

Series K8 directly operated solenoid valves

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)



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

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

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 | manifold cartridge |
| Nominal diameter | 0.5 - 0.7 mm |
| Nominal flow | see kv |
| Flow efficient kv (l/min) | 0.08 - 0.15 |
| Operating pressure | -1 ÷ 3 ... 7 bar |
| Operating temperature | 0°C ÷ 50°C |
| Media | filtered compressed air, unlubricated, according to ISO 8573-1 class 3.4.3, inert gas |
| Response time (ISO 12238) | ON <10 msec - OFF <10 msec |
| Installation | in any position |

MATERIALS IN CONTACT WITH THE MEDIUM

| | |
|----------------|---|
| Body | brass - stainless steel - PBT technopolymer |
| Seals | FKM |
| Internal parts | stainless steel |

ELECTRICAL FEATURES

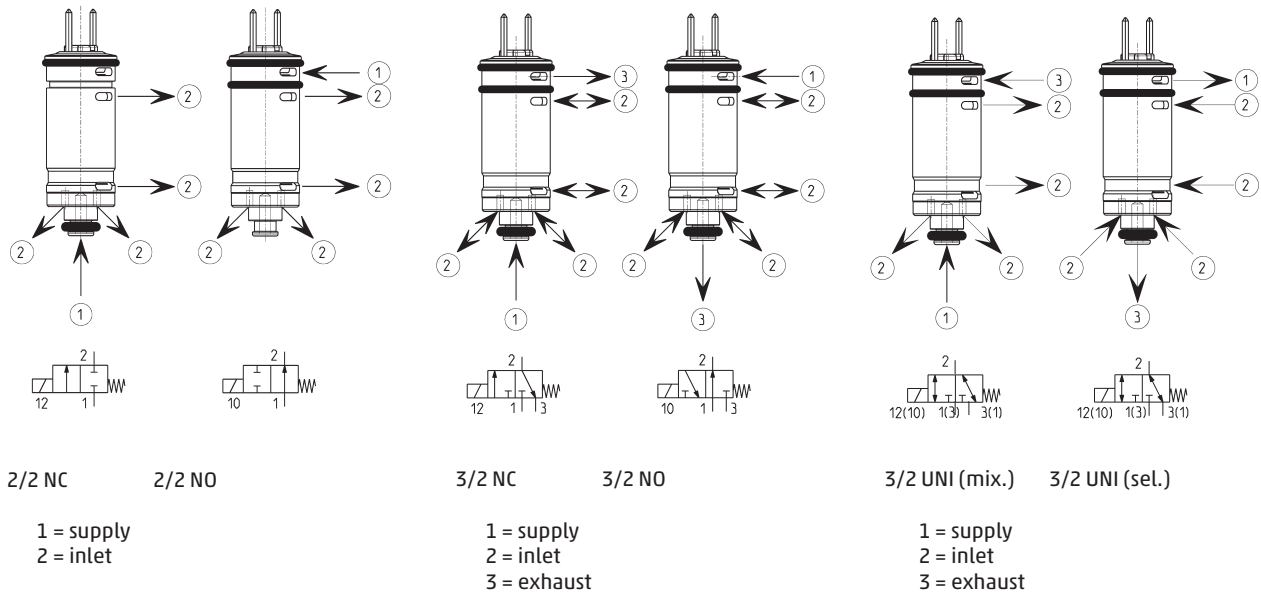
| | |
|-----------------------|---|
| Voltage | 24 V DC - 12 V DC - 6 V DC - other voltages on demand |
| Voltage tolerance | ±10% |
| Power consumption | 0.6 W |
| Duty cycle | ED 100% |
| Electrical connection | 2 Pin 0.5 x 0.5 spacing 4 mm |
| Protection class | IP00 |

Special versions available on demand To order the version for use with oxygen, please add OX1 at the end of the standard code.

CODING EXAMPLE

| | | | | | | | | | | | |
|---|---|----|---|---|---|---|---|---|---|---|--|
| K8 | 0 | 00 | - | 3 | 0 | 3 | - | K | 2 | 3 | |
| K8 SERIES | | | | | | | | | | | |
| 0 BODY DESIGN: 0 = single valve | | | | | | | | | | | |
| 00 NUMBER OF POSITIONS: 00 = valve without seat | | | | | | | | | | | |
| 3 NUMBER OF WAYS - FUNCTIONS: 0 = single base 3 = 3-way NC 4 = 3-way NO 5 = 2-way NC 6 = 2-way NO 7 = 3-way UNI | | | | | | | | | | | |
| 0 MATERIALS AND SEALS: 0 = poppet, FKM seals | | | | | | | | | | | |
| 3 NOMINAL 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 = stainless steel body, brass cage | | | | | | | | | | | |
| 2 ELECTRICAL CONNECTION: 2 = pin interface size 4 mm | | | | | | | | | | | |
| 3 VOLTAGE - POWER CONSUMPTION: 1 = 6V DC - 0.6 W 2 = 12V DC - 0.6 W 3 = 24V DC - 0.6 W 5 = 5V DC - 0.6 W | | | | | | | | | | | |
| OPTIONS: = standard OX1 = for use with oxygen (non volatile residual less than 550 mg/m³) | | | | | | | | | | | |

AVAILABLE FUNCTIONS



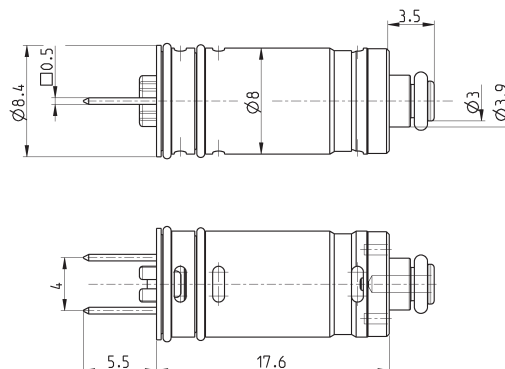
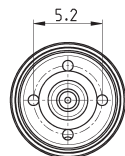
The 3/2 UNI version can be used also for 3/2 NC or 3/2 NO functions.

8 mm solenoid valve, 2/2-way NC, NO - 3/2 NC, NO, UNI



NOTE TO THE TABLE:

* to complete the code add
VOLTAGE - POWER
CONSUMPTION (see the
CODING EXAMPLE)



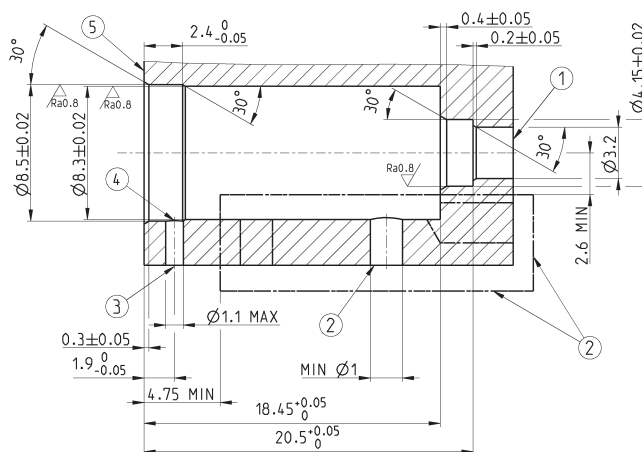
| Mod. | Function | Orifice Ø (mm) | kv (l/min) 1 → 2 | Qn (NL/min) 1 → 2 | kv (l/min) 2 → 3 | Qn (NL/min) 2 → 3 | Min= max pressure (bar) |
|---------------------------|----------|----------------|------------------|-------------------|------------------|-------------------|-------------------------|
| K8000-503-K2 [®] | 2/2 NC | 0.5 | 0.08 | 5 | - | - | 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 | 6.5 | - | - | 1 ÷ 7 |
| K8000-303-K2 [®] | 3/2 NC | 0.5 | 0.08 | 5 | 0.10 | 6.5 | 1 ÷ 7 |
| K8000-306-K2 [®] | 3/2 NC | 0.5 | 0.08 | - | 0.10 | - | -1 ÷ 4 |
| K8000-305-K2 [®] | 3/2 NC | 0.7 | 0.15 | - | 0.10 | - | -1 ÷ 3 |
| K8000-403-K2 [®] | 3/2 NO | 0.6 | 0.10 | 6.5 | 0.08 | 5 | 1 ÷ 7 |
| K8000-405-K2 [®] | 3/2 NO | 0.6 | 0.10 | 6.5 | 0.15 | 9.5 | 1 ÷ 7 |
| K8000-703-K2 [®] | 3/2 UNI | 0.5 | 0.08 | - | 0.10 | - | 0 ÷ 3 |
| K8000-705-K2 [®] | 3/2 UNI | 0.7 | 0.15 | - | 0.10 | - | -1 ÷ 2 |

8 mm solenoid valve seat, 2/2-way NC, NO - 3/2 NC, NO, UNI

Note: better performances can be achieved if the valve seat holes are in line with the respective valve holes.

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



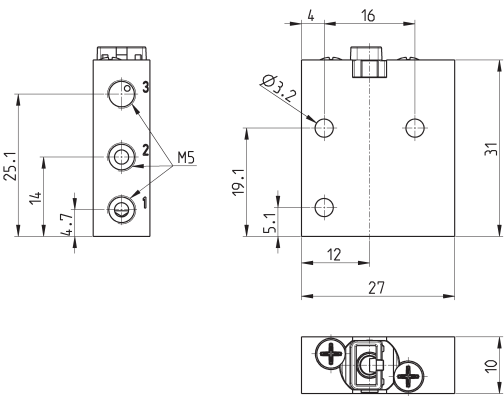
| FUNCTION | 2/2 NC | 2/2 NO | 3/2 NC | 3/2 NO | 3/2 UNI (mix.) | 3/2 UNI (sel.) |
|----------|--------|--------|---------|---------|----------------|----------------|
| PORT 1 | Inlet | - | Inlet | Exhaust | Inlet | Outlet |
| PORT 2 | Outlet | Outlet | Outlet | Outlet | Outlet | Inlet |
| PORT 3 | - | Inlet | Exhaust | Inlet | Inlet | Outlet |

Single body for Series K8 solenoid valve



Material: anodized aluminium
Pneumatic connections: M5 threads

NOTE: to be used only with the electrical connector Mod. 120-J...

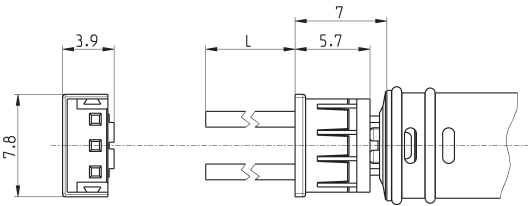


| |
|-----------|
| Mod. |
| K8303/14C |

Connector Mod. 120-..



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

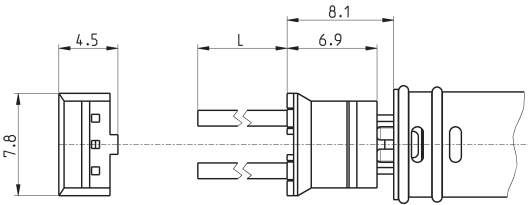


| Mod. | description | colour | L = cable length (mm) | cable holding |
|---------|---------------|--------|-----------------------|---------------|
| 120-803 | crimped cable | white | 300 | crimping |
| 120-806 | crimped cable | white | 600 | crimping |

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 |

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 pilot operated 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 - 3/2 NC - 2/2 NO - 3/2 NO |
| Operation | pilot operated poppet type |
| Pneumatic connections | manifold cartridge - M7 threads - on subbase with M3 screws |
| Nominal diameter | 3.6 mm |
| Nominal flow | 180 NL/min (air @ 6 bar ΔP 1 bar) |
| Flow coefficient kv (l/min) | 2.8 |
| Operating pressure | 1 ÷ 7 bar |
| Operating temperature | 0°C ÷ 50°C |
| Media | filtered compressed air, unlubricated, according to ISO 8573-1 class 3.4.3, inert gas |
| Response time (ISO 12238) | ON <15 msec - OFF <15 msec |
| Installation | in any position |

MATERIALS IN CONTACT WITH THE MEDIUM

| | |
|----------------|---|
| Body | brass - stainless steel - PBT technopolymer - aluminium |
| Seals | FKM |
| Internal parts | stainless steel |

ELECTRICAL FEATURES

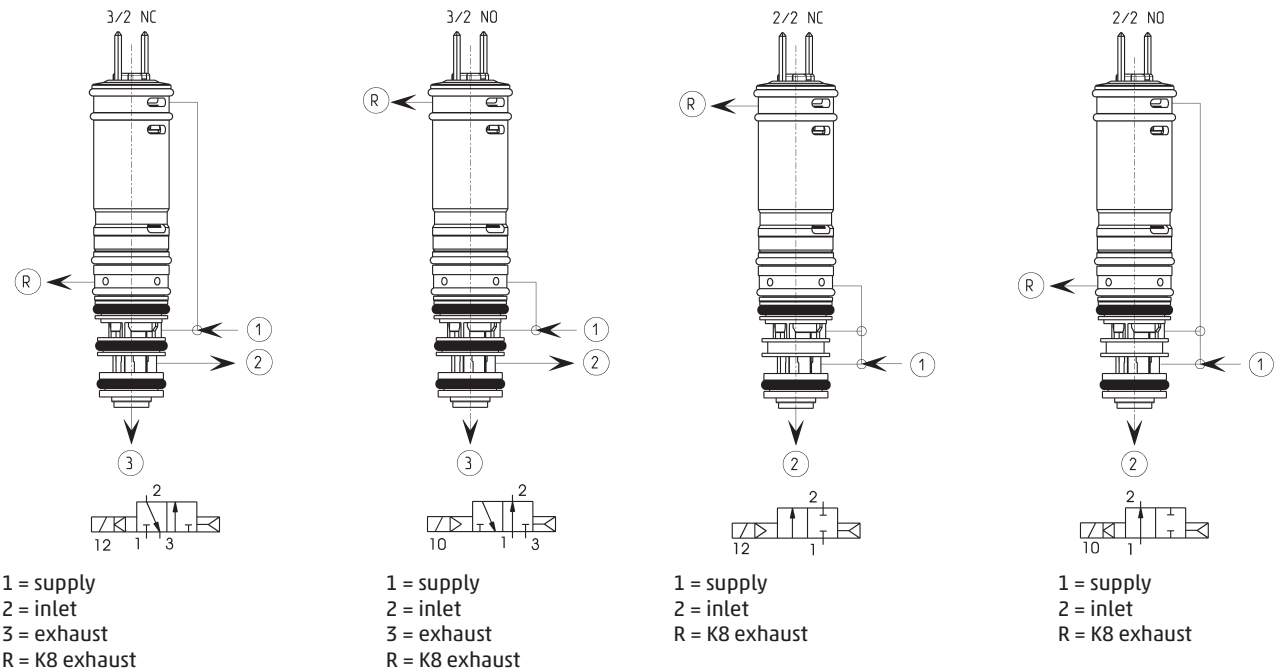
| | |
|-----------------------|---|
| Voltage | 24 V DC - 12 V DC - 6 V DC - other voltages on demand |
| Voltage tolerance | ±10% |
| Power consumption | 0.6 W |
| Duty cycle | ED 100% |
| Electrical connection | 2 Pin 0.5 x 0.5 pitch 4mm - JST connector with flying leads L = 300mm |
| Protection class | IP00 |

Special versions available on demand

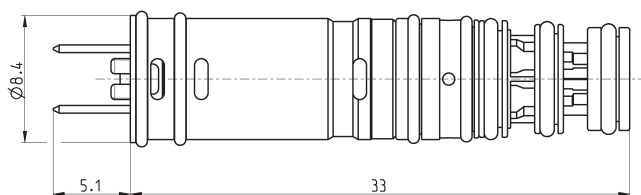
CODING EXAMPLE

| | | | | | | | | | | | | | |
|------|---|---|----|---|----|---|---|---|---|---|----|----|------|
| K8B | C5 | 4 | 00 | - | D4 | 3 | 2 | N | - | N | 00 | 1A | C003 |
| K8B | SERIES | | | | | | | | | | | | |
| C5 | BODY DESIGN: C0 = body with interface for subbase C3 = threaded body C5 = cartridge | | | | | | | | | | | | |
| 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 03 = M7 18 = K8B-type interface, 2-way 19 = K8B-type interface, 3-way | | | | | | | | | | | | |
| D4 | NOMINAL DIAMETER: D4 = Ø 3.6mm | | | | | | | | | | | | |
| 3 | SEALS MATERIALS: 3 = FKM | | | | | | | | | | | | |
| 2 | BODY MATERIALS: 1 = aluminium 2 = brass | | | | | | | | | | | | |
| N | MANUAL OVERRIDE: N = not foreseen | | | | | | | | | | | | |
| N | FIXING ACCESSORIES: N = not foreseen P = screws for plastics M = screws for metal | | | | | | | | | | | | |
| 00 | OPTION: 00 = no option | | | | | | | | | | | | |
| 1A | ELECTRICAL CONNECTION: 1A = only pins, pitch 4mm 1B = JST connector, pitch 4mm | | | | | | | | | | | | |
| C003 | VOLTAGE - POWER CONSUMPTION: C001 = 6V DC (0.6 W) C002 = 12V DC (0.6 W) C003 = 24V DC (0.6 W) | | | | | | | | | | | | |

AVAILABLE FUNCTIONS



8 mm solenoid valve, 2/2 and 3/2-way NC and NO

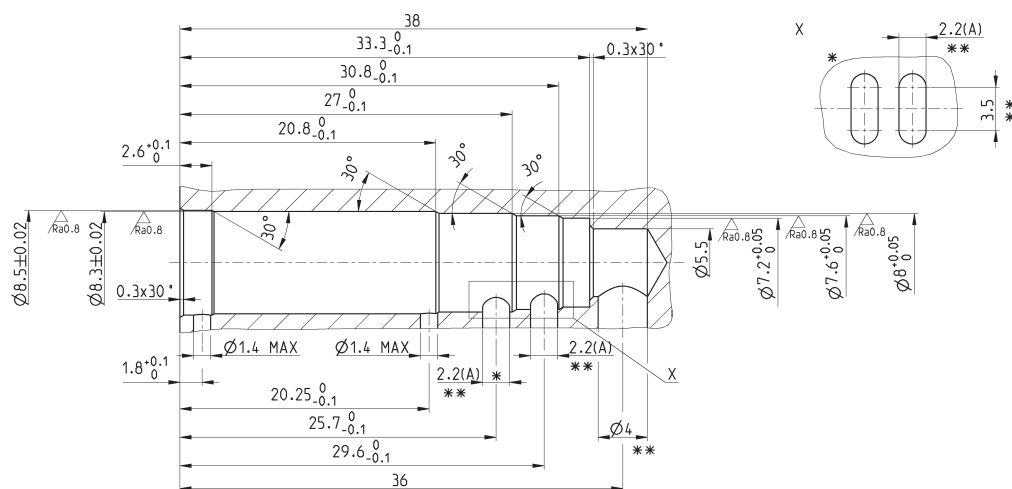


| Mod. | Function | NOTE |
|-----------------------------------|----------|---|
| K8BC5100-D432N-N001A [Ⓐ] | 2/2 NC | * enter the required voltage (see the coding example) |
| K8BC5200-D432N-N001A [Ⓐ] | 2/2 NO | * enter the required voltage (see the coding example) |
| K8BC5400-D432N-N001A [Ⓐ] | 3/2 NC | * enter the required voltage (see the coding example) |
| K8BC5500-D432N-N001A [Ⓐ] | 3/2 NO | * enter the required voltage (see the coding example) |

8 mm solenoid valve seat, 2/2 and 3/2-way NC and NO

* = FOR THE 2/2 VERSION THIS OPERATION HAS NOT TO BE PERFORMED

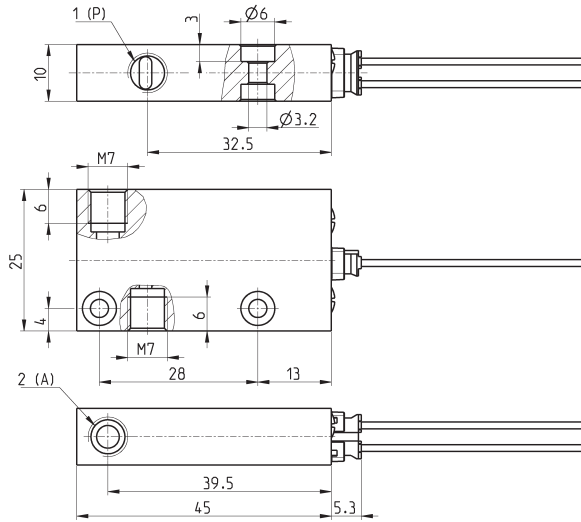
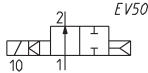
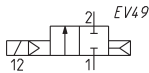
*** = TO ACHIEVE DECLARED PERFORMANCE IT IS NECESSARY TO HAVE A PASSAGE SECTION FOR THE SUPPLY AND EXHAUST PORTS OF 12.5 mm², WHICH IS EQUAL TO A Ø4 mm



Body with threaded ports, 2/2-way NC and NO



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

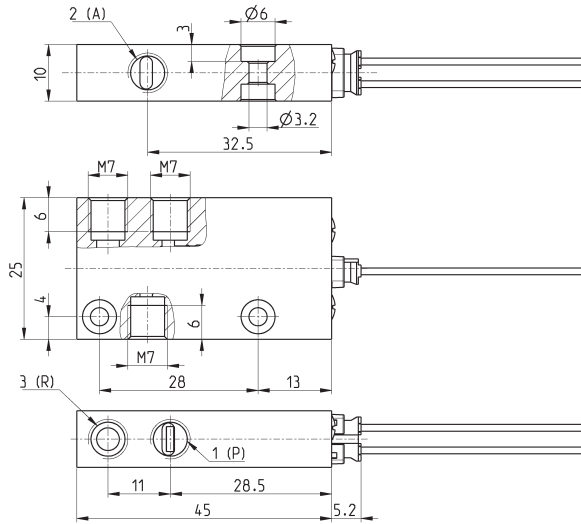
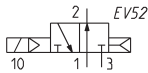
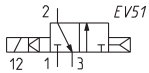


| Mod. | Function | Symbol | NOTE |
|-----------------------|----------|--------|---|
| K8BC3103-D431N-N001B* | 2/2 NC | EV49 | * enter the required voltage (see the coding example) |
| K8BC3203-D431N-N001B* | 2/2 NO | EV50 | * enter the required voltage (see the coding example) |

Body with threaded ports, 3/2-way NC and NO



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

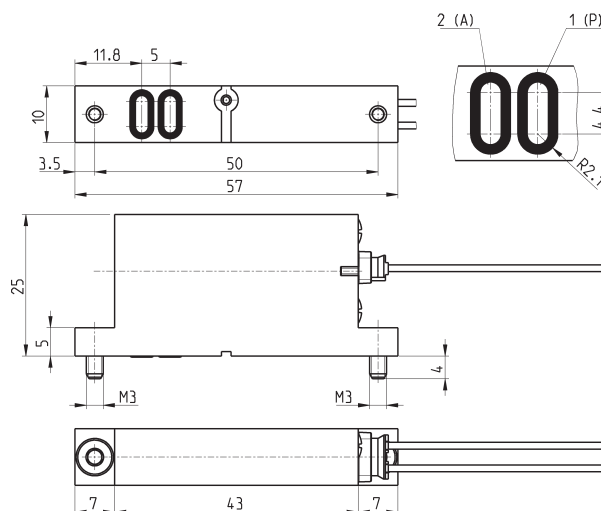
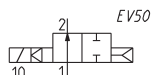
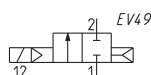


| Mod. | Function | Symbol | NOTE |
|-----------------------|----------|--------|---|
| K8BC3403-D431N-N001B* | 3/2 NC | EV51 | * enter the required voltage (see the coding example) |
| K8BC3503-D431N-N001B* | 3/2 NO | EV52 | * enter the required voltage (see the coding example) |

Body for subbase, 2/2-way NC and NO



Supplied with:
1x connector with flying leads
Mod. 120-J803 (300mm)
2x interface seals
2x screws M3x6 UNI 5931
(for M version)
or
2x screws M3x6 UNI 10227
(for P version)

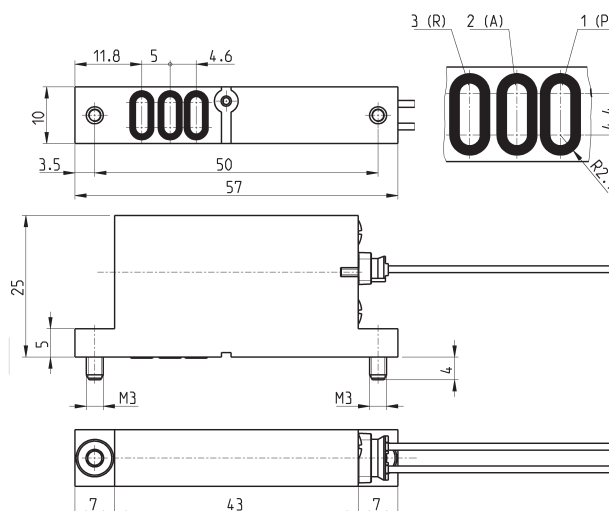
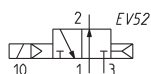
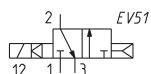


| Mod. | Function | Symbol | NOTE |
|------------------------|----------|--------|---|
| K8BC0118-D431N-*001B** | 2/2 NC | EV49 | * enter the type of screws - ** enter the required voltage (see the coding example) |
| K8BC0218-D431N-*001B** | 2/2 NO | EV50 | * enter the type of screws - ** enter the required voltage (see the coding example) |

Body for subbase, 3/2-way NC and NO



Supplied with:
1x connector with flying leads
Mod. 120-J803 (300mm)
3x interface seals
2x screws M3x6 UNI 5931
(for M version)
or
2x screws M3x6 UNI 10227
(for P version)

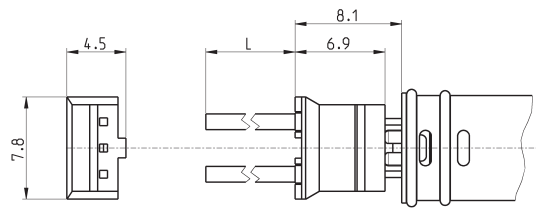


| Mod. | Function | Symbol | NOTE |
|------------------------|----------|--------|---|
| K8BC0419-D431N-*001B** | 3/2 NC | EV51 | * enter the type of screws - ** enter the required voltage (see the coding example) |
| K8BC0519-D431N-*001B** | 3/2 NO | EV52 | * enter the type of screws - ** enter the required voltage (see the coding example) |

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 |

Series K8DV directly operated solenoid valves with fluid separation membrane

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 | directly operated with fluid separation membrane |
| Pneumatic connections | cartridge for manifold or flanged for subbase |
| Nominal diameter | 0.7 mm |
| Flow efficient kv (l/min) | 0.1 |
| Operating pressure | 0 ÷ 2.1 bar |
| Operating temperature | 5 ÷ 50°C |
| Media | liquids / aggressive or inert gases |
| Response time (ISO 12238) | ON ≤ 10 ms - OFF ≤ 15 ms |
| Installation | in any position |

MATERIALS IN CONTACT WITH THE MEDIUM

| | |
|-------|------------|
| Body | PEEK |
| Seals | FKM - EPDM |

ELECTRICAL FEATURES

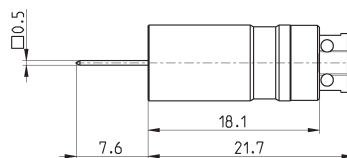
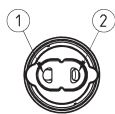
| | |
|-----------------------|---|
| Voltage | 24 V DC - 12 V DC - 6 V DC - 5 V DC - 3 V DC - other voltages on demand |
| Voltage tolerance | ±10% |
| Power consumption | 0.6 W |
| Duty cycle | ED 100% |
| Electrical connection | 2 Pins 0.5 x 0.5 spacing 4 mm |
| Protection class | IP00 |

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-way NC |
| 0 | SEAL MATERIAL: 0 = FKM 4 = EPDM |
| 5 | NOMINAL DIAMETER: 5 = Ø 0.7 mm |
| G | BODY MATERIAL: G = PEEK |
| 2 | ELECTRICAL CONNECTION: 2 = interface pin size 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 |

Solenoid valve with fluid separation membrane, cartridge version



DRAWING LEGEND:

1 = supply
2 = inlet

NOTE TO THE TABLE:

* to complete the code add
VOLTAGE - POWER
CONSUMPTION (see the
CODING EXAMPLE)

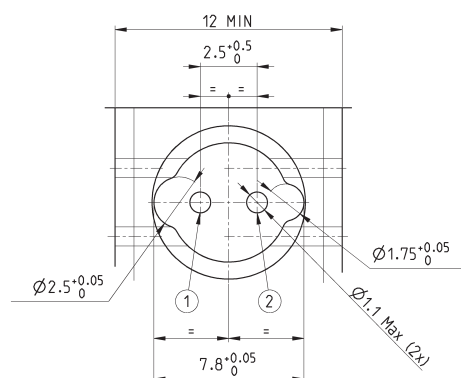
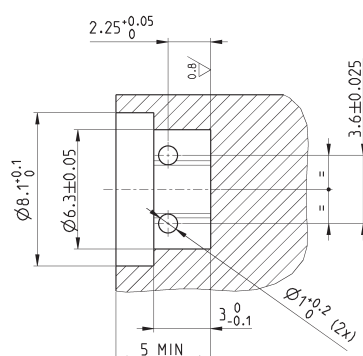


| Mod. | Nominal diameter Ø (mm) | kv (l/min) | Min÷max pressure (bar) | Body material | Seal material |
|-----------------|-------------------------|------------|------------------------|---------------|---------------|
| K8DVC00-505-G2* | 0.7 | 0.1 | 0 ÷ 2.1 | PEEK | FKM |
| K8DVC00-545-G2* | 0.7 |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

Solenoid valve seat, cartridge version

DRAWING LEGEND:

1 = supply
2 = inlet

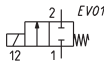
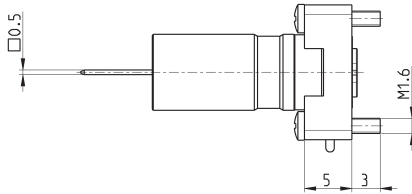
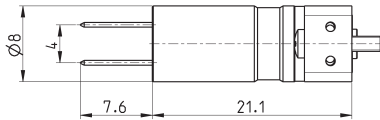
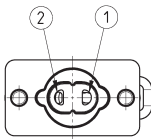


Solenoid valve with fluid separation membrane, flanged version



DRAWING LEGEND:
1 = supply
2 = inlet

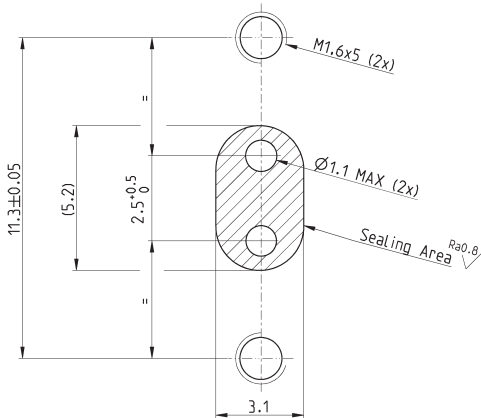
NOTE TO THE TABLE:
* to complete the code add
VOLTAGE - POWER
CONSUMPTION (see the
CODING EXAMPLE)



| Mod. | Nominal diameter 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 |

Mounting pad of the flanged solenoid valve

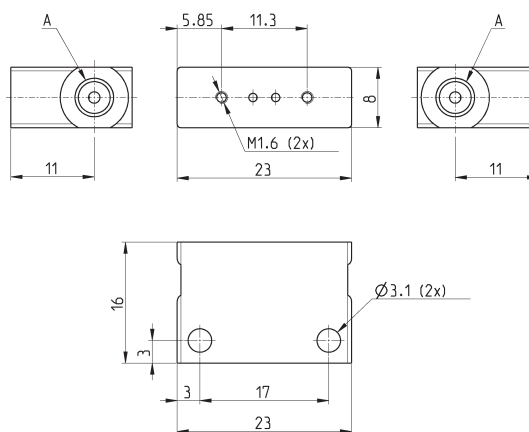
DRAWING LEGEND:
1 = supply
2 = inlet



Single subbase for flanged version



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

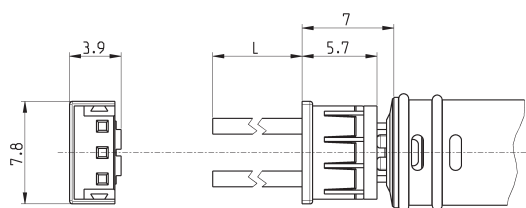


| Mod. | A (pneumatic connections) |
|--------------|---------------------------|
| K8DV0001-1/4 | 1/4 - 28 UNF |
| K8DV0001-M5 | M5 |

Connector Mod. 120-..



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

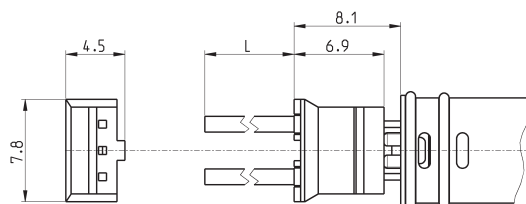


| Mod. | description | colour | L = cable length (mm) | cable holding |
|---------|---------------|--------|-----------------------|---------------|
| 120-803 | crimped cable | white | 300 | crimping |
| 120-806 | crimped cable | white | 600 | crimping |

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



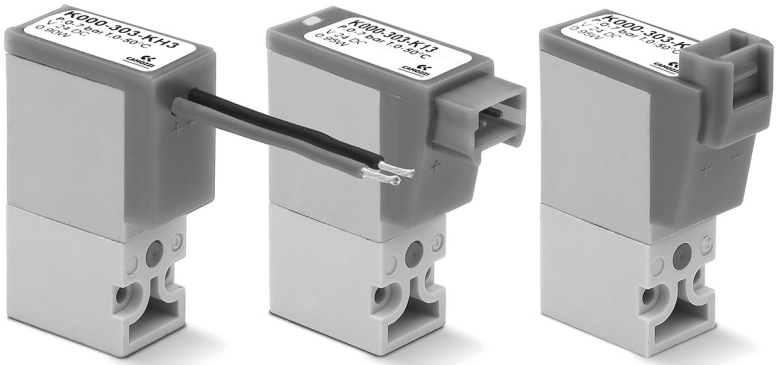
| Mod. | description | colour | L = cable length (mm) | cable holding |
|----------|---------------------------|--------|-----------------------|---------------|
| 120-J803 | crimped cable connector J | white | 300 | crimping |
| 120-J806 | crimped cable connector J | white | 600 | crimping |

Series K directly operated solenoid valves

New models

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 directly operated 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 by means of screws |
| Nominal diameter | 0.6 ... 1 mm |
| Nominal flow | see the kv |
| Flow coefficient kv (l/min) | 0.12 ... 0.30 |
| Operating pressure | 0 ÷ 3 ... 7 bar |
| Operating temperature | 0°C ÷ 50°C |
| Media | filtered compressed air, unlubricated, according to ISO 8573-1 class 3.4.3, inert gas |
| Response time | ON <10 msec - OFF <10 msec |
| Manual override | monostable button (for 3/2 version only) |
| Installation | in any position |

MATERIALS IN CONTACT WITH THE MEDIUM

| | |
|----------------|-------------------|
| Body | PBT technopolymer |
| Seals | NBR or FKM |
| Internal parts | stainless steel |

ELECTRICAL FEATURES

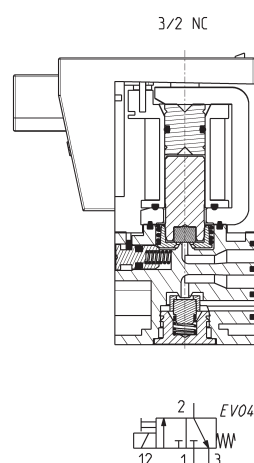
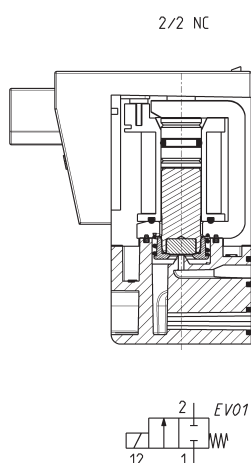
| | |
|-----------------------|---|
| Voltage | 24 V DC - 12 V DC - 6 V DC - other voltages on demand |
| Voltage tolerance | ±10% |
| Power consumption | 1 W |
| Duty cycle | ED 100% |
| Electrical connection | connector - thin cables L = 300 mm |
| Protection class | IP50 |

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-way NC 1 = 2-way NC electric part revolved by 180° 3 = 3-way NC 5 = 3-way NC electric part revolved by 180° 4 = 3-way NO 6 = 3-way NO electric part revolved by 180° | | | | | | | | | | |
| 0 | PORTS: 0 = interface 2 = M5 side outlets | | | | | | | | | | |
| 3 | NOMINAL DIAMETER: 2 = Ø 0.6 mm 3 = Ø 0.65 mm 5 = Ø 1.0 mm | | | | | | | | | | |
| K | MATERIALS: F = PBT body, FKM poppet K = PBT body, HNBR poppet (available for 3/2 version only) | | | | | | | | | | |
| 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 = cable (300mm) with protection and led G = cable (300mm) with protection H = cable only (300mm) | | | | | | | | | | |
| 3 | SOLENOID VOLTAGE: 1 = 6V DC - 1W 2 = 12V DC - 1W 3 = 24V DC - 1W | | | | | | | | | | |
| | FIXING: = with screws for mounting on plastics M = with screws for mounting on metal | | | | | | | | | | |
| | OPTIONS: = standard OX1 = for use with oxygen (non volatile residual less than 550 mg/m ²) OX2 = for use with oxygen (non volatile residual less than 33 mg/m ²) | | | | | | | | | | |

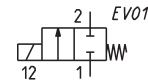
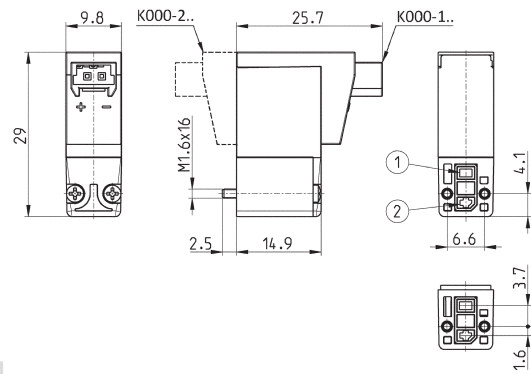
Series K solenoid valve, 2/2- and 3/2-way



2/2-way NC solenoid valve (90° electrical connection)



Supplied with:
1x interface seal
2x screws M1.6x16
(UNI 10227 for mounting on plastics or
UNI 7687 for mounting on metal)



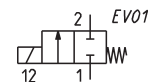
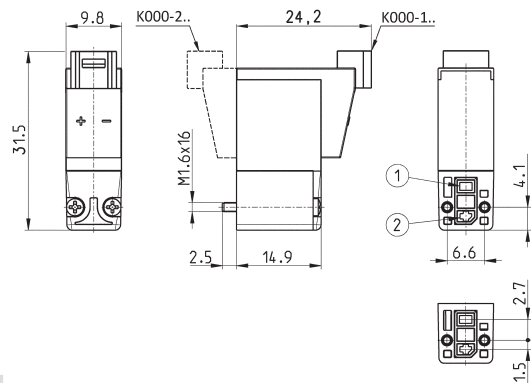
* add VOLTAGE - POWER
CONSUMPTION (see CODING EXAMPLE)

| Mod. | Function | Orifice Ø (mm) | kv (l/min) | Qn (NL/min) | Min÷max pressure (bar) |
|--------------|----------|----------------|------------|-------------|------------------------|
| K000-102-F1* | 2/2 NC | 0.6 | 0.15 | 10 | 0 ÷ 7 |
| K000-102-F2* | 2/2 NC | 0.6 | 0.15 | 10 | 0 ÷ 7 |
| K000-102-F3* | 2/2 NC | 0.6 | 0.15 | 10 | 0 ÷ 7 |
| 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 |

2/2-way NC solenoid valve (in-line electrical connection)



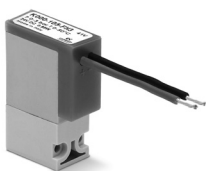
Supplied with:
1x interface seal
2x screws M1.6x16
(UNI 10227 for mounting on plastics or
UNI 7687 for mounting on metal)



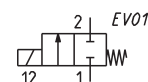
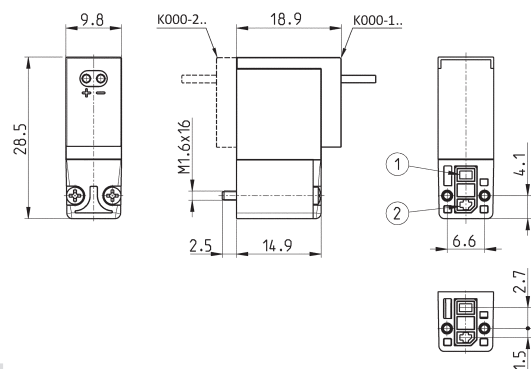
* add VOLTAGE - POWER
CONSUMPTION (see CODING EXAMPLE)

| Mod. | Function | Orifice Ø (mm) | kv (l/min) | Qn (NL/min) | Min÷max pressure (bar) |
|--------------|----------|----------------|------------|-------------|------------------------|
| K000-102-FB* | 2/2 NC | 0.6 | 0.15 | 10 | 0 ÷ 7 |
| K000-102-FC* | 2/2 NC | 0.6 | 0.15 | 10 | 0 ÷ 7 |
| K000-102-FD* | 2/2 NC | 0.6 | 0.15 | 10 | 0 ÷ 7 |
| 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 |

2/2-way NC solenoid valve (with cable 300 mm)



Supplied with:
1x interface seal
2x screws M1.6x16
(UNI 10227 for mounting on plastics or
UNI 7687 for mounting on metal)



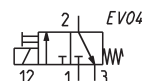
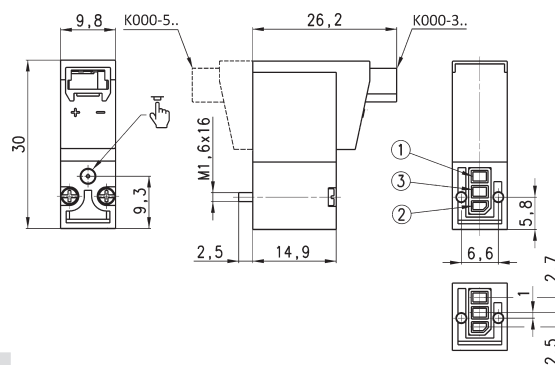
* add VOLTAGE - POWER
CONSUMPTION (see CODING EXAMPLE)

| Mod. | Function | Orifice Ø (mm) | kv (l/min) | Qn (NL/min) | Min÷max pressure (bar) |
|--------------|----------|----------------|------------|-------------|------------------------|
| K000-102-FF* | 2/2 NC | 0.6 | 0.15 | 10 | 0 ÷ 7 |
| K000-102-FG* | 2/2 NC | 0.6 | 0.15 | 10 | 0 ÷ 7 |
| K000-102-FH* | 2/2 NC | 0.6 | 0.15 | 10 | 0 ÷ 7 |
| 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 |

3/2-way NC solenoid valve (90° electrical connection)



Supplied with:
1x interface seal
2x screws M1.6x16
(UNI 10227 for mounting on plastics or
UNI 7687 for mounting on metal)



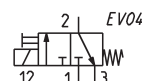
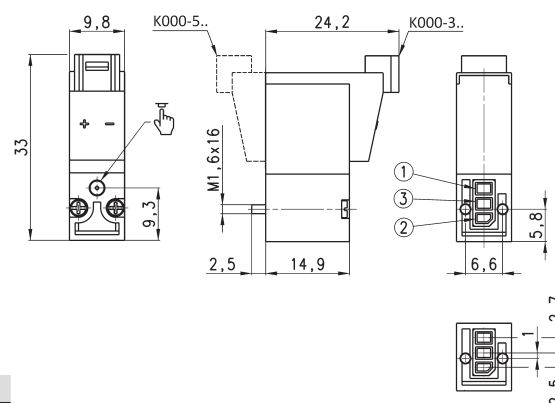
* add VOLTAGE - POWER
CONSUMPTION (see CODING EXAMPLE)

| Mod. | Function | Orifice Ø (mm) | kv (l/min) | Qn (Nl/min) | Min÷max pressure (bar) |
|---------------------|----------|----------------|------------|-------------|------------------------|
| K000-303-K1* | 3/2 NC | 0.6 | 0.12 | 8 | 0 ÷ 7 |
| K000-303-F1* | 3/2 NC | 0.6 | 0.12 | 8 | 0 ÷ 7 |
| K000-303-K2* | 3/2 NC | 0.6 | 0.12 | 8 | 0 ÷ 7 |
| K000-303-F2* | 3/2 NC | 0.6 | 0.12 | 8 | 0 ÷ 7 |
| K000-303-K3* | 3/2 NC | 0.6 | 0.12 | 8 | 0 ÷ 7 |
| K000-303-F3* | 3/2 NC | 0.6 | 0.12 | 8 | 0 ÷ 7 |

3/2-way NC solenoid valve (in-line electrical connection)



Supplied with:
1x interface seal
2x screws M1.6x16
(UNI 10227 for mounting on plastics or
UNI 7687 for mounting on metal)



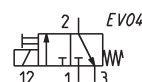
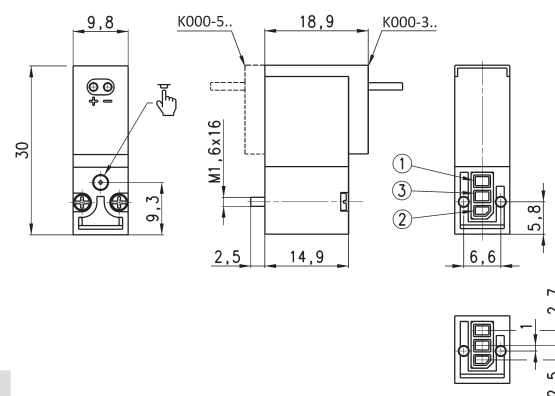
* add VOLTAGE - POWER
CONSUMPTION (see CODING EXAMPLE)

| Mod. | Function | Orifice Ø (mm) | kv (l/min) | Qn (Nl/min) | Min÷max pressure (bar) |
|---------------------|----------|----------------|------------|-------------|------------------------|
| K000-303-KB* | 3/2 NC | 0.6 | 0.12 | 8 | 0 ÷ 7 |
| K000-303-FB* | 3/2 NC | 0.6 | 0.12 | 8 | 0 ÷ 7 |
| K000-303-KC* | 3/2 NC | 0.6 | 0.12 | 8 | 0 ÷ 7 |
| K000-303-FC* | 3/2 NC | 0.6 | 0.12 | 8 | 0 ÷ 7 |
| K000-303-KD* | 3/2 NC | 0.6 | 0.12 | 8 | 0 ÷ 7 |
| K000-303-FD* | 3/2 NC | 0.6 | 0.12 | 8 | 0 ÷ 7 |

3/2-way NC solenoid valve (with cable 300 mm)



Supplied with:
1x interface seal
2x screws M1.6x16
(UNI 10227 for mounting on plastics or
UNI 7687 for mounting on metal)



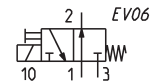
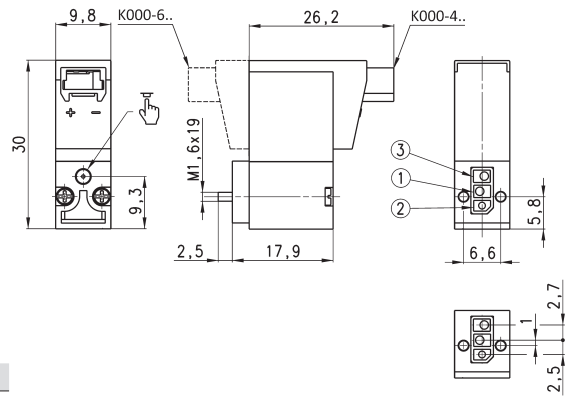
* add VOLTAGE - POWER
CONSUMPTION (see CODING EXAMPLE)

| Mod. | Function | Orifice Ø (mm) | kv (l/min) | Qn (Nl/min) | Min÷max pressure (bar) |
|---------------------|----------|----------------|------------|-------------|------------------------|
| K000-303-KF* | 3/2 NC | 0.6 | 0.12 | 8 | 0 ÷ 7 |
| K000-303-FF* | 3/2 NC | 0.6 | 0.12 | 8 | 0 ÷ 7 |
| K000-303-KG* | 3/2 NC | 0.6 | 0.12 | 8 | 0 ÷ 7 |
| K000-303-FG* | 3/2 NC | 0.6 | 0.12 | 8 | 0 ÷ 7 |
| K000-303-KH* | 3/2 NC | 0.6 | 0.12 | 8 | 0 ÷ 7 |
| K000-303-FH* | 3/2 NC | 0.6 | 0.12 | 8 | 0 ÷ 7 |

3/2-way NO solenoid valve (90° electrical connection)



Supplied with:
 1x interface for NO version
 (connections 1 and 3 are inverted)
 2x interface seals for NO version
 2x screws M1.6x19
 (UNI 10227 for mounting on plastics or
 UNI 7687 for mounting on metal)
 If no interface is needed, use screws M1.6x16 Mod.
 K303/61 for plastics or K303/61M for metal.



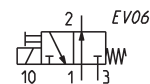
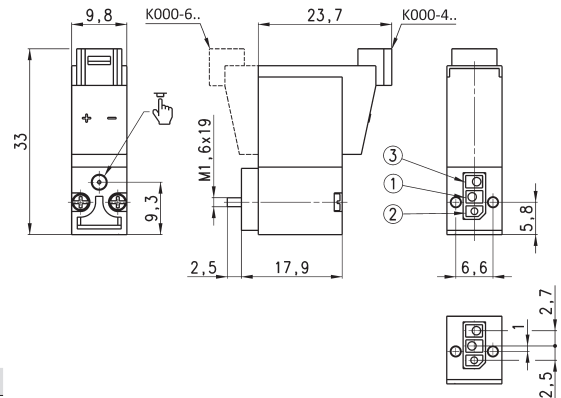
* add VOLTAGE - POWER
 CONSUMPTION (see CODING EXAMPLE)

| Mod. | Function | Orifice Ø (mm) | kv (l/min) | Qn (NL/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 |

3/2-way NO solenoid valve (in-line electrical connection)



Supplied with:
 1x interface for NO version
 (connections 1 and 3 are inverted)
 2x interface seals for NO version
 2x screws M1.6x19
 (UNI 10227 for mounting on plastics or
 UNI 7687 for mounting on metal)
 If no interface is needed, use screws M1.6x16 Mod.
 K303/61 for plastics or K303/61M for metal.



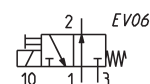
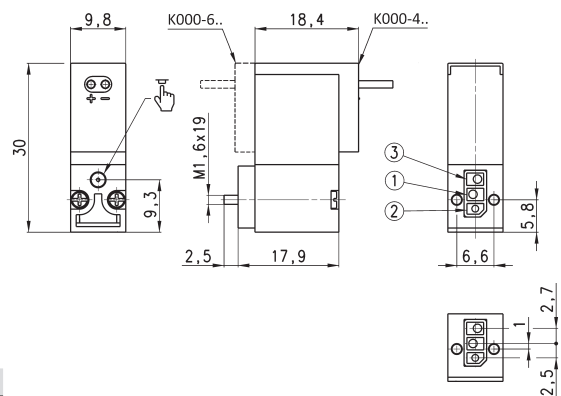
* add VOLTAGE - POWER
 CONSUMPTION (see CODING EXAMPLE)

| Mod. | Function | Orifice Ø (mm) | kv (l/min) | Qn (NL/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 |

3/2-way NO solenoid valve (with cable 300 mm)



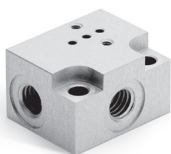
Supplied with:
 1x interface for NO version
 (connections 1 and 3 are inverted)
 2x interface seals for NO version
 2x screws M1.6x19
 (UNI 10227 for mounting on plastics or
 UNI 7687 for mounting on metal)
 If no interface is needed, use screws M1.6x16 Mod.
 K303/61 for plastics or K303/61M for metal.



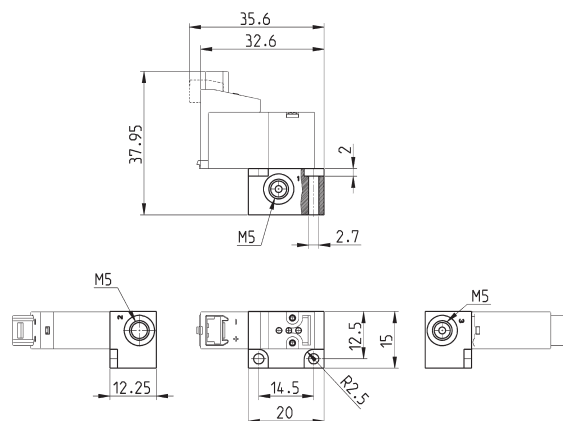
* add VOLTAGE - POWER
 CONSUMPTION (see CODING EXAMPLE)

| Mod. | Function | Orifice Ø (mm) | kv (l/min) | Qn (NL/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 |

Single sub-base



Note: use solenoid valves with mounting screws on metal interfaces (see codification).

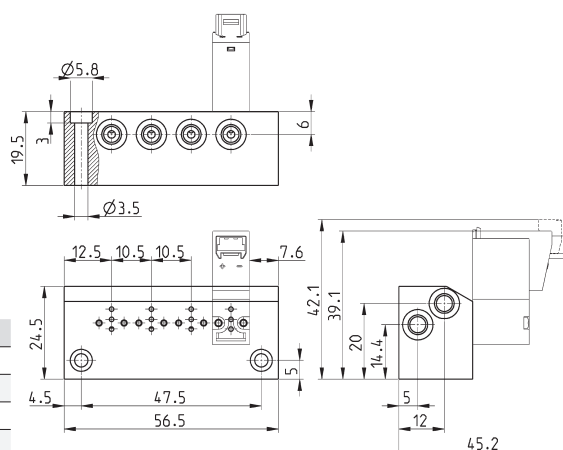
Mod.
K001-02

Manifold Mod. K1-02**



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

Note: use solenoid valves with mounting screws on metal interfaces (see codification).

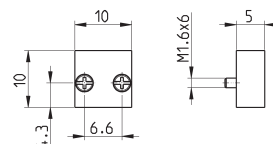


| Mod. | A | B | Number of ports |
|---------|-------|-------|-----------------|
| K102-02 | 35.5 | 26.5 | 2 |
| K103-02 | 46 | 37 | 3 |
| K104-02 | 56.5 | 47.5 | 4 |
| K105-02 | 67 | 58 | 5 |
| K106-02 | 77.5 | 68.5 | 6 |
| K107-02 | 88 | 79 | 7 |
| K108-02 | 98.5 | 89.5 | 8 |
| K109-02 | 109 | 100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

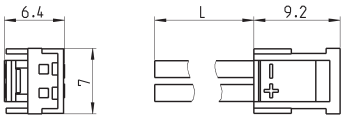
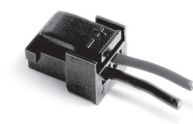
Excluder tap



Supplied with:
1x excluder tap
1x interface seal
2x screws M1.6x6 UNI 7687 (mounting on metal)

Mod.
K000-TP

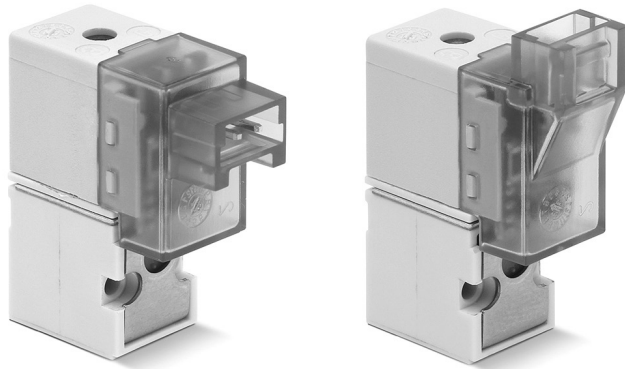
Connector Mod. 121-8..



| 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 |

Series KN and KN High Flow directly operated solenoid valves

3/2-way - Normally Closed (NC) and Normally Open (NO)
2/3-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 directly operated 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 by means of screws |
| Nominal diameter | 0.65 ... 1.1 mm |
| Nominal flow | 10 ... 25 NL/min (air @ 6 bar ΔP 1 bar) |
| Flow coefficient kv (l/min) | 0.15 ... 0.39 |
| Operating pressure | 0 ÷ 3 ... 7 bar |
| Operating temperature | 0°C ÷ 50°C |
| Media | filtered compressed air, unlubricated, according to ISO 8573-1 class 3.4.3, inert gas |
| Response time | ON <10 msec - OFF <10 msec |
| Manual override | monostable button |
| Installation | in any position |

MATERIALS IN CONTACT WITH THE MEDIUM

| | |
|----------------|-------------------|
| Body | PBT technopolymer |
| Seals | FKM, NBR |
| Internal parts | stainless steel |

ELECTRICAL FEATURES

| | |
|-----------------------|--|
| Voltage | 5 ... 24 V DC - other voltages on demand |
| Voltage tolerance | 1.3/0.25 ... 4/1 W (inrush/holding) |
| Power consumption | ED 100% |
| Duty cycle | connector |
| Electrical connection | IP50 |
| Protection class | |

Special versions available on demand

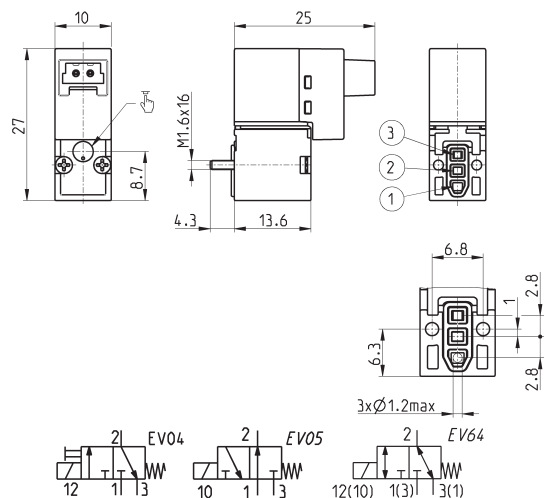
CODING EXAMPLE

| | | | | | | | | | | | |
|-----------|--|-----------|----------|----------|----------|----------|----------|----------|----------|----------|--|
| 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 = single valve | | | | | | | | | | |
| 3 | NOMINAL DIAMETER / MAX PRESSURE: 3 = Ø 0.65 mm 5 = Ø 1.1 mm - max pressure 7 bar 6 = Ø 1.1 mm - max pressure 3 bar | | | | | | | | | | |
| K | MATERIALS: F = PBT body, FKM poppet seal, FKM other seals K = PBT body, FKM poppet seal, 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 6 = 6 V DC - 4/1 W 7 = 12 V DC - 4/1 W 8 = 24 V DC - 4.1 W | | | | | | | | | | |
| | FIXING: = with screws for mounting on plastics M = with screws for mounting on metal | | | | | | | | | | |
| | OPTIONS: = standard OX2 = for use with oxygen (non volatile residual less than 33 mg/m ²) | | | | | | | | | | |

3/2-way solenoid valve - 90° electrical connection



Supplied with:
1x interface seal
2x screws M1.6x16 UNI 10227
(fixing for plastics, standard)
or
2x screws M1.6x16 UNI 7687
(fixing for metal, M option)



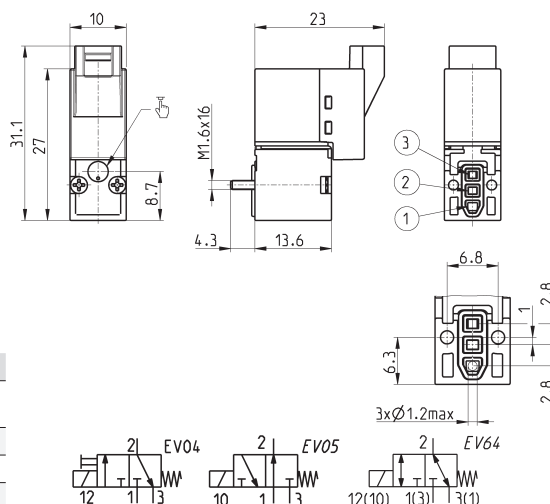
| Mod. | Function | Orifice Ø (mm) | kv min | (l/ Qn min) | (Nl/ min) | Min+max pressure (bar) | Power consumption (W) | Symb. |
|---------------|----------|-------------------|-----------|----------------|--------------|---------------------------|--------------------------|-------|
| KN000-303-K1* | 3/2 NC | 0.65 | 0.15 | 10 | | 0 ÷ 7 | 1.3 / 0.25 | EV04 |
| KN000-303-F1* | 3/2 NC | 0.65 | 0.15 | 10 | | 0 ÷ 7 | 1.3 / 0.25 | EV04 |
| KN000-305-F1* | 3/2 NC | 1.1 | 0.39 | 25 | | 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 | 10 | | 0 ÷ 7 | 1.3 / 0.25 | EV05 |
| KN000-706-F1* | 3/2 UNI | 1.1 | 0.39 | - | | 0 ÷ 1.5 | 4 / 1 | EV64 |

* add VOLTAGE - POWER
CONSUMPTION (see CODING EXAMPLE)

3/2-way solenoid valve - in-line electrical connection



Supplied with:
1x interface seal
2x screws M1.6x16 UNI 10227
(fixing for plastics, standard)
or
2x screws M1.6x16 UNI 7687
(fixing for metal, M option)



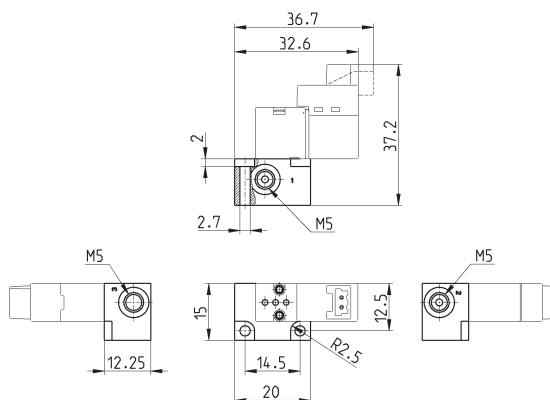
* add VOLTAGE - POWER
CONSUMPTION (see CODING EXAMPLE)

| Mod. | Function | Orifice Ø (mm) | kv min | (l/ Qn min) | (Nl/ min) | Min+max pressure (bar) | Power consumption (W) | Symb. |
|---------------|----------|-------------------|-----------|----------------|--------------|---------------------------|--------------------------|-------|
| KN000-303-KB* | 3/2 NC | 0.65 | 0.15 | 10 | | 0 ÷ 7 | 1.3 / 0.25 | EV04 |
| KN000-303-FB* | 3/2 NC | 0.65 | 0.15 | 10 | | 0 ÷ 7 | 1.3 / 0.25 | EV04 |
| KN000-305-FB* | 3/2 NC | 1.1 | 0.39 | 25 | | 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 | 10 | | 0 ÷ 7 | 1.3 / 0.25 | EV05 |
| KN000-706-FB* | 3/2 UNI | 1.1 | 0.39 | - | | 0 ÷ 1.5 | 4 / 1 | EV64 |

Single sub-base

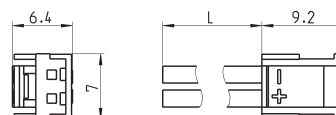


Note: use solenoid valves with mounting screws on metal interfaces (see codification).



| Mod. |
|---------|
| KN01-02 |

Connector Mod. 121-8..

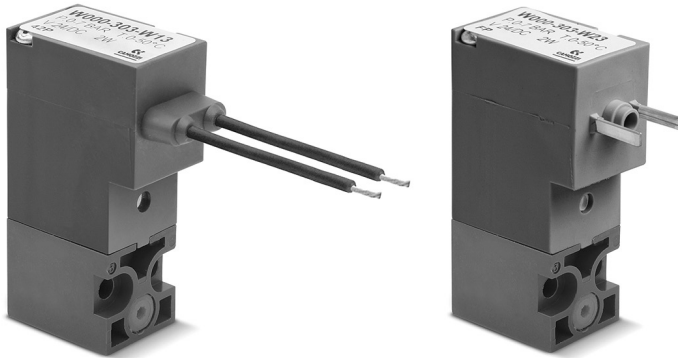


| Mod. | description | colour | L = cable length (mm) | cable holding |
|---------|---------------|--------|-----------------------|---------------|
| 121-803 | crimped cable | black | 300 | crimping |
| 121-806 | crimped cable | black | 600 | crimping |
| 121-810 | crimped cable | black | 1000 | crimping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

Series W

directly operated solenoid valves

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



- » Can be mounted on a single base (M5 connections) or on manifold (M5 connections or cartridge \varnothing 3 and 4).
- » Electrical connection with cables or in compliance to DIN EN 175 301-803-C standard

Series W directly operated 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 manual override which make the plants setting easier.

GENERAL DATA

TECHNICAL FEATURES

| | |
|-----------------------------|---|
| Function | 3/2 NC - 3/2 NO |
| Operation | direct acting poppet type |
| Pneumatic connections | on subbase with ISO 15218 interface by means of screws |
| Nominal diameter | 0.8 ... 1.5 mm |
| Nominal flow | 14 ... 35 NL/min (air @ 6 bar ΔP 1 bar) |
| Flow coefficient kv (l/min) | 0.23 ... 0.54 |
| Operating pressure | 0 ÷ 5 ... 10 bar |
| Operating temperature | 0°C ÷ 50°C |
| Media | filtered air, class 5.4.4 according to ISO 8573-1 (max oil viscosity 32 cSt), inert gas |
| Response time (ISO 12238) | ON <10 msec - OFF <15 msec |
| Manual override | monostable button |
| Installation | in any position |

MATERIALS IN CONTACT WITH THE MEDIUM

| | |
|----------------|--------------------------|
| Body | PBT technopolymer |
| Seals | PU, NBR, (FKM on demand) |
| Internal parts | stainless steel |

ELECTRICAL FEATURES

| | |
|-----------------------|--|
| Voltage | 12 V DC - 24 V DC - 48 V DC |
| Voltage tolerance | ±10% |
| Power consumption | 2 W - 1 W (24 V DC only) |
| Duty cycle | ED 100% |
| Electrical connection | with connector DIN EN 175 301-803-C (8 mm) - cables L = 300 mm |
| Protection class | IP65 with connector |

Special versions available on demand

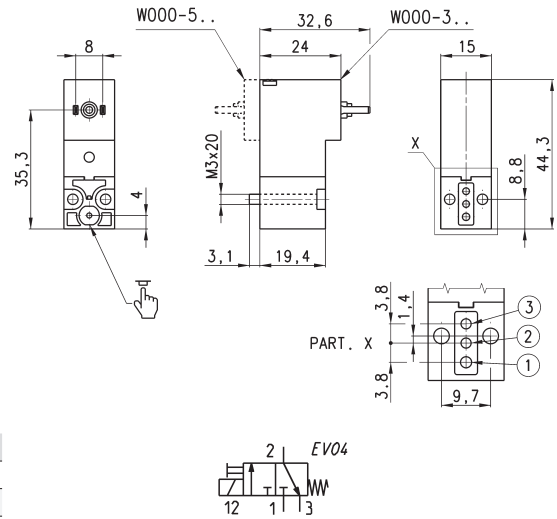
CODING EXAMPLE

| | | | | | | | | | | | |
|-----------|---|-----------|----------|----------|----------|----------|----------|----------|----------|----------|--|
| 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 = 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-way NC 4 = 3-way NO 5 = 3-way NC electric part revolved by 180° 6 = 3-way NO electric part revolved by 180° | | | | | | | | | | |
| 0 | VALVE PORTS: 0 = interface MANIFOLD PORTS (for Series W, P and PN): 2 = M5 side 3 = tube ø 3 side 4 = tube ø 4 side 6 = M5 rear ports 7 = ø 3 tube rear ports 8 = ø 4 tube rear ports | | | | | | | | | | |
| 3 | NOMINAL DIAMETER - MAX PRESSURE 1 = ø 0,8 (1W) 10 bar (NC) 24V only 3 = ø 1,5 (2W) 7 bar (NC) 5 bar (NO) 5 = ø 1,1 NC (2W) 10 bar (NC) ø 0,9 NO (2W) 10 bar (NO) | | | | | | | | | | |
| W | MATERIALS: W = technopolymer PBT body, FKM poppet seal, other seals in NBR (FKM on demand) | | | | | | | | | | |
| 2 | ELECTRICAL CONNECTION: 1 = cables (L = 300 mm) 2 = DIN EN 175 301-803-C (8 mm) | | | | | | | | | | |
| 3 | SOLENOID VOLTAGE: 2 = 12V DC 3 = 24V DC 4 = 48V DC | | | | | | | | | | |
| | FIXING: = with screws for metal (standard) P = with screws for plastics | | | | | | | | | | |

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



Supplied with:
1x interface seal
2x screws M3x20 UNI 8112
(fixing for metal, standard)
or
2x screws M3x23 UNI 10227
(fixing for plastics, P option)

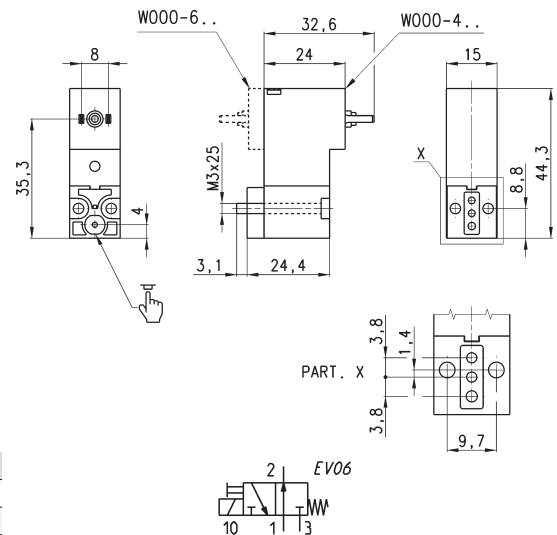


| Mod. | Orifice Ø (mm) | kv (l/min) | Qn (Nl/min) | Pressure min-max (bar) |
|--------------|----------------|------------|-------------|------------------------|
| W000-305-W23 | 1.1 | 0.39 | 25 | 0 ÷ 10 |
| W000-303-W23 | 1.5 | 0.54 | 35 | 0 ÷ 7 |
| W000-305-W24 | 1.1 | 0.39 | 25 | 0 ÷ 10 |
| W000-303-W24 | 1.5 | 0.54 | 35 | 0 ÷ 7 |

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

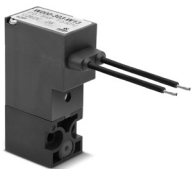


Supplied with:
1x interface for NO version
(connections 1 and 3 are inverted)
2x interface seals
2x screws M3x25 UNI 8112 (for standard version)

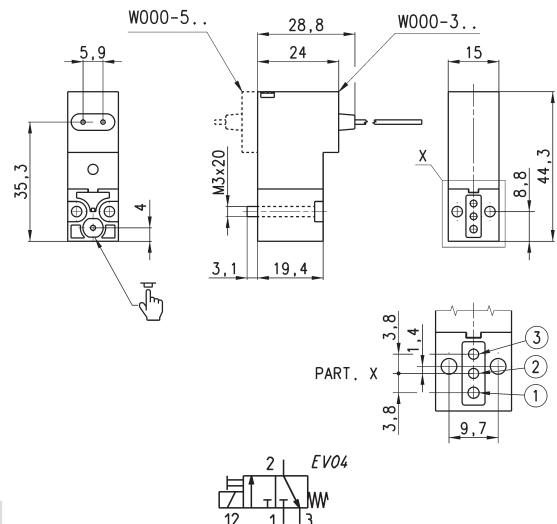


| Mod. | Orifice Ø (mm) | kv (l/min) | Qn (Nl/min) | Pressure min-max (bar) |
|--------------|----------------|------------|-------------|------------------------|
| W000-405-W23 | 0.9 | 0.23 | 15 | 0 ÷ 10 |
| W000-403-W23 | 1.5 | 0.39 | - | 0 ÷ 5 |
| W000-405-W24 | 0.9 | 0.23 | 15 | 0 ÷ 10 |
| W000-403-W24 | 1.5 | 0.39 | - | 0 ÷ 5 |

3/2-way NC solenoid valve with cables of 300mm

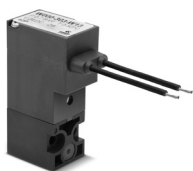


Supplied with:
1x interface seal
2x screws M3x20 UNI 8112
(fixing for metal, standard)
or
2x screws M3x23 UNI 10227
(fixing for plastics, P option)

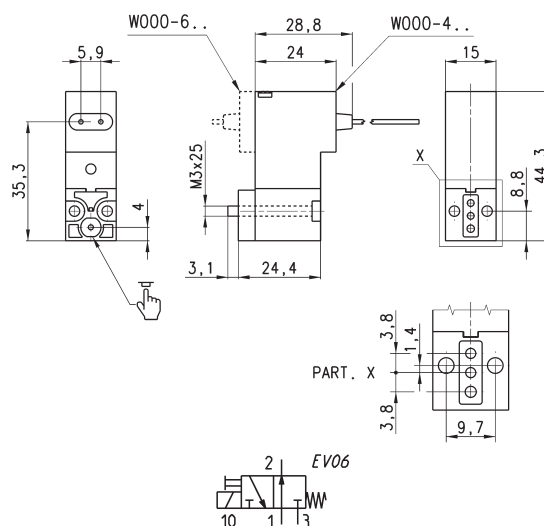


| Mod. | Orifice Ø (mm) | kv (l/min) | Qn (Nl/min) | Pressure min-max (bar) |
|--------------|----------------|------------|-------------|------------------------|
| W000-305-W13 | 1.1 | 0.39 | 25 | 0 ÷ 10 |
| W000-303-W13 | 1.5 | 0.54 | 35 | 0 ÷ 7 |

3/2-way NO solenoid valve with cables of 300mm

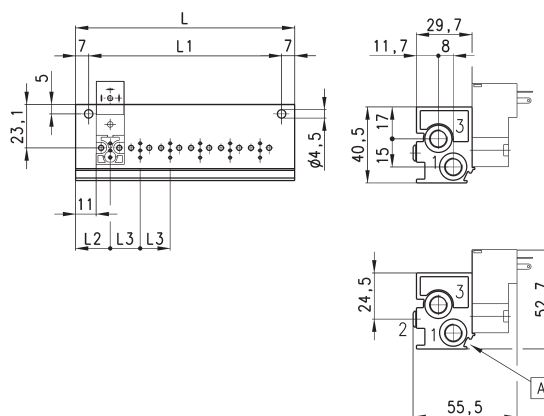


Supplied with:
1x interface for NO version
(connections 1 and 3 are inverted)
2x interface seals
2x screws M3x25 UNI 8112 (for standard version)



| Mod. | Orifice Ø (mm) | kv (l/min) | Qn (NL/min) | Pressure min-max (bar) |
|---------------------|----------------|------------|-------------|------------------------|
| W000-405-W13 | 0.9 | 0.23 | 15 | 0 ÷ 10 |
| W000-403-W13 | 1.5 | 0.39 | 25 | 0 ÷ 5 |

Single manifold with rear outlets



| DIMENSIONS | | | | | | | |
|----------------|-----------|-----|-----|------|----|-------|-------|
| Mod. | N° Valves | 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 |

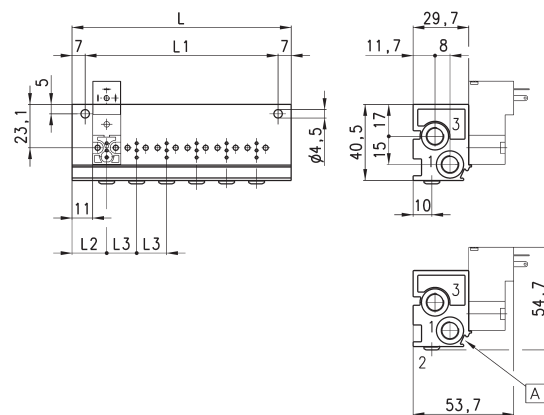
* = see the type of PORTS in the CODING EXAMPLE TABLE.

A = groove for electric connection identification

Single manifold with front outlets



This manifold is arranged to be fixed through DIN 46277/3 guide together with the accessory PCF-E520.

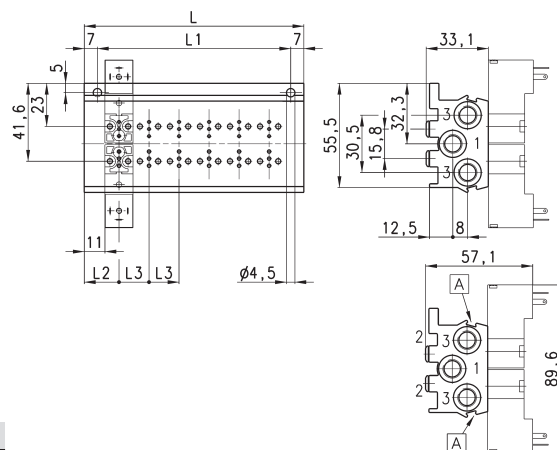


| DIMENSIONS | | | | | | | |
|----------------|-----------|-----|-----|------|----|-------|-------|
| Mod. | Nr valves | L | L1 | L2 | L3 | 1 (P) | 3 (R) |
| P102-0* | 2 | 53 | 39 | 18,5 | 16 | G1/8 | G1/8 |
| P103-0* | 3 | 69 | 55 | 18,5 | 16 | G1/8 | G1/8 |
| P104-0* | 4 | 85 | 71 | 18,5 | 16 | G1/8 | 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 |

* = see the type of PORTS in the CODING EXAMPLE TABLE.

A = groove for electric connection identification

Double sided manifold with rear outlets



| DIMENSIONS | | | | | | | |
|------------|-----------|-----|-----|------|----|-------|-------|
| Mod. | Nr valves | 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 |

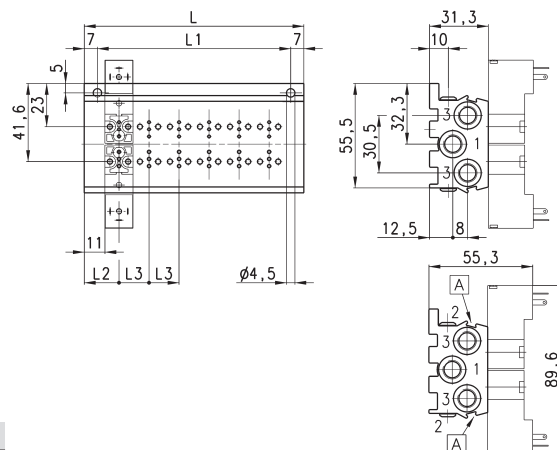
* = see the type of PORTS in the CODING EXAMPLE TABLE.

A = groove for electric connection identification

Double sided manifold with front outlets



This manifold is arranged to be fixed through DIN 46277/3 guide together with the accessory PCF-E520.



| DIMENSIONS | | | | | | | |
|------------|-----------|-----|-----|------|----|-------|-------|
| Mod. | Nr valves | 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 |

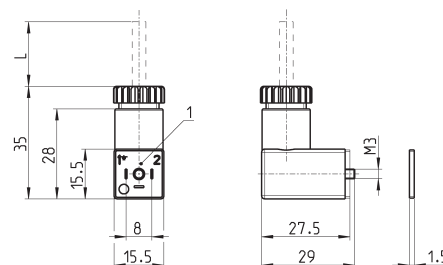
* = see the type of PORTS in the CODING EXAMPLE TABLE.

A = groove for electric connection identification

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



To be used in all DC valves with voltages from 6 to 110 V.



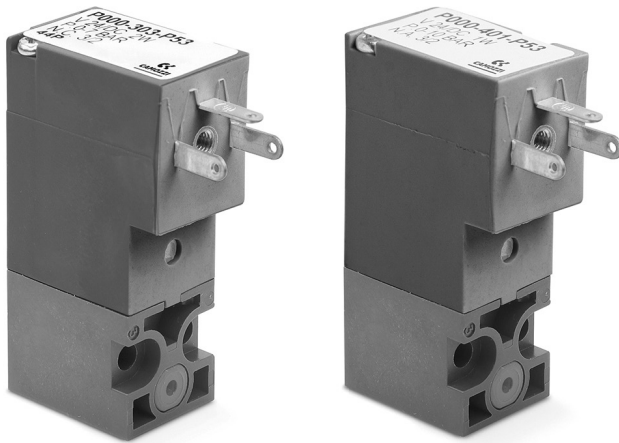
| Mod. | description | colour | working voltage | cable length [L] | cable holding | tightening torque |
|-----------|------------------------------------|-------------|-----------------|------------------|---------------|-------------------|
| 126-550-1 | moulded cable, without electronics | black | - | 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 directly operated solenoid valves

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

SERIES P SOLENOID VALVES



» Can be mounted on a single base (M5 connections) or on manifold (M5 connections or cartridge \varnothing 3 and 4).

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.

Series P directly operated mini-solenoid valves are available as 3/2-way, either NC or NO. Both versions can be mounted on single bases or on manifolds and they are equipped with a manual override which makes the plants setting easier.

GENERAL DATA

TECHNICAL FEATURES

| | |
|-----------------------------|---|
| Function | 3/2 NC - 3/2 NO |
| Operation | direct acting poppet type |
| Pneumatic connections | on subbase with ISO 15218 interface by means of screws |
| Nominal diameter | 0.8 ... 1.5 mm |
| Nominal flow | 14 ... 35 NL/min (air @ 6 bar Δ P 1 bar) |
| Flow coefficient kv (l/min) | 0.21 ... 0.54 |
| Operating pressure | 0 ÷ 3 ... 10 bar |
| Operating temperature | 0°C ÷ 50°C |
| Media | filtered air, class 5.4.4 according to ISO 8573-1 (max oil viscosity 32 cSt), inert gas |
| Response time (ISO 12238) | ON <10 msec - OFF <15 msec |
| Manual override | monostable button |
| Installation | in any position |

MATERIALS IN CONTACT WITH THE MEDIUM

| | |
|----------------|--------------------------|
| Body | PBT technopolymer |
| Seals | FKM, NBR (FKM on demand) |
| Internal parts | stainless steel |

ELECTRICAL FEATURES

| | |
|-----------------------|---|
| Voltage | 12 ... 110 V DC - 24 ... 110 V AC 50/60 Hz |
| Voltage tolerance | ±10% |
| Power consumption | 2 W - 1 W (24 V DC only) |
| Duty cycle | ED 100% |
| Electrical connection | with industrial standard connector (9.4 mm) |
| Protection class | IP65 with connector |

Special versions available on demand

CODING EXAMPLE

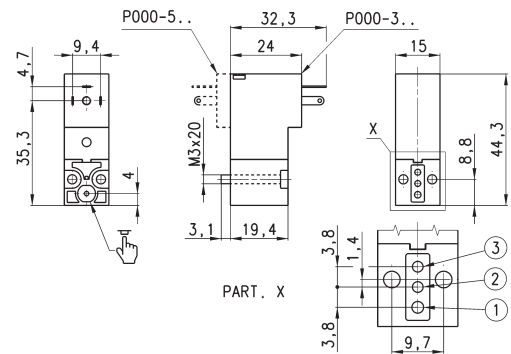
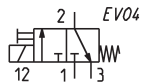
| | | | | | | | | | | | |
|-----------|--|-----------|----------|----------|----------|----------|----------|----------|----------|----------|--|
| P | 0 | 00 | - | 3 | 0 | 3 | - | P | 5 | 3 | |
| P | SERIES | | | | | | | | | | |
| 0 | BODY DESIGN: 0 = single sub-base (M5 only) or interface 1 = single manifold 2 = double sided manifold | | | | | | | | | | |
| 00 | NUMBER OF POSITIONS: 00 = interface 01 = single base (M5 only) 02 ÷ 99 = manifold number of positions | | | | | | | | | | |
| 3 | NUMBER OF WAYS - FUNCTIONS: 0 = manifold or single base 3 = 3-way NC 4 = 3-way NO 5 = 3-way NC electric part revolved by 180° 6 = 3-way NO electric part revolved by 180° | | | | | | | | | | |
| 0 | VALVE PORTS: 0 = interface (for single valve only) MANIFOLD PORTS (for Series W, P and PN): 2 = M5 side port 3 = Ø 3 tube side port 4 = Ø 4 tube side port 6 = M5 rear ports 7 = Ø 3 tube rear ports 8 = Ø 4 tube rear ports | | | | | | | | | | |
| 3 | NOMINAL DIAMETER - MAX PRESSURE 1 = Ø 0,8 (1W) 10 bar (NC) 24V only 3 = Ø 1,5 (2W) 7 bar (NC) 5 bar (NO) 5 = Ø 1,1 NC (2W) 10 bar (NC) Ø 0,9 NO (2W) 10 bar (NO) 6 = Ø 1,5 NC (2W) 3 bar (NC) * | | | | | | | | | | |
| P | MATERIALS: P = technopolymer PBT body, FKM poppet seal, other seals in NBR (FKM on demand) | | | | | | | | | | |
| 5 | ELECTRICAL CONNECTION: 5 = industrial standard connection (9.4 mm) | | | | | | | | | | |
| 3 | SOLENOID VOLTAGE: B = 24V 50/60 Hz 2 = 12V DC 6 = 110V DC C = 48V 50/60 Hz 3 = 24V DC D = 110V 50/60 Hz 4 = 48V DC | | | | | | | | | | |
| | FIXING: = with screws for metal (standard) P = with screws for plastics | | | | | | | | | | |

* Voltage tolerance from +10% to -25%

3/2-way NC solenoid valve



Supplied with:
 1x interface seal
 2x screws M3x20 UNI 8112
 (fixing for metal, standard)
 or
 2x screws M3x23 UNI 10227
 (fixing for plastics, P option)

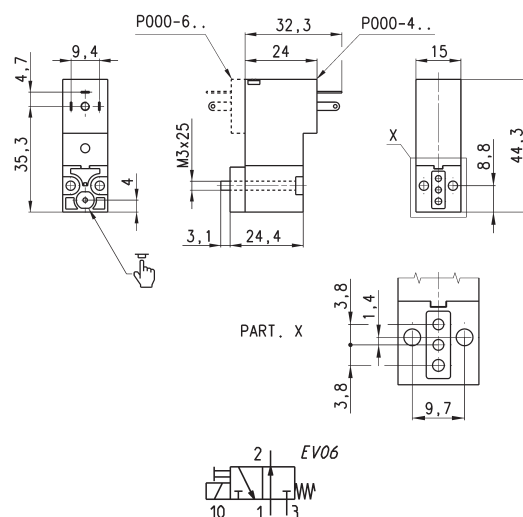


| Mod. | Orifice Ø (mm) | kv (l/min) | Qn (NL/min) | Pressure min-max (bar) |
|---------------------|----------------|------------|-------------|------------------------|
| P000-301-P53 | 0,8 | 0.21 | 14 | 0 ÷ 10 |
| P000-303-P53 | 1,5 | 0.54 | 35 | 0 ÷ 7 |
| P000-305-P53 | 1,1 | 0.39 | 25 | 0 ÷ 10 |
| P000-306-P53 | 1,5 | 0.54 | - | 0 ÷ 3 |

3/2-way NO solenoid valve

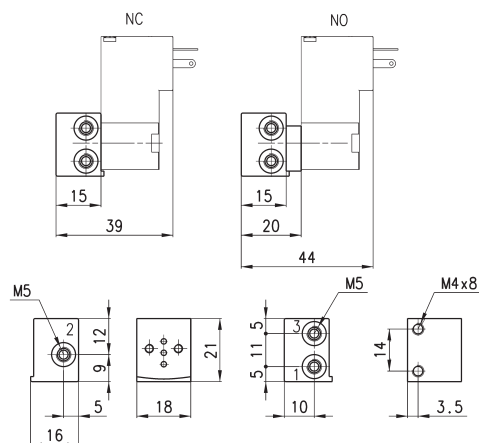


Supplied with:
1x interface for NO version
(connections 1 and 3 are inverted)
2x interface seals
2x screws M3x25 UNI 8112 (for standard version)



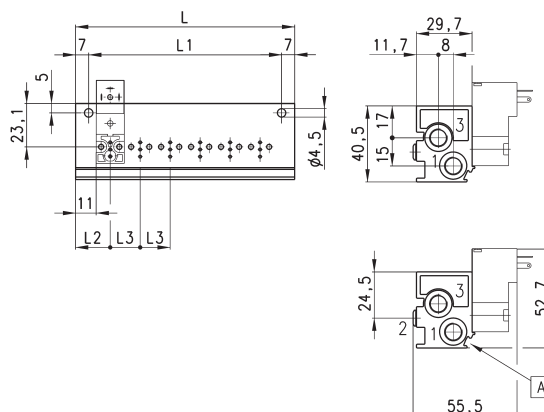
| Mod. | Orifice Ø (mm) | kv (l/min) | Qn (NL/min) | Pressure min-max (bar) |
|--------------|----------------|------------|-------------|------------------------|
| P000-405-P53 | 0.9 | 0.23 | 15 | 0 ÷ 10 |
| P000-403-P53 | 1.5 | 0.54 | - | 0 ÷ 5 |

Single sub-base



| Mod. |
|---------|
| P001-02 |

Single manifold with rear outlets



| DIMENSIONS | | | | | | | |
|------------|-----------|-----|-----|------|----|-------|-------|
| Mod. | N° Valves | 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 |

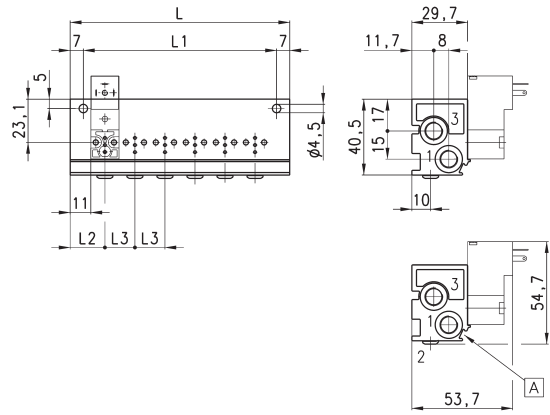
* = see the type of PORTS in the CODING EXAMPLE TABLE.

A = groove for electric connection identification

Single manifold with front outlets



This manifold is arranged to be fixed through DIN 46277/3 guide together with the accessory PCF-E520.

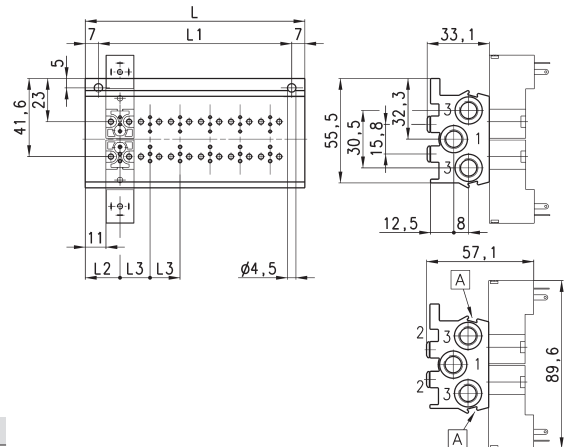


| DIMENSIONS | | | | | | | |
|----------------|-----------|-----|-----|------|----|-------|-------|
| Mod. | Nr valves | L | L1 | L2 | L3 | 1 (P) | 3 (R) |
| P102-0* | 2 | 53 | 39 | 18,5 | 16 | G1/8 | G1/8 |
| P103-0* | 3 | 69 | 55 | 18,5 | 16 | G1/8 | G1/8 |
| P104-0* | 4 | 85 | 71 | 18,5 | 16 | G1/8 | 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 |

* = see the type of PORTS in the CODING EXAMPLE TABLE.

A = groove for electric connection identification

Double sided manifold with rear outlets



| DIMENSIONS | | | | | | | |
|------------|-----------|-----|-----|------|----|-------|-------|
| Mod. | Nr valves | 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 |

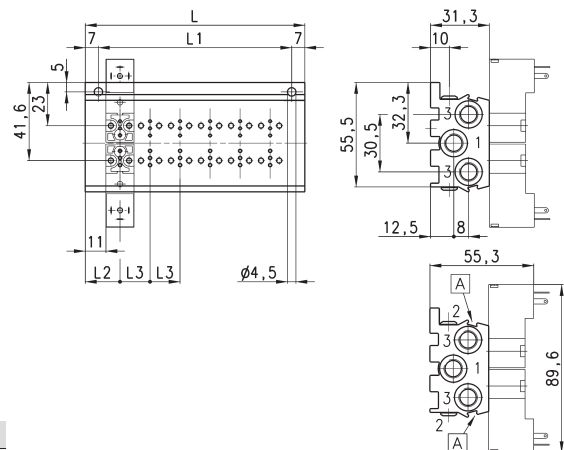
* = see the type of PORTS in the CODING EXAMPLE TABLE.

A = groove for electric connection identification

Double sided manifold with front outlets



This manifold is arranged to be fixed through DIN 46277/3 guide together with the accessory PCF-E520.



| DIMENSIONS | | | | | | | |
|----------------|-----------|-----|-----|------|----|-------|-------|
| Mod. | Nr valves | L | LI | 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 |

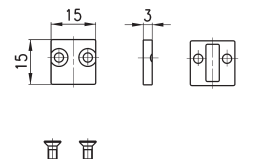
* = see the type of PORTS in the CODING EXAMPLE TABLE.

A = groove for electric connection identification

Excluder tap

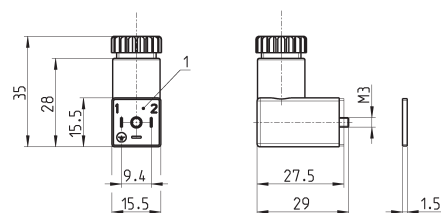


Supplied with:
1x excluder tap
1x interface seal
2x screws



| |
|---------|
| Mod. |
| P000-TP |

Industrial standard (9.4 mm) connector Mod. 125-...



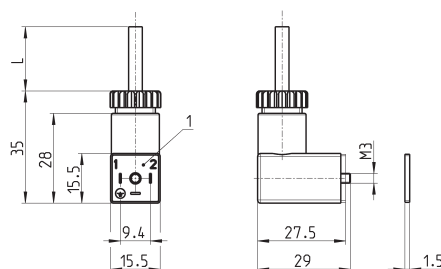
| Mod. | description | colour | working voltage | cable holding | tightening torque |
|---------|--------------------------------|-------------|-----------------|---------------|-------------------|
| 125-601 | connector, diode + Led | transparent | 10/50 V DC | PG7 | 0.3 Nm |
| 125-701 | connector, 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

Industrial standard (9.4 mm) connector Mod. 125-... with cable



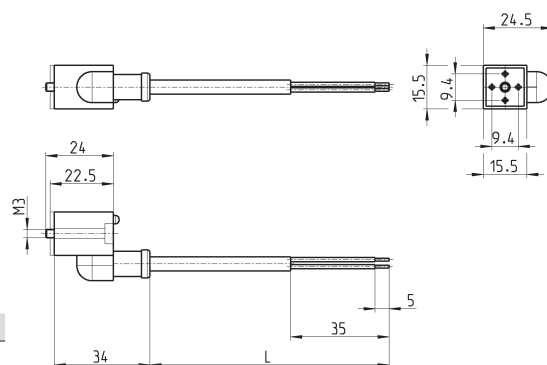
The internal rectifier circuit of the connector Mod. 125-900 allows to use solenoid valves with different AC voltage, even if the voltage indicated on the solenoid valve is DC.



| Mod. | description | colour | working voltage | cable length [L] | cable holding | 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 |

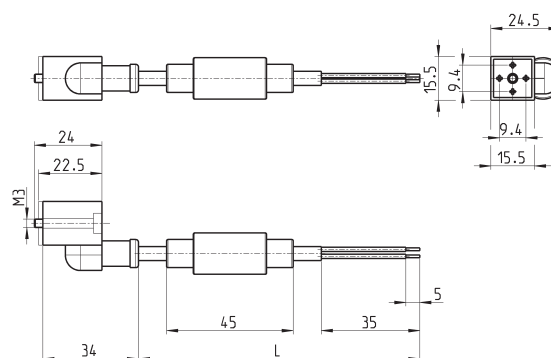
1 = 90° adjustable connector

Industrial standard (9.4 mm) in-line connectors with cable



| Mod. | description | colour | working voltage | cable length [L] | cable holding | 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 |

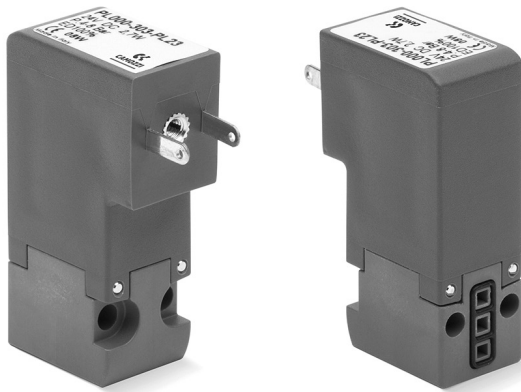
Industrial standard (9.4 mm) in-line connectors with bridge rectifier



| Mod. | description | colour | working voltage | cable length [L] | cable holding | 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

3/2-way - Normally Closed (NC)



» Can be mounted on a single base (M5 connections) or on manifold (M5 connections or cartridge \varnothing 3 and 4)

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.

Series PL directly operated mini-solenoid valves are available in the NC version and can be mounted on single bases or on manifolds.

GENERAL DATA

TECHNICAL FEATURES

| | |
|-----------------------------|---|
| Function | 3/2 NC |
| Operation | direct acting poppet type |
| Pneumatic connections | on subbase with ISO 15218 interface by means of screws |
| Nominal diameter | 1.5 mm |
| Nominal flow | 35 NL/min (air @ 6 bar Δ P 1 bar) |
| Flow coefficient kv (l/min) | 0.54 |
| Operating pressure | 0 ÷ 3.5 or 4 ÷ 8 bar |
| Operating temperature | 0°C ÷ 50°C |
| Media | filtered air, class 5.4.4 according to ISO 8573-1 (max oil viscosity 32 cSt), inert gas |
| Response time | ON <10 msec - OFF <15 msec |
| Manual override | not foreseen |
| Installation | in any position |

MATERIALS IN CONTACT WITH THE MEDIUM

| | |
|----------------|----------------------|
| Body | PBT technopolymer |
| Seals | FKM, NBR |
| Internal parts | stainless steel, NBR |

ELECTRICAL FEATURES

| | |
|-----------------------|--|
| Voltage | 24 V DC - 12 V DC - other voltages on demand |
| Voltage tolerance | ±10% |
| Power consumption | 2.7 W |
| Duty cycle | ED 100% |
| Electrical connection | with industrial standard connector (9.4 mm) |
| Protection class | IP65 with connector |

Special versions available on demand

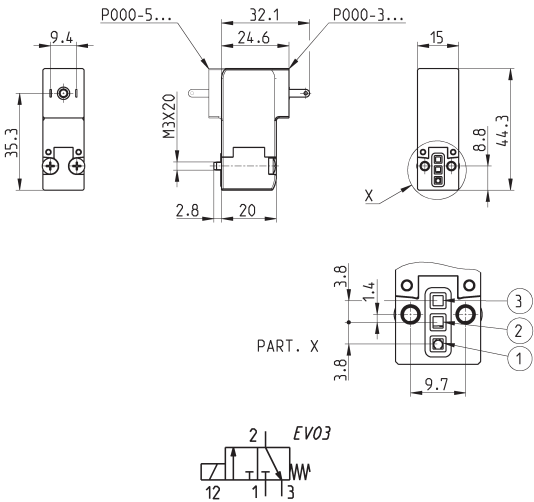
CODING EXAMPLE

| | | | | | | | | | | | |
|--|---|----|---|---|---|---|---|----|---|---|--|
| PL | 0 | 00 | - | 3 | 0 | 3 | - | PL | 2 | 3 | |
| PL SERIES | | | | | | | | | | | |
| 0 BODY DESIGN: 0 = single sub-base (M5 only) or interface 1 = single manifold 2 = double sided manifold | | | | | | | | | | | |
| 00 NUMBER OF POSITIONS: 00 = interface 01 = single base (M5 only) 02 ÷ 99 = manifold number of positions | | | | | | | | | | | |
| 3 NUMBER OF WAYS - FUNCTIONS: 0 = manifold or single base 3 = 3-way NC 5 = 3-way NC electric part revolved by 180° | | | | | | | | | | | |
| 0 VALVE PORTS: 0 = interface (for single valve only) MANIFOLD PORTS: 2 = M5 side port 3 = Ø 3 tube side port 4 = Ø 4 tube side port 6 = M5 rear ports 7 = Ø 3 tube rear ports 8 = Ø 4 tube rear ports | | | | | | | | | | | |
| 3 NOMINAL DIAMETER: 3 = Ø 1.5 mm (Pressure 4 ÷ 8 bar) 6 = Ø 1.5 mm (Pressure 0 ÷ 3.5 bar) | | | | | | | | | | | |
| PL MATERIALS: PL = technopolymer PBT body, FKM poppet seal, other seals in NBR | | | | | | | | | | | |
| 2 ELECTRICAL CONNECTION: 2 = industrial standard connection (9.4 mm) | | | | | | | | | | | |
| 3 VOLTAGE - POWER CONSUMPTION: 2 = 12 V DC 2.7W 3 = 24 V DC 2.7W | | | | | | | | | | | |
| FIXING: = with screws for metal (standard) P = with screws for plastics | | | | | | | | | | | |

3/2-way NC solenoid valve

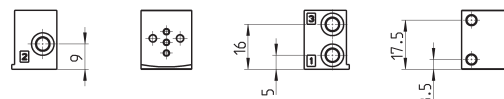
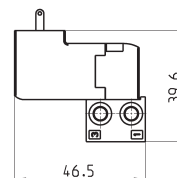


Supplied with:
 1x interface seal
 2x screws M3x20 UNI 8112
 (fixing for metal, standard)
 or
 2x screws M3x23 UNI 10227
 (fixing for plastics. P option)



| Mod. | Orifice Ø (mm) | kv (l/min) | Qn (Nl/min) | Pressure min-max (bar) |
|----------------|----------------|------------|-------------|------------------------|
| PL000-303-PL23 | 1.5 | 0.54 | 35 | 4 ÷ 8 |
| PL000-503-PL23 | 1.5 | 0.54 | 35 | 4 ÷ 8 |
| PL000-306-PL23 | 1.5 | 0.54 | - | 0 ÷ 3.5 |
| PL000-506-PL23 | 1.5 | 0.54 | - | 0 ÷ 3.5 |

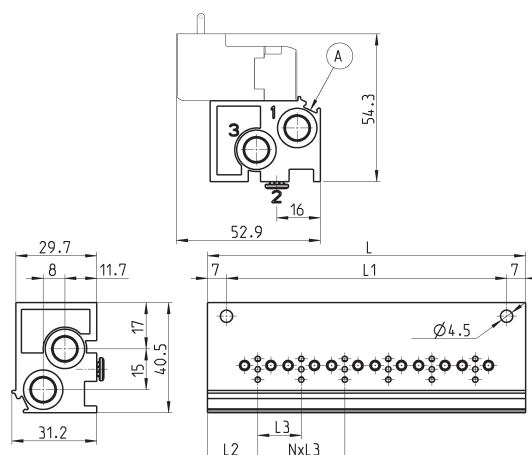
Single sub-base



Mod.

P001-02

Single manifold with rear outlets



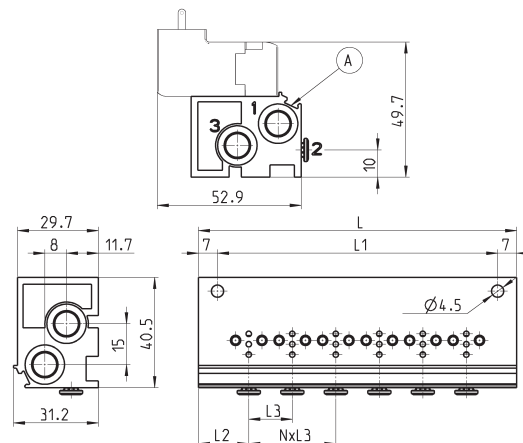
| Mod. | Nr valves | L | L1 | L2 | L3 | 1 (P) | 3 (R) |
|---------|-----------|-----|-----|------|----|-------|-------|
| P102-0* | 2 | 53 | 39 | 18,5 | 16 | G1/8 | G1/8 |
| P103-0* | 3 | 69 | 55 | 18,5 | 16 | G1/8 | G1/8 |
| P104-0* | 4 | 85 | 71 | 18,5 | 16 | G1/8 | G1/8 |
| P105-0* | 5 | 101 | 87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

* = see the type of PORTS in the CODING EXAMPLE TABLE.

A = groove for electric connection identification

Single manifold with front outlets

This manifold is arranged to be fixed through DIN 46277/3 guide together with the accessory PCF-E520.

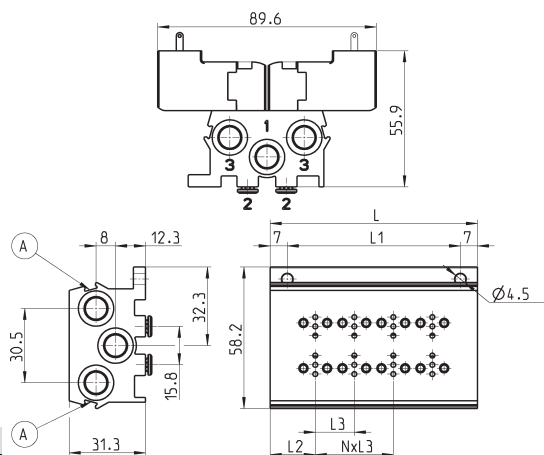


| Mod. | Nr valves | L | L1 | L2 | L3 | 1 (P) | 3 (R) |
|---------|-----------|-----|-----|------|----|-------|-------|
| P102-0* | 2 | 53 | 39 | 18,5 | 16 | G1/8 | G1/8 |
| P103-0* | 3 | 69 | 55 | 18,5 | 16 | G1/8 | G1/8 |
| P104-0* | 4 | 85 | 71 | 18,5 | 16 | G1/8 | G1/8 |
| P105-0* | 5 | 101 | 87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

* = see the type of PORTS in the CODING EXAMPLE TABLE.

A = groove for electric connection identification

Double sided manifold with rear outlets



| Mod. | Nr valves | 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 |

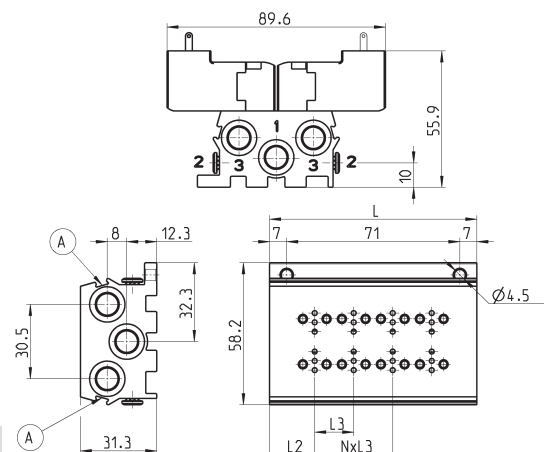
* = see the type of PORTS in the CODING EXAMPLE TABLE.

A = groove for electric connection identification

Double sided manifold with front outlets



This manifold is arranged to be fixed through DIN 46277/3 guide together with the accessory PCF-E520.



| Mod. | Nr valves | 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 |

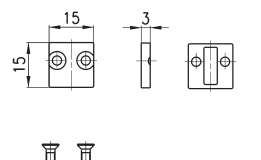
* = see the type of PORTS in the CODING EXAMPLE TABLE.

A = groove for electric connection identification

Excluder tap

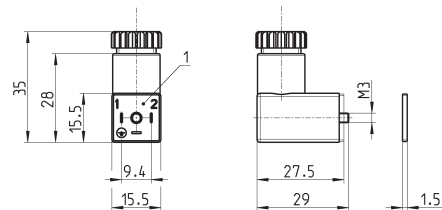


Supplied with:
1x excluder tap
1x interface seal
2x screws



| Mod. |
|---------|
| P000-TP |

Industrial standard (9.4 mm) connector Mod. 125-...



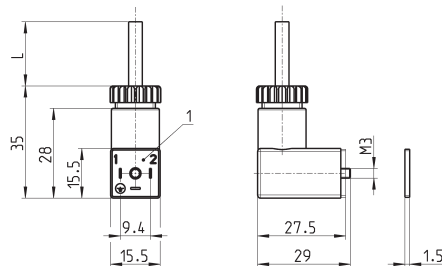
| Mod. | description | colour | working voltage | cable holding | tightening torque |
|---------|--------------------------------|-------------|-----------------|---------------|-------------------|
| 125-601 | connector, diode + Led | transparent | 10/50 V DC | PG7 | 0.3 Nm |
| 125-701 | connector, 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

Industrial standard (9.4 mm) connector Mod. 125-... with cable



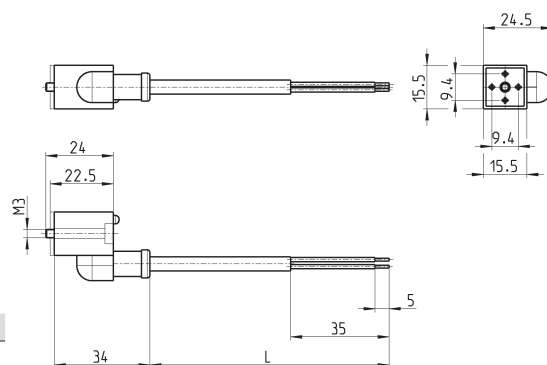
The internal rectifier circuit of the connector Mod. 125-900 allows to use solenoid valves with different AC voltage, even if the voltage indicated on the solenoid valve is DC.



| Mod. | description | colour | working voltage | cable length [L] | cable holding | 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 |

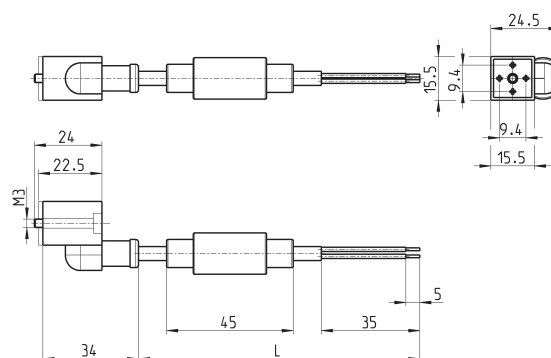
1 = 90° adjustable connector

Industrial standard (9.4 mm) in-line connectors with cable



| Mod. | description | colour | working voltage | cable length [L] | cable holding | 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 |

Industrial standard (9.4 mm) in-line connectors with bridge rectifier



| Mod. | description | colour | working voltage | cable length [L] | cable holding | 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 directly operated solenoid valves

3/2-way - Normally Closed (NC)



- » Can be mounted on a single base (M5 connections) or on manifold (M5 connections or cartridge ø 3 and 4)
- » 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.

Series PN directly operated solenoid valves are available as 3/2-way NC. They are equipped with a manual override which makes the plants setting easier and they can be mounted on single bases or on manifolds.

GENERAL DATA

TECHNICAL FEATURES

| | |
|-----------------------------|---|
| Function | 3/2 NC |
| Operation | direct acting poppet type |
| Pneumatic connections | on subbase with ISO 12238 interface by means of screws |
| Nominal diameter | 0.8 mm |
| Nominal flow | 12 NL/min (air @ 6 bar ΔP 1 bar) |
| Flow coefficient kv (l/min) | 0.19 |
| Operating pressure | 0 ÷ 10 bar |
| Operating temperature | 0°C ÷ 50°C |
| Media | filtered air, class 5.4.4 according to ISO 8573-1 (max oil viscosity 32 cSt), inert gas |
| Response time (ISO 12238) | ON <10 msec - OFF <15 msec |
| Installation | in any position |

MATERIALS IN CONTACT WITH THE MEDIUM

| | |
|----------------|--------------------------|
| Body | PBT technopolymer |
| Seals | PU, NBR, (FKM on demand) |
| Internal parts | stainless steel |

ELECTRICAL FEATURES

| | |
|-----------------------|---|
| Voltage | 24 ... 205 V DC |
| Voltage tolerance | ±10% |
| Power consumption | 2 W - 1 W (24 V DC only) |
| Duty cycle | ED 100% |
| Electrical connection | with industrial standard connector (9.4 mm) |
| Protection class | IP65 with connector |

Special versions available on demand

CODING EXAMPLE

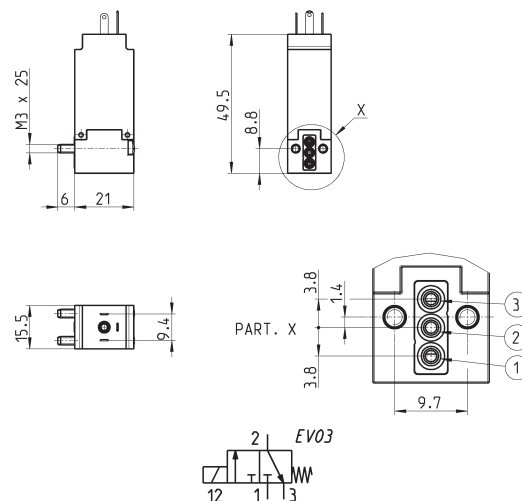
| | | | | | | | | | | | |
|-----------|----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|--|
| PN | 0 | 00 | - | 3 | 0 | 1 | - | P | 5 | 3 | |
|-----------|----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|--|

| | |
|-----------|--|
| PN | SERIES |
| 0 | BODY DESIGN: 0 = single sub-base 1 = single manifold 2 = double sided manifold |
| 00 | NUMBER OF POSITIONS: 00 = interface 01 = single base (M5 only) 02 + 99 = manifold number of positions |
| 3 | NUMBER OF WAYS - FUNCTIONS: 0 = manifold or single base 3 = 3-way NC |
| 0 | VALVE PORTS: 0 = interface (for single valve only) MANIFOLD PORTS (for Series W, P and PN): 2 = M5 side port 3 = Ø 3 tube side port 4 = Ø 4 tube side port 6 = M5 rear ports 7 = Ø 3 tube rear ports 8 = Ø 4 tube rear ports |
| 1 | NOMINAL DIAMETER - MAX PRESSURE 1 = Ø 0,8 (1W) 10 bar (NC) 24V only |
| P | MATERIALS: P = PBT body, PU poppet seal |
| 5 | ELECTRICAL CONNECTION: 5 = industrial standard connection (9.4 mm) |
| 3 | SOLENOID VOLTAGE: 3 = 24V DC 4 = 48V DC 6 = 110V DC 7 = 205V DC |
| | FIXING: = standard for the mounting on plastic interfaces M = with screws for the mounting on metal interface (on demand) |

3/2-way NC solenoid valve

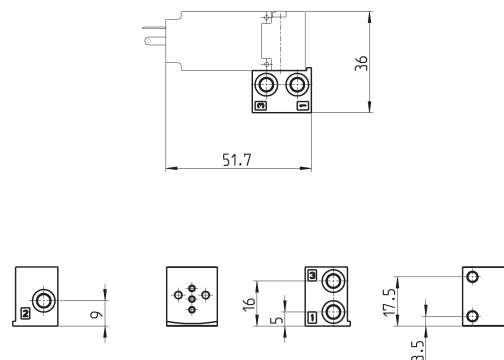


Supplied with:
1x interface seal
2x screws



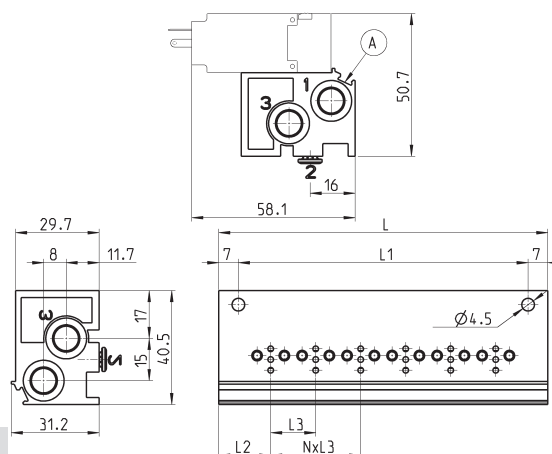
| Mod. | Orifice Ø (mm) | kv (l/min) | Qn (NI/min) | Pressure min-max (bar) |
|---------------|----------------|------------|-------------|------------------------|
| PN000-301-P53 | 0.8 | 0.18 | 12 | 0 ÷ 10 |

Single sub-base



| Mod. |
|---------|
| P001-02 |

Single manifold with rear outlets



| Mod. | Nr valves | 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 |

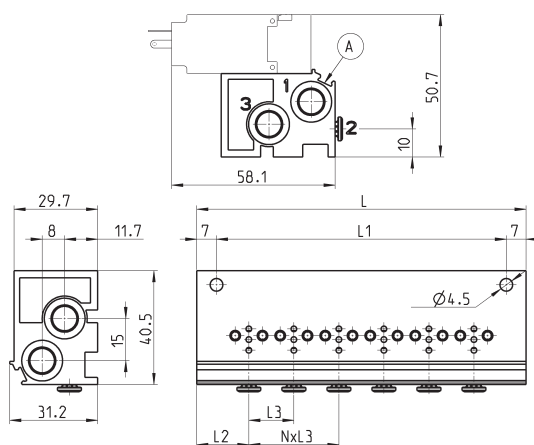
* = see the type of PORTS in the CODING EXAMPLE TABLE.

A = groove for electric connection identification

Single manifold with front outlets



This manifold is arranged to be fixed through DIN 46277/3 guide together with the accessory PCF-E520.

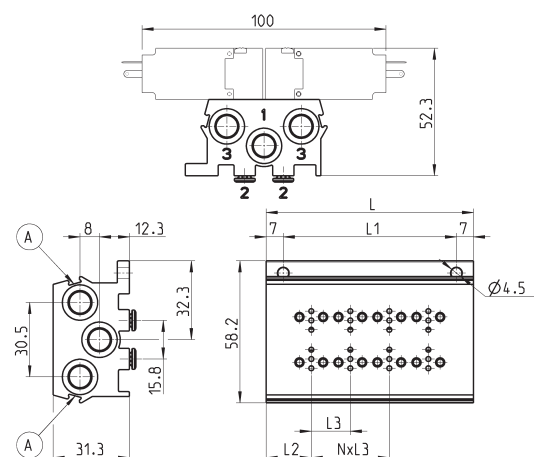


| Mod. | Nr valves | L | L1 | L2 | L3 | 1 (P) | 3 (R) |
|---------|-----------|-----|-----|------|----|-------|-------|
| P102-0* | 2 | 53 | 39 | 18,5 | 16 | G1/8 | G1/8 |
| P103-0* | 3 | 69 | 55 | 18,5 | 16 | G1/8 | G1/8 |
| P104-0* | 4 | 85 | 71 | 18,5 | 16 | G1/8 | G1/8 |
| P105-0* | 5 | 101 | 87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

* = see the type of PORTS in the CODING EXAMPLE TABLE.

A = groove for electric connection identification

Double sided manifold with rear outlets



| Mod. | Nr valves | 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 |

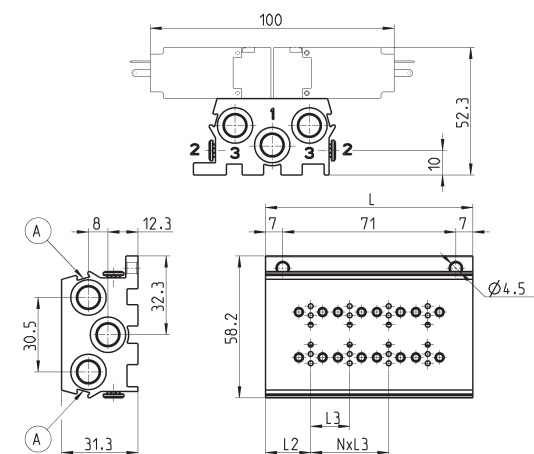
* = see the type of PORTS in the CODING EXAMPLE TABLE.

A = groove for electric connection identification

Double sided manifold with front outlets



This manifold is arranged to be fixed through DIN 46277/3 guide together with the accessory PCF-E520.



| Mod. | Nr valves | 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 |

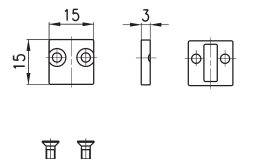
* = see the type of PORTS in the CODING EXAMPLE TABLE.

A = groove for electric connection identification

Excluder tap

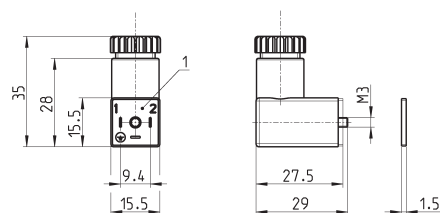


Supplied with:
1x excluder tap
1x interface seal
2x screws



| |
|---------|
| Mod. |
| P000-TP |

Industrial standard (9.4 mm) connector Mod. 125-...



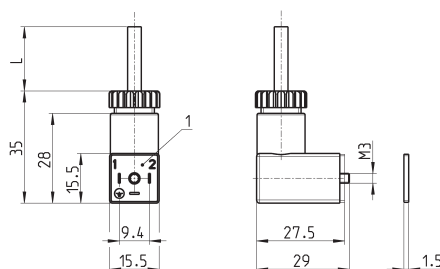
| Mod. | description | colour | working voltage | cable holding | tightening torque |
|---------|--------------------------------|-------------|-----------------|---------------|-------------------|
| 125-601 | connector, diode + Led | transparent | 10/50 V DC | PG7 | 0.3 Nm |
| 125-701 | connector, 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

Industrial standard (9.4 mm) connector Mod. 125-... with cable



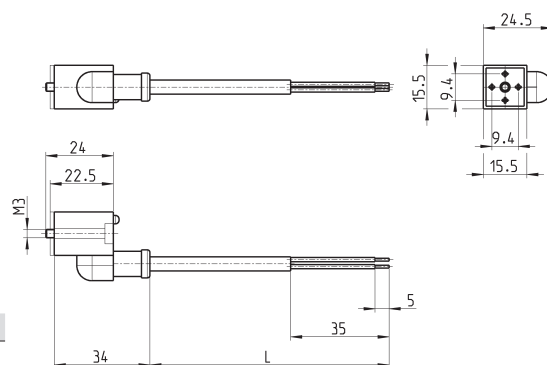
The internal rectifier circuit of the connector Mod. 125-900 allows to use solenoid valves with different AC voltage, even if the voltage indicated on the solenoid valve is DC.



| Mod. | description | colour | working voltage | cable length [L] | cable holding | 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 |

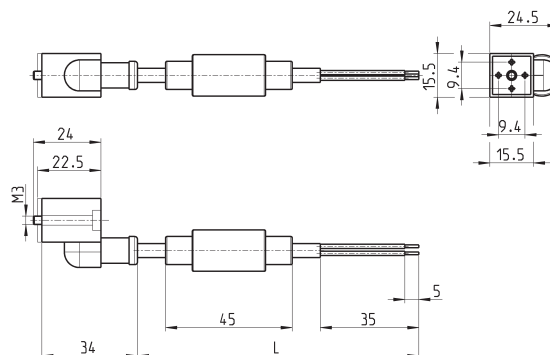
1 = 90° adjustable connector

Industrial standard (9.4 mm) in-line connectors with cable



| Mod. | description | colour | working voltage | cable length [L] | cable holding | 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 |

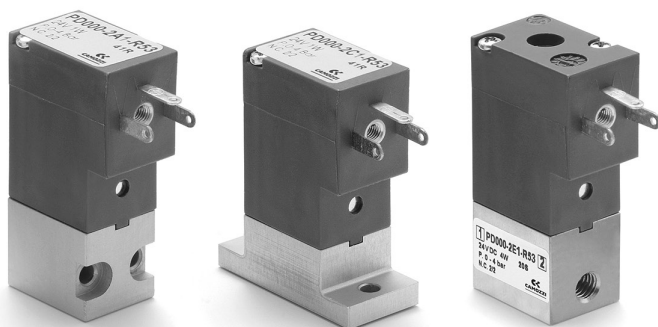
Industrial standard (9.4 mm) in-line connectors with bridge rectifier



| Mod. | description | colour | working voltage | cable length [L] | cable holding | 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 directly operated solenoid valves

2/2-way - Normally Closed (NC)



This directly operated solenoid valve is available as 2/2-way, NC, in several sizes and in three different versions.

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 by means of M3 screws - M5 threads |
| Nominal diameter | 0.8 ... 2.5 mm |
| Nominal flow | 25 ... 125 NL/min (air @ 6 bar ΔP 1 bar) |
| Flow coefficient kv (l/min) | 0.39 ... 1.93 |
| Operating pressure | -0.9 ÷ 4 ... 12 bar |
| Operating temperature | 0°C ÷ 50°C |
| Media | filtered air, class 5.4.4 according to ISO 8573-1 (max oil viscosity 32 cSt), inert gas |
| Response time | <15 ms |
| Installation | in any position |

MATERIALS IN CONTACT WITH THE MEDIUM

| | |
|----------------|---------------------------|
| Body | brass, anodized aluminium |
| Seals | NBR, (FKM on demand) |
| Internal parts | stainless steel |

ELECTRICAL FEATURES

| | |
|-----------------------|---|
| Voltage | 24 V DC - 12 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 | with industrial standard connector (9.4 mm) |
| Protection class | IP65 with connector |

Special versions available on demand

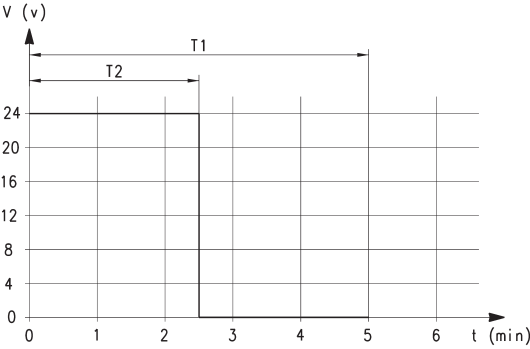
CODING EXAMPLE

| | | | | | | | | | | | |
|----|--|----|---|---|---|---|---|---|---|---|--|
| 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-way NC | | | | | | | | | | |
| A | BODY MATERIALS AND VALVE PORTS: A = aluminium body, rear pneumatic interface C = aluminium body, low pneumatic interface E = brass body, M5 ports (for ø up to 1.6mm) | | | | | | | | | | |
| 1 | NOMINAL DIAMETER: 1 = ø 0.8 2 = ø 1.2 3 = ø 1.6 4 = ø 2 5 = ø 2.5 | | | | | | | | | | |
| R | POPPET SEAL MATERIALS: R = NBR F = FKM (on request) | | | | | | | | | | |
| 5 | ELECTRICAL CONNECTION: 5 = industrial standard connection (9.4 mm) | | | | | | | | | | |
| 3 | SOLENOID VOLTAGE: 1 = 12V DC 1W 2 = 12V DC 2W 3 = 24V DC 1W 5 = 24V DC 2W 8 = 24V DC 4W | | | | | | | | | | |
| | FIXING: = with screws for metal (standard) P = with screws for plastics | | | | | | | | | | |

ED definition diagram

Operating factor lower than 50%

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

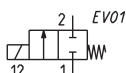
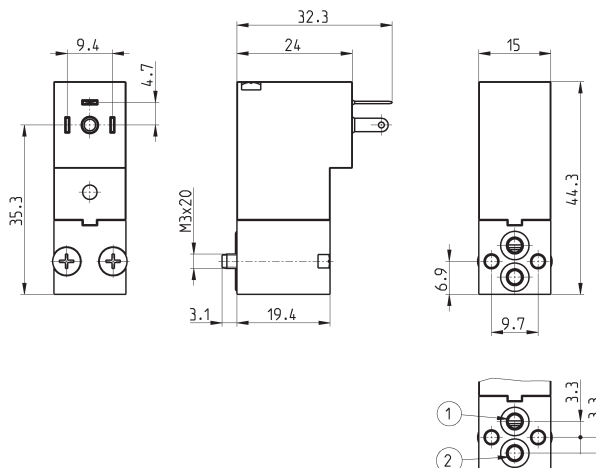


2/2-way NC solenoid valve, rear pneumatic interface



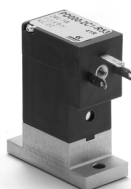
Supplied with:
2x OR seals
2x screws M3x20 UNI 8112
(fixing for metal, standard)
or
2x screws M3x23 UNI 10227
(fixing for plastics, P option)

For use with vacuum invert channel
1 and channel 2.



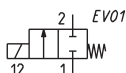
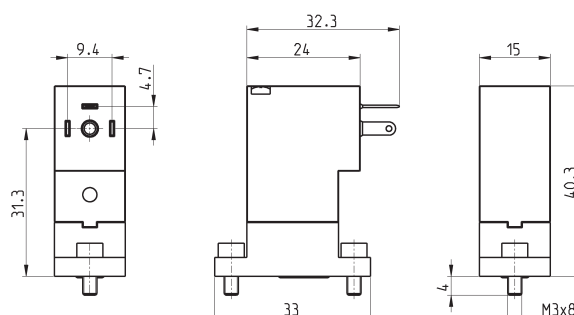
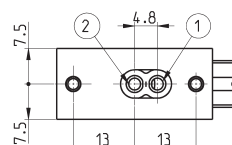
| Mod. | Orifice Ø (mm) | kv (l/min) | Qn (NL/min) | Pressure min-max (bar) | Power consumption (W) | ED (%) |
|---------------|----------------|------------|-------------|------------------------|-----------------------|--------|
| PD000-2A1-R51 | 0.8 | 0.39 | 25 | 0 ÷ 12 | 1 | 100 |
| PD000-2A1-R53 | 0.8 | 0.39 | 25 | 0 ÷ 12 | 1 | 100 |
| PD000-2A2-R52 | 1.2 | 0.54 | 35 | 0 ÷ 12 | 2 | 100 |
| PD000-2A2-R55 | 1.2 | 0.54 | 35 | 0 ÷ 12 | 2 | 100 |
| PD000-2A3-R52 | 1.6 | 0.70 | 45 | 0 ÷ 7 | 2 | 100 |
| PD000-2A3-R55 | 1.6 | 0.70 | 45 | 0 ÷ 7 | 2 | 100 |
| PD000-2A4-R58 | 2 | 1.31 | 85 | 0 ÷ 6 | 4 | 50 |
| PD000-2A5-R58 | 2.5 | 1.93 | - | 0 ÷ 4 | 4 | 50 |

2/2-way NC solenoid valve, low pneumatic interface



Supplied with:
1x seal
2x screws M3x8 UNI 5931

For use with vacuum invert channel
1 and channel 2.

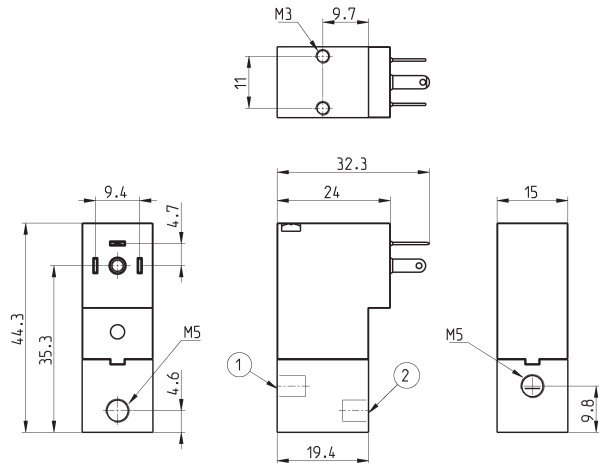
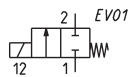


| Mod. | Orifice Ø (mm) | kv (l/min) | Qn (NL/min) | Pressure min-max (bar) | Power consumption (W) | ED (%) |
|---------------|----------------|------------|-------------|------------------------|-----------------------|--------|
| PD000-2C1-R51 | 0.8 | 0.39 | 25 | 0 ÷ 12 | 1 | 100 |
| PD000-2C1-R53 | 0.8 | 0.39 | 25 | 0 ÷ 12 | 1 | 100 |
| PD000-2C2-R52 | 1.2 | 0.54 | 35 | 0 ÷ 12 | 2 | 100 |
| PD000-2C2-R55 | 1.2 | 0.54 | 35 | 0 ÷ 12 | 2 | 100 |
| PD000-2C3-R52 | 1.6 | 0.70 | 45 | 0 ÷ 7 | 2 | 100 |
| PD000-2C3-R55 | 1.6 | 0.70 | 45 | 0 ÷ 7 | 2 | 100 |
| PD000-2C4-R58 | 2 | 1.31 | 85 | 0 ÷ 6 | 4 | 50 |
| PD000-2C5-R58 | 2.5 | 1.93 | - | 0 ÷ 4 | 4 | 50 |

2/2-way NC solenoid valve, M5 ports

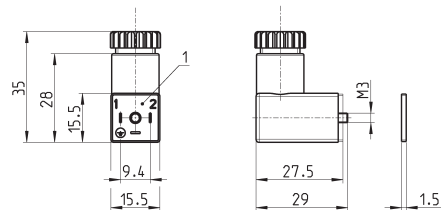


For use with vacuum invert channel 1 and channel 2.



| Mod. | Orifice Ø (mm) | kv (l/min) | Qn (Nl/min) | Pressure min-max (bar) | Power consumption (W) | ED (%) |
|---------------|----------------|------------|-------------|------------------------|-----------------------|--------|
| PD000-2E1-R51 | 0.8 | 0.39 | 25 | 0 ÷ 12 | 1 | 100 |
| PD000-2E1-R53 | 0.8 | 0.39 | 25 | 0 ÷ 12 | 1 | 100 |
| PD000-2E2-R52 | 1.2 | 0.54 | 35 | 0 ÷ 12 | 2 | 100 |
| PD000-2E2-R55 | 1.2 | 0.54 | 35 | 0 ÷ 12 | 2 | 100 |
| PD000-2E3-R52 | 1.6 | 0.70 | 45 | 0 ÷ 7 | 2 | 100 |
| PD000-2E3-R55 | 1.6 | 0.70 | 45 | 0 ÷ 7 | 2 | 100 |

Industrial standard (9.4 mm) connector Mod. 125-...



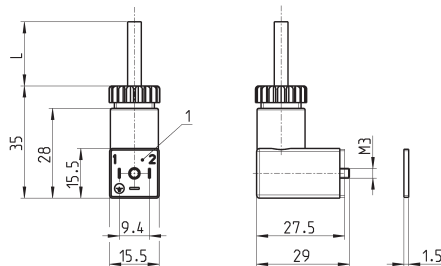
| Mod. | description | colour | working voltage | cable holding | tightening torque |
|---------|--------------------------------|-------------|-----------------|---------------|-------------------|
| 125-601 | connector, diode + Led | transparent | 10/50 V DC | PG7 | 0.3 Nm |
| 125-701 | connector, 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

Industrial standard (9.4 mm) connector Mod. 125-... with cable



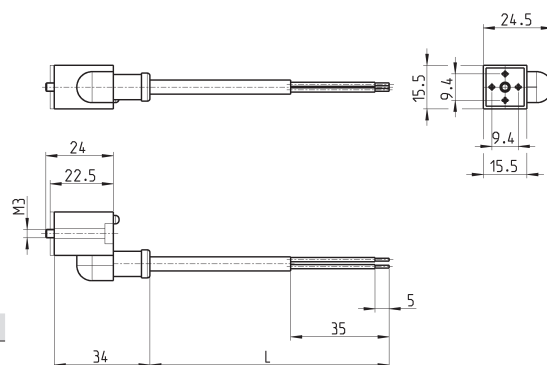
The internal rectifier circuit of the connector Mod. 125-900 allows to use solenoid valves with different AC voltage, even if the voltage indicated on the solenoid valve is DC.



| Mod. | description | colour | working voltage | cable length [L] | cable holding | 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 |

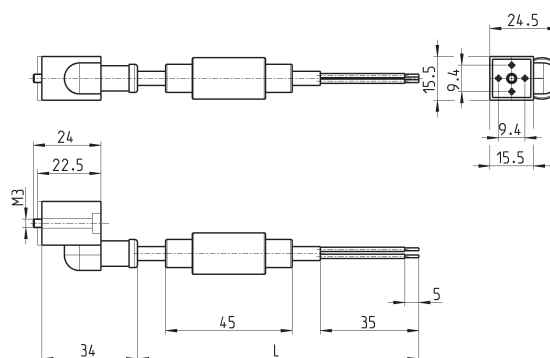
1 = 90° adjustable connector

Industrial standard (9.4 mm) in-line connectors with cable



| Mod. | description | colour | working voltage | cable length [L] | cable holding | 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 |

Industrial standard (9.4 mm) in-line connectors with bridge rectifier

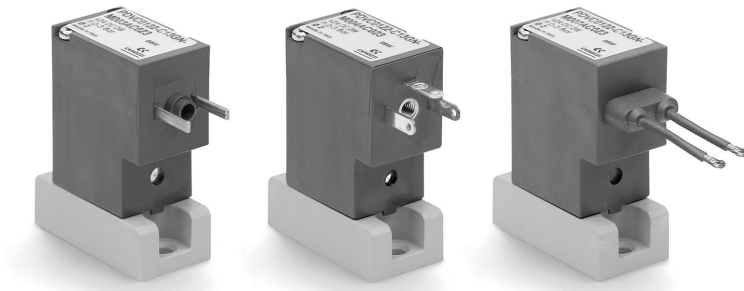


| Mod. | description | colour | working voltage | cable length [L] | cable holding | tightening torque |
|-----------|--|--------|-------------------|--------------------|---------------|-------------------|
| 125-903-2 | in-line moulded cable with voltage rectifier | black | 6 V - 230 V AC/DC | 2000 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 directly operated solenoid valves with fluid separation membrane

2/2-way - Normally Closed (NC)

SERIES PDV SOLENOID VALVES



- » 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 to control with the available materials of body and seals.

Series PDV directly operated 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 | directly operated with fluid separation membrane |
| Pneumatic connections | on subbase by means of M3 screws |
| Nominal diameter | 0.8 ... 2 mm |
| Nominal flow | see kv |
| Flow coefficient kv (l/min) | 0.25 ... 0.8 |
| Operating pressure | 0 ... 7 bar |
| Operating temperature | 10°C ÷ 50°C |
| Media | gas and liquids: air, water, reagents, solvents, etc... |
| Response time (ISO 12238) | ≤ 15 ms |
| Installation | in any position |

MATERIALS IN CONTACT WITH THE MEDIUM

| | |
|-------|------------|
| Body | PEEK |
| Seals | FKM - EPDM |

ELECTRICAL FEATURES

| | |
|-----------------------|---|
| Voltage | 24 V DC - 12 V DC - other voltages on request |
| 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), cable L = 300 mm |
| 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 | NOMINAL 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 | | | | | | | | | | | | |
| G | BODY MATERIAL: G = PEEK | | | | | | | | | | | | |
| N | MANUAL OVERRIDE: N = not foreseen | | | | | | | | | | | | |
| M | FIXING ACCESSORIES: M = 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 = cables (L = 300 mm) 3C = DIN EN 175 301-803-C (8 mm) with coil rotated 180° 4C = industrial standard (9.4 mm) with coil rotated 180° 7C = cables (L = 300 mm) with coil rotated 180° | | | | | | | | | | | | |
| C023 | VOLTAGE - POWER CONSUMPTION: C017 = 6V DC 2W C020 = 12V DC 2W C023 = 24V DC 2W | | | | | | | | | | | | |

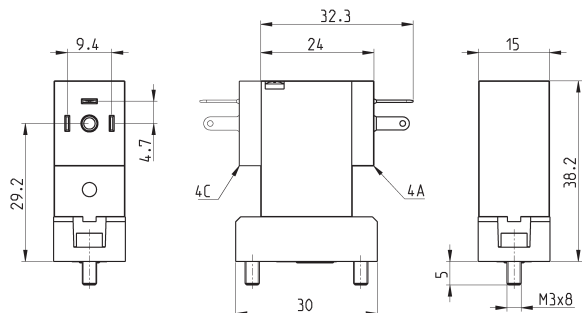
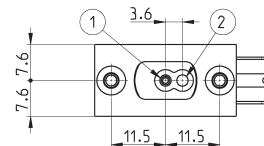
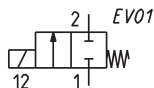
2/2 NC solenoid valve, industrial standard (9.4 mm)



Supplied with:
1x seal
2x M3x8 UNI 5931 screws

NOTE IN THE TABLE BELOW:
* to complete the code, add
ELECTRICAL CONNECTION
(4A or 4C options)
and VOLTAGE
(see CODING EXAMPLE)

NOTE IN THE DRAWING:
1 = INLET PORT
2 = OUTLET PORT



| Mod. | Orifice Ø (mm) | kv (l/min) | Min/max pressure (bar) | Max 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-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-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-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 |

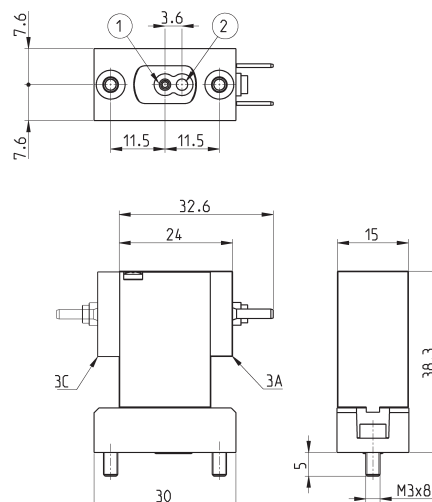
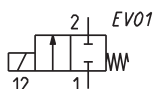
2/2 NC solenoid valve, DIN EN 175 301-803-C (8 mm)



Supplied with:
1x seal
2x M3x8 UNI 5931 screws

NOTE IN THE TABLE BELOW:
* to complete the code, add
ELECTRICAL CONNECTION
(3A or 3C options)
and VOLTAGE
(see CODING EXAMPLE)

NOTE IN THE DRAWING:
1 = INLET PORT
2 = OUTLET PORT



| Mod. | Orifice Ø (mm) | kv (l/min) | Min/max pressure (bar) | Max 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-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-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-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 |

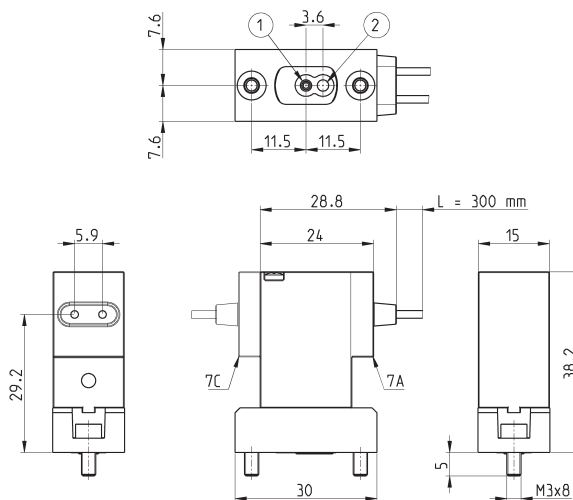
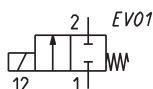
2/2 NC solenoid valve, electrical connection with 300mm cable



Supplied with:
1x seal
2x M3x8 UNI 5931 screws

NOTE IN THE TABLE BELOW:
* to complete the code, add
ELECTRICAL CONNECTION
(7A or 7C options)
and VOLTAGE
(see CODING EXAMPLE)

NOTE IN THE DRAWING:
1 = INLET PORT
2 = OUTLET PORT

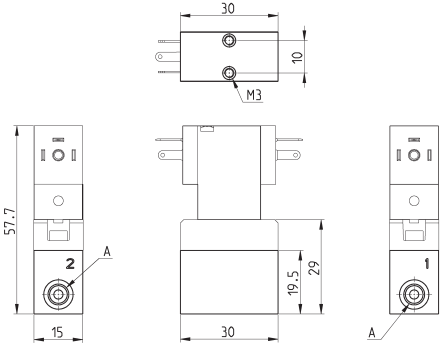


| Mod. | Orifice Ø (mm) | kv (l/min) | Min/max pressure (bar) | Max back pressure (bar) | Body material | Seal material |
|---------------------|----------------|------------|------------------------|-------------------------|---------------|---------------|
| PDVC0122-A73GN-M00* | 0.8 | 0.25 | 0 ÷ 7.0 | 1.2 | PEEK | FKM |
| PDVC0122-A74GN-M00* | 0.8 | 0.25 | 0 ÷ 7.0 | 1.2 | PEEK | EPDM |
| PDVC0122-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-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-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 |

Single subbase for Series PDV solenoid valve

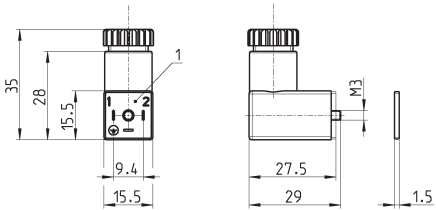


Material: PEEK
Pneumatic connections: M5 or 1/4-28 UNF



| Mod. | A (pneumatic connections) |
|------------|---------------------------|
| PDV001-1/4 | 1/4 - 28 UNF |
| PDV001-M5 | M5 |

Industrial standard (9.4 mm) connector Mod. 125-...



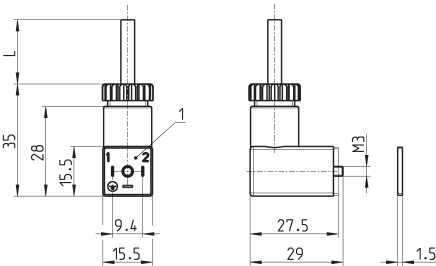
| Mod. | description | colour | working voltage | cable holding | tightening torque |
|---------|--------------------------------|-------------|-----------------|---------------|-------------------|
| 125-601 | connector, diode + Led | transparent | 10/50 V DC | PG7 | 0.3 Nm |
| 125-701 | connector, 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

Industrial standard (9.4 mm) connector Mod. 125-... 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.



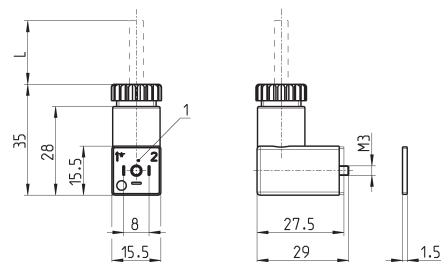
| Mod. | description | colour | working voltage | cable length [L] | cable holding | tightening torque |
|-----------|--|-------------|-------------------|------------------|---------------|-------------------|
| 125-501-2 | moulded cable with diode + Led | black | 10/50 V DC | 2000 mm | - | 0.3 Nm |
| 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 EN 175 301-803-C (8 mm)



| Mod. | description | colour | working voltage | cable length [L] | cable holding | 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 |

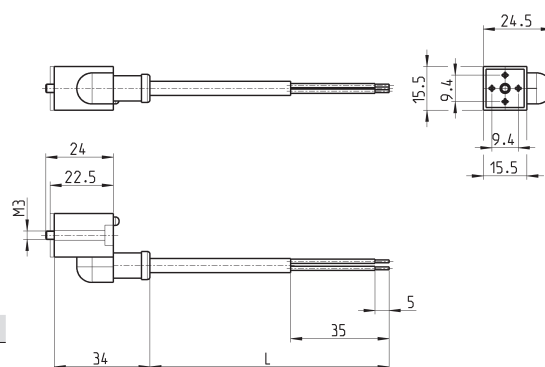


1 = 90° adjustable connector

Industrial standard (9.4 mm) in-line connectors with cable



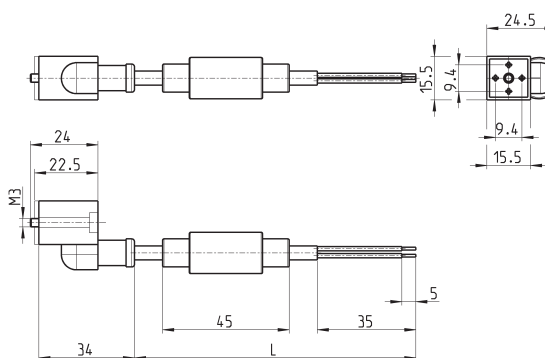
| Mod. | description | colour | working voltage | cable length [L] | cable holding | tightening torque |
|-----------|--|--------|-----------------|------------------|---------------|-------------------|
| 125-503-2 | in-line moulded cable, with diode + Led | black | 24 V DC | 2000 mm | - | 0.3 Nm |
| 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 |



Industrial standard (9.4 mm) in-line connectors with bridge rectifier



| Mod. | description | colour | working voltage | cable length [L] | cable holding | 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 A

directly operated solenoid valves

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 directly operated 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 - 3/2 NC - 2/2 NO - 3/2 NO |
| Operation | direct acting poppet type |
| Pneumatic connections | M5, G1/8, R1/8 threads - Ø4 fitting - CNOMO interface |
| Nominal diameter | 1.5 ... 2.5 mm |
| Nominal flow | 40 ... 130 NL/min (air @ 6 bar ΔP 1 bar) |
| Flow coefficient kv (l/min) | 0.62 ... 2.0 |
| Operating pressure | -0.9 ... 15 bar |
| Operating temperature | 0°C ÷ 60°C (with dry air -20°C) |
| Media | filtered air, class 5.4.4 according to ISO 8573-1 (max oil viscosity 32 cSt), inert gas |
| Response time | ON <15 msec - OFF <25 msec |
| Manual override | see tables |
| Installation | in any position |

MATERIALS IN CONTACT WITH THE MEDIUM

| | |
|----------------|---|
| Body | nickel-plated brass - PBT technopolymer |
| 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% |
| Electrical connection | F (155°C) |
| Protection class | DIN 43650 connector, (A, B Shape) 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 = base (24x24 mm) interface rotatable through 360°

2 = base (24x24 mm) fixed interface

3 = threaded body

4 = rapid exhaust body

5 = base with ISO standard interface, fixed body in technopolymer

6 = (16x16 mm) interface rotatable through 360°

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 way

3 = 3 way

1

FUNCTION:

1 = NC

2 = NO

3 = NO in line

0

PORTS:

1

2

3

0 M5

M5

M5

1 G1/8

G1/8

M5

3 M5

R1/8

M5

4 M5

R1/8

M5 with manual override

A swivel O-ring interface

M5

B fixed O-ring interface

M5

C G1/8

cartridge Ø 4

M5

C

NOMINAL DIAMETER:

C = Ø 1,5

D = Ø 2

E = Ø 2,5

2

BODY MATERIAL:

2 = nickel-plated brass

3 = technopolymer

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)

TABLE FOR THE COUPLING BETWEEN SOLENOIDS AND VALVES

Valve function 2/2: for vacuum application connect the vacuum in "2"

Valve function 3/2: for vacuum application connect the vacuum in "1"

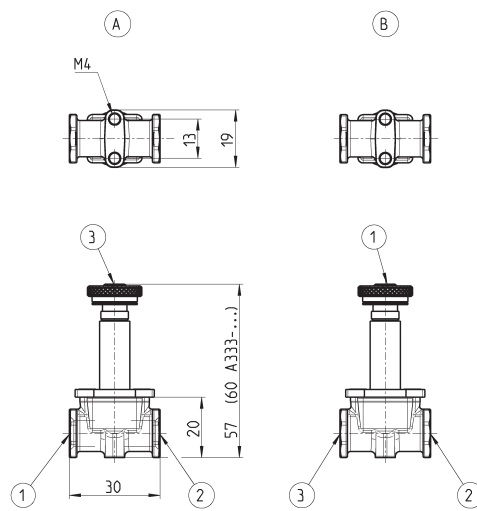
Note: for solenoid Mod. G90 (2/2 NO) contact our technical department

| Mod. | Solenoids 3W working pressure (bar) | Solenoids 4-5 W working pressure (bar) | Solenoids 3,5 VA working pressure (bar) |
|------------------------------|--|--|---|
| | allowed pressure with solenoids DC - 3 W | allowed pressure with solenoids DC - 4-5 W | allowed pressure with solenoids AC - 3,5 VA |
| Valve 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 |
| Valve function 2/2 NO | | | |
| A322-0C2 | 2 ÷ 10 | - 0,9 ÷ 10 | - 0,9 ÷ 10 |
| A322-1C2 | 2 ÷ 10 | - 0,9 ÷ 10 | - 0,9 ÷ 10 |
| Valve function 3/2 NC | | | |
| A331-0C2 | 2 ÷ 10 | - 0,9 ÷ 10 | - 0,9 ÷ 10 |
| A331-1C2 | 2 ÷ 10 | - 0,9 ÷ 10 | - 0,9 ÷ 10 |
| 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 |
| 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 |
| Valve 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 |
| 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-CC3 | - 0,9 ÷ 6 | - | - 0,9 ÷ 8 |

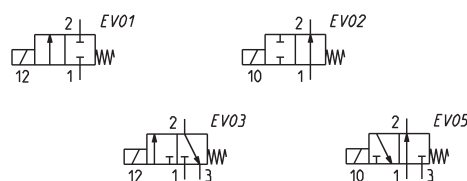
2/2 and 3/2-way solenoid valves Mod. A32 and Mod. A33



Available in the 2/2-way version, NC or NO, as well as in the 3/2-way version, NC, NO or NO in line.
In the 3/2 NC version connection 1 is on the body (fig. A), whereas in the 3/2 NO version is on the M5 thread of the tube (fig. B).



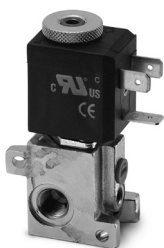
| Mod. | Conn. 1 | Conn. 2 | Conn. 3 | Function | Orifice Ø mm | Qn (NL/min) | Symbol |
|------------|---------|---------|---------|---------------|--------------|-------------|--------|
| A321-0C2-* | M5 | M5 | - | 2/2 NC | 1,5 | 50 | EV01 |
| A321-1C2-* | G1/8 | G1/8 | - | 2/2 NC | 1,5 | 55 | EV01 |
| A321-1D2-* | G1/8 | G1/8 | - | 2/2 NC | 2 | 100 | EV01 |
| A321-1E2-* | G1/8 | G1/8 | - | 2/2 NC | 2,5 | 130 | EV01 |
| A322-0C2-* | M5 | M5 | - | 2/2 NO | 1,8 | 70 | EV02 |
| A322-1C2-* | G1/8 | M5 | - | 2/2 NO | 1,8 | 80 | EV02 |
| A331-0C2-* | M5 | M5 | M5 | 3/2 NC | 1,5 | 50 | EV03 |
| A331-1C2-* | G1/8 | G1/8 | M5 | 3/2 NC | 1,5 | 60 | EV03 |
| A332-0C2-* | M5 | M5 | M5 | 3/2 NO | 1,5 | 55 | EV05 |
| A332-1C2-* | M5 | G1/8 | G1/8 | 3/2 NO | 1,5 | 50 | EV05 |
| A333-0C2-* | M5 | M5 | M5 | 3/2NO in line | 1,5 | 60 | EV05 |
| A333-1C2-* | G1/8 | G1/8 | M5 | 3/2NO in line | 1,5 | 60 | EV05 |



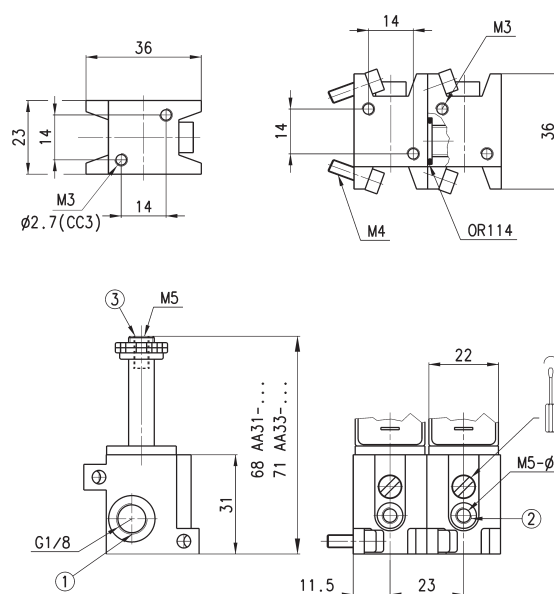
Note. For the use of NO valves in line, use the coil model U771 or U7K1 or G771 or G7K1.

* choose the most suitable solenoid.

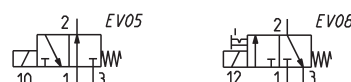
3/2-way solenoid valve Mod. AA31... - AA33...



The 3/2-way solenoid valves for manifold assembly are available in the NC and NO in line version, with G1/8 ports at the manifold inlet.
The inlets can be with M5 threading or with a Ø 4 cartridge.
The solenoid valve is supplied complete with O-ring and screws.



| Mod. | Inlet / outlet | Function | Orifice Ø mm | Manual override bistable | Qn (NL/min) | Symbol |
|------------|----------------|----------------|--------------|--------------------------|-------------|--------|
| AA31-0C2-* | G1/8 M5 | 3/2 NC | 1,5 | Yes | 55 | EV08 |
| AA31-CC2-* | G1/8 04 | 3/2 NC | 1,5 | Yes | 55 | EV08 |
| AA31-0C3-* | G1/8 M5 | 3/2 NC | 1,5 | Yes | 55 | EV08 |
| AA33-0C2-* | G1/8 M5 | 3/2 NO in line | 1,5 | No | 55 | EV05 |
| AA33-CC2-* | G1/8 04 | 3/2 NO in line | 1,5 | No | 55 | EV05 |
| AA33-0C3-* | G1/8 M5 | 3/2 NO in line | 1,5 | No | 65 | EV05 |
| AA31-CC3-* | G1/8 04 | 3/2 NC | 1,5 | Yes | 55 | EV08 |
| AA33-CC3-* | G1/8 04 | 3/2 NO in line | 1,5 | No | 65 | EV05 |



Note. For the use of NO valves in line, use the coil model U771 or U7K1 or G771 or G7K1.

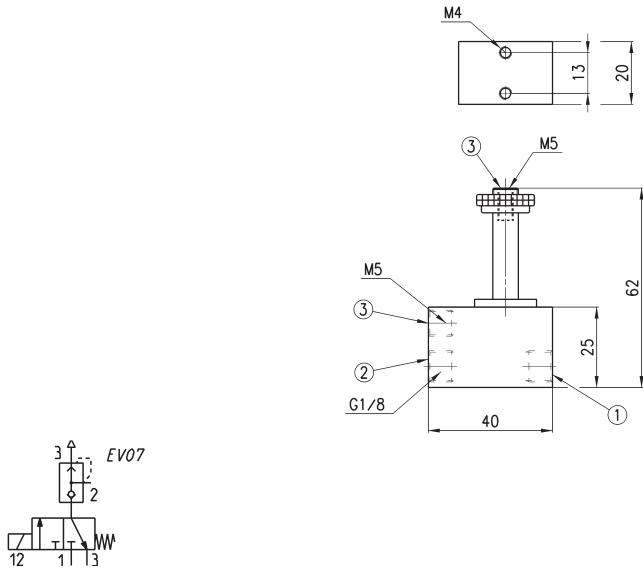
* choose the most suitable solenoid.

3/2-way solenoid valve Mod. A43



* choose the most suitable solenoid.

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.



| Mod. | Ports | Function | Orifice Ø mm | Qn (NL/min) |
|------------|-----------|----------|--------------|-------------|
| A431-1C2-* | G1/8 / M5 | 3/2 NC | 1.5 | 50 |

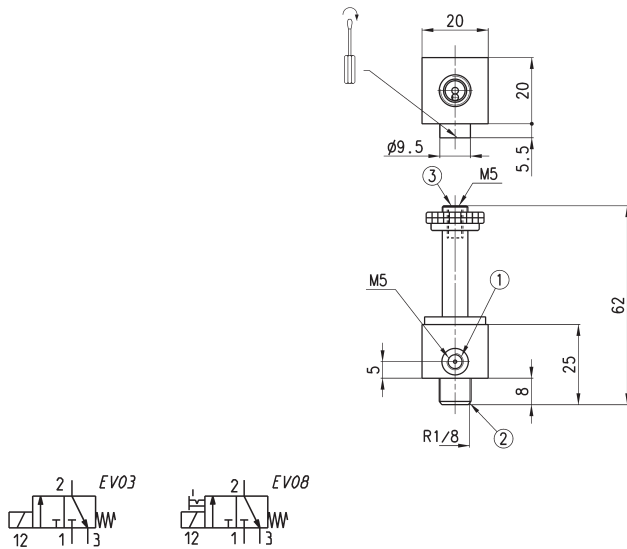
3/2-way solenoid valve Mod. A33



The body has an outlet with a R1/8 male thread which can be screwed directly onto the component to be operated. The inlet port is M5 threaded.

* choose the most suitable solenoid.

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



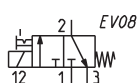
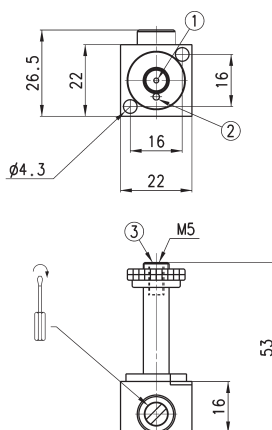
| Mod. | Inlet / outlet | Function | Orifice Ø (mm) | Man. override bistable | Qn (NL/min) | Symbol |
|------------|----------------|----------|----------------|------------------------|-------------|--------|
| A331-3C2-* | M5 / R1/8 | 3/2 NC | 1,5 | no | 55 | EV03 |
| A331-4C2-* | M5 / R1/8 | 3/2 NC | 1,5 | yes | 55 | EV08 |

3/2-way solenoid valve Mod. A63



* choose the most suitable solenoid.

Equipped with a manual override for a steady operation, it is suitable to be mounted directly onto machine parts by two screws. The sealing is ensured by two concentric O-rings allowing the body a 360° adjustment.



| Mod. | Interface | Function | Orifice Ø (mm) | Qn (l/min) |
|------------|-----------|----------|----------------|------------|
| A631-AC2-* | OR | 3/2 NC | 1,5 | 40 |

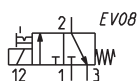
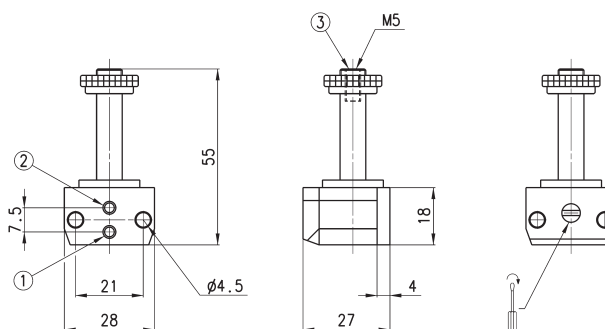
3/2-way solenoid valve Mod. A53



The body only is in technopolymer.

* choose the most suitable solenoid.

Equipped with a manual override for a steady operation, 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.



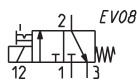
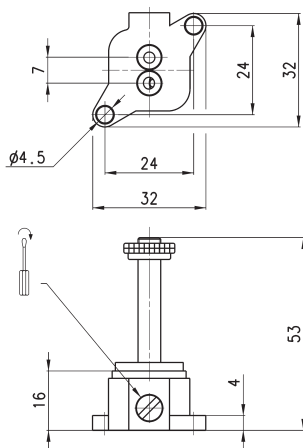
| Mod. | Interface | Function | Orifice Ø (mm) | Qn (l/min) |
|------------|-----------|----------|----------------|------------|
| A531-BC2-* | OR | 3/2 NC | 1,5 | 40 |

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



* choose the most suitable solenoid.

Equipped with a manual override with the possibility of a bistable actuation.



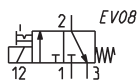
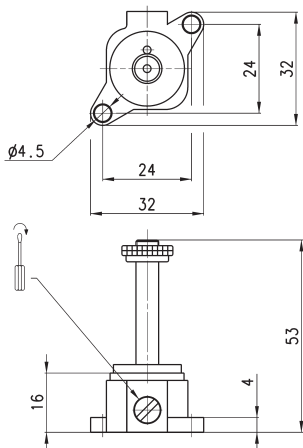
| Mod. | Interface | Function | Orifice Ø (mm) | Qn (l/min) |
|------------|-----------|----------|----------------|------------|
| A231-BC2-* | OR | 3/2 NC | 1,5 | 70 |

3/2-way solenoid valve Mod. A131 with swivel interface



* choose the most suitable solenoid.

Equipped with a manual override with the possibility of a bistable actuation.



| Mod. | Interface | Function | Orifice Ø (mm) | Qn (l/min) |
|------------|-----------|----------|----------------|------------|
| A131-AC2-* | OR | 3/2 NC | 1,5 | 70 |

Series 6 directly operated 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

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).

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

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 |
| Nominal diameter | 2 ... 4 mm |
| Nominal flow | 80 ... 350 NL/min (air @ 6 bar ΔP 1 bar) |
| Flow coefficient kv (l/min) | 1.2 ... 5.4 |
| Operating pressure | 0 ÷ 4 ... 15 bar |
| Operating temperature | 0°C ÷ 60°C (seals in FKM) / -50°C ÷ +50°C (seals in NBR) |
| Media | filtered air, class 5.4.4 (5.1.4 for versions -50°C) according to ISO 8573-1 (max oil viscosity 32 cSt), inert gas |
| Response time | ON <15 msec - OFF <15 msec |
| 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% |
| Electrical connection | H (180°C) |
| Protection class | with connector DIN EN 175 301-803-A 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-way NC 3 = 3-way NC 4 = 3-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 = base with rotatable interface 457 = base with fixed interface 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 | SOLENOID VOLTAGE: B = 24V 50/60Hz C = 48V 50/60 Hz D = 110V 50/60 Hz E = 230V 50/60 Hz 2 = 12V DC 3 = 24V DC 4 = 48V DC 6 = 110V DC |
| | VERSIONS: = standard LT = for low temperatures |

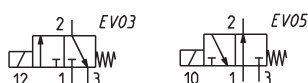
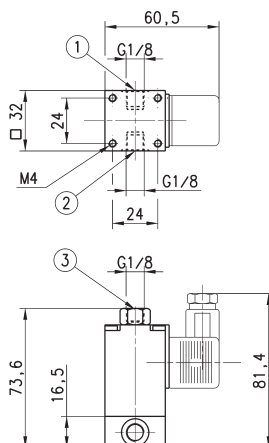
3/2-way NC and NO solenoid valve, G1/8 - Mod. 638 and Mod. 648



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, while the max operating pressure is 6 bar in case a solenoid A6B, A6C, A6D, A6E is chosen.

* = choose the solenoid voltage according to the CODING EXAMPLE



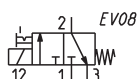
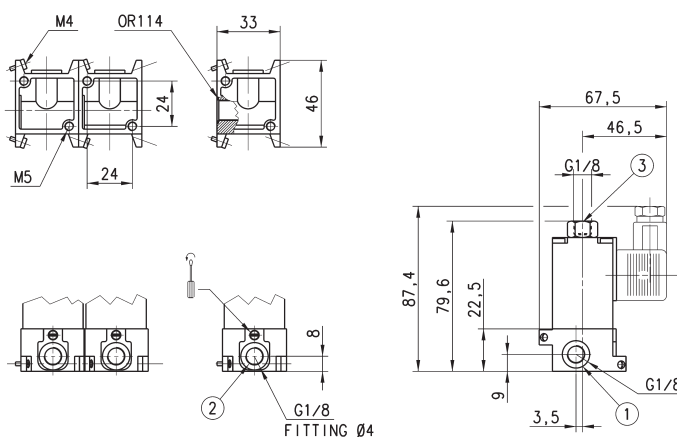
| Mod. | Ports | Function | Orifice Ø (mm) | kv (l/min) | Qn (NL/min) | Pressure min-max (bar) | Symbol |
|-------------|-------|----------|----------------|------------|-------------|-----------------------------|--------|
| 638-150-A6* | G1/8 | NC | 2 | 2.0 | 130 | 0 ÷ 10 [DC] | EV03 |
| 648-150-A6*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

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



* = choose the solenoid voltage according to the CODING EXAMPLE

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.



| 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 |

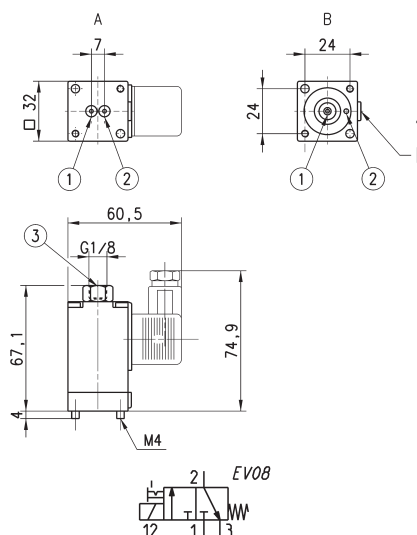
3/2-way NC solenoid valve - Mod. 600



These solenoid valves are equipped with an override and are available with two types of interface:

A = fixed interface

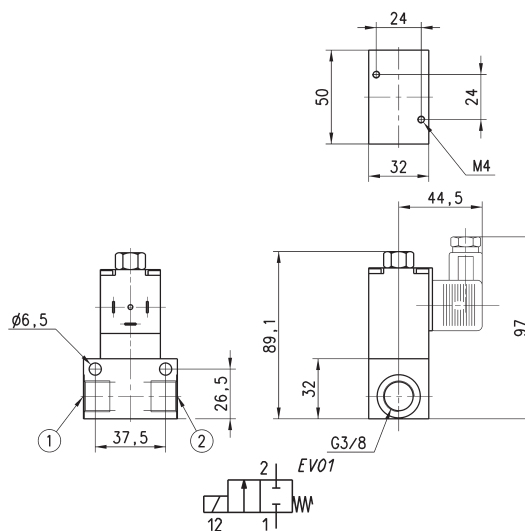
B = swivel interface



| Mod. | Interface | Orifice Ø (mm) | kv (l/min) | Qn (NL/min) | Pressure min-max (bar) |
|-------------|-----------|----------------|------------|-------------|------------------------|
| 600-450-A6* | Swivel | 2 | 1.6 | 106 | 0 ÷ 10 |
| 600-457-A6* | Fixed | 2 | 1.6 | 106 | 0 ÷ 10 |

* = choose the solenoid voltage according to the CODING EXAMPLE

2/2-way solenoid valves NC, G3/8 - Mod. 623



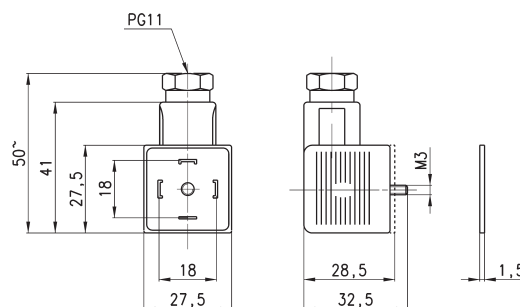
| Mod. | Orifice Ø (mm) | kv (l/min) | Qn (NL/min) | Min-max pressure (bar) |
|-------------|----------------|------------|-------------|------------------------------------|
| 623-15E-A6* | 2.5 | 3.4 | 220 | 0 ÷ 12 [AC 50Hz] - 0 ÷ 15 [DC] |
| 623-15F-A6* | 3 | 4.5 | 290 | 0 ÷ 10 [AC 50Hz] - 0 ÷ 14 [DC]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

* = choose the solenoid voltage according to the CODING EXAMPLE

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



Protection class IP65



| Mod. | description | colour | working voltage | cable holding | 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

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 treatments 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 - 3/2 NC - 2/2 NO |
| Operation | direct acting poppet type - servo-assisted with diaphragm |
| Pneumatic connections | G1/8 ... G2 threads |
| Nominal diameter | 1.4 ... 50 mm |
| Nominal flow | See Kv |
| Flow coefficient Kv (m³/h) | 0.14 ... 45 |
| Operating pressure | 0 ÷ 0.8 ... 22 bar |
| Operating temperature | -10°C ÷ +90°C ... 140°C |
| Media | air, water, liquid and gaseous fluids with max viscosity 37 cSt (5° E) |
| Response time | ON <15 msec - OFF <25 msec |
| Installation | in any position |

MATERIALS IN CONTACT WITH THE MEDIUM

| | |
|----------------|--|
| Body | brass (alimentary or anti-limestone nickel-platings on demand) |
| Seals | NBR (CFB-A) - 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% |
| Electrical connection | H (180°C) |
| Protection class | DIN 43650 connector, (A shape) 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 |
| 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 | NOMINAL 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 | DIAPHRAGM 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 = 24V AC 50 Hz D = 110V AC 50/60 Hz E = 230V AC 50/60 Hz 2 = 12V DC 3 = 24V DC |
| NOTE: for some directly operated 2/2 NO solenoid valves, the solenoid to be used is the B8* K type (see also the TABLE FOR THE COUPLING BETWEEN SOLENOIDS AND VALVES on page 2/1.30.03). | |

TABLE FOR THE COUPLING BETWEEN SOLENOIDS AND VALVES

For solenoids and their connectors see the dedicated section.

Mod. B8/B9 = mod.124-800

Mod. B7 = mod. 122-800

| Mod. | 24V AC 50 Hz | 110V AC 50/60 Hz | 220/230V AC 50/60 Hz | 12V DC | 24V DC |
|--|--------------|------------------|--|---------------|---------------|
| Directly operated solenoid valve, 2/2 and 3/2 NC, 2/2 NO | | | | | |
| CFB-D21C-W1- | B8B (15VA) | B8D (15VA) | B8E (15VA) | B82 (19W) | B83 (19W) |
| CFB-D21F-W1- | B8B (15VA) | B8D (15VA) | B8E (15VA) | B82 (19W) | B83 (19W) |
| CFB-D22C-W1- | B8B (15VA) | B8D (15VA) | B8E (15VA) | B82 (19W) | B83 (19W) |
| CFB-D22F-W1- | B8B (15VA) | B8D (15VA) | B8E (15VA) | B82 (19W) | B83 (19W) |
| CFB-D22G-W1- | B8B (15VA) | B8D (15VA) | B8E (15VA) | B82 (19W) | B83 (19W) |
| CFB-D23I-W1- | B9B (29VA) | B9D (29VA) | B9E (29VA) ** | not available | B93 (30W) |
| CFB-D24I-W1- | B9B (29VA) | B9D (29VA) | B9E (29VA) ** | not available | B93 (30W) |
| CFB-D24M-W1- | B9B (29VA) | B9D (29VA) | B9E (29VA) ** | not available | not available |
| | | | | | |
| CFB-D31A-W1- | B8B (15VA) | B8D (15VA) | B8E (15VA) | B82 (19W) | B83 (19W) |
| CFB-D31D-W1- | B8B (15VA) | B8D (15VA) | B8E (15VA) | B82 (19W) | B83 (19W) |
| CFB-D32A-W1- | B8B (15VA) | B8D (15VA) | B8E (15VA) | B82 (19W) | B83 (19W) |
| CFB-D32D-W1- | B8B (15VA) | B8D (15VA) | B8E (15VA) | B82 (19W) | B83 (19W) |
| | | | | | |
| CFB-D11A-W1- | B8BK (15VA) | B8DK (15VA) ** | B8EK (15VA) ** | B82K (19W) | B83K (19W) |
| CFB-D12D-W1- | B8BK (15VA) | B8DK (15VA) ** | B8EK (15VA) ** | B82K (19W) | B83K (19W) |
| CFB-D13I-W1- | B9B (29VA) | B9D (29VA) ** | B9E (29VA) ** | not available | not available |
| | | | | | |
| Directly operated solenoid valve with constrained diaphragm, 2/2 NC | | | | | |
| CFB-B23I-W1- | B9B (29VA) | B9D (29VA) | B9E (29VA) | not available | B93 (30W) |
| CFB-B24N-W1- | B9B (29VA) | B9D (29VA) | B9E (29VA) | not available | B93 (30W) |
| CFB-B25P-W1- | B9B (29VA) | B9D (29VA) | B9E (29VA) | not available | B93 (30W) |
| CFB-B26R-W1- | B9B (29VA) | B9D (29VA) | B9E (29VA) | not available | B93 (30W) |
| | | | | | |
| Indirectly operated solenoid valve, 2/2 NC | | | | | |
| CFB-A23I-R1- | B7B (9VA) * | B7D (9VA) | B7E (9VA) | B72 (10W) | B73 (10W) |
| CFB-A24N-R1- | B7B (9VA) * | B7D (9VA) | B7E (9VA) | B72 (10W) | B73 (10W) |
| CFB-A25P-R1- | B7B (9VA) * | B7D (9VA) | B7E (9VA) | B72 (10W) | B73 (10W) |
| CFB-A26R-R1- | B7B (9VA) * | B7D (9VA) | B7E (9VA) | B72 (10W) | B73 (10W) |
| CFB-A27T-R1- | B8B (15VA) | B8D (15VA) | B8E (15VA) | B82 (19W) | B83 (19W) |
| CFB-A28X-R1- | B8B (15VA) | B8D (15VA) | B8E (15VA) | B82 (19W) | B83 (19W) |
| CFB-A29Z-R1- | B8B (15VA) | B8D (15VA) | B8E (15VA) | B82 (19W) | B83 (19W) |
| | | | | | |
| Indirectly operated solenoid valve, 2/2 NO | | | | | |
| CFB-A13I-R1- | B7B (9VA) * | B7D (9VA) | B7E (9VA) | B72 (10W) | B73 (10W) |
| CFB-A14N-R1- | B7B (9VA) * | B7D (9VA) | B7E (9VA) | B72 (10W) | B73 (10W) |
| CFB-A15P-R1- | B7B (9VA) * | B7D (9VA) | B7E (9VA) | B72 (10W) | B73 (10W) |
| CFB-A16R-R1- | B7B (9VA) * | B7D (9VA) | B7E (9VA) | B72 (10W) | B73 (10W) |
| CFB-A17T-R1- | B8B (15VA) | B8D (15VA) | B8E (15VA) | B82 (19W) | B83 (19W) |
| CFB-A18X-R1- | B9B (29VA) | B9D (29VA) | B9E (29VA) | not available | B93 (30W) |
| CFB-A19Z-R1- | 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 | | |

Directly operated 2/2 NC - NO and 3/2 NC solenoid valve

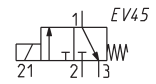
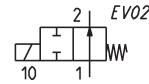
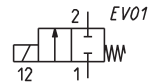


The direct control of these solenoid valves enables them to work with operating pressures which are equal to zero. Ports: G1/8 and G1/2.

DRAWING LEGEND:

X = NC valve

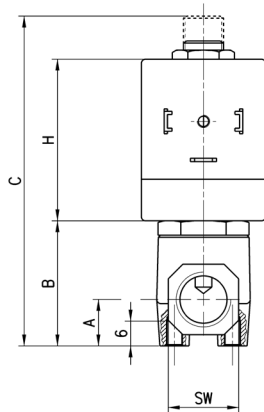
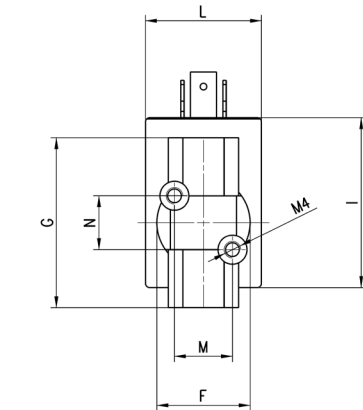
Y = NO valve



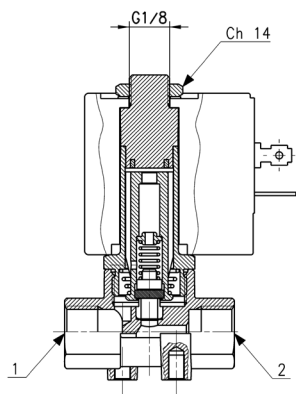
* = choose the suitable solenoid according to the TABLE FOR THE COUPLING BETWEEN SOLENOID AND VALVES

** = the performances shown in the table refer to the use with inlet from "2" and outlet from "1".

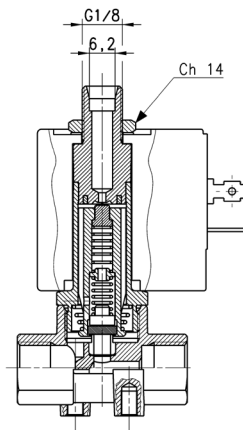
*** = 0 ÷ 4 with B9... solenoid



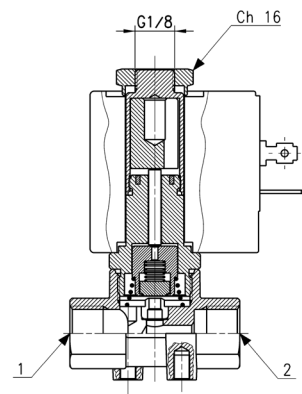
2/2 (X)



3/2



2/2 (Y)



| 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-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 |
| 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 |

Directly oper. 2/2 NC solenoid valve with linked diaphragm



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.

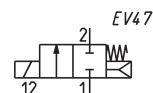
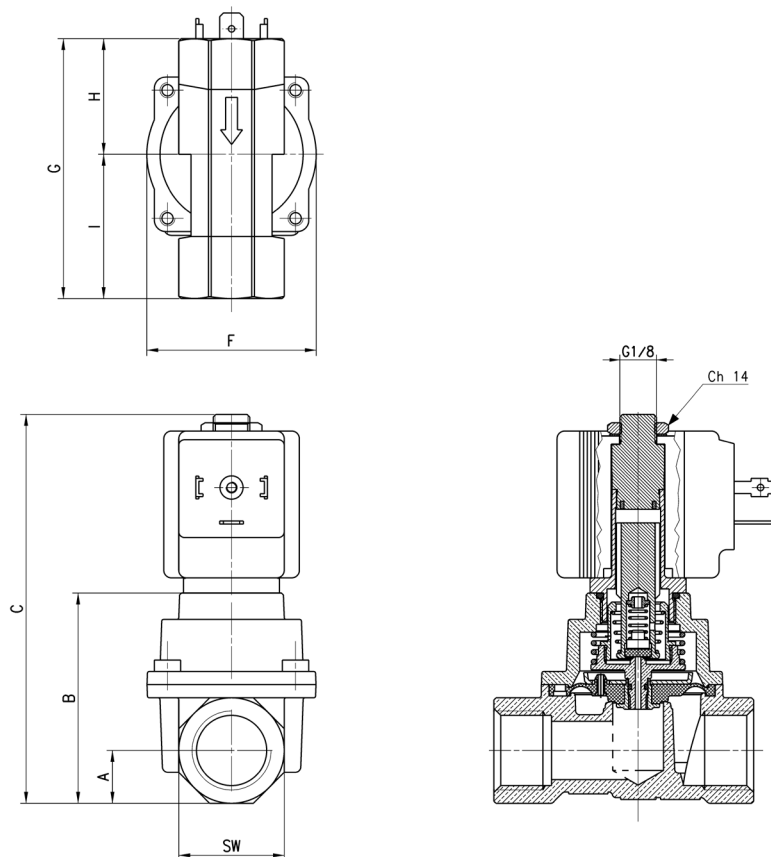


TABLE NOTE:

* = 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 | 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 | 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 | 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 | 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 | 42 |

Indirectly operated 2/2 NC solenoid valve



The pilot of these indirectly operated 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.

Ports: from G3/8 to G2.

The standard diaphragm is supplied in NBR.

On demand it can be supplied in FKM or EPDM.

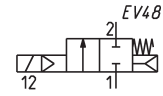
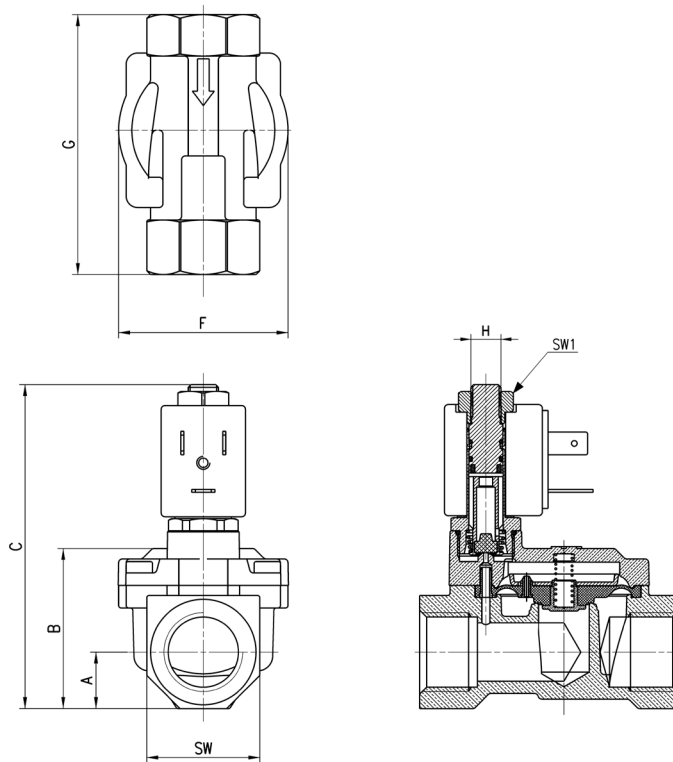


TABLE NOTE:

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



| Mod. | Function | Ports | Ø Orifice (mm) | Kv (m³/h) | Pressure min÷max (bar) | A | B | C | F | G | H | 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 | 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 | 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 | 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 | 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 | 55 | 14 |
| CFB-A28X-R1-* | 2/2 NC | G1 1/2 | 45 | 31 | 0.4 ÷ 12 [AC 50 Hz / DC] - 0.4 ÷ 3.5 [AC 60 Hz] | 31 | 85 | 138.3 | 110 | 138 | G1/8 | 62 | 14 |
| CFB-A29Z-R1-* | 2/2 NC | G2 | 50 | 45 | 0.4 ÷ 12 [AC 50 Hz / DC] - 0.4 ÷ 3.5 [AC 60 Hz] | 37.5 | 98.8 | 152 | 110 | 145 | G1/8 | 75 | 14 |

Indirectly operated 2/2 NO solenoid valve



The pilot of these indirectly operated 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. Ports: from G3/8 to G2. The standard diaphragm is supplied in NBR. On demand it can be supplied in FKM or EPDM.

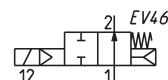
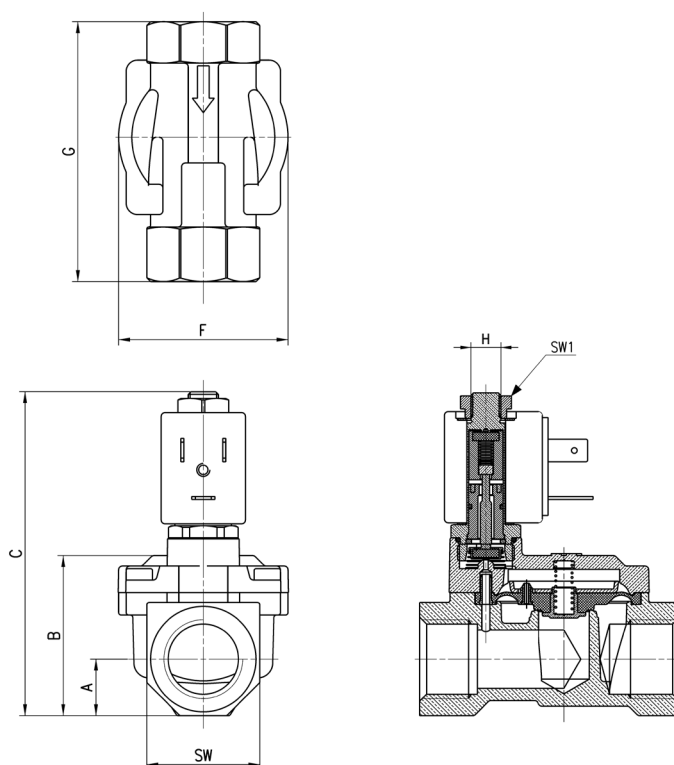


TABLE NOTE:

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

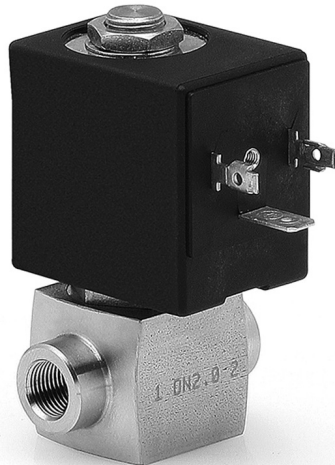


| Mod. | Function | Ports | Ø Orifice (mm) | Kv (m³/h) | Pressure min÷max (bar) | A | B | C | F | G | H | SW | SW1 |
|---------------|----------|--------|----------------|-----------|------------------------|------|------|-------|------|-----|---------|----|------|
| CFB-A13L-R1-* | 2/2 NO | G3/8 | 11.5 | 2.6 | 0.1 ÷ 15 [AC / DC] | 12 | 32.5 | 78.5 | 41.9 | 57 | M8x0.75 | 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 | 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 | 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 | 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 | 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 | 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 | 75 | 14 |

Series CFB stainless steel solenoid valves

2/2-way - Normally Closed (NC)

3/2-way - Normally Closed (NC)



Series CFB Stainless Steel directly operated 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.

- » 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

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 and 3/2 NC |
| Operation | direct acting poppet type |
| Pneumatic connections | G1/8 ... G1/2 threads |
| Nominal diameter | 1.5 ... 4 mm |
| Nominal flow | See Kv |
| Flow coefficient Kv (m³/h) | 0.08 ... 0.28 |
| Operating pressure | 0 ÷ 4 ... 25 bar |
| Operating temperature | -10°C ÷ +140°C |
| Media | air, water, liquid and gaseous fluids with max viscosity 37 cSt (5° E) |
| Response time | ON <15 msec - OFF <25 msec |
| Installation | in any position |

MATERIALS IN CONTACT WITH THE MEDIUM

| | |
|----------------|----------------------|
| Body | stainless steel 316L |
| Seals | FKM (EPDM on demand) |
| 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% |
| Electrical connection | H (180°C) |
| Protection class | DIN 43650 connector, (A Shaped) 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 | NOMINAL 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 (on demand) | | | | | | | | | | |
| X | BODY MATERIAL: X = stainless steel | | | | | | | | | | |
| B8 | SOLENOID DIMENSION: B8 = 30 mm | | | | | | | | | | |
| E | SOLENOID VOLTAGE: B = 24V AC 50 Hz D = 110V AC 50/60 Hz E = 230V AC 50/60 Hz 2 = 12V DC 3 = 24V DC | | | | | | | | | | |

TABLE FOR THE COUPLING BETWEEN SOLENOIDS AND VALVES

See solenoids and connectors for solenoids in the dedicated section
Mod. B8 = mod.124-800

* = 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) |

Directly operated solenoid valve, 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.

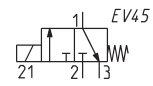
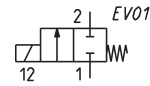
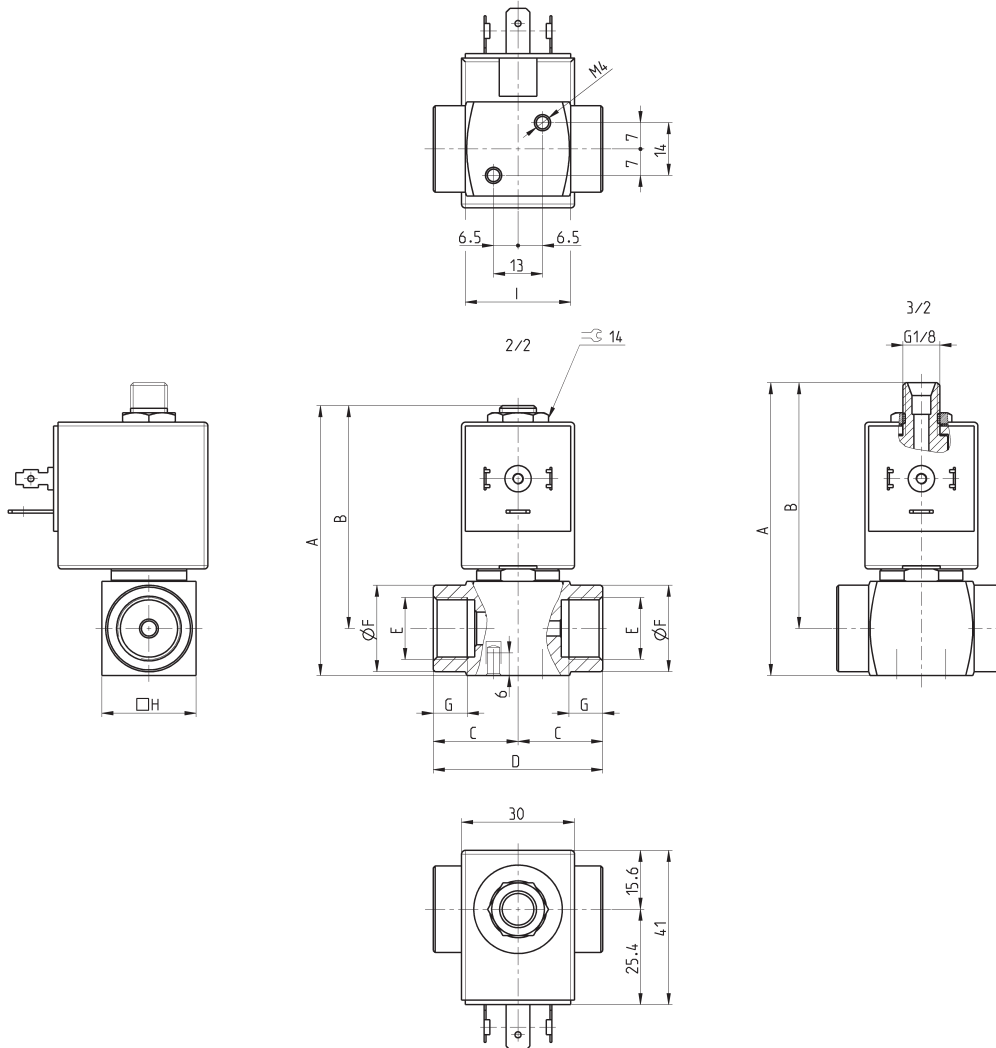


TABLE NOTE:

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



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

Series 8 pneumatic operated cartridge valves

2/2-way - Normally Closed (NC)



- » Use with oxygen
- » Suitable also for general purpose
- » Compact design
- » High flow
- » Manifold assembly

Series 8 pneumatic operated valves are particularly suitable for applications requiring high flow combined with 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).

GENERAL DATA

TECHNICAL FEATURES

| | |
|-----------------------------|---|
| Function | 2/2 NC |
| Operation | pneumatic operated poppet type |
| Pneumatic connections | manifold cartridge |
| Nominal 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) |
| Operating temperature | 0 ÷ +50°C |
| Media | filtered air, class 5.4.4 according to ISO 8573-1 (max oil viscosity 32 cSt), inert gas |
| Response time (ISO 12238) | ON <10 msec - OFF <10 msec |
| Installation | in any position |

MATERIALS IN CONTACT WITH THE MEDIUM

| | |
|----------------|-----------|
| Body | brass |
| Internal parts | aluminium |
| Seals | FKM |

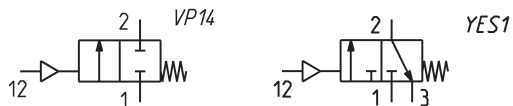
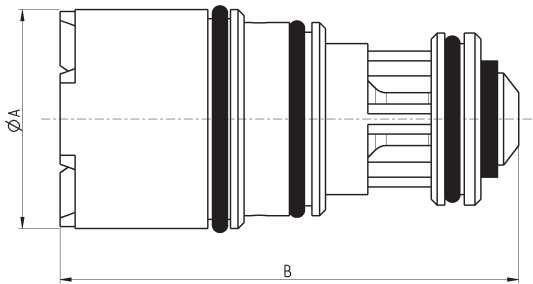
CODING EXAMPLE

| | | | | | | | | | | |
|-----|--|----|---|----|---|----|---|---|---|-----|
| 8 | 10 | C5 | 1 | 00 | - | F1 | 3 | 2 | - | OX2 |
| 8 | SERIES | | | | | | | | | |
| 10 | SIZE: 10 = Size 1 20 = Size 2 30 = Size 3 | | | | | | | | | |
| C5 | BODY DESIGN: C5 = cartridge | | | | | | | | | |
| 1 | NUMBER OF WAYS - FUNCTIONS: 1 = 2/2-way NC or 3/2-way NC NOTE: The function depends on the seat used (for further details see the following pages) | | | | | | | | | |
| 00 | PNEUMATIC CONNECTIONS: 00 = cartridge | | | | | | | | | |
| F1 | NOMINAL 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 | | | | | | | | | |
| OX2 | OX2 = for use with oxygen (non volatile residual less than 33 mg/m³) NOTE: the OX2 suffix must be added also in case of use with air/gas. | | | | | | | | | |

Pneumatic cartridge valve 2/2-way NC



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

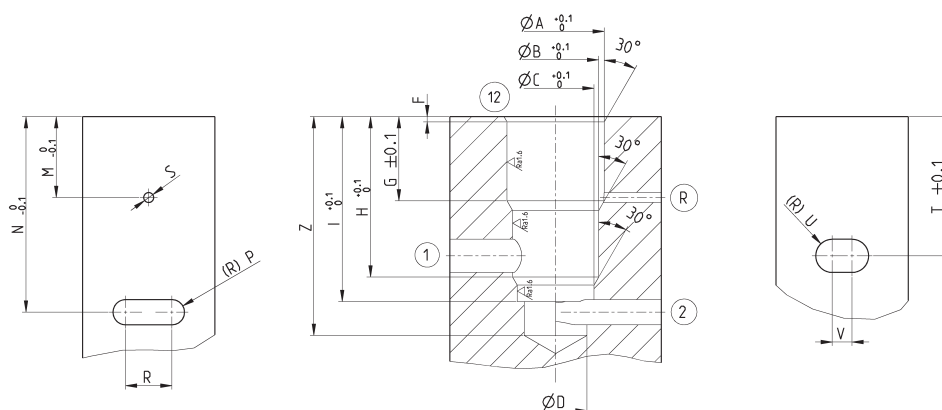


| Mod. | ØA | B | Nominal diameter Ø (mm) | kv (l/min) | Qn (NL/min) | Min/max pressure (bar) | Min/max pilot pressure (bar) |
|-------------------|------|------|-------------------------|------------|-------------|------------------------|------------------------------|
| 810C5100-F132-OX2 | 10 | 26.7 | 5.0 | 6.5 | 420 | 0 ÷ 6 | 3 ÷ 6 |
| 820C5100-G732-OX2 | 14.5 | 30.3 | 6.6 | 12.5 | 800 | 0 ÷ 6 | 3 ÷ 6 |
| 830C5100-K132-OX2 | 22 | 34.8 | 9.0 | 23 | 1480 | 0 ÷ 6 | 3 ÷ 6 |

Seat for Series 8 pneumatic valve with 2/2-way NC function

NOTE IN THE DRAWING:

1 = inlet
2 = outlet
12 = pilot supply
R = poppet chamber exhaust

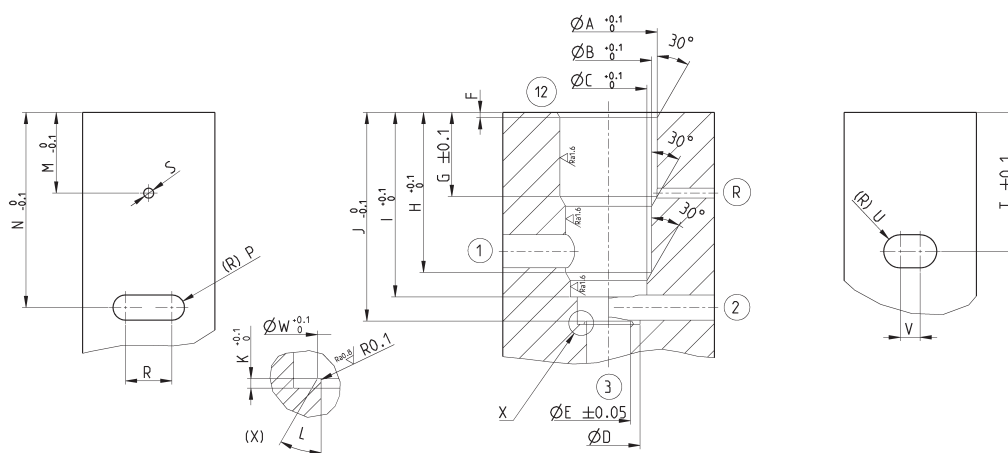


| SERIES 8 | | | | | | | | | | | | | | | | | |
|----------|-------|-------|-------|------|-----|------|------|------|------|------|-----|-----|-----|------|------|---|----|
| Size | A | B | C | D | F | G | H | I | M | N | P | R | S | T | U | V | Z |
| 1 | 10.4 | 9.7 | 9 | 8.2 | 0.8 | 14.5 | 20.7 | 25 | 13.2 | 26.2 | 1.5 | 5 | 1.5 | 19.1 | 3 | 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 |

Seat for Series 8 pneumatic valve with 3/2-way NC function

NOTE IN THE DRAWING:

1 = inlet
2 = outlet
3 = exhaust
12 = pilot supply
R = poppet chamber exhaust

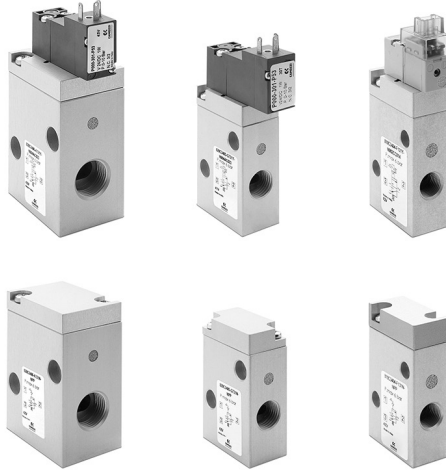


| SERIES 8 | | | | | | | | | | | | | | | | | | | | | |
|----------|-------|-------|-------|------|-----|-----|------|------|------|-------|-----|----|------|------|-----|-----|-----|------|------|---|-----|
| Size | A | B | C | D | E | F | G | H | I | J | K | L | M | N | P | R | S | T | U | V | W |
| 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 | 3 | 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), Normally Open (NO)

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



- » 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 - 2/2 NO - 3/2 NC - 3/2 NO |
| 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 (oil viscosity max. 32 cSt), inert gases |
| Response times | ON <10 msec - OFF <10 msec |
| Installation | any position |

MATERIALS IN CONTACT WITH FLUID

| | |
|----------------|-------------------|
| Body | Aluminium |
| Seals | FKM |
| Internal parts | Aluminium - Brass |

ELECTRICAL SPECIFICATIONS

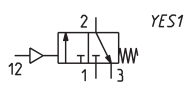
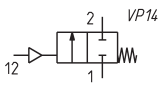
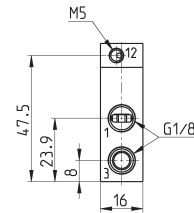
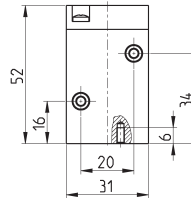
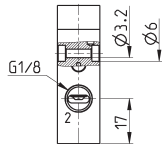
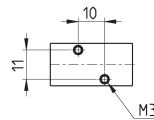
| | |
|-----------------------|---|
| Voltage | 24 V DC - other voltages upon request |
| Voltage tolerance | Size 1 = $\pm 10\%$ - Size 2 and 3 = $-10\% +15\%$ |
| Power consumption | Size 1 = 1.3 W (inrush) 0.25 W (holding) - Size 2 and 3 = 2 W |
| Duty cycle | ED 100% |
| Electrical connection | connectors - wires (length = 300 mm) |
| 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 | |
|----------|-----------|-----------|----------|-----------|----------|-----------|----------|----------|----------|----------|----------|-----------|-----------|-------------|--|

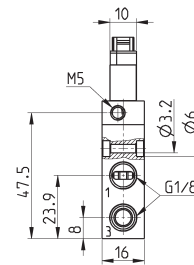
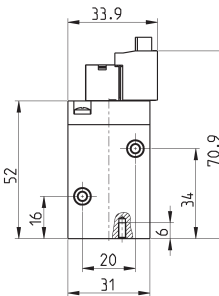
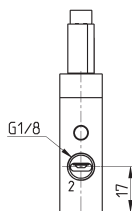
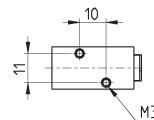
| | |
|-------------|--|
| 8 | SERIES |
| 10 | SIZE: 10 = Size 1 20 = Size 2 30 = Size 3 |
| C3 | TYPE OF BODY: C3 = threaded body |
| 4 | NUMBER OF WAYS - FUNCTIONS: 1 = 2/2-way NC 2 = 2/2-way NO 4 = 3/2-way NC 5 = 3/2-way NO |
| 04 | PNEUMATIC CONNECTIONS: 04 = G1/8 (Size 1) 05 = G1/4 (Size 2) 06 = G3/8 (Size 3) |
| F1 | NOMINAL 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 = connection type KN 90° + protection + led (Size 1) 2F = connection type KN 90° in line + protection + led (Size 1) 3A = connection DIN EN 175 301-803-C (8 mm) 4A = industry standard connection (9.4 mm) 7A = wires - length 300 mm (Size 2 - 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/m ²) OX2 = for use with oxygen (non volatile residual less than 33 mg/m ²) |

Pneumatic valve size 1 - 2/2- and 3/2-way, NC and NO

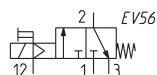
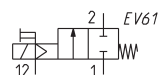
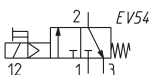
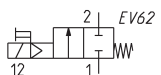


| Mod. | Function | Pneumatic connection | Orifice Ø (mm) | kv (l/min) | Qn (NL/min) | Min÷max pressure (bar) | Min÷max pilot pressure (bar) | Pilot supply | Symbol |
|--------------------|---|----------------------|----------------|------------|-------------|------------------------|------------------------------|--------------|--------|
| 810C3104-F131N-NPP | 2/2 NC (for the NO function it is required to maintain a continuous pneumatic pilot supply) | G1/8 | 5.0 | 6.5 | 420 | 0 ÷ 6 | 3 ÷ 6 | External | VP14 |
| 810C3404-F131N-NPP | 3/2 NC (for the NO function it is required to maintain a continuous pneumatic pilot supply) | G1/8 | 5.0 | 6.5 | 420 | 0 ÷ 6 | 3 ÷ 6 | External | YES1 |

Solenoid valve size 1, 2/2- and 3/2-way, NC

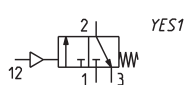
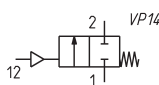
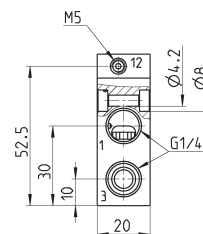
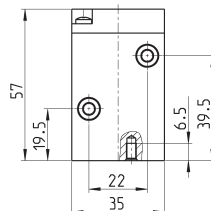
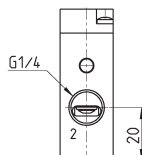
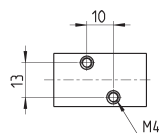


* please complete the code with ELECTRIC CONNECTION (option 2C or 2F) and VOLTAGE (see the CODING EXAMPLE).



| Mod. | Function | Pneumatic connection | 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 |

Pneumatic valve size 2 - 2/2- and 3/2-way, NC and NO

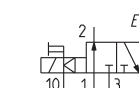
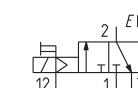
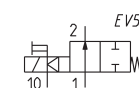
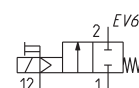
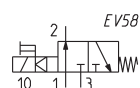
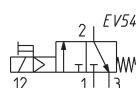
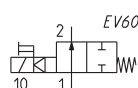
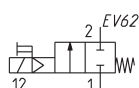
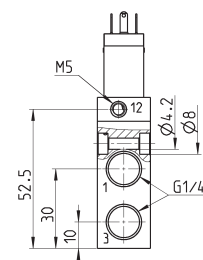
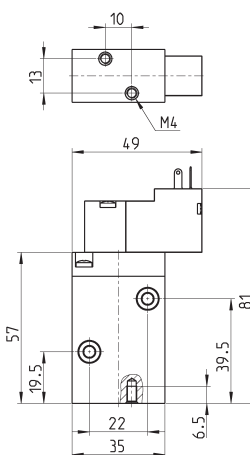
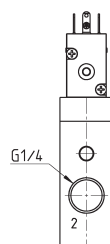


| Mod. | Function | Pneumatic connection | Orifice Ø (mm) | kv (l/min) | Qn (NL/min) | Min÷max pressure (bar) | Min÷max pilot pressure (bar) | Pilot supply | Symbol |
|--------------------|---|----------------------|----------------|------------|-------------|------------------------|------------------------------|--------------|--------|
| 820C3105-G731N-NPP | 2/2 NC (for the NO function it is required to maintain a continuous pneumatic pilot supply) | G1/4 | 6.6 | 12.5 | 800 | 0 ÷ 6 | 3 ÷ 6 | External | VP14 |
| 820C3405-G731N-NPP | 3/2 NC (for the NO function it is required to maintain a continuous pneumatic pilot supply) | G1/4 | 6.6 | 12.5 | 800 | 0 ÷ 6 | 3 ÷ 6 | External | YES1 |

Solenoid valve size 2, 2/2- and 3/2-way, NC and NO

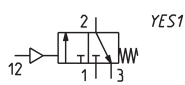
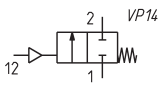
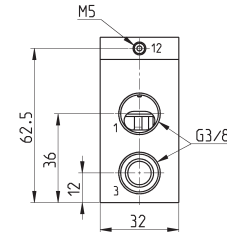
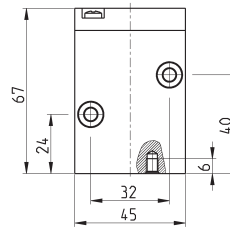
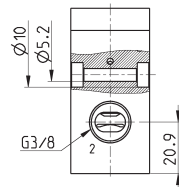
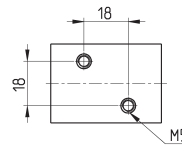


* please complete the code with ELECTRIC CONNECTION (option 3A, 4A o 7A) and VOLTAGE (see the CODING EXAMPLE).



| Mod. | Function | Pneumatic connection | 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 |
| 820C3205-G731Y-N00* | 2/2 NO | G1/4 | 6.6 | 12.5 | 800 | 3 ÷ 6 | - | Internal | EV60 |
| 820C3405-G731Y-N00* | 3/2 NC | G1/4 | 6.6 | 12.5 | 800 | 3 ÷ 6 | - | Internal | EV54 |
| 820C3505-G731Y-N00* | 3/2 NO | G1/4 | 6.6 | 12.5 | 800 | 3 ÷ 6 | - | Internal | EV58 |
| 820C3105-G731Y-NPE* | 2/2 NC | G1/4 | 6.6 | 12.5 | 800 | 0 ÷ 6 | 3 ÷ 6 | External | EV61 |
| 820C3205-G731Y-NPE* | 2/2 NO | G1/4 | 6.6 | 12.5 | 800 | 0 ÷ 6 | 3 ÷ 6 | External | EV59 |
| 820C3405-G731Y-NPE* | 3/2 NC | G1/4 | 6.6 | 12.5 | 800 | 0 ÷ 6 | 3 ÷ 6 | External | EV56 |
| 820C3505-G731Y-NPE* | 3/2 NO | G1/4 | 6.6 | 12.5 | 800 | 0 ÷ 6 | 3 ÷ 6 | External | EV57 |

Pneumatic valve size 3 - 2/2- and 3/2-way, NC and NO

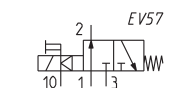
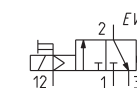
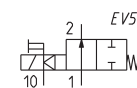
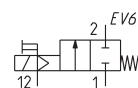
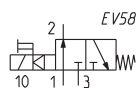
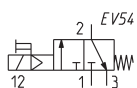
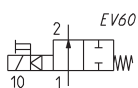
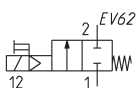
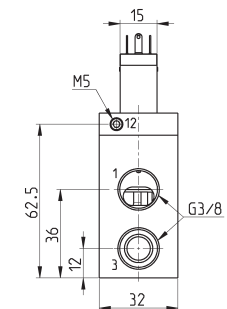
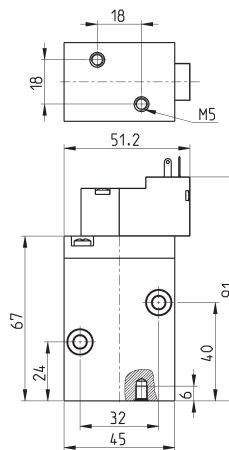
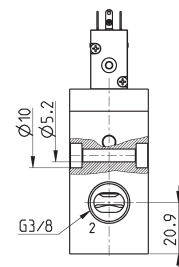


| Mod. | Function | Pneumatic connection | Orifice Ø (mm) | kv (l/min) | Qn (NL/min) | Min÷max pressure (bar) | Min÷max pilot pressure (bar) | Pilot supply | Symbol |
|--------------------|---|----------------------|----------------|------------|-------------|------------------------|------------------------------|--------------|--------|
| 830C3106-K131N-NPP | 2/2 NC (for the NO function it is required to maintain a continuous pneumatic pilot supply) | G3/8 | 9.0 | 23 | 1480 | 0 ÷ 6 | 3 ÷ 6 | External | VP14 |
| 830C3406-K131N-NPP | 3/2 NC (for the NO function it is required to maintain a continuous pneumatic pilot supply) | G3/8 | 9.0 | 23 | 1480 | 0 ÷ 6 | 3 ÷ 6 | External | YES1 |

Solenoid valve size 3, 2/2- and 3/2-way, NC and NO



* please complete the code with ELECTRIC CONNECTION (option 3A, 4A o 7A) and VOLTAGE (see the CODING EXAMPLE).



| Mod. | Function | Pneumatic connection | 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 |
| 830C3206-K131Y-N00* | 2/2 NO | G3/8 | 9.0 | 23 | 1480 | 3 ÷ 6 | - | Internal | EV60 |
| 830C3406-K131Y-N00* | 3/2 NC | G3/8 | 9.0 | 23 | 1480 | 3 ÷ 6 | - | Internal | EV54 |
| 830C3506-K131Y-N00* | 3/2 NO | G3/8 | 9.0 | 23 | 1480 | 3 ÷ 6 | - | Internal | EV58 |
| 830C3106-K131Y-NPE* | 2/2 NC | G3/8 | 9.0 | 23 | 1480 | 0 ÷ 6 | 3 ÷ 6 | External | EV61 |
| 830C3206-K131Y-NPE* | 2/2 NO | G3/8 | 9.0 | 23 | 1480 | 0 ÷ 6 | 3 ÷ 6 | External | EV59 |
| 830C3406-K131Y-NPE* | 3/2 NC | G3/8 | 9.0 | 23 | 1480 | 0 ÷ 6 | 3 ÷ 6 | External | EV56 |
| 830C3506-K131Y-NPE* | 3/2 NO | G3/8 | 9.0 | 23 | 1480 | 0 ÷ 6 | 3 ÷ 6 | External | EV57 |

Series TC shut-off micro-valves

2/2-way - Normally Closed (NC)

SERIES TC SHUT-OFF MICRO-VALVES



- » 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.

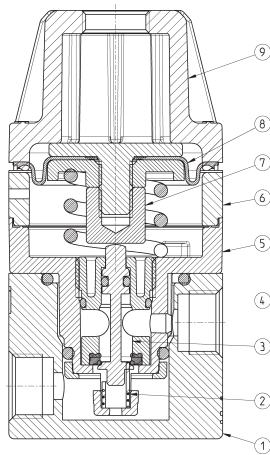
GENERAL DATA

| | |
|------------------------------|--|
| 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

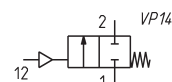
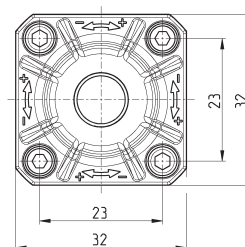
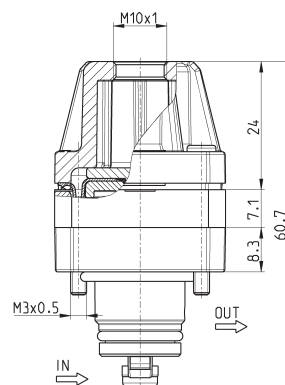
| | | | | | | | | | | |
|-----|--|---|---|----|---|---|---|---|---|-----|
| TC | 1 | - | V | 36 | - | C | - | V | - | OX2 |
| TC | SERIES | | | | | | | | | |
| 1 | SIZE | | | | | | | | | |
| V | VALVE | | | | | | | | | |
| 36 | CONSTRUCTION: 36 = pneumatic command | | | | | | | | | |
| C | PORTS: C = 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.

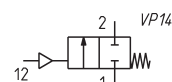
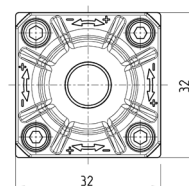
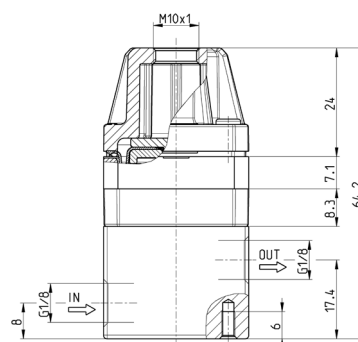
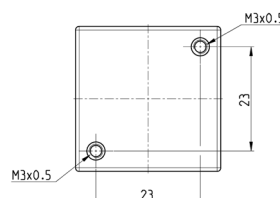
TC1-V36-C-V-OX1

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

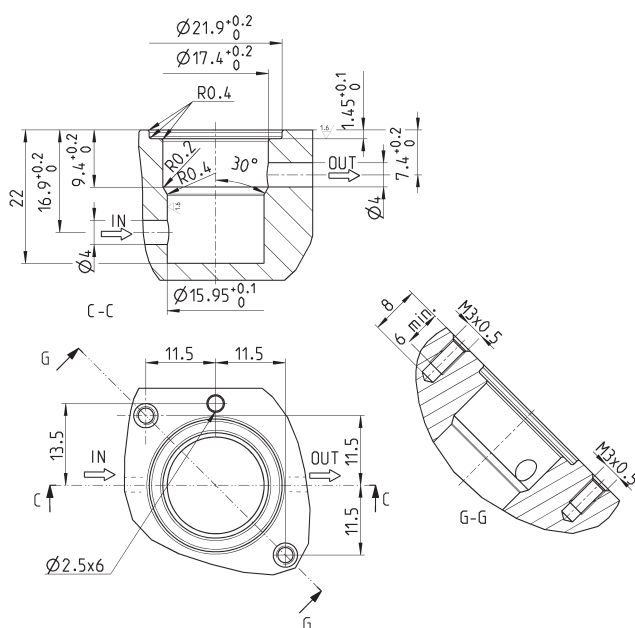


Mod.

TC1-V36-AL-V-OX1

TC1-V36-AL-V-OX2

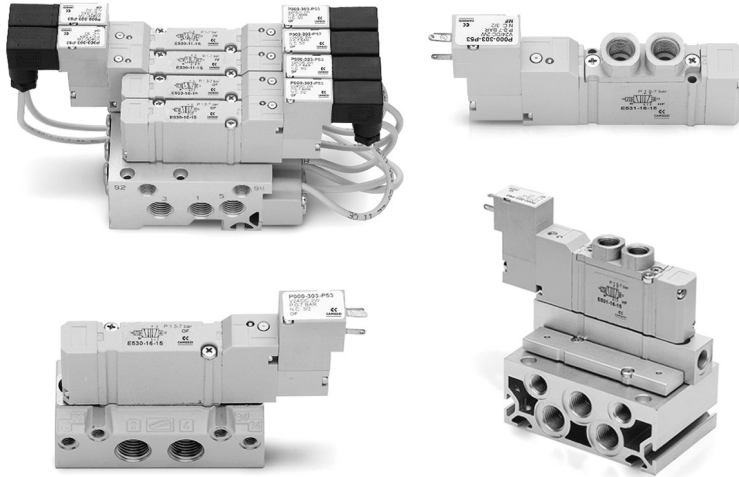
Seat dimensions for Series TC cartridge valve



SERIES TC SHUT-OFF MICRO-VALVES

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

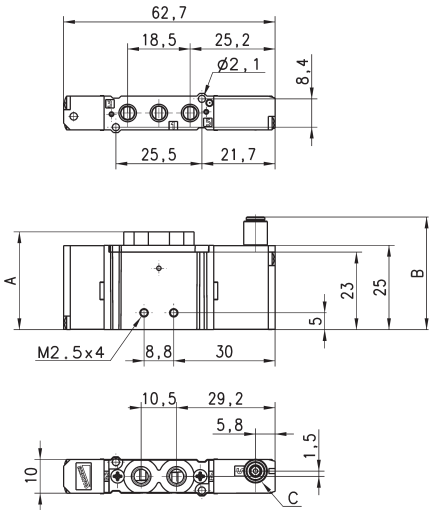
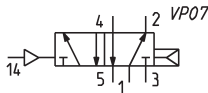
| | | | | | | | | | | | |
|-----------|--|----------|----------|---|-----------|---|-----------|---|----------|----------|----------|
| E | 5 | 2 | 1 | - | 11 | - | 10 | - | K | 1 | 3 |
| E | SERIES | | | | | | | | | | |
| 5 | FUNCTION: 5 = 5/2 6 = 5/3 Centres Closed 7 = 5/3 Centres Open 8 = 5/3 Centres 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



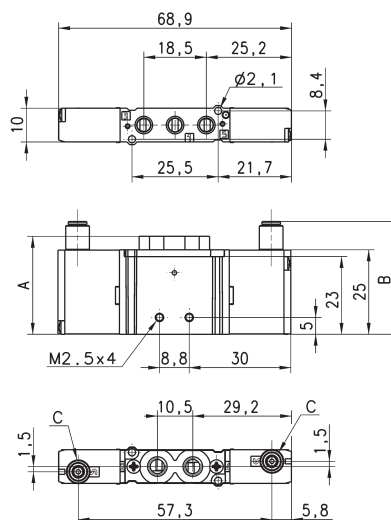
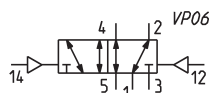
Note: the pilot pressure should never be lower than the operating pressure.



| 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 | $\phi 3$ | M5 | M5 | 1 | -0,9 ÷ 7 | 200 |
| E521-C33 | 29 | 39,1 | $\phi 4$ | M5 | M5 | 1 | -0,9 ÷ 7 | 200 |

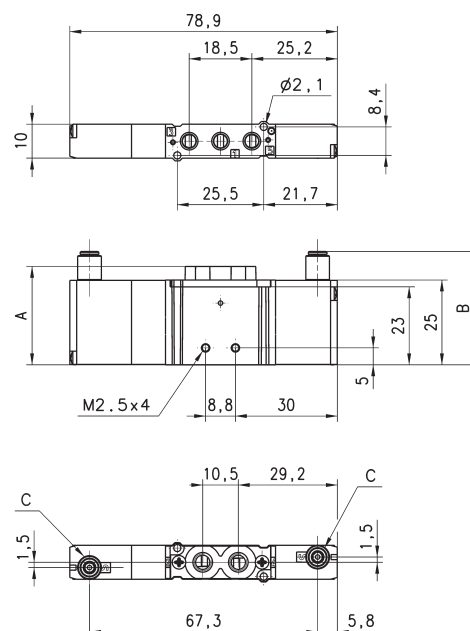
Pneumatically actuated valve - size 10,5

5/3-way

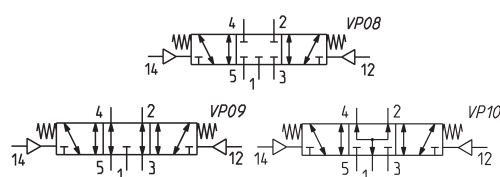
CC = Centres closed

CO = Centres open

CP = Pressure centres

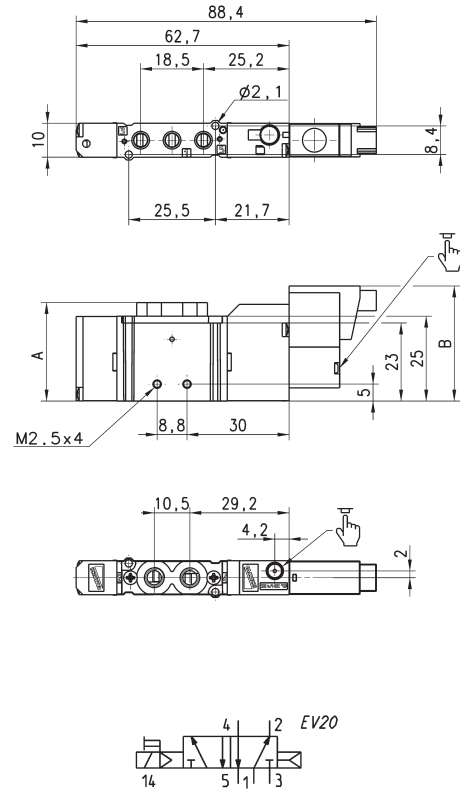


| Mod. | A | B | C | Ports 1-3-5 | Ports 2-4 | Min pilot pressure (bar) | Working pressure (bar) | Flow rate NL/min | Symbol |
|----------|----|------|----------|-------------|-----------|--------------------------|------------------------|------------------|--------|
| E621-33 | 29 | 33,4 | $\phi 3$ | M5 | M5 | 2 | -0,9 ÷ 7 | 200 | VP08 |
| E621-C33 | 29 | 39,1 | $\phi 4$ | M5 | M5 | 2 | -0,9 ÷ 7 | 200 | VP08 |
| E721-33 | 29 | 33,4 | $\phi 3$ | M5 | M5 | 2 | -0,9 ÷ 7 | 200 | VP09 |
| E721-C33 | 29 | 39,1 | $\phi 4$ | M5 | M5 | 2 | -0,9 ÷ 7 | 200 | VP09 |
| E821-33 | 29 | 33,4 | $\phi 3$ | M5 | M5 | 2 | -0,9 ÷ 7 | 200 | VP10 |
| E821-C33 | 29 | 39,1 | $\phi 4$ | 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...

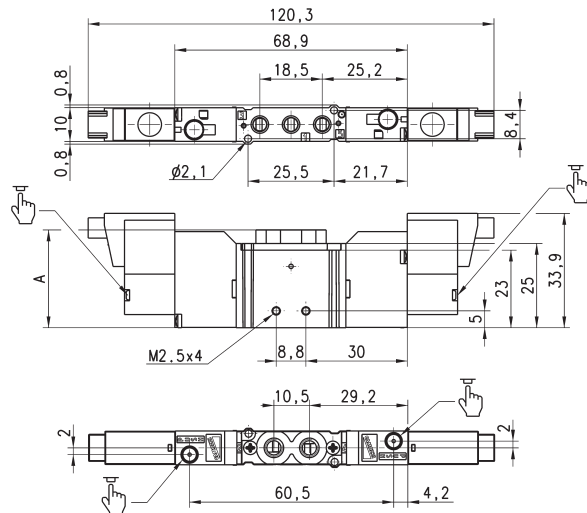
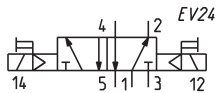
| DIMENSIONS | | | | | |
|-------------------------|----|-------------|-----------|------------------|--------------------|
| Mod. | A | Ports 1-3-5 | Ports 2-4 | working P. (bar) | Flow rate (NL/min) |
| E521-16-10-K1... | 29 | M5 | M5 | 2,5 ÷ 7 | 200 |

Electropneumatically actuated valve, bistable - size 10,5

5/2-way



Use connector Mod. Mod.
121-8..



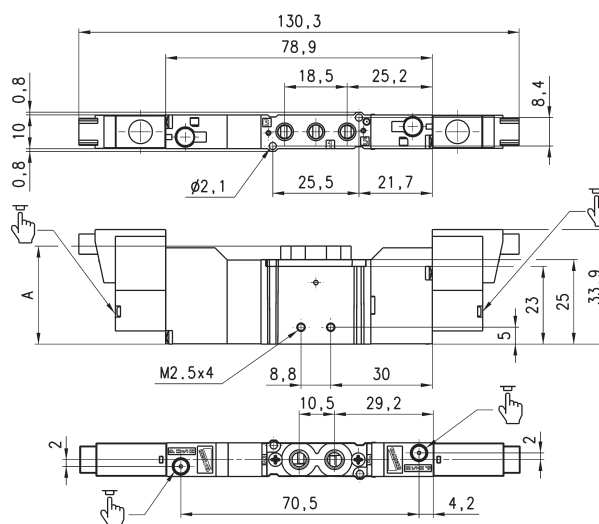
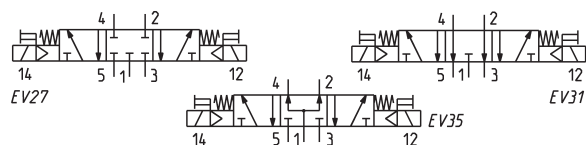
| | | | | |
|------------------|----|----|----|-------------------|
| | | | | |
| Mod. | A | | | working P. (bar) |
| E521-11-10-K1... | 29 | M5 | M5 | 1 ÷ 7 |
| | | | | Flow rate (l/min) |
| | | | | 200 |

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

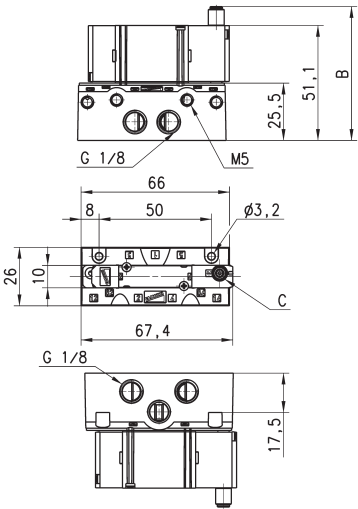
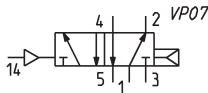
| | | | | | | | | | | | |
|----|--|---|---|---|----|---|----|---|---|---|---|
| E | 5 | 2 | 0 | - | 11 | - | 10 | - | K | 1 | 3 |
| E | SERIES: | | | | | | | | | | |
| 5 | FUNCTION: 5 = 5/2 6 = 5/3 Centres Closed 7 = 5/3 Centres Open 8 = 5/3 Centres in Pressure | | | | | | | | | | |
| 2 | SIZE: 2 = 10,5 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.



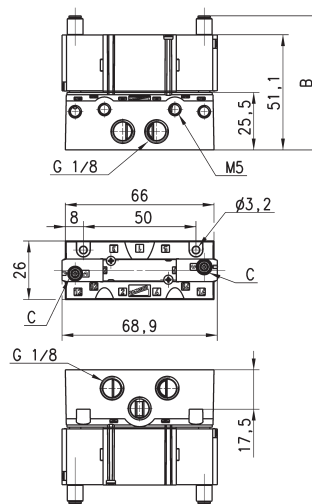
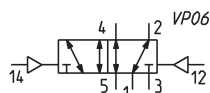
| DIMENSIONS | | | | | |
|------------|------|----|-------------------|----------------|--------------------|
| Mod. | B | C | min. pil P. (bar) | working P. bar | Flow rate (NL/min) |
| E520-36 | 59,5 | Ø3 | 2,5 | 2,5 ÷ 7 | 280 |
| E520-C36 | 65,2 | Ø4 | 2,5 | 2,5 ÷ 7 | 280 |

Pneumatically actuated valve, bistable - size 10,5

5/2-way



The single base is ordered separately from the valve.



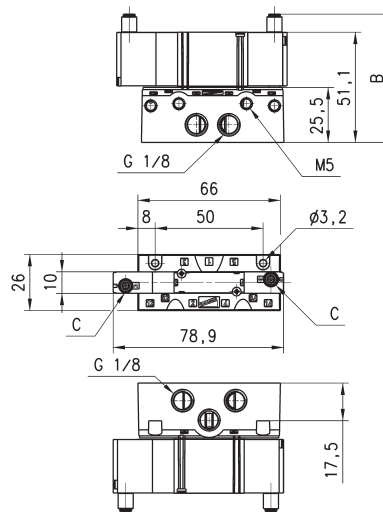
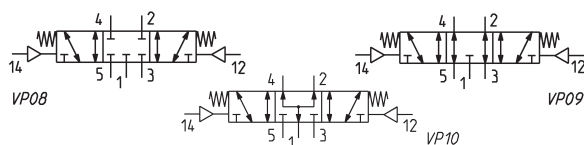
| DIMENSIONS | | | | | |
|------------|------|----|-------------------|------------------|--------------------|
| Mod. | B | C | min. pil P. (bar) | working P. (bar) | Flow rate (NL/min) |
| E520-33 | 59,5 | Ø3 | 1 | -0,9 ÷ 7 | 280 |
| E520-C33 | 65,2 | Ø4 | 1 | -0,9 ÷ 7 | 280 |

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 |

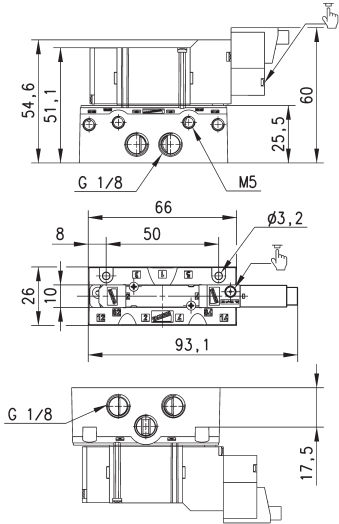
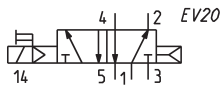
Electropneumatically actuated valve, monostable - size 10,5

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.



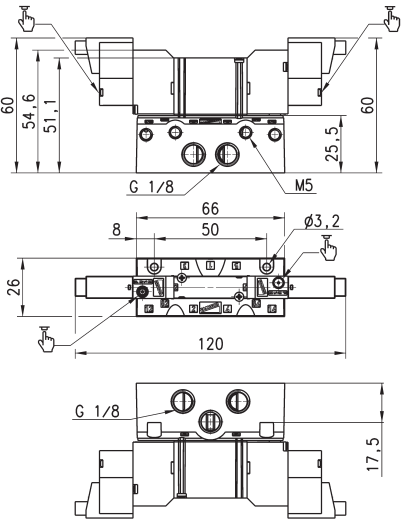
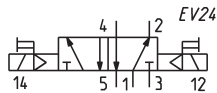
| DIMENSIONS | | |
|-----------------|------------------|-------------------|
| Mod. | working P. (bar) | Flow rate (l/min) |
| E520-16-10-K1.. | 2 ÷ 7 | 280 |

Electropneumatically actuated valve, bistable - size 10,5

5/2-way



The single base is ordered separately from the valve.



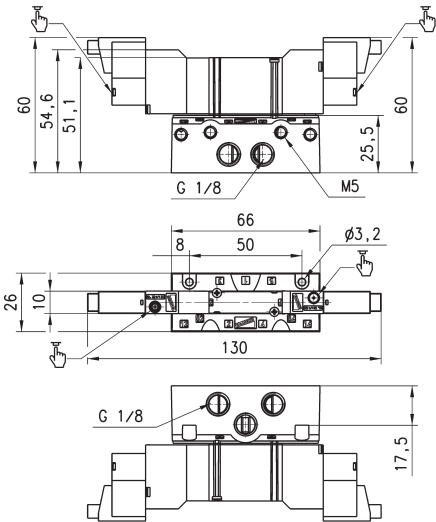
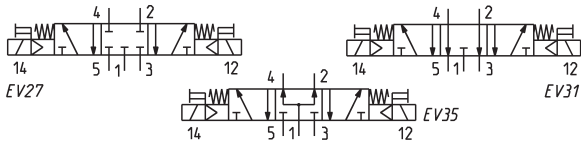
| Mod. | working P. bar | Flow rate l/min |
|-----------------|----------------|-----------------|
| E520-11-10-K1.. | 2 ÷ 7 | 280 |

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 NI/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

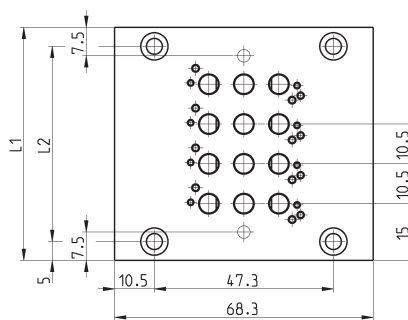
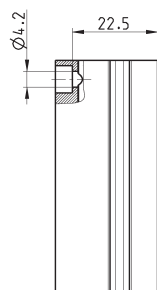
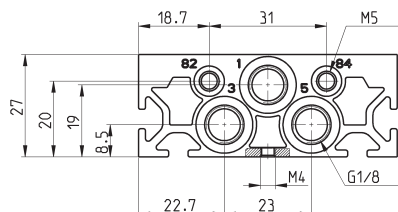
| | | | | | | |
|-----------|----------|----------|----------|----------|----------|-----------|
| E5 | 2 | 1 | - | 1 | 0 | 02 |
|-----------|----------|----------|----------|----------|----------|-----------|

| | |
|-----------|--|
| 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.



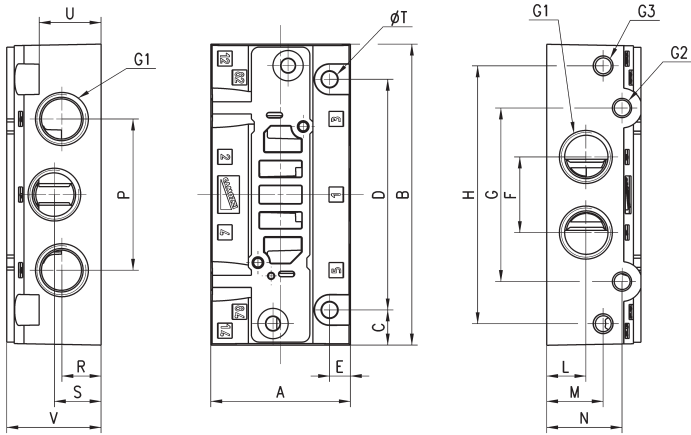
Note: the manifolds are supplied complete with the seals and the valves, fixing screws.

| 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



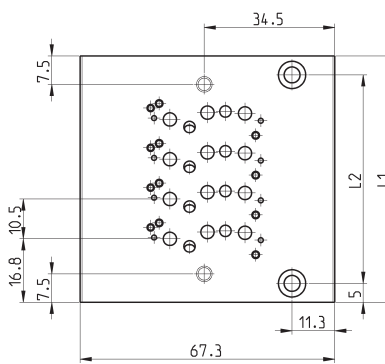
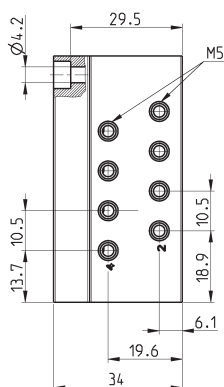
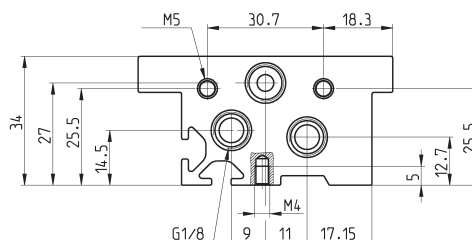
Note: The valve and its single sub-base are available on request.



| 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.

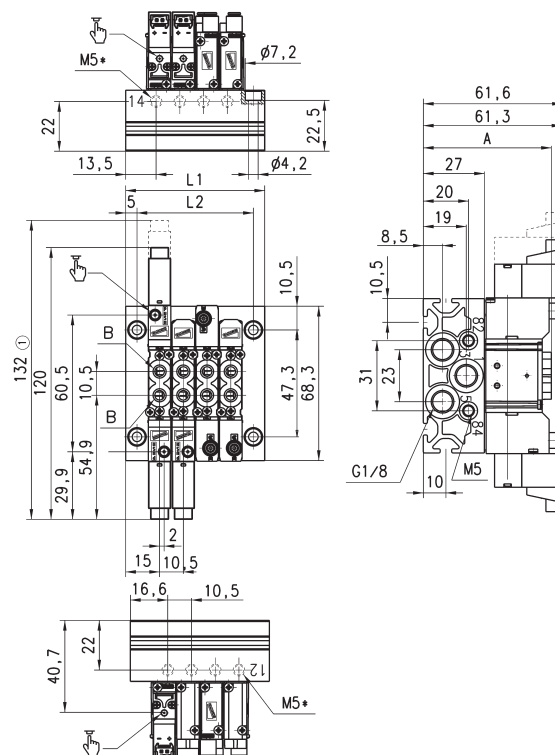
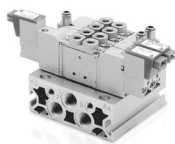


DIMENSIONS

| 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

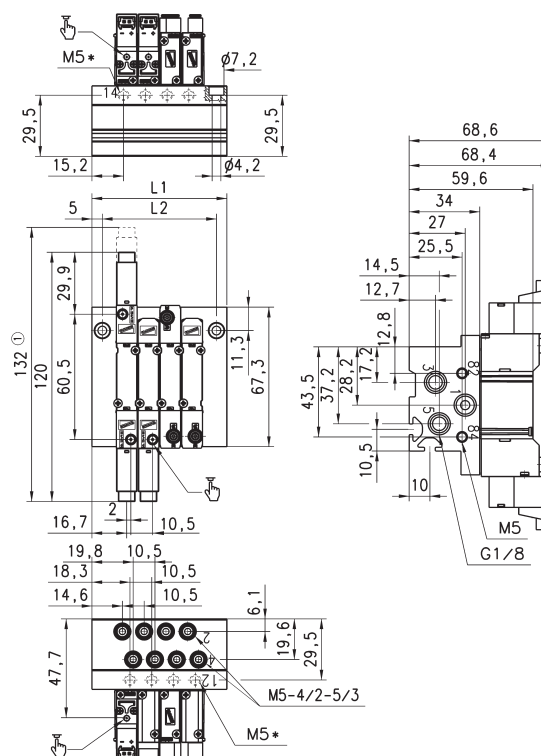
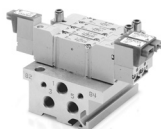


| DIMENSIONS | | | | | |
|------------|------|-----|-----------------------|------------------------|--------------------------|
| Mod. | A | B | L1 - L2 N° 1 Position | L1 - L2 N° 2 Positions | Fixed quote for position |
| E521 | 56,6 | M5 | 40,5 - 30,5 | 51 - 41 | 10,5 |
| E52C | 65,1 | 4/2 | 40,5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

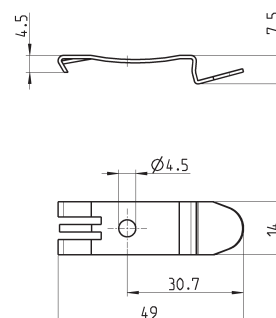
(1) Size referred to 5/3 valve M5* Separate pilot supply on request.

Mounting brackets for DIN rail



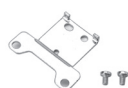
DIN EN 50022 (7,5mm x 35mm - width 1)
Suitable for all manifolds.

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

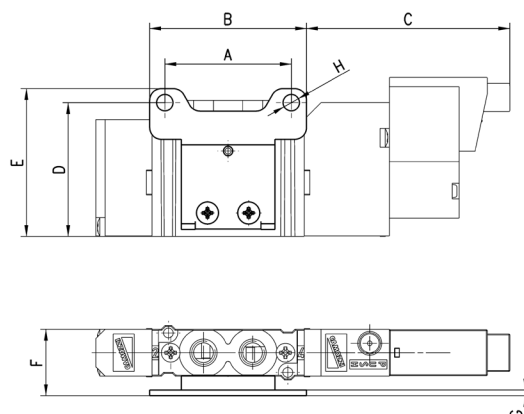


Mod.
PCF-E520

Horizontal mounting foot bracket for valves with outlets on the body



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

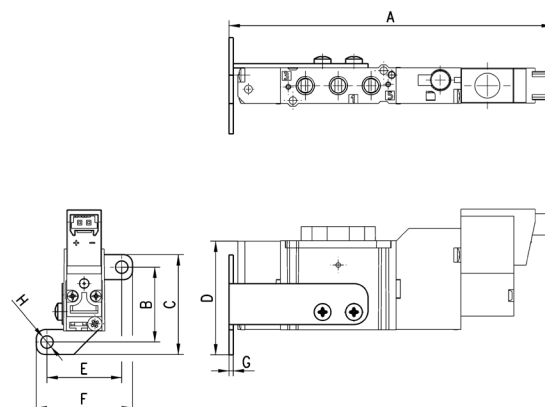


| DIMENSIONS | | | | | | | | | |
|----------------|------|----|------|------|------|------|------|-----|-----|
| Mod. | Size | A | B | C | D | E | F | G | H |
| B1-E521 | 10,5 | 27 | 33,5 | 43,4 | 28,5 | 31,5 | 14,2 | 1,2 | 3,5 |

Vertical mounting foot bracket for valves with outlets on the body



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

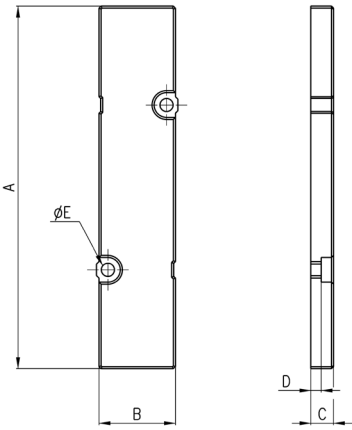


| DIMENSIONS | | | | | | | | | |
|----------------|------|------|----|----|------|----|----|-----|-----|
| Mod. | Size | A | B | C | D | E | F | G | H |
| B2-E521 | 10,5 | 90,8 | 21 | 28 | 31,9 | 21 | 27 | 1,2 | 3,5 |

Blanking plate for manifolds - valves with outlets on the body



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

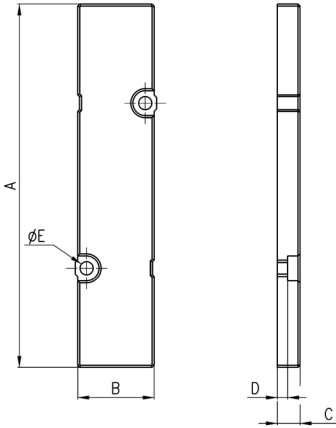


| DIMENSIONS | | | | | | |
|------------|------|----|----|---|-----|-----|
| Mod. | Size | A | B | C | D | ØE |
| TP-E521 | 10,5 | 66 | 10 | 6 | 3,5 | 2,1 |

Blanking plate for manifolds - base mounted valves



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

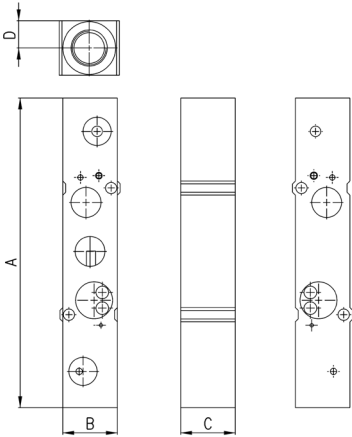


| DIMENSIONS | | | | | | |
|------------|------|----|----|---|-----|-----|
| Mod. | Size | A | B | C | D | ØE |
| TP-E520 | 10,5 | 66 | 10 | 6 | 3,5 | 2,1 |

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.

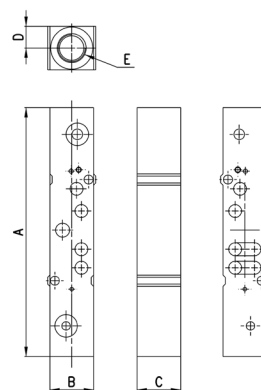


| DIMENSIONS | | | | | | |
|------------|------|------|----|----|---|----|
| Mod. | Size | A | B | C | D | E |
| PCP-E521 | 10,5 | 72,5 | 10 | 10 | 5 | M5 |

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.

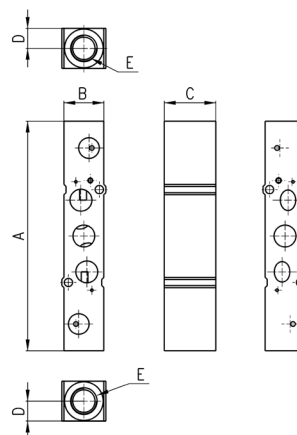


| DIMENSIONS | | | | | | |
|------------|------|------|----|----|---|----|
| Mod. | Size | A | B | C | D | E |
| PCP-E520 | 10,5 | 72,5 | 10 | 10 | 5 | M5 |

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.

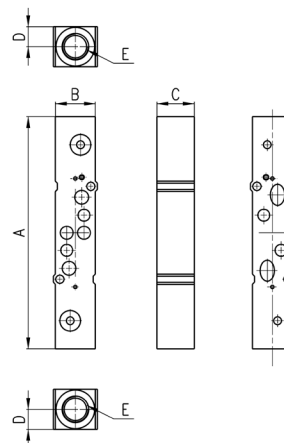


| DIMENSIONS | | | | | | |
|------------|------|----|----|----|---|----|
| Mod. | Size | A | B | C | D | E |
| PCS-E521 | 10,5 | 76 | 10 | 10 | 5 | M5 |

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.



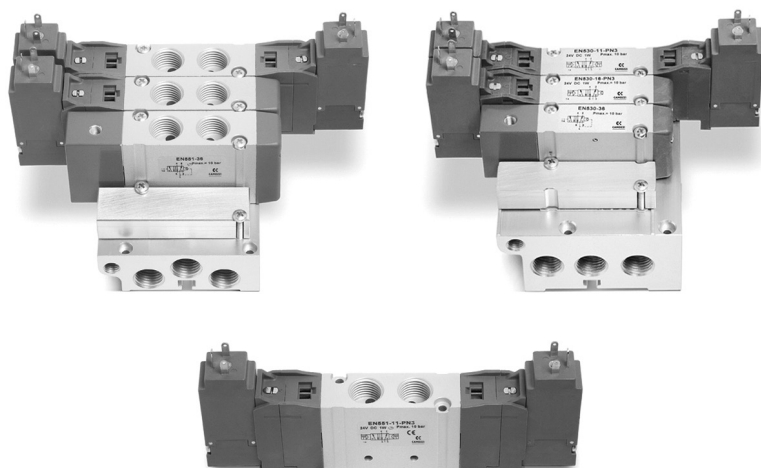
| DIMENSIONS | | | | | | |
|------------|------|----|----|----|---|----|
| Mod. | Size | A | B | C | D | E |
| PCS-E520 | 10,5 | 76 | 10 | 10 | 5 | M5 |

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 = technopolymer 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

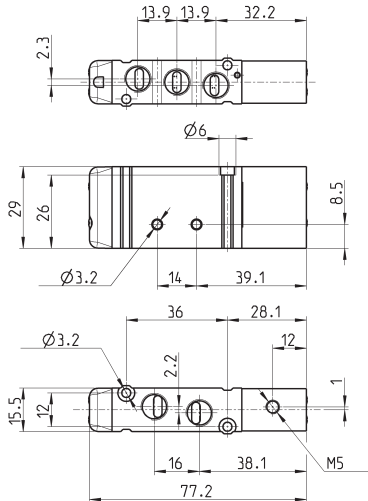
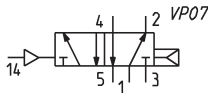
| | | | | | | | |
|------------|--|----------|----------|----------|-----------|----------|------------|
| EN | 5 | 3 | 1 | - | 11 | - | PN3 |
| EN | SERIES | | | | | | |
| 5 | FUNCTION: 5 = 5/2 6 = 5/3 Centre Closed 7 = 5/3 Centre Open 8 = 5/3 Pressure Centre | | | | | | |
| 3 | SIZE: 3 = size 16 5 = 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 PN4 = 48V DC - 2W PN6 = 110V DC - 2W PN7 = 230V - 2W P53 = 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 pag. 2/2.07.39) | | | | | | |

Pneumatically actuated valve, monostable - size 16

5/2-way



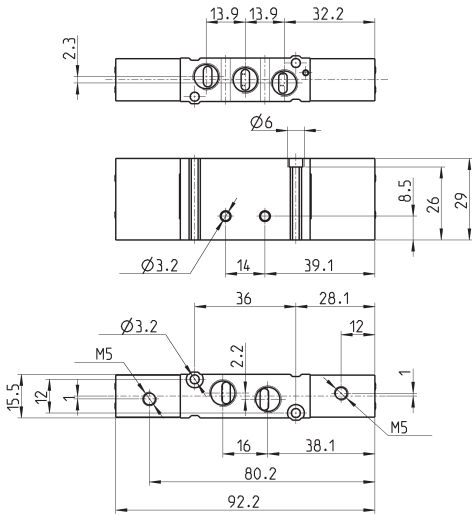
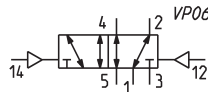
Note: the pilot pressure should never be lower than the operating pressure.



| 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

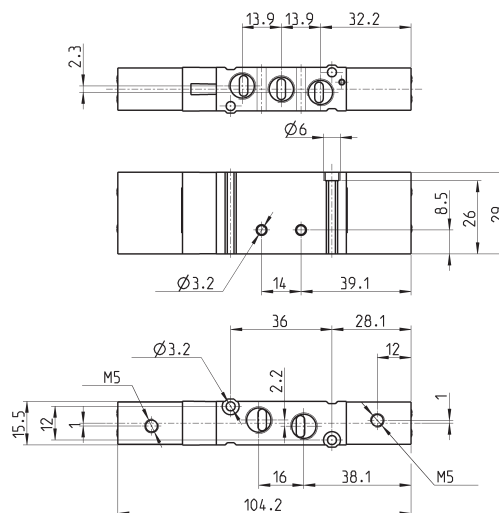
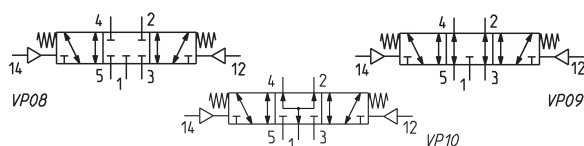


| Mod. | Ports | Pilot supply | Pilot supply pressure (bar) | Operating pressure (bar) | Flow (NL/min) |
|----------|-------|--------------|-----------------------------|--------------------------|---------------|
| EN531-33 | G1/8 | M5 | 2 ÷ 10 | -0.9 ÷ 10 | 550 |

Pneumatically actuated valve - size 16



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



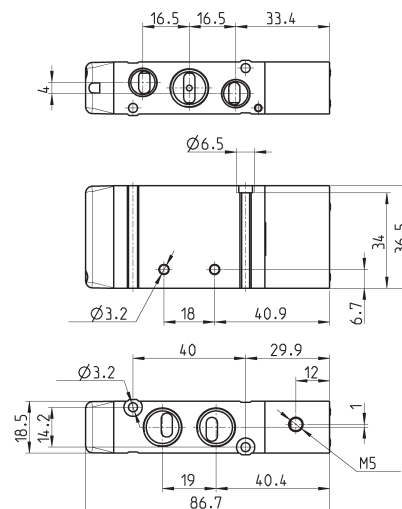
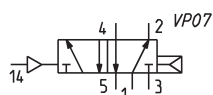
| Mod. | Ports | Pilot supply | Pilot supply pressure (bar) | Operating pressure (bar) | Flow (NL/min) | Symbol |
|----------|-------|--------------|-----------------------------|--------------------------|---------------|--------|
| EN631-33 | G1/8 | M5 | 3 ÷ 10 | -0.9 ÷ 10 | 550 | VP08 |
| EN731-33 | 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

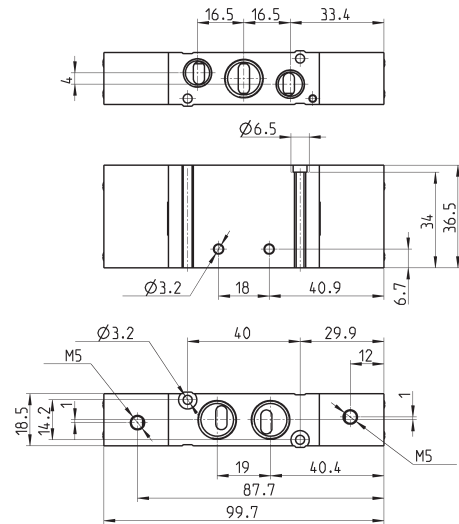
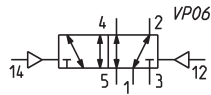
Note: the pilot pressure should never be lower than the operating pressure.



| 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

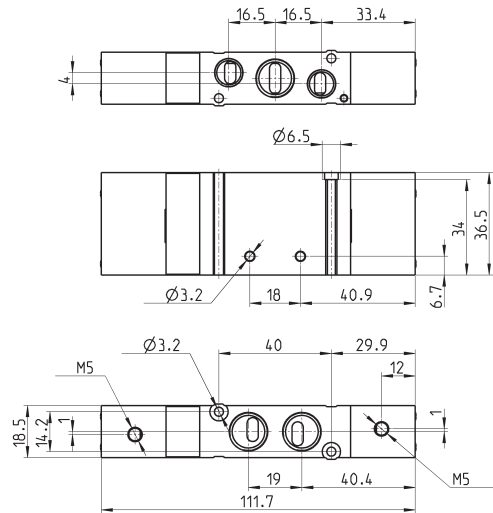
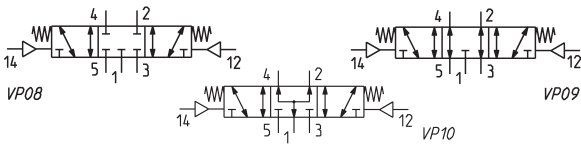
5/2-way



| 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



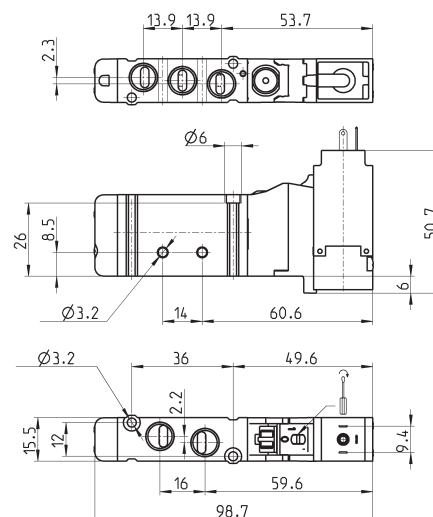
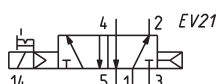
| Mod. | Ports 1-2-4 | Ports 3-5 | Pilot supply | Pilot supply pressure (bar) | Operating pressure (bar) | Flow (NL/min) | Symbol |
|----------|-------------|-----------|--------------|-----------------------------|--------------------------|---------------|--------|
| EN651-33 | G1/4 | G1/8 | M5 | 3 ÷ 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



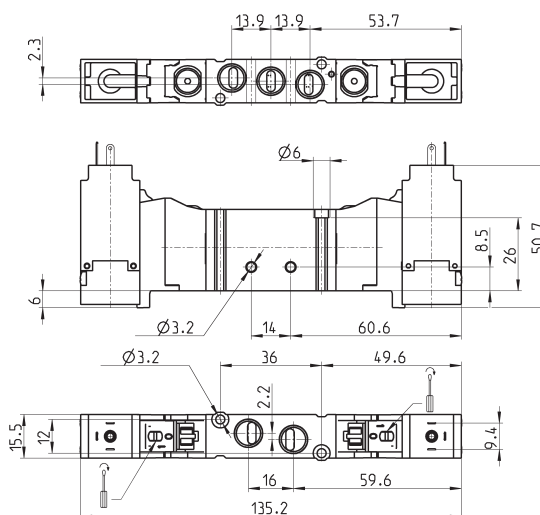
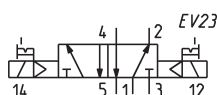
| Mod. | Ports | Operating pressure (bar) | Flow (l/min) |
|---------------|-------|--------------------------|--------------|
| EN531-16-PN.. | G1/8 | 2,5 ÷ 10 | 550 |

Electro-pneumatically actuated valve, bistable - size 16

5/2-way



Connectors at the end of this section



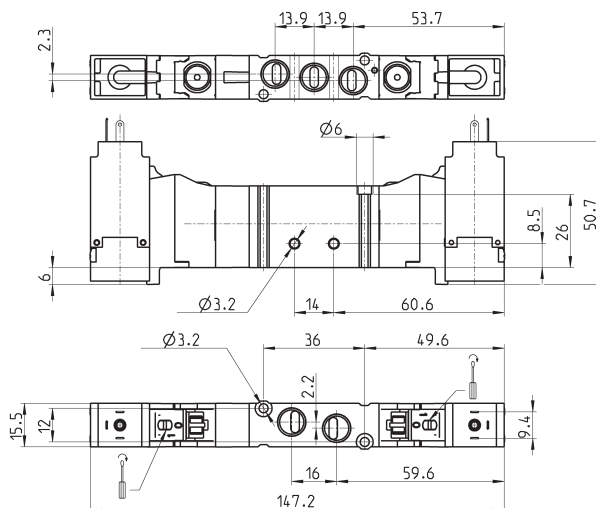
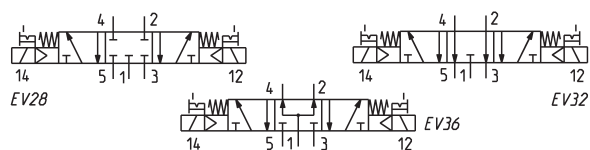
| Mod. | Ports | Operating pressure (bar) | Flow (l/min) |
|---------------|-------|--------------------------|--------------|
| EN531-11-PN.. | G1/8 | 2 ÷ 10 | 550 |

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



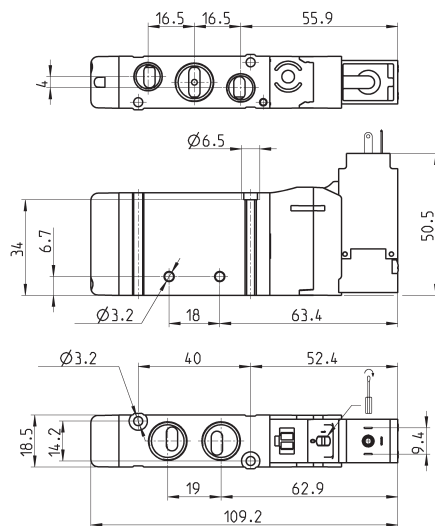
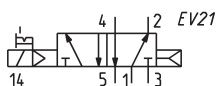
| Mod. | Ports | Operating pressure (bar) | Flow (NL/min) | Symbol |
|---------------|-------|--------------------------|---------------|--------|
| EN631-11-PN.. | G1/8 | 3 ÷ 10 | 550 | EV28 |
| EN731-11-PN.. | G1/8 | 3 ÷ 10 | 550 | EV32 |
| EN831-11-PN.. | G1/8 | 3 ÷ 10 | 550 | EV36 |

Electro-pneumatically actuated valve, monostable - size 19

5/2-way



Connectors at the end of this section



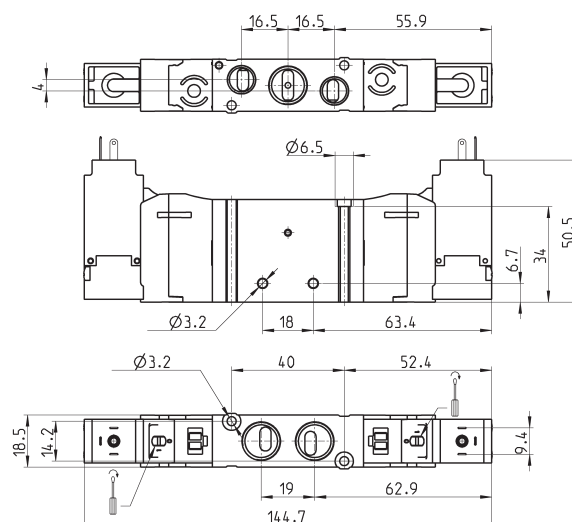
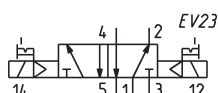
| Mod. | Ports 1-2-4 | Ports 3-5 | Operating pressure (bar) | Flow (NL/min) |
|---------------|-------------|-----------|--------------------------|---------------|
| EN551-16-PN.. | G1/4 | G1/8 | 2,5 ÷ 10 | 920 |

Electro-pneumatically actuated valve, bistable - size 19

5/2-way



Connectors at the end of this section



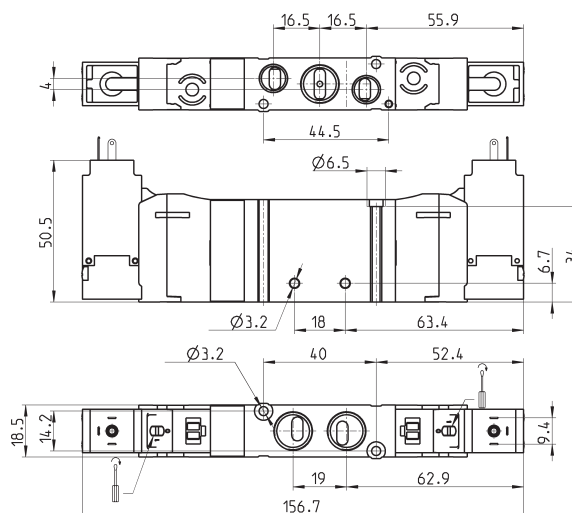
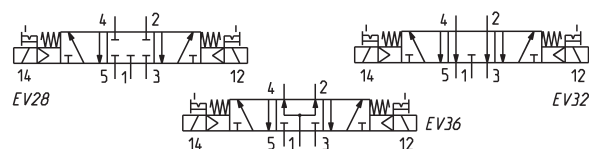
| Mod. | Ports 1-2-4 | Ports 3-5 | Operating pressure (bar) | Flow (NL/min) |
|---------------|-------------|-----------|--------------------------|---------------|
| EN551-11-PN.. | G1/4 | G1/8 | 2 ÷ 10 | 920 |

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



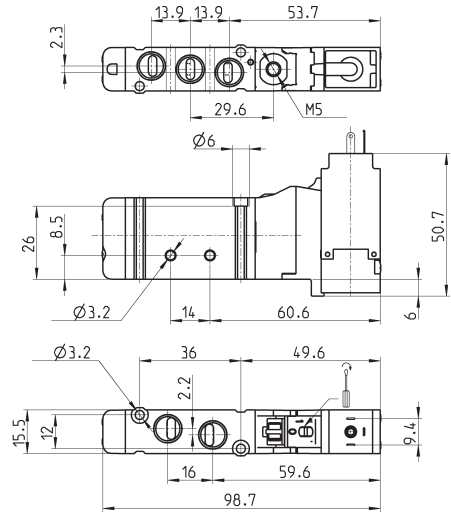
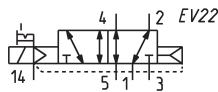
| Mod. | Ports 1-2-4 | Ports 3-5 | Operating pressure (bar) | Flow (NL/min) | Symbol |
|---------------|-------------|-----------|--------------------------|---------------|--------|
| EN651-11-PN.. | G1/4 | G1/8 | 3 ÷ 10 | 920 | EV28 |
| EN751-11-PN.. | G1/4 | G1/8 | 3 ÷ 10 | 920 | EV32 |
| EN851-11-PN..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



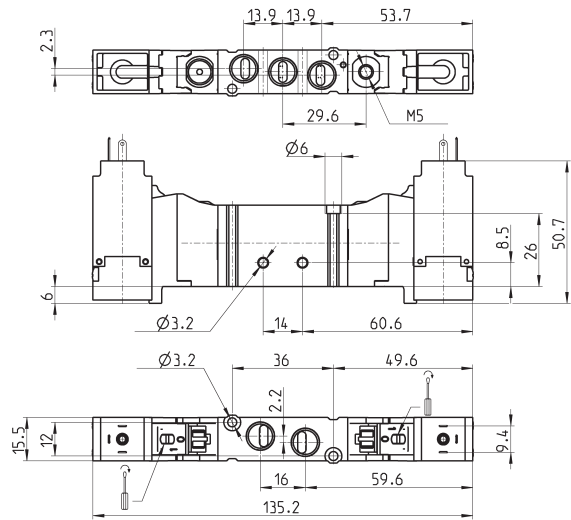
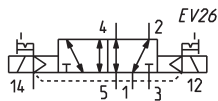
| Mod. | Ports | Pilot supply | Pilot supply pressure (bar) | Operating pressure (bar) | Flow (NI/min) |
|----------------|-------|--------------|-----------------------------|--------------------------|---------------|
| EN531-E16-PN.. | G1/8 | M5 | 2,5 ÷ 10 | - 0,9 ÷ 10 | 550 |

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

5/2-way



Connectors at the end of this section



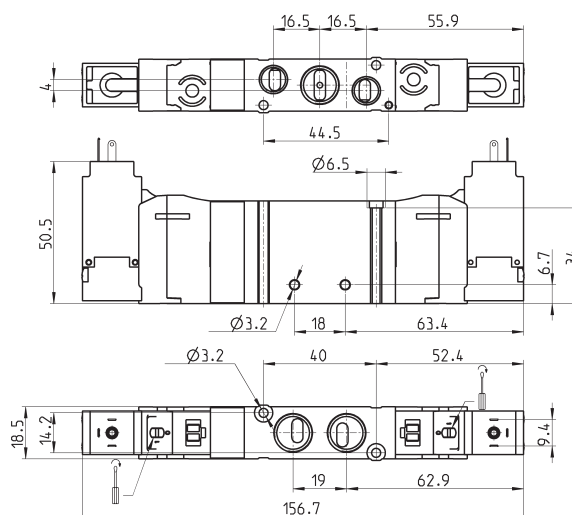
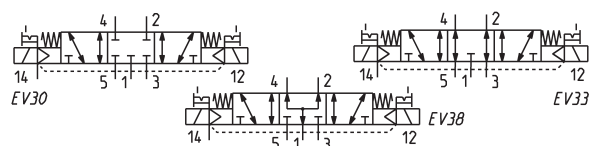
| Mod. | Ports | Pilot supply | Pilot supply pressure (bar) | Operating pressure (bar) | Flow (NI/min) |
|----------------|-------|--------------|-----------------------------|--------------------------|---------------|
| EN531-E11-PN.. | G1/8 | M5 | 2 ÷ 10 | - 0,9 ÷ 10 | 550 |

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



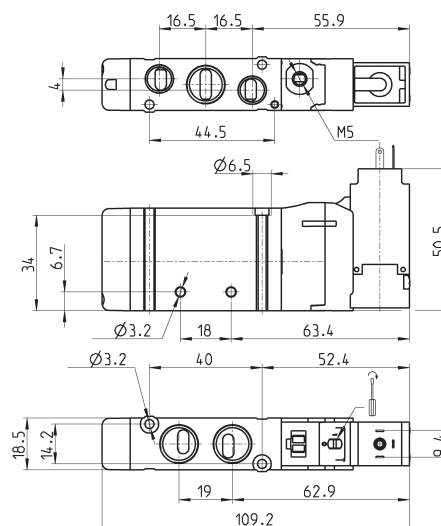
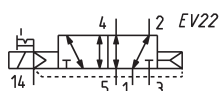
| Mod. | Ports | Pilot supply | Pilot supply pressure (bar) | Operating pressure (bar) | Flow (NL/min) | Symbol |
|----------------|-------|--------------|-----------------------------|--------------------------|---------------|--------|
| EN631-E11-PN.. | G1/8 | M5 | 3 ÷ 10 | -0,9 ÷ 10 | 550 | EV30 |
| 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



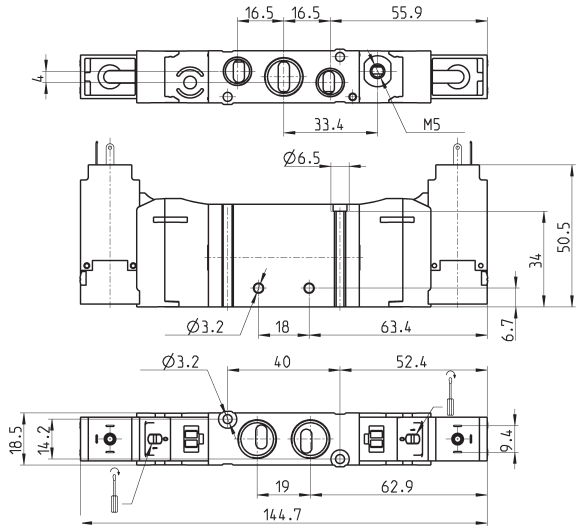
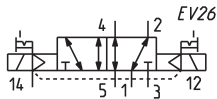
| Mod. | Ports 1-2-4 | Ports 3-5 | Pilot supply | Pilot supply pressure (bar) | Operating pressure (bar) | Flow (NL/min) |
|----------------|-------------|-----------|--------------|-----------------------------|--------------------------|---------------|
| EN551-E16-PN.. | G1/4 | G1/8 | M5 | 2,5 ÷ 10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

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

5/2-way



Connectors at the end of this section



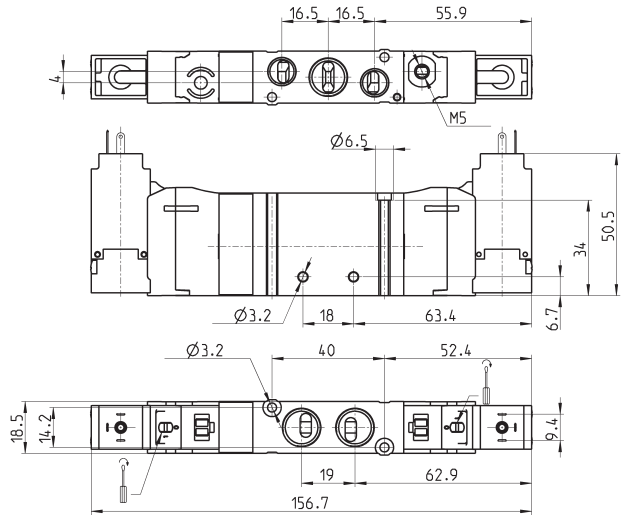
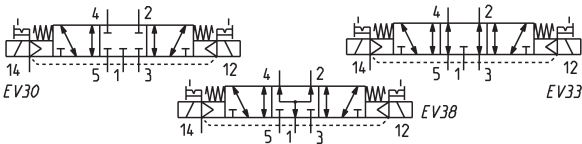
| Mod. | Ports 1-2-4 | Ports 3-5 | Pilot supply | Pilot supply pressure (bar) | Operating pressure (bar) | Flow (NL/min) |
|----------------|-------------|-----------|--------------|-----------------------------|--------------------------|---------------|
| EN551-E11-PN.. | G1/4 | G1/8 | M5 | 2 ÷ 10 | -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



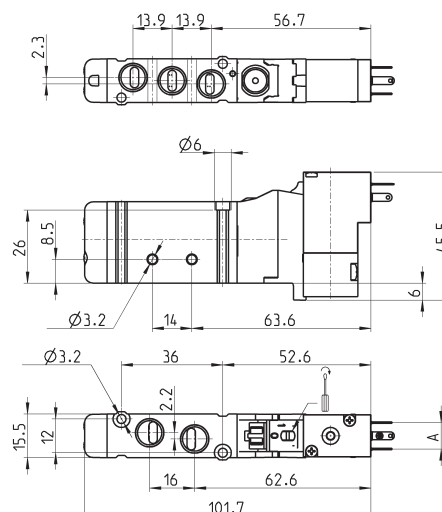
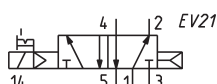
| Mod. | Ports 1-2-4 | Ports 3-5 | Pilot supply | Pilot supply pressure (bar) | Operating pressure (bar) | Flow (NL/min) | Symbol |
|----------------|-------------|-----------|--------------|-----------------------------|--------------------------|---------------|--------|
| EN651-E11-PN.. | G1/4 | G1/8 | 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



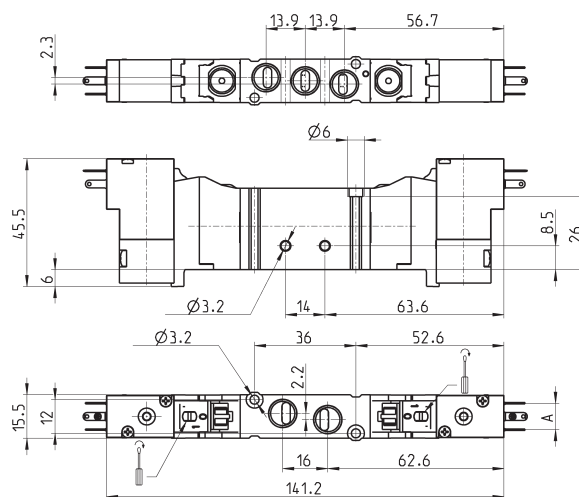
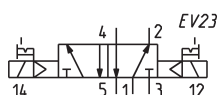
| Mod. | Ports | A | Operating pressure (bar) | Flow (NL/min) |
|--------------|-------|-----|--------------------------|---------------|
| EN531-16-P13 | G1/8 | 9,4 | 2,5 ÷ 10 | 550 |
| EN531-16-P54 | G1/8 | 9,4 | 2,5 ÷ 10 | 550 |
| EN531-16-P56 | G1/8 | 9,4 | 2,5 ÷ 10 | 550 |
| EN531-16-W53 | G1/8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



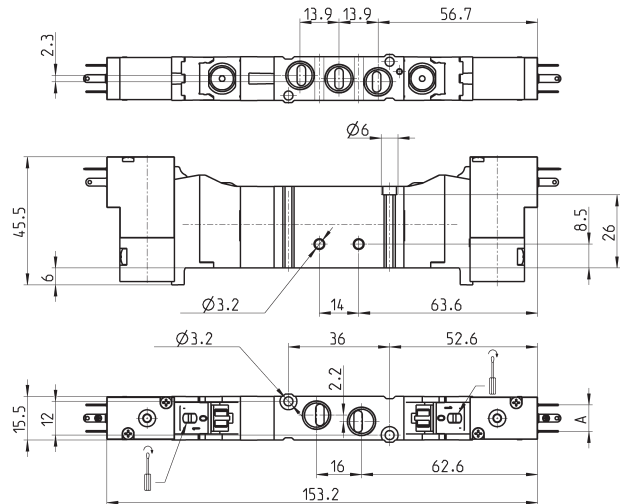
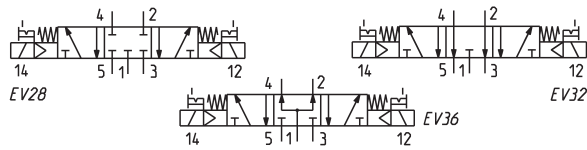
| Mod. | Ports | A | Operating pressure (bar) | Flow (NL/min) |
|--------------|-------|-----|--------------------------|---------------|
| EN531-11-P13 | G1/8 | 9,4 | 2 ÷ 10 | 550 |
| EN531-11-P54 | G1/8 | 9,4 | 2 ÷ 10 | 550 |
| EN531-11-P56 | G1/8 | 9,4 | 2 ÷ 10 | 550 |
| EN531-11-W53 | G1/8 | 8 |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



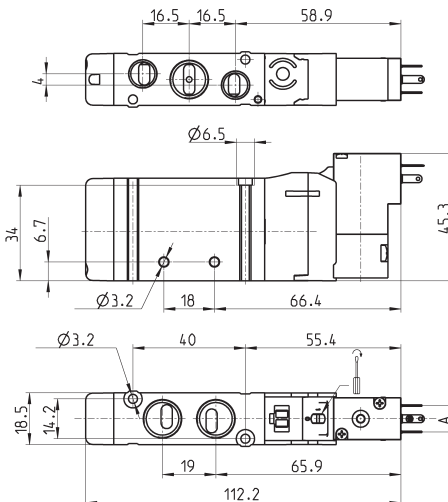
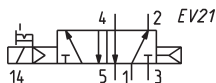
| Mod. | Ports | A | Operating pressure (bar) | Flow (NL/min) | Symbol |
|--------------|-------|-----|--------------------------|---------------|--------|
| EN631-11-P.. | G1/8 | 9,4 | 3 ÷ 10 | 550 | EV28 |
| EN731-11-P.. | G1/8 | 9,4 | 3 ÷ 10 | 550 | EV32 |
| EN831-11-P.. | G1/8 | 9,4 | 3 ÷ 10 | 550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



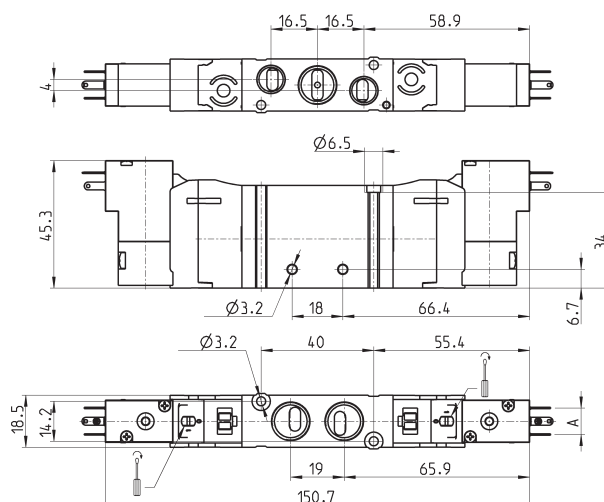
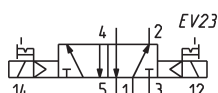
| Mod. | Ports 1-2-4 | Ports 3-5 | A | Operating pressure (bar) | Flow (NL/min) |
|--------------|-------------|-----------|-----|--------------------------|---------------|
| EN551-16-P13 | G1/4 | G1/8 | 9,4 | 2,5 ÷ 10 | 920 |
| EN551-16-P54 | G1/4 | G1/8 | 9,4 | 2,5 ÷ 10 | 920 |
| EN551-16-P56 | G1/4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

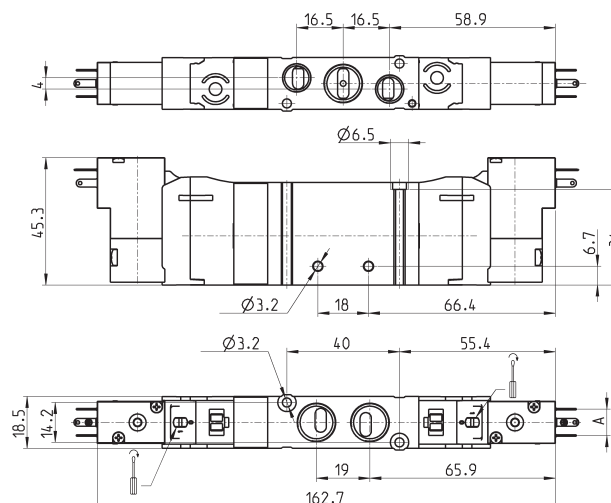
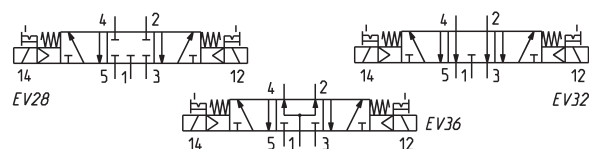
CC = Centres Closed

CO = Centres Open

CP = Pressure Centres



Connectors at the end of this section



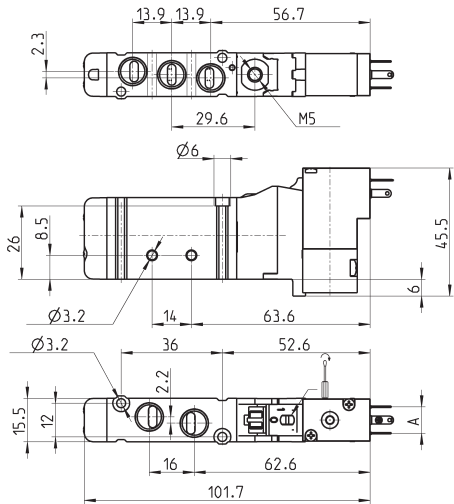
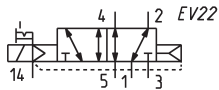
| Mod. | Ports 1-2-4 | Ports 3-5 | A | Operating pressure (bar) | Flow (NL/min) | Symbol |
|--------------|-------------|-----------|-----|--------------------------|---------------|--------|
| EN651-11-P.. | G1/4 | G1/8 | 9,4 | 3 ÷ 10 | 920 | EV28 |
| EN751-11-P.. | G1/4 | G1/8 | 9,4 | 3 ÷ 10 | 920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



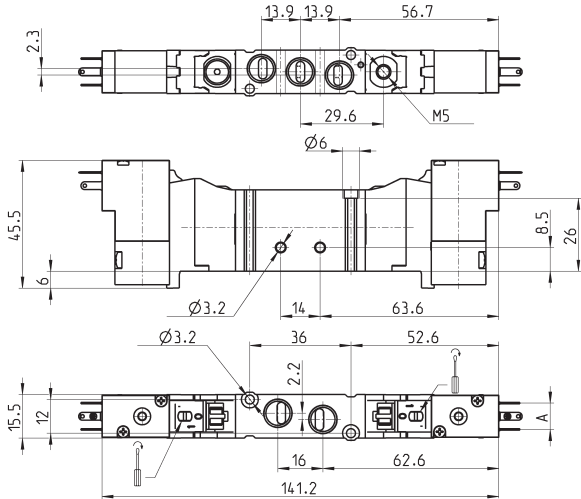
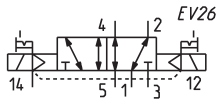
| Mod. | Ports | A | Pilot supply | Pilot supply pressure (bar) | Operating pressure (bar) | Flow (NL/min) |
|--------------|-------|-----|--------------|-----------------------------|--------------------------|---------------|
| EN531-E16-P. | G1/8 | 9,4 | M5 | 2,5 ÷ 10 | -0,9 ÷ 10 | 550 |
| EN531-E16-W.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



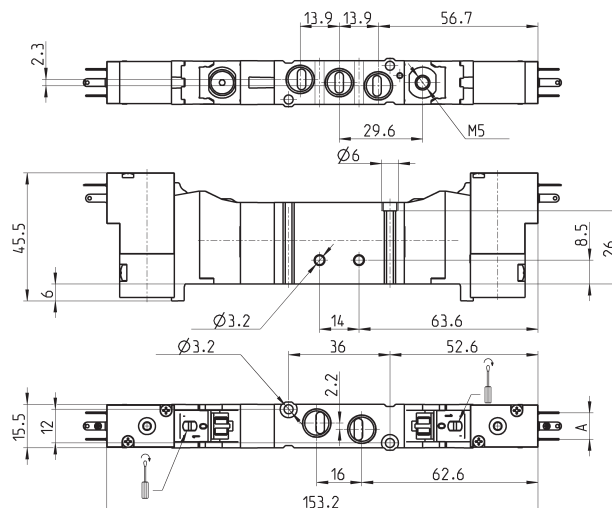
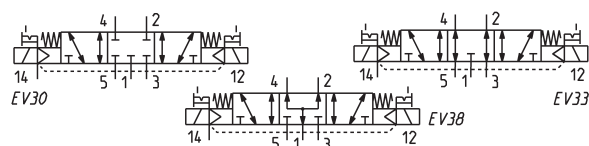
| Mod. | Ports | A | Pilot supply | Pilot supply pressure (bar) | Operating pressure (bar) | Flow (NL/min) |
|--------------|-------|-----|--------------|-----------------------------|--------------------------|---------------|
| EN531-E11-P. | G1/8 | 9,4 | M5 | 2 ÷ 10 | -0,9 ÷ 10 | 550 |
| EN531-E11-W.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



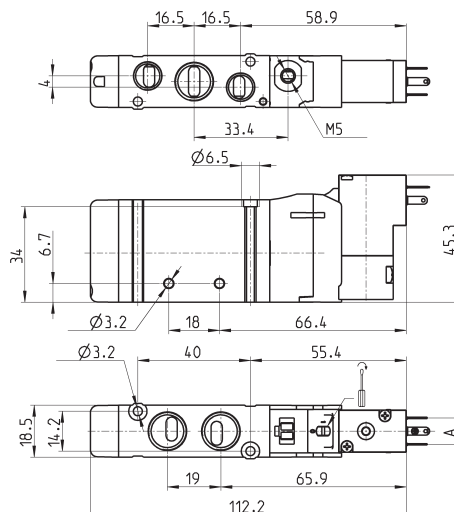
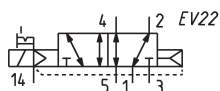
| Mod. | Ports | A | Pilot supply | Pilot supply pressure (bar) | Operating pressure (bar) | Flow (NL/min) | Symbol |
|---------------|-------|-----|--------------|-----------------------------|--------------------------|---------------|--------|
| EN631-E11-P.. | G1/8 | 9,4 | M5 | 3 ÷ 10 | -0,9 ÷ 10 | 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



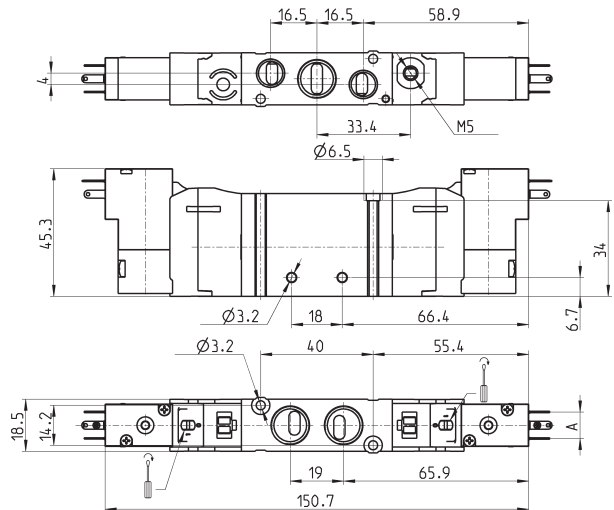
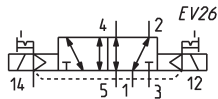
| Mod. | Ports 1-2-4 | Ports 3-5 | A | Pilot supply | Pilot supply pressure (bar) | Operating pressure (bar) | Flow (NL/min) |
|---------------|-------------|-----------|-----|--------------|-----------------------------|--------------------------|---------------|
| EN551-E16-P.. | G1/4 | G1/8 | 9,4 | 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

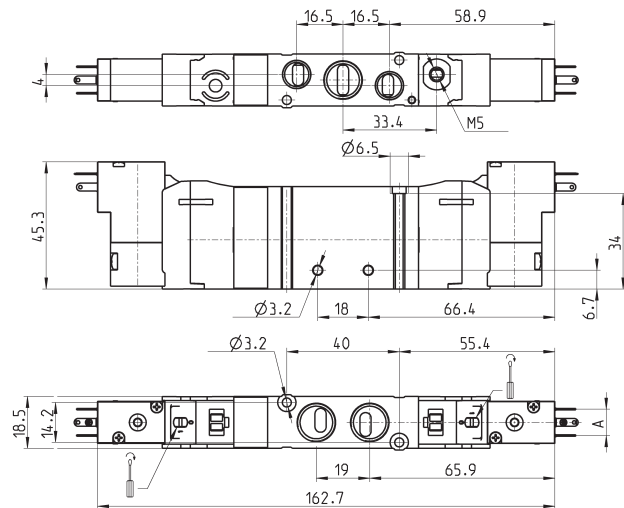
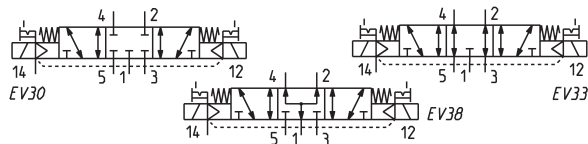
CC = Centres Closed

CO = Centres Open

CP = Pressure Centres

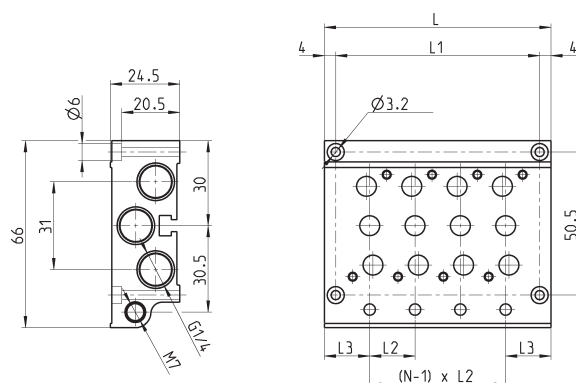


Connectors at the end of this section



| 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 |

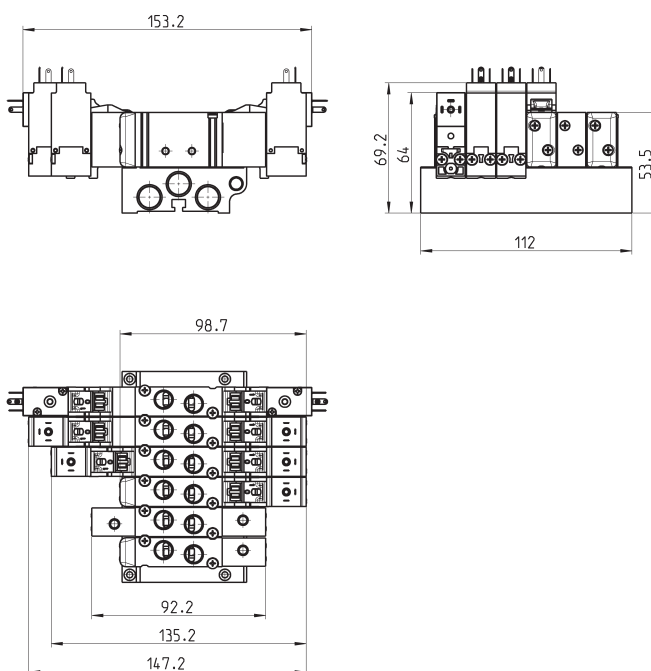
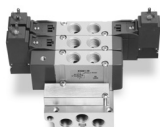
Manifold for valves size 16 and 19 (outlets on the body valve)



| 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 |

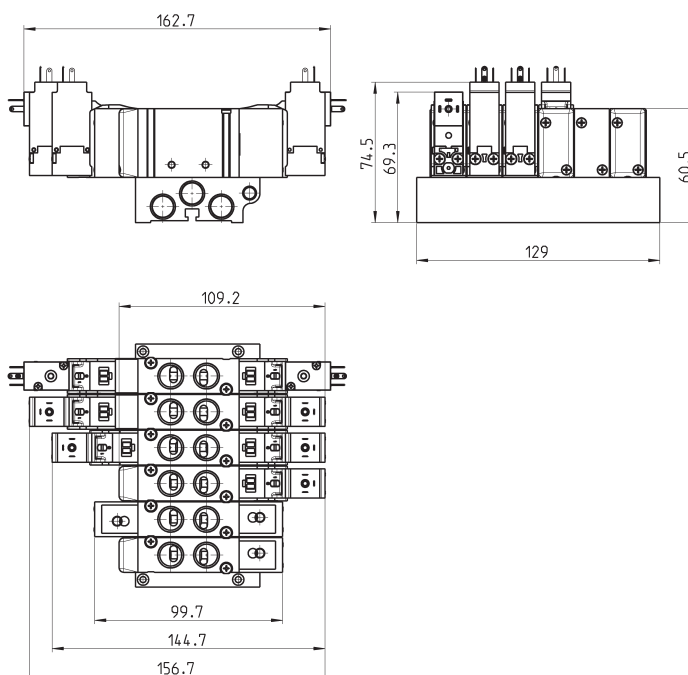
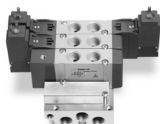
Manifolds complete with valves with outlets on the body - size 16

ports G1/8



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

ports G1/4

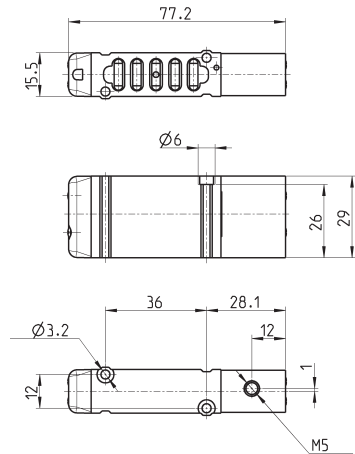
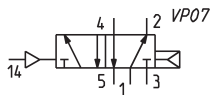


CODING EXAMPLE

| | | | | | | | |
|------------|--|----------|----------|----------|-----------|----------|------------|
| 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

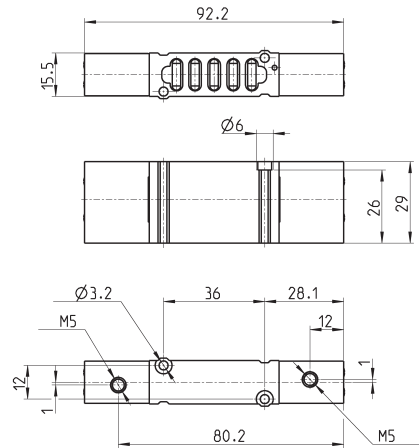
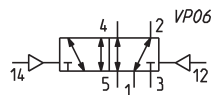
5/2-way



| 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

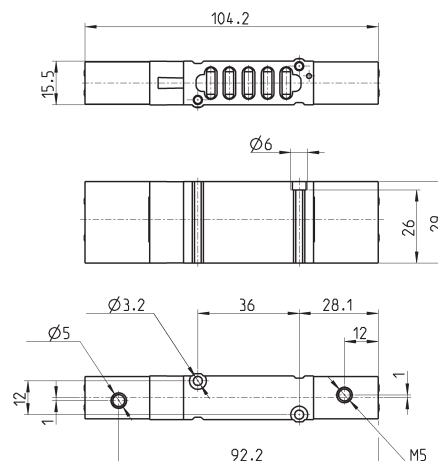
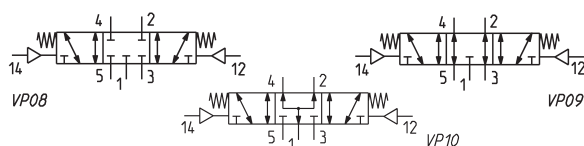
5/2-way



| 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

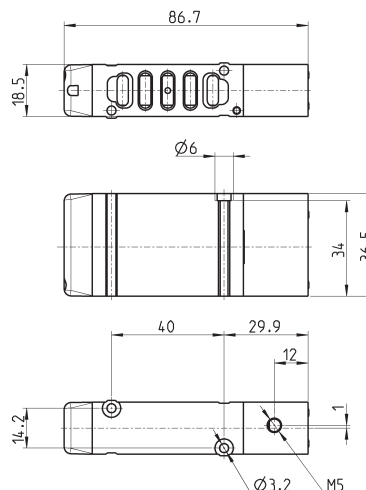
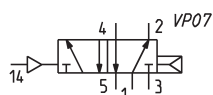
5/3-way
CC = Centres Closed
CO = Centres Open
CP = Centres in Pressure



| 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

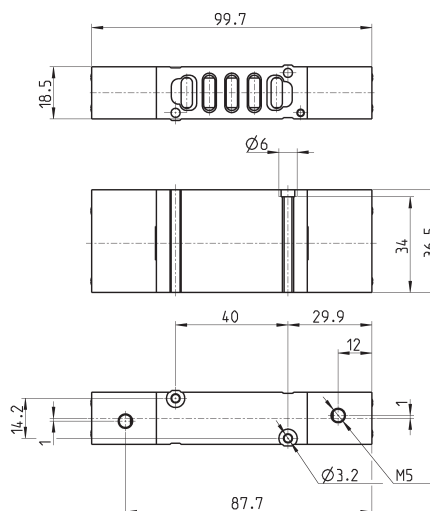
5/2-way



| 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 |

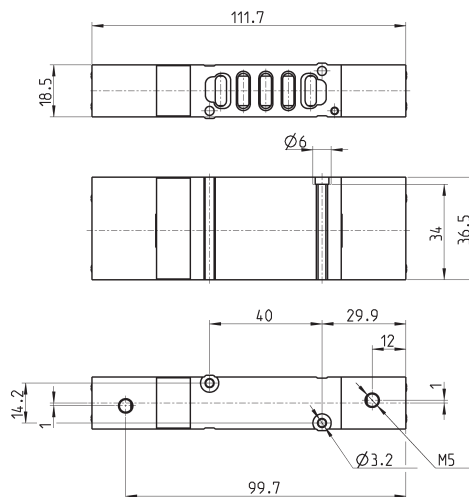
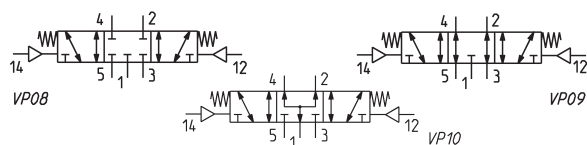
Pneumatically actuated valve with outlets on sub-base - size 19

5/3-way

CC = Centres Closed

CO = Centres Open

CP = Centres in Pressure



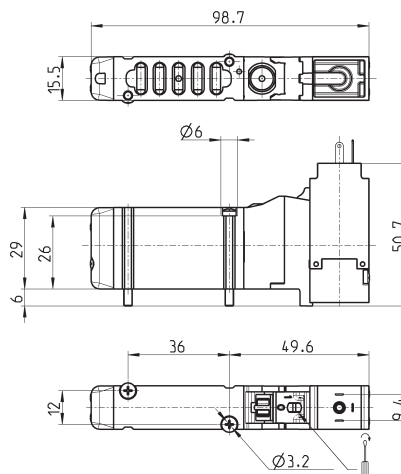
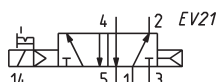
| Mod. | Pilot supply | min. pilot pressure (bar) | working P. bar | Flow rate NL/min | Symbol |
|----------|--------------|---------------------------|----------------|------------------|--------|
| EN650-33 | M5 | 3 | -0,9 ÷ 10 | 1000 | VP08 |
| EN750-33 | M5 | 3 | -0,9 ÷ 10 | 1000 | VP09 |
| EN850-33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



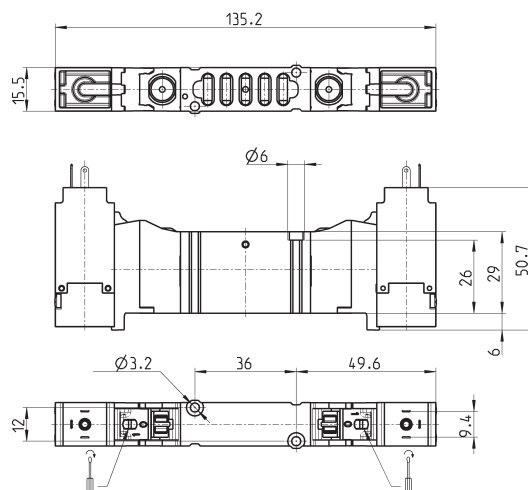
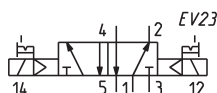
| Mod. | Working pressure (bar) | Flow rate (NL/min) |
|---------------|------------------------|--------------------|
| EN530-16-PN.. | 2,5 ÷ 10 | 610 |

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

5/2-way



Connectors at the end of this section



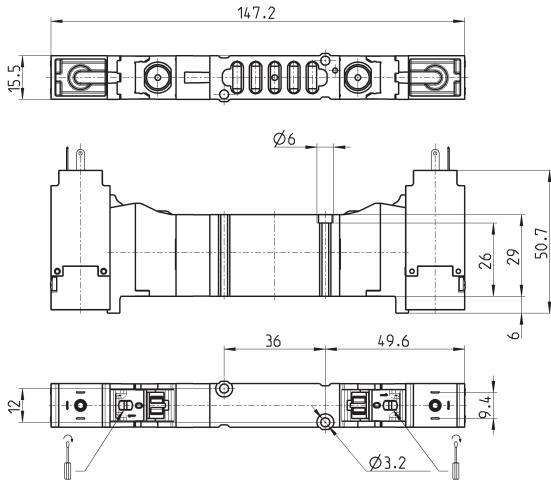
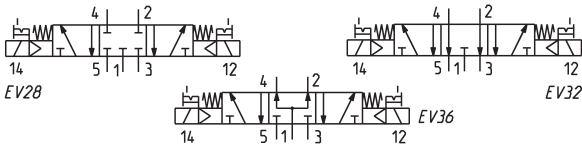
| Mod. | Working pressure (bar) | Flow rate (NL/min) |
|---------------|------------------------|--------------------|
| EN530-11-PN.. | 2 ÷ 10 | 610 |

Electropneumtical 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



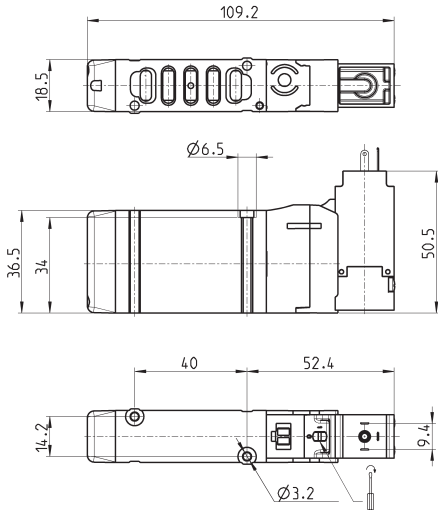
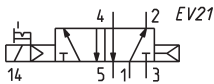
| Mod. | Working pressure (bar) | Flow rate (NL/min) | Symbol |
|---------------|------------------------|--------------------|--------|
| EN630-11-PN.. | 3 ÷ 10 | 610 | EV28 |
| EN730-11-PN.. | 3 ÷ 10 | 610 | EV32 |
| EN830-11-PN.. | 3 ÷ 10 | 610 | EV36 |

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

5/2-way



Connectors at the end of this section



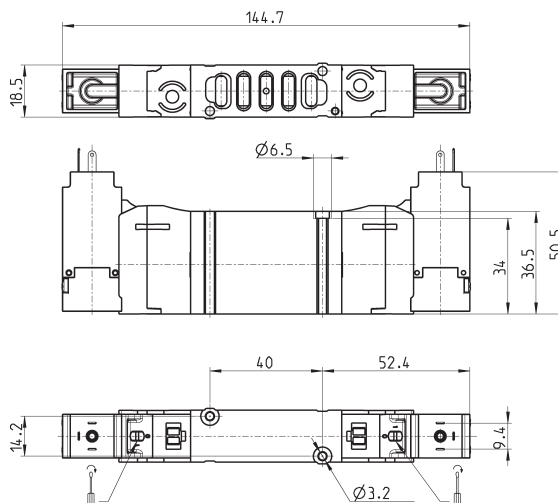
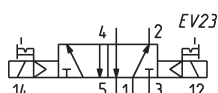
| Mod. | Working pressure (bar) | Flow rate (NL/min) |
|---------------|------------------------|--------------------|
| EN550-16-PN.. | 2,5 ÷ 10 | 1000 |

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

5/2-way



Connectors at the end of this section



| Mod. | Working pressure (bar) | Flow rate (NL/min) |
|---------------|------------------------|--------------------|
| EN550-11-PN.. | 2 ÷ 10 | 1000 |

Electropneumatic valve with outlets on sub-base - size 19

5/3-way

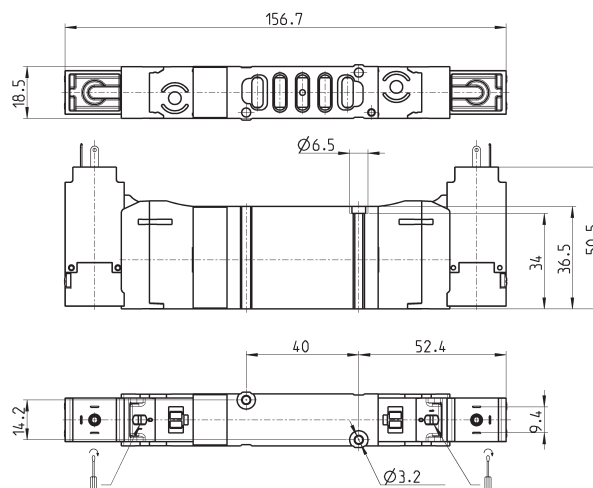
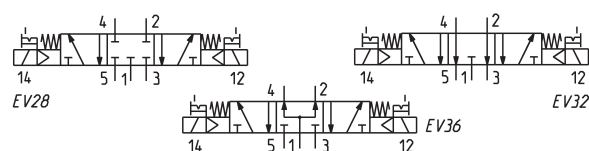
CC = Centres Closed

CO = Centres Open

CP = Centres in Pressure



Connectors at the end of this section



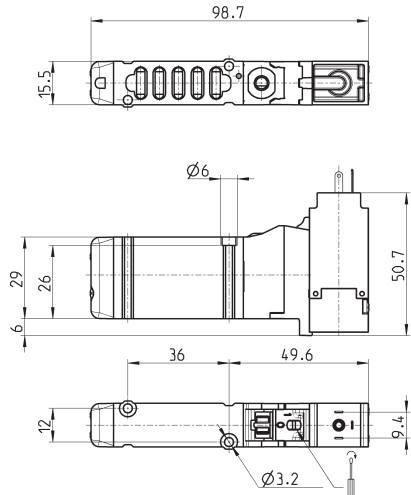
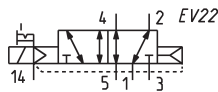
| Mod. | Working pressure (bar) | Flow rate (NL/min) | Symbol |
|---------------|------------------------|--------------------|--------|
| EN650-11-PN.. | 3 ÷ 10 | 1000 | EV28 |
| EN750-11-PN.. | 3 ÷ 10 | 1000 | EV32 |
| EN850-11-PN.. | 3 ÷ 10 | 1000 | EV36 |

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

5/2-way



Connectors at the end of this section



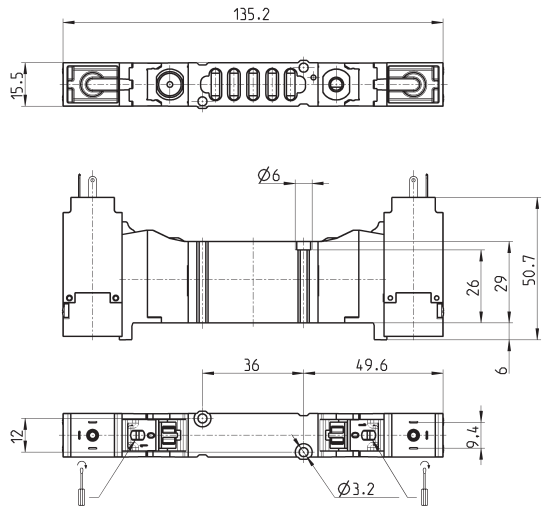
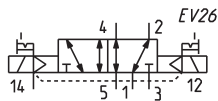
| Mod. | Pilot supply pressure (bar) | Operating pressure (bar) | Flow (NI/min) |
|----------------|-----------------------------|--------------------------|---------------|
| EN530-E16-PN.. | 2,5 ÷ 10 | - 0,9 ÷ 10 | 610 |

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

5/2-way



Connectors at the end of this section

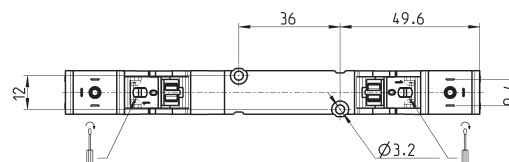
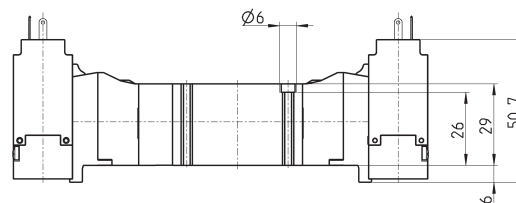
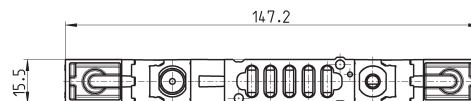


| Mod. | Pilot supply pressure (bar) | Operating pressure (bar) | Flow (NI/min) |
|----------------|-----------------------------|--------------------------|---------------|
| EN530-E11-PN.. | 2 ÷ 10 | -0,9 ÷ 10 | 610 |

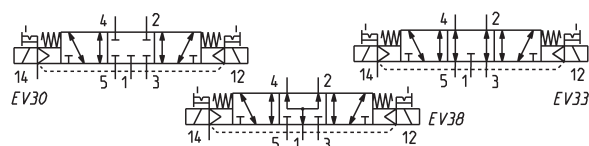
Electro-pneumatic valve, ext. pilot supply, outlets on sub-base - s. 16



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



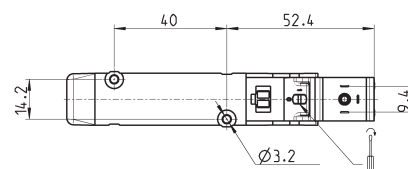
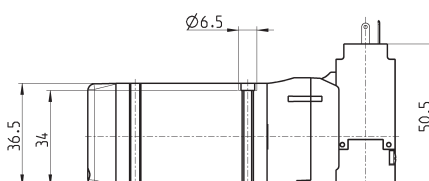
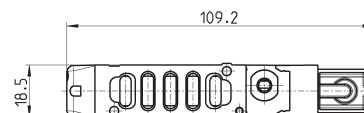
Connectors at the end of this section



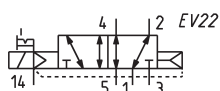
| Mod. | Pilot supply pressure (bar) | Operating pressure (bar) | Flow (NL/min) | Symbol |
|----------------|-----------------------------|--------------------------|---------------|--------|
| EN630-E11-PN.. | 3 ÷ 10 | -0,9 ÷ 10 | 610 | EV30 |
| EN730-E11-PN.. | 3 ÷ 10 | -0,9 ÷ 10 | 610 | EV33 |
| EN830-E11-PN..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



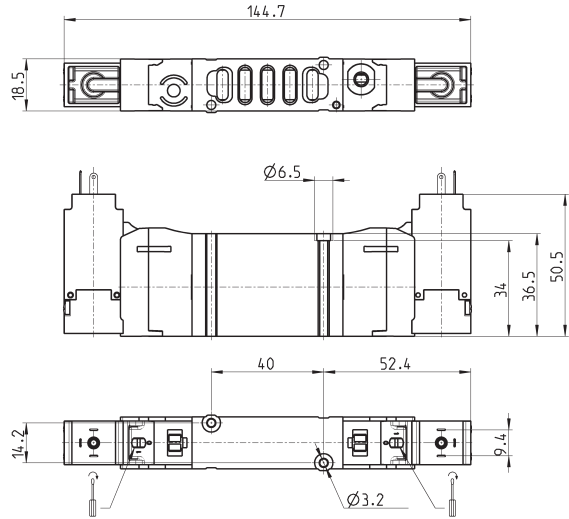
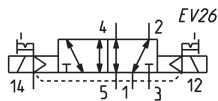
| Mod. | Pilot supply pressure (bar) | Operating pressure (bar) | Flow (NL/min) |
|----------------|-----------------------------|--------------------------|---------------|
| EN550-E16-PN.. | 2,5 ÷ 10 | - 0,9 ÷ 10 | 1000 |

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

5/2-way



Connectors at the end of this section



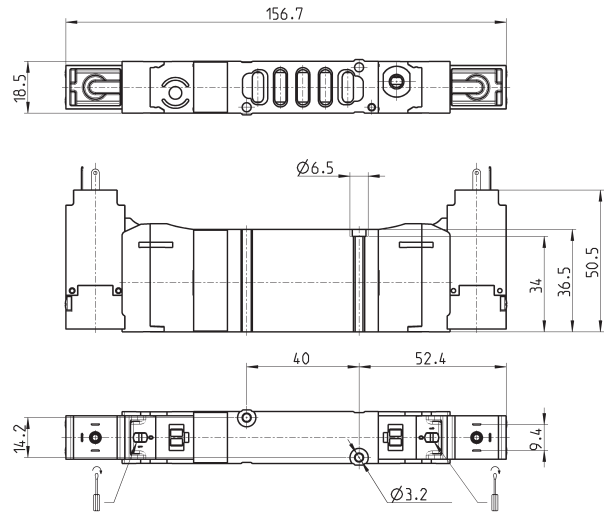
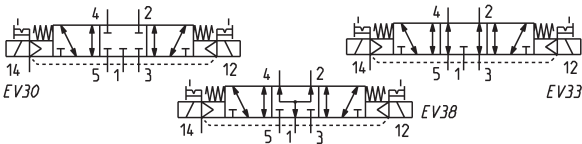
| Mod. | Pilot supply pressure (bar) | Operating pressure (bar) | Flow (NI/min) |
|----------------|-----------------------------|--------------------------|---------------|
| EN550-E11-PN.. | 2 ÷ 10 | -0,9 ÷ 10 | 1000 |

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



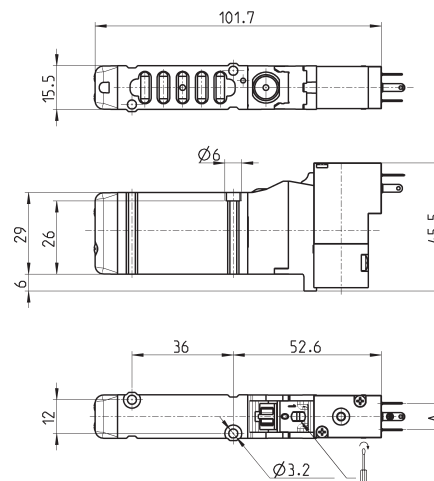
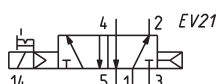
| Mod. | Pilot supply pressure (bar) | Operating pressure (bar) | Flow (NI/min) | Symbol |
|----------------|-----------------------------|--------------------------|---------------|--------|
| EN650-E11-PN.. | 3 ÷ 10 | -0,9 ÷ 10 | 1000 | EV30 |
| EN750-E11-PN.. | 3 ÷ 10 | -0,9 ÷ 10 | 1000 | EV33 |
|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



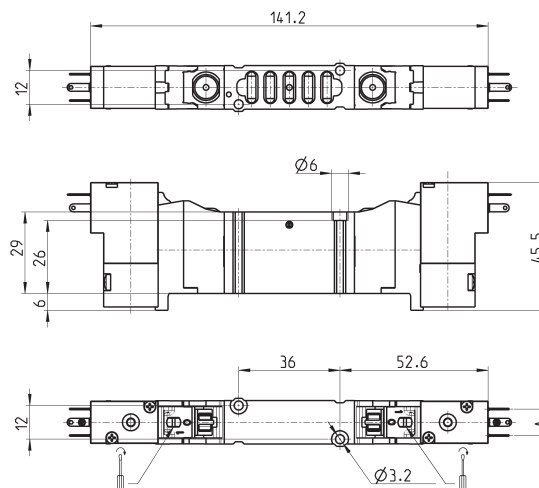
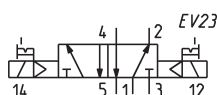
| Mod. | A | Operating pressure (bar) | Flow (l/min) |
|--------------|-----|--------------------------|--------------|
| EN530-16-P13 | 9,4 | 2,5 ÷ 10 | 610 |
| EN530-16-P54 | 9,4 | 2,5 ÷ 10 | 610 |
| EN530-16-P56 | 9,4 | 2,5 ÷ 10 | 610 |
| EN530-16-W53 | 8 | 2,5 ÷ 10 | 610 |
| EN530-16-W54 | 8 | 2,5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



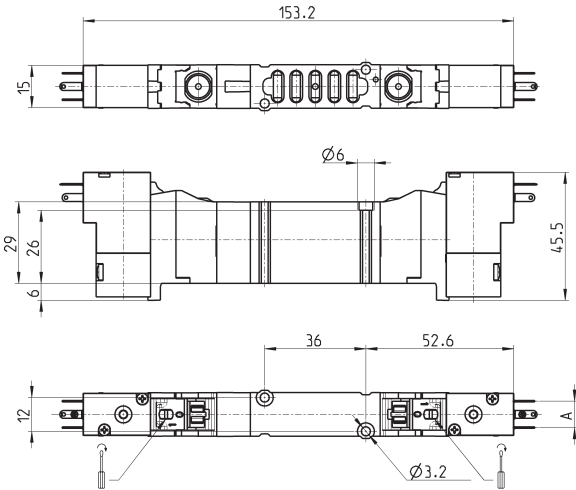
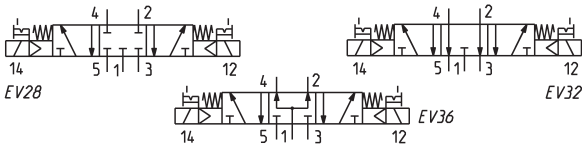
| Mod. | A | Operating pressure (bar) | Flow (l/min) |
|--------------|-----|--------------------------|--------------|
| EN530-11-P13 | 9,4 | 2 ÷ 10 | 610 |
| EN530-11-P54 | 9,4 | 2 ÷ 10 | 610 |
| EN530-11-P56 | 9,4 | 2 ÷ 10 | 610 |
| EN530-11-W53 | 8 | 2 ÷ 10 | 610 |
| EN530-11-W54 | 8 | 2 ÷ 10 | 610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

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



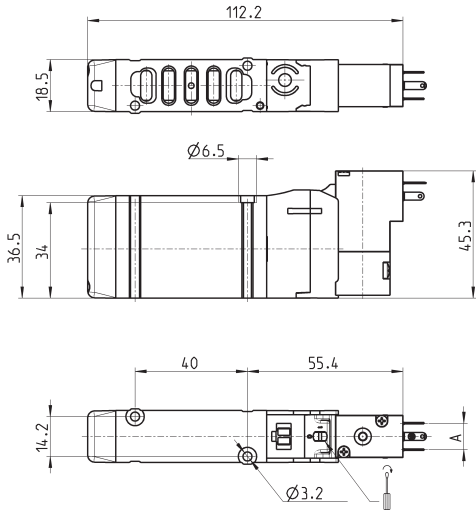
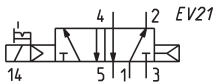
| Mod. | A | Operating pressure (bar) | Flow (NL/min) | Symbol |
|--------------|-----|--------------------------|---------------|--------|
| EN630-11-P.. | 9,4 | 3 ÷ 10 | 610 | EV28 |
| EN730-11-P.. | 9,4 | 3 ÷ 10 | 610 | EV32 |
| EN830-11-P.. | 9,4 | 3 ÷ 10 | 610 | EV36 |
| EN630-11-W.. | 8 | 3 ÷ 10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



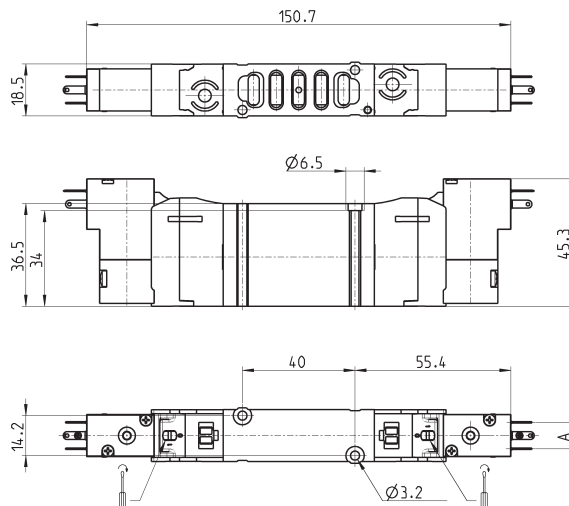
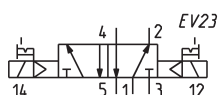
| Mod. | Operating pressure (bar) | Flow (NL/min) |
|--------------|--------------------------|---------------|
| EN550-16-P13 | 2,5 ÷ 10 | 1000 |
| EN550-16-P54 | 2,5 ÷ 10 | 1000 |
| EN550-16-P56 | 2,5 ÷ 10 | 1000 |
| EN550-16-W53 | 2,5 ÷ 10 | 1000 |
| EN550-16-W54 | 2,5 ÷ 10 | 1000 |

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 (NI/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

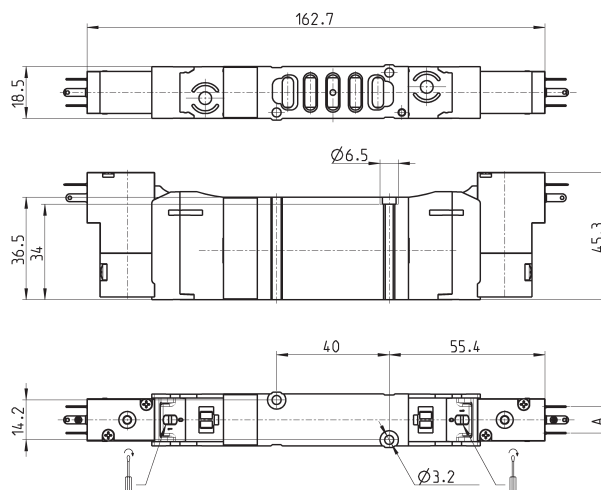
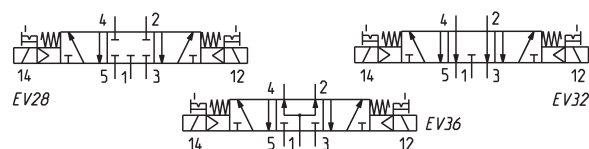
CC = Centres Closed

CO = Centres Open

CP = Centres in Pressure



Connectors at the end of this section



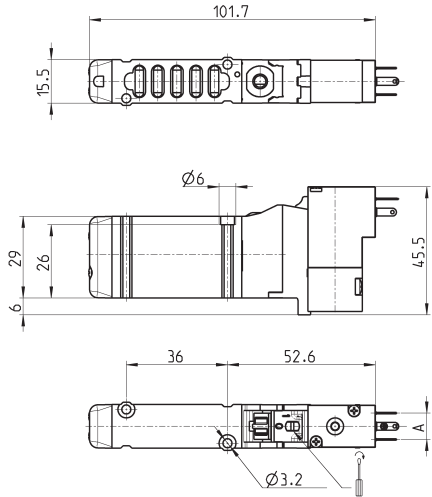
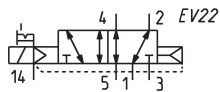
| Mod. | A | Operating pressure (bar) | Flow (NI/min) | Symbol |
|--------------|-----|--------------------------|---------------|--------|
| EN650-11-P.. | 9,4 | 3 ÷ 10 | 1000 | EV28 |
| EN750-11-P.. | 9,4 | 3 ÷ 10 | 1000 | EV32 |
| EN850-11-P.. | 9,4 | 3 ÷ 10 | 1000 | EV36 |
| EN650-11-W.. | 8 | 3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



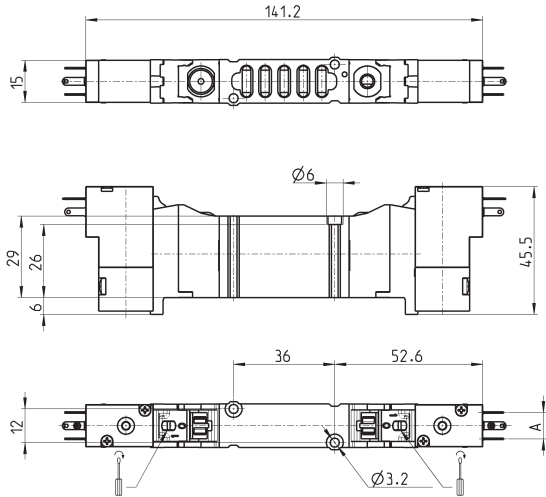
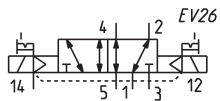
| Mod. | A | Pilot supply pressure (bar) | Operating pressure (bar) | Flow (NL/min) |
|---------------|-----|-----------------------------|--------------------------|---------------|
| EN530-E16-P.. | 9,4 | 2,5 ÷ 10 | -0,9 ÷ 10 | 610 |
| EN530-E16-W.. | 8 | 2,5 ÷ 10 | -0,9 ÷ 10 | 610 |

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

5/2-way



Connectors at the end of this section



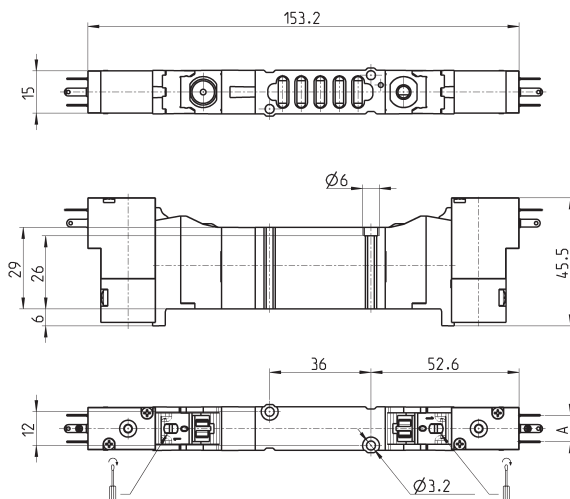
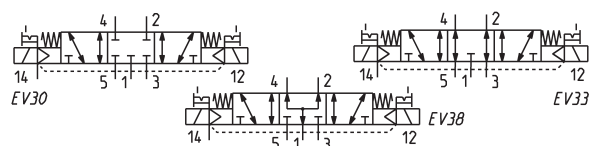
| Mod. | A | Pilot supply pressure (bar) | Operating pressure (bar) | Flow (NL/min) |
|---------------|-----|-----------------------------|--------------------------|---------------|
| EN530-E11-P.. | 9,4 | 2 ÷ 10 | -0,9 ÷ 10 | 610 |
| EN530-E11-W.. | 8 | 2 ÷ 10 | -0,9 ÷ 10 | 610 |

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



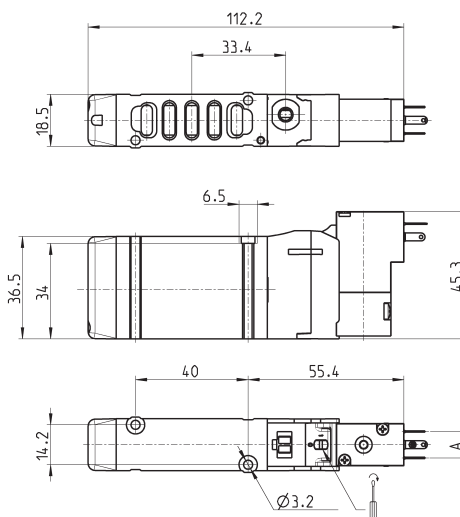
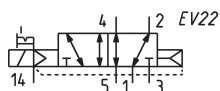
| Mod. | A | Pilot supply pressure (bar) | Operating pressure (bar) | Flow (NL/min) | Symbol |
|---------------|-----|-----------------------------|--------------------------|---------------|--------|
| EN630-E11-P.. | 9,4 | 3 ÷ 10 | -0,9 ÷ 10 | 610 | EV30 |
| EN730-E11-P.. | 9,4 | 3 ÷ 10 | -0,9 ÷ 10 | 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



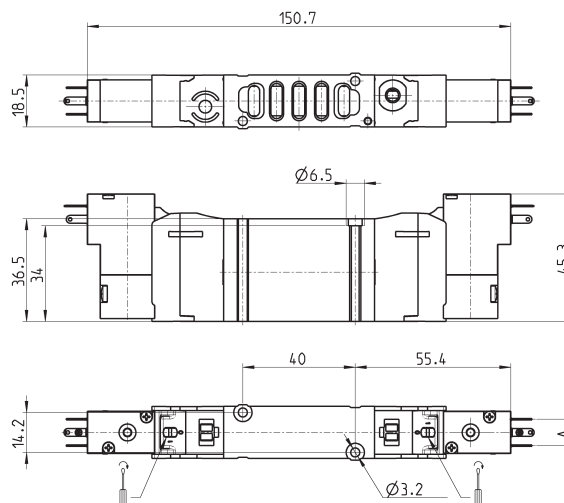
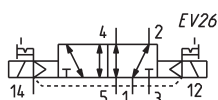
| Mod. | A | Pilot supply pressure (bar) | Operating pressure (bar) | Flow (NL/min) |
|---------------|-----|-----------------------------|--------------------------|---------------|
| EN550-E16-P.. | 9,4 | 2,5 ÷ 10 | -0,9 ÷ 10 | 1000 |
| EN550-E16-W.. | 8 | 2,5 ÷ 10 | -0,9 ÷ 10 | 1000 |

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

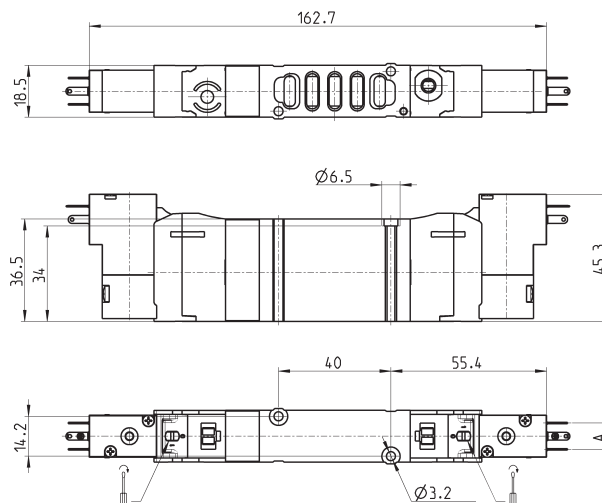
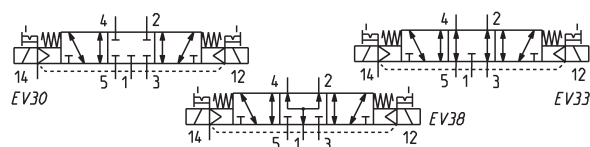
CC = Centres Closed

CO = Centres Open

CP = Centres in Pressure

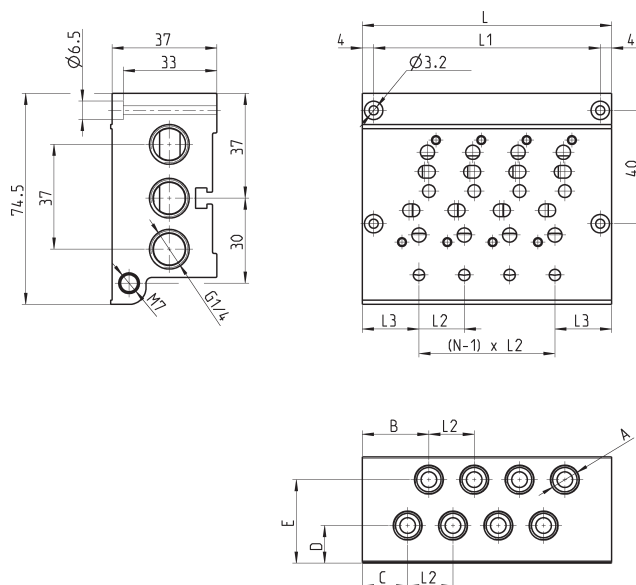


Connectors at the end of this section



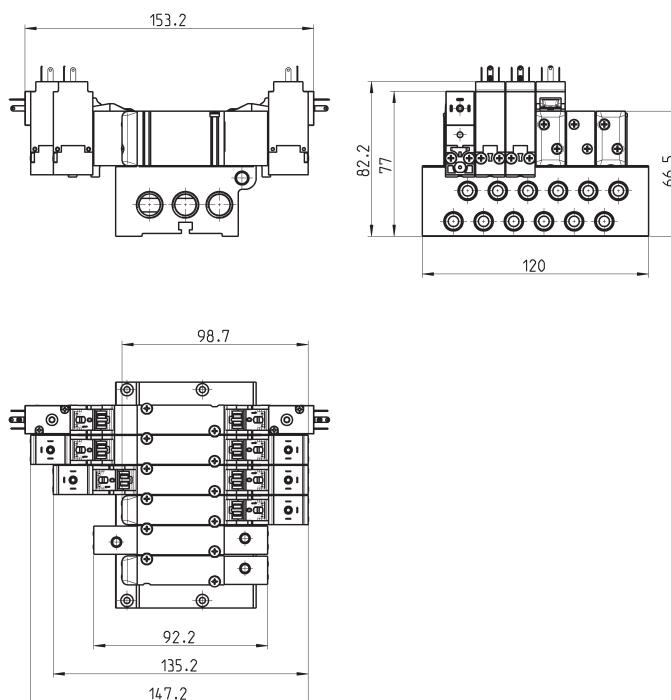
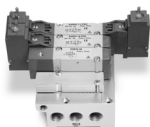
| Mod. | A | Pilot supply pressure (bar) | Operating pressure (bar) | Flow (NL/min) | Symbol |
|---------------|-----|-----------------------------|--------------------------|---------------|--------|
| EN650-E11-P. | 9,4 | 3 ÷ 10 | -0,9 ÷ 10 | 1000 | EV30 |
| EN750-E11-P. | 9,4 | 3 ÷ 10 | -0,9 ÷ 10 | 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)

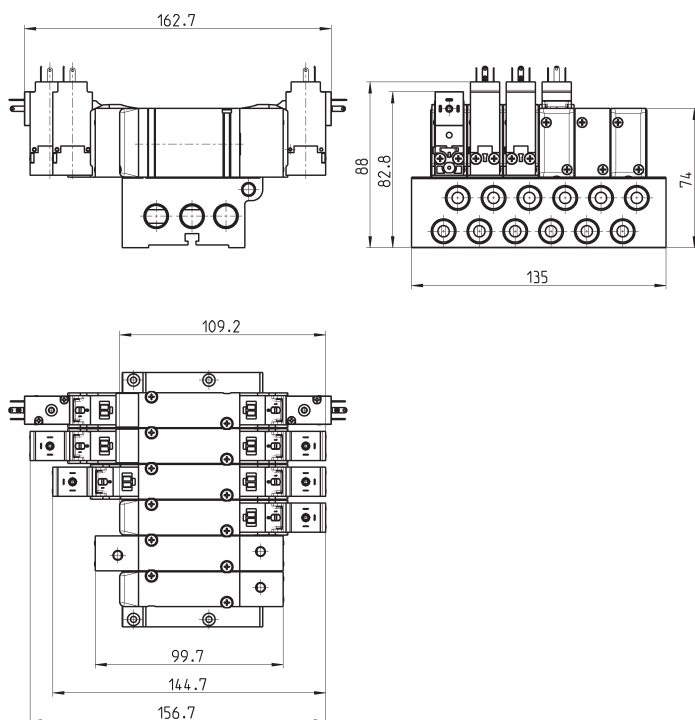


| Mod. | Nr of valve positions | A | B | C | D | E | L | L1 | L2 | L3 |
|------------|-----------------------|------|------|------|------|------|-----|-----|----|----|
| EN530-2102 | 2 | G1/8 | 23,5 | 16 | 12,8 | 29 | 56 | 48 | 16 | 20 |
| EN530-2103 | 3 | G1/8 | 23,5 | 16 | 12,8 | 29 | 72 | 64 | 16 | 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



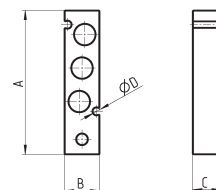
Manifolds complete with base moutend valves - size 19



Blanking plate for manifolds - valves with outlets on the body



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

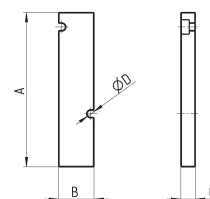


| Mod. | Size | A | B | C | ØD |
|----------|------|----|------|----|-----|
| TP-EN531 | 16 | 60 | 14,5 | 12 | 3,2 |
| TP-EN551 | 19 | 62 | 17,3 | 12 | 3,2 |

Blanking plate for manifolds - base mounted valves



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



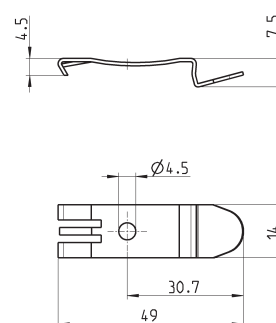
| Mod. | Size | A | B | C | ØD |
|----------|------|----|------|---|-----|
| TP-EN530 | 16 | 64 | 14,7 | 6 | 3,2 |
| TP-EN550 | 19 | 64 | 17 | 6 | 3,2 |

Mounting brackets for DIN rail

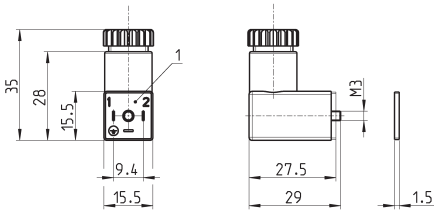


DIN EN 50022 (7,5mm x 35mm - width 1)
Suitable for all manifolds.

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



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



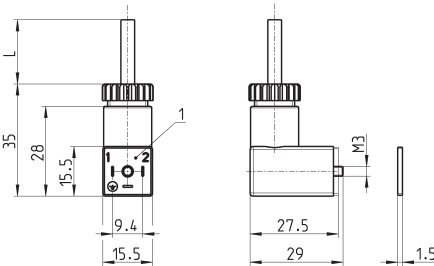
| Mod. | description | colour | working voltage | cable holding | tightening torque |
|---------|--------------------------------|-------------|-----------------|---------------|-------------------|
| 125-601 | connector, diode + Led | transparent | 10/50 V DC | PG7 | 0.3 Nm |
| 125-701 | connector, 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



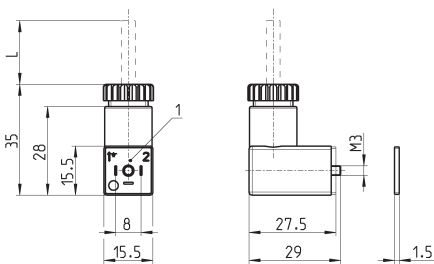
The internal rectifier circuit of the connector Mod. 125-900 allows to use solenoid valves with different AC voltage, even if the voltage indicated on the solenoid valve is DC.



| Mod. | description | colour | working voltage | cable length [L] | cable holding | 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

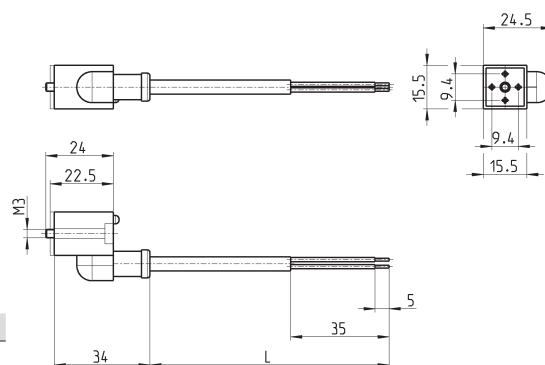
Connector Mod. 126-... DIN 43650 pitch 8 mm



| Mod. | description | colour | working voltage | cable length [L] | cable holding | 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 |

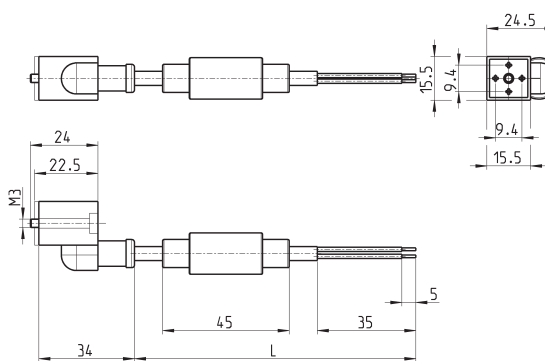
1 = 90° adjustable connector

In-line connectors with cable



| Mod. | description | colour | working voltage | cable length [L] | cable holding | 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 holding | 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 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.

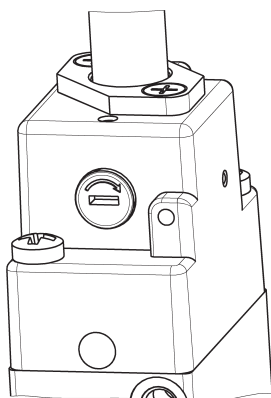
GENERAL DATA

| | |
|-----------------------|---|
| 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. |

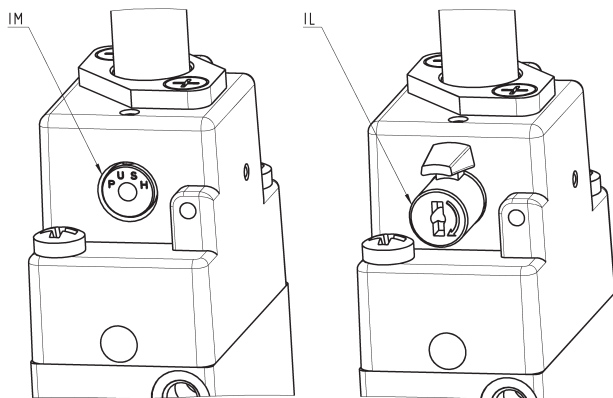
CODING EXAMPLE

| | | | | | | | | | | | |
|------------|---|----------|----------|----------|------------|----------|-----------|-----------|----------|-----------|----------|
| 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.

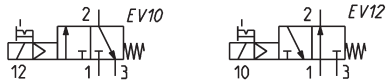
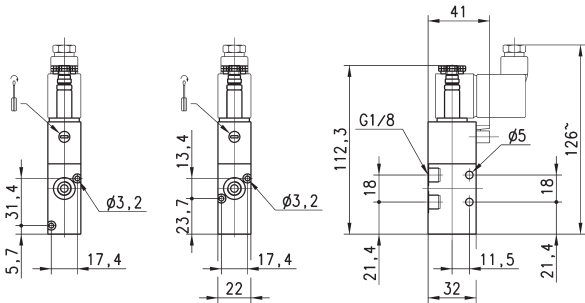


Example of solenoid monostable valve (IM) and bistable valve with a lever type manual override (IL).

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.

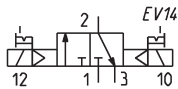
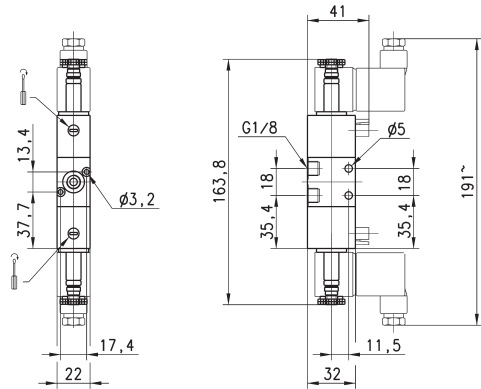


| Mod. | Mounting | Function | Flow rate (NI/min) | Operating pressure (bar) | Symbol |
|-------------|-------------|----------|--------------------|--------------------------|--------|
| 338-015-02 | in-line | 3/2 NC | 700 | 2,5 ÷ 10 | EV10 |
| 338L-015-02 | on manifold | 3/2 NC | 700 | 2,5 ÷ 10 | EV10 |
| 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 |

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.

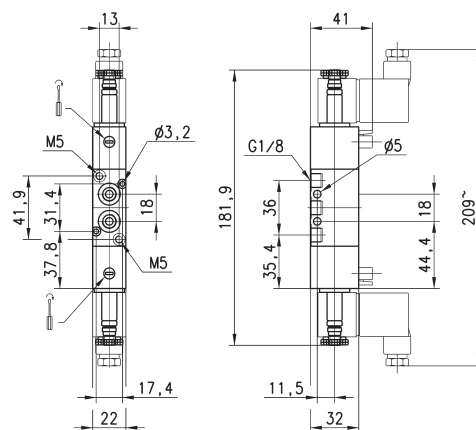
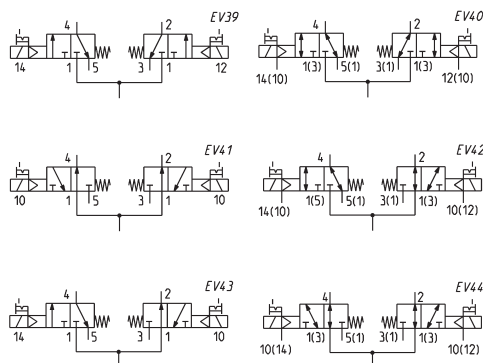


| Mod. | Mounting | Function | Flow rate (NI/min) | Operating pressure (bar) |
|-------------|-------------|----------|--------------------|--------------------------|
| 338-011-02 | in-line | 3/2 | 700 | 1,5 ÷ 10 |
| 338L-011-02 | on manifold | 3/2 | 700 | 1,5 ÷ 10 |

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.

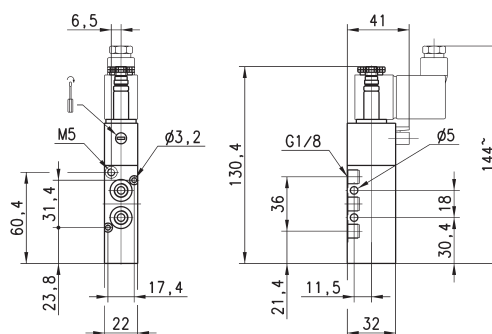
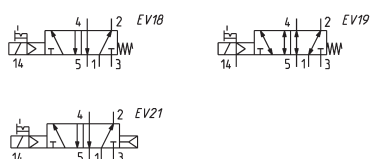


| Mod. | Function | Flow rate (NL/min) | Operating pressure (bar) | Pilot pressure (bar) | Symbol |
|-------------|-------------------------|--------------------|--------------------------|----------------------|--------|
| 338D-015-02 | 2 x 3/2 NC | 700 | 2,5 ÷ 10 | - | EV39 |
| 348D-015-02 | 2 x 3/2 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.

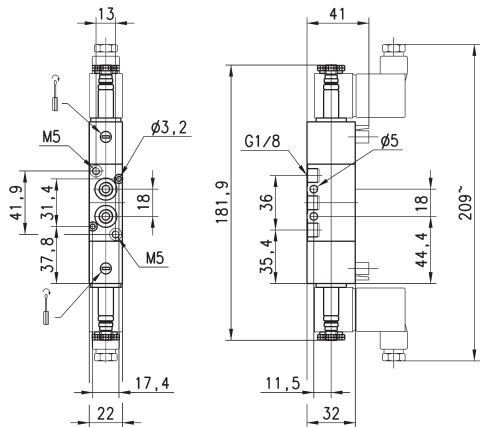
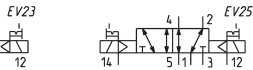
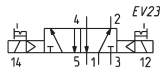


| Mod. | Function | Flow rate (NL/min) | Operating pressure (bar) | Pilot pressure (bar) | Symbol |
|------------|----------|--------------------|--------------------------|----------------------|--------|
| 358-015-02 | 5/2 | 700 | 2,5 ÷ 10 | - | EV18 |
| 358-E15-02 | 5/2 | 700 | -0,9 ÷ 10 | 2,5 ÷ 10 | EV19 |
| 358-016-02 | 5/2 | 700 | 2,5 ÷ 10 | - | EV21 |

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.

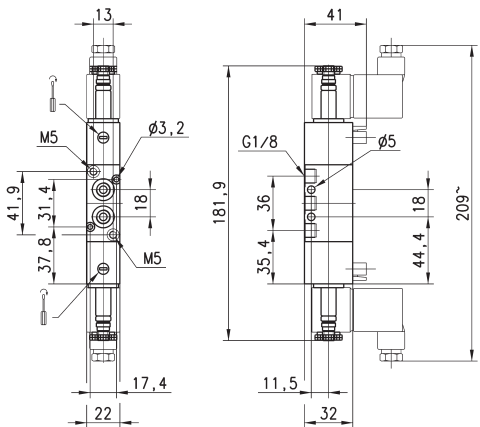
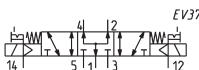
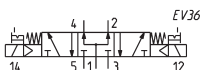
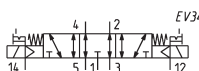
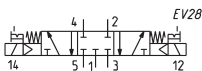


| Mod. | Function | Flow rate (NL/min) | Operating pressure (bar) | Pilot pressure (bar) | Symbol |
|------------|----------|--------------------|--------------------------|----------------------|--------|
| 358-011-02 | 5/2 | 700 | 1,5 ÷ 10 | - | EV23 |
| 358-E11-02 | 5/2 | 700 | -0,9 ÷ 10 | 1,5 ÷ 10 | EV25 |

5/3-way solenoid valve, G1/8, - Mod. 368... Mod. 378... Mod. 388...



CC = Centres Closed CO = Centres Open CP = Pressure Centres

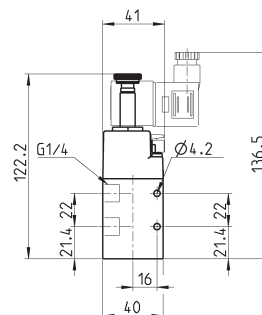
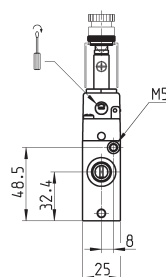
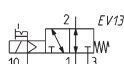
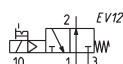
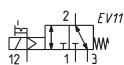
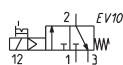


| Mod. | Function | Flow rate (NL/min) | Operating pressure (bar) | Pilot pressure (bar) | Symbol |
|------------|----------|--------------------|--------------------------|----------------------|--------|
| 368-011-02 | 5/3 CC | 700 | 2 ÷ 10 | - | EV28 |
| 368-E11-02 | 5/3 CC | 700 | -0,9 ÷ 10 | 2 ÷ 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.

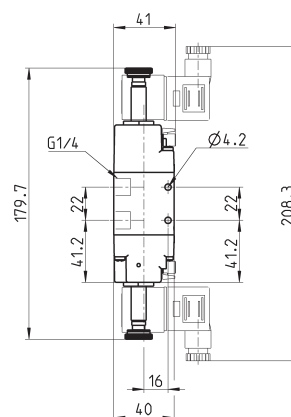
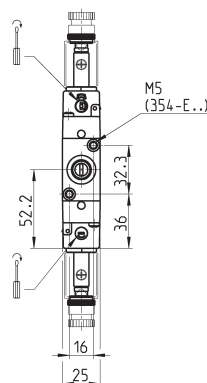
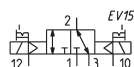
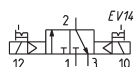


| Mod. | Mounting | Function | Flow rate (NL/min) | Operating pressure (bar) | Pilot pressure (bar) | Symbol |
|------------|----------|----------|--------------------|--------------------------|----------------------|--------|
| 334-015-02 | in-line | 3/2 NC | 1300 | 2.5 ÷ 10 | - | EV10 |
| 334-E15-02 | 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 their last pulse received.

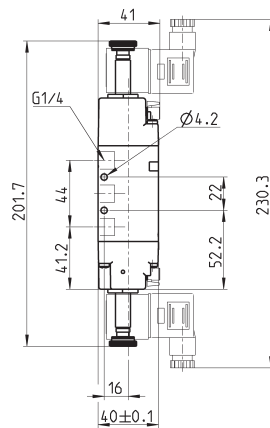
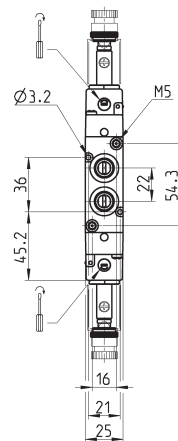
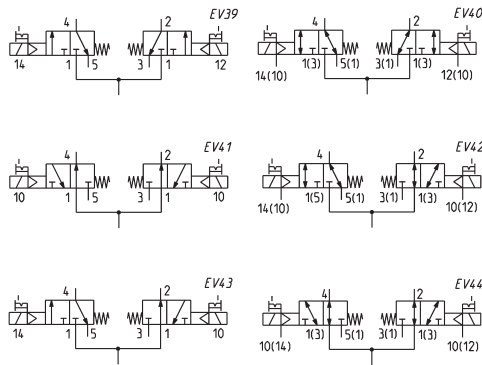


| Mod. | Mounting | Function | Flow rate (NL/min) | Operating pressure (bar) | Pilot pressure (bar) | Symbol |
|------------|----------|----------|--------------------|--------------------------|----------------------|--------|
| 334-011-02 | in-line | 3/2 | 1300 | 1.5 ÷ 10 | - | EV14 |
| 334-E11-02 | 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.

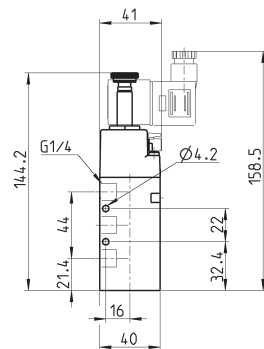
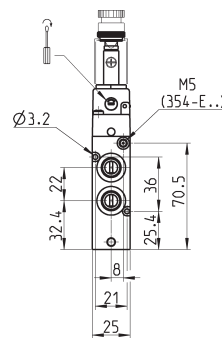


| Mod. | Function | Flow rate (NL/min) | Operating pressure (bar) | Pilot pressure (bar) | Symbol |
|-------------|-------------------------|--------------------|--------------------------|----------------------|--------|
| 334D-015-02 | 2 x 3/2 NC | 1200 | 2,5 ÷ 10 | - | EV39 |
| 344D-015-02 | 2 x 3/2 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.

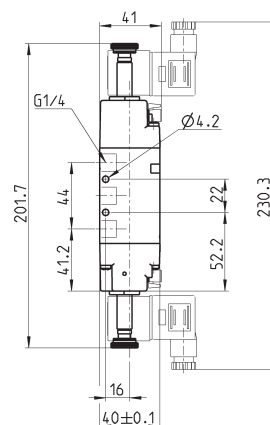
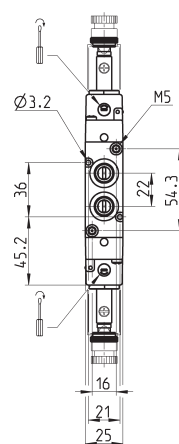
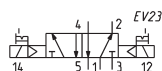


| Mod. | Function | Flow rate (NL/min) | Operating pressure (bar) | Pilot pressure (bar) | Symbol |
|------------|----------|--------------------|--------------------------|----------------------|--------|
| 354-015-02 | 5/2 | 1300 | 2,5 ÷ 10 | - | EV18 |
| 354-E15-02 | 5/2 | 1300 | -0,9 ÷ 10 | 2,5 ÷ 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.

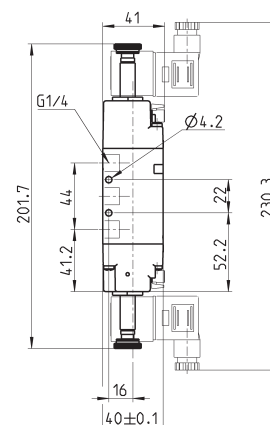
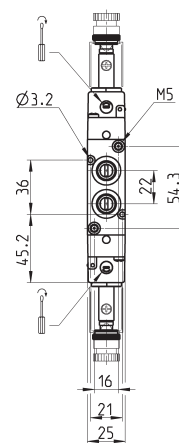
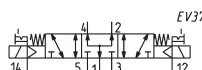
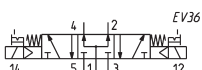
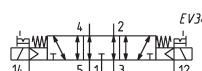
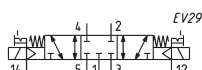
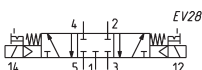


| Mod. | Function | Flow rate (NL/min) | Operating pressure (bar) | Pilot pressure (bar) | Symbol |
|------------|----------|--------------------|--------------------------|----------------------|--------|
| 354-011-02 | 5/2 | 1300 | 1,5 ÷ 10 | - | EV23 |
| 354-E11-02 | 5/2 | 1300 | -0,9 ÷ 10 | 2,5 ÷ 10 | EV25 |

5/3-way solenoid valve, G1/4, - Mod. 364... Mod. 374... Mod. 384...

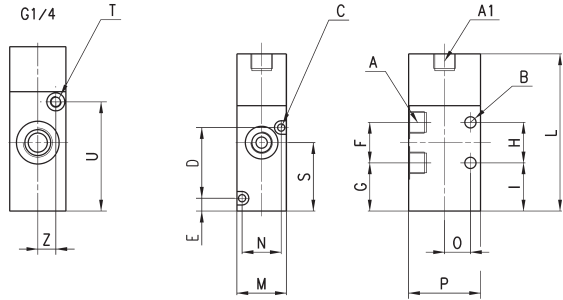
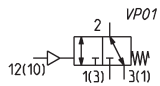


CC = Centres Closed CO = Centres Open CP = Pressure Centres



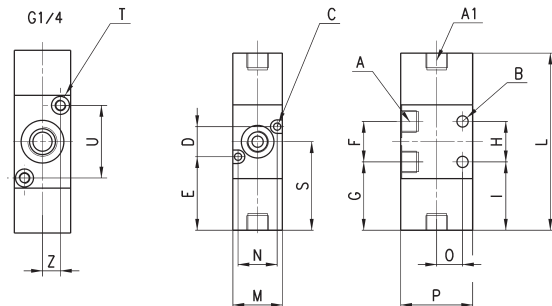
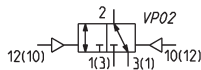
| Mod. | Function | Flow rate (NL/min) | Operating pressure (bar) | Pilot pressure (bar) | Symbol |
|------------|----------|--------------------|--------------------------|----------------------|--------|
| 364-011-02 | 5/3 CC | 1200 | 2,5 ÷ 10 | - | EV28 |
| 364-E11-02 | 5/3 CC | 1200 | -0,9 ÷ 10 | 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

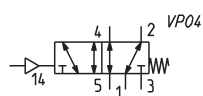
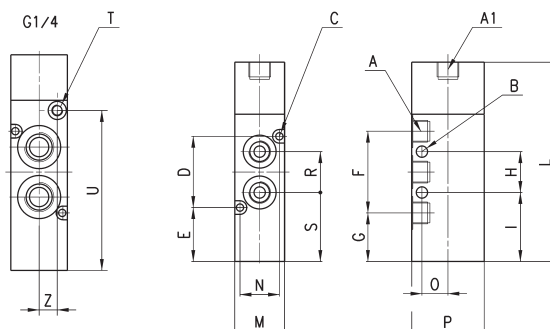


| DIMENSIONS | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|-------------|----------|--------------------|-------------------------|----------------------|------|------|-----|-----|------|------|----|------|----|------|------|----|------|------|----|------|----|------|---|--|
| Mod. | 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



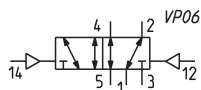
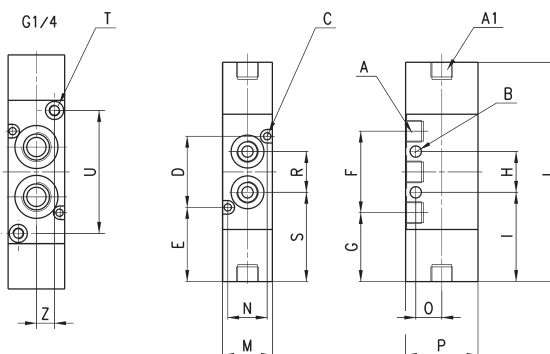
DIMENSIONS

| 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



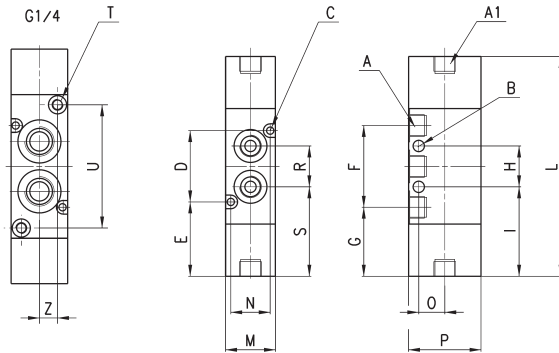
DIMENSIONS

| 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



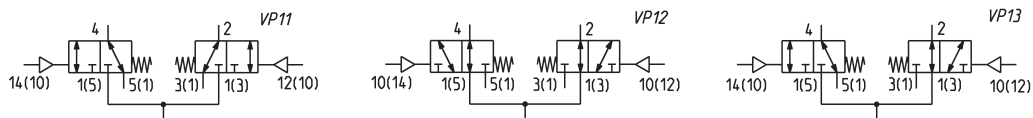
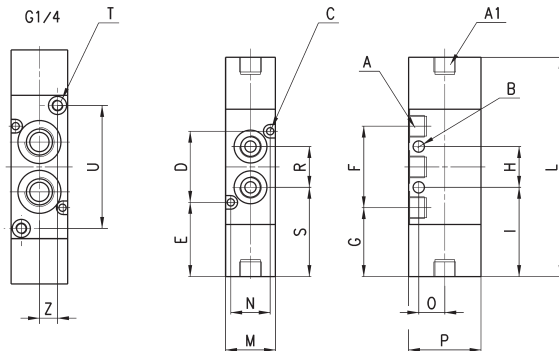
DIMENSIONS

| 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



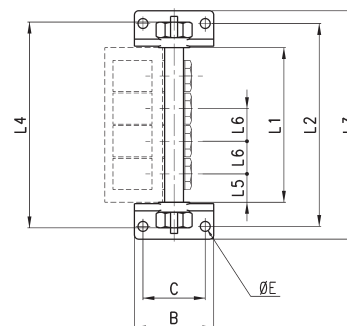
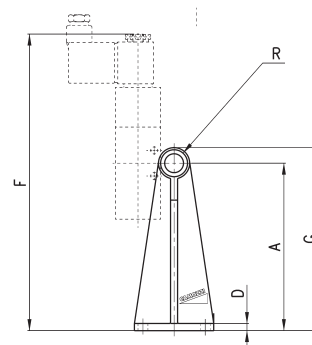
DIMENSIONS

| 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



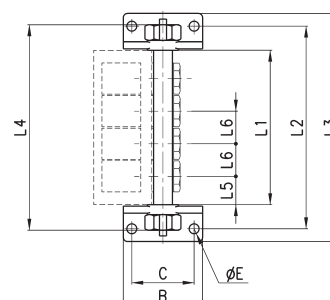
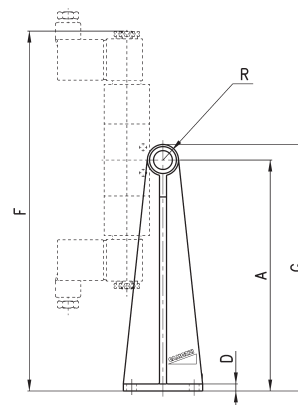
| DIMENSIONS | | | | | | | | | | | | | | | | |
|------------|--------------|----|----|----|---|----|-----|----|------|-----|-----|-----|-----|----|----|---------------------|
| Mod. | Nr of valves | A | B | C | D | ØE | F | G | R | L1 | L2 | L3 | L4 | L5 | L6 | Suitable for Series |
| CNV-318-2 | 2 | 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



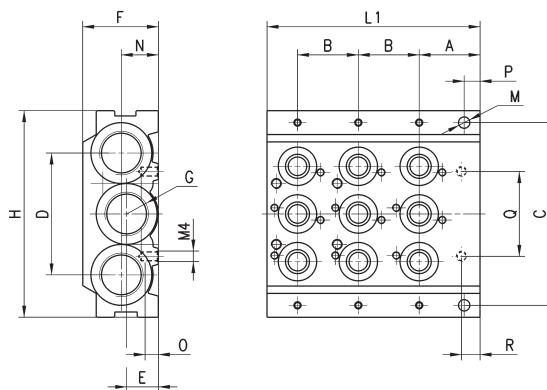
| DIMENSIONS | | | | | | | | | | | | | | | | |
|------------|--------------|-----|----|----|---|----|-----|-----|------|-----|-----|-----|-----|----|----|---------------------|
| Mod. | Nr of valves | A | B | C | D | ØE | F | G | R | L1 | L2 | L3 | L4 | L5 | L6 | Suitable for Series |
| CNV-328-2 | 2 | 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

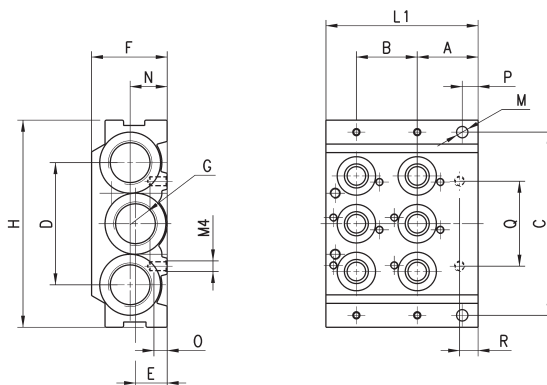
| Mod. | A | B | C | D | E | F | H | L1 | M | N | O | P | Q | R | G |
|----------|----|----|------|----|----|----|----|------|-----|----|---|---|----|---|-----|
| CNVL-3H3 | 23 | 23 | 69,5 | 46 | 12 | 29 | 78 | 80,5 | 4,3 | 14 | 5 | 6 | 32 | 7 | 3/8 |
| CNVL-4H3 | 26 | 26 | 88 | 60 | 14 | 29 | 98 | 91 | 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

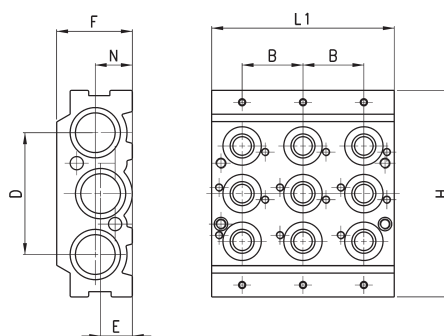
| Mod. | A | B | C | D | E | F | H | L1 | M | N | O | P | Q | R | G |
|----------|----|----|------|----|----|----|----|------|-----|----|---|---|----|---|-----|
| CNVL-3H2 | 23 | 23 | 69,5 | 46 | 12 | 29 | 78 | 57,5 | 4,3 | 14 | 5 | 6 | 32 | 7 | 3/8 |
| CNVL-4H2 | 26 | 26 | 88 | 60 | 14 | 29 | 98 | 65 | 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

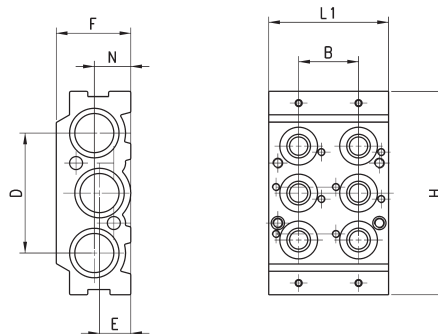
| Mod. | B | D | E | F | H | L1 | N |
|----------|----|----|----|----|----|----|----|
| CNVL-3I3 | 23 | 46 | 12 | 29 | 78 | 69 | 14 |
| CNVL-4I3 | 26 | 60 | 14 | 29 | 98 | 78 | - |

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



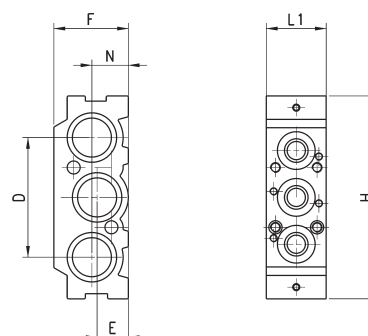
| DIMENSIONS | | | | | | | |
|------------|----|----|----|----|----|----|----|
| Mod. | B | D | E | F | H | L1 | N |
| CNVL-3I2 | 23 | 46 | 12 | 29 | 78 | 46 | 14 |
| CNVL-4I2 | 26 | 60 | 14 | 29 | 98 | 52 | - |

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



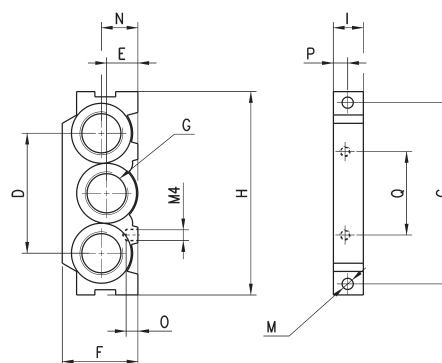
| DIMENSIONS | | | | | | |
|------------|----|----|----|----|----|----|
| Mod. | D | E | F | H | L1 | N |
| CNVL-3I1 | 46 | 12 | 29 | 78 | 23 | 14 |
| CNVL-4I1 | 60 | 14 | 29 | 98 | 26 | - |

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



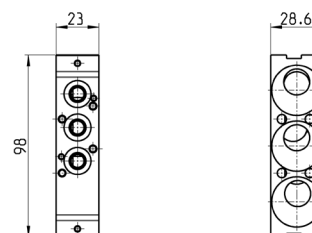
| DIMENSIONS | | | | | | | | | | | |
|------------|------|----|----|----|----|------|-----|----|---|---|----|
| Mod. | C | D | E | F | H | I | M | N | O | P | Q |
| CNVL-3H | 69,5 | 46 | 12 | 29 | 78 | 11,5 | 4,3 | 14 | 5 | 6 | 32 |
| CNVL-4H | 88 | 60 | 14 | 29 | 98 | 13 | 4,3 | - | 5 | 8 | 29 |

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



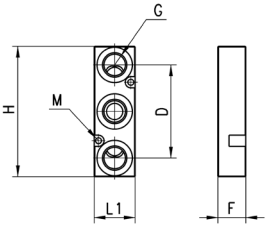
| Mod. |
|------------|
| CNVL-4H-3H |

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 |

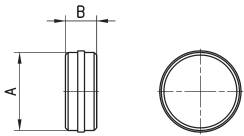
CNVL-3P: for Series 3, G1/8
CNVL-4P: for Series 3, G1/4

Separation diaphragm



For separation of channel: 1 - 3 - 5.

The following is supplied:
1x diaphragm

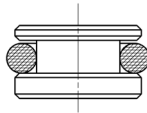


| DIMENSIONS | | | |
|------------|------|---|--------------------|
| Mod. | A | B | |
| CNVL-3H-TP | 15.6 | 6 | for Series 3, G1/8 |
| CNVL-4H-TP | 23.8 | 8 | for Series 3, G1/4 |

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

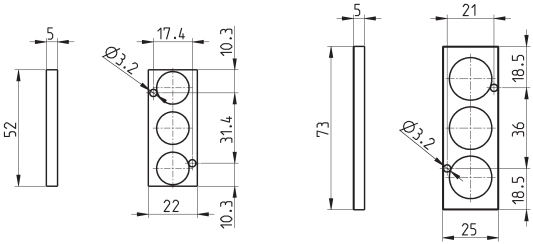
It is used to blank vacant positions of a manifold.



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

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. Moreover, valves with ports G1/2 only can be supplied with solenoids Series A6 (32x32).

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

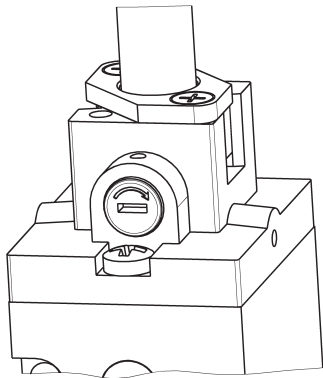
GENERAL DATA

| | |
|-----------------------|---|
| 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. |

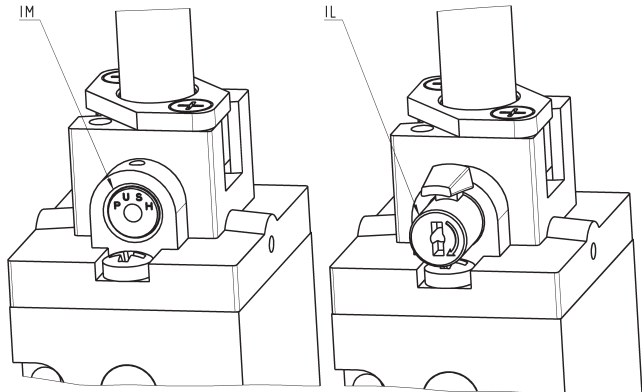
CODING EXAMPLE

| | | | | | | | | | | |
|-----|--|---|---|-----|---|----|----|---|----|---|
| 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 (G1/2 only) | | | | | | | | | |
| 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 (G1/2 only) 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.

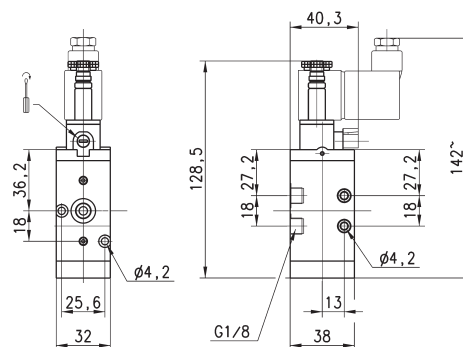
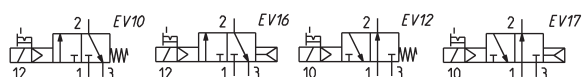


Example of solenoid monostable valve (IM) and bistable valve with a lever type manual override (IL).

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.

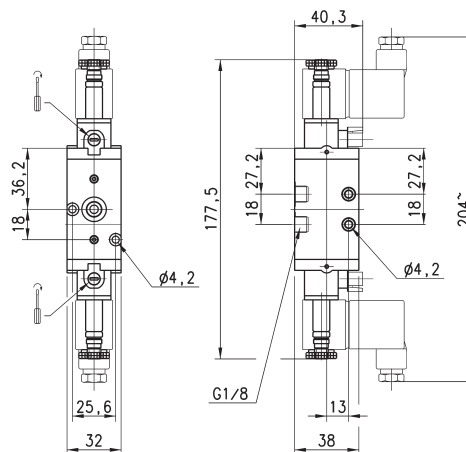
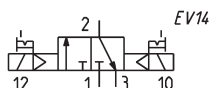


| Mod. | Function | Flow rate Qn (NL/min) | Operating pressure (bar) | Symbol |
|------------|----------|-----------------------|--------------------------|--------|
| 438-015-22 | 3/2 NC | 650 | 2.5 ÷ 10 | EV10 |
| 438-016-22 | 3/2 NC | 650 | 2.5 ÷ 10 | EV16 |
| 448-015-22 | 3/2 NO | 650 | 2.5 ÷ 10 | 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.

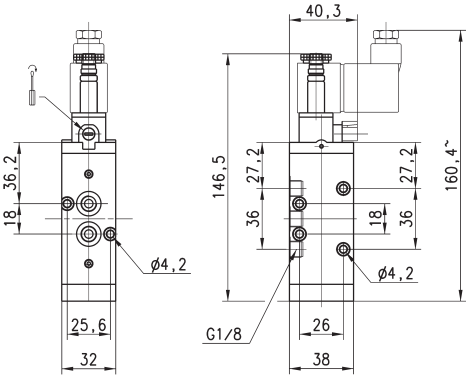
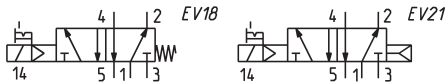


| Mod. | Function | Flow rate Qn (NL/min) | Operating pressure (bar) |
|------------|----------|-----------------------|--------------------------|
| 438-011-22 | 3/2 | 650 | 2 ÷ 10 |

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.

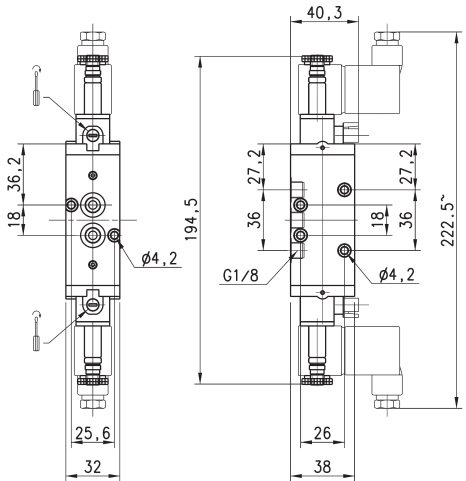
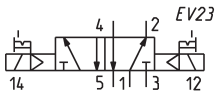


| Mod. | Function | Flow rate Qn (Nl/min) | Operating pressure (bar) | Symbol |
|------------|----------|-----------------------|--------------------------|--------|
| 458-015-22 | 5/2 | 650 | 2.5 ÷ 10 | EV18 |
| 458-016-22 | 5/2 | 650 | 2.5 ÷ 10 | EV21 |

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.

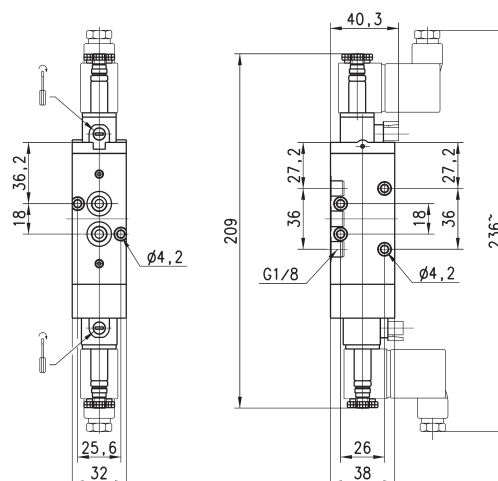
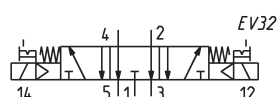
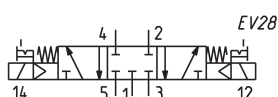


| Mod. | Function | Flow rate Qn (Nl/min) | Operating pressure (bar) |
|------------|----------|-----------------------|--------------------------|
| 458-011-22 | 5/2 | 650 | 2 ÷ 10 |

5/3-way solenoid valve, G1/8 - Mod. 468-011... and 478-011...



CC = Centres Closed
CO = Centres Open

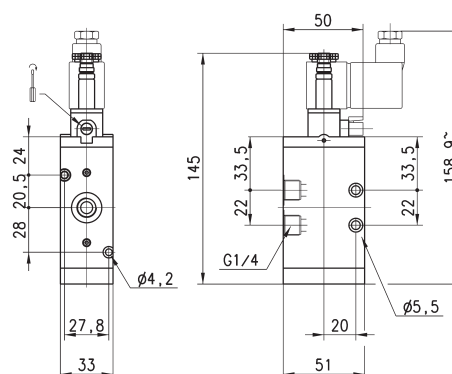
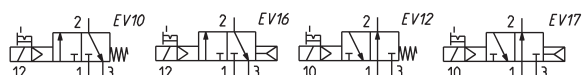


| Mod. | Function | Flow rate Qn (l/min) | Operating pressure (bar) | Symbol |
|------------|----------|----------------------|--------------------------|--------|
| 468-011-22 | 5/3 CC | 600 | 2.5 ÷ 10 | EV28 |
| 478-011-22 | 5/3 CO | 600 | 2.5 ÷ 10 | EV32 |

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.

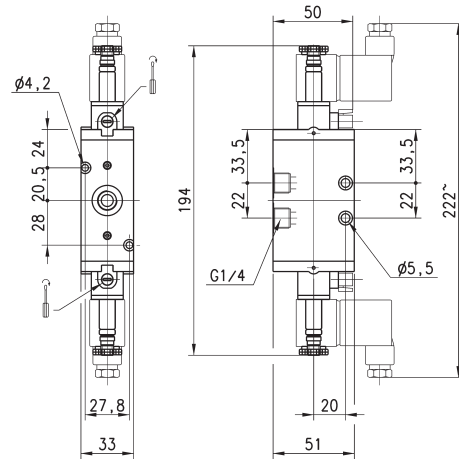
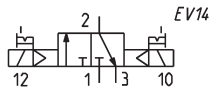


| Mod. | Function | Flow rate Qn (l/min) | Operating pressure (bar) | Symbol |
|------------|----------|----------------------|--------------------------|--------|
| 434-015-22 | 3/2 NC | 1250 | 2.5 ÷ 10 | EV10 |
| 434-016-22 | 3/2 NC | 1250 | 2.5 ÷ 10 | EV16 |
| 444-015-22 | 3/2 NO | 1250 | 2.5 ÷ 10 | EV12 |
| 444-016-22 | 3/2 NO | 1250 | 2.5 ÷ 10 | EV17 |

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.

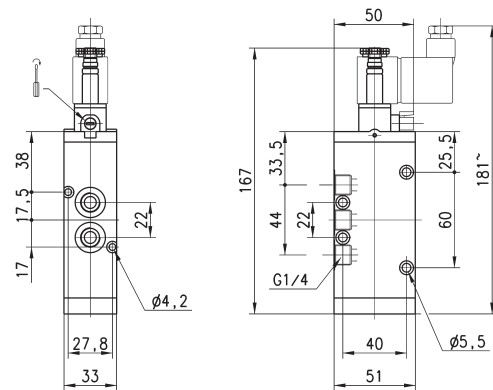
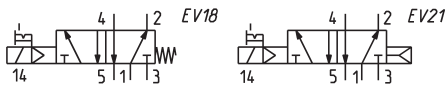


| Mod. | Function | Flow rate Qn (NL/min) | Operating pressure (bar) |
|------------|----------|-----------------------|--------------------------|
| 434-011-22 | 3/2 | 1250 | 2 ÷ 10 |

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.

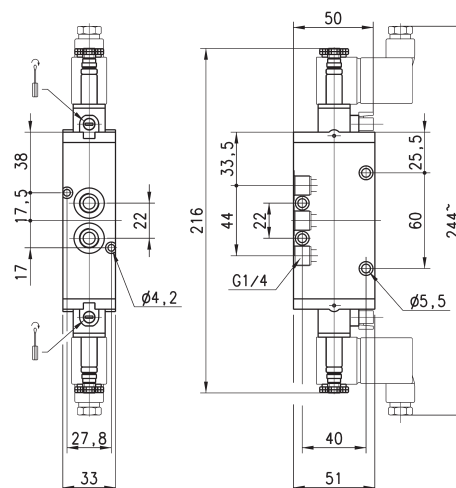
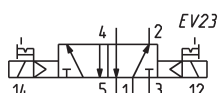


| Mod. | Function | Flow rate Qn (l/min) | Operating pressure (bar) | Symbol |
|------------|----------|----------------------|--------------------------|--------|
| 454-015-22 | 5/2 | 1250 | 2.5 ÷ 10 | EV18 |
| 454-016-22 | 5/2 | 1250 | 2.5 ÷ 10 | EV21 |

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.

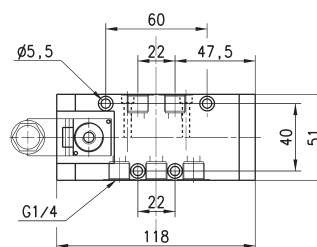
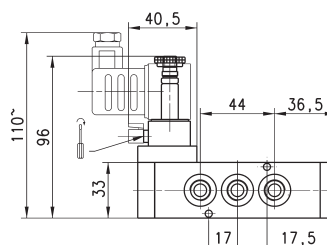


| Mod. | Function | Flow rate Qn (l/min) | Operating pressure (bar) |
|------------|----------|----------------------|--------------------------|
| 454-011-22 | 5/2 | 1250 | 2 ÷ 10 |

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.

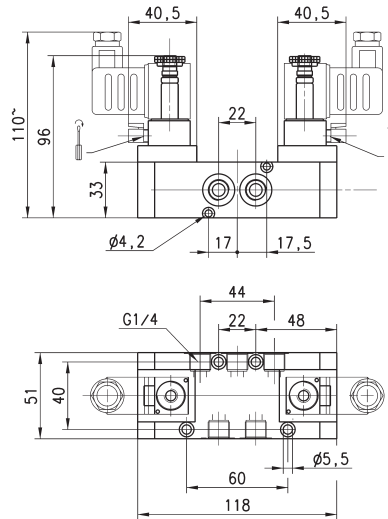
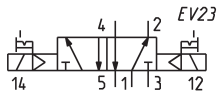


| Mod. | Function | Flow rate Qn (l/min) | Operating pressure (bar) | Symbol |
|------------|----------|----------------------|--------------------------|--------|
| 454-V15-22 | 5/2 | 1250 | 2.5 ÷ 10 | EV18 |
| 454-V16-22 | 5/2 | 1250 | 2.5 ÷ 10 | EV21 |

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.

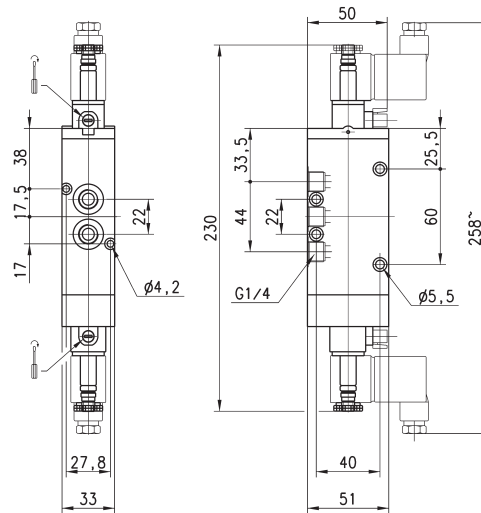
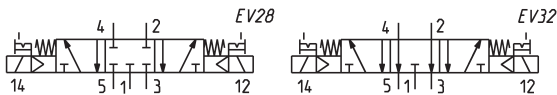


| Mod. | Function | Flow rate Qn (l/min) | Operating pressure (bar) |
|------------|----------|----------------------|--------------------------|
| 454-V11-22 | 5/2 | 1250 | 2 ÷ 10 |

5/3-way solenoid valve, G1/4 - Mod. 464-011... e 474-011...



CC = Centres Closed
CO = Centres Open

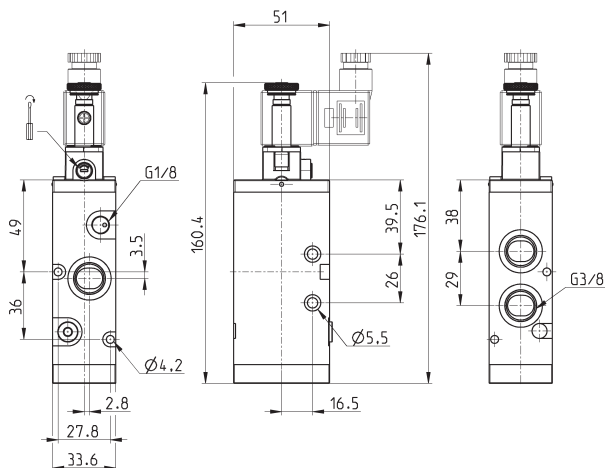
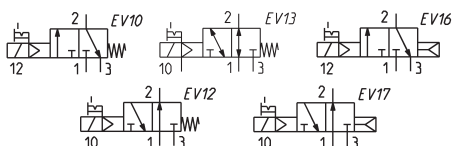


| Mod. | Function | Flow rate Qn (l/min) | Operating pressure (bar) | Symbol |
|------------|----------|----------------------|--------------------------|--------|
| 464-011-22 | 5/3 CC | 1250 | 2.5 ÷ 10 | EV28 |
| 474-011-22 | 5/3 CO | 1250 | 2.5 ÷ 10 | EV32 |

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.

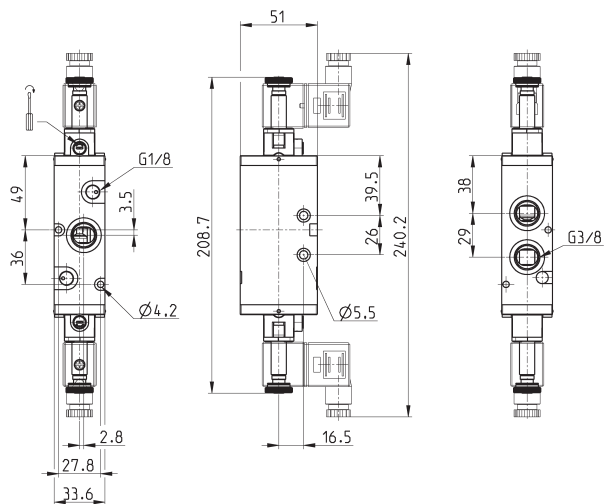
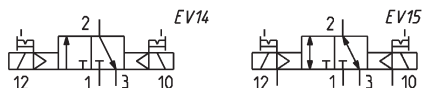


| Mod. | Function | Flow Qn (NL/min) | Working pressure (bar) | Min. pilot pressure (bar) | Symbol |
|------------|----------|------------------|------------------------|---------------------------|--------|
| 433-015-22 | 3/2 NC | 1800 | 2.5 ÷ 10 | - | EV10 |
| 433-E15-22 | 3/2 | 1800 | -0.9 ÷ 10 | 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. 433-011...

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 E15 version can work both NC and NO.



| Mod. | Function | Flow Qn (l/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 |

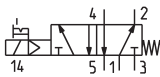
5/2-way solenoid valve, G3/8, monostable - Mod. 453...

New

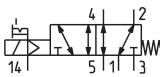


These solenoid valves, which have electropneumatic actuation and spring return, are suitable for operating double-acting cylinders.

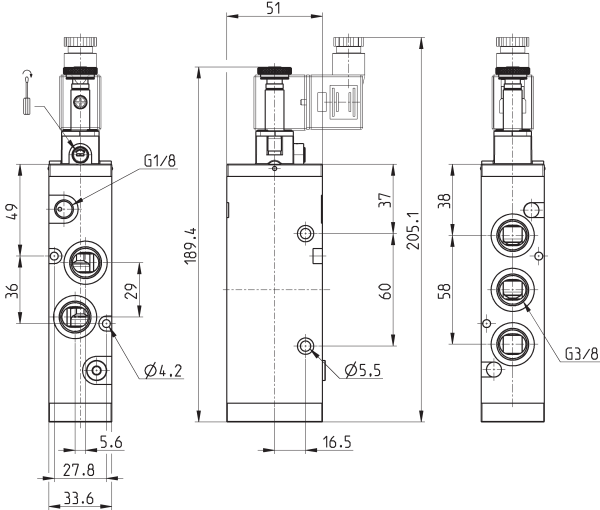
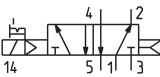
EV18



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 |

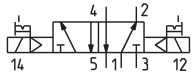
5/2-way solenoid valve, G3/8, bistable - Mod. 453-011...

New

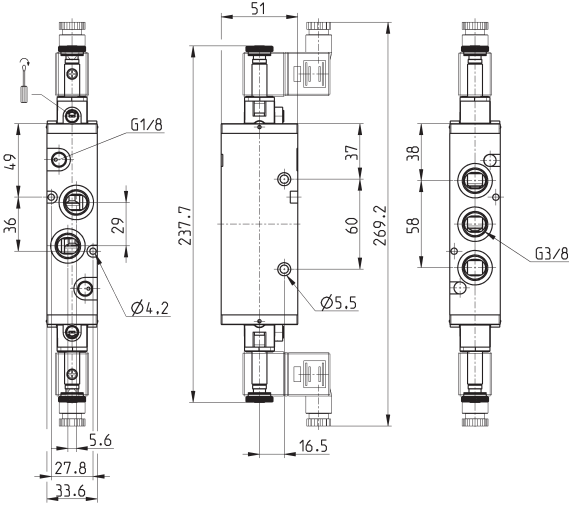
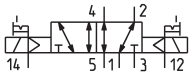


These solenoid valves, which have electropneumatic actuation and return, are suitable for operating double-acting cylinders.

EV23



EV25



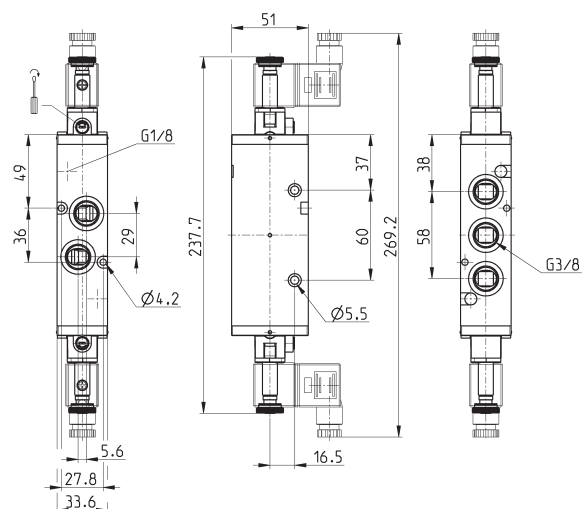
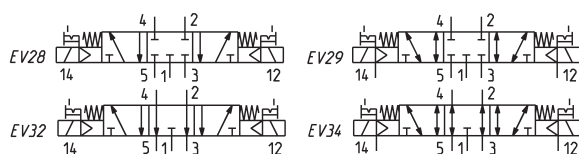
| Mod. | Function | Flow Qn (NL/min) | Working pressure (bar) | Min. pilot pressure (bar) | Symbol |
|------------|----------|------------------|------------------------|---------------------------|--------|
| 453-011-22 | 5/2 | 1800 | 2 ÷ 10 | - | EV23 |
| 453-E11-22 | 5/2 | 1800 | -0.9 ÷ 10 | 2 | EV25 |

5/3-way solenoid valve, G3/8 - Mod. 463-011... and 473-011...

New



CC = Centres Closed
CO = Centres Open

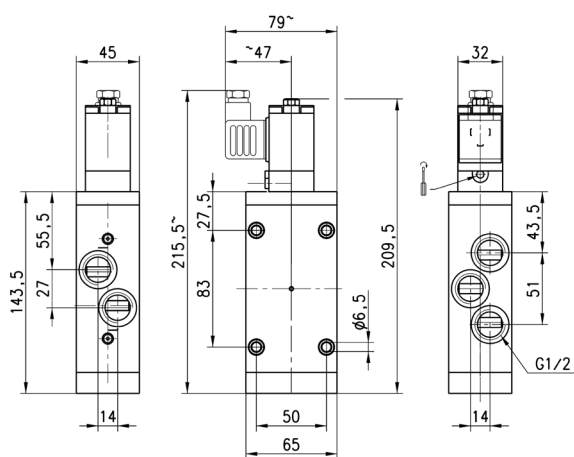
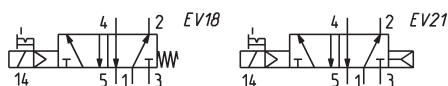


| Mod. | Function | Flow Qn (NL/min) | Working pressure (bar) | Min. pilot pressure (bar) | Symbol |
|------------|----------|------------------|------------------------|---------------------------|--------|
| 463-011-22 | 5/3 CC | 1600 | 2.5 ÷ 10 | - | EV28 |
| 463-E11-22 | 5/3 CC | 1600 | -0.9 ÷ 10 | 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.

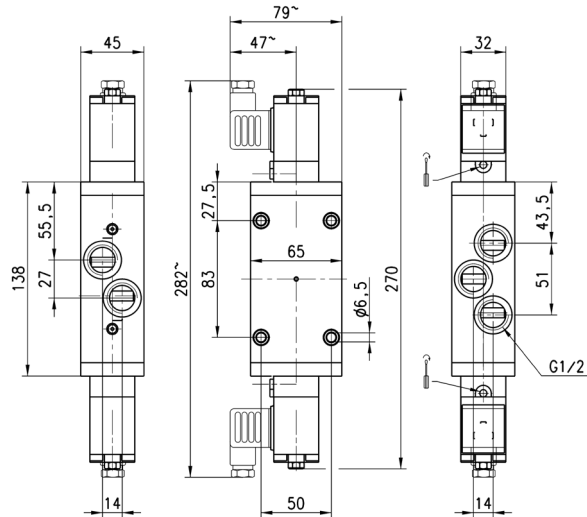
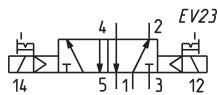


| Mod. | Function | Flow rate Qn (NL/min) | Operating pressure (bar) | Symbol | |
|-----------------|----------|-----------------------|--------------------------|--------|------------------------------|
| 452C-015-50-A6* | 5/2 | 2500 | 2.5 ÷ 10 | EV18 | * choose the desired voltage |
| 452C-016-50-A6* | 5/2 | 2500 | 2.5 ÷ 10 | EV21 | * choose the desired voltage |

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.



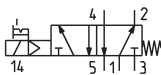
| Mod. | Function | Flow rate Qn (NL/min) | Operating pressure (bar) | |
|-----------------|----------|-----------------------|--------------------------|------------------------------|
| 452C-011-50-A6* | 5/2 | 2500 | 2 ÷ 10 | * choose the desired voltage |

5/2-way solenoid valve, G1/2, monostable - Mod. 452N-...

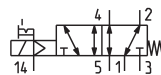


These solenoid valves, which have electropneumatic actuation and spring or pneumatic spring return are suitable for operating double-acting cylinders.

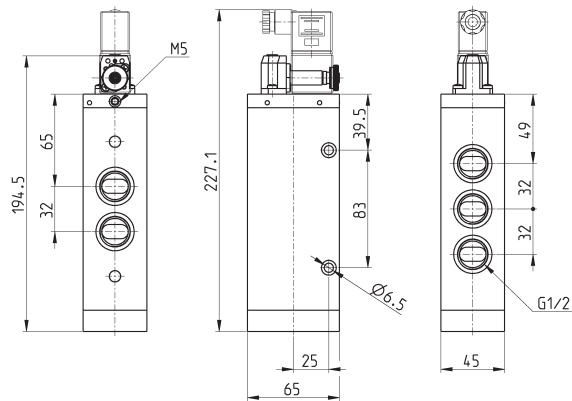
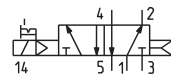
EV18



EV19



EV21



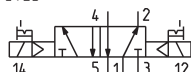
| Mod. | Function | Flow rate Qn (NL/min) | min. pilot Pressure (bar) | Working pressure (bar) | Symbol |
|-------------|----------|-----------------------|---------------------------|------------------------|--------|
| 452N-015-22 | 5/2 | 4000 | - | 2.5 ÷ 10 | EV18 |
| 452N-016-22 | 5/2 | 4000 | - | 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-...

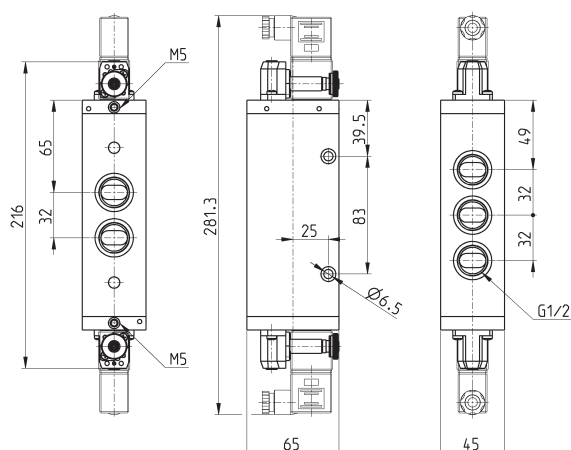


These solenoid valves, which have electropneumatic actuation and return, are suitable for operating double-acting cylinders.

EV23



EV25



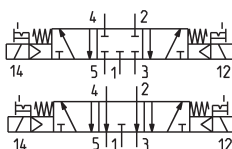
| Mod. | Function | Flow rate Qn (NL/min) | min. pilot Pressure (bar) | Working pressure (bar) | Symbol |
|-------------|----------|-----------------------|---------------------------|------------------------|--------|
| 452N-011-22 | 5/2 | 4000 | - | 2 ÷ 10 | EV23 |
| 452N-E11-22 | 5/2 | 4000 | 2 | -0.9 ÷ 10 | EV25 |

5/3-way solenoid valve, G1/2, bistable - Mod. 462N-..., 472N-...

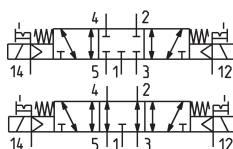


These solenoid valves, which have electropneumatic actuation and return, are suitable for operating double-acting cylinders.

EV28



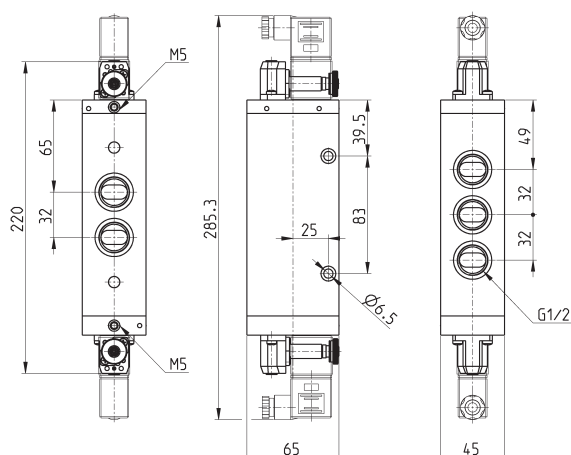
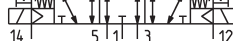
EV29



EV32

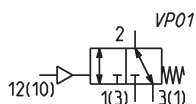
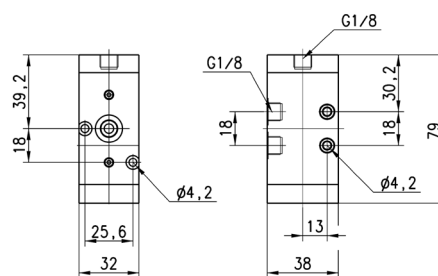


EV34



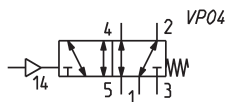
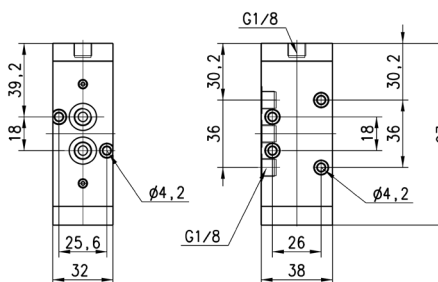
| Mod. | Function | Flow rate Qn (NL/min) | min. pilot Pressure (bar) | Working pressure (bar) | Symbol |
|-------------|----------|-----------------------|---------------------------|------------------------|--------|
| 462N-011-22 | 5/3 CC | 3300 | - | 2.5 ÷ 10 | EV28 |
| 462N-E11-22 | 5/3 CC | 3300 | 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

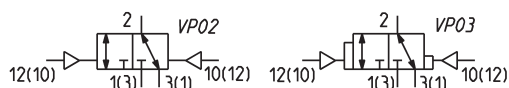
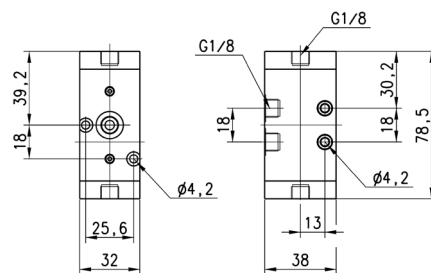


| Mod. | Mounting | Function | Flow rate Qn (l/min) | Min. pilot pressure (bar) | Working pressure (bar) |
|--------|------------------|----------|----------------------|---------------------------|------------------------|
| 458-35 | in-line/manifold | 5/2 | 700 | 2.5 | -0.9 ÷ 10 |

3/2-way valve, G1/8 port, bistable Mod. 438

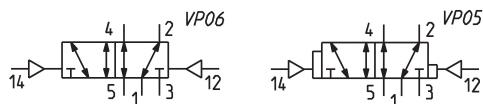
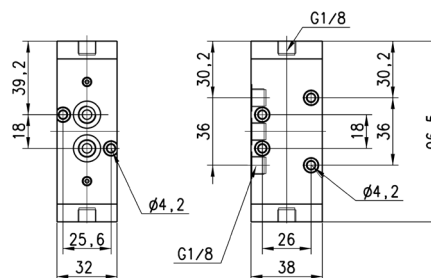


These valves can work NC or NO according to the last pilot signal.



| Mod. | Mounting | Function | Flow rate Qn (l/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

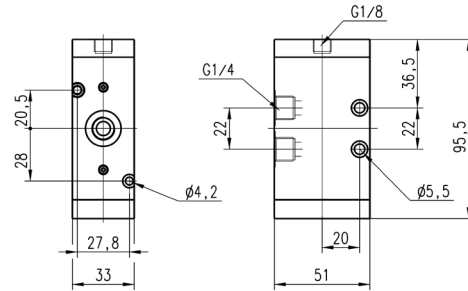
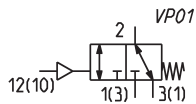


| Mod. | Mounting | Function | Flow rate Qn (Nl/min) | min. pilot Pressure (bar) | Working pressure (bar) | Symbol |
|---------------|---------------------|----------|-----------------------|---------------------------|------------------------|--------|
| 458-33 | in-line/on manifold | 5/2 | 700 | 2 | -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

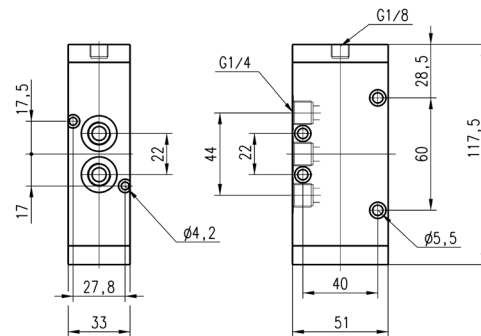
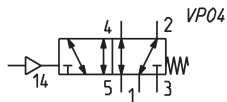


This valve can work NC or NO depending on where the power supply is connected.



| Mod. | Mounting | Function | Flow rate Qn (l/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

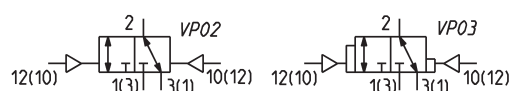
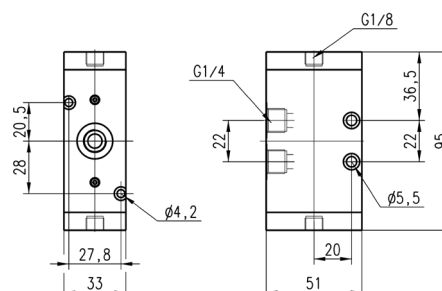


| Mod. | Mounting | Function | Flow rate Qn (l/min) | Min. pilot pressure (bar) | Working pressure (bar) |
|--------|---------------------|----------|----------------------|---------------------------|------------------------|
| 454-35 | in-line/on manifold | 5/2 | 1250 | 2.5 | -0.9 ÷ 10 |

3/2-way valve, G1/4 port, bistable Mod. 434

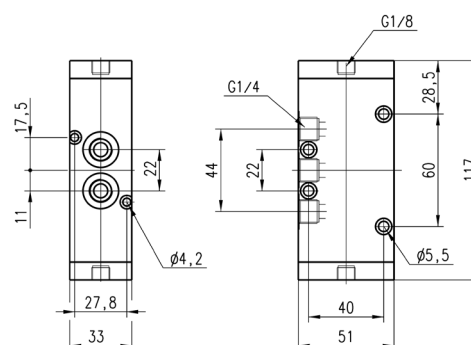


These valves can work NC or NO according to the last pilot signal.



| 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

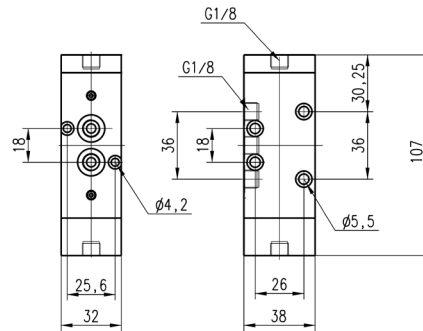
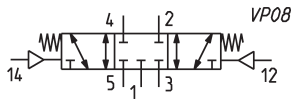


| Mod. | Mounting | Function | Flow rate Qn (NL/min) | min. pilot Pressure (bar) | Working pressure (bar) | Symbol |
|--------|---------------------|----------|-----------------------|---------------------------|------------------------|--------|
| 454-33 | in-line/on manifold | 5/2 | 1250 | 2 | -0.9 ÷ 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

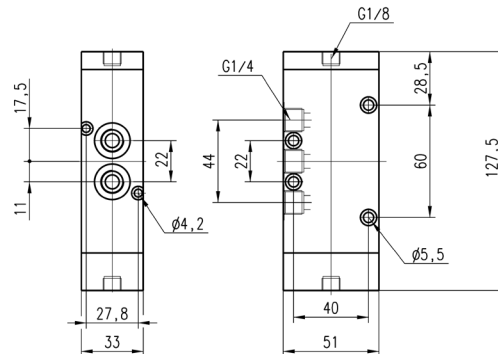
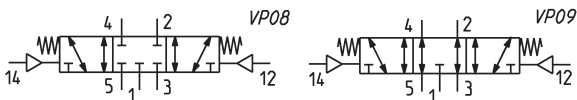


| Mod. | Mounting | Function | Flow rate Qn (l/min) | min. pilot Pressure (bar) | Working pressure (bar) |
|---------------|---------------------|----------|----------------------|---------------------------|------------------------|
| 468-33 | in-line/on manifold | 5/3 CC | 700 | 2.5 | -0.9 ÷ 10 |

5/3-way CC CO valve, G1/4, monostable, central stable position



CC = Centres Closed
CO = Centres Open



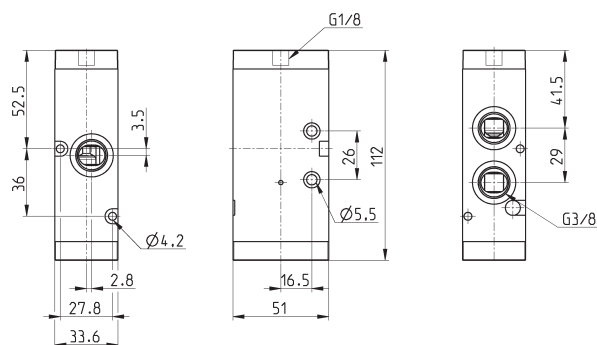
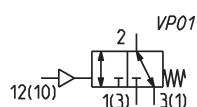
| Mod. | Mounting | Function | Flow rate Qn (NL/min) | min. pilot Pressure (bar) | Working pressure (bar) | Symbol |
|--------|---------------------|----------|-----------------------|---------------------------|------------------------|--------|
| 464-33 | in-line/on manifold | 5/3 CC | 1250 | 2.5 | -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



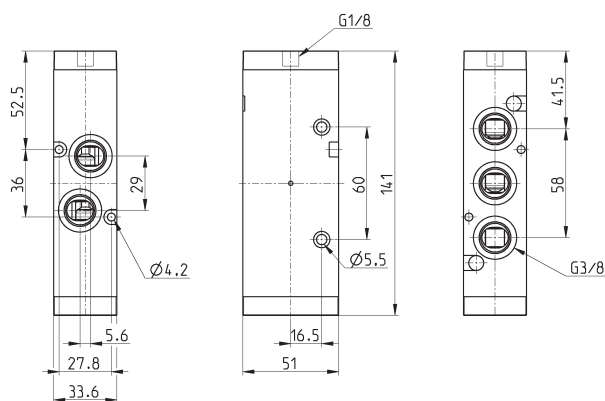
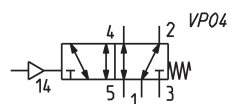
This valve can work NC or NO depending on where the power supply is connected.



| 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



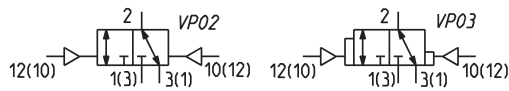
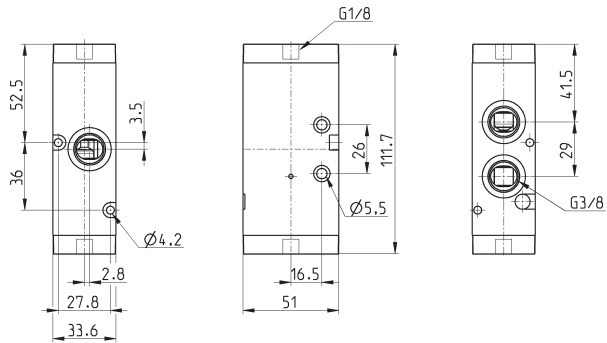
| Mod. | Mounting | Function | Flow rate Qn (NL/min) | Min. pilot pressure (bar) | Working pressure (bar) |
|--------|---------------------|----------|-----------------------|---------------------------|------------------------|
| 453-35 | in-line/on manifold | 5/2 | 1800 | 2.5 | -0.9 ÷ 10 |

3/2-way valve, G3/8 port, bistable Mod. 433

New



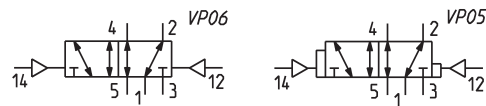
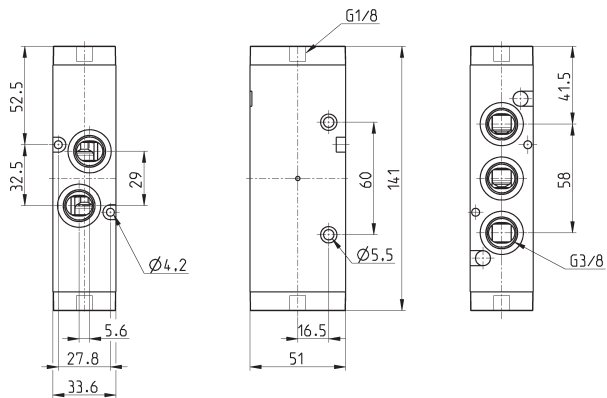
These valves can work NC or NO according to the last pilot signal.



| 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

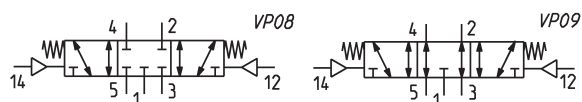
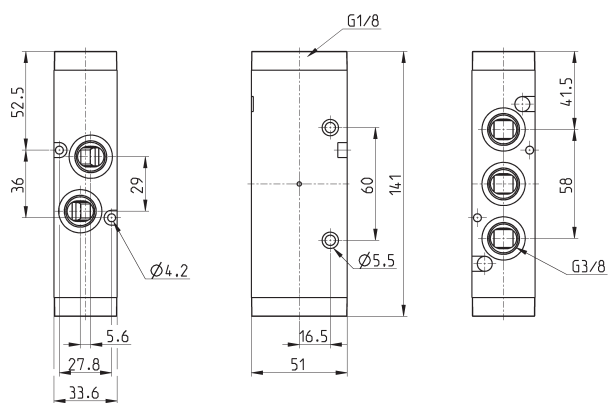


| Mod. | Mounting | Function | Flow rate Qn (NL/min) | min. pilot Pressure (bar) | Working pressure (bar) | Symbol |
|--------|---------------------|----------|-----------------------|---------------------------|------------------------|--------|
| 453-33 | in-line/on manifold | 5/2 | 1800 | 2 | -0.9 ÷ 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

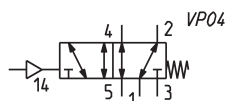
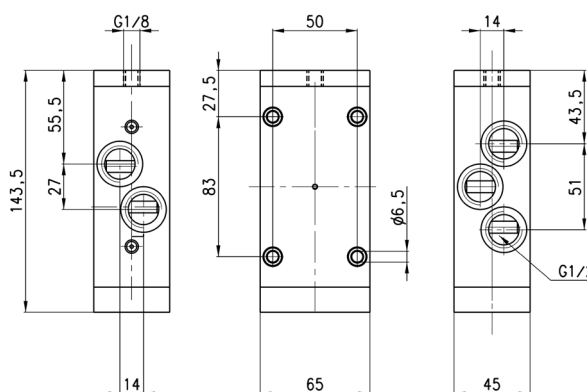


CC = Centres Closed
CO = Centres Open



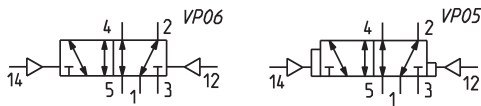
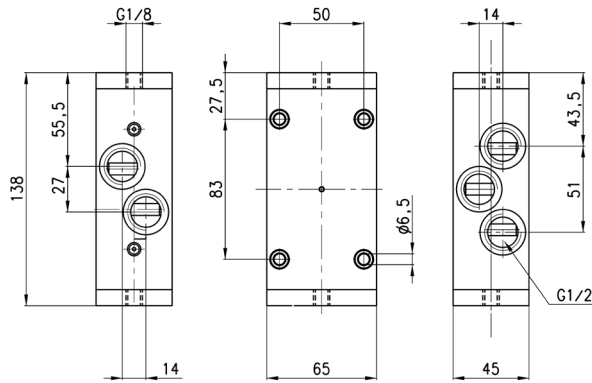
| Mod. | Mounting | Function | Flow rate Qn (NL/min) | min. pilot Pressure (bar) | Working pressure (bar) | Symbol |
|--------|---------------------|----------|-----------------------|---------------------------|------------------------|--------|
| 463-33 | in-line/on manifold | 5/3 CC | 1600 | 2.5 | -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



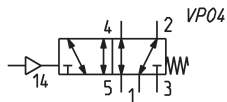
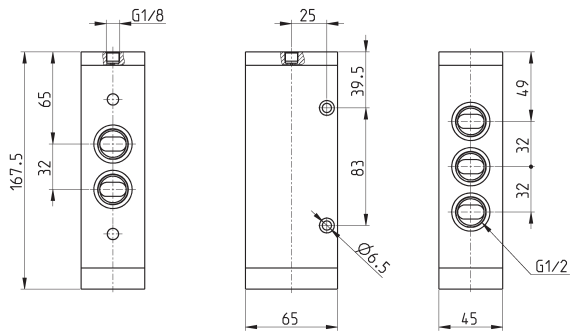
| Mod. | Mounting | Function | Flow rate Qn (NL/min) | Min. pilot pressure (bar) | Working pressure (bar) |
|---------|----------|----------|-----------------------|---------------------------|------------------------|
| 452C-35 | in-line | 5/2 | 2500 | 2.5 | -0.9 ÷ 10 |

5/2-way valve, G1/2 port, bistable Mod. 452C



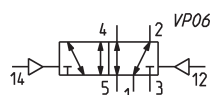
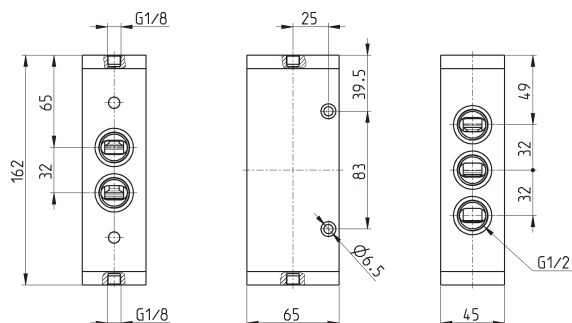
| Mod. | Mounting | Function | Flow rate Qn (NL/min) | min. pilot Pressure (bar) | Working pressure (bar) | Symbol |
|---------|----------|----------|-----------------------|---------------------------|------------------------|--------|
| 452C-33 | in-line | 5/2 | 2500 | 2 | -0.9 ÷ 10 | VP06 |
| 452C-34 | 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 |

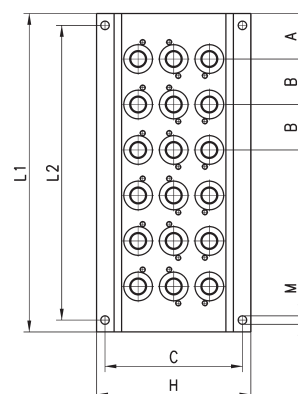
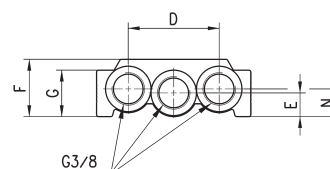
Manifold base with common exhausts



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

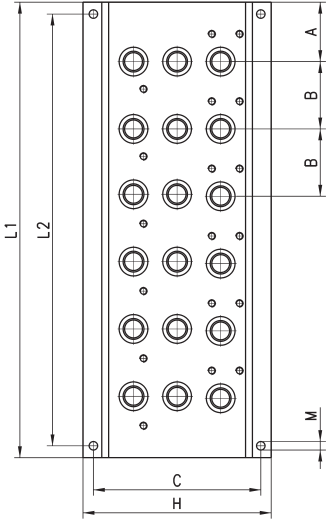
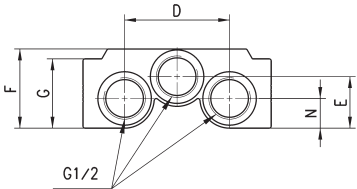


| DIMENSIONS | | | | | | | | | | | |
|------------|----|----|------|----|----|----|------|----|-----|-----|-----|
| Mod. | A | B | C | D | E | F | G | H | L1 | L2 | N |
| CNVL-42 | 28 | 33 | 69.5 | 46 | 12 | 29 | 23.5 | 78 | 89 | 77 | 4.3 |
| CNVL-43 | 28 | 33 | 69.5 | 46 | 12 | 29 | 23.5 | 78 | 122 | 110 | 4.3 |
| CNVL-44 | 28 | 33 | 69.5 | 46 | 12 | 29 | 23.5 | 78 | 155 | 143 | 4.3 |
| CNVL-45 | 28 | 33 | 69.5 | 46 | 12 | 29 | 23.5 | 78 | 188 | 176 | 4.3 |
| CNVL-46 | 28 | 33 | 69.5 | 46 | 12 | 29 | 23.5 | 78 | 221 | 209 | 4.3 |

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



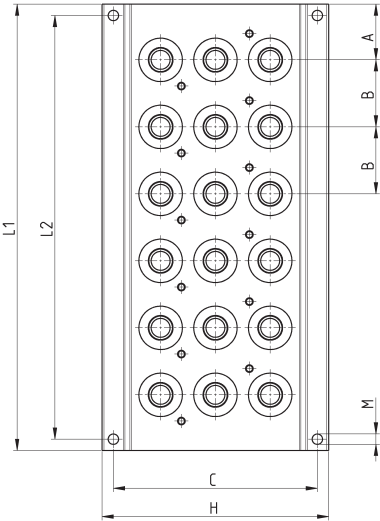
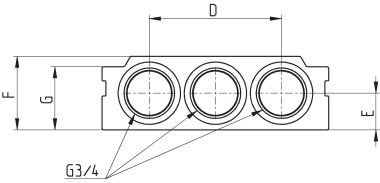
| DIMENSIONS | | | | | | | | | | | |
|------------|----|----|------|----|----|----|----|----|-----|-----|-----|
| Mod. | A | B | C | D | E | F | G | H | L1 | L2 | M |
| CNVL-52 | 30 | 34 | 84.5 | 53 | 26 | 40 | 35 | 95 | 94 | 82 | 4.3 |
| CNVL-53 | 30 | 34 | 84.5 | 53 | 26 | 40 | 35 | 95 | 128 | 116 | 4.3 |
| CNVL-54 | 30 | 34 | 84.5 | 53 | 26 | 40 | 35 | 95 | 162 | 150 | 4.3 |
| CNVL-55 | 30 | 34 | 84.5 | 53 | 26 | 40 | 35 | 95 | 196 | 184 | 4.3 |
| CNVL-56 | 30 | 34 | 84.5 | 53 | 26 | 40 | 35 | 95 | 230 | 218 | 4.3 |

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



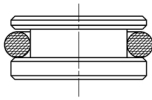
| Mod. | A | B | C | D | E | F | G | H | L1 | L2 | M |
|---------|------|----|-----|----|------|----|------|-----|------|------|-----|
| CNVL-62 | 29.5 | 35 | 108 | 70 | 19.5 | 39 | 33.5 | 120 | 94.5 | 82.5 | 5.5 |
| CNVL-63 | 29.5 | 35 | 108 | 70 | 19.5 | 39 | 33.5 | 120 | 130 | 118 | 5.5 |
| CNVL-64 | 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



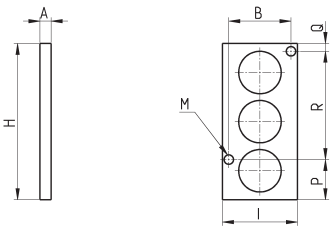
| Mod. |
|---------|
| TCNVL/3 |
| TCNVL/5 |
| TCNVL/6 |

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/4: 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/4 | 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.

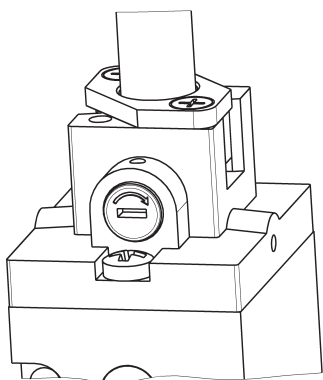
GENERAL DATA

| | |
|-----------------------------------|---|
| 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 |

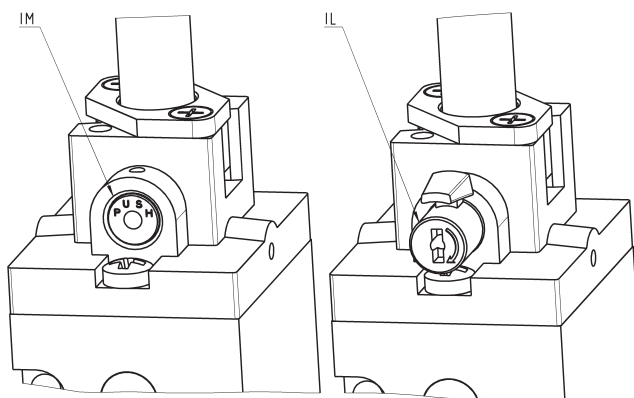
CODING EXAMPLE

| | | | | | | | | | | | |
|------------|--|----------|----------|------------|----------|------------|----------|-----------|----------|-----------|----------|
| 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.



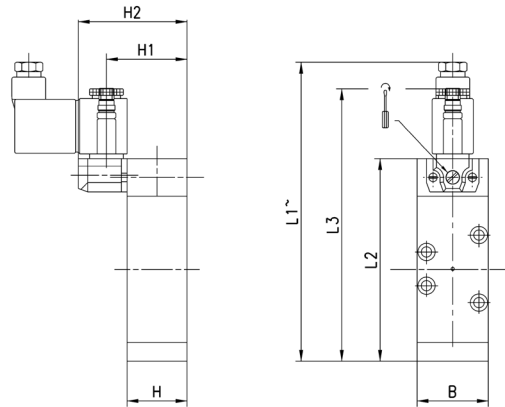
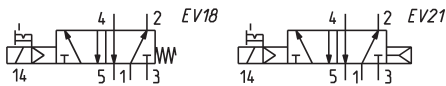
Example of solenoid monostable valve (IM) and bistable valve with a lever type manual override (IL).

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



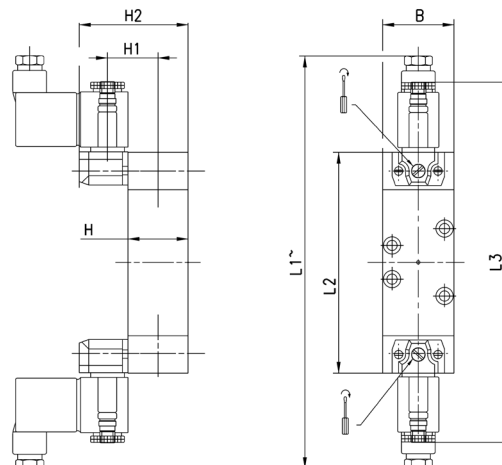
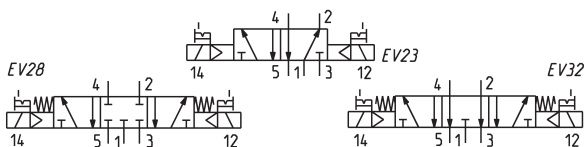
| DIMENSIONS | | | | | | | | | | |
|----------------|----------|----|-----|-----|-----|----|----|----|-------------------------|--------|
| Mod. | Size ISO | B | L1 | L2 | L3 | H | H1 | H2 | Min. operating pressure | Symbol |
| 951-000-P15-23 | 1 | 38 | 153 | 108 | 146 | 32 | 43 | 58 | 2.5 | EV18 |
| 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 |

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 |

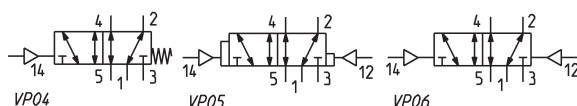
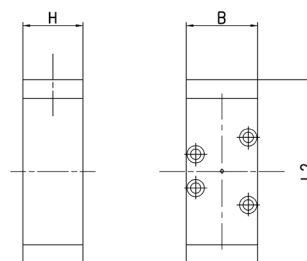
5/2 -way valves, monostable, bistable - ISO 1, ISO 2, ISO 3



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 |

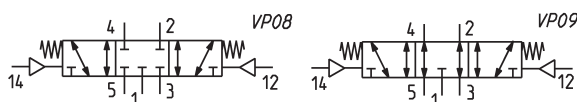
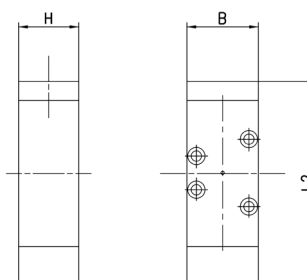
5/3-way valve, monostable, with stable central position - ISO 1, 2, 3



The Series 9 valves with ISO interface, size 1, 2 and 3, are available with pneumatic actuation and central resetting by a spring. There are two types of function:

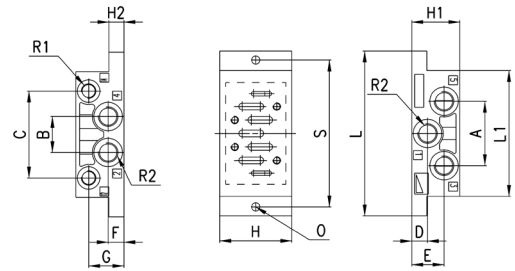
- with closed centres
- with open centres

The following is supplied:
1x interface seal
4x fixing screws



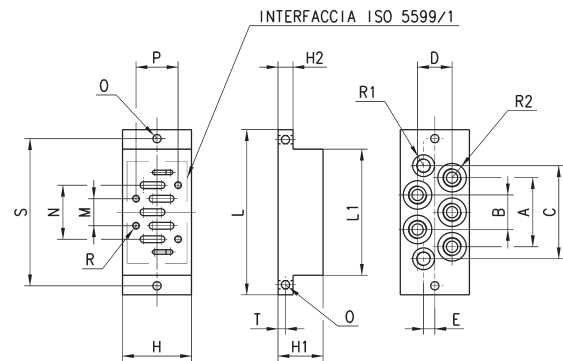
| DIMENSIONS | | | | | | | |
|------------|----------|----|-----|----|---------------------------|------------------------|--------|
| Mod. | Size ISO | B | L2 | H | Min. pilot pressure (bar) | Working pressure (bar) | Symbol |
| 961-000-33 | 1 | 38 | 108 | 32 | 2.5 | -0.9 ÷ 10 | VP08 |
| 962-000-33 | 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)



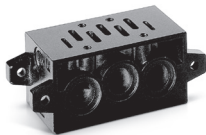
| DIMENSIONS | | | | | | | | | | | | | | | | | |
|------------|------|----|----|----|------|------|------|------|----|----|----|-----|-----|-----|------|------|-----|
| Mod. | Size | A | B | C | D | E | F | G | H | H1 | H2 | L | L1 | O | R1 | R2 | S |
| 901-F1A | 1 | 43 | 24 | 58 | 10.5 | 21.5 | 10.5 | 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)

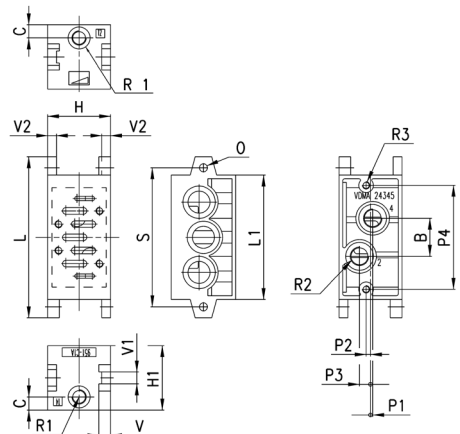


| DIMENSIONS | | | | | | | | | | | | | | | | | | | | |
|------------|------|----|----|----|----|-----|----|----|----|-----|-----|----|----|-----|----|----|------|------|-----|-----|
| Mod. | Size | A | B | C | D | E | H | H1 | H2 | L | L1 | M | N | O | P | R | R1 | R2 | S | T |
| 901-G1A | 1 | 46 | 23 | 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



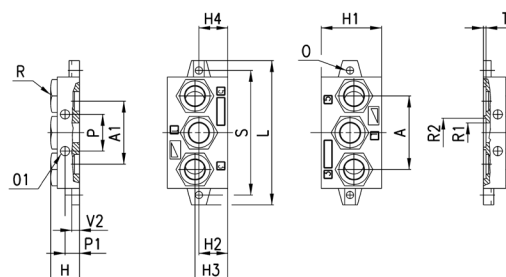
| DIMENSIONS | | | | | | | | | | | | | | | | | | | |
|------------|------|----|-----|----|----|-----|-----|-----|-----|----|-----|-----|------|------|----|-----|----|----|----|
| Mod. | Size | B | C | H | H1 | L | L1 | O | P1 | P2 | P3 | P4 | R1 | R2 | R3 | S | V | V1 | V2 |
| 901-C1A | 1 | 26 | 8.5 | 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

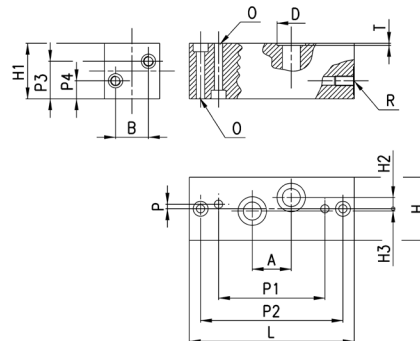


| DIMENSIONS | | | | | | | | | | | | | | | | | | | |
|------------|------|-----|----|----|----|----|----|----|-----|-----|----|----|----|------|------|------|-----|-----|----|
| Mod. | Size | A | A1 | H | H1 | H2 | H3 | H4 | L | O | O1 | P | P1 | R | ØR1 | ØR2 | S | T | V2 |
| 901-H1 | 1 | 56 | 48 | 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

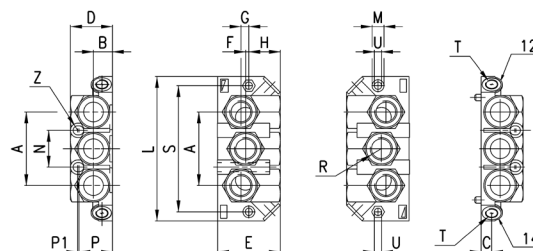


| DIMENSIONS | | | | | | | | | | | | | | | | | | | |
|------------|------|----|----|----|----|----|-----|-----|-----|-----|---|-----|-----|----|----|------|-----|--|--|
| Mod. | Size | A | B | D | H | H1 | H2 | H3 | L | O | P | P1 | P2 | P3 | P4 | R | T | | |
| 901-N1 | 1 | 26 | 22 | 19 | 42 | 37 | 7.5 | 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

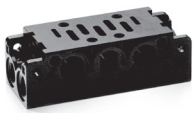


The following is supplied:
2x end blocks (1 pair)
2x fixing screws
3x OR

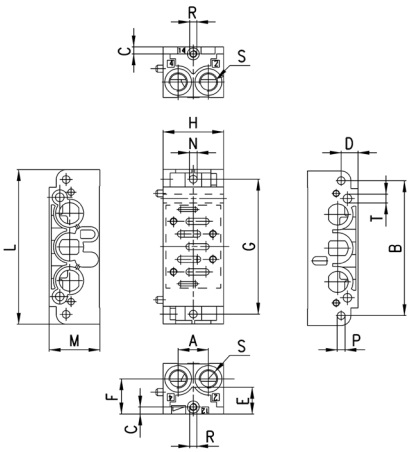


| DIMENSIONS | | | | | | | | | | | | | | | | | | | |
|------------|------|----|------|---|----|----|-----|---|----|-----|---|----|------|----|------|----|------|-----|-----|
| Mod. | Size | A | B | C | D | E | F | G | H | L | M | N | P | P1 | R | S | T | U | Z |
| 901-HN1 | 1 | 56 | 14.5 | 8 | 32 | 48 | 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

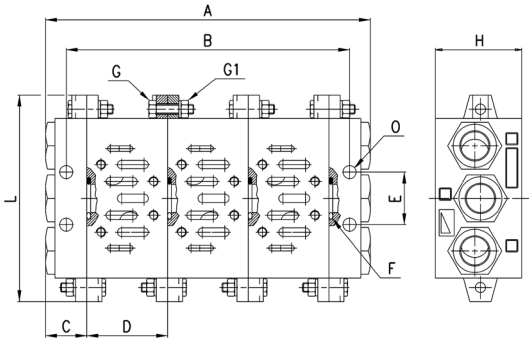


The following is supplied:
2x fixing screws
3x OR



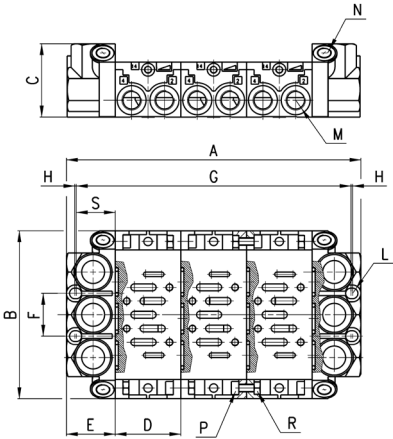
| DIMENSIONS | | | | | | | | | | | | | | | | |
|------------|------|------|----|---|----|----|----|----|----|-----|----|-----|-----|----|------|-----|
| Mod. | Size | A | B | C | D | E | F | G | H | L | M | N | P | R | S | T |
| 901-N1A | 1 | 21.5 | 96 | 5 | 12 | 19 | 25 | 96 | 43 | 110 | 36 | 5.5 | 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 |

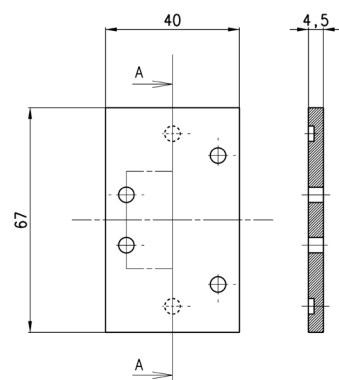
Assembly for front outlet manifold sub-bases



| 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

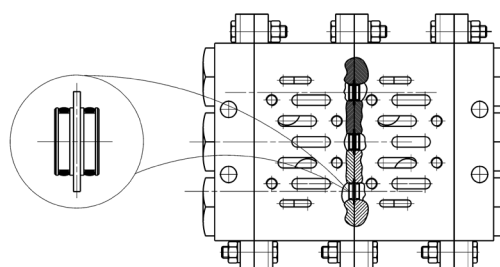


| |
|--------|
| Mod. |
| 901-TP |

Mounting example



Separation tap lines 1 - 3 - 5 to be used with manifold type 901-C1A and 902-C2A

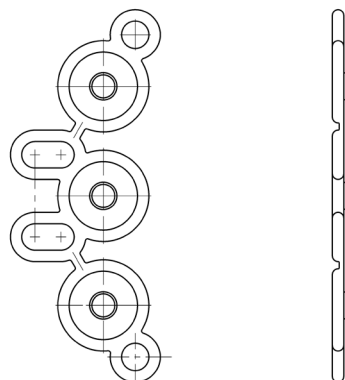


| |
|------------|
| Mod. |
| 901-C1A/TP |
| 902-C2A/TP |

Separation joint



Separation joint to be used with manifold type 901N



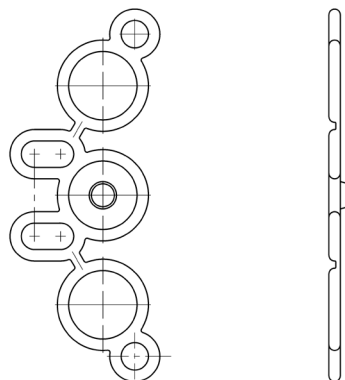
1 - 3 - 5 closed

| |
|-----------|
| Mod. |
| 901-N1A/T |

Separation joint



Separation joint to be used with manifold type 901N.
P plugged.

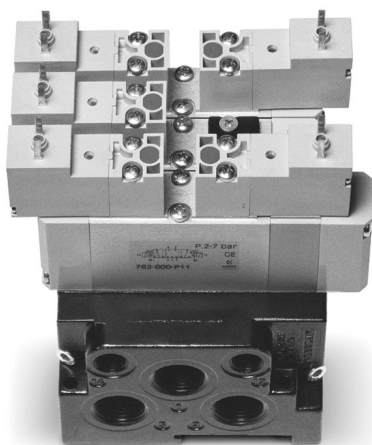


1 closed

| |
|------------|
| 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 |

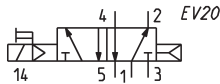
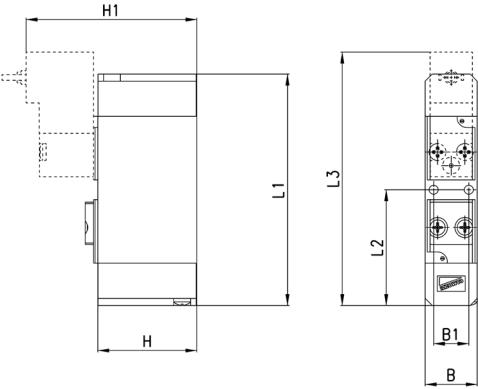
5/2-way solenoid valve, ISO 26 mm - 18 mm monostable



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 |

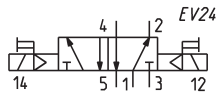
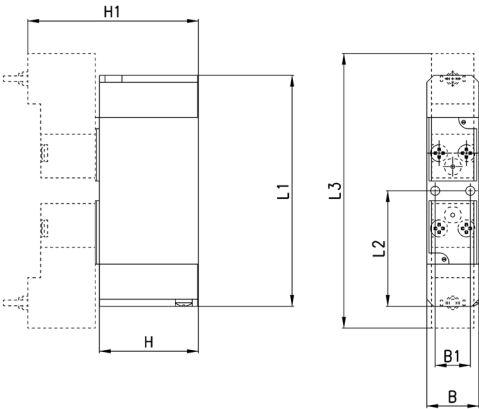
5/2-way solenoid valves, ISO 26 mm - 18 mm, bistable



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 |

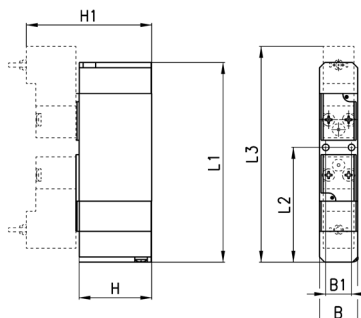
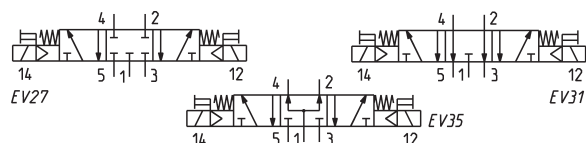
5/3-way solenoid valves, ISO 26 mm - 18 mm



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



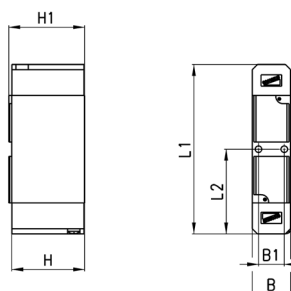
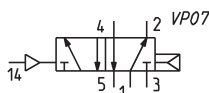
| DIMENSIONS | | | | | | | | | | |
|--------------------|----------|------|------|-------|-------|-------|------|------|-------------------------|--------|
| Mod. | Size ISO | B | B1 | L1 | L2 | L3 | H | H1 | Min. operating pressure | Symbol |
| 761-000-P11-15-W20 | 26 mm | 26,5 | 19 | 111,7 | 61,85 | 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



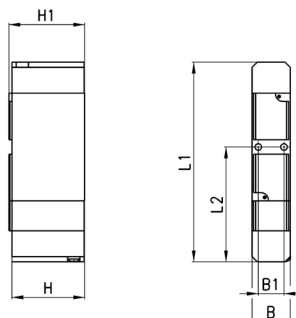
| DIMENSIONS | | | | | | | | |
|------------|----------|------|------|------|-------|------|------|-------------------------|
| Mod. | Size ISO | B | B1 | L1 | L2 | H | H1 | Min. operating pressure |
| 751-000-36 | 26 mm | 26,5 | 19 | 99,7 | 49,85 | 39 | 40,5 | 3 bar |
| 752-000-36 | 18 mm | 18,5 | 12,5 | 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



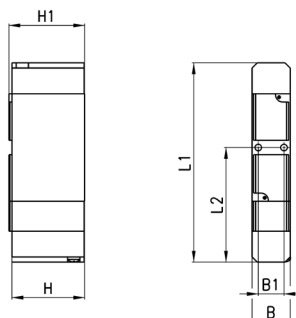
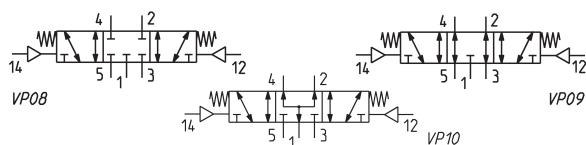
| DIMENSIONS | | | | | | | | |
|------------|----------|------|------|------|-------|------|------|-------------------------|
| Mod. | Size ISO | B | B1 | L1 | L2 | H | H1 | Min. operating pressure |
| 751-000-33 | 26 mm | 26,5 | 19 | 99,7 | 49,85 | 39 | 40,5 | 2 bar |
| 752-000-33 | 18 mm | 18,5 | 12,5 | 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



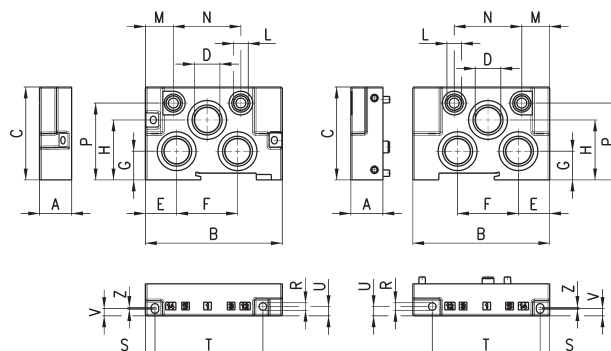
| DIMENSIONS | | | | | | | | | |
|------------|----------|------|------|-------|-------|------|------|-------------------------|--------|
| Mod. | Size ISO | B | B1 | L1 | L2 | H | H1 | Min. operating pressure | Symbol |
| 761-000-33 | 26 mm | 26,5 | 19 | 117,7 | 61,85 | 39 | 40,5 | 3 bar | VP08 |
| 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



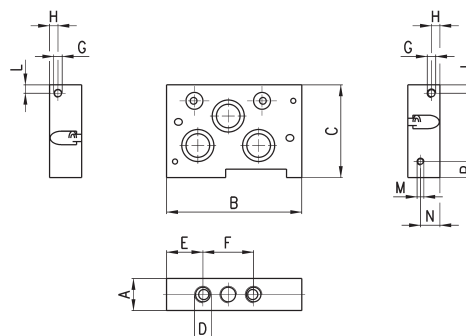
| DIMENSIONS | | | | | | | | | | | | | | | | | | | |
|------------|----------|----|-----|----|------|------|----|------|------|------|------|----|------|-----|------|-------|-----|-------|-----|
| Mod. | Size ISO | A | B | C | D | E | F | G | H | L | M | N | P | R | S | T | U | V | Z |
| 701C-HN1 | 26 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



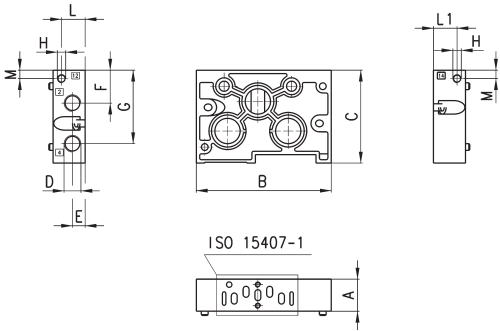
| DIMENSIONS | | | | | | | | | | | | | |
|------------|----------|----|-----|----|------|------|----|----|-----|----|----|------|-----|
| Mod. | Size ISO | A | B | C | D | E | F | G | H | L | M | N | P |
| 701C-N1N | 26 mm | 27 | 100 | 65 | G1/4 | 29 | 42 | M5 | 6,5 | 10 | M4 | 10 | 10 |
| 702C-N2N | 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.

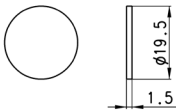
The following is supplied:
1x seal
2x fixing screws



| DIMENSIONS | | | | | | | | | | | | | |
|------------|----------------------|----------|----|-----|----|------|-----|------|------|----|------|------|-----|
| Mod. | | Size ISO | A | B | C | D | E | F | G | H | L | L1 | M |
| 701C-N1A | for separated pilots | 26 mm | 27 | 107 | 65 | G1/4 | 11 | 23 | 53 | M5 | 20,7 | 20,7 | 6,5 |
| 702C-N2A | for separated pilots | 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

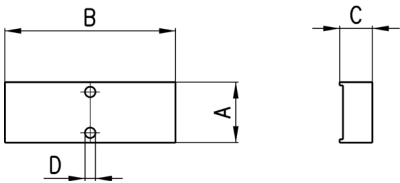
Diaphragm for subbase with conveyed inlet and exhausts and side outlets.



| Mod. |
|-------------|
| 701C-N1A-TP |
| 702C-N2A-TP |

Excluder tap for subbase

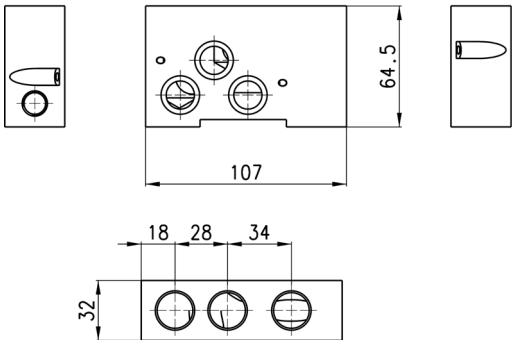
The following is supplied:
1x seal
2x screws



| 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.

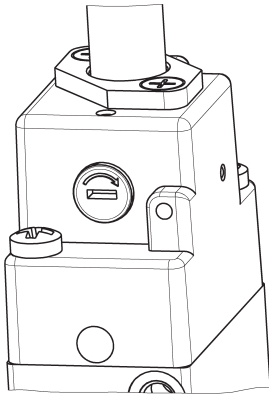
GENERAL DATA

| | |
|------------------------------|---|
| 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. |

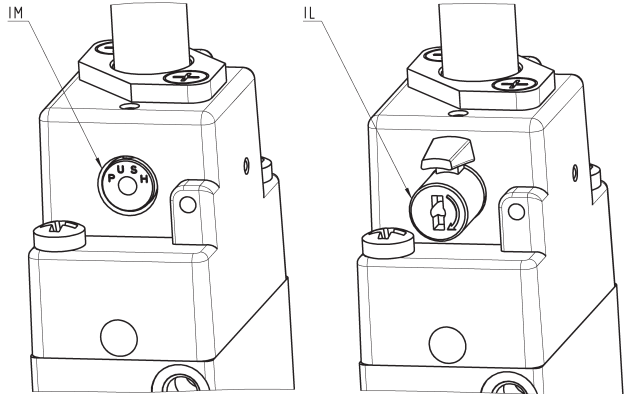
CODING EXAMPLE

| | | | | | | | | | | |
|-----------|---|-----------|----------|-----------|----------|-----------|-----------|----------|-----------|----------|
| 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

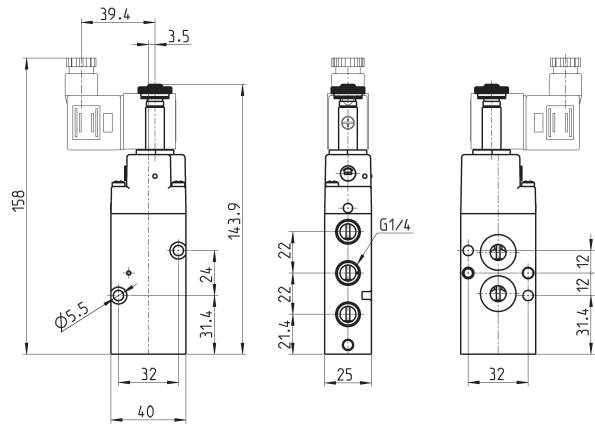
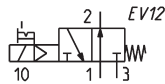
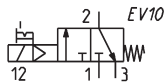


Example of solenoid valve with a bistable standard manual override.



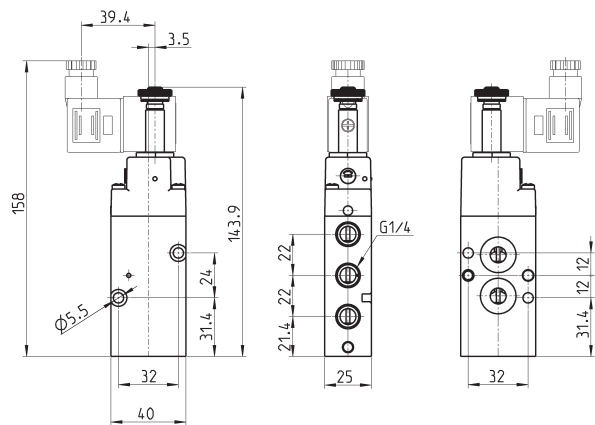
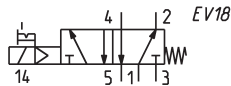
Example of solenoid monostable valve (IM) and bistable valve with a lever type manual override (IL).

3/2-way solenoid valve NC and NO



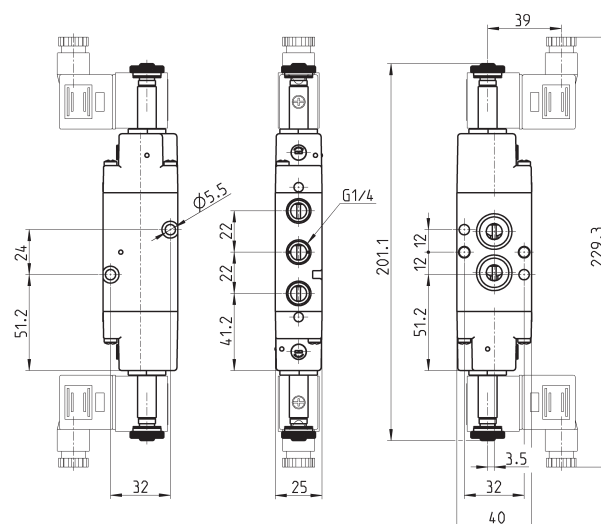
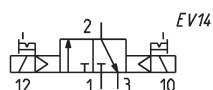
| Mod. | Symbol |
|-------------|--------|
| NA34N-15-02 | EV10 |
| NA44N-15-02 | EV12 |

5/2-way solenoid valve, monostable



| Mod. |
|-------------|
| NA54N-15-02 |

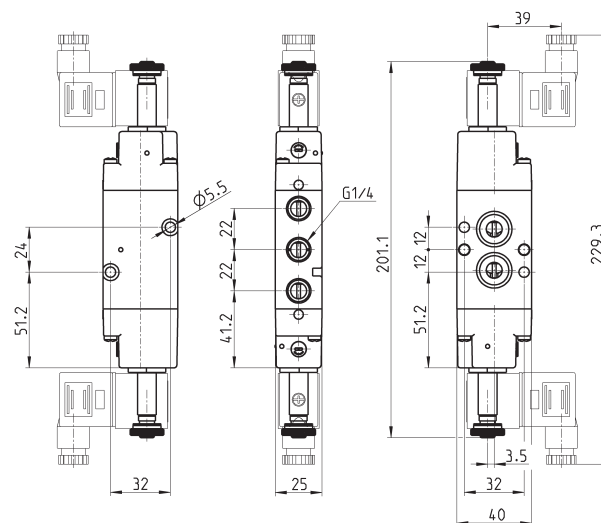
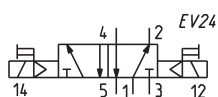
3/2-way solenoid valve, bistable



Mod.

NA34N-11-02

5/2-way, solenoid valve, bistable



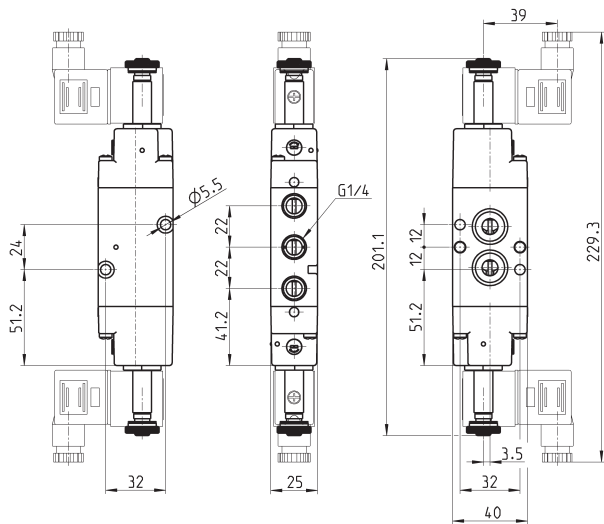
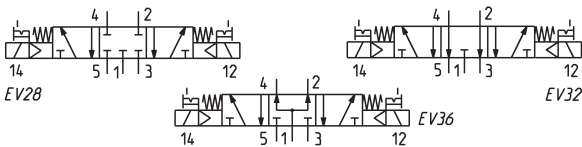
Mod.

NA54N-11-02

2.30.04

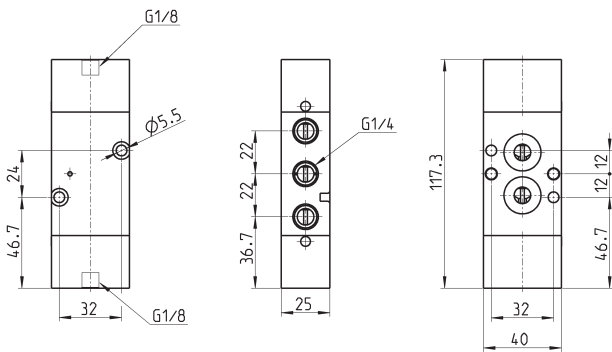
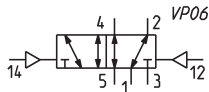
209

5/3-way solenoid valve CC CO CP



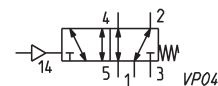
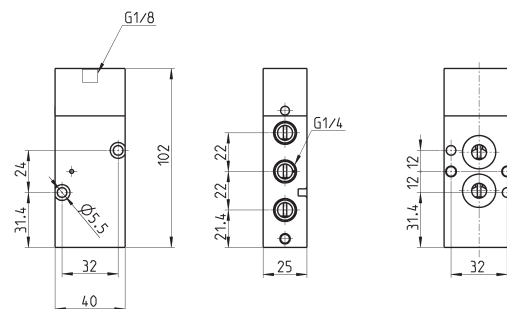
| Mod. | Symbol |
|-------------|--------|
| NA64N-11-02 | EV28 |
| NA74N-11-02 | EV32 |
| NA84N-11-02 | EV36 |

5/2-way pneumatic valve, bistable



| Mod. |
|----------|
| NA54N-33 |

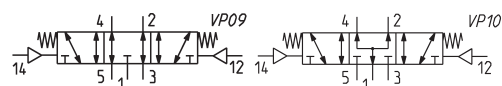
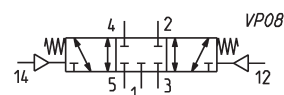
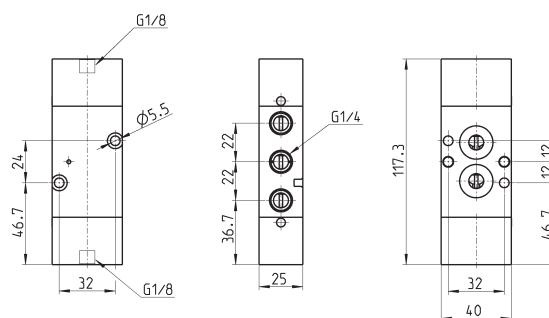
5/2-way pneumatic valve, monostable



Mod.

NA54N-35

5/3-way pneumatic valve CC CO CP



Mod.

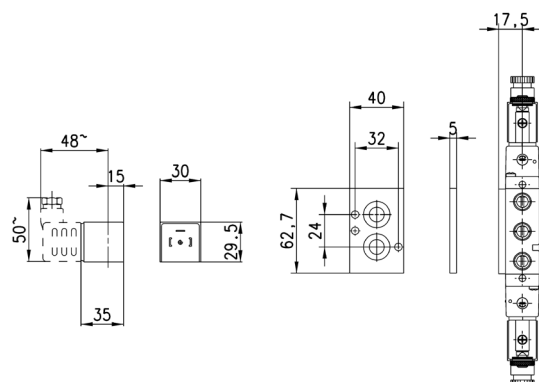
| | |
|----------|------|
| NA64N-33 | VP08 |
| NA74N-33 | VP09 |
| NA84N-33 | VP10 |

Single subbase Mod. NA54-PC



Distance plate for the mounting of Series H8 solenoids

Supplied with:
2x screws
2x O-rings



Mod.

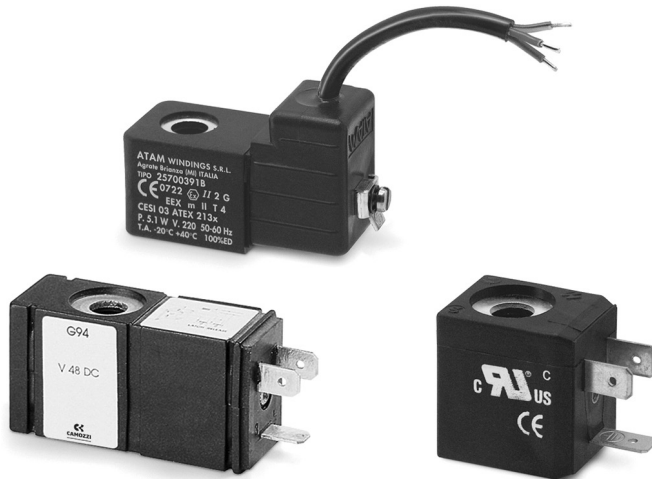
NA54-PC

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

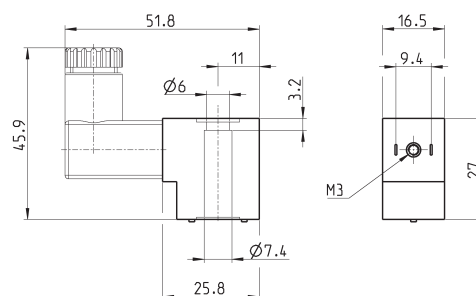
| | U7... / G7... / G93 | A8... | B... | H8... |
|-------------------------|--|--|--|------------------|
| Wire insulation | class F (155° C) | class H (180° C) | class H (200° C) | class H (200° C) |
| Protection class | IP54 - DIN 40050 | IP54 - DIN 40050 | IP54 - DIN 40050 | IP64 |
| | IP65 (with connector Mod. 122-800 and Mod. 122-800EX) | IP65 (with connector Mod. 124-800) | IP65 (with connector Mod. 124-800) | |
| 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



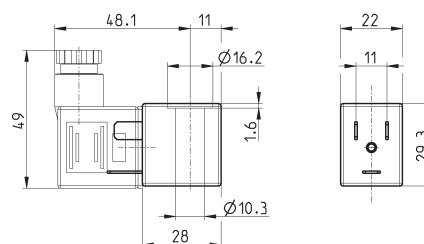
| Mod. | Solenoid voltage | Power absorption |
|------|------------------|------------------|
| GPB | 12 V DC | 3 W |
| GP7 | 24 V DC | 3 W |

Solenoids Mod. B7...



Electrical connection: bipolar plus earth
Norm: DIN EN 175 301-803-B

Solenoid material: PA-MXD6

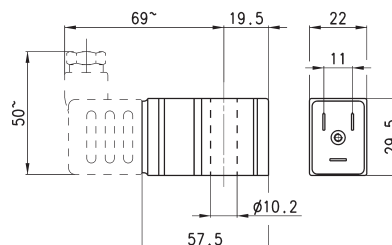


| Mod. | Solenoid voltage | Power absorption |
|------|------------------|------------------|
| B7B | 24 V - 50/60 Hz | 9 VA |
| B7D | 110 V - 50/60 Hz | 9 VA |
| B7E | 230 V - 50/60 Hz | 9 VA |
| B7H | 24 V - 50/60 Hz | 4 VA |
| B72 | 12 V - DC | 10 W |
| B73 | 24 V - DC | 10 W |
| B74 | 24 V - DC | 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 impulse latch/release | Consumption latch/release |
|------|---------|-------------------------------|---------------------------|
| G93 | 24 V DC | 18 ms - 10 ms | 168 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:

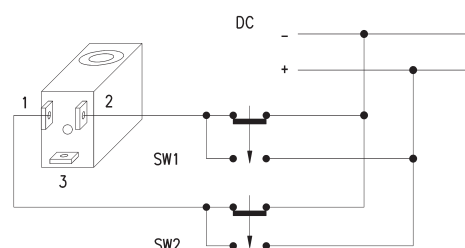
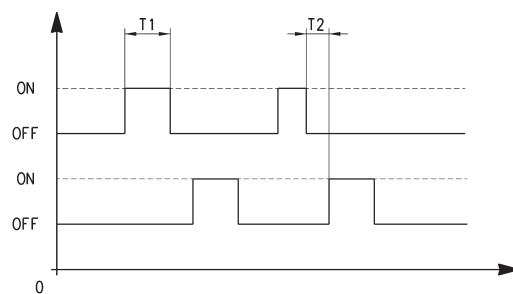
- stable functioning system (memory)

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

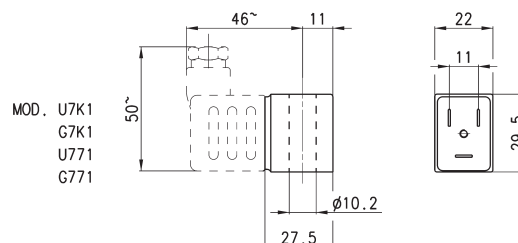
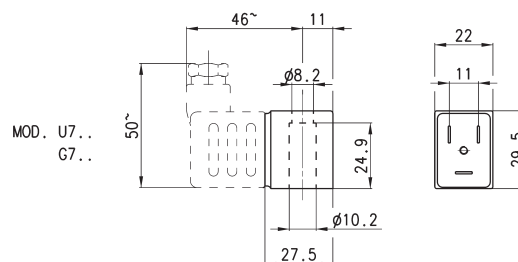
Solenoid material: U7* = PET: G7* = PA

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 | | | | |

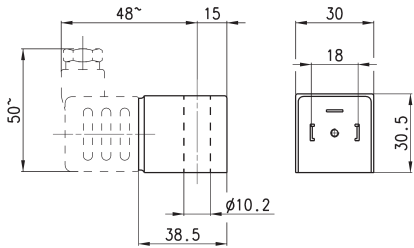
Notes to the table:
Sol. volt. = Solenoid voltage
Pow. abs. = Power absorption

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

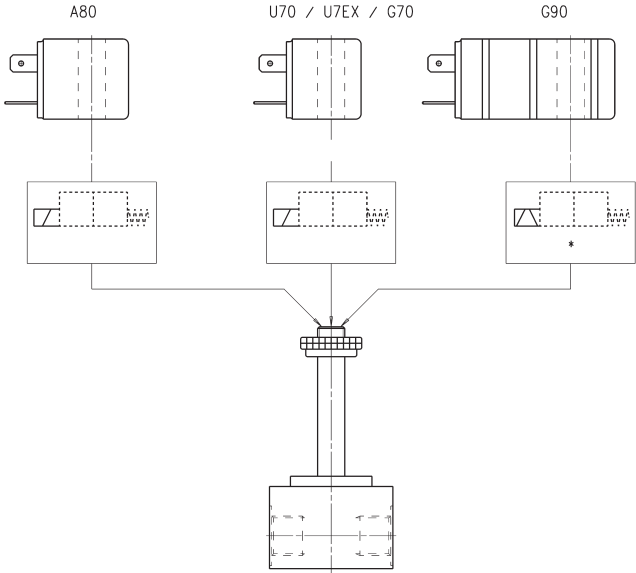


| Mod. | Solenoid voltage | Power absorption |
|------|------------------|------------------|
| A8B | 24V - 50/60Hz | 5VA |
| A8D | 110V - 50/60Hz | 5VA |
| A8E | 220V - 50/60Hz | 5VA |
| A83 | 24V DC | 4W |

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.



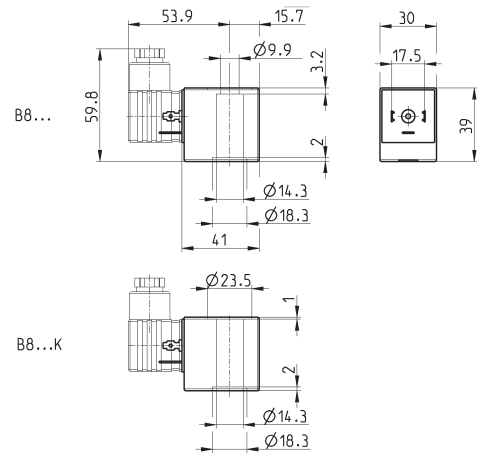
Solenoids Mod. B8...



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

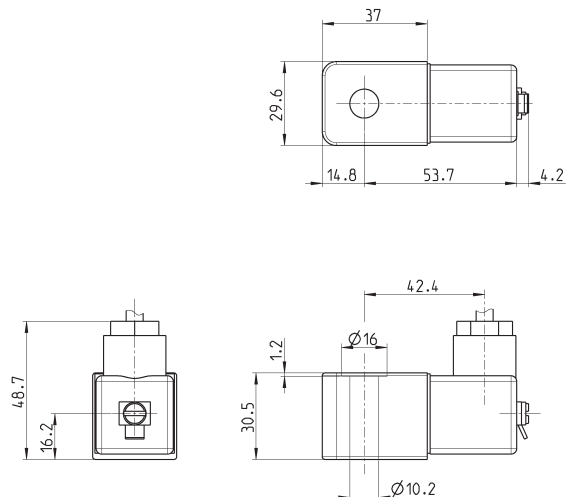


Certification in compliance with
EN 60079-0 EN 60079-18

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 |

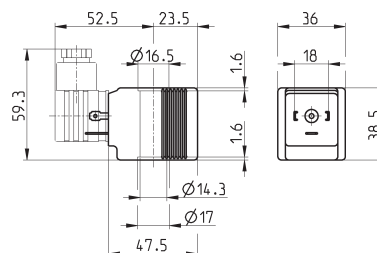
Temperature class/Max surface temperature: T4/135°C
Environment temperature: -20°C + 40°C
Connection: tripolar cable 3 m (other lengths on request)
Incapsulating material: self-extinguishing PA.

Solenoids Mod. B9...



Electrical connection: bipolar plus earth
Norm: DIN EN 175 301-803-A

Solenoid material: PA-MXD6



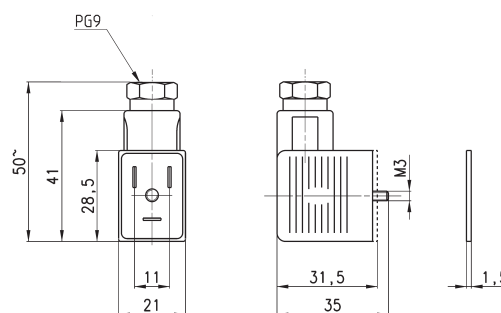
| Mod. | Solenoid voltage | Power absorption |
|------------|------------------|------------------|
| B9B | 24 V - 50 Hz | 29 VA |
| B9D | 110 V - 50/60 Hz | 29 VA |
| B9E | 230 V - 50 Hz | 29 VA |
| B92 | 12 V - DC | 30 W |
| B93 | 24 V - DC | 30 W |

Connectors Mod. 122-... DIN EN 175 301-803-B



For solenoids Mod. U7/U7*EX, G7 and B7

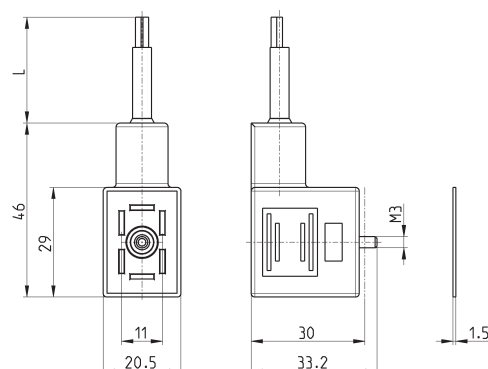
Mod. 122-800EX:
for ATEX certified solenoids mod. U7*EX, with anti-screwing off screw mod. TORX.



| Mod. | description | colour | working voltage | cable holding | tightening torque |
|------------------|--------------------------------|-------------|-----------------|---------------|-------------------|
| 122-601 | connector, diode + Led | transparent | 10/50 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/U7*EX, G7 and B7

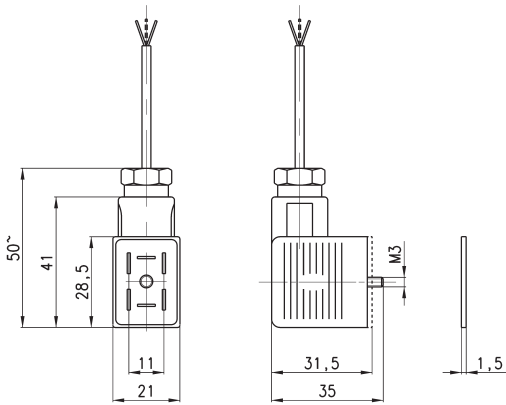


| Mod. | description | colour | working voltage | cable length [L] | cable holding | tightening torque |
|-------------------|-------------------------------|--------|-----------------|------------------|---------------|-------------------|
| 122-571-1 | moulded cable, varistor + Led | black | 24 V AC/DC | 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



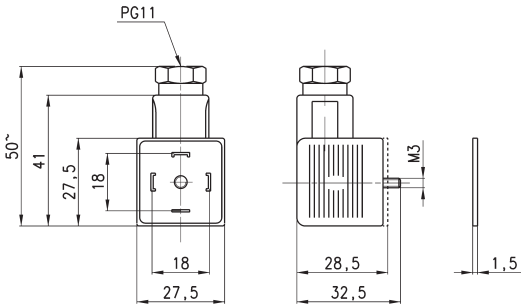
| Mod. | description | colour | working voltage | cable length [L] | cable holding | tightening torque |
|----------|--------------------------------------|-------------|-----------------|--------------------|---------------|-------------------|
| 122-892C | pre-wired connector, positive common | transparent | 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 holding | 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 |