar
Norm: industrial standard (9.4 mm)

Solenoid material: PA

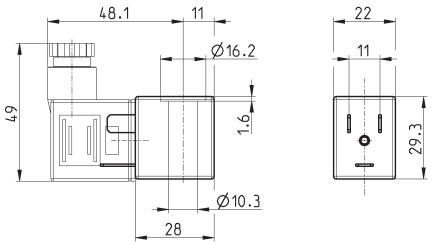


Mod.	Solenoid voltage	Power absorption
GPH	12 V DC	3 W
GP7	24 V DC	3 W

Solenoids Mod. B7...

Electrical connection: bipolar plus earth
Norm: DIN EN 175 301-803-B

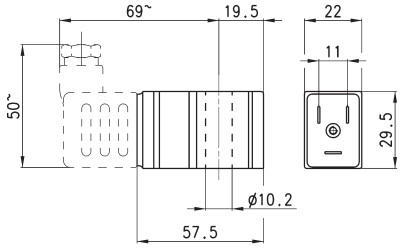
Solenoid material: PA-MXD6



Mod.	Solenoid voltage	Power absorption
B7B	24 V - 50/60 Hz	9 VA
B7D	110 V - 50/60 Hz	9 VA
B7E	230 V - 50/60 Hz	9 VA
B7H	24 V - 50/60 Hz	4 VA
B72	12 V - DC	10 W
B721	12 V - DC	14 W
B73	24 V - DC	10 W
B731	24 V - DC	14 W
B74	24 V - DC	7 W

Solenoids Mod. G93 (with memory)

Electrical connection: bipolar plus earth
Norm: DIN EN 175 301-803-B
Voltage tolerance: ±10%
Pulsed operation (see description)

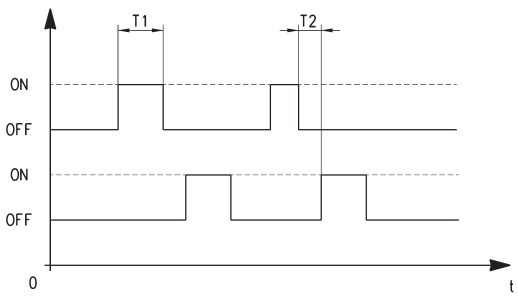


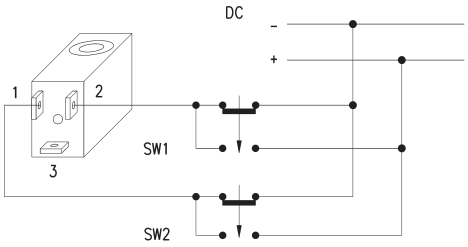
Mod.	Voltage	Minimum inpulse latch/release	Consumption latch/release
G92	12 V DC	18 ms - 10 ms	200 mA - 160 mA
G93	24 V DC	18 ms - 10 ms	100 mA - 80 mA

Description of solenoids Mod. G9...

Solenoids Mod. G9... can be replaced on all other Series A solenoid valves or pilots allowing to change the valve functioning from:
- unstable functioning system (spring return)
to:
- stable functioning system (memory)

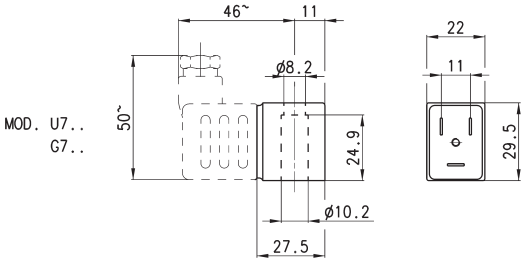
The stable functioning has the following advantages:
- with an impulse of about 20 ms after which the valve always remains in the controlled position.
- the valve remains in the controlled position (opened or closed) even if there is no power.
- when normally opened valves should be used, it is not necessary to use valves with special mechanical parts as a NC valve becomes a NO valve just by changing the control impulse sequence.
- The impulse control system facilitates the utilization with electronic circuits. The minimum required impulse for the function is 20 ms; if, for circuit reasons, the impulse last for a longer period, there is no danger of heating.
- magnet attraction command = Actuation SW1
- magnet release command = Actuation SW2
If the solenoids are mounted in batteries, a magnetic scheme type G90/L should be used.
To facilitate the cabling a special connector is available, which contains a circuit which realises the inversion of the power supply to the solenoid, indispensable for the PLC command, 122-892 P with common positive or 122-893 N with common negative.

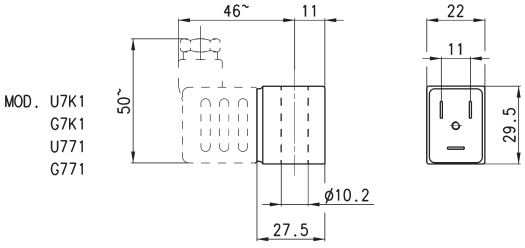




Solenoids Mod. U7... / U7*EX and Mod. G7...

Electrical connection: bipolar plus earth
Norm: DIN EN 175 301-803-B
Solenoid material: U7* = PET; G7* = PA
To order the ATEX version of Mod. U7 (not available for Mod. U7F, U7K1 with voltage 125V 50/60Hz) it is necessary to add EX at the end of the code.
Mod. U7*EX marked:
II 3G Ex nA IIC T4 Gc X IP65
II 3D Ex tc IIIC 130°C Dc X





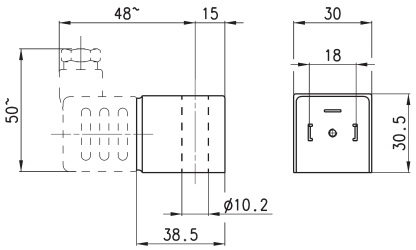
Mod.	Sol. volt. (1)	Pow. abs. (1)	Sol. volt. (2)	Pow. abs. (2)	Sol. volt. (3)	Pow. abs. (3)
U7H	12 V DC	3.1 W	24V - 50/60 Hz	3.5 VA		
G7H	12 V DC	3.1 W	24V - 50/60Hz	3.5 VA		
U7K	110V - 50/60Hz	3.8 VA	125V - 50/60Hz	5.5 VA	72 V DC	4.8 W
U7K1	110V - 50/60Hz	5.8 VA	125V - 50/60Hz	8.3 VA	72 V DC	5.6 W
G7K	110V - 50/60Hz	3.8 VA	125V - 50/60Hz	5.5 VA	72 V DC	4.8 W
G7K1	110V - 50/60Hz	5.8 VA	125V - 50/60Hz	8.3 VA	72 V DC	5.6 W
U7J	230V - 50/60Hz	3.5 VA	240V - 50/60Hz	4 VA		
G7J	230V - 50/60Hz	3.5 VA	240V - 50/60Hz	4 VA		
U79	48 V DC	3.1 W				
G79	48 V DC	3.1 W				
U710	110 V DC	3.2 W				
G710	110 V DC	3.2 W				
U77	24 V DC	3.1 W	48V - 50/60Hz	3.8 VA		
U771	24 V DC	3.1 W	48V - 50/60Hz	3.8 VA		
G77	24 V DC	3.1 W	48V - 50/60Hz	3.8 VA		
G771	24 V DC	3.1 W	48V - 50/60Hz	3.8 VA		
U7F	380V - 50/60Hz	7 VA				
U72	12 V DC	5 W				
G72	12 V DC	5 W				
U73	24 V DC	5 W				
G73	24 V DC	5 W				

Notes to the table:
Sol. volt. = Solenoid voltage
Pow. abs. = Power absorption

Mod. U7K1, G7K1, U771 and G771 are to be used only with sol. valves series A, NO in line.

Solenoids Mod. A8...

Electrical connection: bipolar plus earth
Norm: DIN EN 175 301-803-A

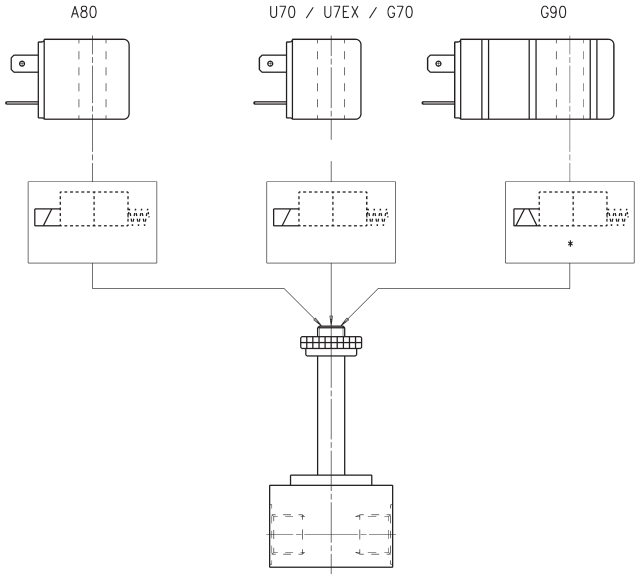


Mod.	Solenoid voltage	Power absorption
A8B	24V - 50/60Hz	5VA
A8D	110V - 50/60Hz	5VA
A8E	220V - 50/60Hz	5VA
A83	24V DC	4W

Solenoids for solenoid valves Series A, 3, 4, 9 and NA

All solenoids presented can be mounted on the following solenoid valves: Series A - 3 - 4 - 9 - NA

NB:
For the tightening of the solenoids' nut we recommend to do it manually, avoiding the use of any equipment.

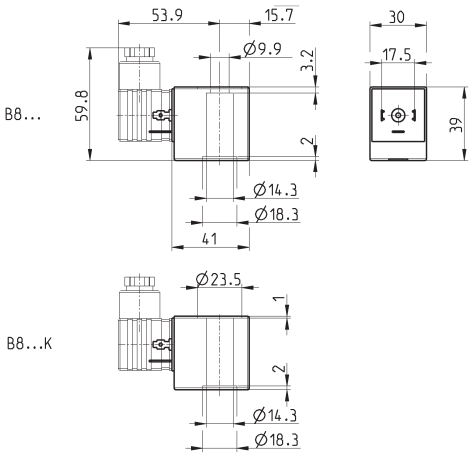


Solenoids Mod. B8...

Electrical connection: bipolar plus earth
Norm: DIN EN 175 301-803-A

Solenoid material: PA-MXD6

The B8*K models can be used only with some solenoid valves Series CFB
(Mod. CFB-D1..., 2/2 NO).
Further details in the dedicated section 1.30.



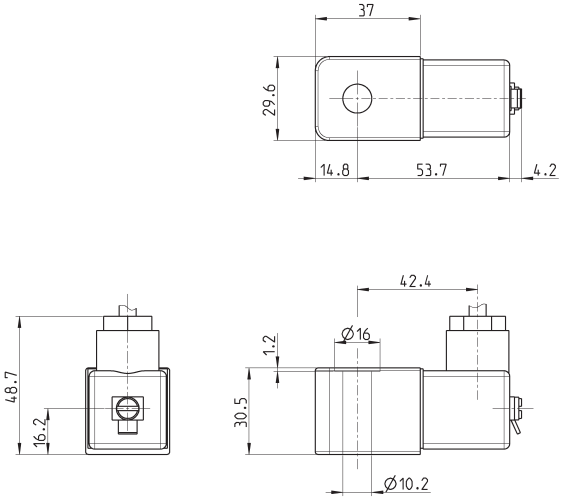
Mod.	Solenoid voltage	Power absorption
B8B	24 V - 50 Hz	15 VA
B8BK	24 V - 50 Hz	15 VA
B8D	110 V - 50/60 Hz	15 VA
B8DK	110 V - 50/60 Hz	15 VA
B8E	220/230 V - 50/60 Hz	15 VA
B8EK	230 V - 50/60 Hz	15 VA
B8F	220/230 V - 50/60 Hz	21 VA
B8FK	220/230 V - 50/60 Hz	21 VA
B82	12 V - DC	19 W
B82K	12 V - DC	19 W
B83	24 V - DC	19 W
B83K	24 V - DC	19 W

Solenoid Mod. H8.. for potentially explosive ambients

Certification in compliance with
EN 60079-0 EN 60079-18
ATEX :
II 2G Ex mb IIC T4 Gb
II 2D Ex mb IIIC T135°C Db
I M2 Ex mb I Mb
INERIS 06ATEX0002X

IECEx :
Ex mb IIC T4 Gb
Ex mb IIIC T135°C Db
Ex mb I Mb
IECEx INE 15.0053X

For Series NA use plate mod. NA54-PC.



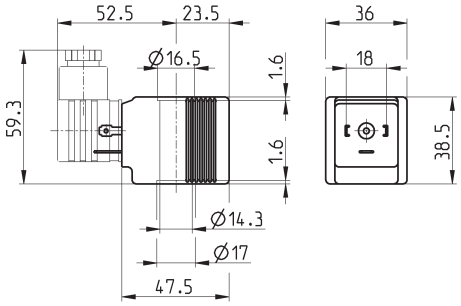
Mod.	Solenoid voltage	Power absorption
H83I	24 V - DC	5.3 W
H8BI	24 V - 50/60 Hz	5.3 W
H8CI	48 V - 50/60 Hz	5.3 W
H8DI	110 V - 50/60 Hz	5.3 W
H8EI	230 V - 50/60 Hz	5.3 W

Temperature class/Max surface temperature: T4/135°C
Environment temperature: -20°C + 40°C
Connection: tripolar cable 3 m (other lenghts on request)
Incapsulating material: self-extinguishing PA.

Solenoids Mod. B9...

Electrical connection: bipolar plus earth
Norm: DIN EN 175 301-803-A

Solenoid material: PA-MXD6

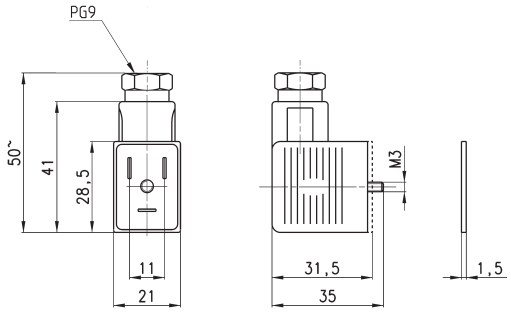


Mod.	Solenoid voltage	Power absorption
B9B	24 V - 50 Hz	29 VA
B9D	110 V - 50/60 Hz	29 VA
B9E	230 V - 50 Hz	29 VA
B93	24 V - DC	30 W

Connectors Mod. 122-... DIN EN 175 301-803-B

For solenoids Mod. U7/U7*EX, G7 and B7

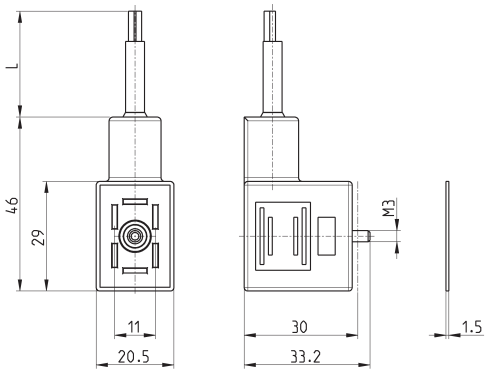
Mod. 122-800EX:
for ATEX certified solenoids mod. U7*EX, with anti-screwing off screw mod. TORX.



Mod.	description	colour	working voltage	cable gland	tightening torque
122-601	connector, diode + Led	transparent	24 V DC	PG9	0.5 Nm
122-701	connector, varistor + Led	transparent	24 V AC/DC	PG9	0.5 Nm
122-702	connector, varistor + Led	transparent	110 V AC/DC	PG9	0.5 Nm
122-703	connector, varistor + Led	transparent	230 V AC/DC	PG9	0.5 Nm
122-800	connector, without electronics	black	-	PG9	0.5 Nm
122-800EX	connector, without electronics	black	-	PG9	0.5 Nm

Connectors Mod. 122-571 DIN EN 175 301-803-B with cable

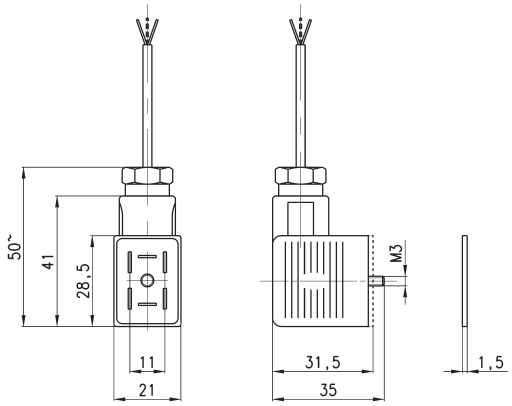
For solenoids Mod. U7, G7 and B7



Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
122-571-1	moulded cable, varistor + Led	black	24 V AC/DC	1000 mm	-	0.5 Nm
122-571-2	moulded cable, varistor + Led	black	24 V AC/DC	2000 mm	-	0.5 Nm
122-571-3	moulded cable, varistor + Led	black	24 V AC/DC	3000 mm	-	0.5 Nm
122-571-5	moulded cable, varistor + Led	black	24 V AC/DC	5000 mm	-	0.5 Nm
122-571-10	moulded cable, varistor + Led	black	24 V AC/DC	10000 mm	-	0.5 Nm

Connectors Mod. 122-89*C DIN EN 175 301-803-B

For solenoids Mod. G9

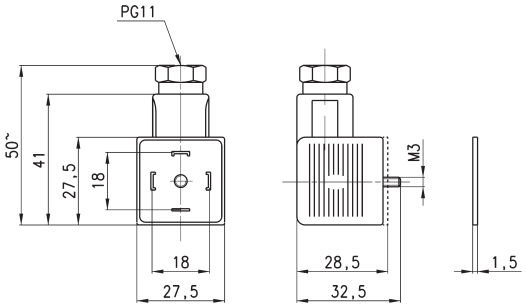


Mod.	description	colour	working voltage	cable length [L]	cable gland	tightening torque
122-892C	pre-wired connector, positive common	transparent	12/24V DC	2000 mm	PG9	0.5 Nm
122-893C	pre-wired connector, negative common	transparent	12/24V DC	2000 mm	PG9	0.5 Nm

Connector Mod. 124-... DIN EN 175 301-803-A

For solenoids Mod. A8 and Mod. B8/B9

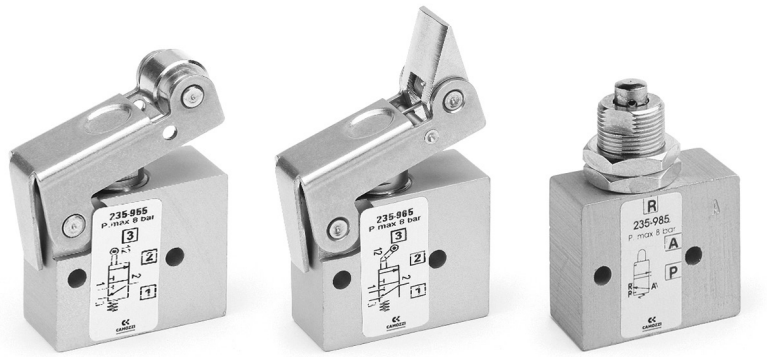
Protection class IP65



Mod.	description	colour	working voltage	cable gland	tightening torque
124-800	connector, without electronics	black	-	PG9/PG11	0.5 Nm
124-702	connector, varistor + Led	black	110 V AC/DC	PG9/PG11	0.5 Nm
124-701	connector, varistor + Led	transparent	24 V AC/DC	PG9/PG11	0.5 Nm
124-703	connector, varistor + Led	black	230 V AC/DC	PG9/PG11	0.5 Nm

Series 2
mechanically operated minivalves

3/2-way
Ports M5, cartridge ø 4



Series 2 mechanically operated miniature valves, 3/2-way normally closed, are available with M5 threaded ports or with an integrated super-rapid fitting for ø 4mm tubes.
The devices are actuated by a plunger, roller/lever or a unidirectional lever.

GENERAL DATA

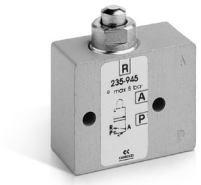
Construction	poppet type
Valve group	3-way/2-position
Materials	aluminium body, brass plunger, NBR seals
Mounting	by means of screws in the through-holes of the valve body
Ports	M5, Ø4mm cartridge
Room temperature	0°C ÷ 60°C
Fluid temperature	0°C ÷ 50°C
Operating pressure	2 bar ÷ 10 bar
Fluid	Filtered air, without lubrication. If lubricated air is used, it is recommended to use ISO VG32 oil. Once applied the lubrication should never be interrupted.

CODING EXAMPLE

2	3	4	-	94	5

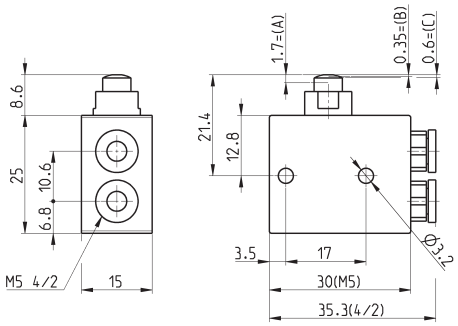
2	SERIES
3	FUNCTION 3 = 3/2-way NC 4 = 3/2-way NO
4	PORTS 4 = cartridge ø 4mm 5 = M5
94	ACTUATION 94 = plunger 95 = lever/roller 96 = unidirectional lever 98 = plunger, panel mounting
5	RESETTING 5= spring return

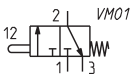
Minivalves with plunger



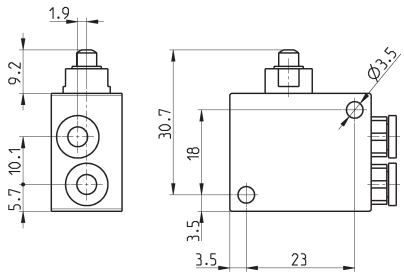
DRAWING LEGEND
A = total stroke
B = pre-stroke
C = effective stroke

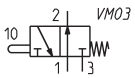
234/235





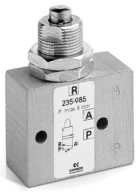
244/245



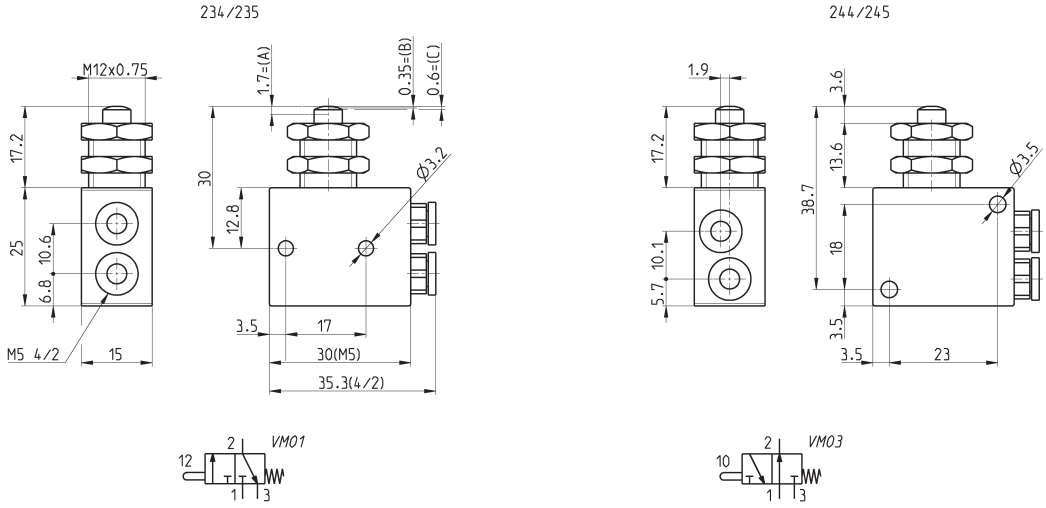


Mod.	Operating pressure (bar)	Flow Qn (Nl/min)	Actuating force at 6 bar (N)	SYMBOL
234-945	2 ÷ 10	60	6	VM01
235-945	2 ÷ 10	60	6	VM01
244-945	2 ÷ 10	60	6	VM03
245-945	2 ÷ 10	60	6	VM03

Minivalves with plunger, panel mounting

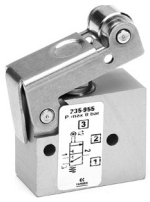


DRAWING LEGEND
A = total stroke
B = pre-stroke
C = effective stroke

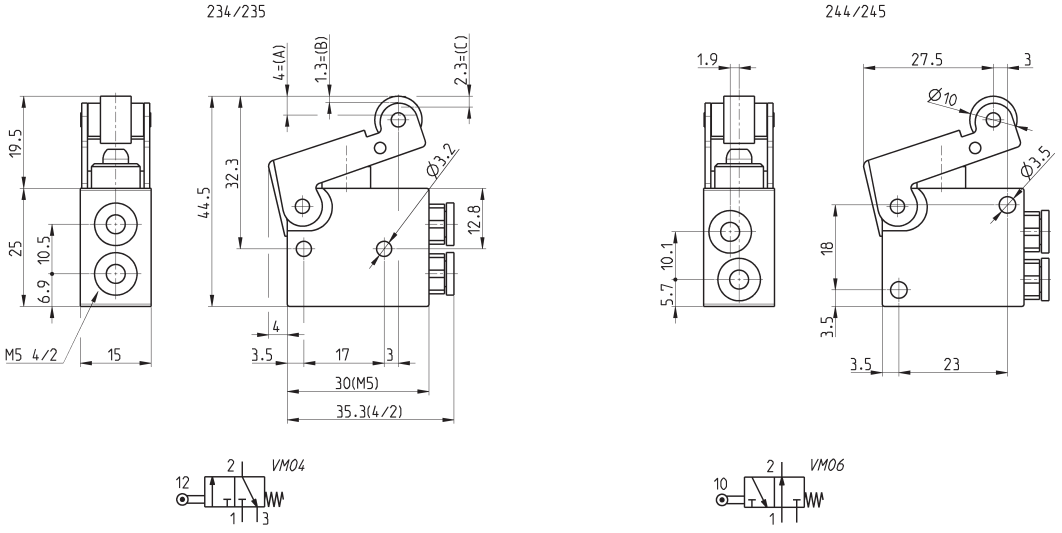


Mod.	Operating pressure (bar)	Flow Qn (Nl/min)	Actuating force at 6 bar (N)	SYMBOL
234-985	2 ÷ 10	60	6	VM01
235-985	2 ÷ 10	60	6	VM01
244-985	2 ÷ 10	60	6	VM03
245-985	2 ÷ 10	60	6	VM03

Minivalves with lever/roller



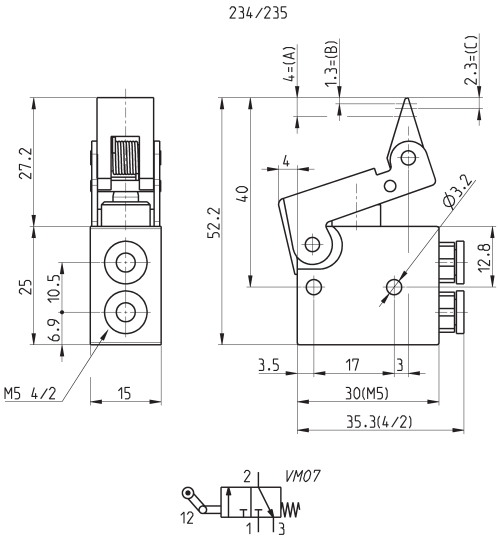
DRAWING LEGEND
A = total stroke
B = pre-stroke
C = effective stroke

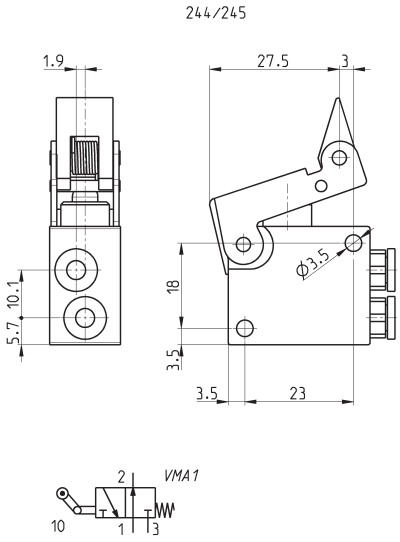


Mod.	Operating pressure (bar)	Flow Qn (Nl/min)	Actuating force at 6 bar (N)	SYMBOL
234-955	2 ÷ 10	60	6	VM04
235-955	2 ÷ 10	60	6	VM04
244-955	2 ÷ 10	60	6	VM06
245-955	2 ÷ 10	60	6	VM06

Minivalves, unidirectional lever

DRAWING LEGEND
A = total stroke
B = pre-stroke
C = effective stroke





Mod.	Operating pressure (bar)	Flow Qn (Nl/min)	Actuating force at 6 bar (N)	SYMBOL
234-965	2 ÷ 10	60	6	VM07
235-965	2 ÷ 10	60	6	VM07
244-965	2 ÷ 10	60	6	VMA1
245-965	2 ÷ 10	60	6	VMA1

Series 1 and 3 mechanically operated valves

Series 1: 3/2-way and 5/2-way, ports G1/8 and G1/4
Series 3: 3/2-way and 5/2-way, ports G1/8

These mechanically operated valves have been designed with three different types of actuation:
- plunger
- lever/roller
- unidirectional lever/roller
In each case, return is triggered by a mechanical spring.

3/2-way monostable valves Series 3 are normally closed in the rest position when pressure is supplied in 1 and are normally open when pressure is supplied on connection 3, the user port 2 remaining unchanged.
5/2-way valves Series 3 can be supplied via the ports 3 and 5 with two different pressures if a cylinder has to be operated using a delivery pressure which is different from the return pressure.

GENERAL DATA

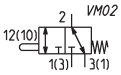
Construction	spool-type (Series 3), poppet-type (Series 1)
Valve group	3/2, 5/2 way/pos.
Materials	aluminium body, brass poppet, stainless steel spool, NBR seals
Ports	G1/8, G1/4
Ambient temperature	0°C ÷ 60°C
Medium temperature	0°C ÷ 50°C
Operating pressure	see models
Fluid	Filtered air, without lubrication. If lubricated air is used, it is recommended to use ISO VG32 oil. Once applied the lubrication should never be interrupted.

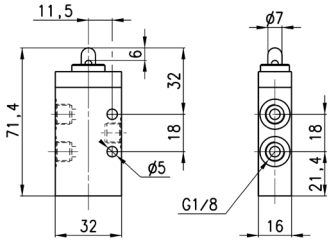
CODING EXAMPLE

3	3	8	-	94	5

3	SERIES: 1 3
3	FUNCTION: 3 = 3/2 ways NC 4 = 3/2 ways NO (only Series 1) 5 = 5/2 ways
8	PORTS: 8 = G1/8 4 = G1/4 (only Series 1)
94	ACTUATION: 94 = plunger 95 = lever/roller 96 = unidirectional roller
5	RESETTING: 5= spring return

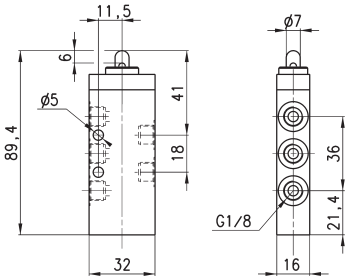
Valve Mod. 338-945

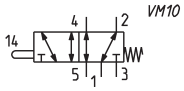




Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)
338-945	-0.9 ÷ 10	700	32

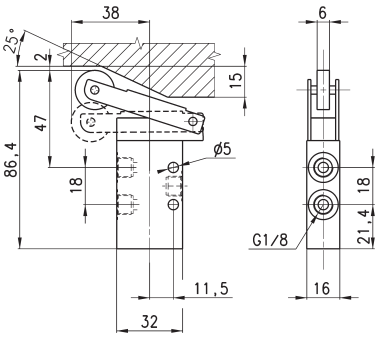
Valve Mod. 358-945

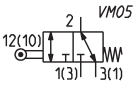




Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)
358-945	-0.9 ÷ 10	700	35

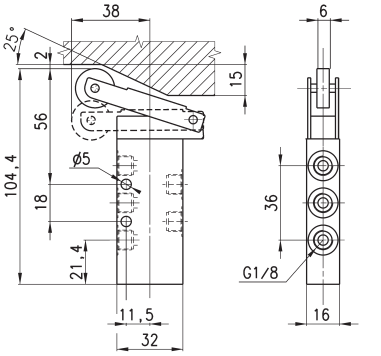
Valve Mod. 338-955

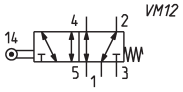




Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)
338-955	-0.9 ÷ 10	700	15

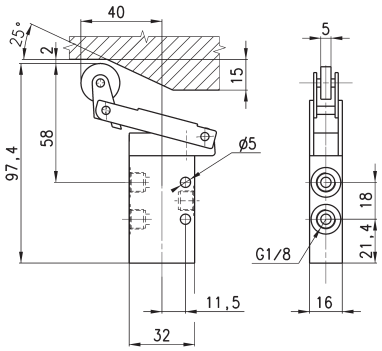
Valve Mod. 358-955





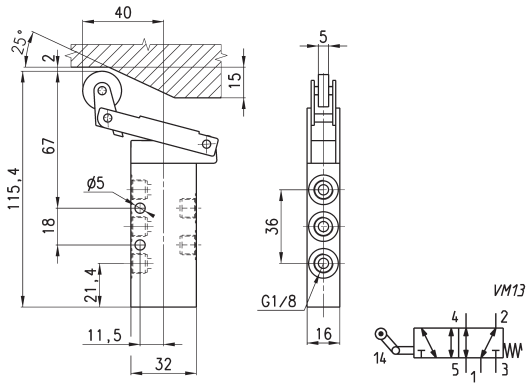
Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)
358-955	-0.9 ÷ 10	700	17

Valve Mod. 338-965



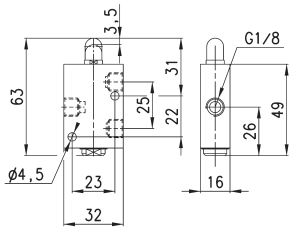
Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)
338-965	-0.9 ÷ 10	700	15

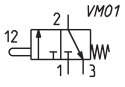
Valve Mod. 358-965



Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)
358-965	-0.9 ÷ 10	700	16

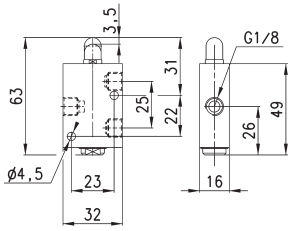
Valve Mod. 138-945

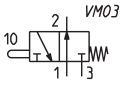




Mod.	Operating pressure (bar)	Flow rate (Nl/min)	Actuating force at 6 bar (N)
138-945	0 ÷ 10	500	70

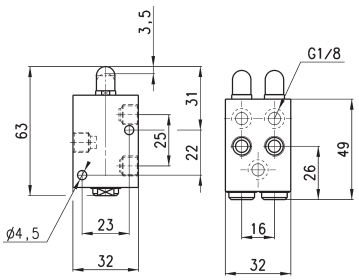
Valve Mod. 148-945

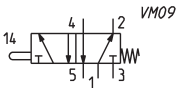




Mod.	Operating pressure (bar)	Flow rate (Nl/min)	Actuating force at 6 bar (N)
148-945	0 ÷ 10	500	70

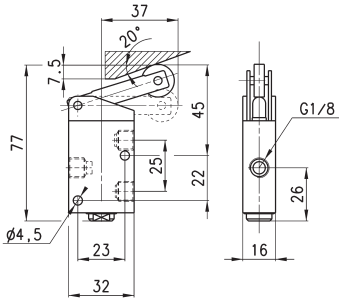
Valve Mod. 158-945

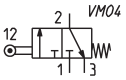




Mod.	Operating pressure (bar)	Flow rate (Nl/min)	Actuating force at 6 bar (N)
158-945	0 ÷ 10	500	120

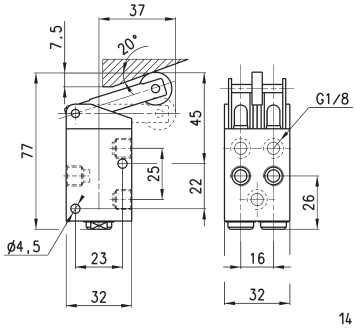
Valve Mod. 138-955

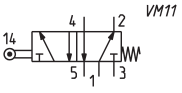




Mod.	Operating pressure (bar)	Flow rate (Nl/min)	Actuating force at 6 bar (N)
138-955	0 ÷ 10	500	36

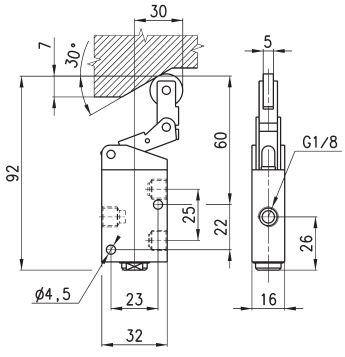
Valve Mod. 158-955

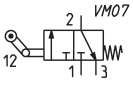




Mod.	Operating pressure (bar)	Flow rate (Nl/min)	Actuating force at 6 bar (N)
158-955	0 ÷ 10	500	92

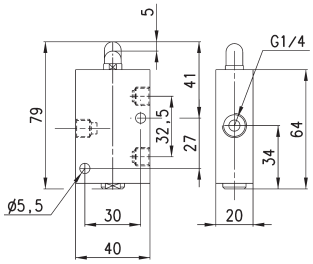
Valve Mod. 138-965

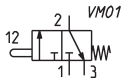




Mod.	Operating pressure (bar)	Flow rate (Nl/min)	Actuating force at 6 bar (N)
138-965	0 ÷ 10	500	41

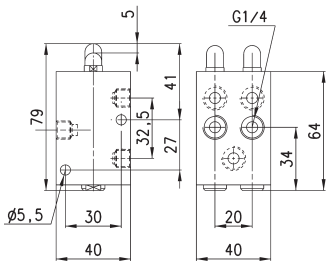
Valve Mod. 134-945

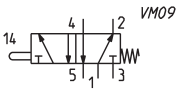




Mod.	Operating pressure (bar)	Flow rate (Nl/min)	Actuating force at 6 bar (N)
134-945	0 ÷ 10	1250	64

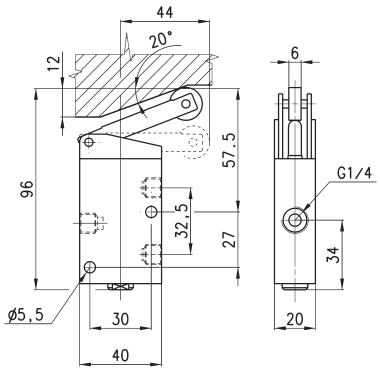
Valve Mod. 154-945

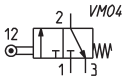




Mod.	Operating pressure (bar)	Flow rate (Nl/min)	Actuating force at 6 bar (N)
154-945	0 ÷ 10	1250	147

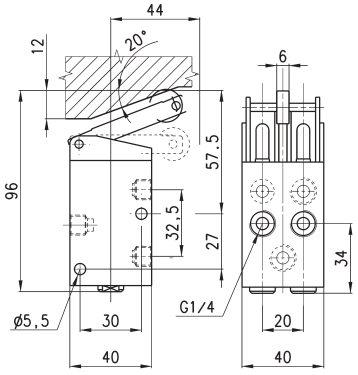
Valve Mod. 134-955

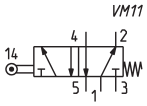




Mod.	Operating pressure (bar)	Flow rate (Nl/min)	Actuating force at 6 bar (N)
134-955	0 ÷ 10	1250	41

Valve Mod. 154-955





Mod.	Operating pressure (bar)	Flow rate (Nl/min)	Actuating force at 6 bar (N)
154-955	0 ÷ 10	1250	110

Series 3 and 4 mechanically operated sensor valves

3/2 and 5/2-way
Ports G1/8, G1/4

The particular mechanical device allows these end-stroke valves to operate with very low actuating forces.
Series 3 has been designed with a mechanical lever device which works in negative pressure. To increase sensitivity it is possible to add to the lever a steel extension with ø 3 mm.

GENERAL DATA

Construction	spool-type (servocontrolled)
Valve group	3/2, 5/2 way/pos.
Materials	aluminium body, stainless steel spool, NBR seals
Ports	G1/8, G1/4
Ambient temperature	0°C ÷ 60°C
Medium temperature	0°C ÷ 50°C
Operating pressure	see models
Fluid	Filtered air, without lubrication. If lubricated air is used, it is recommended to use ISO VG32 oil. Once applied the lubrication should never be interrupted.

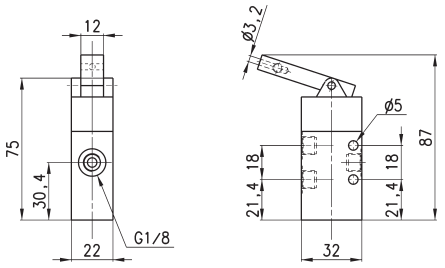
CODING EXAMPLE

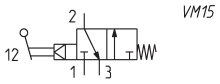
3	3	8	-	D15	-	9A5

3	SERIES: 3 4	
3	FUNCTION: 3 = 3/2-way NC 4 = 3/2-way NO 5 = 5/2-way	
8	PORTS: 8 = G1/8 4 = G1/4	
D15	ACTUATION: D15 = pressure drop/spring 015 = pressure/spring 011 = pressure/pressure	
9A5	DEVICES: 9A5 = lever sensor, spring return 194 = plunger sensor, spring return 294 = plunger sensor, bistable	195 = lever/roller, spring return 295 = lever/roller, bistable

Valve Mod. 338-D15-9A5

The function of the valve is indicated by the symbol when operating between 4 and 10 bar.

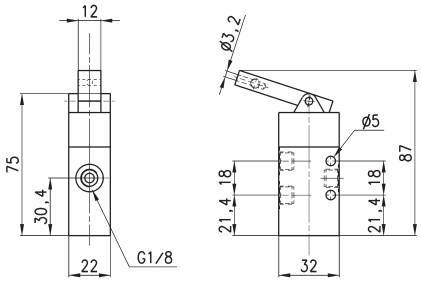


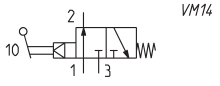


Mod.	Operating pressure (bar)	Flow rate (Nl/min)	Actuating force at 6 bar (N)
338-D15-9A5	4 ÷ 10	700	2

Valve Mod. 348-D15-9A5

The function of the valve is indicated by the symbol when operating between 4 and 10 bar.

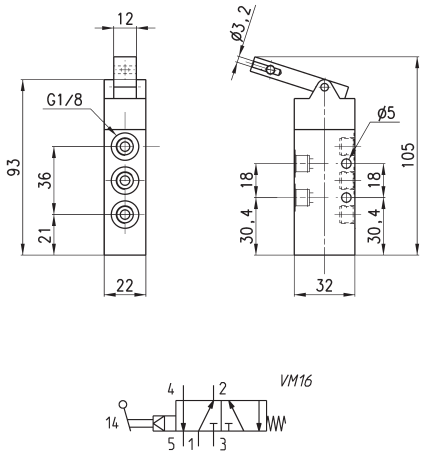




Mod.	Operating pressure (bar)	Flow rate (Nl/min)	Actuating force at 6 bar (N)
348-D15-9A5	4 ÷ 10	700	2

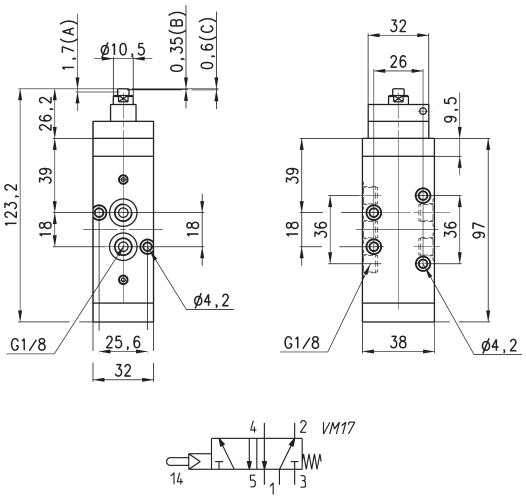
Valve Mod. 358-D15-9A5

The function of the valve is indicated by the symbol when operating between 4 and 10 bar.



Mod.	Operating pressure (bar)	Flow rate (Nl/min)	Actuating force at 6 bar (N)
358-D15-9A5	4 ÷ 10	700	2

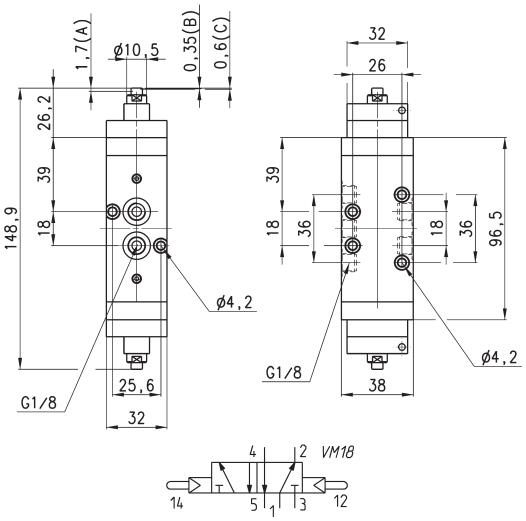
Valve Mod. 458-015-194



Mod.	Operating pressure (bar)	Flow rate (Nl/min)	Actuating force at 6 bar (N)
458-015-194	2.5 ÷ 8	650	6

(A) = total stroke
(B) = pre-stroke
(C) = useful stroke

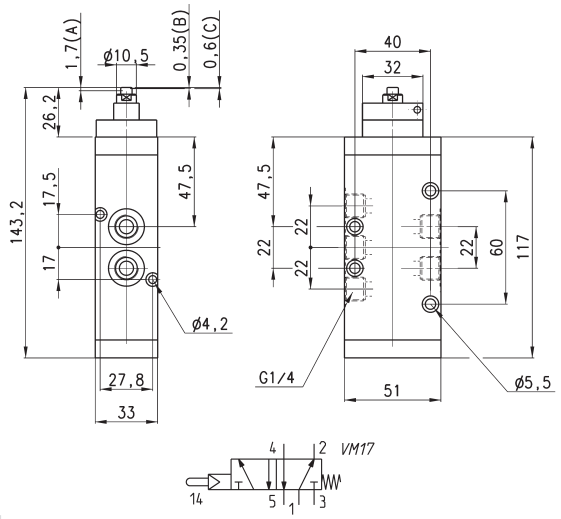
Valve Mod. 458-011-294



Mod.	Operating pressure (bar)	Flow rate (Nl/min)	Actuating force at 6 bar (N)
458-011-294	2 ÷ 8	650	6

(A) = total stroke
(B) = pre-stroke
(C) = useful stroke

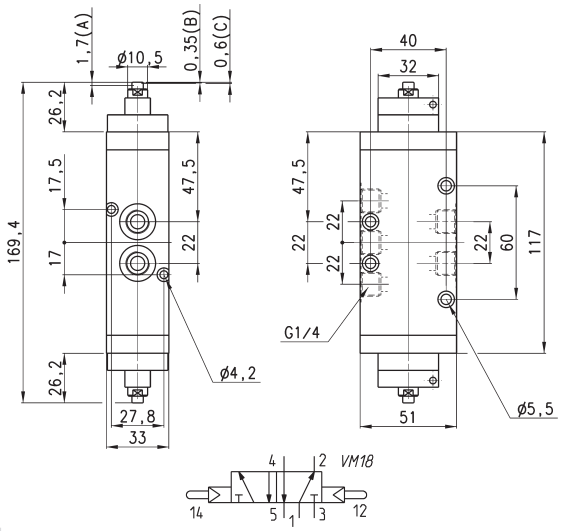
Valve Mod. 454-015-194



Mod.	Operating pressure (bar)	Flow rate (Nl/min)	Actuating force at 6 bar (N)
454-015-194	2.5 ÷ 8	1250	6

(A) = total stroke
(B) = pre-stroke
(C) = useful stroke

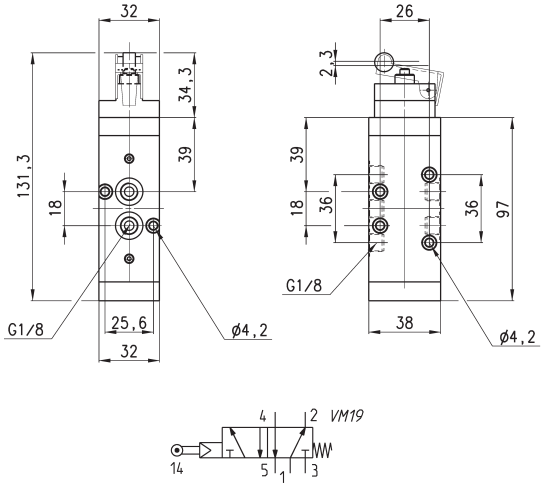
Valve Mod. 454-011-294



Mod.	Operating pressure (bar)	Flow rate (Nl/min)	Actuating force at 6 bar (N)
454-011-294	2 ÷ 8	1250	6

(A) = total stroke
(B) = pre-stroke
(C) = useful stroke

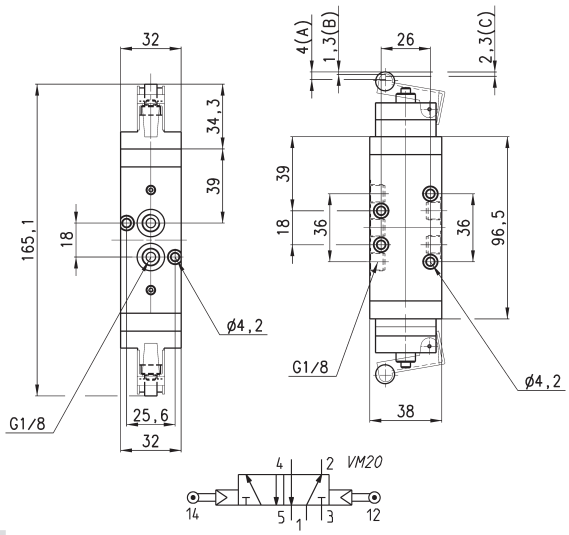
Valve Mod. 458-015-195



Mod.	Operating pressure (bar)	Flow rate (Nl/min)	Actuating force at 6 bar (N)
458-015-195	2.5 ÷ 8	650	4

(A) = total stroke
(B) = pre-stroke
(C) = useful stroke

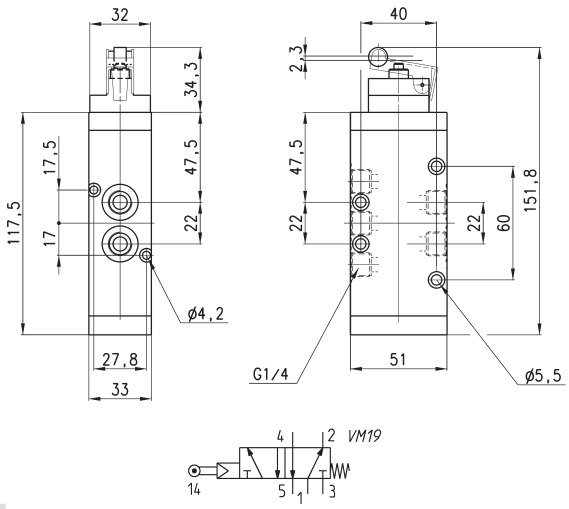
Valve Mod. 458-011-295



Mod.	Operating pressure (bar)	Flow rate (Nl/min)	Actuating force at 6 bar (N)
458-011-295	2 ÷ 8	650	4

(A) = total stroke
(B) = pre-stroke
(C) = useful stroke

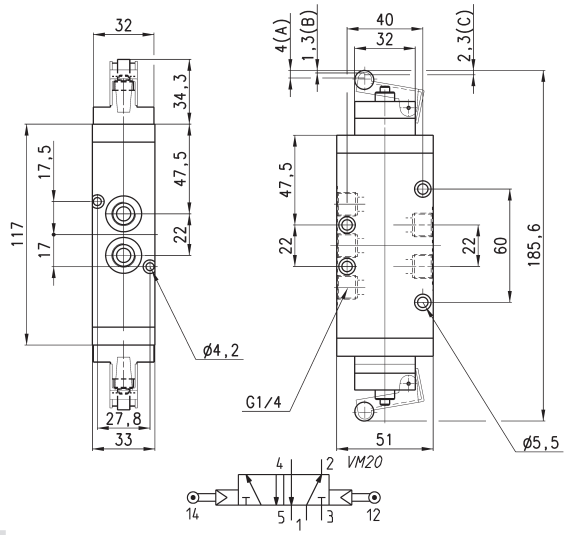
Valve Mod. 454-015-195



Mod.	Operating pressure (bar)	Flow rate (Nl/min)	Actuating force at 6 bar (N)
454-015-195	2.5 ÷ 8	1250	4

(A) = total stroke
(B) = pre-stroke
(C) = useful stroke

Valve Mod. 454-011-295



Mod.	Operating pressure (bar)	Flow rate (Nl/min)	Actuating force at 6 bar (N)
454-011-295	2 ÷ 8	1250	4

(A) = total stroke
(B) = pre-stroke
(C) = useful stroke

Foot operated pedal
Electrical and pneumatic - Series 3
Pneumatic - Series 2

Series 3: G1/4, 5/2-way - NC / NO contacts
Series 2: M5; 4/2 tube; 3/2-way NC

The pedals can be supplied in either a pneumatic or electrical foot operated version. The pneumatic type is available with a 5/2 valve and G1/4 front ports, which allow the fittings and silencers to be assembled conveniently on the front face. A 3/2 operation can be obtained by closing an outlet port.
The electrical type is available with a single-pole changeover contact microswitch and a front wire outlet (PG9).

The pedal can be operated as bistable or monostable, by switching the selector placed under the small red protection flap, as shown in the drawing.

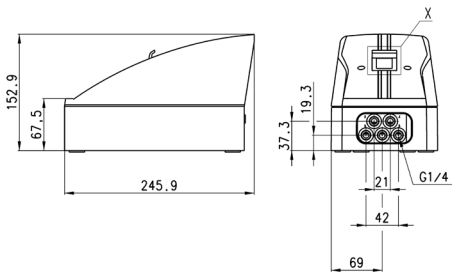
GENERAL DATA

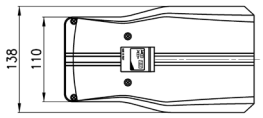
Construction	spool-type
Valve group	5/2, 3/2 NC way/pos.
Materials	- Series 3: alluminium body - stainless steel spool - NBR seals - plastic casing - Series 2: alluminium body - OT58 poppet - NBR seals.
Ports	- Series 3: G1/4 gas - Series 2: M5; tube 4/2.
Ambient temperature	0°C ÷ 50 °C (with dry air at - 10°C)
Medium temperature	0°C ÷ 50 °C
Construction	single-pole changeover contact microswitch
Cable entry	by means of wire PG9
Protection class	IP20
Fluid	Filtered air, without lubrication.

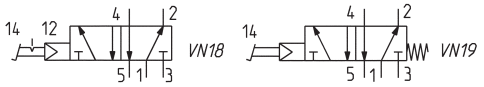
If lubricated air is used, it is recommended to use ISO VG32 oil. Once applied the lubrication should never be interrupted.

Pneumatic foot operated pedal Series 3

Actuating force at 6 bar = 17N
Operating pressure = 2,5 ÷ 8 bar
Flow rate = 650Nl/min.





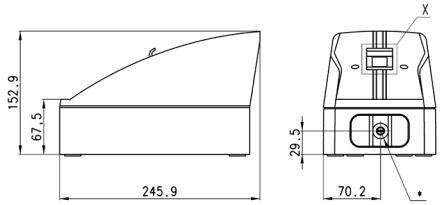


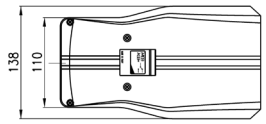
Mod.	Symbol
354N-925	VN18 - VN19

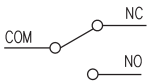
VN18 = pedal operated valve 5/2 bistable

VN19 = pedal operated valve 5/2 monostable bistable

Electrical foot operated pedal Series 3



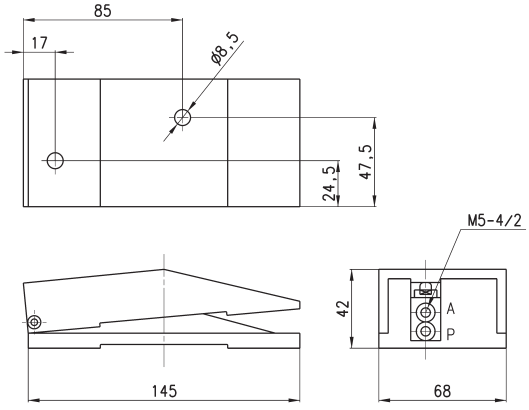


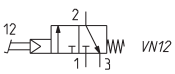


Mod.
3E2-925

Pneumatic foot operated pedal Series 2

Operating pressure = 2 ÷ 8 bar
Flow rate = 60 Nl/min.





Mod.
234-925
235-925

Series 2
manually operated console minivalves

3/2 NC, NO
Ports M5, Cartridge Ø 4

This series of miniature valves has been especially designed to satisfy all the application requirements of the controls industry with particular attention paid to the operating characteristics required from these components:
- short operational stroke
- small dimensions

GENERAL DATA

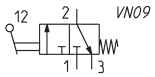
Construction	poppet-type (closed centres)
Valve group	3/2 NC, NO 5/2 and 5/3 CO
Materials	aluminium body, brass plunger, NBR seals
Mounting	panel
Ports	M5 or cartridge dia. 4
Ambient temperature	0°C ÷ 60°C
Medium temperature	0°C ÷ 50°C
Operating pressure	see models

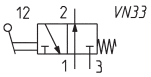
CODING EXAMPLE

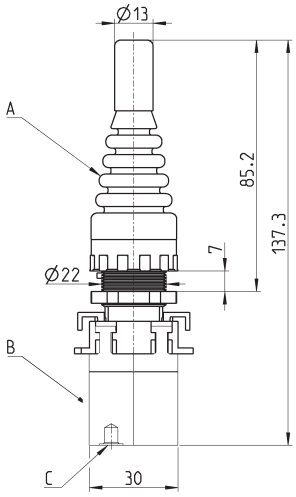
2	3	4	-	97	5

2	SERIES
3	FUNCTION: 3 = 3/2-way NC 4 = 3/2-way NO 8 = 5/3-way CO (function realized with 2x 3/2-way NC valves)
4	PORTS: 4 = cartridge ø 4 5 = M5
97	MODE OF OPERATION: 87 = 3 position selector 89 = push button 97 = palm switch 90 = joystick 99 = 2 position selector 92 = pedal 904 = key
5	RESETTING: 5 = spring return 0 = stable 2 = latching-twist to release 54= joystick

Minivalves Mod. 23..-905, 24..-905

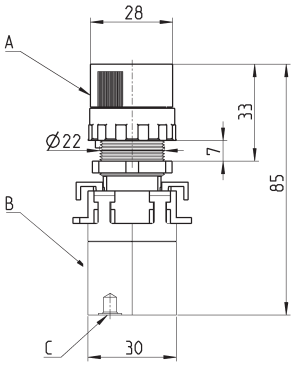


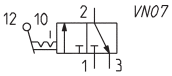


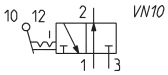


Mod.	Operating pressure (bar)	Flow (Nl/min)	A	B	C (Supply/port)	Symbols
234-905	2 ÷ 8	60	200-905	234-000	Ø4/2	VN09
235-905	2 ÷ 8	60	200-905	235-000	M5	VN09
244-905	2 ÷ 8	60	200-905	244-000	Ø4/2	VN33
245-905	2 ÷ 8	60	200-905	245-000	M5	VN33

Minivalves Mod. 23..-990, 24..-990



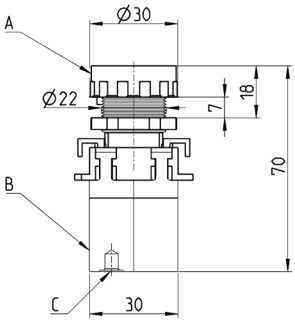


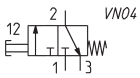


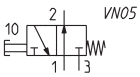
Mod.	Operating pressure (bar)	Flow (Nl/min)	A	B	C (Supply/port)	Symbols
234-990	2 ÷ 8	60	200-990	234-000	Ø4/2	VN07
235-990	2 ÷ 8	60	200-990	235-000	M5	VN07
244-990	2 ÷ 8	60	200-990	244-000	Ø4/2	VN10
245-990	2 ÷ 8	60	200-990	245-000	M5	VN10

Minivalves Mod. 23...-895, 24...-895

The packaging of the button includes 3 interchangeable disks in the colours red, black and green.

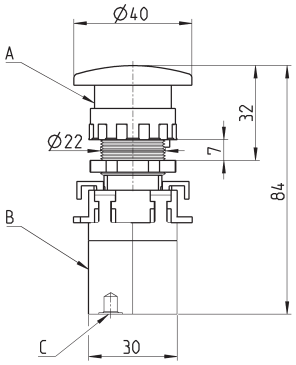


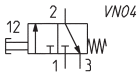


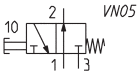


Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force	at 6 bar (N)	A	B	C (Supply/port)	Symbols
234-895	2 ÷ 8	60	7		200-895	234-000	Ø4/2	VN04
235-895	2 ÷ 8	60	7		200-895	235-000	M5	VN04
244-895	2 ÷ 8	60	7		200-895	244-000	Ø4/2	VN05
245-895	2 ÷ 8	60	7		200-895	245-000	M5	VN05

Minivalves Mod. 23...-975, 24...-975

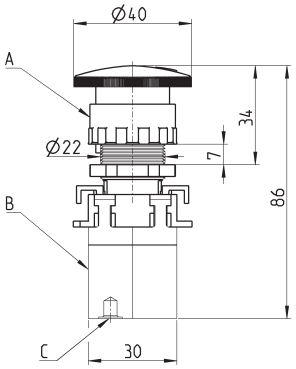


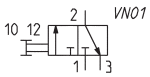


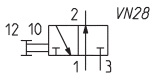


Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force	at 6 bar (N)	A	B	C (Supply/port)	Symbols
234-975	2 ÷ 8	60	7		200-975	234-000	Ø4/2	VN04
235-975	2 ÷ 8	60	7		200-975	235-000	M5	VN04
244-975	2 ÷ 8	60	7		200-975	244-000	Ø4/2	VN05
245-975	2 ÷ 8	60	7		200-975	245-000	M5	VN05

Minivalves Mod. 23...-972, 24...-972

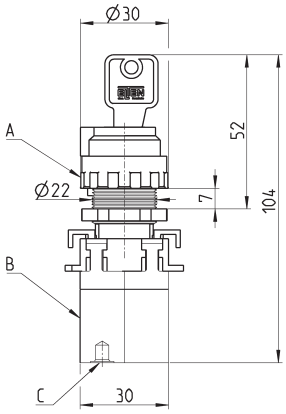


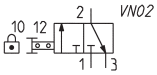


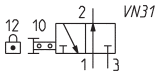


Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force	at 6 bar (N)	A	B	C (Supply/port)	Symbols
234-972	2 ÷ 8	60	7		200-972	234-000	Ø4/2	VN01
235-972	2 ÷ 8	60	7		200-972	235-000	M5	VN01
244-972	2 ÷ 8	60	7		200-972	244-000	Ø4/2	VN28
245-972	2 ÷ 8	60	7		200-972	245-000	M5	VN28

Minivalves Mod. 23...-904, 24...-904

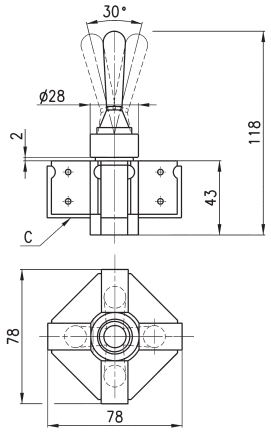


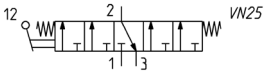




Mod.	Operating pressure (bar)	Flow (Nl/min)	A	B	C (Supply/port)	Symbols
234-904	2 ÷ 8	60	200-904	234-000	Ø4/2	VN02
235-904	2 ÷ 8	60	200-904	235-000	M5	VN02
244-904	2 ÷ 8	60	200-904	244-000	Ø4/2	VN31
245-904	2 ÷ 8	60	200-904	245-000	M5	VN31

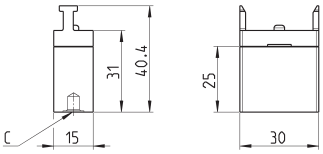
Joystick valves Mod. 234-9054, 235-9054



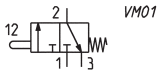


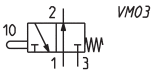
Mod.	Minimum pressure (bar)
234-9054	2
235-9054	2

Minivalves Mod. 234-000, 235-000, 244-000, 245-000



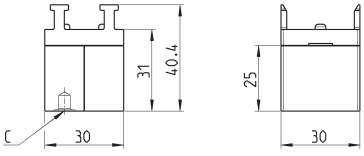
Mod.	Operating pressure (bar)	Flow (Nl/min)	Symbols
234-000	2 ÷ 8	60	VM01
235-000	2 ÷ 8	60	VM01
244-000	2 ÷ 8	60	VM03
245-000	2 ÷ 8	60	VM03

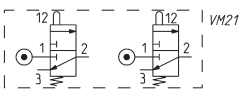




Minivalves Mod. 284-000, 285-000

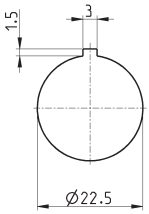
The codes shown in the table are composed by two 3/2-way valves NC which can be operated with the control device Mod. 200-870 only.





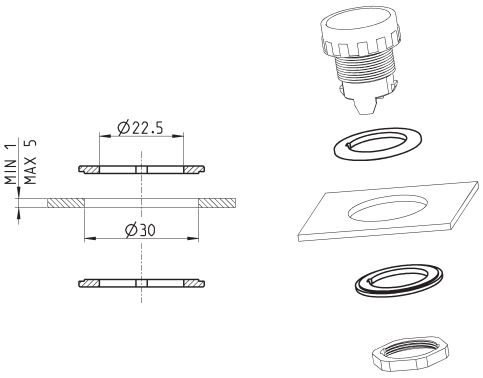
Mod.	Operating pressure (bar)	Flow (Nl/min)	Symbols
284-000	2 ÷ 8	60	VM21
285-000	2 ÷ 8	60	VM21

Drilling for mounting



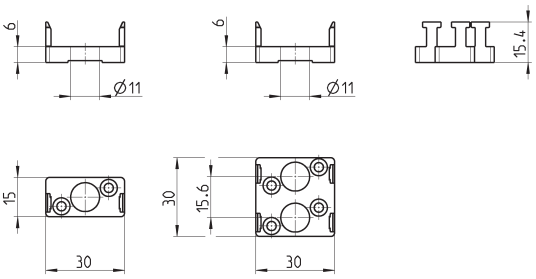
Adaptor

Panel hole adaptor Ø30
Supplied with:
2x reduction rings



Mod.
200-2230

End cover



Mod.
210-000
220-000

Series 1, 3, 4 and VMS manually operated valves

Series 1, 3 and 4: 3/2-, 5/2- and 5/3-way CC, CO; ports G1/8, G1/4
Series VMS: 3/2-way; ports M5, G1/8, G1/4, G3/8, G1/2 and G3/4

Series 3 manual valves (G1/8) and Series 4 (G1/4), 3/2-, 5/2- and 5/3-way, are available with several devices designed to satisfy different needs.
Series 1 is provided with two devices: pushbutton (3/2-way) and lever (3/2 and 5/2-way).
Series VMS valves are 3/2-way slide valves which are available with ports M5, G1/8, G1/4, G3/8, G1/2 and G3/4.

The 3/2-way valves Series 3 and 4 are normally closed when 1 is the inlet and they can also be normally open when 3 is the inlet.
Series 3 and 4 5/2-way valves can be supplied via ports 3 and 5 with two different pressures, if a cylinder has to be operated using a delivery pressure which is different from the return pressure.

GENERAL DATA

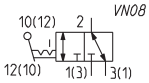
Construction	Series 3 and 4: spool-type Series 1: poppet-type Series VMS: slide
Function	Series 1, 3 and 4: 3/2 - 5/2 - 5/3 ways CC CO Series VMS: 3/2-way
Materials	aluminium body, stainless steel spool, brass poppet, NBR seals
Ports	Series 1, 3 and 4: G1/8, G1/4 Series VMS: M5, G1/8, G1/4, G3/8, G1/2, G3/4
Ambient temperature	0°C ÷ 60°C
Medium temperature	0°C ÷ 50°C
Operating pressure	see the single models
Fluid	Filtered air, without lubrication. If lubricated air is used, it is recommended to use ISO VG32 oil. Once applied the lubrication should never be interrupted.

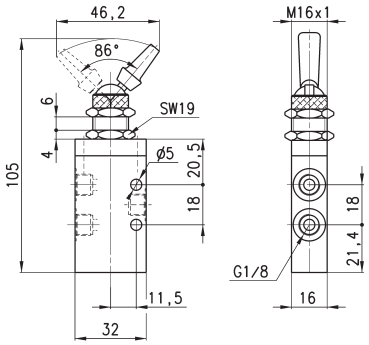
SERIES 1, 3, 4 CODING EXAMPLE

3	3	8	-	900

3	SERIES: 1 3 4
5	FUNCTION: 3 = 3/2-way NC 5 = 5/2-way 6 = 5/3-way CC 7 = 5/3-way CO
8	PORTS: 8 = G1/8 4 = G1/4
900	RESETTING: 895 = pushbutton, monostable, black 896 = pushbutton, monostable, green 897 = pushbutton, monostable, red 900 = lever, bistable 905 = lever, monostable 910 = knob, bistable 915 = knob, monostable 935 = digital monostable 975 = palm-switch, monostable, black 976 = palm-switch, monostable, green 977 = palm-switch, monostable, red 990 = switch, bistable

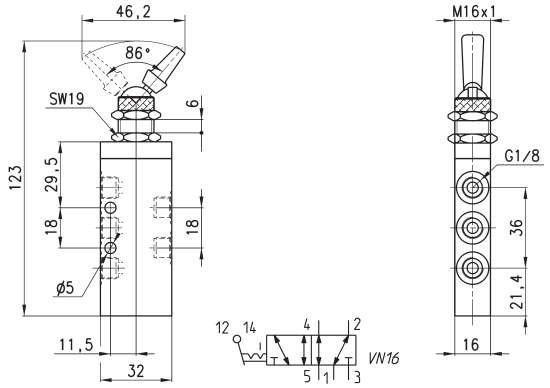
Valve Mod. 338-990





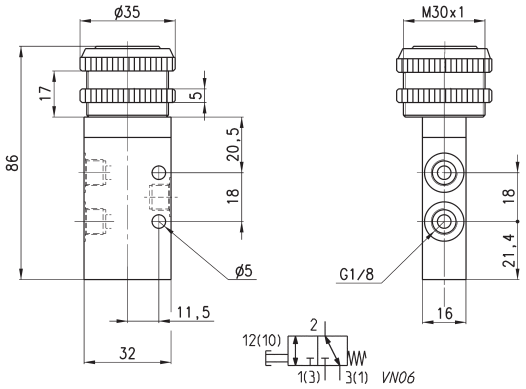
Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)
338-990	-0.9 ÷ 10	700	18

Valve Mod. 358-990



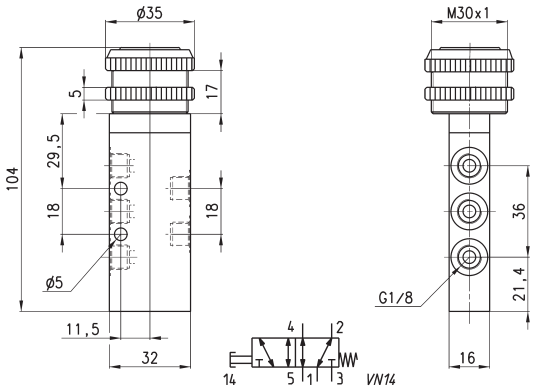
Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)
358-990	-0.9 ÷ 10	700	18

Valves Mod. 338-89...



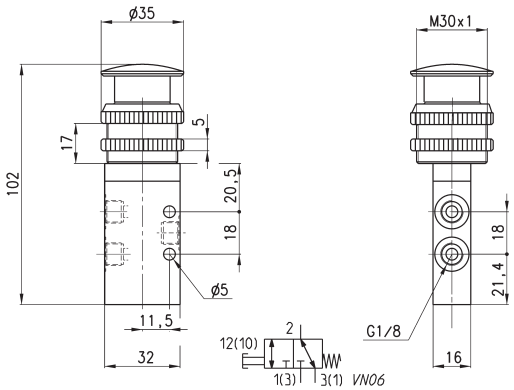
Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)	Colors
338-895	-0.9 ÷ 10	700	35	Black
338-896	-0.9 ÷ 10	700	35	Green
338-897	-0.9 ÷ 10	700	35	Red

Valves Mod. 358-89...



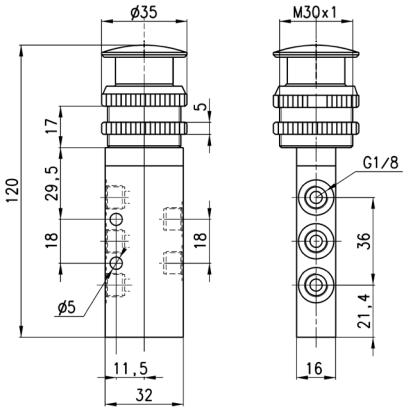
Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)	Colors
358-895	-0.9 ÷ 10	700	35	Black
358-896	-0.9 ÷ 10	700	35	Green
358-897	-0.9 ÷ 10	700	35	Red

Valves Mod. 338-97...



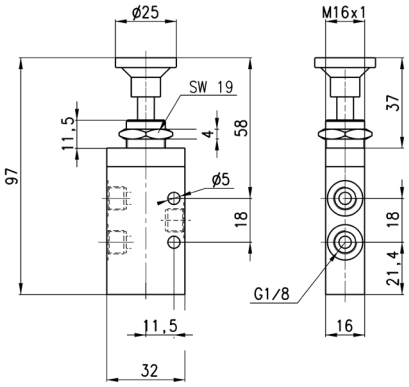
Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)	Colors
338-975	-0.9 ÷ 10	700	35	Black
338-976	-0.9 ÷ 10	700	35	Green
338-977	-0.9 ÷ 10	700	35	Red

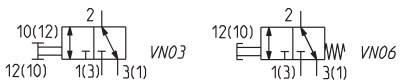
Valves Mod. 358-97...



Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)	Colors
358-975	-0.9 ÷ 10	700	35	Black
358-976	-0.9 ÷ 10	700	35	Green
358-977	-0.9 ÷ 10	700	35	Red

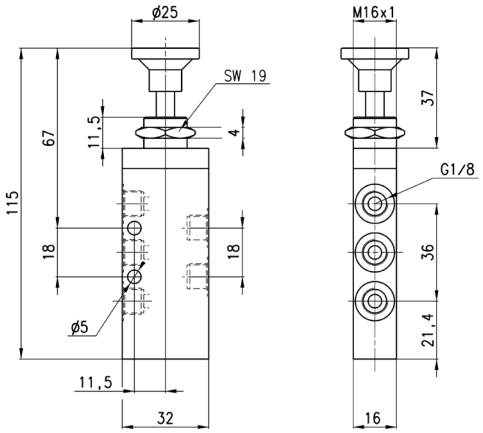
Valves Mod. 338-91...

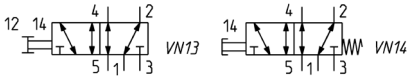




Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)	Symbol
338-910	-0.9 ÷ 10	700	6	VN03
338-915	-0.9 ÷ 10	700	35	VN06

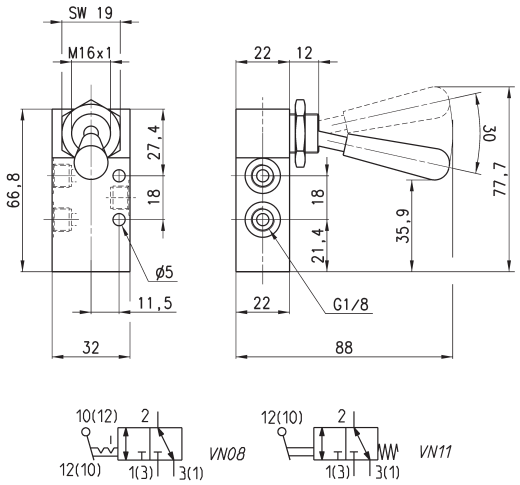
Valves Mod. 358-91...





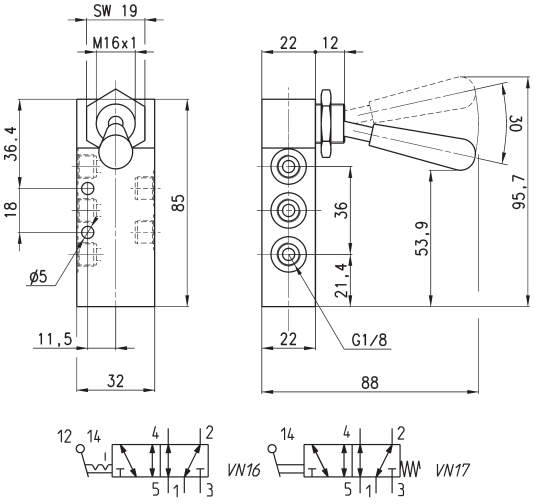
Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)	Symbol
358-910	-0.9 ÷ 10	700	6	VN13
358-915	-0.9 ÷ 10	700	35	VN14

Valves Mod. 338-90...



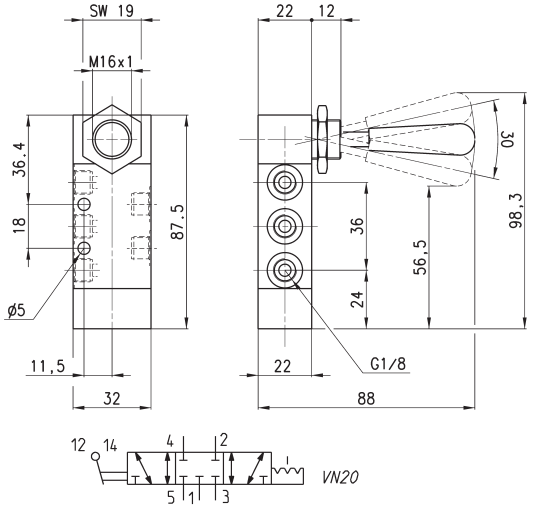
Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)	Symbol
338-900	-0.9 ÷ 10	700	5	VN08
338-905	-0.9 ÷ 10	700	22	VN11

Valves Mod. 358-90...



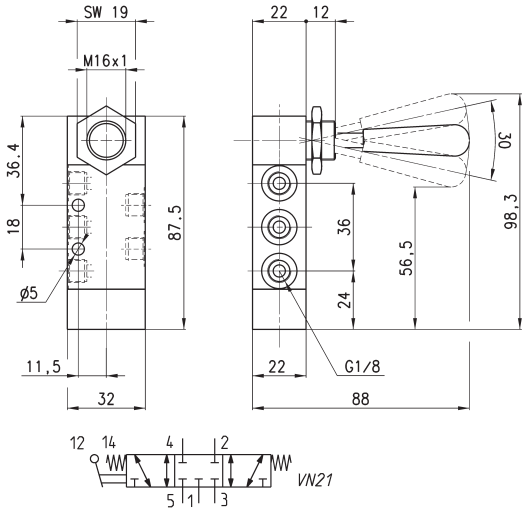
Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)	Symbol
358-900	-0.9 ÷ 10	700	5	VN16
358-905	-0.9 ÷ 10	700	22	VN17

Valve Mod. 368-900



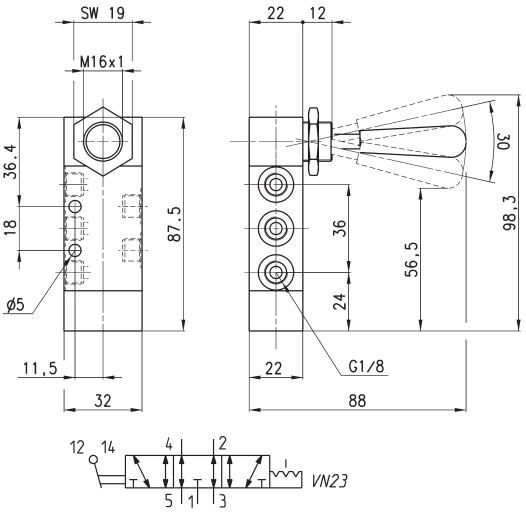
Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)
368-900	-0.9 ÷ 10	500	5

Valve Mod. 368-905



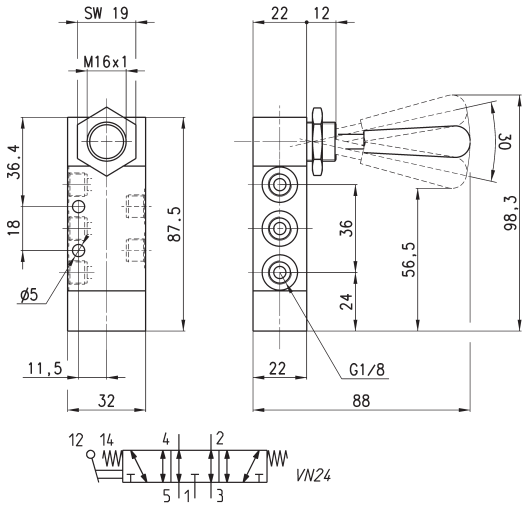
Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)
368-905	-0.9 ÷ 10	500	20

Valve Mod. 378-900



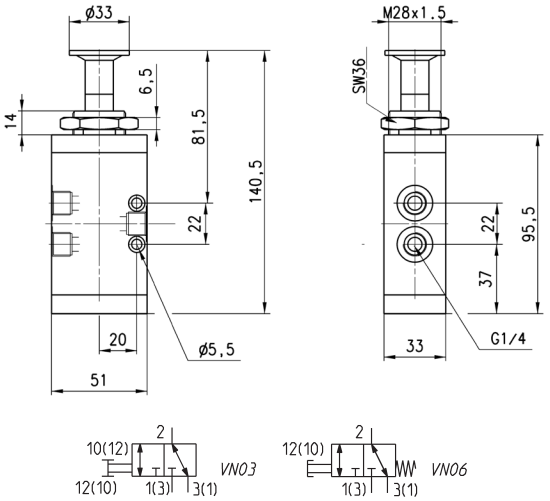
Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)
378-900	-0.9 ÷ 10	500	5

Valve Mod. 378-905



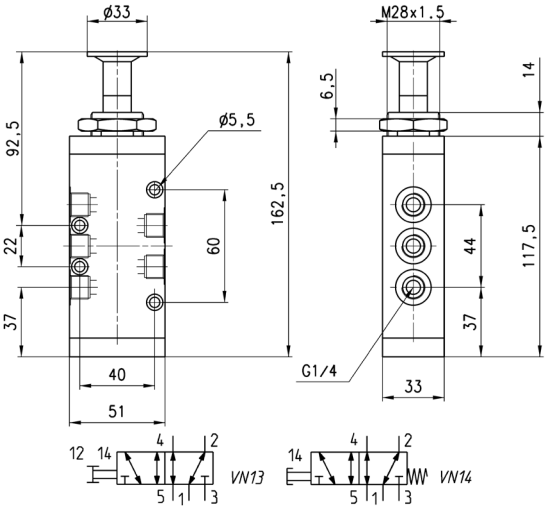
Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)
378-905	-0.9 ÷ 10	500	20

Valves Mod. 434-91...



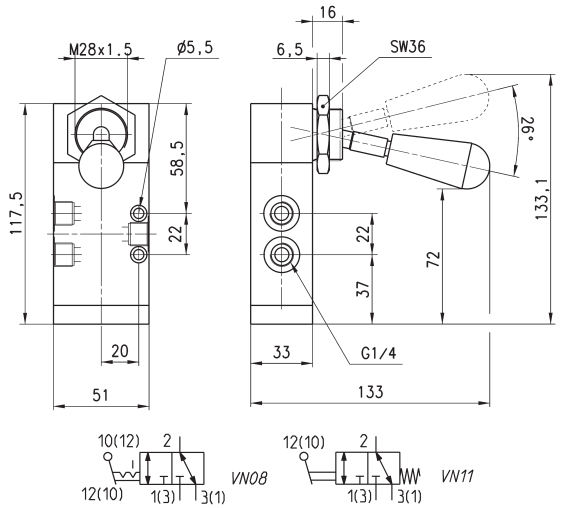
Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)	Symbol
434-910	-0.9 ÷ 10	1250	10	VN03
434-915	-0.9 ÷ 10	1250	37	VN06

Valves Mod. 454-91...



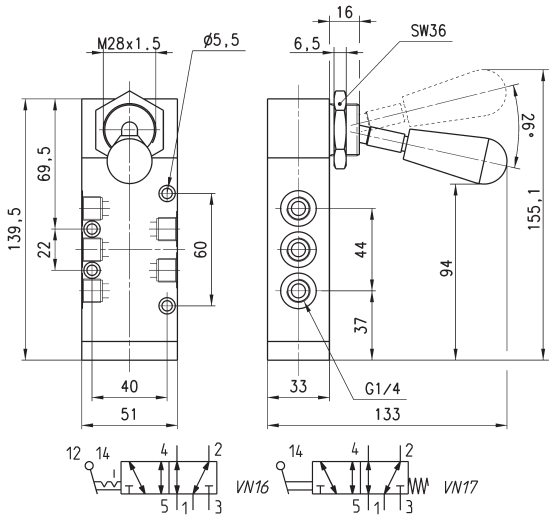
Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)	Symbol
454-910	-0.9 ÷ 10	1250	10	VN13
454-915	-0.9 ÷ 10	1250	37	VN14

Valves Mod. 434-90...



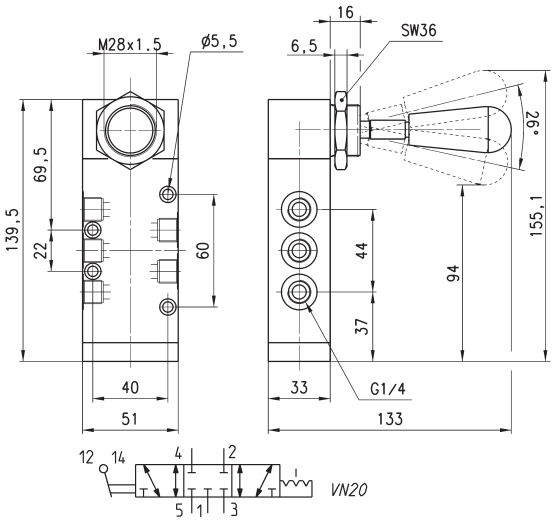
Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)	Symbol
434-900	-0.9 ÷ 10	1250	5	VN08
434-905	-0.9 ÷ 10	1250	37	VN11

Valves Mod. 454-90...



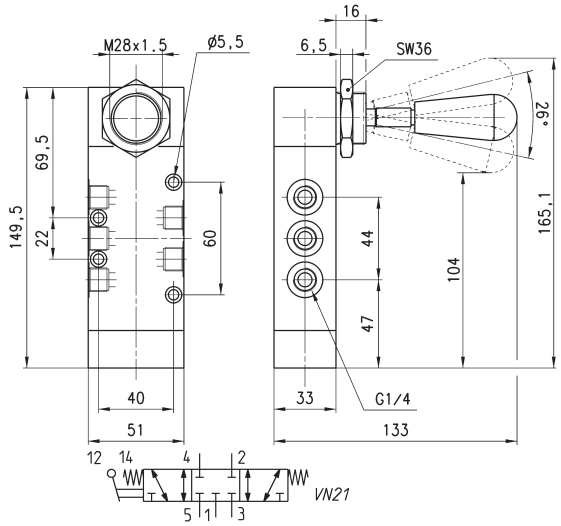
Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)	Symbol
454-900	-0.9 ÷ 10	1250	5	VN16
454-905	-0.9 ÷ 10	1250	37	VN17

Valve Mod. 464-900



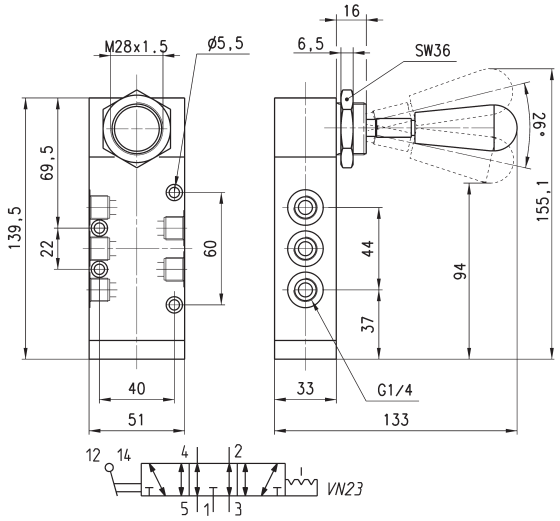
Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)
464-900	-0.9 ÷ 10	1250	5

Valve Mod. 464-905



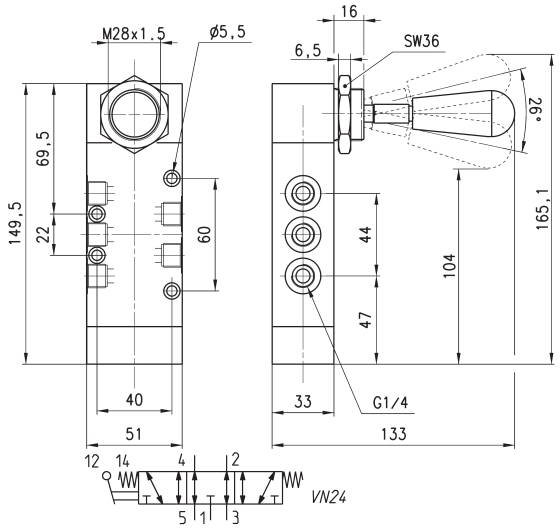
Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)
464-905	-0.9 ÷ 10	1250	10

Valve Mod. 474-900



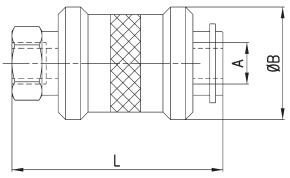
Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)
474-900	-0.9 ÷ 10	1250	5

Valve Mod. 474-905

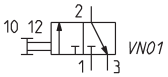


Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)
474-905	-0.9 ÷ 10	1250	10

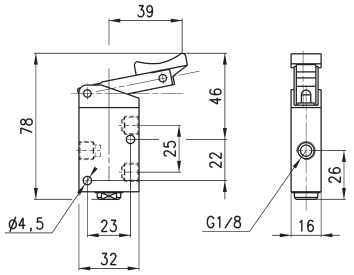
Series VMS slide valves

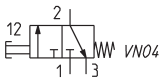


Mod.	A	ØB	L	Flow at 6 bar ΔP 1 (Nl/min) 1-2	Flow at 6 bar ΔP 1 (Nl/min) 2-3	Operating press. (bar)	Operating temp. (°C)
VMS-105-M5	M5	15	33,5	140	145	0 ÷ 15	-10 ÷ 80
VMS-118-1/8	G1/8	25	48	600	740	0 ÷ 15	-10 ÷ 80
VMS-114-1/4	G1/4	30	58	1200	1780	0 ÷ 15	-10 ÷ 80
VMS-138-3/8	G3/8	35	70	2100	1830	0 ÷ 15	-10 ÷ 80
VMS-112-1/2	G1/2	40	80	3350	4030	0 ÷ 15	-10 ÷ 80
VMS-134-3/4	G3/4	49,5	83	5350	5000	0 ÷ 15	-10 ÷ 80



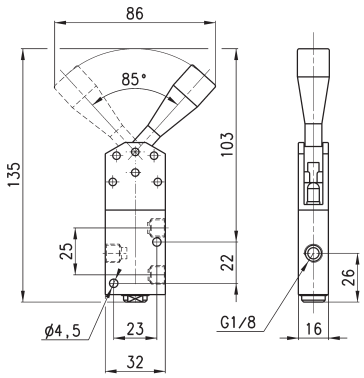
Valve Mod. 138-935

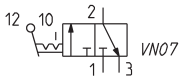




Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)
138-935	0 ÷ 10	500	38

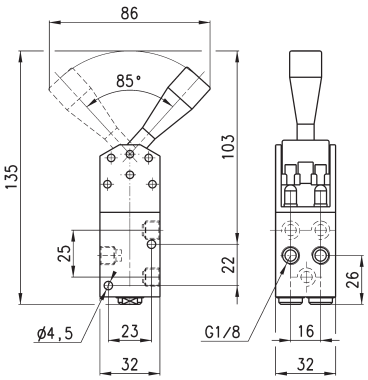
Valve Mod. 138-900

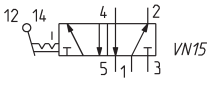




Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)
138-900	0 ÷ 10	500	25

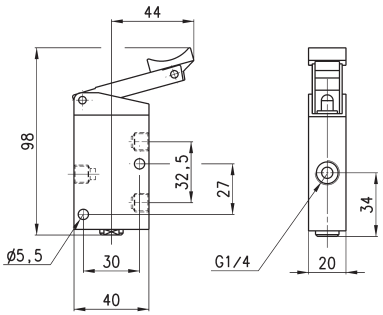
Valve Mod. 158-900

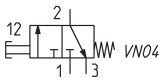




Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)
158-900	0 ÷ 10	500	45

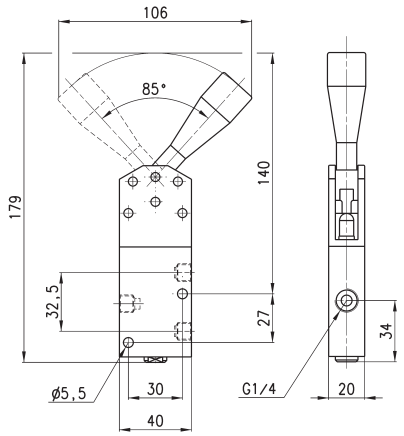
Valve Mod. 134-935

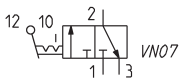




Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)
134-935	0 ÷ 10	1250	40

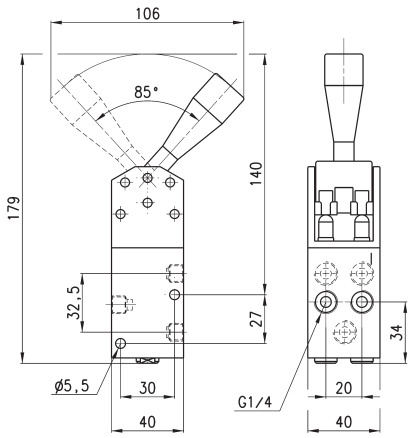
Valve Mod. 134-900

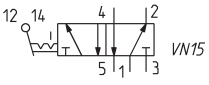




Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)
134-900	0 ÷ 10	1250	30

Valve Mod. 154-900





Mod.	Operating pressure (bar)	Flow (Nl/min)	Actuating force (N)
154-900	0 ÷ 10	1250	55

Series 2
mini-handle valves

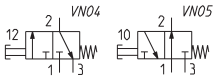
Handle with incorporated micro valve 3/2 NC and NO
Handle with incorporated micro switch

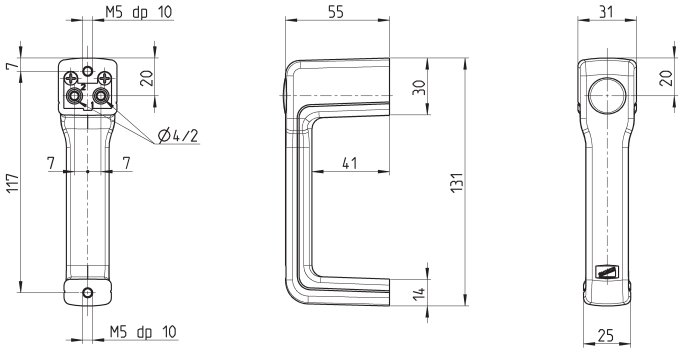
Manual handle with integrated pneumatic micro valve 3/2 or with an electrical micro switch with single pole changeover contacts.
Rugged construction particularly suited to be incorporated in to other equipment.

GENERAL DATA

Construction	poppet-type (closed centres)
Valve group	way/pos. 3/2 way NC and NO
Nominal diameter	2,5 mm
Fixing	N°2 holes M5
Ports	push in cartdrige Ø4
Installation	in any position
Operating temperature	0 ÷ +70°C (-20°C with dry air)
Operating pressure	2 ÷ 8 bar
Nominal flow rate	Qn 60 Nl/min. (6 bar Δ p1)
Fluid	Filtered air, without lubrication. If lubricated air is used, it is recommended to use ISO VG32 oil. Once applied the lubrication should never be interrupted.
Actuating force	at 6 bar 13N
Construction	switch device
Electrical connections	3 wires Ø external 2,2 mm internal section 0,5 length 30 cm NC = black wire NO = blue wire
Fixing	N° 2 holes M5
Mounting	in any position
Protection class	IP40
Activation stroke	2 mm
Actuating force	5 N

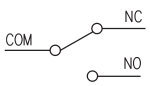
Handle 3/2 NC and NO

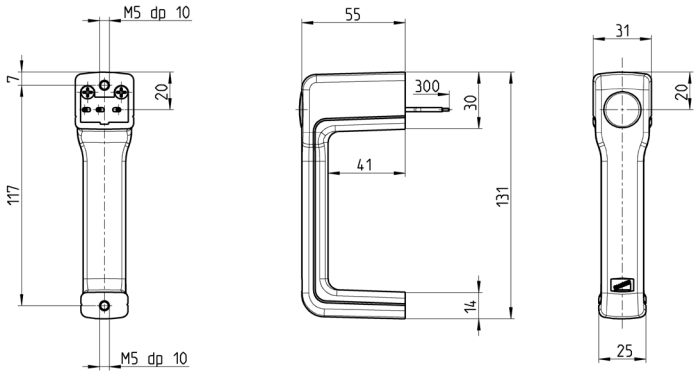




Mod.	Symbol
234-885	VN04
244-885	VN05

Handle





Electrical characteristics

Mod.	Voltage	Non-inductive load Resist. NC / NO	Non-inductive load Lamp NC / NO	Inductive load NC / NO	Inductive load Motor NC/NO
234-88E	125VAC	5A	1,5 A / 0,7 A	3 A	2,5 A / 1,3 A
	250 VAC	3A	1 A / 0,5 A	2 A	1,5 A / 0,8 A
	8 VDC	5A	2 A	5 A / 4 A	3 A
	14 VDC	5A	2 A	4 A	3 A
	30 VDC	4A	2 A	3 A	3 A
	125 VDC	0,4A	0,05 A	0,4 A	0,05 A
	250 VDC	0,2A	0,03 A	0,2 A	0,03 A
234-88E	The above-mentioned values refer to steady-state-current	The inductive load refers to power factor = 0,4 in AC. and a time constant of 7 msec max. in DC.	Lamp load has an inrush current of 10 times the steady-state current.	Motor load has an inrush current of 6 times the steady-state current.	If the switch is used in a DC circuit and is subjected to a surge connect a surge suppressor across the switch.

Series 2L
basic logic valves

Cartridge Ø 4 mm.
or - and - yes - not - memory

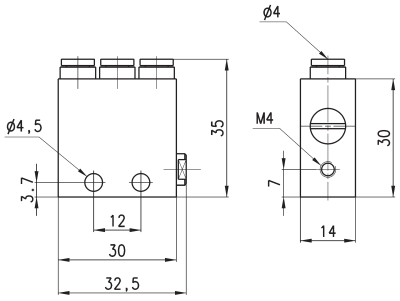
Series 2L basic logic functions are available in 5 different models and can be mounted separately by means of 2 passing holes in the body.
Bracket Mod. 2LQ-8A allows to have the inlets and outlets on the front side, facilitating the mounting of the connection tubes.

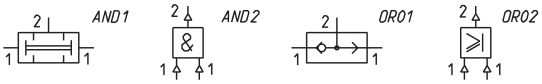
All models are constructed with the pressure window incorporated, which allows an easy detection of any problems.
Moreover the fittings are incorporated into the valve body and are super-rapid ø4.
The "NOT" element has an actuating pressure of 0,3 bar.

GENERAL DATA

Construction	poppet (spool memory)
Materials	aluminium body; NBR seals; OT58 brass
Valve group	automatic valves (logic units)
Ports	cartridge ø 4
Operating temperature	0°C ÷ 60°C (-20°C with dry air)
Operating pressure	2 bar ÷ 10 bar
Nominal flowrate	100 Nl/min. (6 bar ΔP = 1)
Fluid	filtered air, without lubricant. If lubricated air is used, it is recommended to use oil ISO VG32. Once applied the lubrication should never be interrupted.

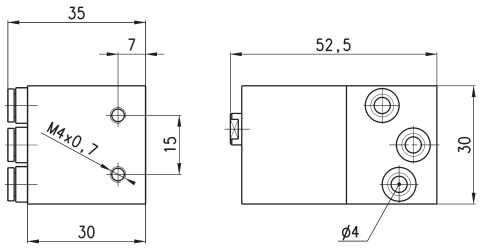
Basic logic valves AND / OR

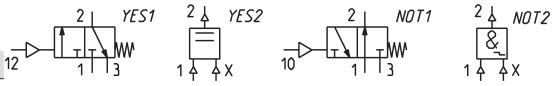




Mod.	Function	Pneumatic symbol	Logic symbol
2LD-SB4-B	AND	AND1	AND2
2LR-SB4-B	OR	OR01	OR02

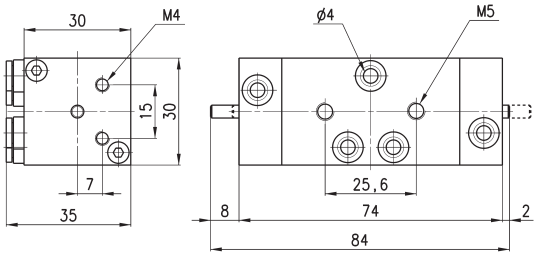
Basic logic valves YES / NOT

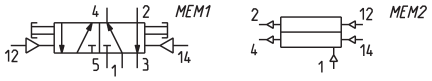




Mod.	Function	Pneumatic symbol	Logic symbol
2LS-SB4-B	YES	YES1	YES2
2LT-SB4-B	NOT	NOT1	NOT2

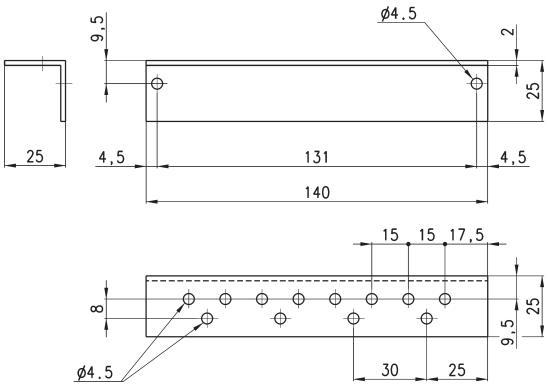
Basic logic valves “Memory”





Mod.	Function	Pneumatic symbol	Logic symbol
2LM-SB4-B	Memory	MEM1	MEM2

Right-angled bracket



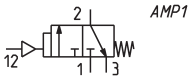
Mod.
2LQ-8A

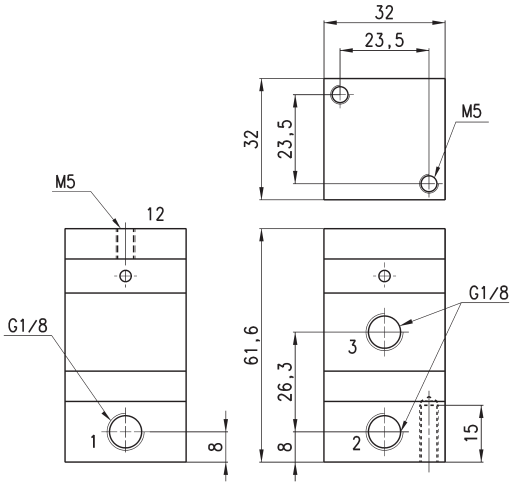
Pneumatically operated 3/2 NC amplifier valve - G1/8 ports

The amplifier valve Mod. 2LA-AM is able to change low pressure signals into signals with pressure from 2 to 8 bar. The poppet type construction shows a minimum permanent air consumption at rest.

Mounting: with M5 screws
Installation: in any position
Fluid: filtered air, without lubricant

Materials:
- AL body
- NBR seals





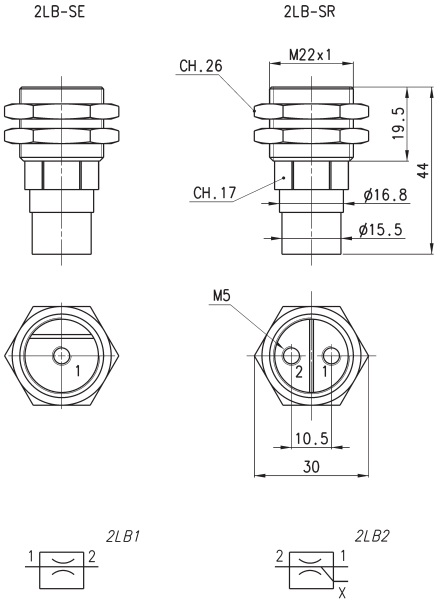
Mod.	Working pressure (bar)	Min/max operating pressure (bar)	Permanent air consumption at rest (Nl/min)	Nominal flow (Nl/min ΔP 1)
2LA-AM	2 ÷ 8	0.03 / 0.6	3.3	120

Sender and receiver sensor Series 2L - M5 ports

Materials: aluminium - brass
Construction: nozzle without moving parts
Threading mounting: M22 x 1
Mounting diameter: 22.5 mm
Mounting bracket: B20-25, E20-25
Max air consumption: P 2 bar 45 Nl/min
Fluid: filtered air, without lubricant

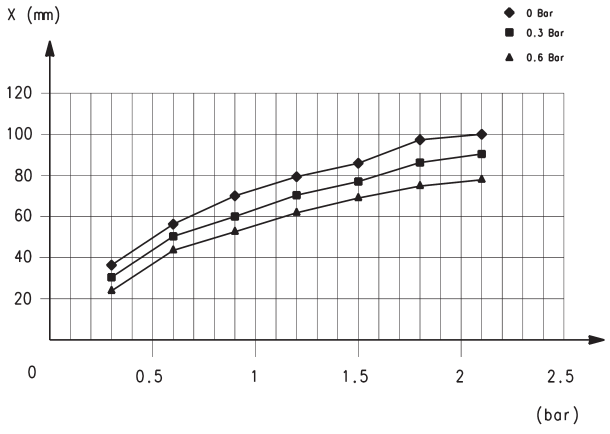
Conditions of functioning: the receiver pressure (2LB-SR) has to be lower or equal compared with the sender pressure (2LB-SE)

The receiver nozzle (2LB-SR) is supplied to ensure the self-cleaning. The air jet of the sender (2LB-SE) avoids the free outflow of the air jet from the receiver. A back pressure is thus produced that generates at outlet A a pilot pressure which is sent to the amplifier drive. When an object interrupts the air jet between the two sensors, this signal becomes zero.

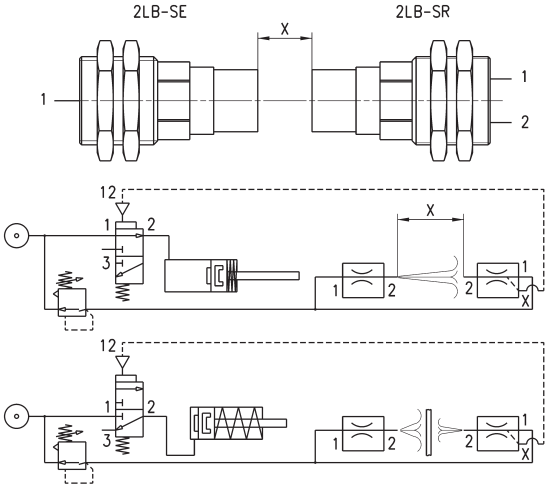


Mod.	Type	Min. pressure	Max pressure	Temperature	Symbol
2LB-SE	Sender	0.3 bar	2 bar	-20°C ÷ +60°C	2LB1
2LB-SR	Receiver	0.3 bar	0.6 bar	-20°C ÷ +60°C	2LB2

SENDER AND RECEIVER SENSORS SERIES 2L



DISTANCE DIAGRAM between
SENDER (2LB-SE) and RECEIVER (2LB-SR)
according to the supply pressures



X = distance between nozzles (30 mm ÷ 80 mm)

Circuit selector Mod. SCS

Ports: G1/8

» Channelling of two signals coming alternately from two different points towards the same point

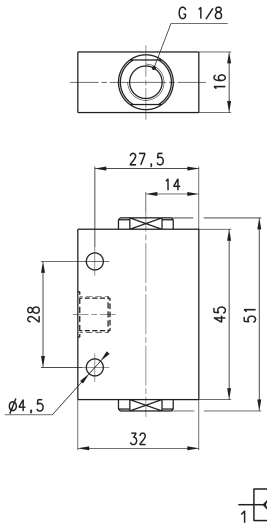
The circuit selector Mod. SCS - 668-06 enables two signals coming alternately from two different points to be channelled towards the same point.

GENERAL DATA

Valve group	automatic valves
Construction	poppet-type
Materials	AL body brass bush Delrin poppet NBR seals
Mounting	in any position
Ports	G1/8
Operating temperature	0°C ÷ 80°C (with dry air -20°C)
Medium	filtered air, without lubrication. If lubricated air is used, it is recommended to use ISO VG32 oil. Once applied the lubrication should never be interrupted.

Circuit selector Mod. SCS

The selector is mounted by through holes in the body.



Mod.	Flow (Nl/min)	Min. operating pressure (bar)	Max working pressure (bar)
SCS-668-06	800	0.2	10

Series VNR
Unidirectional valves

New models

Ports of Thread version: M5, G1/8, G1/4, G3/8, G1/2, G3/4, G1
Dimensions of Tube/Tube version: Ø4; Ø6; Ø8; Ø10; Ø12

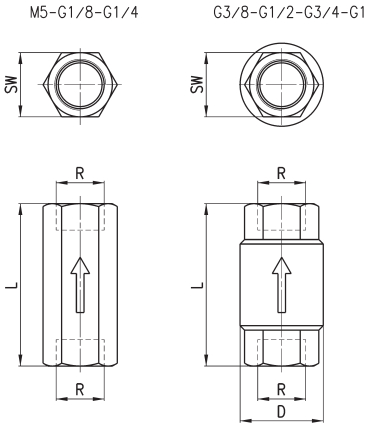
- In-line mounting thanks to integrated fittings
- Low operating pressures
- Robust design, brass body
- Version 6580 and 6510 in FKM with a wide range of chemical compatibility and operating temperatures extended.
- Version for use with oxygen available

Series VNR unidirectional valves are available in the Thread or Integrated Fitting version. Thanks to their construction they operate at low pressures.

GENERAL DATA

Valve group	automatic valves
Construction	poppet-type
Materials	brass body stainless steel spring NBR/FKM seals (for version 6580)
Mounting	in any position
Dimensions thread version	M5, G1/8, G1/4, G3/8, G1/2, G3/4, G1
Dimensions tube version	Ø4; Ø6; Ø8
Operating temperature	0 °C ÷ 80 °C; NBR (with dry air -20 / +80 °C) FKM (with dry air - 20 / +200 °C)
Medium	filtered air without lubrication. If lubricated air is used, it is recommended to use ISO VG32 oil. Once applied the lubrication should never be interrupted.

Series VNR unidirectional valves



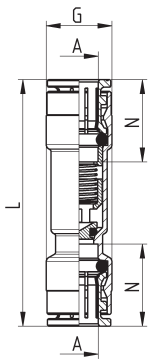
VNR1

DIMENSIONS

Mod.	R	L	SW	D	Flow 6 bar ΔP1(Nl/min)	Min. operating pressure (bar)	Max working pressure (bar)
VNR-205-M5	M5	25	8	9	50	1	10
VNR-210-1/8	G1/8	34	13	15	600	0.2	10
VNR-843-07	G1/4	43	17	20	1400	0.2	10
VNR-238-3/8	G3/8	55	23	34.5	3000	0.02	25
VNR-212-1/2	G1/2	58.5	27	34.5	5800	0.02	25
VNR-234-3/4	G3/4	65	33	41.5	8000	0.06	25
VNR-201-01	G1	74.5	40	48	13000	0.06	25

Series VNR unidirectional valves

New

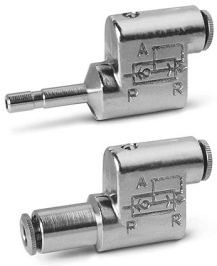


VNR1

Mod.	A	G	L	N	Flow 6 bar ΔP1(Nl/min)	Min. operating pressure (bar)	Max operating pressure (bar)	Weight (g)
6580 4-VNR	4	9	40	14	85	0,5	10	13
6580 6-VNR	6	12	48	16	450	0,2	10	20
6580 8-VNR	8	14	52.5	17.5	900	0,2	10	30

Series VSO, VSC quick exhaust valves

Series VSO ports: M5, G1/8, cartridge ø4
Series VSC ports: G1/8, G1/4, G1/2



- Suitable to rapidly discharge air contained in tanks, systems or cylinder chambers.
- Threaded versions and with fitting

Series VSC and VSO quick exhaust valves are commonly used to increase the speed of cylinders or for rapid depressurisation of tanks containing compressed air.

Mod. VSO 425-M5, VSO 426-04: they are particularly suitable to be mounted on solenoid valves and valves incorporating a ø 4 cartridge.

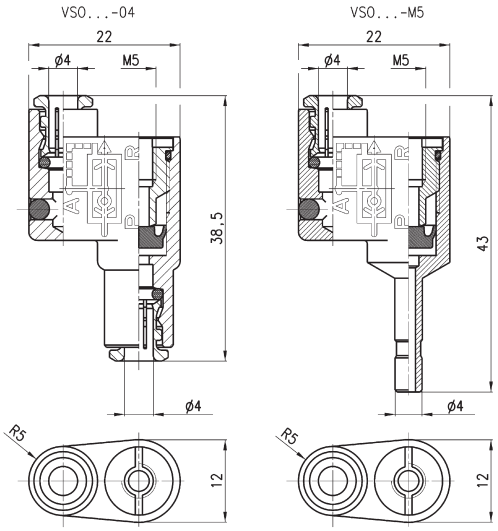
Mod. VSO 4-1/8: it is particularly suitable for direct mounting on the actuator connection. The air coming in from the jointed part (1) is used by the threaded side (2), whilst the exhaust (3) passes through the holes sideways to the valve body.

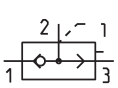
Mod. VSC: they are particularly suitable to be mounted directly on the cylinder mouth through the use of a nipple. It is recommended to mount a silencer on the outlet.

GENERAL DATA

Valve group	automatic valves
Construction	poppet-type
Materials	Series VSO: brass body - NBR seals Series VSC: brass body - Desmopan seal
Mounting	in any position
Ports	Series VSO: M5, G1/8, cartridge ø4 Serie VSC: G1/8, G1/4, G1/2
Operating temperature	0°C ÷ 80°C (with dry air -20°C)
Fluid	filtered air, without lubrication. If lubricated air is used, it is recommended to use ISO VG32 oil. Once applied the lubrication should never be interrupted.

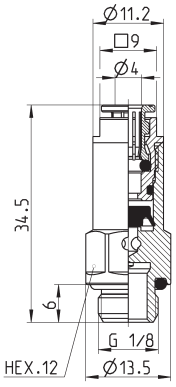
Quick exhaust valves Mod. VSO 425-M5, VSO 426-04

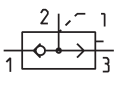




Mod.	Ports	Flow rate at 6 bar 1 > 2 (Nl/min)	Flow rate at 6 bar 2 > 3 (Nl/min)	Min. operating pressure (bar)	Max working pressure (bar)
VSO 425-M5	M5	50 (ΔP = 1 bar)	100 (ΔP = 1 bar)	1	16
VSO 426-04	cartridge ø4	50 (ΔP = 1 bar)	100 (ΔP = 1 bar)	1	16

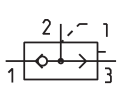
Quick exhaust valve Mod. VSO 4-1/8



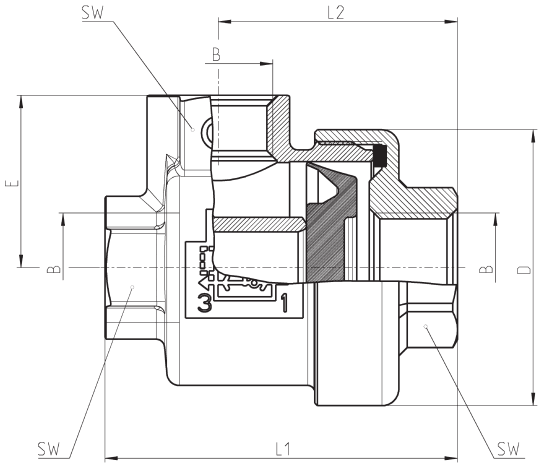


Mod.	Ports	Flow rate at 6 bar 1 > 2 (Nl/min)	Flow rate at 6 bar 2 > 3 (Nl/min)	Min. operating pressure (bar)	Max working pressure (bar)
VSO 4-1/8	G1/8	50 (ΔP = 1 bar)	330 (free flow)	0.5	16

Series VSC quick exhaust valves



VSC1



Mod.	B	D	E	L1	L2	SW	Ports	Medium inlet flow rate 1 > 2 [flow at 6 bar, ΔP 1 bar] (Nl/min)	Medium exhaust flow rate 2 > 3 [flow at 6 bar, ΔP 1 bar] (Nl/min)	Min. operating pressure (bar)	Max working pressure (bar)
VSC 588-1/8	1/8	28	17.5	36.5	25	14	G1/8	630	940	0.5	12
VSC 544-1/4	1/4	33	20.5	42	28.5	17	G1/4	860	1600	0.3	12
VSC 522-1/2	1/2	43	27	57.5	39.5	24	G1/2	4700	6250	0.2	12

Adjustable overpressure exhaust valve Mod. VMR 1/8-B10

Ports: G1/8

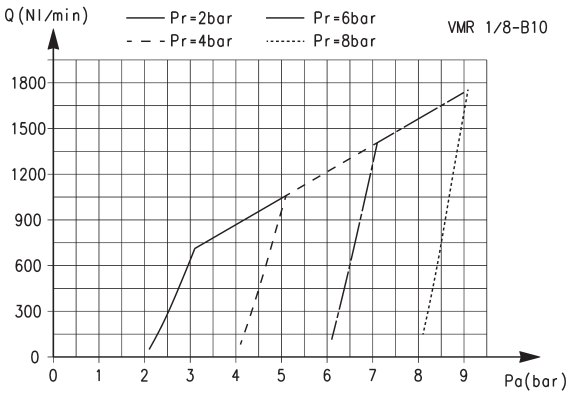
» Able to maintain pressure constant at a set value which allows the overpressure to exhaust

The adjustable valve Mod. VMR 1/8-B10 allows to discharge the overpressure that can be generated in a volume.

GENERAL DATA

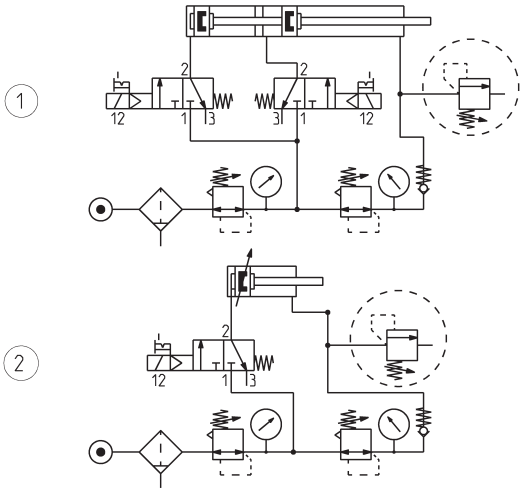
Valve group	automatic valves
Construction	diaphragm type
Materials	brass body zinc-plated steel spring NBR seals
Mounting	in any position
Ports	G1/8
Operating temperature	-5°C ÷ 50°C (with the dew point of the fluid lower than 2°C at the min. working temperature)
Medium	filtered air, without lubrication. If lubricated air is used, it is recommended to use ISO VG32 oil. Once applied the lubrication should never be interrupted.

FLOW DIAGRAM and FUNCTIONING SCHEMES



FLOW DIAGRAM

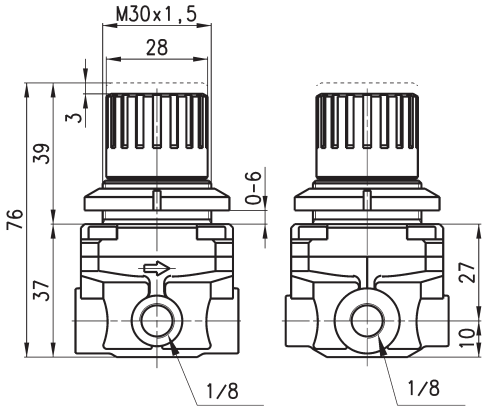
Pa = Inlet pressure
Pr = Regulated pressure
Q = Flow

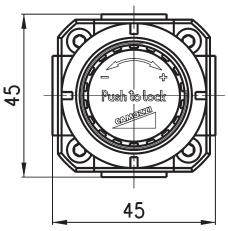


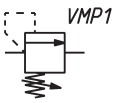
FUNCTIONING SCHEME 1: overpressure exhaust in a cylinder chamber or in a tank when the set value has been exceeded.

FUNCTIONING SCHEME 2: VMR valve with maximum adjustable pressure allows pressure in a cylinder chamber or in tank to exhaust in the atmosphere every time the set regulation value is exceeded.

Valve with maximum adjustable pressure Mod. VMR 1/8-B10







Mod.	Working pressure (bar)
VMR 1/8-B10	1 ÷ 8

Series VBO - VBU blocking valves

Unidirectional valves (VBU) and bidirectional valves (VBO)
Ports G1/8, G1/4, G3/8 and G1/2

- Series VBU: unidirectional valves with operating pressure from 0.3 to 10 bar
- Series VBO: bidirectional valves with operating pressure from 0 to 10 bar
- Direct mounting on cylinders or on distribution and fluid control blocks

These unidirectional and bidirectional blocking valves have been realised in order to enable mounting directly on cylinders.
They can be used as high flow valves for blows, cleaning of pieces, filling of volumes.
For these applications it is suggested to connect the supply to port 2 (having the mail thread).

These valves can be mounted directly also on distribution and fluid control blocks.

GENERAL DATA

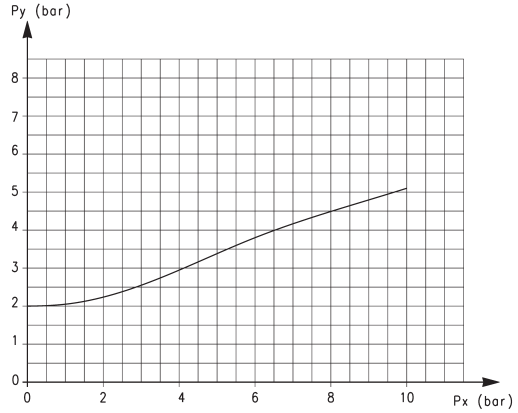
Construction	poppet type
Valve group	unidirectional and bidirectional blocking valve
Materials	Brass - NBR seals - stainless steel springs - PTFE
Mounting	by male thread
Ports	G1/8 - G1/4 - G3/8 - G1/2
Position	in any position
Operating temperature	0°C ÷ 80°C (with dry air -20°C)
Operating pressure	VBU: 0,3 ÷ 10 bar, VBO: 0 ÷ 10 bar
Nominal pressure	6 bar
Nominal flow	see graph
Nominal diam.	G1/8 ø 5,5 mm - G1/4 ø 8 mm - G3/8 ø 11 mm - G1/2 ø 15 mm
Fluid	filtered air, without lubrication. If lubricated air is used, it is recommended to use oil ISO VG32. Once applied, the lubrication should never be interrupted.

CODING EXAMPLE

VB	U		1/8

VB	SERIES: VB
U	VERSIONS: U = unidirectional O = bidirectional
1/8	PORTS: G1/8 G1/4 G3/8 G1/2

DIAGRAM OF THE PILOT PRESSURE



This diagram shows the relation between working pressure (Px) and pilot pressure required in order to operate the valve (Py).
The opening pressure of the unidirectional valve is 0,3 bar.

FLOW DIAGRAMS OF UNIDIRECTIONAL AND BIDIRECTIONAL VALVES

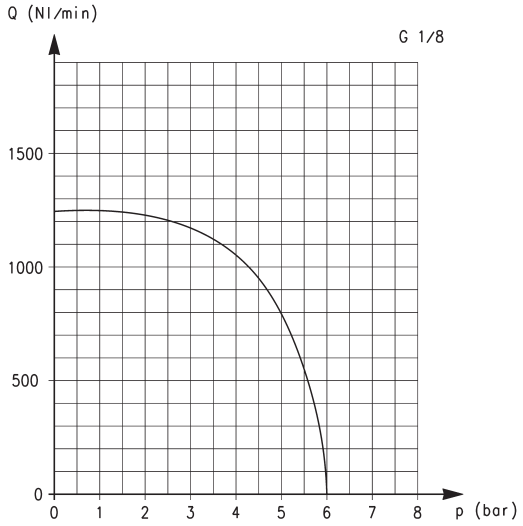


Diagram for valves VBU and VBO with G1/8 ports.

Q is the flow measured in Nl/min and determined with an inlet pressure of 6 bar.

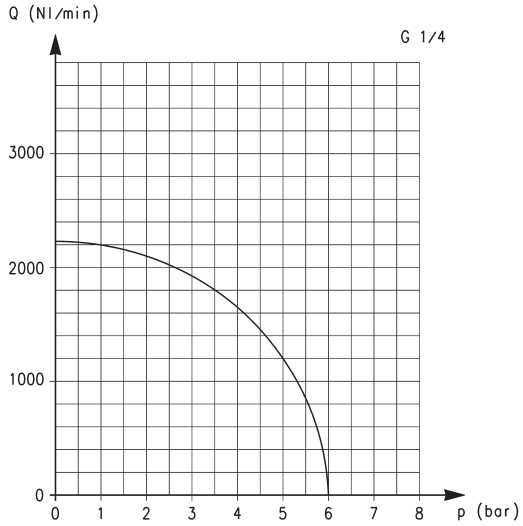


Diagram for valves VBU and VBO with G1/4 ports.

Q is the flow measured in Nl/min and determined with an inlet pressure of 6 bar.

FLOW DIAGRAMS OF UNIDIRECTIONAL AND BIDIRECTIONAL VALVES

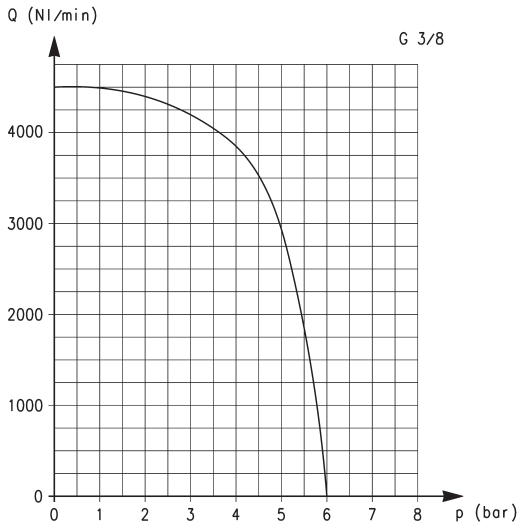


Diagram for valves VBU and VBO with G3/8 ports.

Q is the flow measured in Nl/min and determined with an inlet pressure of 6 bar.

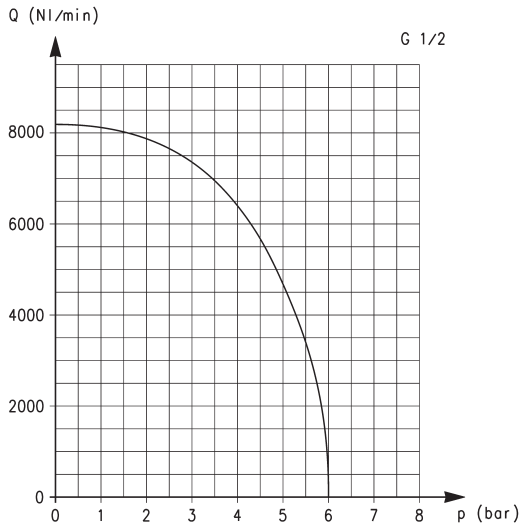
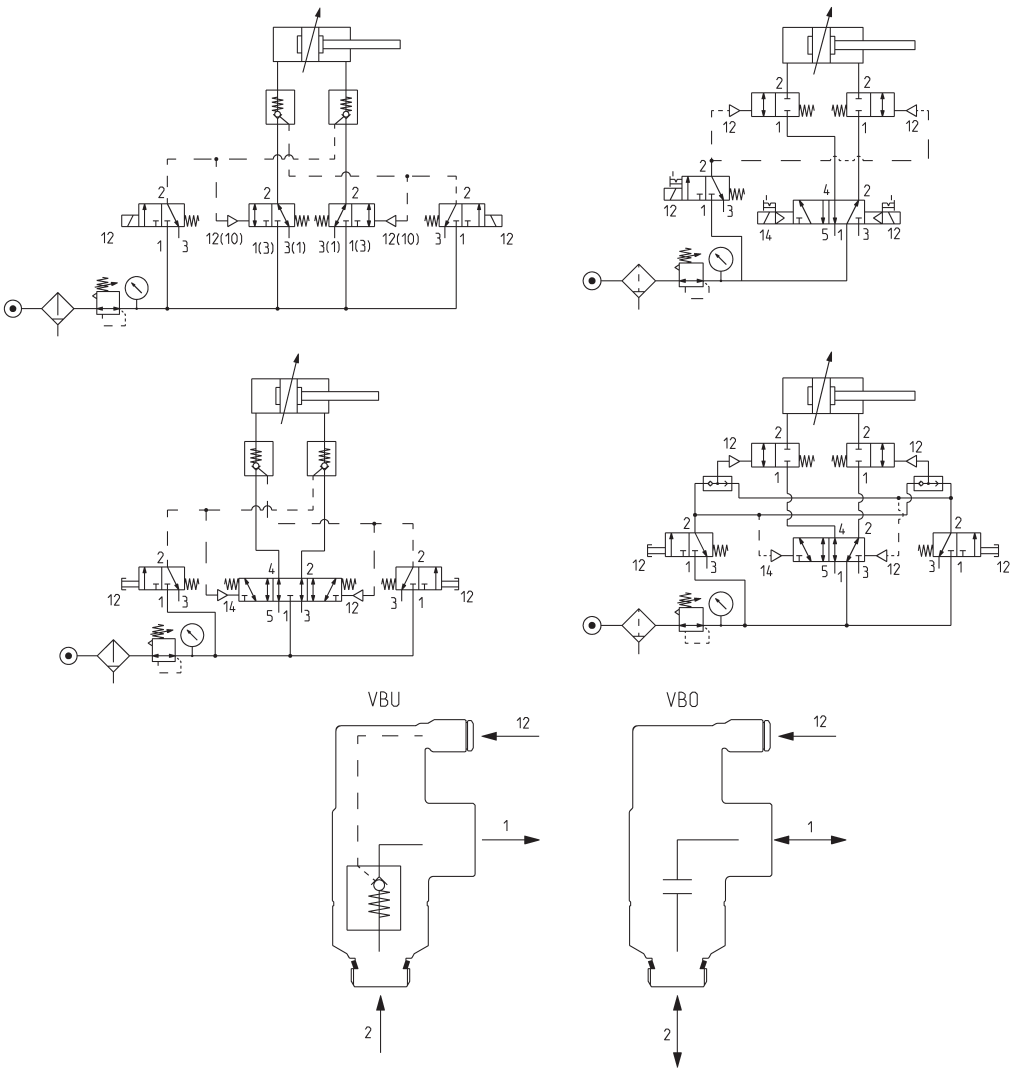


Diagram for valves VBU and VBO with G1/2 ports.

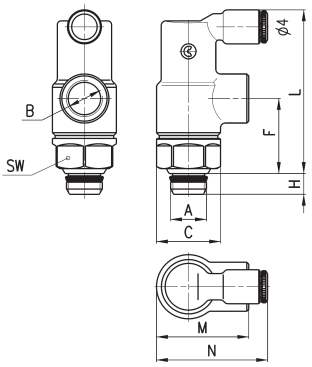
Q is the flow measured in Nl/min and determined with an inlet pressure of 6 bar.

APPLICATION SCHEMES

VBU = UNIDIRECTIONAL blocking valve
VBO = BIDIRECTIONAL blocking valve

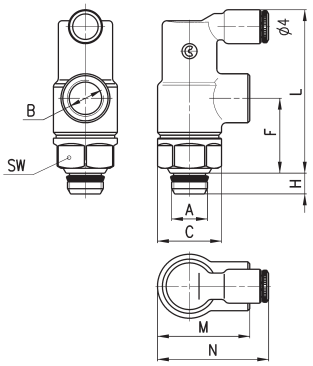


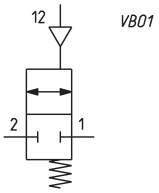
Unidirectional blocking valve



DIMENSIONS									
Mod.	A	B	C	F	H	L	M	N	SW
VBU 1/8	1/8	1/8	16,9	20	5,5	43	24,5	30	15
VBU 1/4	1/4	1/4	20,5	25	7	50	32,2	33,5	19
VBU 3/8	3/8	3/8	26,8	33	8	67	40	39,5	24
VBU 1/2	1/2	1/2	30	45,5	9	85,7	52	48	27

Bidirectional blocking valve





DIMENSIONS									
Mod.	A	B	C	F	H	L	M	N	SW
VBO 1/8	1/8	1/8	16,9	20	5,5	43	24,5	30	15
VBO 1/4	1/4	1/4	20,5	25	7	50	32,2	33,5	19
VBO 3/8	3/8	3/8	26,8	33	8	67	40	39,5	24
VBO 1/2	1/2	1/2	30	45,5	9	85,7	52	48	27

Series SCU, MCU, SVU, MVU, SCO, MCO flow control valves

Unidirectional and bidirectional banjo flow control regulators
Ports: M5, G1/8, G1/4, G3/8, G1/2

These unidirectional and bidirectional flow controllers have been designed as small as possible so as to be mounted directly on valves or cylinders.
The great variety of adjustable fittings makes it possible to complete the regulator with the most suitable system in relation to the available tube.

Only the G1/2 model is supplied complete with banjo flow controllers.
For the other models the banjo flow controller is to be requested separately.

GENERAL DATA

Construction	needle type
Valve group	unidirectional and bidirectional controller
Materials	body and regulation screw: M5 = stainless steel; 1/8 - 1/4 - 3/8 - 1/2 = OT; seals = NBR
Mounting	by male thread
Ports	M5 - G1/8 - G1/4 - G3/8 - G1/2
Installation	in any position
Operating temperature	0°C ÷ 80°C (with dry air - 20°C)
Operating pressure	1 ÷ 10 bar
Nominal pressure	6 bar
Nominal flow	see graph
Nominal diameter	M5 = 1,5 mm - G1/8 = 2 mm - G1/4 = 4 mm - G3/8 = 7 mm - G1/2 = 12 mm
Fluid	filtered air. If lubricated air is used, it is recommended to use ISOVG 32 oil. Once applied the lubrication should never be interrupted.

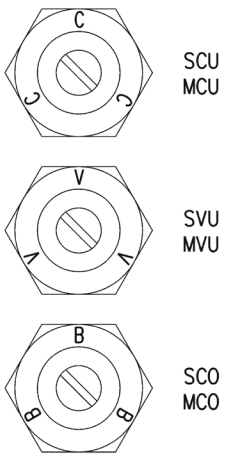
CODING EXAMPLE

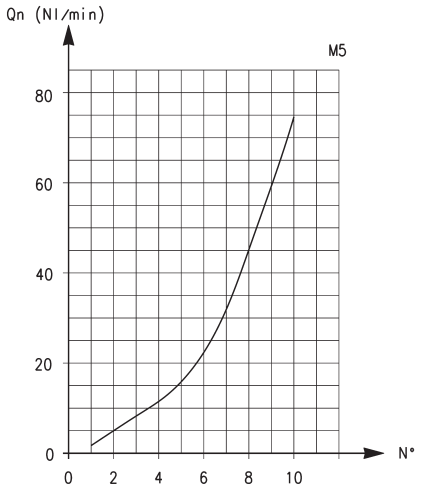
M	CU		7	02	-	M5

M	ACTUATION: M = Manual S = Screwdriver
CU	ASSEMBLY: CU = on cylinders unidirectional VU = on valves unidirectional CO = bidirectional
7	VERSIONS: 6 = needle (screwdriver operated) 7 = needle (manual operated)
02	NOMINAL DIAMETER: 02 = ø 1,5 max 04 = ø 2 max 06 = ø 4 max 08 = ø 7 max 10 = ø 12 max
M5	PORTS: M5 = M5 1/8 = G1/8 1/4 = G1/4 3/8 = G3/8 1/2 = G1/2

To ensure the right choice of unidirectional flow controller, proceed as follows: calculate the quantity of air in Nl/min (see cylinder Table); determine the stroke time of the cylinder; refer to graph to see which controller is the right type.

UNIDIRECTIONAL AND BIDIRECTIONAL FLOW CONTROLLERS

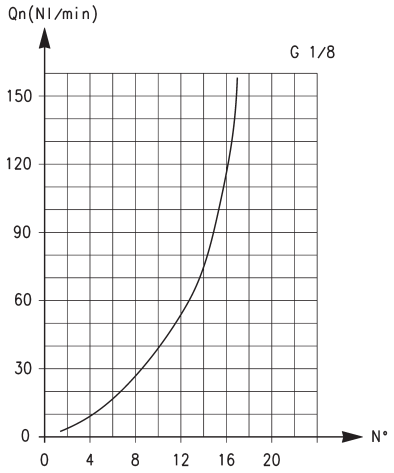




IDENTIFICATION OF DIFFERENT TYPES:
SCU - MCU = assembly directly on the cylinders
SVU - MVU = assembly directly on the valves
SCO - MCO = assembly directly on the cylinders or valves

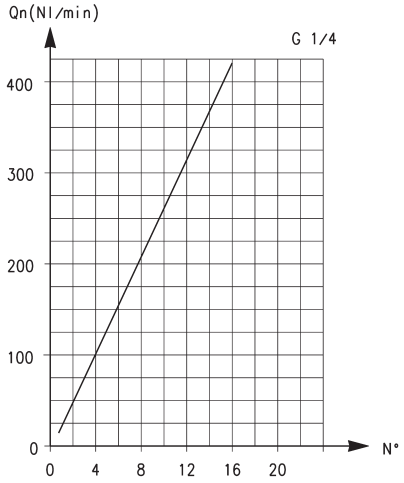
Flow Qn (Nl/min.) from 2 → 1 with controller OPEN: 70
Flow Qn (Nl/min.) from 2 → 1 with controller CLOSED: 33
Qn = supply pressure of 6 bar and with ΔP = 1 bar at the outlet
N° = number of screw turns.

UNIDIRECTIONAL AND BIDIRECTIONAL FLOW CONTROL REGULATORS



Flow Qn (Nl/min.) from 2 → 1 with controller OPEN: 200
Flow Qn (Nl/min.) from 2 → 1 with controller CLOSED: 70

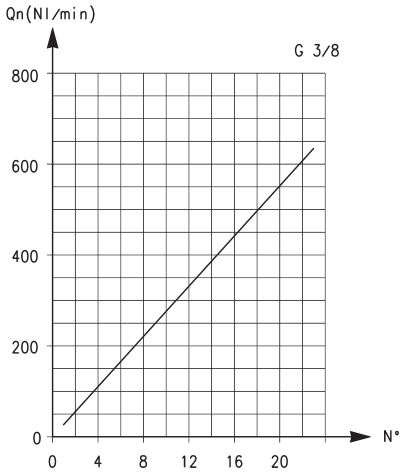
Qn = supply pressure of 6 bar and with ΔP = 1 bar at the outlet
N° = number of screw turns.



Flow Qn (Nl/min.) from 2 → 1 with controller OPEN: 530
Flow Qn (Nl/min.) from 2 → 1 with controller CLOSED: 160

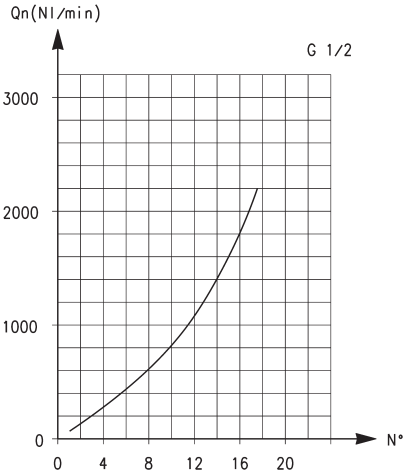
Qn = supply pressure of 6 bar and with ΔP = 1 bar at the outlet
N° = number of screw turns.

UNIDIRECTIONAL AND BIDIRECTIONAL FLOW CONTROL REGULATORS



Flow Qn (Nl/min.) from 2 → 1 with controller OPEN: 710
Flow Qn (Nl/min.) from 2 → 1 with controller CLOSED: 410

Qn = supply pressure of 6 bar and with ΔP = 1 bar at the outlet
N° = number of screw turns.



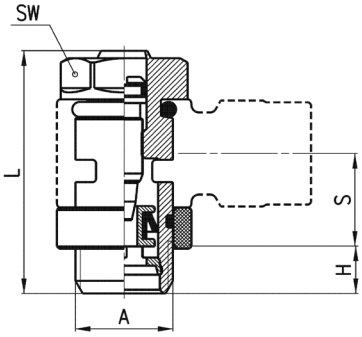
Flow Qn (Nl/min.) from 2 → 1 with controller OPEN: 2570
Flow Qn (Nl/min.) from 2 → 1 with controller CLOSED: 1330

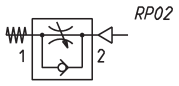
Qn = supply pressure of 6 bar and with ΔP = 1 bar at the outlet
N° = number of screw turns.

Unidirectional flow controllers Series SCU

For mounting on single-acting or double-acting cylinders.
Adjustment of setting by a screwdriver.
Ports: M5, G1/8, G1/4 and G3/8.

Assembly with fittings Mod. 6610; 6620; 1610; 1620; 2023; 1170.





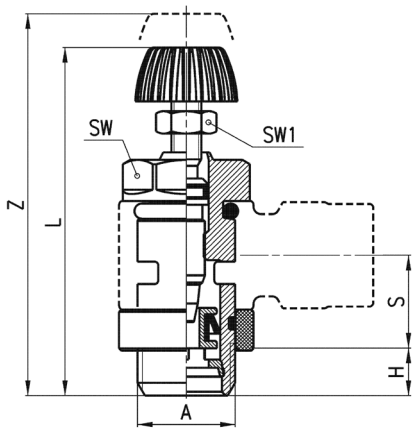
DIMENSIONS					
Mod.	A	H	L	S	SW
SCU 602-M5	M5	3,5	21,5	5,5	8
SCU 604-1/8	G1/8	5	31,5	12,5	12
SCU 606-1/4	G1/4	6	32,5	12,5	15
SCU 608-3/8	G3/8	7	40,5	12,5	18

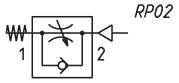
Note: M5 flow controllers must be used together with M6 adjustable fittings.

Unidirectional flow controllers Series MCU

For mounting on single-acting or double-acting cylinders.
Adjustment of setting by a manually operated knurled screw.
Ports: M5, G1/8, G1/4, G3/8.

Assembly with fittings Mod. 6610; 6620; 1610; 1620; 2023; 1170.





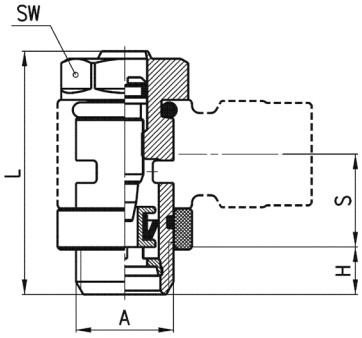
DIMENSIONS							
Mod.	A	H	L	S	SW	SW1	Z
MCU 702-M5	M5	3,5	31	5,5	8	5,5	35
MCU 704-1/8	G1/8	5	41	12,5	12	7	46
MCU 706-1/4	G1/4	6	43,5	12,5	15	7	49
MCU 708-3/8	G3/8	7	52,5	12,5	18	10	60,5

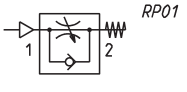
Note: M5 flow controllers must be used together with M6 adjustable fittings.

Unidirectional flow controllers Series SVU

For mounting on valves.
Adjustment of setting by a screwdriver.
Ports: M5, G1/8, G1/4.

Assembly with fittings Mod. 6610; 6620; 1610; 1620; 2023; 1170.





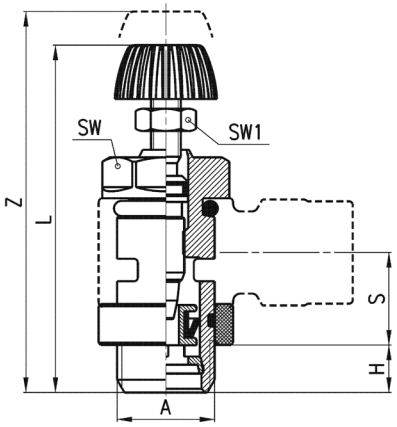
DIMENSIONS					
Mod.	A	H	L	S	SW
SVU 602-M5	M5	3,5	21,5	5,5	8
SVU 604-1/8	G1/8	5	31,5	12,5	12
SVU 606-1/4	G1/4	6	32,5	12,5	15

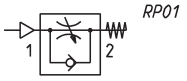
Note: M5 flow controllers must be used together with M6 adjustable fittings.

Unidirectional flow controllers Series MVU

For mounting on valve. Adjustment of setting by a manually operated knurled screw.
Ports: M5, G1/8, G1/4.

Assembly with fittings Mod. 6610; 6620; 1610; 1620; 2023; 1170.





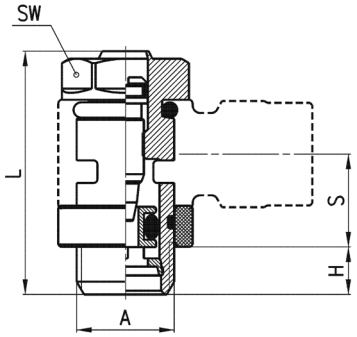
DIMENSIONS							
Mod.	A	H	L	S	SW	SW1	Z
MVU 702-M5	M5	3,5	31	5,5	8	5,5	35
MVU 704-1/8	G1/8	5	41	12,5	12	7	46
MVU 706-1/4	G1/4	6	43,5	12,5	15	7	49

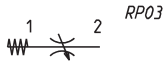
Note: M5 flow controllers must be used together with M6 adjustable fittings.

Bidirectional flow controllers Series SCO

Adjustment of setting by a screwdriver.
Ports: M5, G1/8, G1/4.

Assembly with fittings Mod. 6610; 6620; 1610; 1620; 2023; 1170; 2905.





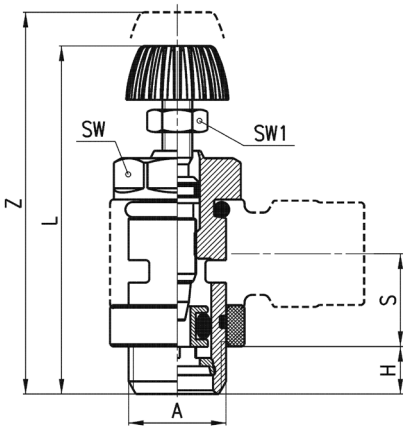
DIMENSIONS					
Mod.	A	H	L	S	SW
SCO 602-M5	M5	3,5	21,5	5,5	8
SCO 604-1/8	G1/8	5	31,5	12,5	12
SCO 606-1/4	G1/4	6	32,5	12,5	15

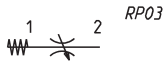
Note: M5 flow controllers must be used together with M6 adjustable fittings.

Bidirectional flow controllers Series MCO

Adjustment of setting by a manually operated knurled screw.
Ports: M5, G1/8, G1/4.

Assembly with fittings Mod. 6610; 6620; 1610; 1620; 2023; 1170; 2905.



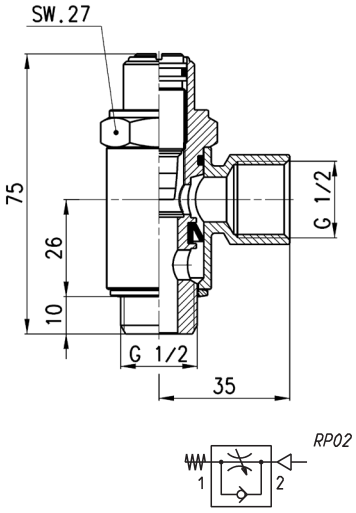


DIMENSIONS							
Mod.	A	H	L	S	SW	SW1	Z
MCO 702-M5	M5	3,5	31	5,5	8	5,5	35
MCO 704-1/8	G1/8	5	41	12,5	12	7	46
MCO 706-1/4	G1/4	6	43,5	12,5	15	7	49

Note: M5 flow controllers must be used together with M6 adjustable fittings.

Unidirectional flow controllers Series SCU

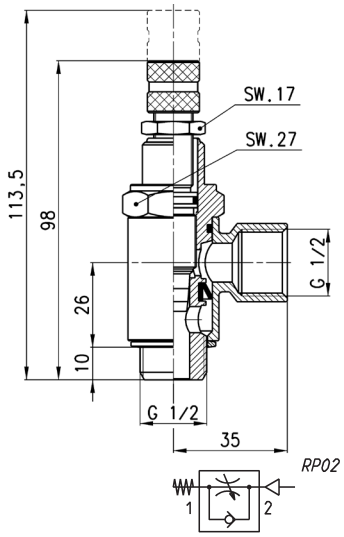
For mounting on single-acting or double-acting cylinders.
Screwdriver adjustment.



Mod.
SCU 610-1/2

Unidirectional flow controllers Series MCU

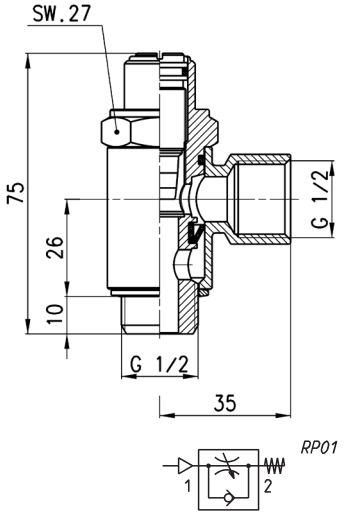
For mounting on single-acting or double-acting cylinders.
Adjustment of setting by a manually operated knurled screw.



Mod.
MCU 710-1/2

Unidirectional flow controllers Series SVU

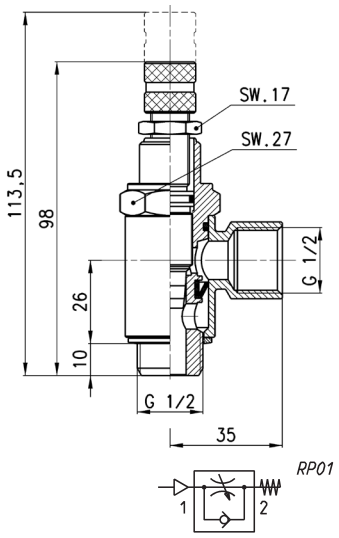
For mounting on valves.
Screwdriver adjustment.



Mod.
SVU 610-1/2

Unidirectional flow controllers Series MVU

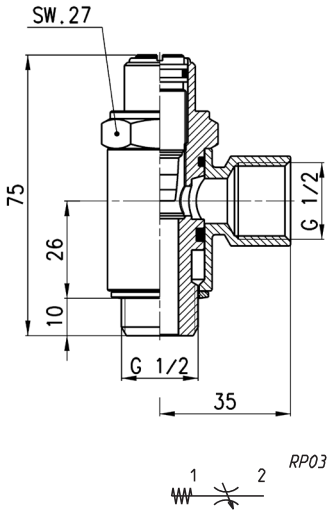
For mounting on valve.
Adjustment of setting by a manually operated knurled screw.



Mod.
MVU 710-1/2

Bidirectional flow controllers Series SCO

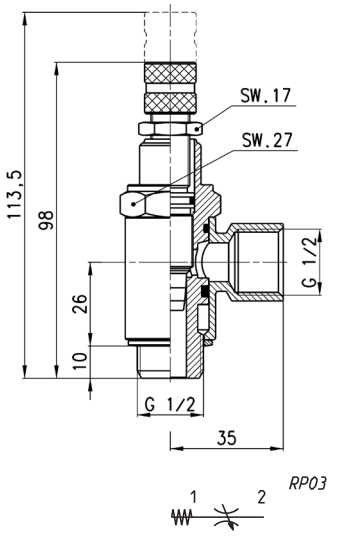
Screwdriver adjustment.



Mod.
SCO 610-1/2

Bidirectional flow controllers Series MCO

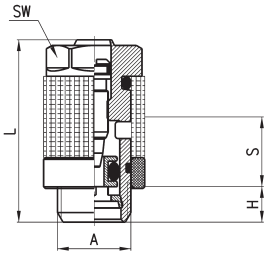
Adjustment of setting by a manually operated knurled screw.

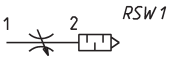


Mod.
MCO 710-1/2

Silenced exhaust controllers Mod. SCO + 2905

The flow control valve Mod. SCO and the silencer Mod. 2905 are supplied separately.

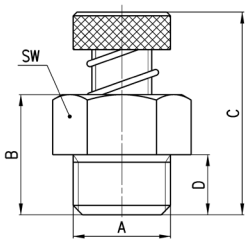


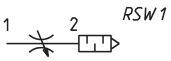


DIMENSIONS					
Mod.	A	H	L	S	SW
SCO 602-M5+2905 M5	M5	3.5	21.5	5.5	8
SCO 604-1/8+2905 1/8	G1/8	5	31.5	12.5	12
SCO 606-1/4+2905 1/4	G1/4	6	32.5	12.5	15

Series RSW flow control valves with silencer

Ports: G1/8, G1/4, G1/2.





DIMENSIONS						
Mod.	A	B	C	D	SW	Q* (Nl/min)
RSW 1/8	G1/8	10.5	22	6	13	410
RSW 1/4	G1/4	13	27	7.5	16	650
RSW 3/8	G3/8	16	30	9.5	20	1100
RSW 1/2	G1/2	18	40	10.5	26	1700

*determined with supply pressure 6 bar with free flow; ensuring screw is open to maximum output.

Series PSCU, PMCU, PSVU, PMVU, PSCO, PMCO flow control valves

Unidirectional and bidirectional flow regulators with banjo in brass (M5) or in technopolymer (G1/8, G1/4, G3/8)
Ports: M5, G1/8, G1/4, G3/8

These unidirectional and bidirectional flow controllers have been designed as small as possible so as to be mounted directly on valves or cylinders.
The great variety of adjustable fittings makes it possible to complete the regulator with the most suitable system in relation to the available tube.

All models are supplied complete with banjo flow controllers.

GENERAL DATA

Construction	needle type
Valve group	unidirectional and bidirectional controller
Materials	body, regulation screw: stainless steel (M5), brass (G1/8 - G1/4 - G3/8) collet and insert = brass banjo: brass (M5), technopolymer (G1/8 - G1/4 - G3/8) controller = technopolymer - seals = NBR
Mounting	by male thread
Ports	M5 - G1/8 - G1/4 - G3/8
Installation	in any position
Operating temperature	0°C ÷ 60°C (with dry air -20°C)
Operating pressure	1 ÷ 10 bar
Nominal pressure	6 bar
Nominal flow	see graph
Nominal diameter	M5 = 1.5 mm - G1/8 = 2 mm - G1/4 = 4 mm - G3/8 = 7 mm
Fluid	filtered air. If lubricated air is used, it is recommended to use ISOVG 32 oil. Once applied the lubrication should never be interrupted.

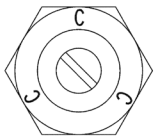
CODING EXAMPLE

P	M	CU		7	04	-	1/8	-	4

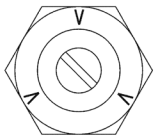
P	SERIES
M	ACTUATION: M = Manual S = Screwdriver
CU	ASSEMBLY: CU = on cylinders unidirectional VU = on valves unidirectional CO = bidirectional
7	VERSIONS: 6 = needle (screwdriver operated) 7 = needle (manual operated)
04	NOMINAL DIAMETER: 02 = Ø1.5 MAX 04 = Ø2 MAX 06 = Ø4 MAX 08 = Ø7 MAX
1/8	PORTS: M5 = M5 1/8 = G1/8 1/4 = G1/4 3/8 = G3/8
4	TUBE: 4 = Ø 4 6 = Ø 6 8 = Ø 8 10 = Ø 10 12 = Ø 12

To ensure the right choice of unidirectional flow controller, proceed as follows:
calculate the quantity of air in Nl/min (see cylinders table); determine the stroke time of the cylinder; refer to graph to see which is the right type of controller.

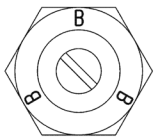
UNIDIRECTIONAL AND BIDIRECTIONAL FLOW CONTROLLERS



PSCU
PMCU



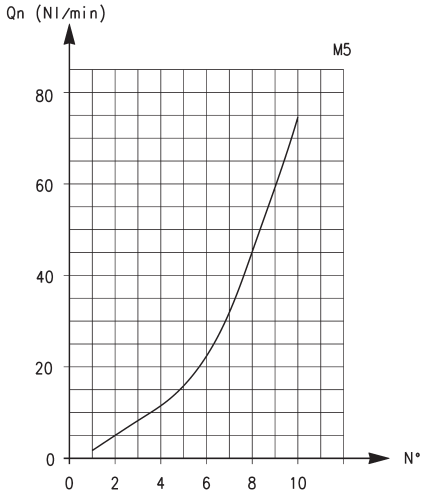
PSVU
PMVU



PSCO
PMCO

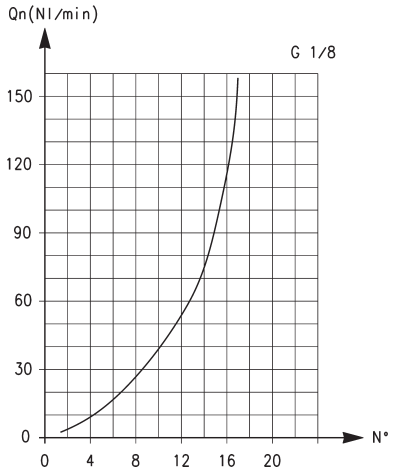
IDENTIFICATION OF DIFFERENT TYPES:
PSCU - PMCU = assembly directly on the cylinders
PSVU - PMVU = assembly directly on the valves
PSCO - PMCO = assembly directly on the cylinders or valves

UNIDIRECTIONAL AND BIDIRECTIONAL FLOW CONTROL REGULATORS



Flow Qn (Nl/min.) from 2 → 1 with controller OPEN: 70
Flow Qn (Nl/min.) from 2 → 1 with controller CLOSED: 33

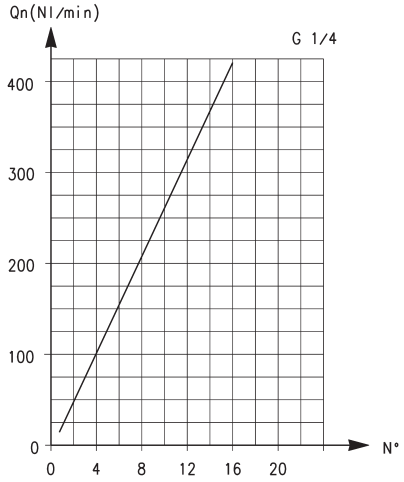
Qn = supply pressure of 6 bar and with ΔP = 1 bar at the outlet
N° = number of screw turns



Flow Qn (Nl/min.) from 2 → 1 with controller OPEN: 200
Flow Qn (Nl/min.) from 2 → 1 with controller CLOSED: 70

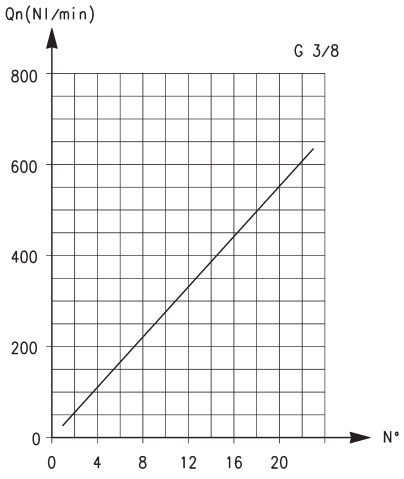
Qn = supply pressure of 6 bar and with ΔP = 1 bar at the outlet
N° = number of screw turns

UNIDIRECTIONAL AND BIDIRECTIONAL FLOW CONTROL REGULATORS



Flow Qn (Nl/min.) from 2 → 1 with controller OPEN: 530
Flow Qn (Nl/min.) from 2 → 1 with controller CLOSED: 160

Qn = supply pressure of 6 bar and with ΔP = 1 bar at the outlet
N° = number of screw turns



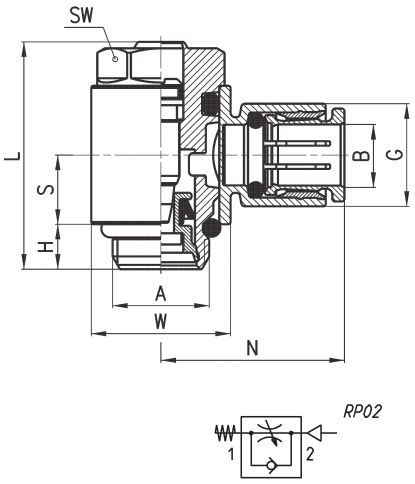
Flow Qn (Nl/min.) from 2 → 1 with controller OPEN: 710
Flow Qn (Nl/min.) from 2 → 1 with controller CLOSED: 410

Qn = supply pressure of 6 bar and with ΔP = 1 bar at the outlet
N° = number of screw turns

Unidirectional flow controllers Series PSCU

For mounting on single-acting or double-acting cylinders.
A screwdriver must be used to adjust the registration setting.
Ports: M5, G1/8, G1/4 and G3/8.

Port M5: banjo in brass



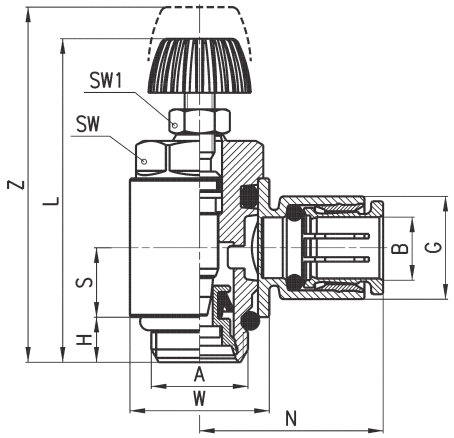
DIMENSIONS

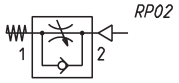
Mod.	A	B	G	H	L	N	S	W	SW
PSCU 602-M5-4	M5	4	8.6	3.5	21.5	18	5.7	8	8
PSCU 602-M5-6	M5	6	10.4	3.5	21.5	19	5.7	8	8
PSCU 604-1/8-4	G1/8	4	11.6	5	27	21	7.75	14	12
PSCU 604-1/8-6	G1/8	6	11.6	5	27	21	7.75	14	12
PSCU 604-1/8-8	G1/8	8	13.9	5	27	22.5	7.75	14	12
PSCU 606-1/4-6	G1/4	6	13.9	6	30.5	24.5	9.25	18.6	15
PSCU 606-1/4-8	G1/4	8	13.9	6	30.5	24.5	9.25	18.6	15
PSCU 606-1/4-10	G1/4	10	16.1	6	30.5	27	9.25	18.6	15
PSCU 608-3/8-10	G3/8	10	20.2	7	36.5	29	11	22	18
PSCU 608-3/8-12	G3/8	12	20.2	7	36.5	29	11	22	18

Unidirectional flow controllers Series PMCU

For mounting on single-acting or double-acting cylinders.
A manually operated knurled screw must be used to adjust the registration setting.
Ports: M5, G1/8, G1/4 and G3/8.

Port M5: banjo in brass





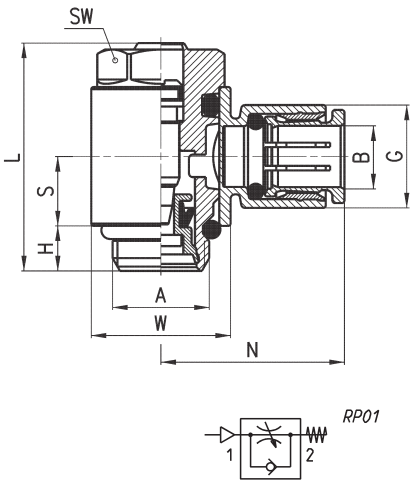
DIMENSIONS

Mod.	A	B	G	H	L	N	S	W	SW	SW1	Z
PMCU 702-M5-4	M5	4	8.6	3.5	31	18	5.7	8	8	5.5	35
PMCU 702-M5-6	M5	6	10.4	3.5	31	19	5.7	8	8	5.5	35
PMCU 704-1/8-4	G1/8	4	11.6	5	36.5	21	7.75	14	12	7	42.5
PMCU 704-1/8-6	G1/8	6	11.6	5	36.5	21	7.75	14	12	7	42.5
PMCU 704-1/8-8	G1/8	8	13.9	5	36.5	22.5	7.75	14	12	7	42.5
PMCU 706-1/4-6	G1/4	6	13.9	6	42	24.5	9.25	18.6	15	7	48
PMCU 706-1/4-8	G1/4	8	13.9	6	42	24.5	9.25	18.6	15	7	48
PMCU 706-1/4-10	G1/4	10	16.1	6	42	27	9.25	18.6	15	7	48
PMCU 708-3/8-10	G3/8	10	20.2	7	48.5	29	11	22	18	10	56.5
PMCU 708-3/8-12	G3/8	12	20.2	7	48.5	29	11	22	18	10	56.5

Unidirectional flow controllers Series PSVU

For mounting on valves.
A screwdriver must be used to adjust the registration setting.
Ports: M5, G1/8, G1/4 and G3/8.

Port M5: banjo in brass



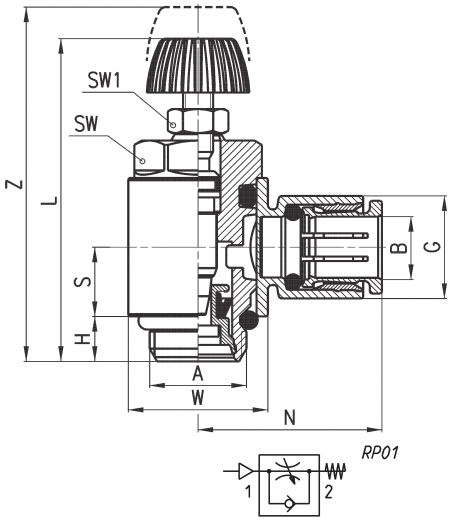
DIMENSIONS

Mod.	A	B	G	H	L	N	S	W	SW
PSVU 602-M5-4	M5	4	8.6	3.5	21.5	18	5.7	8	8
PSVU 602 M5-6	M5	6	10.4	3.5	21.5	19	5.7	8	8
PSVU 604-1/8-4	G1/8	4	11.6	5	27	21	7.75	14	12
PSVU 604-1/8-6	G1/8	6	11.6	5	27	21	7.75	14	12
PSVU 604-1/8-8	G1/8	8	13.9	5	27	22.5	7.75	14	12
PSVU 606-1/4-6	G1/4	6	13.9	6	30.5	24.5	9.25	18.6	15
PSVU 606-1/4-8	G1/4	8	13.9	6	30.5	24.5	9.25	18.6	15
PSVU 606-1/4-10	G1/4	10	16.1	6	30.5	27	9.25	18.6	15
PSVU 608-3/8-10	G3/8	10	20.2	7	36.5	29	11	22	18
PSVU 608-3/8-12	G3/8	12	20.2	7	36.5	29	11	22	18

Unidirectional flow controllers Series PMVU

For mounting on valve.
A manually operated knurled screw must be used to adjust the registration setting.
Ports: M5, G1/8, G1/4 and G3/8.

Port M5: banjo in brass

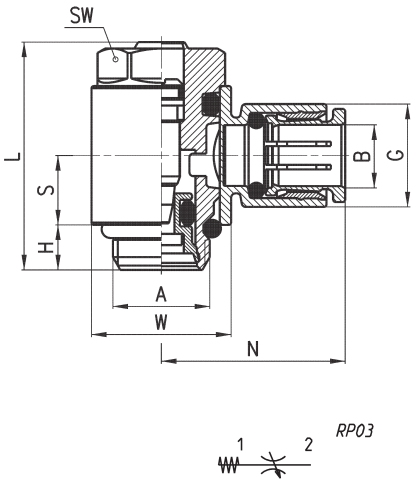


DIMENSIONS											
Mod.	A	B	G	H	L	N	S	W	SW	SW1	Z
PMVU 702-M5-4	M5	4	8.6	3.5	31	18	5.7	8	8	5.5	35
PMVU 702-M5-6	M5	6	10.4	3.5	31	19	5.7	8	8	5.5	35
PMVU 704-1/8-4	G1/8	4	11.6	5	36.5	21	7.75	14	12	7	42.5
PMVU 704-1/8-6	G1/8	6	11.6	5	36.5	21	7.75	14	12	7	42.5
PMVU 704-1/8-8	G1/8	8	13.9	5	36.5	22.5	7.75	14	12	7	42.5
PMVU 706-1/4-6	G1/4	6	13.9	6	42	24.5	9.25	18.6	15	7	48
PMVU 706-1/4-8	G1/4	8	13.9	6	42	24.5	9.25	18.6	15	7	48
PMVU 706-1/4-10	G1/4	10	16.1	6	42	27	9.25	18.6	15	7	48
PMVU 708-3/8-10	G3/8	10	20.2	7	48.5	29	11	22	18	10	56.5
PMVU 708-3/8-12	G3/8	12	20.2	7	48.5	29	11	22	18	10	56.5

Bidirectional flow controllers Series PSCO

A screwdriver must be used to adjust the registration setting.
Ports: M5, G1/8, G1/4 and G3/8.

Port M5: banjo in brass

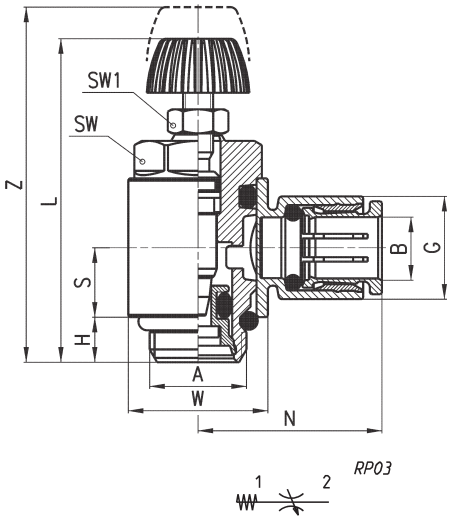


DIMENSIONS									
Mod.	A	B	G	H	L	N	S	W	SW
PSCO 602-M5-4	M5	4	8.6	3.5	21.5	18	5.7	8	8
PSCO 602-M5-6	M5	6	10.4	3.5	21.5	19	5.7	8	8
PSCO 604-1/8-4	G1/8	4	11.6	5	27	21	7.75	14	12
PSCO 604-1/8-6	G1/8	6	11.6	5	27	21	7.75	14	12
PSCO 604-1/8-8	G1/8	8	13.9	5	27	22.5	7.75	14	12
PSCO 606-1/4-6	G1/4	6	13.9	6	30.5	24.5	9,25	18.6	15
PSCO 606-1/4-8	G1/4	8	13.9	6	30.5	24.5	9.25	18.6	15
PSCO 606-1/4-10	G1/4	10	16.1	6	30.5	27	9.25	18.6	15
PSCO 608-3/8-10	G3/8	10	20.2	7	36.5	29	11	22	18
PSCO 608-3/8-12	G3/8	12	20.2	7	36.5	29	11	22	18

Bidirectional flow controllers Series PMCO

A manually operated knurled screw must be used to adjust the registration setting.
Ports: M5, G1/8, G1/4 and G3/8.

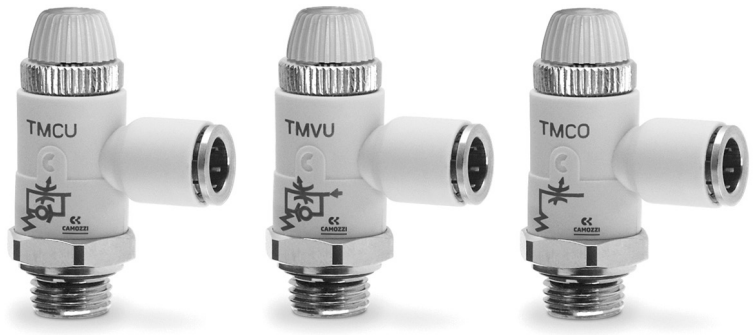
Port M5: banjo in brass



DIMENSIONS											
Mod.	A	B	G	H	L	N	S	W	SW	SW1	Z
PMCO 702-M5-4	M5	4	8.6	3.5	31	18	5.7	8	8	5.5	35
PMCO 702-M5-6	M5	6	10.4	3.5	31	19	5.7	8	8	5.5	35
PMCO 704-1/8-4	G1/8	4	11.6	5	36.5	21	7.75	14	12	7	42.5
PMCO 704-1/8-6	G1/8	6	11.6	5	36.5	21	7.75	14	12	7	42.5
PMCO 704-1/8-8	G1/8	8	13.9	5	36.5	22.5	7.75	14	12	7	42.5
PMCO 706-1/4-6	G1/4	6	13.9	6	42	24.5	9.25	18.6	15	7	48
PMCO 706-1/4-8	G1/4	8	13.9	6	42	24.5	9.25	18.6	15	7	48
PMCO 706-1/4-10	G1/4	10	16.1	6	42	27	9.25	18.6	15	7	48
PMCO 708-3/8-10	G3/8	10	20.2	7	48.5	29	11	22	18	10	56.5
PMCO 708-3/8-12	G3/8	12	20.2	7	48.5	29	11	22	18	10	56.5

Series TMCU, TMVU, TMCO flow control valves

Unidirectional and bidirectional banjo flow controllers with nominal diameter 2 - 3,8 - 5,8 - 8 mm
Ports: G1/8, G1/4, G3/8, G1/2



Series TMCU, TMVU, TMCO unidirectional and bidirectional flow controllers have been revised in order to decrease their dimensions and improve their flow rate characteristics. Their construction allows for easy assembly to cylinders and valves and allows the regulation adjustment to be precise and gradual.

GENERAL DATA

Construction	needle - type
Valve group	unidirectional and bidirectional controller
Materials	brass - technopolymer - NBR
Mounting	by male threaded
Threaded ports	G1/8 - G1/4 - G3/8 - G1/2
Installation	in any position
Operating temperature	0°C ÷ 60°C (with dry air -20°C)
Operating pressure	0,5 ÷ 10 bar
Nominal pressure	6 bar
Nominal flow	see graph
Nominal dia.	Tube 4 Ø2 - Tube 6 Ø3,8 - Tube 8 Ø5,8 - Tube 10 and 12 Ø8
Fluid	filtered air. If lubricated air is used, it is recommended to use ISOVG 32 oil. Once applied the lubrication should never be interrupted.

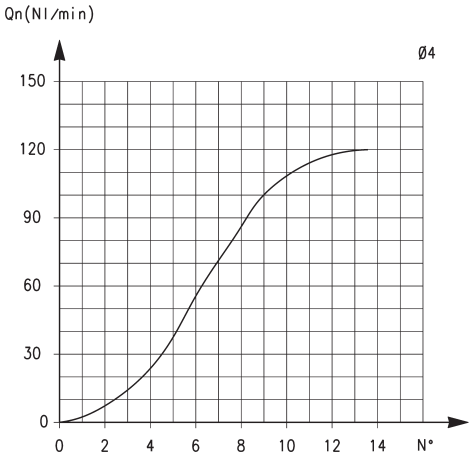
CODING EXAMPLE

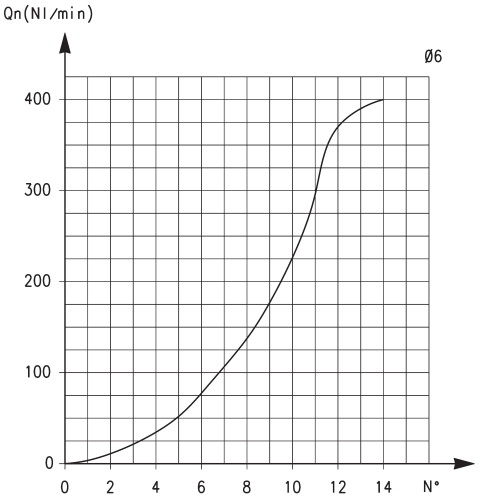
TM	CU		9	74	-	1/8	-	6

TM	ACTUATION: TM = manual
CU	ASSEMBLY: CU = on cylinders unidirectional VU = on valves unidirectional CO = bidirectional
9	VERSIONS: 9 = manual needle
74	REGULATION: step - ø tube 72 = 2 4 74 = 3.8 6 76 = 5.8 8 78 = 8 10
1/8	PORTS: 1/8 1/4 3/8 1/2
6	Ø TUBE: 4 6 8 10

To ensure the right choice of unidirectional flow controller, proceed as follows: calculate the quantity of air in Nl/min (see cylinder Table); determine the stroke time of the cylinder; refer to graph to see which controller is the right type.

UNIDIRECTIONAL AND BIDIRECTIONAL FLOW CONTROL REGULATORS

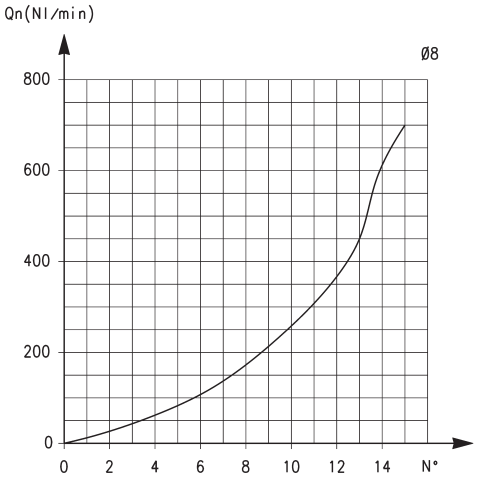


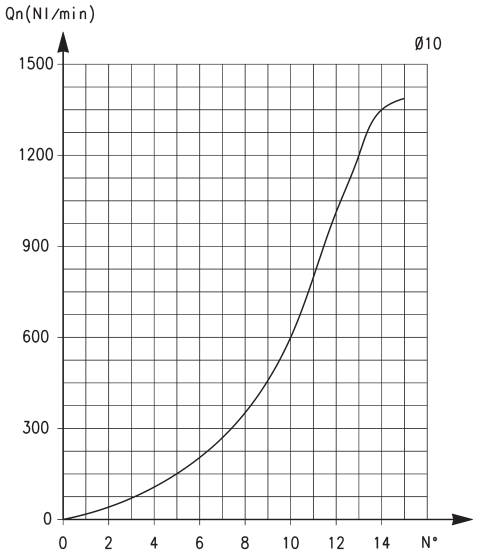


TUBE Ø4
Flow Qn (Nl/min.) from 2 → 1 with controller OPEN: 400
Flow Qn (Nl/min.) from 2 → 1 with controller CLOSED: 280
Qn is determined with a supply pressure of 6 bar and with ΔP = 1 bar at the outlet
N° = number of screw turns.

TUBE Ø6
Flow Qn (Nl/min.) from 2 → 1 with controller OPEN: 550
Flow Qn (Nl/min.) from 2 → 1 with controller CLOSED: 280
Qn is determined with a supply pressure of 6 bar and with ΔP = 1 bar at the outlet
N° = number of screw turns.

UNIDIRECTIONAL AND BIDIRECTIONAL FLOW CONTROL REGULATORS



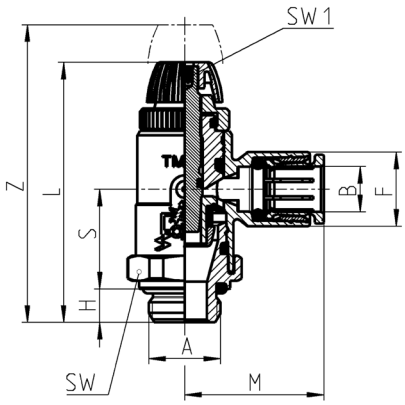


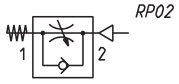
TUBE Ø8
Flow Qn (Nl/min.) from 2 → 1 with controller OPEN: 890
Flow Qn (Nl/min.) from 2 → 1 with controller CLOSED: 460
Qn is determined with a supply pressure of 6 bar and with ΔP = 1 bar at the outlet
N° = number of screw turns.

TUBE Ø10
Flow Qn (Nl/min.) from 2 → 1 with controller OPEN: Ø 10-1200/Ø12-1250
Flow Qn (Nl/min.) from 2 → 1 with controller CLOSED: Ø 10-600/Ø12-600
Qn is determined with a supply pressure of 6 bar and with ΔP = 1 bar at the outlet
N° = number of screw turns.

Series TMCU valves

Unidirectional flow controller for mounting on single-acting or double-acting cylinders.
Adjustment of setting by a hexagonal male key or a manually operated knurled screw.
Ports: G1/8, G1/4, G3/8, G1/2

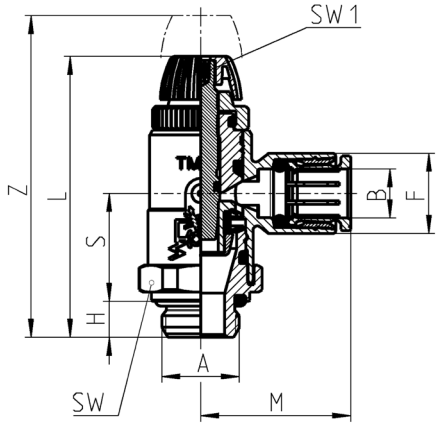


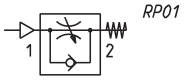


DIMENSIONS										
Mod.	A	B	F	H	L	M	S	SW	SW1	Z
TMCU 972-1/8-4	G1/8	4	11,5	5	43	21,5	16,5	16	1,5	50
TMCU 974-1/8-6	G1/8	6	11,5	5	43	21,5	16,5	16	1,5	50
TMCU 974-1/4-6	G1/4	6	11,5	6	44	21,5	16,5	17	1,5	51
TMCU 976-1/8-8	G1/8	8	13,5	5	47	25	17,5	19	2,5	54
TMCU 976-1/4-8	G1/4	8	13,5	6	48,5	25	18	19	2,5	55,5
TMCU 976-3/8-8	G3/8	8	13,5	7	49,5	25	18	20	2,5	56,5
TMCU 978-3/8-10	G3/8	10	16	7	51	29	17	25	2,5	59,5
TMCU 978-1/2-10	G1/2	10	16	8	52	29	17	25	2,5	60,5

Series TMVU valves

Unidirectional flow controller for mounting on valves.
Adjustment of setting by a hexagonal male key or a manually operated knurled screw.
Ports: G1/8, G1/4, G3/8, G1/2

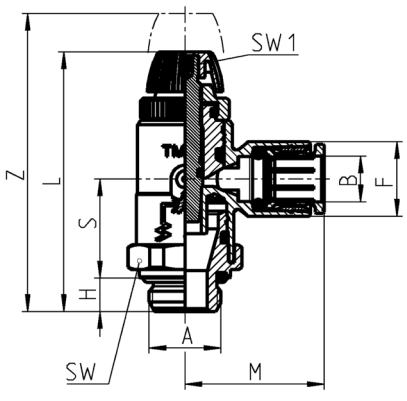


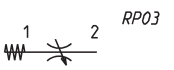


DIMENSIONS										
Mod.	A	B	F	H	L	M	S	SW	SW1	Z
TMVU 972-1/8-4	G1/8	4	11,5	5	43	21,5	16,5	16	1,5	50
TMVU 974-1/8-6	G1/8	6	11,5	5	43	21,5	16,5	16	1,5	50
TMVU 974-1/4-6	G1/4	6	11,5	6	44	21,5	16,5	17	1,5	51
TMVU 976-1/8-8	G1/8	8	13,5	5	47	25	17,5	19	2,5	54
TMVU 976-1/4-8	G1/4	8	13,5	6	48,5	25	18	19	2,5	55,5
TMVU 976-3/8-8	G3/8	8	13,5	7	49,5	25	18	20	2,5	56,5
TMVU 978-3/8-10	G3/8	10	16	7	51	29	17	25	2,5	59,5
TMVU 978-1/2-10	G1/2	10	18	8	52	29	17	25	2,5	60,5

Series TMCO valves

Bidirectional flow controller.
Adjustment of setting by a hexagonal male key or a manually operated knurled screw.
Ports: G1/8, G1/4, G3/8, G1/2





DIMENSIONS										
Mod.	A	B	F	H	L	M	S	SW	SW1	Z
TMCO 972-1/8-4	G1/8	4	11,5	5	43	21,5	16,5	16	1,5	50
TMCO 974-1/8-6	G1/8	6	11,5	5	43	21,5	16,5	16	1,5	50
TMCO 974-1/4-6	G1/4	6	11,5	6	44	21,5	16,5	17	1,5	51
TMCO 976-1/8-8	G1/8	8	13,5	5	47	25	17,5	19	2,5	54
TMCO 976-1/4-8	G1/4	8	13,5	6	48,5	25	18	19	2,5	55,5
TMCO 976-3/8-8	G3/8	8	13,5	7	49,5	25	18	20	2,5	56,5
TMCO 978-3/8-10	G3/8	10	16	7	51	29	17	25	2,5	59,5
TMCO 978-1/2-10	G1/2	10	16	8	52	29	17	25	2,5	60,5

Series GSCU, GMCU, GSVU, GMVU, GSCO, GMCO flow control valves

Unidirectional and bidirectional banjo flow controllers with nominal diameter 1,5 - 3,5 - 5 mm
Ports: M5, G1/8 and G1/4

These unidirectional and bidirectional flow controllers have been designed as small as possible to enable mounting directly on valves or cylinders.
The flow regulation range is wide and gradual, allowing the regulation to be very accurate either at minimum or maximum flow.

GENERAL DATA

Construction	needle - type
Valve group	unidirectional and bidirectional controller
Materials	body and screws M5 inox; 1/8 - 1/4 - 3/8 - 1/2 OT58 seals NBR
Mounting	by male threaded
Installation	in any position
Operating temperature	0°C ÷ 80°C (with dry air -20°C)
Operating pressure	1 ÷ 10 bar
Nominal pressure	6 bar
Nominal flow	see graph
Nominal diameter	M5 = 1.5 mm - G1/8 = 2 mm - G1/4 = 4 mm G3/8 = 7 mm - G1/2 = 12 mm
Fluid	filtered air. If lubricated air is used, it is recommended to use ISOVG 32 oil. Once applied the lubrication should never be interrupted.

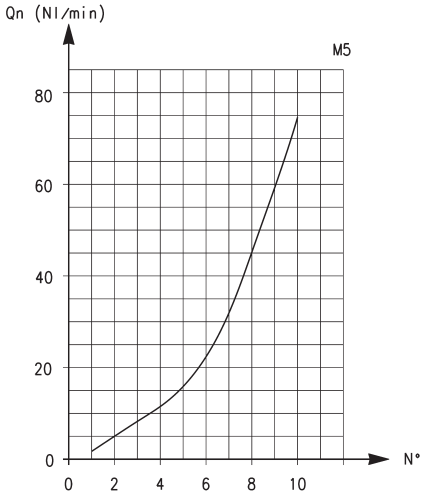
CODING EXAMPLE

GM	CU		9	03	-	1/8	-	6

GM	ACTUATION: GM = manual GS = screwdriver
CU	ASSEMBLY: CU = on cylinders unidirectional VU = on valves unidirectional CO = bidirectional
9	VERSIONS: 8 = needle (screwdriver operated) 9 = needle (manually operated)
03	FLOW CONTROL RANGE: size ø tube 13 = 1.5 3 14 = 1.5 4 03 = 3.5 6 04 = 3.5 8 05 = 5 8 06 = 5 10
1/8	PORTS: M5 1/8 1/4
6	Ø TUBE: 3 4 6 8 10

To ensure the right choice of unidirectional flow controller, proceed as follows: calculate the quantity of air in Nl/min (see cylinder Table); determine the stroke time of the cylinder; refer to graph to see which controller is the right type.

UNIDIRECTIONAL AND BIDIRECTIONAL FLOW CONTROL REGULATORS

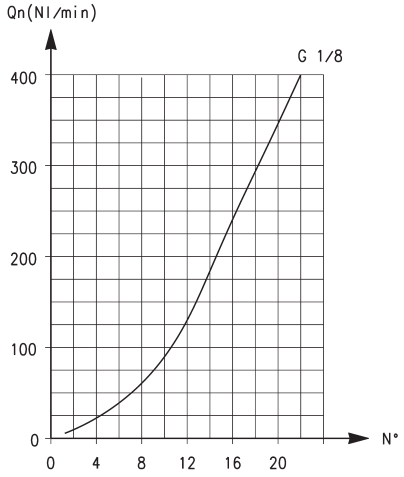


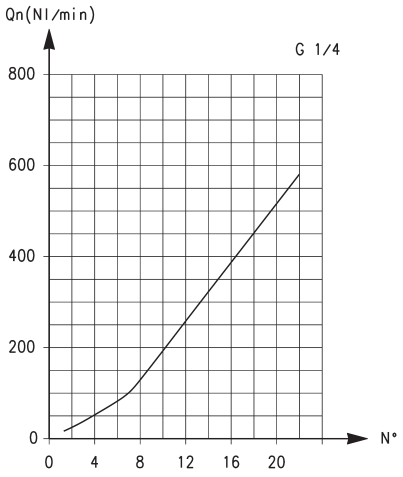
To ensure the right choice of unidirectional flow controller, proceed as follows: calculate the quantity of air in Nl/min (see cylinder Table); determine the stroke time of the cylinder; refer to graph to see which controller is the right type.
In the case of bidirectional regulators, refer to the graph and check whether the flow control range is suitable for the work required.

M5
Flow Qn (Nl/min.) from 2 → 1 with controller OPEN: 70
Flow Qn (Nl/min.) from 2 → 1 with controller CLOSED: 33

N° = number of screw turns
NB: Qn is determined with a supply pressure of 6 bar and with ΔP = 1 bar at the outlet.

UNIDIRECTIONAL AND BIDIRECTIONAL FLOW CONTROL REGULATORS





G1/8
Flow Qn (Nl/min.) from 2 → 1 with controller OPEN: 440
Flow Qn (Nl/min.) from 2 → 1 with controller CLOSED: 170

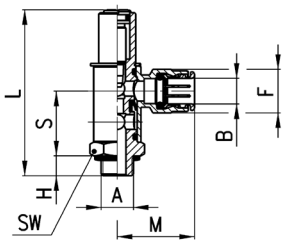
N° = number of screw turns
NB: Qn is determined with a supply pressure of 6 bar and with ΔP = 1 bar at the outlet.

G1/4
Flow Qn (Nl/min.) from 2 → 1 with controller OPEN: 790
Flow Qn (Nl/min.) from 2 → 1 with controller CLOSED: 460

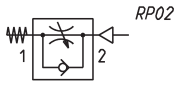
N° = number of screw turns
NB: Qn is determined with a supply pressure of 6 bar and with ΔP = 1 bar at the outlet.

Valves Series GSCU

Unidirectional flow controller for mounting on single-acting or double-acting cylinders.
Screwdriver adjustment.
Ports: M5, G1/8, G1/4 .

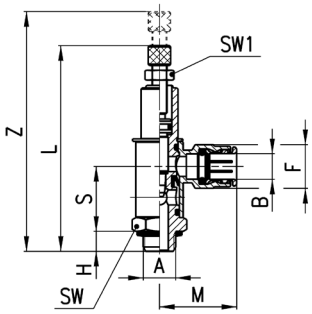


DIMENSIONS								
Mod.	A	B	S	H	L	M	F	SW
GSCU 813-M5-3	M5	3	12	3	27,5	12,5	6,5	8
GSCU 814-M5-4	M5	4	12	3	27,5	19	8,8	8
GSCU 803-1/8-6	G1/8	6	22,5	5	50	26,5	13	14
GSCU 804-1/8-8	G1/8	8	22,5	5	50	28	15	14
GSCU 805-1/4-8	G1/4	8	27	7	67,5	28,5	15	19
GSCU 806-1/4-10	G1/4	10	27	7	67,5	31	17,5	19

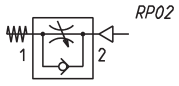


Valves Series GMCU

Unidirectional flow controller for mounting on single-acting or double-acting cylinders.
Knurled screw adjustment.
Ports: M5, G1/8, G1/4.

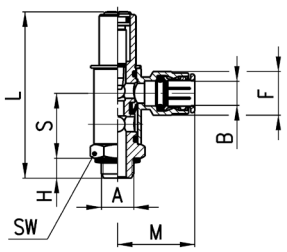


DIMENSIONS										
Mod.	A	B	S	H	L	Z	M	F	SW	SW1
GMCU 913-M5-3	M5	3	12	3	37	42,5	12,5	6,5	8	5,5
GMCU 914-M5-4	M5	4	12	3	37	42,5	19	8,8	8	5,5
GMCU 903-1/8-6	G1/8	6	22,5	5	65,5	72,5	26,5	13	14	7
GMCU 904-1/8-8	G1/8	8	22,5	5	65,5	72,5	28	15	14	7
GMCU 905-1/4-8	G1/4	8	27	7	85	97,5	28,5	15	19	10
GMCU 906-1/4-10	G1/4	10	27	7	85	97,5	31	17,5	19	10

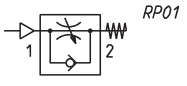


Valves Series GSVU

Unidirectional flow controller for mounting on valves.
Screwdriver adjustment.
Ports: M5, G1/8, G1/4.

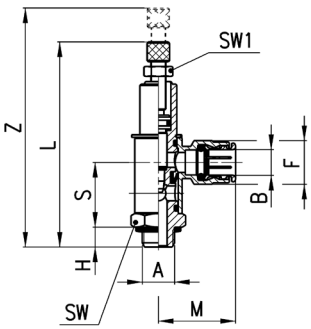


DIMENSIONS								
Mod.	A	B	S	H	L	M	F	SW
GSVU 813-M5-3	M5	3	12	3	27,5	12,5	6,5	8
GSVU 814-M5-4	M5	4	12	3	27,5	19	8,8	8
GSVU 803-1/8-6	G1/8	6	22,5	5	50	26,5	13	14
GSVU 804-1/8-8	G1/8	8	22,5	5	50	28	15	14
GSVU 805-1/4-8	G1/4	8	27	7	67,5	28,5	15	19
GSVU 806-1/4-10	G1/4	10	27	7	67,5	31	17,5	19

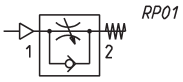


Valves Series GMVU

Unidirectional flow controller for mounting on valve.
Adjustment of setting by a manually operated knurled screw.
Ports: M5, G1/8, G1/4.

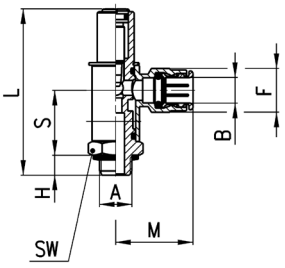


DIMENSIONS										
Mod.	A	B	S	H	L	Z	M	F	SW	SW1
GMVU 913-M5-3	M5	3	12	3	37	42,5	12,5	6,5	8	5,5
GMVU 914-M5-4	M5	4	12	3	37	42,5	19	8,8	8	5,5
GMVU 903-1/8-6	G1/8	6	22,5	5	50	72,5	26	13	14	7
GMVU 904-1/8-8	G1/8	8	22,5	5	50	72,5	28	15	14	7
GMVU 905-1/4-8	G1/4	8	27	7	67,5	97,5	29	15	19	10
GMVU 906-1/4-10	G1/4	10	27	7	67,5	97,5	31	17,5	19	10

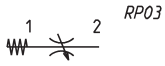


Valves Series GSCO

Bidirectional flow controller.
Screwdriver adjustment.
Ports: M5, G1/8, G1/4.

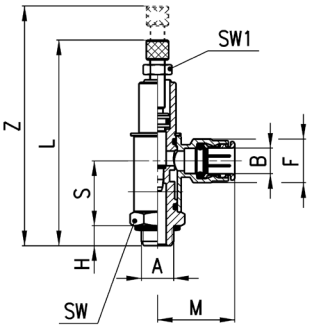


DIMENSIONS								
Mod.	A	B	S	H	L	M	F	SW
GSCO 813-M5-3	M5	3	12	3	27,5	12,5	6,5	8
GSCO 814-M5-4	M5	4	12	3	27,5	19	8,8	8
GSCO 803-1/8-6	G1/8	6	22,5	5	50	26,5	13	14
GSCO 804-1/8-8	G1/8	8	22,5	5	50	28	15	14
GSCO 805-1/4-8	G1/4	8	27	7	67,5	28,5	15	19
GSCO 806-1/4-10	G1/4	10	27	7	67,5	31	17,5	19

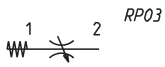


Valves Series GMCO

Bidirectional flow controller.
Adjustment of setting by a manually operated knurled screw.
Ports: M5, G1/8, G1/4.



DIMENSIONS										
Mod.	A	B	S	H	L	Z	M	F	SW	SW1
GMCO 913-M5-3	M5	3	12	3	37	42,5	12,5	6,5	8	5,5
GMCO 914-M5-4	M5	4	12	3	37	42,5	19	8,8	8	5,5
GMCO 903-1/8-6	G1/8	6	22,5	5	65,5	72,5	26,5	13	14	7
GMCO 904-1/8-8	G1/8	8	22,5	5	65,5	72,5	28	15	14	7
GMCO 905-1/4-8	G1/4	8	27	7	85	97,5	28,5	15	19	10
GMCO 906-1/4-10	G1/4	10	27	7	85	97,5	31	17,5	19	10



Series RFU and RFO flow control valves

Unidirectional and bidirectional
Ports: M5, G1/8, G1/4, G3/8 and G1/2
Nominal diameters: 1,5 mm (M5), 2 and 3 mm (G1/8), 4 and 6 mm (G1/4), 7 mm (G3/8 and G1/2)

- Series RFU: unidirectional flow control valves for the speed regulation of a cylinder
- Series RFO: bidirectional flow control valves for the air flow regulation in both directions and for the pressurization or depressurization of a container.

The unidirectional flow controllers are equipped with M5, G1/8, G1/4, G3/8 and G1/2 ports.
G1/8 and G1/4 ports are available with two different types of adjustment (see diagrams), whereas M5, G3/8 and G1/2 ports have just one type of adjustment.
All models can be panel or wall mounted or they can be mounted on cylinders, as required.

To choose the most suitable model, it is recommended to:
1. calculate the quantity of air in Nl/min (see the cylinders tables in the catalogue appendix);
2. determine the stroke time of the cylinder;
3. check the flow diagrams (see pages 2/7.20.03 and 2/7.20.04).

GENERAL DATA

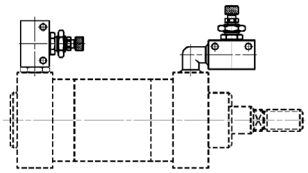
Construction	needle-type
Valve group	unidirectional and bidirectional controller
Materials	AL body - brass needle (not nickel-plated) - NBR seals
Mounting	with screws in the holes of the valve body or panel mounted
Threaded ports	M5 - G1/8 - G1/4 - G3/8 - G1/2
Installation	as required
Operating temperature	0°C ÷ 80°C (with dry air - 20°C)
Operating pressure	1 ÷ 10 bar (for models with M5 - G1/8 - G1/4 ports) 2 ÷ 10 bar (for models with G3/8 - G1/2 ports)
Nominal pressure	6 bar
Nominal flow	see graph
Nominal diameter	M5 = 1,5 - G1/8 = 2 or 3 mm - G1/4 = 4 or 6 mm - G3/8 and G1/2 = 7 mm
Fluid	filtered air. If lubricated air is used, it is recommended to use ISOVG 32 oil. Once applied the lubrication should never be interrupted.

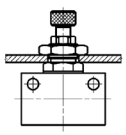
CODING EXAMPLE

RF	U		4	8	2	-	1/8

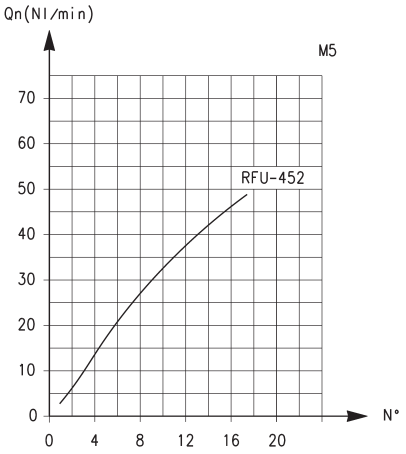
RF	SERIES
U 4	FUNCTION: U 4 = unidirectional O 3 = bidirectional
8	PORTS: 4 = G1/4 5 = M5 6 = G3/8 7 = G1/2 8 = G1/8
2	FLOW CONTROL RANGE: 2 = ø 1.5 mm max (for ports M5) ø 2 mm max (for ports 1/8 only) 3 = ø 3 mm max (for ports 1/8 only) 4 = ø 4 mm max (for ports 1/4 only) 6 = ø 6 mm max (for ports 1/4 only) 7 = ø 7 mm max (for ports 3/8, 1/2 only)
1/8	PORTS: M5 1/8 1/4 3/8 1/2

EXAMPLES OF SERIES RFO - RFU VALVES ASSEMBLY



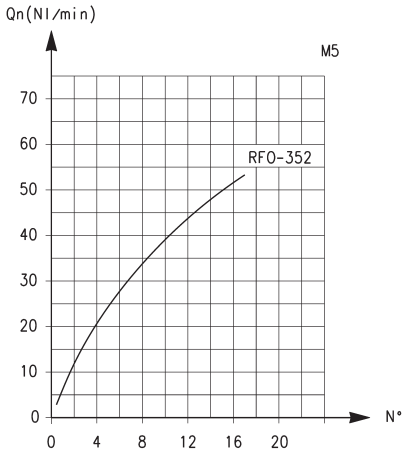


FLOW DIAGRAMS (1 → 2) - VALVES SERIES RFU / RFO - M5 PORTS



RFU 452-M5: flow from 2 → 1 needle type OPEN = 55 Nl/min CLOSED = 41 Nl/min

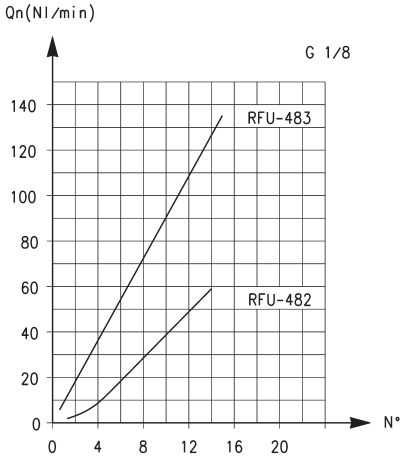
N° = number of screw turns
Note: the flow (Qn) is determined with a pressure of 6 bar at the inlet and ΔP = 1 bar at the outlet.



RFO 352-M5

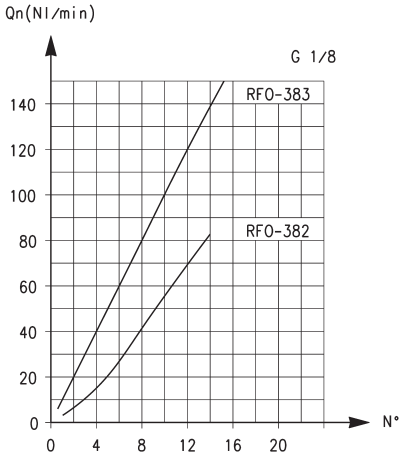
N° = number of screw turns
Note: the flow (Qn) is determined with a pressure of 6 bar at the inlet and ΔP = 1 bar at the outlet.

FLOW DIAGRAMS (1 → 2) - VALVES SERIES RFU / RFO - G1/8 PORTS



RFU 482-1/8: flow from 2 → 1 needle type OPEN = 149 Nl/min CLOSED = 130,5 Nl/min
RFU 483-1/8: flow from 2 → 1 needle type OPEN = 180 Nl/min CLOSED = 140 Nl/min

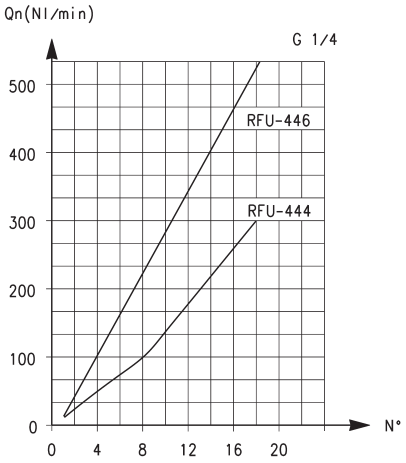
N° = number of screw turns
Note: the flow (Qn) is determined with a pressure of 6 bar at the inlet and ΔP = 1 bar at the outlet.

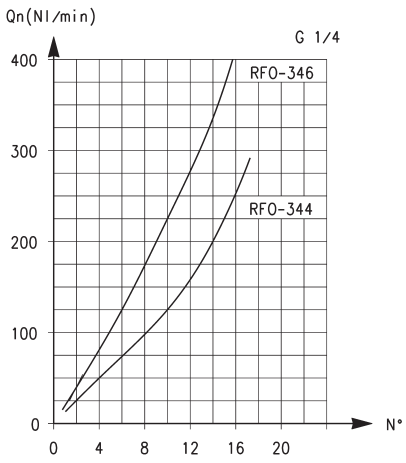


RFO 382-1/8 - RFO 383-1/8

N° = number of screw turns
Note: the flow (Qn) is determined with a pressure of 6 bar at the inlet and ΔP = 1 bar at the outlet.

FLOW DIAGRAMS (1 → 2) - VALVES SERIES RFU / RFO - G1/4 PORTS





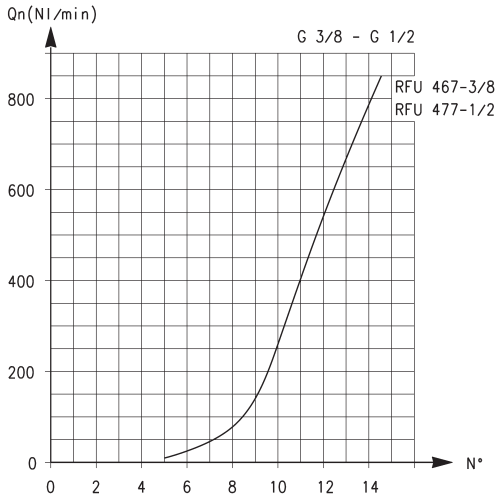
RFU 444-1/4: flow from 2 → 1 needle type OPEN = 680 Nl/min CLOSED = 534 Nl/min
RFU 446-1/4: flow from 2 → 1 needle type OPEN = 680 Nl/min CLOSED = 534 Nl/min

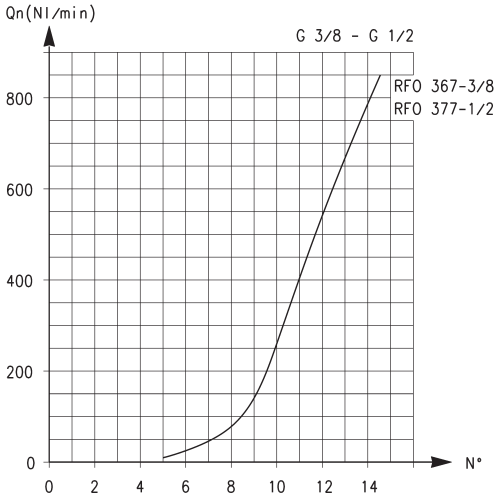
N° = number of screw turns
Note: the flow (Qn) is determined with a pressure of 6 bar at the inlet and ΔP = 1 bar at the outlet.

RFO 344-1/4 - RFO 346-1/4

N° = number of screw turns.
Note: the flow (Qn) is determined with a pressure of 6 bar at the inlet and ΔP = 1 bar at the outlet.

FLOW DIAGRAMS (1 → 2) - VALVES SERIES RFU / RFO - G3/8, G1/2 PORTS





RFU 467-3/8: flow from 2 → 1 needle type OPEN = 1700 Nl/min CLOSED = 1700 Nl/min
RFU 477-1/2: flow from 2 → 1 needle type OPEN = 1700 Nl/min CLOSED = 1700 Nl/min

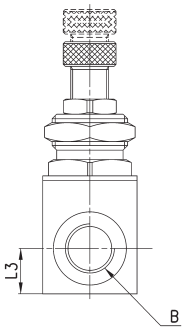
N° = number of screw turns
Note: the flow (Qn) is determined with a pressure of 6 bar at the inlet and ΔP = 1 bar at the outlet.

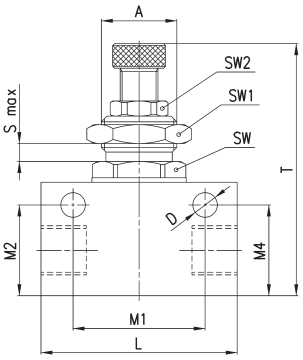
RFO 367-3/8 - RFO 377-1/2

N° = number of screw turns
Note: the flow (Qn) is determined with a pressure of 6 bar at the inlet and ΔP = 1 bar at the outlet.

Unidirectional flow control valves Series RFU

To regulate the cylinder speed, the discharging chamber air flow has to be controlled. Therefore, it is recommended to connect the valve threaded outlet 1 to the cylinder inlet and the outlet 2 to the valve user port.





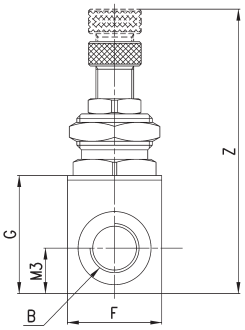


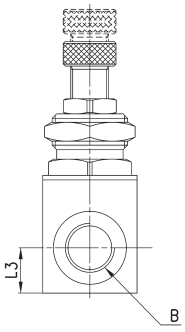
TABLE NOTE:

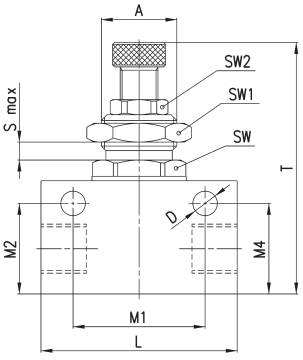
* knurled ring nut

RFU1

DIMENSIONS																		
Mod.	Ø	A	B	D	F	G	L	M1	M2	M3	L3	M4	T	Z	S_{Max}	SW	SW1	SW2
RFU 452-M5	1.5	M10x1	M5	4.2	14	16	26	18.5	13.2	7	-	13.2	39	44.5	3	12	14	8
RFU 482-1/8	2	M12x1	G1/8	4.5	16	21	34	24.5	16.5	8	-	16.5	46	51	4	14	17	9
RFU 483-1/8	3	M12x1	G1/8	4.5	16	21	34	24.5	16.5	8	-	16.5	46	51	4	14	17	9
RFU 444-1/4	4	M20x1.5	G1/4	6.5	25	30	52	35	24	12	-	24	60	69	7	22	24	14
RFU 446-1/4	6	M20x1.5	G1/4	6.5	25	30	52	35	24	12	-	24	60	69	7	22	24	14
RFU 467-3/8	7	M18x1	G3/8	6.5	27	42	56	43	34.5	14	28	7.5	75	85	8	22	22	*
RFU 477-1/2	7	M18x1	G1/2	6.5	27	42	56	43	34.5	14	28	7.5	75	85	8	22	22	*

Bidirectional flow control valves Series RFO





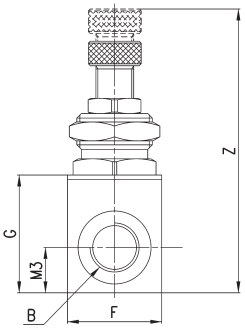


TABLE NOTE:

* knurled ring nut

RF01

DIMENSIONS																		
Mod.	Ø	A	B	D	F	G	L	M1	M2	M3	L3	M4	T	Z	S_{Max}	SW	SW1	SW2
RFO 352-M5	1.5	M10x1	M5	4.2	14	16	26	18.5	13.2	7	-	13.2	39	44.5	3	12	14	8
RFO 382-1/8	2	M12x1	G1/8	4.2	16	21	34	24.5	16.5	8	-	16.5	46	51	4	14	17	9
RFO 383-1/8	3	M12x1	G1/8	4.5	16	21	34	24.5	16.5	8	-	16.5	46	51	4	14	17	9
RFO 344-1/4	4	M20x1.5	G1/4	6.5	25	30	52	35	24	12	-	24	60	69	7	22	24	14
RFO 346-1/4	6	M20x1.5	G1/4	6.5	25	30	52	35	24	12	-	24	60	69	7	22	24	14
RFO 367-3/8	7	M18x1	G3/8	6.5	27	42	56	43	34.5	14	28	7.5	75	85	8	22	22	*
RFO 377-1/2	7	M18x1	G1/2	6.5	27	42	56	43	34.5	14	28	7.5	75	85	8	22	22	*

Series 28
flow control valves

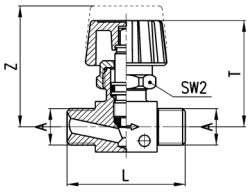
Bidirectional
Ports: G1/8, G1/4, G3/8, G1/2

These are bidirectional control valves made entirely of nickel-plated brass, with NBR seals and a technopolymer control knob.
They are suitable for regulating compressed air, water or mineral oil.
For models 2810, 2820, 2819 and 2829 exists the possibility to connect plastic, brass or copper tubes, using nut Mod. 1303 and cushion sleeve Mod. 1310/1320.

GENERAL DATA

Construction	cone - type
Materials	body = nickel-plated brass control knob = technopolymer seals = NBR
Ports	G1/8, G1/4, G3/8, G1/2
Installation	as required
Operating pressure	0°C ÷ 80°C (with dry air - 20°)
Operating pressure	0 ÷ 10 bar
Nominal flowrate	see table

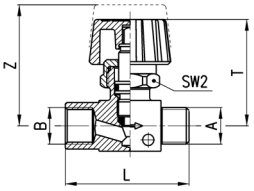
Valve Mod. 2810



DIMENSIONS							
Mod.	A	L	T	Z	SW2	Δ1bar Nl/min	Free flow Nl/min
2810 1/8	G1/8	40	37	42,5	19	415	590
2810 1/4	G1/4	42	37	42,5	19	508	740
2810 3/8	G3/8	42	37	42,5	19	620	900
2810 1/2	G1/2	54	42	48	22	1540	2080

RFO1

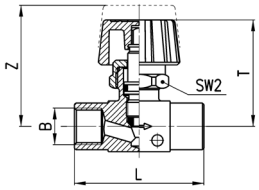
Valve Mod. 2820



DIMENSIONS								
Mod.	A	B	L	T	Z	SW2	Δ1bar Nl/min	Free flow Nl/min
2820 1/8	G1/8	G1/8	41	37	42,5	19	400	640
2820 1/4	G1/4	G1/4	44	37	42,5	19	530	840
2820 3/8	G3/8	G3/8	55,5	41,5	48	22	1415	1990
2820 1/2	G1/2	G1/2	59	42	49	22	1520	2150

RFO1

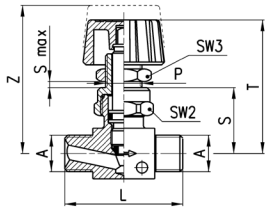
Valve Mod. 2830

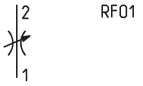


DIMENSIONS							
Mod.	B	L	T	Z	SW2	Δ1bar Nl/min	Free flow Nl/min
2830 1/8	G1/8	42	37	42,5	19	415	635
2830 1/4	G1/4	46	37	42,5	19	530	850
2830 3/8	G3/8	62	41,4	48	22	1415	1980
2830 1/2	G1/2	64	42	49	22	1520	2100

RFO1

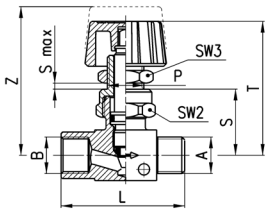
Valve Mod. 2819

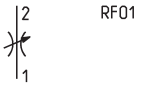




DIMENSIONS									
Mod.	A	L	P	S	T	Z	S_{Max}	SW2	SW3
2819 1/8	G1/8	40	1/4	23	47	52,5	7	19	17
2819 1/4	G1/4	42	1/4	23	47	52,5	7	19	17

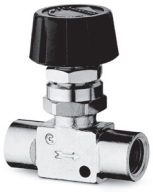
Valve Mod. 2829

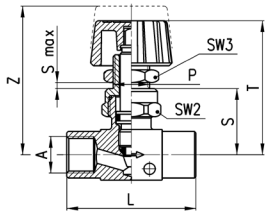


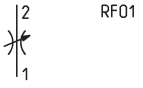


DIMENSIONS										
Mod.	A	B	L	P	S	T	Z	S max	SW2	SW3
2829 1/8	G1/8	G1/8	41	1/4	23	47	52,5	7	19	17
2829 1/4	G1/4	G1/4	44	1/4	23	47	52,5	7	19	17

Valve Mod. 2839







DIMENSIONS									
Mod.	A	L	P	S	T	Z	S max	SW2	SW3
2839 1/8	G1/8	42	1/4	23	47	52,5	7	19	17
2839 1/4	G1/4	46	1/4	23	47	52,5	7	19	17
2839 3/8	G3/8	62	14X1	28	56,5	63	7	22	17
2839 1/2	G1/2	64	14X1	29	57	64	7	22	17

Series 29 mini ball valves for Pneumatics and industrial fluids

Tube external diameters: 4, 6 and 8mm
Threads: BSP (G1/8, G1/4, G3/8, G1/2, R1/8, R1/4)

- Reduction in installation time
- Compact dimensions
- Cost effective solution
- Lightweight
- Maximum flow capability
- Easy-to-operate lever
- Usage with polymer tubing
- Available versions: MINI, ECO, butterfly and 3/2-way

The mini ball valves are used to open or close air or fluids in industrial applications characterised by extremely reduced spaces.

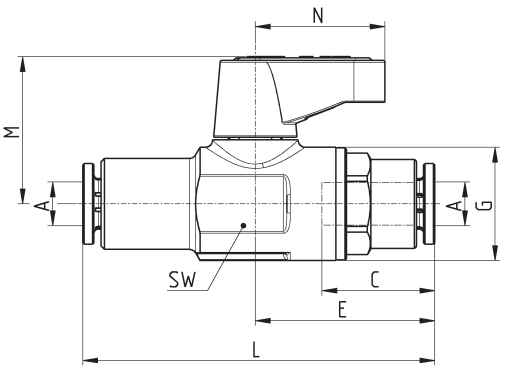
The miniaturised dimensions and light weight of Series 29 enable a quick installation at any point of the system, also thanks to the push-in connection or thread.
The design and materials used make this series particularly suitable for compressed air systems as well as hydraulic circuits and systems.

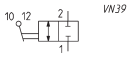
GENERAL DATA

Function	2/2-way, 3/2-way with exhaust
Operation	90° lever rotation
Ports	G1/8, G1/4, G3/8, G1/2, R1/8, R1/4
Tube diameter	Ø 4, 6, 8 mm
Orifice diameter	6 mm (MINI version) 8 mm bis 10 mm (ECO, butterfly and 3/2-way with exhaust)
Operating pressure	0 ÷ 10 bar
Operating temperature	-10 °C ÷ 90 °C
Materials	valve body, rod, collet: brass; ball: nickel plated brass; ball seals: PTFE rod sealing ring: FKM; Lever: Glass charged PA66
Surface finishing	chrome plated, sandblasted and chrome plated (only butterfly version)
Medium	compressed air, inert gases, water, oil - other on demand

Mini ball valves, MINI version - Mod. 2948

2/2 in-line with Push-in Collet

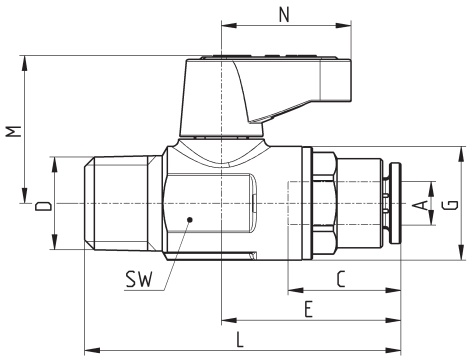


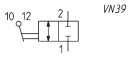


Mod.	A	DN	C	E	G	L	M	N	SW
2948 4	4	6	14	22.5	16	45	21	18.5	14
2948 6	6	6	16	25.5	16	50	21	18.5	14
2948 8	8	6	17.5	27	16	53	21	18.5	14

Mini ball valves, MINI version - Mod. 2947

2/2 in-line with Push-in Collet, Male BSPT Threads

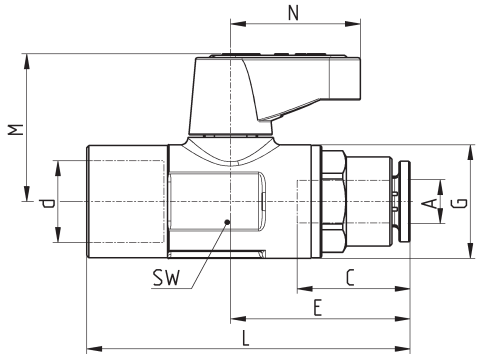


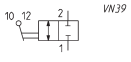


Mod.	A	d	DN	C	E	G	L	M	N	SW
2947 1/8-4	4	R1/8	6	14	22.5	16	39.5	21	18.5	14
2947 1/8-6	6	R1/8	6	16	25.5	16	42.5	21	18.5	14
2947 1/8-8	8	R1/8	6	17.5	27	16	44	21	18.5	14
2947 1/4-4	4	R1/4	6	14	22.5	16	42	21	18.5	14
2947 1/4-6	6	R1/4	6	16	25.5	16	45	21	18.5	14
2947 1/4-8	8	R1/4	6	17.5	27	16	46.5	21	18.5	14

Mini ball valves, MINI version - Mod. 2946

2/2 in-line with Push-in Collet, Female BSPP Threads

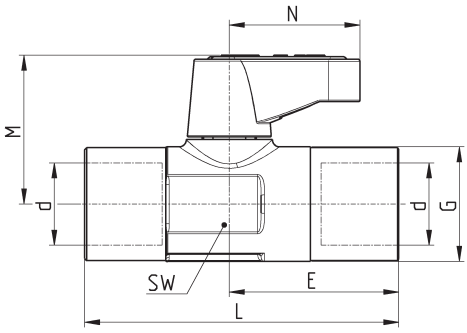


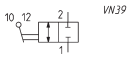


Mod.	A	d	DN	C	E	G	L	M	N	SW
2946 1/8-4	4	G1/8	6	14	22.5	16	41	21	18.5	14
2946 1/8-6	6	G1/8	6	16	25.5	16	44	21	18.5	14
2946 1/8-8	8	G1/8	6	17.5	27	16	45.5	21	18.5	14
2946 1/4-4	4	G1/4	6	14	22.5	16	43	21	18.5	14
2946 1/4-6	6	G1/4	6	16	25.5	16	46	21	18.5	14
2946 1/4-8	8	G1/4	6	17.5	27	16	47.5	21	18.5	14

Mini ball valves, MINI version - Mod. 2943

2/2 in-line, Female-Female BSPP Threads

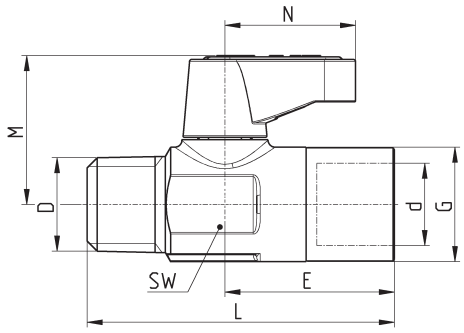


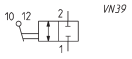


Mod.	d	DN	E	G	L	M	N	SW
2943 1/8	G1/8	6	21	16	39.5	21	18.5	14
2943 1/4	G1/4	6	24	16	44.5	21	18.5	14

Mini ball valves, MINI version - Mod. 2944

2/2 in-line, Male BSPT-Female BSPP Threads

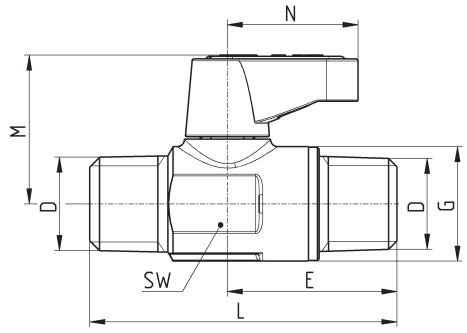


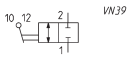


Mod.	d	D	DN	E	G	L	M	N	SW
2944 1/8-1/8	G1/8	R1/8	6	21	16	38	21	18.5	14
2944 1/4-1/4	G1/4	R1/4	6	24.5	16	43.5	21	18.5	14

Mini ball valves, MINI version - Mod. 2945

2/2 in-line, Male BSPT Threads





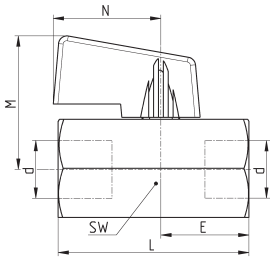
Mod.	D	DN	E	G	L	M	N	SW
2945 1/8	R1/8	6	21	16	38.5	21	18.5	14
2945 1/4	R1/4	6	24	16	43.5	21	18.5	14

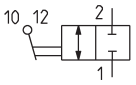
Colored Interchangeable Clips Mod. C29

Mod.
C29-GREY
C29-RED
C29-BLUE

Mini ball valves, ECO version - Mod. 2953

2/2 in-line, Female-Female BSPP Threads



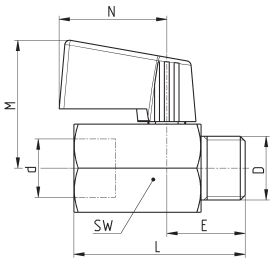


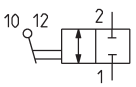
VN39

Mod.	d	DN	E	L	M	N	SW
2953 1/4	G1/4	8	18	39	27	22	20
2953 3/8	G3/8	8	21	42	27	22	20
2953 1/2	G1/2	10	23	47	29	22	24

Mini ball valves, ECO version - Mod. 2954

2/2 in-line, Male BSPP-Female BSPP Threads



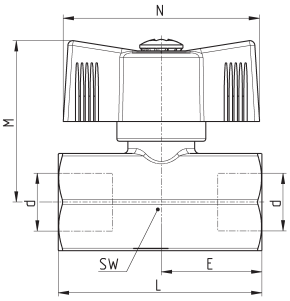


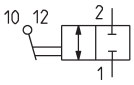
VN39

Mod.	d	D	DN	E	L	M	N	SW
2954 1/4-1/4	G1/4	G1/4	8	18	39	27	22	20
2954 3/8-3/8	G3/8	G3/8	8	19	40	27	22	20
2954 1/2-1/2	G1/2	G1/2	10	21	45	29	22	24

Mini ball valves, Butterfly version - Mod. 2963

2/2 in-line, Female-Female BSPP Threads



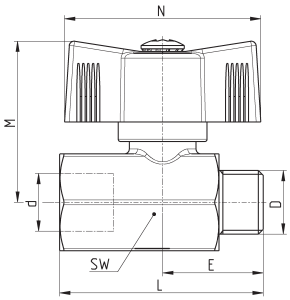


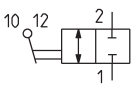
VN39

Mod.	d	DN	E	L	M	N	SW
2963 1/4	G1/4	8	21	41.5	33	40	20
2963 3/8	G3/8	8	21	41.5	33	40	20
2963 1/2	G1/2	10	24	47	34.5	40	24

Mini ball valves, Butterfly version - Mod. 2964

2/2 in-line, Male BSPP-Female BSPP Threads



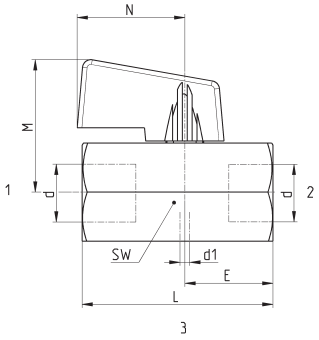


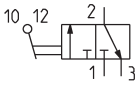
VN39

Mod.	d	D	DN	E	L	M	N	SW
2964 1/4-1/4	G1/4	G1/4	8	20.5	41.5	33	40	20
2964 3/8-3/8	G3/8	G3/8	8	20.5	41.5	33	40	20
2964 1/2-1/2	G1/2	G1/2	10	21	45	34.5	40	24

Mini ball valves, 3/2-way version - Mod. 2973

3/2 in-line, Female BSPP-Female BSPP Threads



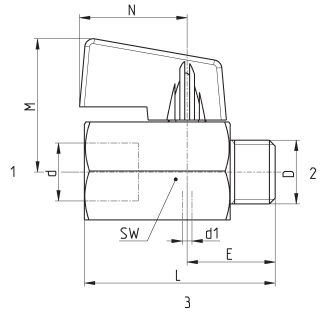


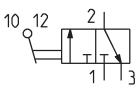
VN40

Mod.	d	DN	d1	E	L	M	N	SW
2973 1/4	G1/4	8	2	18	39	27	22	20
2973 3/8	G3/8	8	2	21	42	27	22	20
2973 1/2	G1/2	10	2	23	47	29	22	24

Mini ball valves, 3/2-way version - Mod. 2974

3/2 in-line, Male BSPP-Female BSPP Threads





VN40

Mod.	d	D	DN	d1	E	L	M	N	SW
2974 1/4-1/4	G1/4	G1/4	8	2	18	39	27	22	20
2974 3/8-3/8	G3/8	G3/8	8	2	19	40	27	22	20
2974 1/2-1/2	G1/2	G1/2	10	2	21	45	29	22	24

Silencers

Series: 2901 - 2903 - 2921 - 2931 - 2938 - 2939 - 2905
Ports: M5, G1/8, G1/4, G3/8, G1/2, G3/4, G1

The silencers are indispensable elements for eliminating or reducing the characteristic noise of compressed air during discharge operations. They should always be placed on the outlets of 3/2, 5/2 or 5/3-way valves.
When carrying out maintenance, the silencers should be degreased using white spirit or paraffin and compressed air blown through them in the opposite direction to operation.

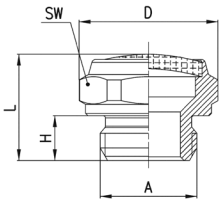
Flow rate: determined with inlet supply 6 bar and output in atmosphere.
Noise level: determined through a test which is carried out using a phonometer. Placing the phonometer one meter away from the application at the same height for a period of ten seconds gives an average reading of the noise generated.

GENERAL DATA

Construction	body with male and female thread
Materials used for body	2901 - 2903: brass 2921 - 2931: coppering steel 2938 - 2939: polyethylene
Materials used for silencing	2901 - 2903: stainless steel 2921 - 2931: bronze (sintered) 2938 - 2939: polyethylene
Ports	M5 - G1/8 - G1/4 - G3/8 - G1/2 - G3/4 - G1

SILENCERS

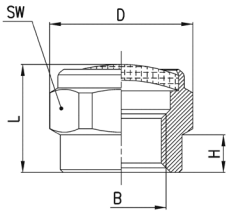
Silencers Series 2901



SIL1

DIMENSIONS										
Mod.		A	D	H	L	SW	Max operating pressure (bar)	Flow rate (Nl/min)	Noise db (A)	
2901 M5	*	M5	9	4	8.5	8	10	150	66	* sintered bronze silencer element
2901 1/8		G1/8	15.3	5	12	14	10	700	76	
2901 1/4-17		G1/4	18.5	6	14	17	10	1000	78	
2901 1/4-22		G1/4	23.5	6	15	22	10	1600	80	
2901 3/8		G3/8	23.5	7	16	22	10	1500	76	
2901 1/2		G1/2	29.5	8	17.5	27	10	3400	86	
2901 3/4		G3/4	34	9	20	32	6	4100	87	
2901 1		G1	43	11	24.5	40	6	7600	88	

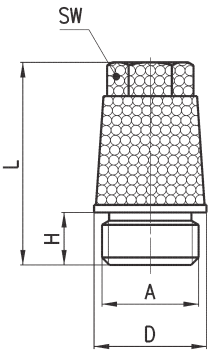
Silencers Series 2903



SIL1

DIMENSIONS								
Mod.	B	D	H	L	SW	Max. Oper. Pressure	Flow rate Nl/Min	Noise db (A)
2903 1/8	G1/8	15,3	4	11	14	10	700	74

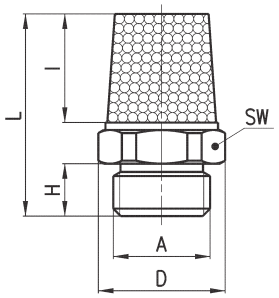
Silencers Series 2921



SIL1

DIMENSIONS								
Mod.	A	D	H	L	SW	Max. Oper. Pressure	Flow rate Nl/Min	Noise db (A)
2921 1/8	G1/8	12	4,5	21,5	8	10	1730	81
2921 1/4	G1/4	15	6	28	10	10	3300	85
2921 3/8	G3/8	19	8	37	13	10	4250	79
2921 1/2	G1/2	23	9	43,5	15	10	6800	87
2921 3/4	G3/4	30	10	56	19	10	9800	84
2921 1	G1	37	12	67	24	10	10900	86

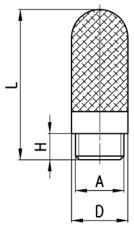
Silencers Series 2931



DIMENSIONS									
Mod.	A	D	H	I	L	SW	Max. Oper. Pressure	Flow rate Nl/Min	Noise db (A)
2931 M5	M5	7,7	4	8	16,5	7	10	450	69
2931 M7	M7	9	5	8,5	20	8	10	1130	76
2931 1/8	G1/8	13	4,5	13	21	12	10	1927	88
2931 1/4	G1/4	16,2	6	16,5	27	15	10	3200	86
2931 3/8	G3/8	20	7	23	35,5	19	10	4560	81
2931 1/2	G1/2	24,5	8	28	42	23	10	6800	87
2931 3/4	G3/4	32	9	37	54	30	10	9600	84
2931 1	G1	38,5	11	47	67	36	10	10800	86

SIL1

Silencers Series 2938



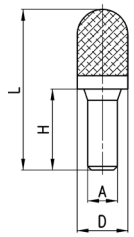
DIMENSIONS							
Mod.	A	D	H	L	Max. Oper. Pressure	Flow rate Nl/Min	Noise db (A)
2938 M5	M5	6,5	4,1	23	10	546	67
2938 1/8	G1/8	12,5	5,7	34	10	1441	75
2938 1/4	G1/4	15,5	7	42,5	10	2752	79
2938 3/8	G3/8	18,5	11,5	67,5	10	4735	73
2938 1/2	G1/2	23,5	11	77	10	8534	86

SIL1

Operating temperature:
- 40 / + 80 °C

Silencers Series 2939

Operating temperature:
- 40 / + 80 °C

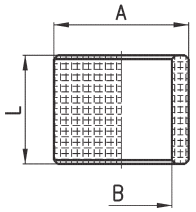


DIMENSIONS								
Mod.	øA	D	H	L	Max. Oper. Pressure	Flow rate Nl/Min	Noise db (A)	
2939 4	4	7	16	32	10	335	80	
2939 6	6	12,5	20,5	45	10	632	79	*
2939 8	8	13,5	21,5	43,5	10	1229	89	*
2939 10	10	15,5	26,5	57,5	10	2650	87	*

SIL1

Silencing bush Series 2905

For flow control valves Mod. SCO and MCO
(see the dedicated section)



DIMENSIONS			
Mod.	A	B	L
2905 1/8	14	10	14.5
2905 1/4	18	13.5	14.5
2905 3/8	21	16.8	14.5

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