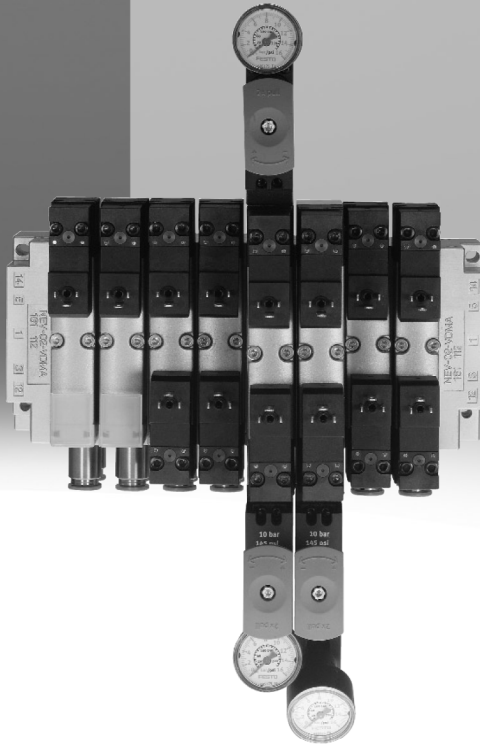


Solenoid/pneumatic valves, ISO 15407-1

FESTO



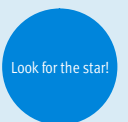
Festo core product range
Covers 80% of your automation tasks

Worldwide:
Superb:
Easy:

Always in stock
Festo quality at an attractive price
Reduces procurement and storing complexity

★ Generally ready for shipping ex works in 24 hours
Held in stock in 13 service centres worldwide
More than 2200 product

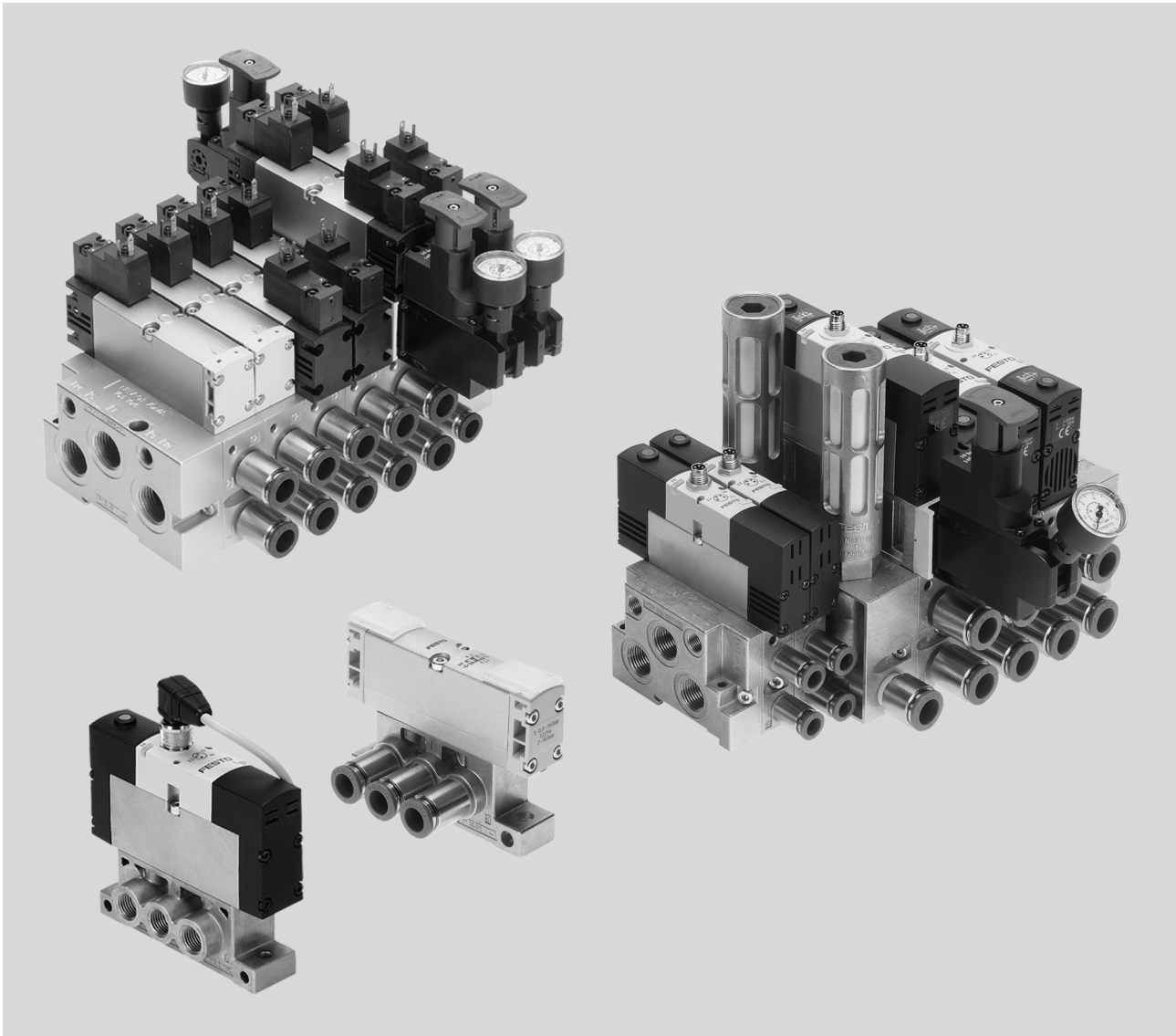
★ Generally ready for shipping ex works in 5 days
Assembled for you in 4 service centres worldwide
Up to 6×10^{12} variants per product series



Solenoid/pneumatic valves, ISO 15407-1

Key features

FESTO



Innovative

- High-performance valves in a sturdy metal housing
- Individual electrical connection via square round plug sockets
- Valve replacement under pressure possible using vertical pressure shut-off plate
- Reverse operation
- Vacuum operation

Versatile

- Modular system offering a range of configuration options
- Easy to convert or extend at a later date
- Integration of innovative function modules possible
 - Regulator plate
 - Flow control plate
 - Vertical pressure shut-off plate
 - Vertical supply plate
- Vertical supply plates permit a flexible air supply and variable pressure zones
- Wide range of valve functions
- Extensive operating voltage range from 12 V DC to 230 V AC

Reliable

- Sturdy and durable metal components
 - Valves
 - Horizontally linked sub-bases
 - Vertically stacked sub-bases
- Fast troubleshooting thanks to LEDs
 - in the plug socket or
 - in the illuminating seal or
 - in the valve
- Convenient servicing thanks to valves that can be replaced quickly and easily
- Manual override
- Durable thanks to tried-and-tested piston spool valves

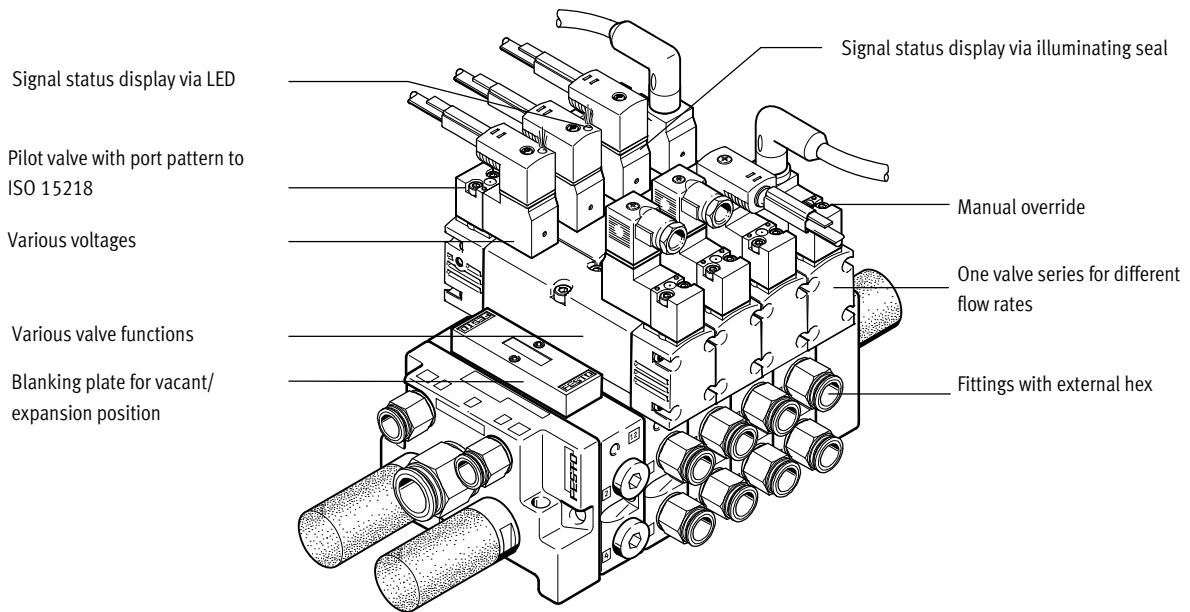
Easy to install

- Secure mounting on wall or H-rail
- Combi manifolds of width 18 mm and 26 mm
- Plug-in pressure gauges on the regulator plate

Solenoid/pneumatic valves, ISO 15407-1

Key features

Single valve manifold VTIA



Equipment options

5/2-way valve

- Single solenoid, pneumatic or spring return
- Double solenoid valve
- Double solenoid valve with dominance at 14

2x 3/2-way valve, single solenoid

- Normally open
- Normally open, reversible (on request)
- Normally closed
- Normally closed, reversible (on request)

- 1x normally open, 1x normally closed
- 1x normally open, 1x normally closed, reversible (on request)

5/3-way valve

- Mid-position valve
 - Normally open
 - Normally closed
 - Normally exhausted

2x 2/2-way valve, single solenoid

- Normally closed

Special features

Operation with external pilot air supply

- For vacuum applications
- For operating pressure of less than 3 bar
- For significant pressure fluctuations in the power section. Power section and pneumatic control section are isolated
- For heavily lubricated air in the power section
- For manifolds if the pressure zones are created via ducts 3 and 5 (not possible with 2x 3/2)
- For manifolds or pressure zones that are equipped with reversible 2x 3/2-way valves (valves on request)

Operation with internal pilot air supply

- For small pressure fluctuations in the power section
- For using pressure regulator plates in a vertical stacking construction, also in reverse operation
- As a low-cost solution

Reverse operation with compressed air supply via ducts 3 and 5

- Pressure zone separation via ducts 3 and 5
 - Example: duct 3 vacuum, duct 5 ejector pulse
 - Example: duct 3 high pressure for advancing the piston rod of a double-acting cylinder. Duct 5 low pressure for retracting the piston rod with low energy consumption
- 2x 3/2-way valves used as 5/4-way valve with controllable overlapping and pressure zone separation with the reversible variant

Reverse operation with a pressure regulator plate, compressed air supply via duct 1

- Reversible pressure regulator combined with a reversible 2x 3/2-way valve regulates outputs 2 and 4
 - AB regulator for each of outputs 2 and 4
 - A regulator for output 4
 - B regulator for output 2
- Reversible pressure regulators are in the control position immediately after the power supply is switched on
 - Adjustment possible at all times
 - Dynamic response characteristics
 - Reduced regulator load because the supply pressure is maintained when the valve is switched
 - Not exhausted via the regulator

Solenoid/pneumatic valves, ISO 15407-1

Key features

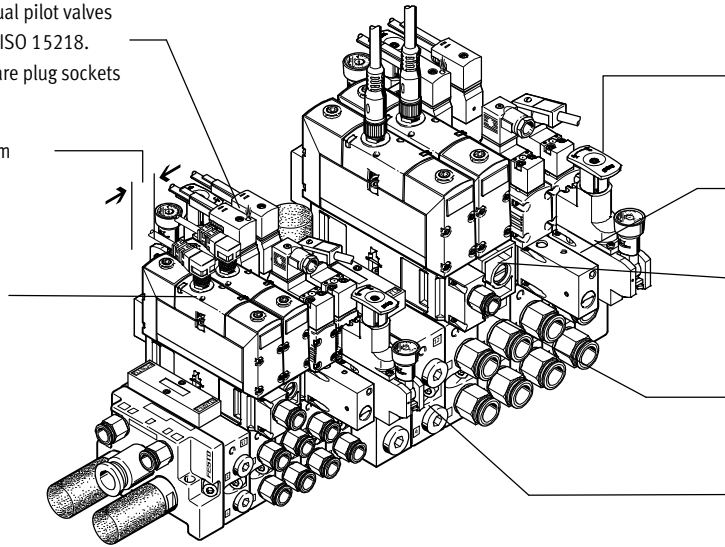
FESTO

Valve manifold VTIA with combination of sizes and vertical stacking

Solenoid valve with individual pilot valves and pneumatic interface to ISO 15218. Can be connected with square plug sockets or round plugs

Widths of 18 mm and 26 mm can be combined

Solenoid valve with central round plug



Pressure regulator for setting the force of the actuated drive

Pressure shut-off plate for replacing valves during operation

Flow control plate in the valve manifold for adjusting the speed of the drive

Supply plate for compressed air supply of a control chain as a separate pressure zone

Intermediate plate as interface between width 18 mm and width 26 mm

Vertical stacking function

Pressure regulator valve

- Single variant to regulate the pressure at output 4(A) or 2(B) or at input 1(P)
- Dual variant to regulate the pressure at output 4(A) and 2(B) individually
- Reverse variant for the outputs so that the regulator is in the control position
- With pressure gauge connection

Flow control plate

- Designed with two flow control valves for adjusting the exhaust air flow rate at exhausts 5 or 3. This allows the drive to be set in motion and the desired speed to be set at the manifold using the manual override.

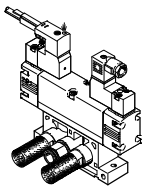
Vertical pressure shut-off plate

- Equipped with a switch via which the compressed air supply can be shut off. A directional control valve or subsequent vertical stacking plate can thus be replaced without switching off the overall air supply
- If the control chain has a redundant design, the cycle can continue even with cyclical control

Vertical supply plate

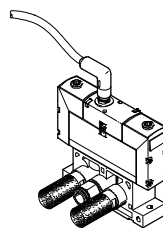
- As additional air supply for a valve
- To supply a third pressure zone

Individual connection with square plug, type C



The directional control valve has a pilot control to ISO 15218 and a plug pattern to EN 175301-803, type C.

Individual connection with central round plug



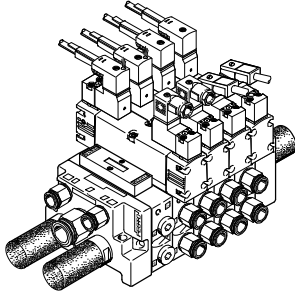
The electrical connection is established using a standardised M12- or M8 socket 24 V DC (EN 61076-2-101).

Solenoid/pneumatic valves, ISO 15407-1

Key features

FESTO

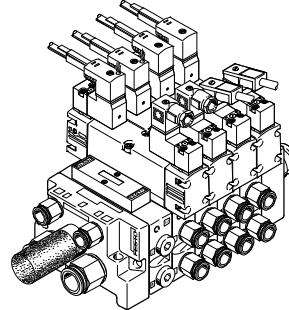
Single valve manifold VTIA, directional control valves with square plug, type C



Design

- Width 26 mm
- Vacant position
- Compressed air supply via duct 1
- External pilot air supply
- With fittings
- Venting via silencer for ducts 3 and 5

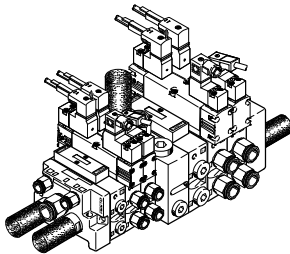
Single valve manifold VTIA, pressure zones via duct 3 and 5



Design

- Width 26 mm
- Vacant position
- Compressed air supply via ducts 3 and 5
- External pilot air supply
- With fittings
- Venting via silencer

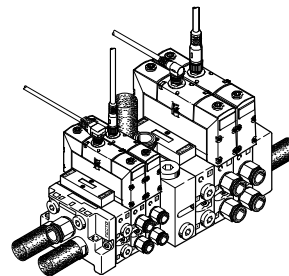
Valve manifold VTIA fitted with width 18 mm and 26 mm, directional control valves with square plug, type C



Design

- Width 18 mm and 26 mm combined via intermediate plate
- Vacant position
- Compressed air supply via duct 1
- External pilot air supply
- With fittings
- Venting via silencer for ducts 3 and 5 on the end plates and for duct 3 also on the intermediate plate

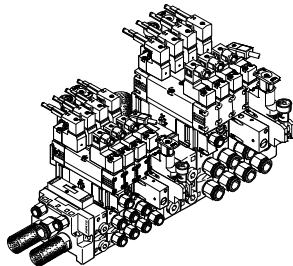
Valve manifold VTIA fitted with width 18 mm and 26 mm, directional control valves with central round plug



Design

- Width 18 mm and 26 mm combined via intermediate plate
- Vacant position
- Compressed air supply via duct 1
- Internal pilot air supply
- With fittings
- Venting via silencer for ducts 3 and 5 on the end plates and for duct 3 also on the intermediate plate

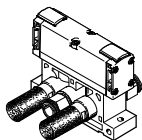
Valve manifold VTIA with maximum expansion with all vertical stacking modules



Design

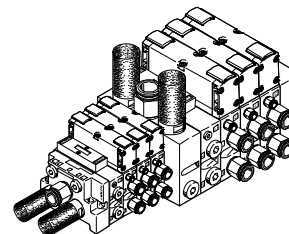
- Width 18 mm and 26 mm combined via intermediate plate
- Directional control valves with square plug
- Pressure regulators
- Flow control plates
- Shut-off plates
- Supply plates with vacant position

Pneumatically actuated directional control valve on individual sub-base



Directional control valves on an individual sub-base can be used for drives that are further away from a valve manifold or when there is only one drive available.

Valve manifold VTIA fitted with width 18 mm and 26 mm, with pneumatically actuated directional control valves



Design

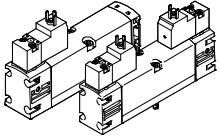
- Width 18 mm and 26 mm combined via intermediate plate
- Vacant position
- Compressed air supply via duct 1
- With fittings
- Venting via silencer for ducts 3 and 5 on the end plates and for ducts 3 and 5 also on the intermediate plate

Solenoid/pneumatic valves, ISO 15407-1

Key features

FESTO

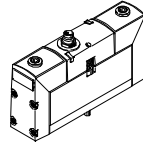
Solenoid valves with square plug, type C



Versions

- Width 18 mm and 26 mm
- 2x 2/2-way, 2x 3/2-way, 5/2-way and 5/3-way valves
- 2x 3/2-way valves for reverse operation
- Internal or external pilot air supply available
- 12, 24 V DC, 24, 110 or 220 V AC

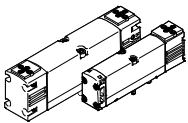
Solenoid valves with central round plug



Versions

- Width 18 mm and 26 mm
- 2x 3/2-way, 5/2-way and 5/3-way valves
- Internal or external pilot air supply available
- 24 V DC

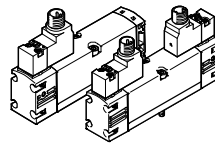
Basic valves with interface to ISO 15218



Versions

- Width 18 mm and 26 mm
- 2x 2/2-way, 2x 3/2-way, 5/2-way and 5/3-way valves
- Internal or external pilot air supply available

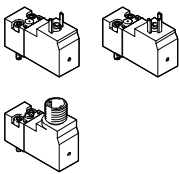
Solenoid valves with M12 round plug



Versions

- Width 18 mm and 26 mm
- 2x 2/2-way, 2x 3/2-way, 5/2-way and 5/3-way valves
- 2x 3/2-way valves for reverse operation
- Internal or external pilot air supply available
- 24 V DC

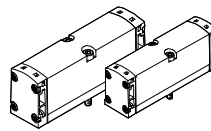
Pilot valve with interface to ISO 15218



Versions

- With square plug, type C or M12 round plug
- For 12, 24 V DC and 24 V AC without protective earth conductor
- For 110 and 220 V AC with protective earth conductor
- 3/2-way valve
- Manual override non-detenting or non-detenting/detenting

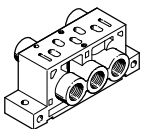
Pneumatically actuated directional control valves



Versions

- Width 18 mm and 26 mm
- 2x 3/2-way, 5/2-way and 5/3-way valves
- Signal inputs 12 and 14 via the sub-base

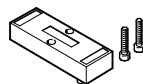
Individual sub-base



Versions

- Width 18 mm and 26 mm
- Ports 12 and 14 for external pilot air supply for solenoid valves and
- Ports signal inputs 12 and 14 for pneumatically actuated valves are the same

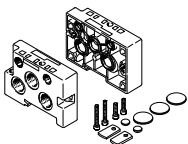
Blanking plate for unused valve position



Versions

- Width 18 mm and 26 mm

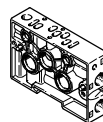
End plate kit



Versions

- Widths 18 mm and 26 mm
- Ports 12 and 14 for external pilot air supply for solenoid valves
- For pneumatically actuated valves the signal inputs are only on suitable manifold sub-bases

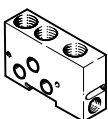
Manifold sub-base/series sub-base



Versions

- Widths 18 mm and 26 mm
- For solenoid valves
- For pneumatically actuated valves with additional ports for the signal inputs

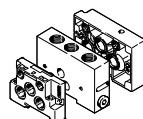
Intermediate plate



Design

- Adapter between width 18 mm and 26 mm
- With additional air supply and exhaust ports

Intermediate plate kit



Design

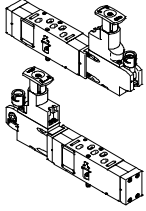
- Intermediate plate as adapter between width 18 mm and 26 mm
- One 18 mm and one 26 mm end plate

Solenoid/pneumatic valves, ISO 15407-1

Key features

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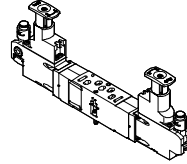
Pressure regulator plate with one pressure regulator



Versions

- Widths 18 mm and 26 mm
- For pressure regulation at supply input 1 (P). Set pressure is the same for outputs 2 and 4
- For pressure regulation at working port 4 (A)
 - The pressure regulator for reverse operation is supplied via port 1 of the sub-base and supplies port 5 on the directional control valve
 - The directional control valve vents via port 1 to ports 3 and 5 of the sub-base
- For pressure regulation at working port 2 (B)
 - Input 3 is supplied here in reverse operation

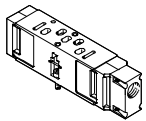
Pressure regulator plate with two pressure regulators



Versions

- Widths 18 mm and 26 mm
- For pressure regulation at working ports 4 (A) and 2 (B)
 - The pressure regulators for reverse operation are supplied via port 1 in the sub-base and feed inputs 5 and 3 on the directional control valve
 - The directional control valve vents via port 1 to ports 3 and 5 of the sub-base

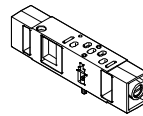
Vertical supply plate



Versions

- Widths 18 mm and 26 mm
- As intermediate supply
 - For one valve
 - To supply a third pressure zone
- Can be equipped with a directional control valve

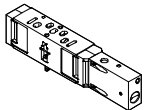
Flow control plate



Versions

- Widths 18 mm and 26 mm
- Exhaust air restrictors in ducts 3 and 5
 - In the case of pressure zones that are formed by ducts 3 and 5, the flow control plates act as supply air restrictors

Vertical pressure shut-off plate



Versions

- Widths 18 mm and 26 mm
- A switch activated with a slotted head screwdriver shuts off duct 1
 - The overlying flow control plates, pressure regulator plates or directional control valves can be replaced
 - Other components of the control chain such as drives, for example, can be replaced following venting via the directional control valve

Pressure gauge



Design

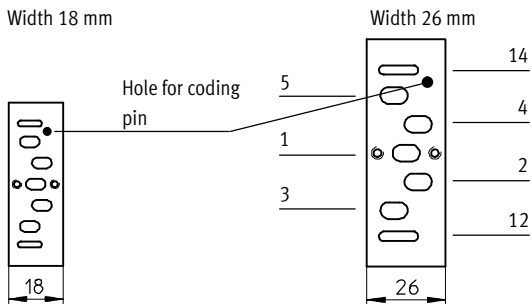
- Can be connected to the pressure regulator plates

Solenoid/pneumatic valves, ISO 15407-1

Key features

FESTO

Port pattern on sub-base to ISO 15407-1

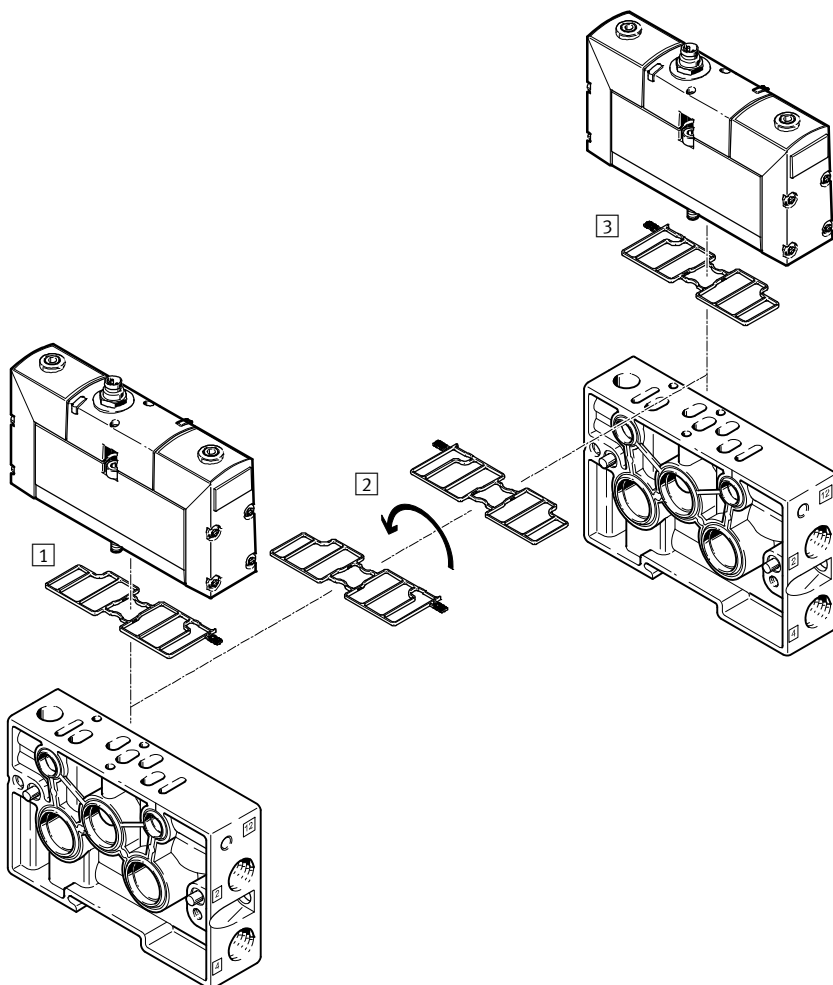


VSVA

Conversion of pilot air exhaust

The valve manifold VTIA is supplied with unducted pilot air exhaust. By turning the seal between the valve

and manifold block, exhaust air (pilot air) can be diverted into pilot duct 12 and can thus be contained and silenced (see illustration).



- 1 Ducted pilot air exhaust
- 2 Turning the seal by 180°
- 3 Unducted pilot air exhaust (as supplied)

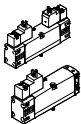


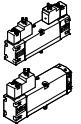



Solenoid/pneumatic valves, ISO 15407-1

Key features

| Use of 2x 3/2-way valve as 5/4-way valve | | | | | | | | | | | | | | | | | | | |
|--|----------------|---|---------------------------|----------|---|---|---|--|---|---|--|---|---|--|---|---|--|--|--|
| Code | Circuit symbol | Value table | Equivalent circuit symbol | Function | | | | | | | | | | | | | | | |
| K | | <table border="1"> <thead> <tr> <th>Y1</th> <th>Y2</th> <th>A</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>0</td> <td></td> </tr> <tr> <td>0</td> <td>1</td> <td></td> </tr> <tr> <td>1</td> <td>0</td> <td></td> </tr> <tr> <td>1</td> <td>1</td> <td></td> </tr> </tbody> </table> | Y1 | Y2 | A | 0 | 0 | | 0 | 1 | | 1 | 0 | | 1 | 1 | | | <ul style="list-style-type: none"> • Normally exhausted • The double-acting drive connected to outputs 2 and 4 is unpressurised when the valve is in the normal position and can be moved by an external force • If there is a signal present at Y1(14) and Y2(12), there is pressure at outputs 2 and 4 |
| Y1 | Y2 | A | | | | | | | | | | | | | | | | | |
| 0 | 0 | | | | | | | | | | | | | | | | | | |
| 0 | 1 | | | | | | | | | | | | | | | | | | |
| 1 | 0 | | | | | | | | | | | | | | | | | | |
| 1 | 1 | | | | | | | | | | | | | | | | | | |
| | | <table border="1"> <thead> <tr> <th>Y1</th> <th>Y2</th> <th>A</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>0</td> <td></td> </tr> <tr> <td>0</td> <td>1</td> <td></td> </tr> <tr> <td>1</td> <td>0</td> <td></td> </tr> <tr> <td>1</td> <td>1</td> <td></td> </tr> </tbody> </table> | Y1 | Y2 | A | 0 | 0 | | 0 | 1 | | 1 | 0 | | 1 | 1 | | | <ul style="list-style-type: none"> • Normally closed (by combining directional control valve code K and two piloted non-return valves) • The piloted non-return valves connected to outputs 2 and 4 are unpressurised when the valve is in the normal position and the pressures in the drive close the non-return valves so it is leak-tight • The drive remains stationary when the forces are in equilibrium • Leakages can only occur via the drive seals • If there is a signal present at Y1(14) and Y2(12), the same pressure is present at outputs 2 and 4 |
| Y1 | Y2 | A | | | | | | | | | | | | | | | | | |
| 0 | 0 | | | | | | | | | | | | | | | | | | |
| 0 | 1 | | | | | | | | | | | | | | | | | | |
| 1 | 0 | | | | | | | | | | | | | | | | | | |
| 1 | 1 | | | | | | | | | | | | | | | | | | |
| N | | <table border="1"> <thead> <tr> <th>Y1</th> <th>Y2</th> <th>A</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>0</td> <td></td> </tr> <tr> <td>0</td> <td>1</td> <td></td> </tr> <tr> <td>1</td> <td>0</td> <td></td> </tr> <tr> <td>1</td> <td>1</td> <td></td> </tr> </tbody> </table> | Y1 | Y2 | A | 0 | 0 | | 0 | 1 | | 1 | 0 | | 1 | 1 | | | <ul style="list-style-type: none"> • Normally open • The double-acting drive connected to outputs 2 and 4 is supplied with the same compressed air at both ends when the valve is in the normal position and stops when the forces are in equilibrium • If there is a signal present at Y1(10) and Y2(10), outputs 2 and 4 are exhausted, the drive is unpressurised and can be moved by an external force |
| Y1 | Y2 | A | | | | | | | | | | | | | | | | | |
| 0 | 0 | | | | | | | | | | | | | | | | | | |
| 0 | 1 | | | | | | | | | | | | | | | | | | |
| 1 | 0 | | | | | | | | | | | | | | | | | | |
| 1 | 1 | | | | | | | | | | | | | | | | | | |
| H | | <table border="1"> <thead> <tr> <th>Y1</th> <th>Y2</th> <th>A</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>0</td> <td></td> </tr> <tr> <td>0</td> <td>1</td> <td></td> </tr> <tr> <td>1</td> <td>0</td> <td></td> </tr> <tr> <td>1</td> <td>1</td> <td></td> </tr> </tbody> </table> | Y1 | Y2 | A | 0 | 0 | | 0 | 1 | | 1 | 0 | | 1 | 1 | | | <ul style="list-style-type: none"> • Normally open after output 2 • The double-acting drive connected to outputs 2 and 4 is supplied with compressed air via output 2 when the valve is in the normal position. Output 4 is exhausted. When the system is in its initial position, the drive is thus in a clearly defined position, as would also be the case with a 5/2-way single solenoid valve • If there is a signal at Y1(14) and Y2(10), output 2 is exhausted and there is pressure at output 4. The drive leaves the initial position • A closed circuit can be created with this 2x 3/2-way valve by combining it with piloted non-return valves. However, this is then selected by an active signal at Y2(10) |
| Y1 | Y2 | A | | | | | | | | | | | | | | | | | |
| 0 | 0 | | | | | | | | | | | | | | | | | | |
| 0 | 1 | | | | | | | | | | | | | | | | | | |
| 1 | 0 | | | | | | | | | | | | | | | | | | |
| 1 | 1 | | | | | | | | | | | | | | | | | | |

Solenoid/pneumatic valves, ISO 15407-1

Product range overview

| Function | Type | Valve function | Flow rate Valve [l/min] | Working line on the sub-base | | Operating voltage | | | | | |
|-----------------|---|-----------------------------------|-----------------------------------|---------------------------------|-----------------|-------------------|----|--------|-----|-----|---|
| | | | | G $\frac{1}{8}$ | G $\frac{1}{4}$ | [V DC] | | [V AC] | | | |
| | | | | | | 12 | 24 | 24 | 110 | 230 | |
| Width 18 mm | Valve with pilot interface to ISO 15218 | | | | | | | | | | |
| |  | VSVA-B-T22...A2 | 2x 2/2-way valve, single solenoid | 700 | ■ | – | ■ | ■ | ■ | ■ | ■ |
| | | VSVA-B-T32...A2 | 2x 3/2-way valve, single solenoid | 600 | ■ | – | ■ | ■ | ■ | ■ | ■ |
| | | VSVA-B-M52...A2 | 5/2-way valve, single solenoid | 750 | ■ | – | ■ | ■ | ■ | ■ | ■ |
| | | VSVA-B-B52...A2 | 5/2-way valve, double solenoid | 750 | ■ | – | ■ | ■ | ■ | ■ | ■ |
| | | VSVA-B-P53...A2 | 5/3-way valve, mid-position valve | 650 | ■ | – | ■ | ■ | ■ | ■ | ■ |
| | Valve with central plug | | | | | | | | | | |
| |  | VSVA-B-T32...A2 | 2x 3/2-way valve, single solenoid | 600 | ■ | – | – | ■ | – | – | – |
| | | VSVA-B-M52...A2 | 5/2-way valve, single solenoid | 750 | ■ | – | – | ■ | – | – | – |
| | | VSVA-B-B52...A2 | 5/2-way valve, double solenoid | 750 | ■ | – | – | ■ | – | – | – |
| | | VSVA-B-P53...A2 | 5/3-way valve, mid-position valve | 650 | ■ | – | – | ■ | – | – | – |
| | Pneumatic valve | | | | | | | | | | |
| |  | VSPA-B-T32...A2 | 2x 3/2-way valve, monostable | 550 | ■ | – | – | – | – | – | – |
| | | VSPA-B-M52...A2 | 5/2-way valve, monostable | 700 | ■ | – | – | – | – | – | – |
| | | VSPA-B-B52...A2 | 5/2-way valve, bistable | 700 | ■ | – | – | – | – | – | – |
| | | VSPA-B-P53...A2 | 5/3-way valve, mid-position valve | 650 | ■ | – | – | – | – | – | – |
| Width 26 mm | Valve with pilot interface to ISO 15218 | | | | | | | | | | |
| |  | VSVA-B-T22...A1 | 2x 2/2-way valve, single solenoid | 1350 | – | ■ | ■ | ■ | ■ | ■ | ■ |
| | | VSVA-B-T32...A1 | 2x 3/2-way valve, single solenoid | 1250 | – | ■ | ■ | ■ | ■ | ■ | ■ |
| | | VSVA-B-M52...A1 | 5/2-way valve, single solenoid | 1400 | – | ■ | ■ | ■ | ■ | ■ | ■ |
| | | VSVA-B-B52...A1 | 5/2-way valve, double solenoid | 1400 | – | ■ | ■ | ■ | ■ | ■ | ■ |
| | | VSVA-B-P53...A1 | 5/3-way valve, mid-position valve | 1400 | – | ■ | ■ | ■ | ■ | ■ | ■ |
| | Valve with pilot interface to ISO 15218, with position detection | | | | | | | | | | |
| |  | VSVA-B-M52...A1 | 5/2-way valve, single solenoid | 1400 | – | ■ | – | ■ | – | – | – |
| | Valve with central plug | | | | | | | | | | |
| |  | VSVA-B-T32...A1 | 2x 3/2-way valve, single solenoid | 1250 | – | ■ | – | ■ | – | – | – |
| | | VSVA-B-M52...A1 | 5/2-way valve, single solenoid | 1400 | – | ■ | – | ■ | – | – | – |
| | | VSVA-B-B52...A1 | 5/2-way valve, double solenoid | 1400 | – | ■ | – | ■ | – | – | – |
| | | VSVA-B-P53...A1 | 5/3-way valve, mid-position valve | 1400 | – | ■ | – | ■ | – | – | – |
| | Pneumatic valve | | | | | | | | | | |
| |  | VSPA-B-T32...A1 | 2x 3/2-way valve, monostable | 1250 | – | ■ | – | – | – | – | – |
| | | VSPA-B-M52...A1 | 5/2-way valve, monostable | 1400 | – | ■ | – | – | – | – | – |
| VSPA-B-B52...A1 | | 5/2-way valve, bistable | 1400 | – | ■ | – | – | – | – | – | |
| VSPA-B-P53...A1 | | 5/3-way valve, mid-position valve | 1400 | – | ■ | – | – | – | – | – | |

Solenoid/pneumatic valves, ISO 15407-1

Product range overview

FESTO

| Plug connector | | | Pilot air | | | → Page/ Internet |
|---|------------|-------|-----------|--------|---|---------------------|
| Square | Round plug | | In- | Ex- | | |
| MEB | M8x1 | M12x1 | ternal | ternal | | |
| Valve with pilot interface to ISO 15218 | | | | | | |
| ■ | - | ■ | ■ | ■ | Pneumatic spring return, normally closed | 20 |
| ■ | - | ■ | ■ | ■ | Pneumatic spring return, normally closed, open, 1x open/1x closed | 20 |
| ■ | - | ■ | ■ | ■ | Pneumatic or mechanical spring return | 20 |
| ■ | - | ■ | ■ | ■ | Dominance: 1st signal or at 14 | 20 |
| ■ | - | ■ | ■ | ■ | Normally closed, exhausted, open | 20 |
| Valve with central plug | | | | | | |
| - | ■ | ■ | ■ | ■ | Pneumatic spring return, normally closed, open, 1x open/1x closed | 42 |
| - | ■ | ■ | ■ | ■ | Pneumatic or mechanical spring return | 42 |
| - | ■ | ■ | ■ | ■ | Dominance: 1st signal or at 14 | 42 |
| - | ■ | ■ | ■ | ■ | Normally closed, exhausted, open | 42 |
| Pneumatic valve | | | | | | |
| - | ■ | ■ | ■ | ■ | Pneumatic spring return, normally closed, open, 1x open/1x closed | 42 |
| - | ■ | ■ | ■ | ■ | Pneumatic or mechanical spring return | 42 |
| - | ■ | ■ | ■ | ■ | Dominance: 1st signal or at 14 | 42 |
| - | ■ | ■ | ■ | ■ | Normally closed, exhausted, open | 42 |
| Valve with pilot interface to ISO 15218 | | | | | | |
| ■ | - | ■ | ■ | ■ | Pneumatic spring return, normally closed | 29 |
| ■ | - | ■ | ■ | ■ | Pneumatic spring return, normally closed, open, 1x open/1x closed | 29 |
| ■ | - | ■ | ■ | ■ | Dominance: 1st signal or at 14 | 29 |
| ■ | - | ■ | ■ | ■ | Normally closed, exhausted, open | 29 |
| ■ | - | ■ | ■ | ■ | Normally closed, exhausted, open | 29 |
| Valve with pilot interface to ISO 15218, with position detection | | | | | | |
| ■ | - | - | - | ■ | Inductive sensor for monitoring normal position of piston spool valve | 38 |
| Valve with central plug | | | | | | |
| - | ■ | ■ | ■ | ■ | Pneumatic spring return, normally closed, open, 1x open/1x closed | 48 |
| - | ■ | ■ | ■ | ■ | Dominance: 1st signal or at 14 | 48 |
| - | ■ | ■ | ■ | ■ | Normally closed, exhausted, open | 48 |
| - | ■ | ■ | ■ | ■ | Normally closed, exhausted, open | 48 |
| Pneumatic valve | | | | | | |
| - | ■ | ■ | ■ | ■ | Pneumatic spring return, normally closed, open, 1x open/1x closed | 48 |
| - | ■ | ■ | ■ | ■ | Dominance: 1st signal or at 14 | 48 |
| - | ■ | ■ | ■ | ■ | Normally closed, exhausted, open | 48 |
| - | ■ | ■ | ■ | ■ | Normally closed, exhausted, open | 48 |

Solenoid valves VSVA, ISO 15407-1

Type codes

VSVA - B - T 32 C - A Z H

Valve series

| | |
|------|-----------------------------------|
| VSVA | Standard valves to ISO 15407-1/-2 |
|------|-----------------------------------|

Valve type

| | |
|---|----------------|
| B | Sub-base valve |
|---|----------------|

Valve function

| | |
|---|--|
| M | Single solenoid |
| B | Double solenoid |
| D | Double solenoid with dominant signal at 14 |
| P | Single solenoid, mid-position |
| T | 2 single solenoid valves in one housing |

Connections/switching positions

| | |
|----|---------------|
| 22 | 2/2-way valve |
| 32 | 3/2-way valve |
| 52 | 5/2-way valve |
| 53 | 5/3-way valve |

Normal position

| | |
|---|---|
| C | Closed |
| N | Code T with 2x closed, reverse operation |
| U | Open |
| F | Code T with 2x open, reverse operation |
| E | Exhausted |
| H | Code T with 1x open, 1x closed |
| W | Code T with 1x open, 1x closed, reverse operation |
| - | Double solenoid valve |

Type of reset

| | |
|---|-----------------------|
| A | Pneumatic spring |
| M | Mechanical spring |
| - | Double solenoid valve |

Pilot air supply port

| | |
|---|----------|
| Z | External |
| - | Internal |

Manual override

| | |
|---|-------------------------|
| H | With manual override |
| - | Without manual override |

Solenoid valves VSVA, to ISO 15407-1

Type code



| | | | | | | |
|------------------------------|---|---|---|----|---|--|
| - | A1 | - | 1 | C1 | - | |
| Standard | | | | | | |
| A1 | ISO size 01, width 26 mm | | | | | |
| A2 | ISO size 02, width 18 mm | | | | | |
| Operating voltage | | | | | | |
| 1 | 24 V DC | | | | | |
| 1A | 24 V AC | | | | | |
| 2A | 110 V AC | | | | | |
| 3A | 230 V AC | | | | | |
| 5 | 12 V DC | | | | | |
| - | Without pilot valve | | | | | |
| Electrical connection | | | | | | |
| C1 | Type C to EN 175301-803 | | | | | |
| R2 | Central plug M8x1 | | | | | |
| R3 | Individual plug M12 | | | | | |
| R5 | Central plug M12x1 | | | | | |
| P1 | Without pilot valve | | | | | |
| Signal status display | | | | | | |
| L | LED (integrated) | | | | | |
| - | Without signal status display | | | | | |
| Position detection | | | | | | |
| APC | Proximity sensor PNP With open cable end | | | | | |
| APP | Proximity sensor PNP With plug M8 | | | | | |
| ANC | Proximity sensor NPN With open cable end | | | | | |
| ANP | Proximity sensor NPN With plug M8 | | | | | |
| - | Without sensor | | | | | |

Pneumatic valves VSPA, ISO 15407-1

Type codes

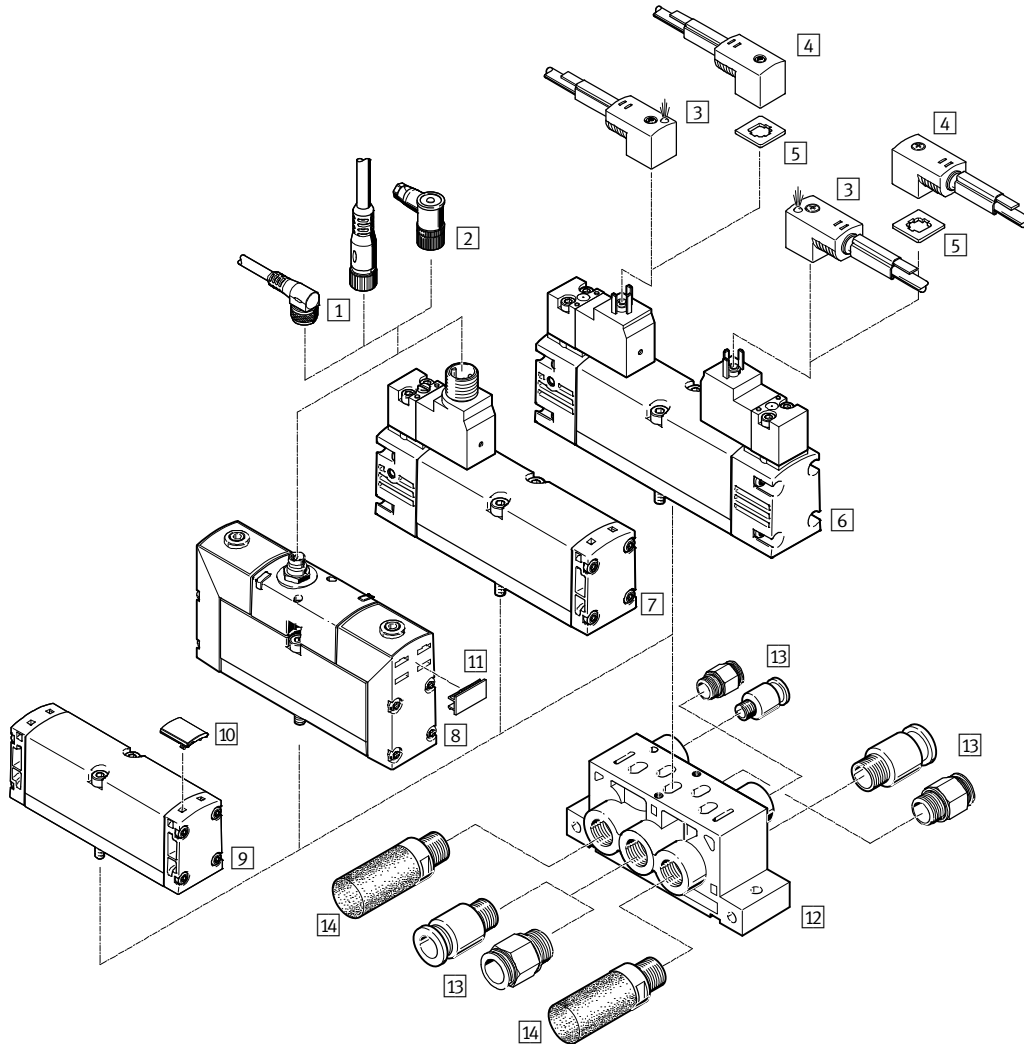
VSPA - B - M 52 - A - A1

| Valve series | |
|---------------------------------|-------------------------------------|
| VSPA | Standard valves to ISO 15407-1/-2 |
| Valve type | |
| B | Sub-base valve |
| Valve function | |
| M | Monostable |
| B | Bistable |
| D | Bistable with dominant signal at 14 |
| P | Monostable, mid-position |
| T | 2 monostable valves in one housing |
| Connections/switching positions | |
| 32 | 3/2-way valve |
| 52 | 5/2-way valve |
| 53 | 5/3-way valve |
| Normal position | |
| C | Closed |
| U | Open |
| E | Exhausted |
| H | Code T with 1x open, 1x closed |
| - | Bistable valve |
| Type of reset | |
| A | Pneumatic spring |
| M | Mechanical spring |
| - | Bistable valve |
| Standard | |
| A1 | ISO size 01, width 26 mm |
| A2 | ISO size 02, width 18 mm |

Solenoid/pneumatic valves, ISO 15407-1

Peripherals overview

Individual mounting



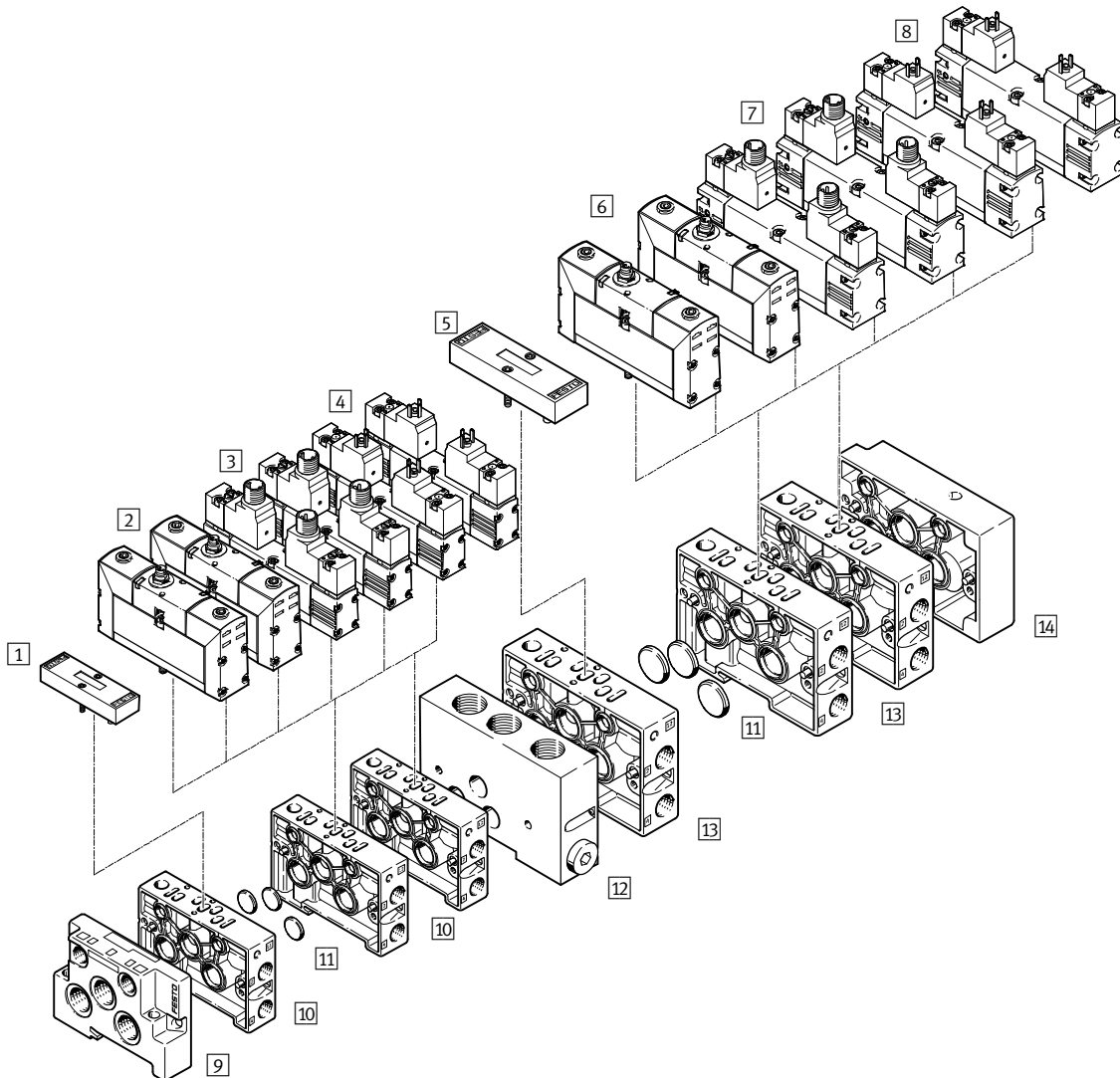
| | Type | Brief description | → Page/Internet |
|----|--------------------------|---|-----------------|
| 1 | Connecting cable | NEBU For valves with round plug | 78 |
| 2 | Plug socket | SIE-WD-TR Angled | 78 |
| 3 | Connecting cable | KMEB...-LED With PVC casing and LED | 78 |
| 4 | Connecting cable | KMEB With PVC casing | 78 |
| 5 | Illuminating seal | MEB-LD For indicating the signal status | 78 |
| 6 | Solenoid valve | VSVA...C With interface to ISO 15218 and plug pattern type C | 20 |
| 7 | Solenoid valve | VSVA...R3 With interface to ISO 15218 and round plug | 20 |
| 8 | Solenoid valve | VSVA...R With round plug | 42 |
| 9 | Pneumatic valve | VSPA Port pattern to ISO 15407-1 | 54 |
| 10 | Inscription label holder | ASCF For identifying the VSPA pneumatic valves | 77 |
| 11 | Inscription labels | IBS-9x20 For identifying the VSVA valves with round plug | 77 |
| 12 | Individual sub-base | NAS With lateral ports | 65 |
| 13 | Push-in fitting | QS For standard O.D. tubing | 77 |
| 14 | Silencer | U For fitting in exhaust ports | 77 |

Solenoid valves, ISO 15407-1

Peripherals overview

FESTO

Manifold assembly – Solenoid valves



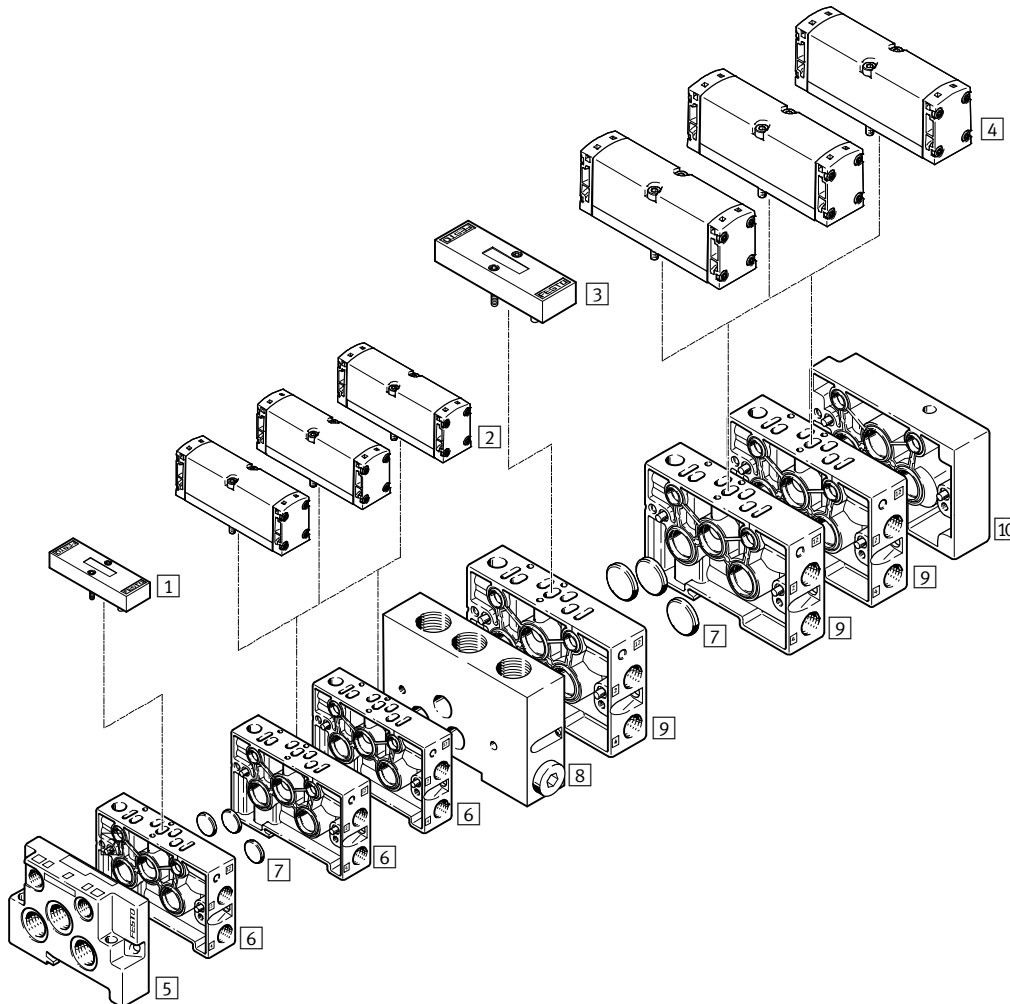
| | Type | Brief description | → Page/Internet | |
|----|--------------------|-------------------|--|----|
| 1 | Blanking plate | NDV-02-VDMA | For width 18 mm, vacant or spare position | 75 |
| 2 | Solenoid valve | VSVA...A2...R | Width 18 mm with round plug | 42 |
| 3 | Solenoid valve | VSVA...A2...R3 | Width 18 mm, interface to ISO 15218 with round plug | 20 |
| 4 | Solenoid valve | VSVA...A2...C | Width 18 mm, interface to ISO 15218 with plug pattern type C | 20 |
| 5 | Blanking plate | NDV-01-VDMA | For width 26 mm, vacant or spare position | 75 |
| 6 | Solenoid valve | VSVA...A1...R | Width 26 mm with round plug | 48 |
| 7 | Solenoid valve | VSVA...A1...R3 | Width 26 mm, interface to ISO 15218 with round plug | 29 |
| 8 | Solenoid valve | VSVA...A1...C | Width 26 mm, interface to ISO 15218 with plug pattern type C | 29 |
| 9 | End plate | NEV | For sealing the manifold sub-bases width 18 mm | 66 |
| 10 | Manifold sub-base | NAW-1/8-02-VDMA | Width 18 mm with lateral ports 2 and 4 | 66 |
| 11 | Isolating disc | NSC | For creating pressure zones or for sealing ports on the end plates | 75 |
| 12 | Intermediate plate | NZV-01/02-VDMA | For connecting width 18 mm with width 26 mm | 67 |
| 13 | Manifold sub-base | NAW-1/4-01-VDMA | Width 26 mm with lateral ports 2 and 4 | 66 |
| 14 | End plate | NEV | For sealing the manifold sub-bases width 26 mm | 66 |

Pneumatic valves VSPA, ISO 15407-1

Peripherals overview

FESTO

Manifold assembly – Pneumatic valves

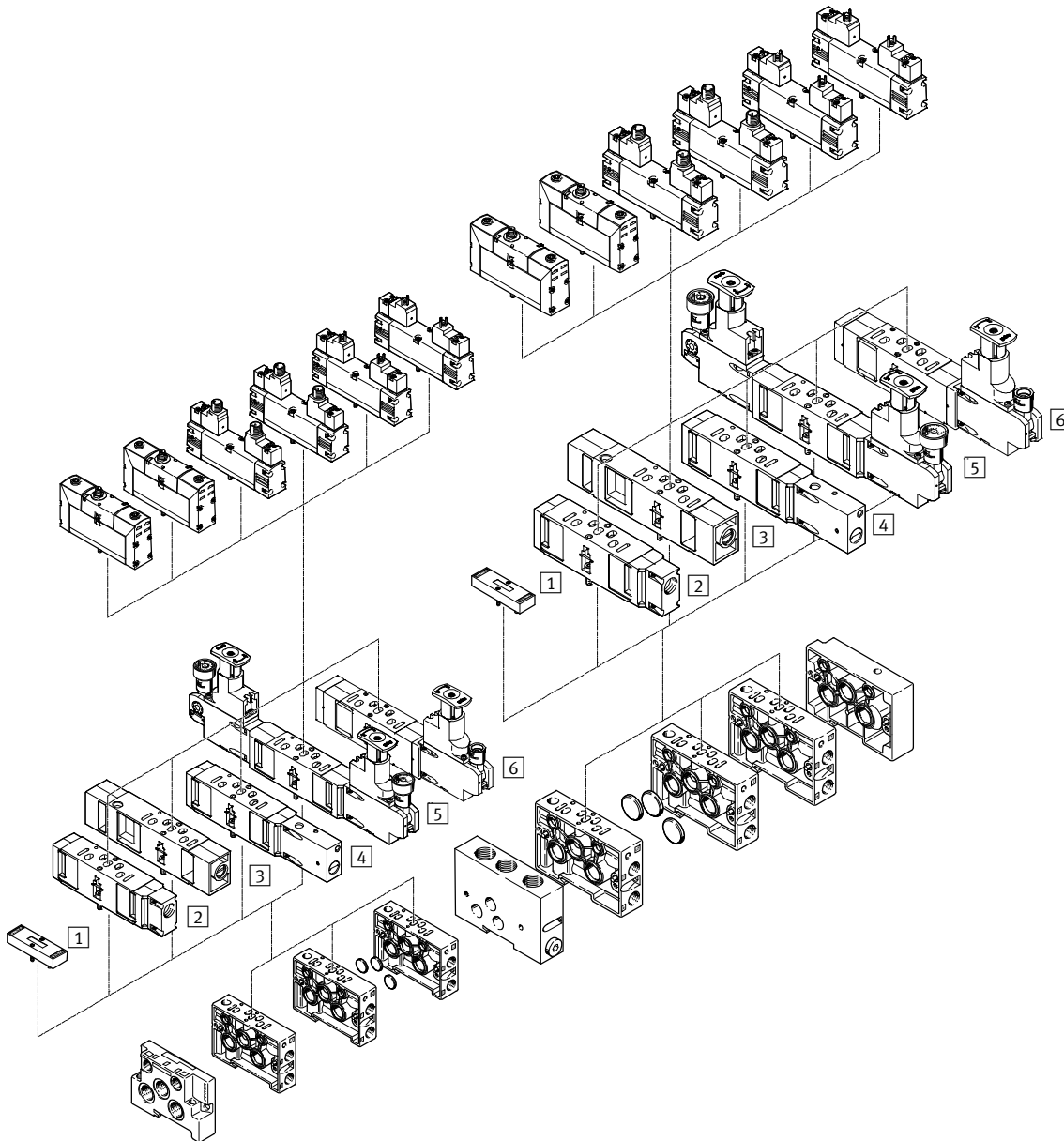


| | Type | Brief description | → Page/Internet | |
|----|--------------------|-------------------|--|----|
| 1 | Blanking plate | NDV-02-VDMA | For width 18, vacant or spare position | 75 |
| 2 | Pneumatic valve | VSPA...A2 | Width 18 | 54 |
| 3 | Blanking plate | NDV-01-VDMA | For width 26, vacant or spare position | 75 |
| 4 | Pneumatic valve | VSPA...A1 | Width 26 | 57 |
| 5 | End plate | NEV | For sealing the manifold sub-bases width 18 | 66 |
| 6 | Manifold sub-base | NAW-1/8-02-VDMA | Width 18 with lateral ports 2 and 4 | 66 |
| 7 | Isolating disc | NSC | For creating pressure zones or for sealing ports on the end plates | 75 |
| 8 | Intermediate plate | NZV-01/02-VDMA | For connecting width 18 with width 26 | 67 |
| 9 | Manifold sub-base | NAW-1/4-01-VDMA | Width 26 with lateral ports 2 and 4 | 66 |
| 10 | End plate | NEV | For sealing the manifold sub-bases width 26 | 66 |

Solenoid valves VSVA, ISO 15407-1

Peripherals overview

Manifold assembly with vertical stacking

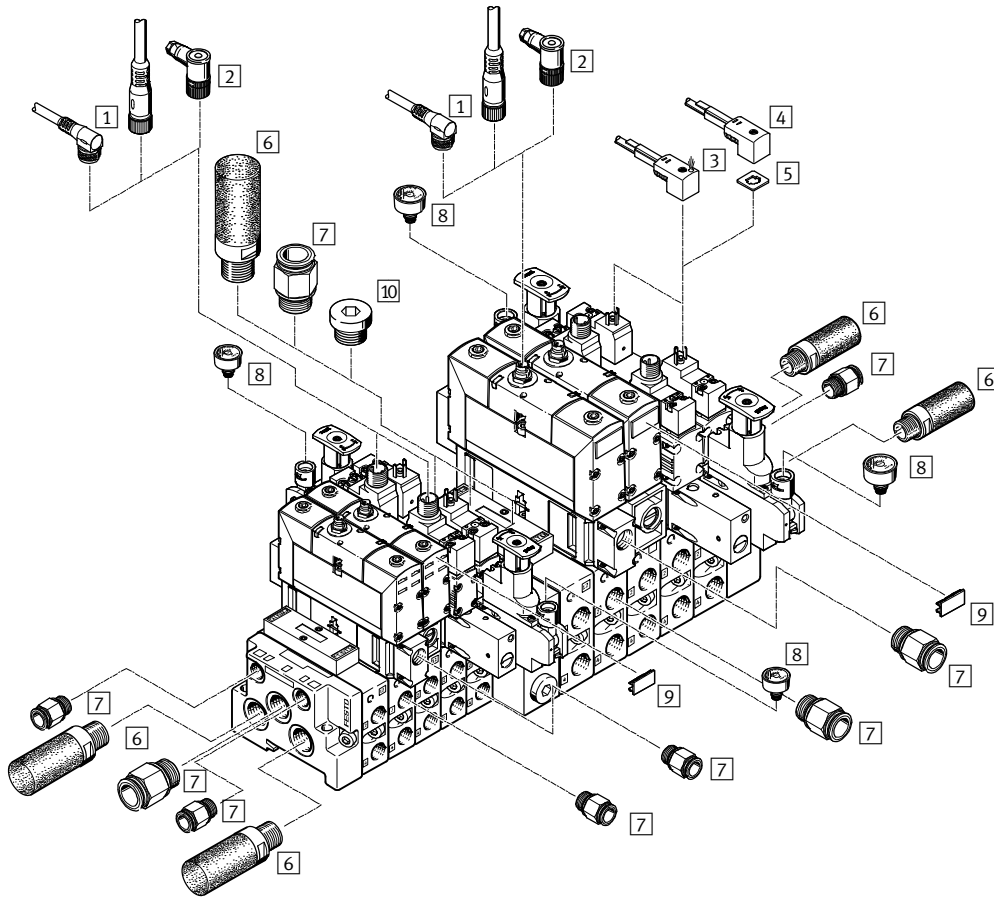


| | Type | Brief description | → Page/Internet |
|---|----------------|--|-----------------|
| 1 | NDV | For vacant or spare position | 75 |
| 2 | VABF...P1-A3 | For intermediate air supply | 63 |
| 3 | VABF...F1-B1 | For flow control in ducts 3 and 5 | 62 |
| 4 | VABF...L1-D1 | With switch for manual shut-off of duct 1 | 64 |
| 5 | VABF...R...-C2 | With 2 pressure regulators for working ports 2 and 4 | 60 |
| 6 | VABF...R...-C2 | With one pressure regulator for working ports 2 or 4 or for duct 1 | 60 |

Solenoid valves VSVA, ISO 15407-1

Peripherals overview

Manifold assembly





| | Type | Brief description | → Page/Internet | |
|----|--------------------|-------------------|--|----|
| 1 | Connecting cable | NEBU | For valves with round plug | 78 |
| 2 | Plug socket | SIE-WD-TR | Angled | 78 |
| 3 | Connecting cable | KMEB...-LED | With PVC casing and LED | 78 |
| 4 | Connecting cable | KMEB | With PVC casing | 78 |
| 5 | Illuminating seal | MEB-LD | For indicating the signal status | 78 |
| 6 | Silencer | U | For fitting in exhaust ports | 77 |
| 7 | Push-in fitting | QS | For standard O.D. tubing | 77 |
| 8 | Pressure gauge | PAGN-26-10-P10 | Can be connected to the pressure regulator plate | 77 |
| 9 | Inscription labels | IBS-9x20 | For identifying the VSVA valves with round plug | 77 |
| 10 | Blanking plug | B | For sealing unused ports | 77 |

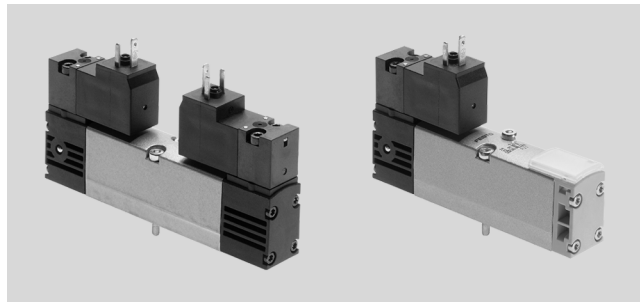
Solenoid valves VSVA, with pilot interface to ISO 15218

FESTO

Technical data – Width 18 mm

-  - Flow rate
Max. 750 l/min

-  - Voltage
12, 24 V DC
24, 110, 230 V AC



| General technical data | | | | | | |
|--|---|---|---|----------|---|-----|
| Valve function | 2x 2/2-way | 2x 3/2-way | 5/2-way | | 5/3-way | |
| Normal position | C ¹⁾ | C ¹⁾ , U ²⁾ , H ⁴⁾ , N ⁵⁾ , F ⁶⁾ , W ⁷⁾ | – | – | C ¹⁾ , U ²⁾ , E ³⁾ | |
| Stable position | Monostable | Monostable | Monostable | Bistable | Monostable | |
| Reset method: pneumatic spring | Yes | Yes | Yes | – | No | |
| Reset method: mechanical spring | No | No | Yes | – | Yes | |
| Design | Piston spool | | | | | |
| Sealing principle | Soft | | | | | |
| Type of actuation | Electrical | | | | | |
| Type of pilot control | Piloted | | | | | |
| Pilot interface | To ISO 15218 | | | | | |
| Pilot air supply | Internal or external | | | | | |
| Pilot air supply, exhaust air | Not ducted according to standard or ducted | | | | | |
| Direction of flow | Non-reversible or reversible | Non-reversible or reversible only | Reversible with external pilot air supply | | | |
| Exhaust air function | With flow control | | | | | |
| Manual override | Non-detenting, non-detenting/detenting | | | | | |
| Type of mounting | On sub-base | | | | | |
| Mounting position | Any | | | | | |
| Nominal width [mm] | 5 | | | | | |
| Flow rate of valve [l/min] | 700 | 600 | 750 | 650 | | |
| Flow rate of valve on individual sub-base [l/min] | 450 | 450 | 550 | 500 | | |
| Flow rate of pneumatically interlinked valve [l/min] | 500 | 400 | 550 | 450 | | |
| Standard nominal flow rate [l/min] | 500 | 400 | 550 | 450 | | |
| Switching time on/off, pneumatic spring [ms] | 13/21 | 13/21 | 21/19 | – | – | |
| Switching time on/off, mechanical spring [ms] | – | – | 17/35 | – | 18/30 | |
| Switching time on/off, for N, F and W [ms] | – | 21/13 | – | – | – | |
| Changeover time [ms] | – | – | – | 15 | 20 | |
| Non-overlapping | Yes | | | | | |
| Valve size [mm] | 18 | | | | | |
| Ports on the sub-base | 1, 2, 3, 4, 5 | G1/8 | | | | |
| | 12, 14 | M5 | | | | |
| Tightening torque for valve mounting [Nm] | 0.9 ... 1.1 | | | | | |
| Product weight | Without pilot valve [g] | 98 | 98 | 89 | 98 | 98 |
| | Solenoid valve [g] | 174 | 174 | 127 | 174 | 174 |
| Noise level [dB (A)] | 85 | | | | | |
| Conforms to standard | ISO 15407-1, VDMA 24563 and for pilot valve interface ISO 15218 | | | | | |

- 1) C = Normally closed
- 2) U = Normally open
- 3) E = Normally exhausted
- 4) H = 2x 3/2-way valve in one housing with 1x normally closed and 1x normally open
- 5) N = Normally closed, reverse operation, i.e. the pressure supply ports are 3 and 5, venting is via port 1
- 6) F = Normally open, reverse operation, i.e. the pressure supply ports are 3 and 5, venting is via port 1
- 7) W = 2x 3/2-way valve in one housing with 1x normally closed and 1x normally open, reverse operation, i.e. the pressure supply ports are 3 and 5, venting is via port 1

Solenoid valves VSVA, with pilot interface to ISO 15218

Technical data – Width 18 mm

| Safety data | | | |
|--|--|--|--------------------------------|
| Type | VSVA-...-1C1 | VSVA-...-P1 VSVA-...-5C1 VSVA-...-1AC1 | VSVA-...-2AC1 VSVA-...-3AC1 |
| CE marking (see declaration of conformity) | – | – | To EU Low Voltage Directive |
| Max. positive test pulse with 0 signal | [μs] 1000 | – | – |
| Max. negative test pulse with 1 signal | [μs] 800 | – | – |
| Shock resistance | Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27 | | |
| Vibration resistance | Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6 | | |

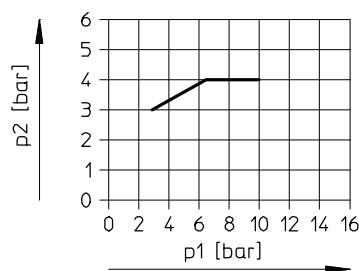
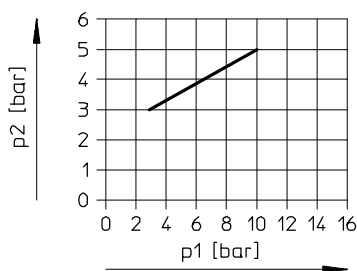
| Operating and environmental conditions | | | | | |
|--|---------------------------|--|------------------------|---|----------|
| Valve function | | 2x2/2-way | 2x3/2-way | 5/2-way | 5/3-way |
| Operating medium | | Compressed air to ISO 8573-1:2010 [7:4:4] | | | |
| Pilot medium | | Compressed air to ISO 8573-1:2010 [7:4:4] | | | |
| Note on operating/pilot medium | | Lubricated operation possible (in which case lubricated operation will always be required) | | | |
| Operating pressure | Internal pilot air supply | [bar] 2 ... 10 | 2 ... 10 | 2 ... 10, 3 ... 10 with mechanical spring | 3 ... 10 |
| | External pilot air supply | [bar] 2 ... 10 | 2 ... 10 | –0.9 ... 10 | |
| Pilot pressure with pneumatic spring | | [bar] 3 ... 10 ¹⁾ | 3 ... 10 ¹⁾ | 3 ... 10 | – |
| Pilot pressure with mechanical spring | | [bar] – | – | 3 ... 10 | 3 ... 10 |
| Ambient temperature | | [°C] –5 ... +50 | | | |
| Temperature of medium | | [°C] –5 ... +50 | | | |
| Relative humidity | | [%] 0 ... 90 | | | |
| Certification ²⁾ | VSVA-...-5C1 | – | | | |
| | VSVA-...-3AC1 | – | | | |
| | VSVA-...-2AC1 | – | | | |
| | VSVA-...-1AC1 | – | | | |
| | VSVA-...-1C1 | c UL us - Recognized (OL) | | | |
| | VSVA-...-P1 | c UL us - Recognized (OL) | | | |

- 1) Pilot pressure dependent on operating pressure → Graph
 2) Additional information www.festo.com/sp → Certificates.

Minimum pilot pressure p12, p14 as a function of operating pressure p1 (external pilot air supply)

2x 3/2-way solenoid valve

5/2-way solenoid valve and 5/3-way solenoid valve



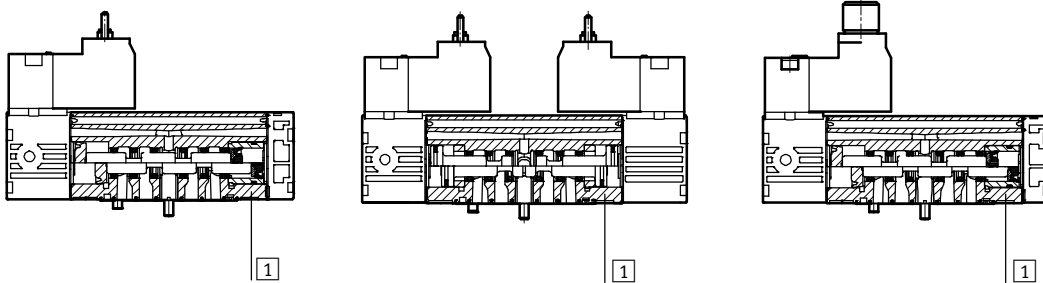
| Electrical data | | | |
|----------------------------------|---------------------|--|--|
| Electrical connection | | Plug, square design to EN 175301-803, type C, 110 V/230 V AC with protective earth conductor | M12 plug, round design |
| Operating voltage | DC voltage | [V DC] 12, 24 +10%/-15% | 24 +10%/-15% |
| | Alternating voltage | [V AC] 24, 110, 230 +10%/-15% | – |
| Characteristic coil data | DC voltage | [W] 1.8 | 1.8 |
| | AC voltage | [VA] At 24 V AC: • 3.1 pickup power • 2.3 holding power | At 110 V AC and 230 V AC: • 2.9 pickup power • 2.1 holding power |
| Duty cycle | | [%] 100 | |
| Degree of protection to EN 60529 | | IP65, Nema 4 (in combination with plug socket) | |

Solenoid valves VSVA, with pilot interface to ISO 15218

Technical data – Width 18 mm

Materials

Sectional view



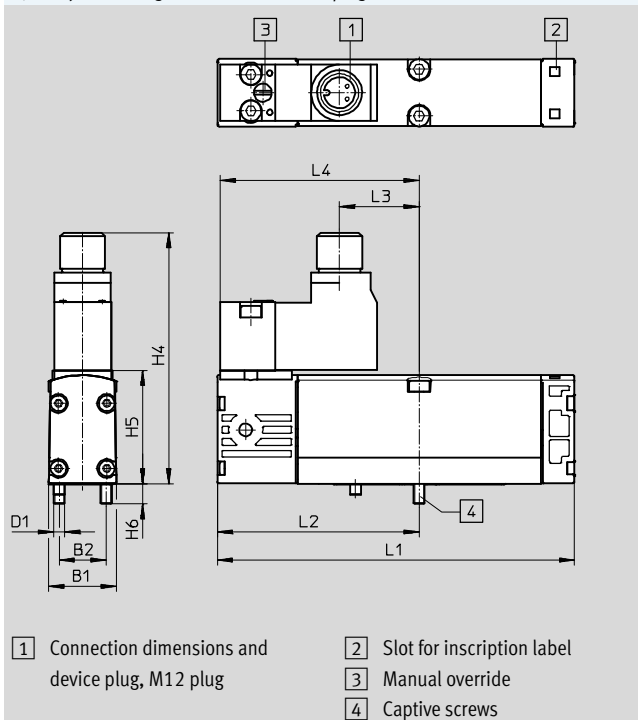
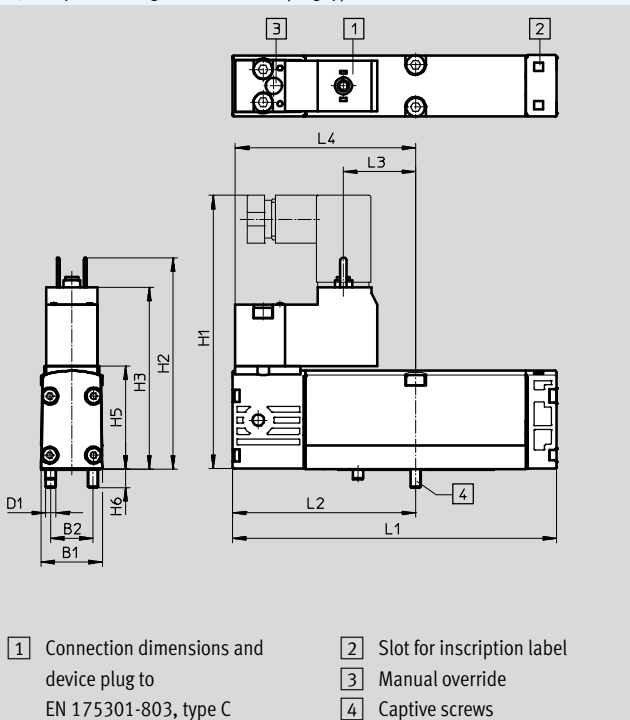
| | | |
|---|-------------------|--------------------|
| 1 | Housing | Die-cast aluminium |
| - | Seals | HNBR, NBR |
| - | Screws | Galvanised steel |
| - | Note on materials | RoHS compliant |

Dimensions

Download CAD data → www.festo.com

5/2-way valve, single solenoid with plug type C, VSVA-B-M52...C1

5/2-way valve, single solenoid with M12 plug, VSVA-B-M52...R3



| | B1 | B2 | D1 | H1 | H2 | H3 | H4 | H5 | H6 | L1 | L2 | L3 | L4 |
|-----------------|----|------|----|------|------|------|----|------|-----|------|------|------|------|
| VSVA-B-M52...C1 | 18 | 12.5 | M3 | 80.6 | 62.2 | 53.6 | - | 30.3 | 5.4 | 95.4 | 53.9 | 21.3 | 53.1 |
| VSVA-B-M52...R3 | 18 | 12.5 | M3 | - | - | - | 67 | 30.3 | 5.4 | 95.4 | 53.9 | 21.3 | 53.1 |

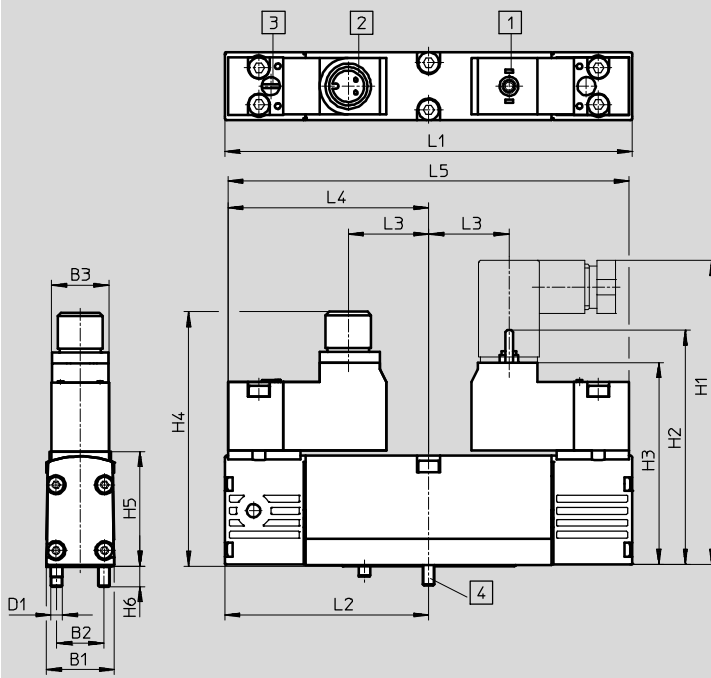
Solenoid valves VSVA, with pilot interface to ISO 15218

Technical data – Width 18 mm

Dimensions

Download CAD data → www.festo.com

2x 2/2-way valve, 2x 3/2-way valve, 5/2-way valve, double solenoid, 5/3-way valve



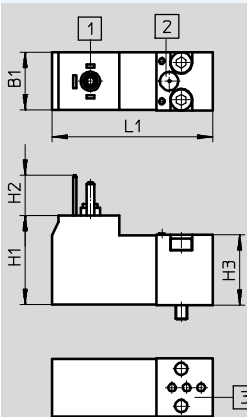
- 1 Connection dimensions and device plug to EN 175301-803, type C
- 2 Connection dimensions and device plug, M12 plug
- 3 Manual override
- 4 Captive screws

| | B1 | B2 | B3 | D1 | H1 | H2 | H3 | H4 | H5 | H6 | L1 | L2 | L3 | L4 | L5 |
|-------------|----|------|------|----|------|------|------|----|------|-----|-------|------|------|------|-------|
| VSVA-B-T22C | 18 | 12.5 | 15.2 | M3 | 80.6 | 62.2 | 53.6 | 67 | 30.3 | 5.4 | 107.8 | 53.9 | 21.3 | 53.1 | 102.2 |
| VSVA-B-T32 | | | | | | | | | | | | | | | |
| VSVA-B-B52 | | | | | | | | | | | | | | | |
| VSVA-B-D52 | | | | | | | | | | | | | | | |
| VSVA-B-P53 | | | | | | | | | | | | | | | |

Dimensions

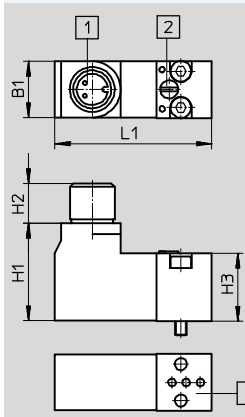
Download CAD data → www.festo.com

Pilot valve with plug type C, VSCS-...C1



- 1 Connection dimensions and device plug to EN 175301-803, type C
- 2 Manual override
- 3 Pneumatic port pattern to ISO 15218

Pilot valve with M12 plug, VSCS-...R3



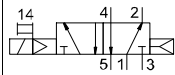
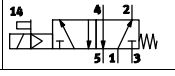
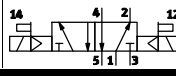
- 1 Connection dimensions and device plug, M12 plug
- 2 Manual override
- 3 Pneumatic port pattern to ISO 15218

| | B1 | H1 | H2 | H3 | L1 |
|------------|------|------|------|------|------|
| VSCS-...C1 | 15.2 | 23.2 | 10.5 | 18.2 | 41.9 |
| VSCS-...R3 | 15 | 26.1 | 10.6 | 18.2 | 41.9 |

Solenoid valves VSVA, with pilot interface to ISO 15218

Technical data – Width 18 mm

★ Core product range

| Ordering data – Pilot control assembled | | | | | | |
|--|---|---------------------|---------------------------|----------|----------|----------------------|
| Code | Circuit symbol | | | Part No. | Type | |
| 5/2-way valve, single solenoid, with pilot control with square plug, type C to EN 175301-803 | | | | | | |
| M |  | Pneumatic spring | Internal pilot air supply | 24 V DC | ★ 546701 | VSVA-B-M52-AH-A2-1C1 |
| O |  | Mechanical spring | Internal pilot air supply | 24 V DC | ★ 546703 | VSVA-B-M52-MH-A2-1C1 |
| 5/2-way valve, double solenoid, with pilot control with square plug, type C to EN 175301-803 | | | | | | |
| J |  | Dominant 1st signal | Internal pilot air supply | 24 V DC | ★ 546697 | VSVA-B-B52-H-A2-1C1 |

Festo core product range

- ★ Generally ready for shipping ex works in 24 hours
- ☆ Generally ready for shipping ex works in 5 days

Solenoid valves VSVA, with pilot interface to ISO 15218

Technical data – Width 18 mm

| Ordering data – Pilot control assembled | | | | | | |
|---|----------------|--|---------------------------|----------|--------|-------------------------|
| Code | Circuit symbol | | Part No. | Type | | |
| 2x 2/2-way solenoid valve | | | | | | |
| T22C | – | Order via online configurator | – | – | | |
| 2x 3/2-way solenoid valve, with pilot control with square plug, type C to EN 175301-803 | | | | | | |
| K | | Normal position: 2x closed | Internal pilot air supply | 24 V DC | 546693 | VSVA-B-T32C-AH-A2-1C1 |
| | | | | 12 V DC | 547129 | VSVA-B-T32C-AH-A2-5C1 |
| | | | | 230 V AC | 547209 | VSVA-B-T32C-AH-A2-3AC1 |
| | | | | 110 V AC | 547169 | VSVA-B-T32C-AH-A2-2AC1 |
| | | | | 24 V AC | 547089 | VSVA-B-T32C-AH-A2-1AC1 |
| N | | Normal position: 2x open | Internal pilot air supply | 24 V DC | 546695 | VSVA-B-T32U-AH-A2-1C1 |
| | | | | 12 V DC | 547131 | VSVA-B-T32U-AH-A2-5C1 |
| | | | | 230 V AC | 547211 | VSVA-B-T32U-AH-A2-3AC1 |
| | | | | 110 V AC | 547171 | VSVA-B-T32U-AH-A2-2AC1 |
| | | | | 24 V AC | 547091 | VSVA-B-T32U-AH-A2-1AC1 |
| H | | Normal position: 1x closed 1x open | Internal pilot air supply | 24 V DC | 547067 | VSVA-B-T32H-AH-A2-1C1 |
| | | | | 12 V DC | 547133 | VSVA-B-T32H-AH-A2-5C1 |
| | | | | 230 V AC | 547213 | VSVA-B-T32H-AH-A2-3AC1 |
| | | | | 110 V AC | 547173 | VSVA-B-T32H-AH-A2-2AC1 |
| | | | | 24 V AC | 547093 | VSVA-B-T32H-AH-A2-1AC1 |
| K | | Normal position: 2x closed | External pilot air supply | 24 V DC | 547069 | VSVA-B-T32C-AZH-A2-1C1 |
| | | | | 12 V DC | 547149 | VSVA-B-T32C-AZH-A2-5C1 |
| | | | | 230 V AC | 547229 | VSVA-B-T32C-AZH-A2-3AC1 |
| | | | | 110 V AC | 547189 | VSVA-B-T32C-AZH-A2-2AC1 |
| | | | | 24 V AC | 547109 | VSVA-B-T32C-AZH-A2-1AC1 |
| N | | Normal position: 2x open | External pilot air supply | 24 V DC | 547071 | VSVA-B-T32U-AZH-A2-1C1 |
| | | | | 12 V DC | 547151 | VSVA-B-T32U-AZH-A2-5C1 |
| | | | | 230 V AC | 547231 | VSVA-B-T32U-AZH-A2-3AC1 |
| | | | | 110 V AC | 547191 | VSVA-B-T32U-AZH-A2-2AC1 |
| | | | | 24 V AC | 547111 | VSVA-B-T32U-AZH-A2-1AC1 |
| H | | Normal position: 1x closed 1x open | External pilot air supply | 24 V DC | 547073 | VSVA-B-T32H-AZH-A2-1C1 |
| | | | | 12 V DC | 547153 | VSVA-B-T32H-AZH-A2-5C1 |
| | | | | 230 V AC | 547233 | VSVA-B-T32H-AZH-A2-3AC1 |
| | | | | 110 V AC | 547193 | VSVA-B-T32H-AZH-A2-2AC1 |
| | | | | 24 V AC | 547113 | VSVA-B-T32H-AZH-A2-1AC1 |

Solenoid valves VSVA, with pilot interface to ISO 15218

Technical data – Width 18 mm

| Ordering data – Pilot control assembled | | | | | | | | | | |
|--|----------------|-----------------------|---------------------------|--|--------|------------------------|---------------------------|----------|--------|-----------------------|
| Code | Circuit symbol | | | Part No. | Type | | | | | |
| 5/2-way valve, single solenoid, with pilot control with square plug, type C to EN 175301-803 | | | | | | | | | | |
| M | | Pneumatic spring | Internal pilot air supply | 12 V DC | 547139 | VSVA-B-M52-AH-A2-5C1 | | | | |
| | | | | 230 V AC | 547219 | VSVA-B-M52-AH-A2-3AC1 | | | | |
| | | | | 110 V AC | 547179 | VSVA-B-M52-AH-A2-2AC1 | | | | |
| | | | | 24 V AC | 547099 | VSVA-B-M52-AH-A2-1AC1 | | | | |
| O | | Mechanical spring | Internal pilot air supply | 12 V DC | 547141 | VSVA-B-M52-MH-A2-5C1 | | | | |
| | | | | 230 V AC | 547221 | VSVA-B-M52-MH-A2-3AC1 | | | | |
| | | | | 110 V AC | 547181 | VSVA-B-M52-MH-A2-2AC1 | | | | |
| | | | | 24 V AC | 547101 | VSVA-B-M52-MH-A2-1AC1 | | | | |
| M | | Pneumatic spring | External pilot air supply | 24 V DC | 547079 | VSVA-B-M52-AZH-A2-1C1 | | | | |
| | | | | 12 V DC | 547159 | VSVA-B-M52-AZH-A2-5C1 | | | | |
| | | | | 230 V AC | 547239 | VSVA-B-M52-AZH-A2-3AC1 | | | | |
| | | | | 110 V AC | 547199 | VSVA-B-M52-AZH-A2-2AC1 | | | | |
| O | | Mechanical spring | External pilot air supply | 24 V DC | 547081 | VSVA-B-M52-MZH-A2-1C1 | | | | |
| | | | | 12 V DC | 547161 | VSVA-B-M52-MZH-A2-5C1 | | | | |
| | | | | 230 V AC | 547241 | VSVA-B-M52-MZH-A2-3AC1 | | | | |
| | | | | 110 V AC | 547201 | VSVA-B-M52-MZH-A2-2AC1 | | | | |
| | | | | 24 V AC | 547121 | VSVA-B-M52-MZH-A2-1AC1 | | | | |
| | | | | 5/2-way valve, double solenoid, with pilot control with square plug, type C to EN 175301-803 | | | | | | |
| | | | | J | | Dominant 1st signal | Internal pilot air supply | 12 V DC | 547135 | VSVA-B-B52-H-A2-5C1 |
| | | | | | | | | 230 V AC | 547215 | VSVA-B-B52-H-A2-3AC1 |
| 110 V AC | 547175 | VSVA-B-B52-H-A2-2AC1 | | | | | | | | |
| 24 V AC | 547095 | VSVA-B-B52-H-A2-1AC1 | | | | | | | | |
| D | | Dominant at 14 | Internal pilot air supply | 24 V DC | 546699 | VSVA-B-D52-H-A2-1C1 | | | | |
| | | | | 12 V DC | 547137 | VSVA-B-D52-H-A2-5C1 | | | | |
| | | | | 230 V AC | 547217 | VSVA-B-D52-H-A2-3AC1 | | | | |
| | | | | 110 V AC | 547177 | VSVA-B-D52-H-A2-2AC1 | | | | |
| | | | | 24 V AC | 547097 | VSVA-B-D52-H-A2-1AC1 | | | | |
| | | | | J | | Dominant 1st signal | External pilot air supply | 24 V DC | 547075 | VSVA-B-B52-ZH-A2-1C1 |
| | | | | | | | | 12 V DC | 547155 | VSVA-B-B52-ZH-A2-5C1 |
| | | | | | | | | 230 V AC | 547235 | VSVA-B-B52-ZH-A2-3AC1 |
| 110 V AC | 547195 | VSVA-B-B52-ZH-A2-2AC1 | | | | | | | | |
| | | | | 24 V AC | 547115 | VSVA-B-B52-ZH-A2-1AC1 | | | | |
| | | | | D | | Dominant at 14 | External pilot air supply | 24 V DC | 547077 | VSVA-B-D52-ZH-A2-1C1 |
| | | | | | | | | 12 V DC | 547157 | VSVA-B-D52-ZH-A2-5C1 |
| | | | | | | | | 230 V AC | 547237 | VSVA-B-D52-ZH-A2-3AC1 |
| 110 V AC | 547197 | VSVA-B-D52-ZH-A2-2AC1 | | | | | | | | |
| | | | | 24 V AC | 547117 | VSVA-B-D52-ZH-A2-1AC1 | | | | |

Solenoid valves VSVA, with pilot interface to ISO 15218





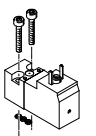
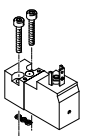
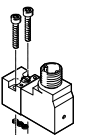
Technical data – Width 18 mm

| Ordering data – Pilot control assembled | | | | | | |
|--|----------------|-------------------------------|------------------------------|----------|--------|------------------------|
| Code | Circuit symbol | | | Part No. | Type | |
| 5/3-way solenoid valve, with pilot control with square plug, type C to EN 175301-803 | | | | | | |
| G | | Normal position: closed | Internal pilot air supply | 24 V DC | 546709 | VSVA-B-P53C-H-A2-1C1 |
| | | | | 12 V DC | 547147 | VSVA-B-P53C-H-A2-5C1 |
| | | | | 230 V AC | 547227 | VSVA-B-P53C-H-A2-3AC1 |
| | | | | 110 V AC | 547187 | VSVA-B-P53C-H-A2-2AC1 |
| | | | | 24 V AC | 547107 | VSVA-B-P53C-H-A2-1AC1 |
| B | | Normal position: open | Internal pilot air supply | 24 V DC | 546705 | VSVA-B-P53U-H-A2-1C1 |
| | | | | 12 V DC | 547143 | VSVA-B-P53U-H-A2-5C1 |
| | | | | 230 V AC | 547223 | VSVA-B-P53U-H-A2-3AC1 |
| | | | | 110 V AC | 547183 | VSVA-B-P53U-H-A2-2AC1 |
| | | | | 24 V AC | 547103 | VSVA-B-P53U-H-A2-1AC1 |
| E | | Normal position: exhausted | Internal pilot air supply | 24 V DC | 546707 | VSVA-B-P53E-H-A2-1C1 |
| | | | | 12 V DC | 547145 | VSVA-B-P53E-H-A2-5C1 |
| | | | | 230 V AC | 547225 | VSVA-B-P53E-H-A2-3AC1 |
| | | | | 110 V AC | 547185 | VSVA-B-P53E-H-A2-2AC1 |
| | | | | 24 V AC | 547105 | VSVA-B-P53E-H-A2-1AC1 |
| G | | Normal position: closed | External pilot air supply | 24 V DC | 547087 | VSVA-B-P53C-ZH-A2-1C1 |
| | | | | 12 V DC | 547167 | VSVA-B-P53C-ZH-A2-5C1 |
| | | | | 230 V AC | 547247 | VSVA-B-P53C-ZH-A2-3AC1 |
| | | | | 110 V AC | 547207 | VSVA-B-P53C-ZH-A2-2AC1 |
| | | | | 24 V AC | 547127 | VSVA-B-P53C-ZH-A2-1AC1 |
| B | | Normal position: open | External pilot air supply | 24 V DC | 547083 | VSVA-B-P53U-ZH-A2-1C1 |
| | | | | 12 V DC | 547163 | VSVA-B-P53U-ZH-A2-5C1 |
| | | | | 230 V AC | 547243 | VSVA-B-P53U-ZH-A2-3AC1 |
| | | | | 110 V AC | 547203 | VSVA-B-P53U-ZH-A2-2AC1 |
| | | | | 24 V AC | 547123 | VSVA-B-P53U-ZH-A2-1AC1 |
| E | | Normal position: exhausted | External pilot air supply | 24 V DC | 547085 | VSVA-B-P53E-ZH-A2-1C1 |
| | | | | 12 V DC | 547165 | VSVA-B-P53E-ZH-A2-5C1 |
| | | | | 230 V AC | 547245 | VSVA-B-P53E-ZH-A2-3AC1 |
| | | | | 110 V AC | 547205 | VSVA-B-P53E-ZH-A2-2AC1 |
| | | | | 24 V AC | 547125 | VSVA-B-P53E-ZH-A2-1AC1 |

Solenoid valves VSVA, with pilot interface to ISO 15218

FESTO

Technical data – Width 18 mm


| Ordering data – Pilot control separate | | | | Part No. | Type |
|---|---|---------------------|-----------------------------|---------------------|-----------------------|
| 2x 3/2-way valve without pilot valves | | | | | |
|  | Internal pilot air supply | 2x normally closed | 546732 | VSVA-B-T32C-A-A2-P1 | |
| | | 2x normally open | 546734 | VSVA-B-T32U-A-A2-P1 | |
| 5/2-way valve, single solenoid, without pilot valve | | | | | |
|  | Internal pilot air supply | Pneumatic spring | 546740 | VSVA-B-M52-A-A2-P1 | |
| | | Mechanical spring | 546742 | VSVA-B-M52-M-A2-P1 | |
| 5/2-way valve, double solenoid, without pilot valve | | | | | |
|  | Internal pilot air supply | Dominant 1st signal | 546736 | VSVA-B-B52-A2-P1 | |
| | | Dominant at 14 | 546738 | VSVA-B-D52-A2-P1 | |
| 5/3-way mid-position valve, single solenoid, without pilot valves | | | | | |
|  | Internal pilot air supply | Normally closed | 546748 | VSVA-B-P53C-A2-P1 | |
| | | Normally open | 546744 | VSVA-B-P53U-A2-P1 | |
| | | Normally exhausted | 546746 | VSVA-B-P53E-A2-P1 | |
| Pilot valve to ISO 15218 | | | | | |
|  | Square plug, type C to EN 175301-803 | 12 V DC | MO non-detenting | 546257 | VSCS-B-M32-MH-WA-5C1 |
| | | | MO, detenting/non-detenting | 571062 | VSCS-B-M32-MD-WA-5C1 |
| | | 24 V DC | MO non-detenting | 546256 | VSCS-B-M32-MH-WA-1C1 |
| | | | MO, detenting/non-detenting | 571061 | VSCS-B-M32-MD-WA-1C1 |
| | | 24 V AC | MO non-detenting | 546258 | VSCS-B-M32-MH-WA-1AC1 |
| | | | MO, detenting/non-detenting | 571063 | VSCS-B-M32-MD-WA-1AC1 |
|  | Square plug, type C to EN 175301-803, with protective earth conductor | 110 V AC | MO non-detenting | 546259 | VSCS-B-M32-MH-WA-2AC1 |
| | | | MO, detenting/non-detenting | 571064 | VSCS-B-M32-MD-WA-2AC1 |
| | | 230 V AC | MO non-detenting | 546260 | VSCS-B-M32-MH-WA-3AC1 |
| | | | MO, detenting/non-detenting | 571065 | VSCS-B-M32-MD-WA-3AC1 |
|  | M12 round plug to IEC 61076-2-101 | 24 V DC | MO non-detenting | 573214 | VSCS-B-M32-MH-WA-1R3 |
| | | | MO, detenting/non-detenting | 573215 | VSCS-B-M32-MD-WA-1R3 |


MO Manual override

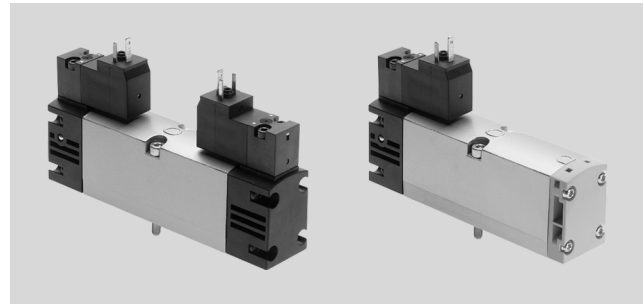
Solenoid valves VSVA, with pilot interface to ISO 15218

FESTO

Technical data – Width 26 mm

-  Flow rate
Max. 1400 l/min

-  Voltage
12, 24 V DC
24, 110, 230 V AC



| General technical data | | | | | | |
|--|---|---|---|----------|-----------------|---------------------------------|
| Valve function | 2x2/2-way | 2x 3/2-way | 5/2 | 5/3 | | |
| Normal position | C ¹⁾ | C ¹⁾ , U ²⁾ , H ⁴⁾ , N ⁵⁾ , F ⁶⁾ , W ⁷⁾ | – | – | C ¹⁾ | U ²⁾ E ³⁾ |
| Stable position | Monostable | Monostable | Monostable | Bistable | Monostable | |
| Reset method: pneumatic spring | Yes | Yes | Yes | – | No | |
| Reset method: mechanical spring | No | No | Yes | – | Yes | |
| Design | Piston spool | | | | | |
| Sealing principle | Soft | | | | | |
| Type of actuation | Electrical | | | | | |
| Type of pilot control | Pilot | | | | | |
| Pilot interface | To ISO 15218 | | | | | |
| Pilot air supply port | Internal or external | | | | | |
| Pilot air supply, exhaust air | Not ducted according to standard or ducted | | | | | |
| Direction of flow | Non-reversible or reversible | Non-reversible or reversible only | Reversible with external pilot air supply | | | |
| Exhaust air function | With flow control | | | | | |
| Manual override | Non-detenting, non-detenting/detenting | | | | | |
| Type of mounting | On sub-base | | | | | |
| Mounting position | Any | | | | | |
| Nominal width [mm] | 9 | | | | | |
| Flow rate of valve [l/min] | 1350 | 1250 | 1400 | 1400 | | |
| Flow rate of valve on individual sub-base [l/min] | 1000 | 1000 | 1100 | 1100 | | |
| Flow rate of pneumatically interlinked valve [l/min] | 1000 | 900 | 1100 | 1000 | | |
| Standard nominal flow rate [l/min] | 1000 | 900 | 1100 | 1000 | | |
| Switching time on/off, pneumatic spring [ms] | 20/28 | 20/28 | 35/43 | – | – | |
| Switching time on/off, mechanical spring [ms] | – | – | 26/56 | – | 23/58 | |
| Switching time on/off, for N, F and W [ms] | – | 28/20 | – | – | – | |
| Changeover time [ms] | – | – | – | 18 | 35 | |
| Non-overlapping | Yes | | | | | |
| Valve size [mm] | 26 | | | | | |
| Ports on the sub-base | 1, 2, 3, 4, 5 | G1/4 | | | | |
| | 12, 14 | M5 | | | | |
| Tightening torque for valve mounting [Nm] | 1.8 ... 2.2 | | | | | |
| Product weight | Without pilot valve | 229 | 229 | 142 | 229 | 229 |
| | Solenoid valve | 305 | 305 | 180 | 305 | 305 |
| Noise level [dB (A)] | 85 | | | | | |
| Conforms to standard | ISO 15407-1, VDMA 24563 and for pilot valve interface ISO 15218 | | | | | |

- 1) C=Normally closed
- 2) U = Normally open
- 3) E = Normally exhausted
- 4) H=2x 3/2-way valve in one housing with 1x normally closed and 1x normally open
- 5) N=Normally closed, reverse operation, i.e. the pressure supply ports are 3 and 5, venting is via port 1
- 6) F=Normally open, reverse operation, i.e. the pressure supply ports are 3 and 5, venting is via port 1
- 7) W=2x 3/2-way valve in one housing with 1x normally closed and 1x normally open, reverse operation, i.e. the pressure supply ports are 3 and 5, venting is via port 1

Solenoid valves VSVA, with pilot interface to ISO 15218

FESTO

Technical data – Width 26 mm

| Safety data | | | | |
|--|--|--|--------------------------------|-----------------------------|
| Type | VSVA-...-1C1 | VSVA-...-P1 VSVA-...-5C1 VSVA-...-1AC1 | VSVA-...-2AC1 VSVA-...-3AC1 | |
| CE marking (see declaration of conformity) | – | – | – | To EU Low Voltage Directive |
| Max. positive test pulse with 0 signal | [μs] | 1000 | – | – |
| Max. negative test pulse with 1 signal | [μs] | 800 | – | – |
| Shock resistance | Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27 | | | |
| Vibration resistance | Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6 | | | |

| Operating and environmental conditions | | | | | | |
|--|--|---------------------------|------------------------|----------|---|-------------|
| Valve function | 2x2/2-way | 2x 3/2-way | 5/2-way | 5/3-way | | |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] | | | | | |
| Pilot medium | Compressed air to ISO 8573-1:2010 [7:4:4] | | | | | |
| Note on operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) | | | | | |
| Operating pressure | Internal pilot air supply | [bar] | 2 ... 10 | 2 ... 10 | 2 ... 10, 3 ... 10 with mechanical spring | 3 ... 10 |
| | External pilot air supply | [bar] | 2 ... 10 | 2 ... 10 | –0.9 ... 16 | –0.9 ... 16 |
| Pilot pressure with pneumatic spring | [bar] | 3 ... 10 ¹⁾ | 3 ... 10 ¹⁾ | 3 ... 10 | – | |
| Pilot pressure with mechanical spring | [bar] | – | – | 3 ... 10 | 3 ... 10 | |
| Ambient temperature | [°C] | –5 ... +50 | | | | |
| Temperature of medium | [°C] | –5 ... +50 | | | | |
| Relative humidity | [%] | 0 ... 90 | | | | |
| Certification ²⁾ | VSVA-...-5C1 | – | – | – | – | |
| | VSVA-...-3AC1 | – | – | – | – | |
| | VSVA-...-2AC1 | – | – | – | – | |
| | VSVA-...-1AC1 | – | – | – | – | |
| | VSVA-...-1C1 | c UL us - Recognized (OL) | – | – | – | |
| | VSVA-...-P1 | c UL us - Recognized (OL) | – | – | – | |

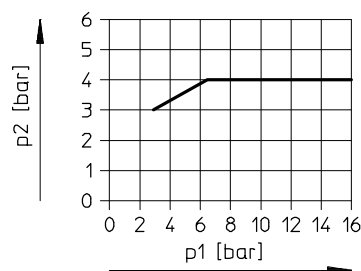
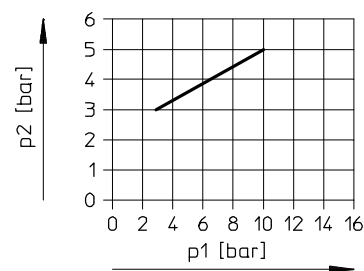
1) Pilot pressure dependent on operating pressure → Graph

2) Additional information www.festo.com/sp → Certificates.

Minimum pilot pressure p₁₂, p₁₄ as a function of operating pressure p₁ (external pilot air supply)

2x 3/2-way solenoid valve

5/2-way solenoid valve and 5/3-way solenoid valve



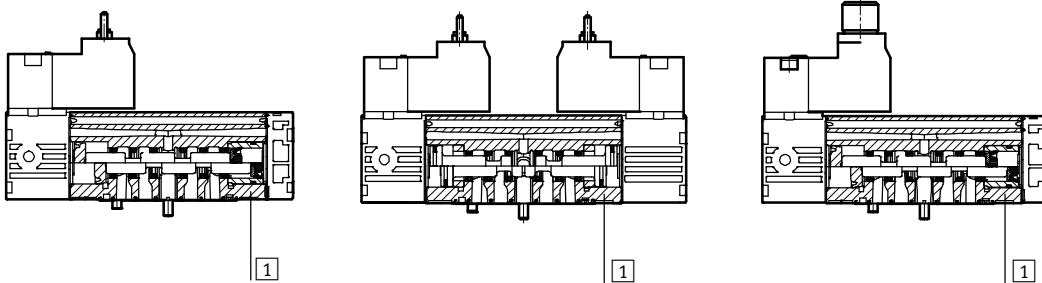
| Electrical data | | | | |
|----------------------------------|--|--------|--|--|
| Electrical connection | Plug, square design to EN 175301-803, type C, 110 V/230 V AC with protective earth conductor | | | M12 plug, round design |
| Operating voltage | DC voltage | [V DC] | 12, 24 +10%/–15% | 24 +10%/–15% |
| | Alternating voltage | [V AC] | 24, 110, 230 +10%/–15% | – |
| Characteristic coil data | DC voltage | [W] | 1.8 | 1.8 |
| | AC voltage | [VA] | At 24 V AC: • 3.1 pickup power • 2.3 holding power | At 110 V AC and 230 V AC: • 2.9 pickup power • 2.1 holding power |
| Duty cycle | [%] | 100 | | |
| Degree of protection to EN 60529 | IP65, Nema 4 (in combination with plug socket) | | | |

Solenoid valves VSVA, with pilot interface to ISO 15218

Technical data – Width 26 mm

Materials

Sectional view

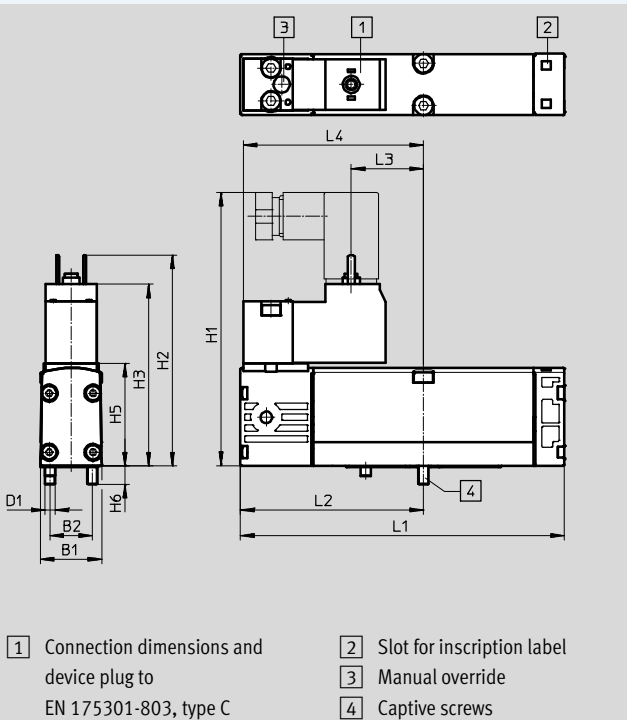


| | | |
|---|-------------------|--------------------|
| 1 | Housing | Die-cast aluminium |
| - | Seals | HNBR, NBR |
| - | Screws | Galvanised steel |
| - | Note on materials | RoHS compliant |

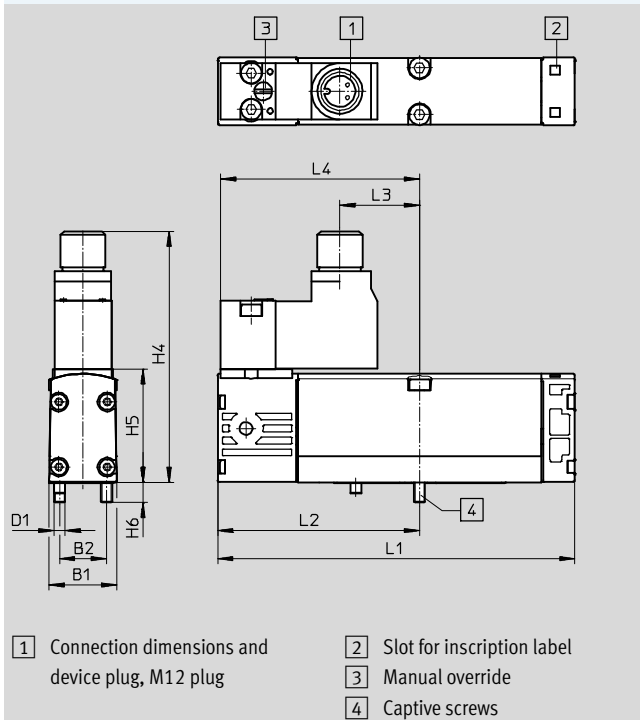
Dimensions

Download CAD data → www.festo.com

5/2-way valve, single solenoid with plug type C, VSVA-B-M52...C1



5/2-way valve, single solenoid with M12 plug, VSVA-B-M52...R3



| | B1 | B2 | D1 | H1 | H2 | H3 | H4 | H5 | H6 | L1 | L2 | L3 | L4 |
|-----------------|------|----|----|------|------|------|------|------|----|-------|------|------|------|
| VSVA-B-M52...C1 | 26.3 | 19 | M4 | 89.2 | 71.2 | 62.6 | - | 39.3 | 7 | 113.1 | 63.1 | 29.8 | 61.6 |
| VSVA-B-M52...R3 | 26.3 | 19 | M4 | - | - | - | 76.1 | 39.3 | 7 | 113.1 | 63.1 | 29.8 | 61.6 |

Solenoid valves VSVA, with pilot interface to ISO 15218

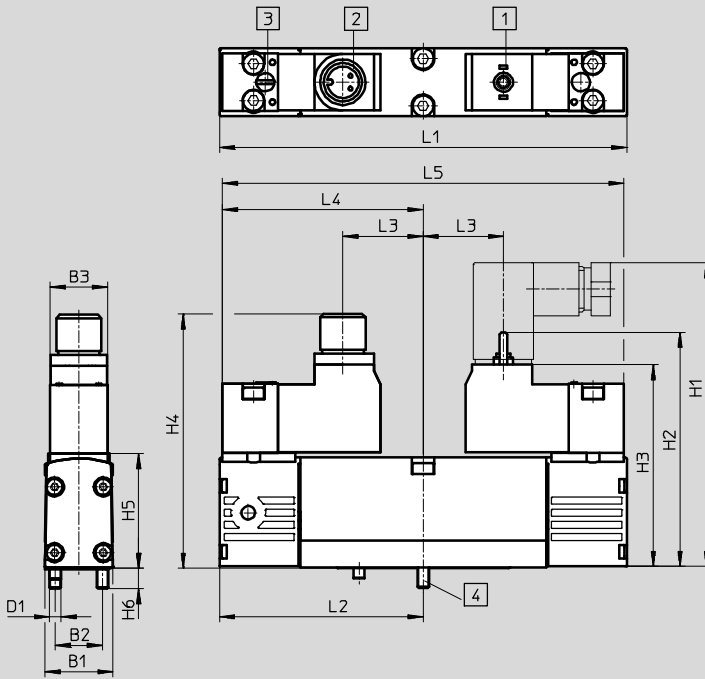
Technical data – Width 26 mm

FESTO

Dimensions

Download CAD data → www.festo.com

2x 2/2-way valve, 2x 3/2-way valve, 5/2-way valve, double solenoid, 5/3-way valve



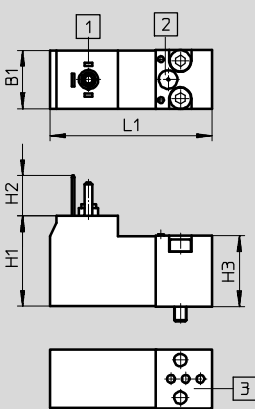
- 1 Connection dimensions and device plug to EN 175301-803, type C
- 2 Connection dimensions and device plug, M12 plug
- 3 Manual override
- 4 Captive screws

| | B1 | B2 | B3 | D1 | H1 | H2 | H3 | H4 | H5 | H6 | L1 | L2 | L3 | L4 | L5 |
|-------------|------|----|------|----|------|------|------|------|------|----|-------|------|------|------|-------|
| VSVA-B-T22C | 26.3 | 19 | 15.2 | M4 | 89.2 | 71.2 | 62.6 | 76.1 | 39.3 | 7 | 126.2 | 63.1 | 29.8 | 61.6 | 123.2 |
| VSVA-B-T32 | | | | | | | | | | | | | | | |
| VSVA-B-B52 | | | | | | | | | | | | | | | |
| VSVA-B-D52 | | | | | | | | | | | | | | | |
| VSVA-B-P53 | | | | | | | | | | | | | | | |

Dimensions

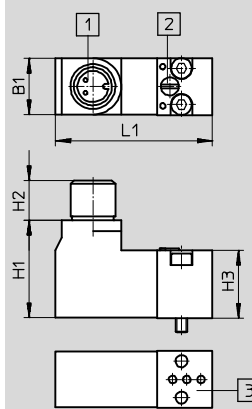
Download CAD data → www.festo.com

Pilot valve with plug type C, VSCS-...C1



- 1 Connection dimensions and device plug to EN 175301-803, type C
- 2 Manual override
- 3 Pneumatic port pattern to ISO 15218

Pilot valve with M12 plug, VSCS-...R3



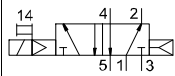
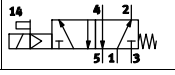
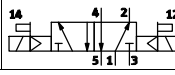
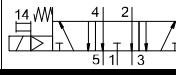
- 1 Connection dimensions and device plug, M12 plug
- 2 Manual override
- 3 Pneumatic port pattern to ISO 15218

| | B1 | H1 | H2 | H3 | L1 |
|------------|------|------|------|------|------|
| VSCS-...C1 | 15.2 | 23.2 | 10.5 | 18.2 | 41.9 |
| VSCS-...R3 | 15 | 26.1 | 10.6 | 18.2 | 41.9 |

Solenoid valves VSVA, with pilot interface to ISO 15218

Technical data – Width 26 mm

★ Core product range

| Ordering data – Pilot control assembled | | | | | |
|--|---|----------------------------|---------------------------|---------|-------------------------------|
| Code | Circuit symbol | | Part No. | Type | |
| 5/2-way valve, single solenoid, with pilot control with square plug, type C to EN 175301-803 | | | | | |
| M |  | Pneumatic spring | Internal pilot air supply | 24 V DC | ★ 546700 VSVA-B-M52-AH-A1-1C1 |
| O |  | Mechanical spring | Internal pilot air supply | 24 V DC | ★ 546702 VSVA-B-M52-MH-A1-1C1 |
| 5/2-way valve, double solenoid, with pilot control with square plug, type C to EN 175301-803 | | | | | |
| J |  | Dominant 1st signal | Internal pilot air supply | 24 V DC | ★ 546696 VSVA-B-B52-H-A1-1C1 |
| 5/3-way solenoid valve, with pilot control with square plug, type C to EN 175301-803 | | | | | |
| E |  | Normal position: exhausted | Internal pilot air supply | 24 V DC | ★ 546706 VSVA-B-P53E-H-A1-1C1 |

Festo core product range

- ★ Generally ready for shipping ex works in 24 hours
- ☆ Generally ready for shipping ex works in 5 days

Solenoid valves VSVA, with pilot interface to ISO 15218



Technical data – Width 26 mm

| Ordering data – Pilot control assembled | | | | | | |
|---|----------------|--|---------------------------|----------|--------|-------------------------|
| Code | Circuit symbol | | Part No. | Type | | |
| 2x 2/2-way solenoid valve | | | | | | |
| T22C | – | Order via online configurator | – | – | | |
| 2x 3/2-way solenoid valve, with pilot control with square plug, type C to EN 175301-803 | | | | | | |
| K | | Normal position: 2x closed | Internal pilot air supply | 24 V DC | 546692 | VSVA-B-T32C-AH-A1-1C1 |
| | | | | 12 V DC | 547128 | VSVA-B-T32C-AH-A1-5C1 |
| | | | | 230 V AC | 547208 | VSVA-B-T32C-AH-A1-3AC1 |
| | | | | 110 V AC | 547168 | VSVA-B-T32C-AH-A1-2AC1 |
| | | | | 24 V AC | 547088 | VSVA-B-T32C-AH-A1-1AC1 |
| N | | Normal position: 2x open | Internal pilot air supply | 24 V DC | 546694 | VSVA-B-T32U-AH-A1-1C1 |
| | | | | 12 V DC | 547130 | VSVA-B-T32U-AH-A1-5C1 |
| | | | | 230 V AC | 547210 | VSVA-B-T32U-AH-A1-3AC1 |
| | | | | 110 V AC | 547170 | VSVA-B-T32U-AH-A1-2AC1 |
| | | | | 24 V AC | 547090 | VSVA-B-T32U-AH-A1-1AC1 |
| H | | Normal position: 1x closed 1x open | Internal pilot air supply | 24 V DC | 547066 | VSVA-B-T32H-AH-A1-1C1 |
| | | | | 12 V DC | 547132 | VSVA-B-T32H-AH-A1-5C1 |
| | | | | 230 V AC | 547212 | VSVA-B-T32H-AH-A1-3AC1 |
| | | | | 110 V AC | 547172 | VSVA-B-T32H-AH-A1-2AC1 |
| | | | | 24 V AC | 547092 | VSVA-B-T32H-AH-A1-1AC1 |
| K | | Normal position: 2x closed | External pilot air supply | 24 V DC | 547068 | VSVA-B-T32C-AZH-A1-1C1 |
| | | | | 12 V DC | 547148 | VSVA-B-T32C-AZH-A1-5C1 |
| | | | | 230 V AC | 547228 | VSVA-B-T32C-AZH-A1-3AC1 |
| | | | | 110 V AC | 547188 | VSVA-B-T32C-AZH-A1-2AC1 |
| | | | | 24 V AC | 547108 | VSVA-B-T32C-AZH-A1-1AC1 |
| N | | Normal position: 2x open | External pilot air supply | 24 V DC | 547070 | VSVA-B-T32U-AZH-A1-1C1 |
| | | | | 12 V DC | 547150 | VSVA-B-T32U-AZH-A1-5C1 |
| | | | | 230 V AC | 547230 | VSVA-B-T32U-AZH-A1-3AC1 |
| | | | | 110 V AC | 547190 | VSVA-B-T32U-AZH-A1-2AC1 |
| | | | | 24 V AC | 547110 | VSVA-B-T32U-AZH-A1-1AC1 |
| H | | Normal position: 1x closed 1x open | External pilot air supply | 24 V DC | 547072 | VSVA-B-T32H-AZH-A1-1C1 |
| | | | | 12 V AC | 547152 | VSVA-B-T32H-AZH-A1-5C1 |
| | | | | 230 V AC | 547232 | VSVA-B-T32H-AZH-A1-3AC1 |
| | | | | 110 V AC | 547192 | VSVA-B-T32H-AZH-A1-2AC1 |
| | | | | 24 V AC | 547112 | VSVA-B-T32H-AZH-A1-1AC1 |

Solenoid valves VSVA, with pilot interface to ISO 15218

Technical data – Width 26 mm

| Ordering data – Pilot control assembled | | | | | | | | | | |
|--|----------------|-----------------------|---------------------------|--|--------|------------------------|---------------------------|----------|--------|-----------------------|
| Code | Circuit symbol | | | Part No. | Type | | | | | |
| 5/2-way valve, single solenoid, with pilot control with square plug, type C to EN 175301-803 | | | | | | | | | | |
| M | | Pneumatic spring | Internal pilot air supply | 12 V DC | 547138 | VSVA-B-M52-AH-A1-5C1 | | | | |
| | | | | 230 V AC | 547218 | VSVA-B-M52-AH-A1-3AC1 | | | | |
| | | | | 110 V AC | 547178 | VSVA-B-M52-AH-A1-2AC1 | | | | |
| | | | | 24 V AC | 547098 | VSVA-B-M52-AH-A1-1AC1 | | | | |
| O | | Mechanical spring | Internal pilot air supply | 12 V DC | 547140 | VSVA-B-M52-MH-A1-5C1 | | | | |
| | | | | 230 V AC | 547220 | VSVA-B-M52-MH-A1-3AC1 | | | | |
| | | | | 110 V AC | 547180 | VSVA-B-M52-MH-A1-2AC1 | | | | |
| | | | | 24 V AC | 547100 | VSVA-B-M52-MH-A1-1AC1 | | | | |
| M | | Pneumatic spring | External pilot air supply | 24 V DC | 547078 | VSVA-B-M52-AZH-A1-1C1 | | | | |
| | | | | 12 V DC | 547158 | VSVA-B-M52-AZH-A1-5C1 | | | | |
| | | | | 230 V AC | 547238 | VSVA-B-M52-AZH-A1-3AC1 | | | | |
| | | | | 110 V AC | 547198 | VSVA-B-M52-AZH-A1-2AC1 | | | | |
| O | | Mechanical spring | External pilot air supply | 24 V DC | 547080 | VSVA-B-M52-MZH-A1-1C1 | | | | |
| | | | | 12 V DC | 547160 | VSVA-B-M52-MZH-A1-5C1 | | | | |
| | | | | 230 V AC | 547240 | VSVA-B-M52-MZH-A1-3AC1 | | | | |
| | | | | 110 V AC | 547200 | VSVA-B-M52-MZH-A1-2AC1 | | | | |
| | | | | 24 V AC | 547120 | VSVA-B-M52-MZH-A1-1AC1 | | | | |
| | | | | 5/2-way valve, double solenoid, with pilot control with square plug, type C to EN 175301-803 | | | | | | |
| | | | | J | | Dominant 1st signal | Internal pilot air supply | 12 V DC | 547134 | VSVA-B-B52-H-A1-5C1 |
| | | | | | | | | 230 V AC | 547214 | VSVA-B-B52-H-A1-3AC1 |
| 110 V AC | 547174 | VSVA-B-B52-H-A1-2AC1 | | | | | | | | |
| 24 V AC | 547094 | VSVA-B-B52-H-A1-1AC1 | | | | | | | | |
| D | | Dominant at 14 | Internal pilot air supply | 24 V DC | 546698 | VSVA-B-D52-H-A1-1C1 | | | | |
| | | | | 12 V DC | 547136 | VSVA-B-D52-H-A1-5C1 | | | | |
| | | | | 230 V AC | 547216 | VSVA-B-D52-H-A1-3AC1 | | | | |
| | | | | 110 V AC | 547176 | VSVA-B-D52-H-A1-2AC1 | | | | |
| | | | | 24 V AC | 547096 | VSVA-B-D52-H-A1-1AC1 | | | | |
| | | | | J | | Dominant 1st signal | External pilot air supply | 24 V DC | 547074 | VSVA-B-B52-ZH-A1-1C1 |
| | | | | | | | | 12 V DC | 547154 | VSVA-B-B52-ZH-A1-5C1 |
| | | | | | | | | 230 V AC | 547234 | VSVA-B-B52-ZH-A1-3AC1 |
| 110 V AC | 547194 | VSVA-B-B52-ZH-A1-2AC1 | | | | | | | | |
| | | | | 24 V AC | 547114 | VSVA-B-B52-ZH-A1-1AC1 | | | | |
| | | | | D | | Dominant at 14 | External pilot air supply | 24 V DC | 547076 | VSVA-B-D52-ZH-A1-1C1 |
| | | | | | | | | 12 V DC | 547156 | VSVA-B-D52-ZH-A1-5C1 |
| | | | | | | | | 230 V AC | 547236 | VSVA-B-D52-ZH-A1-3AC1 |
| 110 V AC | 547196 | VSVA-B-D52-ZH-A1-2AC1 | | | | | | | | |
| | | | | 24 V AC | 547116 | VSVA-B-D52-ZH-A1-1AC1 | | | | |





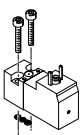
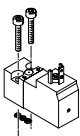
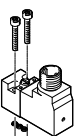
Solenoid valves VSVA, with pilot interface to ISO 15218

Technical data – Width 26 mm

| Ordering data – Pilot control assembled | | | | | | |
|--|----------------|-------------------------------|------------------------------|----------|---------------|-------------------------------|
| Code | Circuit symbol | | | Part No. | Type | |
| 5/3-way solenoid valve, with pilot control with square plug, type C to EN 175301-803 | | | | | | |
| G | | Normal position: closed | Internal pilot air supply | 24 V DC | 546708 | VSVA-B-P53C-H-A1-1C1 |
| | | | | 12 V DC | 547146 | VSVA-B-P53C-H-A1-5C1 |
| | | | | 230 V AC | 547226 | VSVA-B-P53C-H-A1-3AC1 |
| | | | | 110 V AC | 547186 | VSVA-B-P53C-H-A1-2AC1 |
| | | | | 24 V AC | 547106 | VSVA-B-P53C-H-A1-1AC1 |
| B | | Normal position: open | Internal pilot air supply | 24 V DC | 546704 | VSVA-B-P53U-H-A1-1C1 |
| | | | | 12 V DC | 547142 | VSVA-B-P53U-H-A1-5C1 |
| | | | | 230 V AC | 547222 | VSVA-B-P53U-H-A1-3AC1 |
| | | | | 110 V AC | 547182 | VSVA-B-P53U-H-A1-2AC1 |
| | | | | 24 V AC | 547102 | VSVA-B-P53U-H-A1-1AC1 |
| E | | Normal position: exhausted | Internal pilot air supply | 12 V DC | 547144 | VSVA-B-P53E-H-A1-5C1 |
| | | | | 230 V AC | 547224 | VSVA-B-P53E-H-A1-3AC1 |
| | | | | 110 V AC | 547184 | VSVA-B-P53E-H-A1-2AC1 |
| | | | | 24 V AC | 547104 | VSVA-B-P53E-H-A1-1AC1 |
| G | | Normal position: closed | External pilot air supply | 24 V DC | 547086 | VSVA-B-P53C-ZH-A1-1C1 |
| | | | | 12 V DC | 547166 | VSVA-B-P53C-ZH-A1-5C1 |
| | | | | 230 V AC | 547246 | VSVA-B-P53C-ZH-A1-3AC1 |
| | | | | 110 V AC | 547206 | VSVA-B-P53C-ZH-A1-2AC1 |
| B | | Normal position: open | External pilot air supply | 24 V DC | 547082 | VSVA-B-P53U-ZH-A1-1C1 |
| | | | | 12 V DC | 547162 | VSVA-B-P53U-ZH-A1-5C1 |
| | | | | 230 V AC | 547242 | VSVA-B-P53U-ZH-A1-3AC1 |
| | | | | 110 V AC | 547202 | VSVA-B-P53U-ZH-A1-2AC1 |
| E | | Normal position: exhausted | External pilot air supply | 24 V DC | 547084 | VSVA-B-P53E-ZH-A1-1C1 |
| | | | | 12 V DC | 547164 | VSVA-B-P53E-ZH-A1-5C1 |
| | | | | 230 V AC | 547244 | VSVA-B-P53E-ZH-A1-3AC1 |
| | | | | 110 V AC | 547204 | VSVA-B-P53E-ZH-A1-2AC1 |
| | | | | 24 V AC | 547124 | VSVA-B-P53E-ZH-A1-1AC1 |

Solenoid valves VSVA, with pilot interface to ISO 15218

Technical data – Width 26 mm without pilot valve


| Ordering data – Pilot control separate | | | | Part No. | Type |
|---|---|---------------------|------------------|---------------------|-----------------------|
| 2x 3/2-way valve without pilot valves | | | | | |
|  | Internal pilot air supply | 2x normally closed | 546731 | VSVA-B-T32C-A-A1-P1 | |
| | | 2x normally open | 546733 | VSVA-B-T32U-A-A1-P1 | |
| 5/2-way single solenoid valve without pilot valve | | | | | |
|  | Internal pilot air supply | Pneumatic | 546739 | VSVA-B-M52-A-A1-P1 | |
| | | Mechanical spring | 546741 | VSVA-B-M52-M-A1-P1 | |
| 5/2-way double solenoid valve without pilot valve | | | | | |
|  | Internal pilot air supply | Dominant 1st signal | 546735 | VSVA-B-B52-A1-P1 | |
| | | Dominant at 14 | 546737 | VSVA-B-D52-A1-P1 | |
| 5/3-way mid-position valve, single solenoid, without pilot valves | | | | | |
|  | Internal pilot air supply | Normally closed | 546747 | VSVA-B-P53C-A1-P1 | |
| | | Normally open | 546743 | VSVA-B-P53U-A1-P1 | |
| | | Normally exhausted | 546745 | VSVA-B-P53E-A1-P1 | |
| Pilot valve to ISO 15218 | | | | | |
|  | Square plug, type C to EN 175301-803 | 12 V DC | MO non-detenting | 546257 | VSCS-B-M32-MH-WA-5C1 |
| | | | MO detenting | 571062 | VSCS-B-M32-MD-WA-5C1 |
| | | 24 V DC | MO non-detenting | 546256 | VSCS-B-M32-MH-WA-1C1 |
| | | | MO detenting | 571061 | VSCS-B-M32-MD-WA-1C1 |
| | | 24 V AC | MO non-detenting | 546258 | VSCS-B-M32-MH-WA-1AC1 |
| | | | MO detenting | 571063 | VSCS-B-M32-MD-WA-1AC1 |
|  | Square plug, type C to EN 175301-803, with protective earth conductor | 110 V AC | MO non-detenting | 546259 | VSCS-B-M32-MH-WA-2AC1 |
| | | | MO detenting | 571064 | VSCS-B-M32-MD-WA-2AC1 |
| | | 230 V AC | MO non-detenting | 546260 | VSCS-B-M32-MH-WA-3AC1 |
| | | | MO detenting | 571065 | VSCS-B-M32-MD-WA-3AC1 |
|  | M12 round plug to IEC 61076-2-101 | 24 V DC | MO non-detenting | 573214 | VSCS-B-M32-MH-WA-1R3 |
| | | | MO detenting | 573215 | VSCS-B-M32-MD-WA-1R3 |

MO Manual override

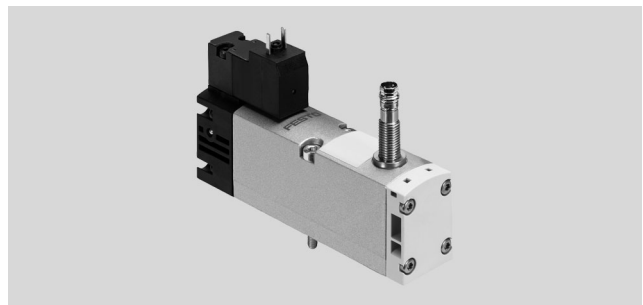
Solenoid valves VSVA, with pilot interface to ISO 15218

FESTO

Technical data – Width 26 mm, valve with position detection

-  Flow rate
Max. 1400 l/min

-  Voltage
24 V DC



ISO valves with switching position sensing for safety-related pneumatic components

The 5/2-way single solenoid valve with spring return contains an inductive sensor that monitors the normal position of the piston spool valve. This valve is not a safety device in accordance with the Machinery Directive 2006/42/EC.

For use in higher categories, the sensor signal from the valve must be evaluated by a control unit. This valve is suitable for use in safety-related parts of control systems to EN ISO 13849-1. This valve is designed for installation in machines

and automation systems and must only be used in industrial applications (high-demand mode). The circuit symbol represents a valve with a proximity sensor with switching output signal with a normally open contact. In accordance with

ISO 1219-1, this symbol is used both for normally open contacts and for normally closed contacts. The switching element function of the sensors used here is designed as an N/C contact.

| General technical data | | |
|--|---------------------------------------|--|
| Valve function | | 5/2-way |
| Piston position sensing | | Normal position with sensor |
| Stable positions | | Monostable |
| Reset method | | Mechanical spring |
| Design | | Piston spool |
| Sealing principle | | Soft |
| Type of actuation | | Electrical |
| Type of pilot control | | Piloted |
| Pilot interface | | To ISO 15218 |
| Pilot air supply port | | External |
| Pilot air supply, exhaust air | | Optionally ducted/not ducted |
| Direction of flow | | Any |
| Exhaust air function | | Flow control possible, via flow control plate, via individual sub-base |
| Manual override | | Covered |
| Type of mounting | | On sub-base |
| Mounting position | | Any |
| Nominal width | [mm] | 9 |
| Flow rate of valve | [l/min] | 1400 |
| Flow rate of valve on individual sub-base | [l/min] | 1100 |
| Flow rate of pneumatically interlinked valve | [l/min] | 1100 |
| Standard nominal flow rate | [l/min] | 1100 |
| Switching time on/off | [ms] | 21/41 |
| Non-overlapping | | Yes |
| Width | [mm] | 26 |
| Ports on the sub-base | 1, 2, 3, 4, 5 12, 14 | G1/4 M5 |
| Tightening torque for valve mounting | [Nm] | 1.8 ... 2.2 |
| Product weight | With plug M8x1 With open cable end | [g] [g] |
| | | 289 332 |
| Noise level | [dB (A)] | 85 |
| Conforms to standard | | ISO 15407-1, VDMA 24563 |

Solenoid valves VSVA, with pilot interface to ISO 15218

Technical data – Width 26 mm, valve with position detection

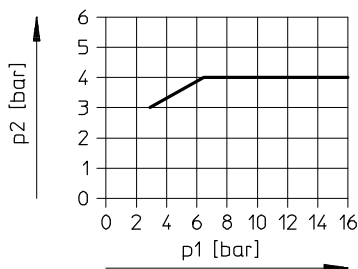
| Safety characteristics | |
|---|--|
| CE marking (see declaration of conformity) | To EU EMC Directive ¹⁾ |
| Max. positive test pulse with 0 signal [μs] | 1000 |
| Max. negative test pulse with 1 signal [μs] | 800 |
| Shock resistance | Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27 |
| Vibration resistance | Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6 |

- 1) For information about the applicability of the component see the manufacturer's EC declaration of conformity at: www.festo.com/sp → Certificates.
If the component is subject to restrictions on usage in residential, office or commercial environments or small businesses, further measures to reduce the emitted interference may be necessary.

| Operating and environmental conditions | |
|--|--|
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Note on operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) |
| Operating pressure [bar] | -0.9 ... 16 |
| Pilot pressure [bar] | 3 ... 10 |
| Ambient temperature [°C] | -5 ... +50 |
| Temperature of medium [°C] | -5 ... +50 |
| Relative humidity [%] | 0 ... 90 |

- 1) Pilot pressure dependent on operating pressure → Graph

Minimum pilot pressure p₂, p₁₄ as a function of operating pressure p₁ (external pilot air supply)



| Electrical data | |
|----------------------------------|--|
| Electrical connection | Plug, square design to EN 175301-803, type C, without protective earth conductor |
| Operating voltage [V DC] | 24 +10%/-15% |
| Characteristic coil data [W] | 1.8 |
| Duty cycle [%] | 100 |
| Signal status display | Via accessories |
| Degree of protection to EN 60529 | IP65, Nema 4 (in combination with plug socket) |
| Certification | C-Tick |

Solenoid valves VSVA, with pilot interface to ISO 15218

Technical data – Width 26 mm, valve with position detection

| Electrical data – Sensor | | | VSVA-B-...P | VSVA-B-...C |
|--------------------------------------|--------|------|--------------------------------|--------------------------------|
| Type | | | Plug, M8x1, 3-pin | Open cable end, 2.5 m |
| Electrical connection | | | Plug, M8x1, 3-pin | Open cable end, 2.5 m |
| Operating voltage | [V DC] | | 10 ... 30 | 10 ... 30 |
| Switching element function | | | Normally closed contact | Normally closed contact |
| Measuring principle | | | Inductive | Inductive |
| Switching status display sensor | | | LED | LED |
| Protection against polarity reversal | | | For all electrical connections | For all electrical connections |
| Protection against short circuit | | | Pulsed | Pulsed |
| Idle current | [mA] | | Max. 10 | Max. 10 |
| Output current | [mA] | | Max. 200 | Max. 200 |
| Switching frequency | [kHz] | | Max. 5 | Max. 5 |
| Residual ripple | [%] | | ±10 | ±10 |
| Voltage drop | [V] | | Max. 2 | Max. 2 |
| Valve – Sensor switching time | On | [ms] | 60 | 60 |
| | Off | [ms] | 11 | 11 |

| Materials | |
|-------------------|------------------------|
| Housing | Die-cast aluminium, PA |
| Seals | FPM, NBR |
| Screws | Galvanised steel |
| Note on materials | RoHS compliant |

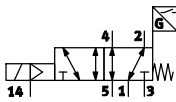
Dimensions Download CAD data → www.festo.com



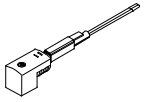
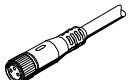
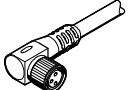
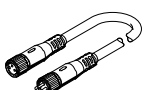
1 Captive screws
 2 Slot for inscription label
 5 Sensor with cable
 6 Sensor with plug

| | B1 | B2 | H1 | H2 | H3 | H5 | H6 | H8 | H9 | L1 | L3 | L4 |
|---------------------------|------|----|----|------|----|------|----|------|------|-------|------|------|
| VSVA-B-M52-MZ-A1-1C1-A... | 26.2 | 19 | 98 | 68.2 | 58 | 57.8 | 38 | 89.6 | 71.2 | 113.1 | 30.7 | 63.1 |

Solenoid valves VSVA, with pilot interface to ISO 15218

Technical data – Width 26 mm, valve with position detection


| Ordering data – Pilot control assembled | | | | | |
|--|---|----------------------------------|----------------------------------|----------|--------------------------|
| Code | Circuit symbol | | Electrical connection for sensor | Part No. | Type |
| 5/2-way valve, single solenoid, with pilot control with square plug, type C to EN 175301-803 | | | | | |
| SO |  | Inductive sensor with PNP output | Plug, M8x1, 3-pin | 560726 | VSVA-B-M52-MZ-A1-1C1-APP |
| – | | | Open cable end, 2.5 m | 560725 | VSVA-B-M52-MZ-A1-1C1-APC |
| SQ | | Inductive sensor with NPN output | Plug, M8x1, 3-pin | 560745 | VSVA-B-M52-MZ-A1-1C1-ANP |
| – | | | Open cable end, 2.5 m | 560744 | VSVA-B-M52-MZ-A1-1C1-ANC |

| Ordering data – Accessories | | | | | | |
|---|---|--|-------------------------|------------------|-----------------------------|-----------------------------|
| Code | | Description | | Part No. | Type | |
| Plug socket for port pattern to EN 175301-803, type C | | | | | | |
| – |  | Angled socket, type C, 3-pin, screw terminal | Cable connector PG7 | 151687 | MSSD-EB | |
| | | | Cable connector M12 | 539712 | MSSD-EB-M12 | |
| Illuminated seal for port pattern to EN 175301-803, type C Technical data → Internet: meb-ld | | | | | | |
| – |  | For plug socket MSSD, 12 ... 24 V DC | | 151717 | MEB-LD-12-24DC | |
| Connecting cable for port pattern to EN 175301-803, type C | | | | | | |
| GG |  | Angled socket, type C, with LED Open end, 3-wire | 3-pin, cable sheath PVC | 2.5 m | 151688 KMEB-1-24-2,5-LED | |
| GH | | | | 5 m | 151689 KMEB-1-24-5-LED | |
| GJ | | | | 10 m | 193457 KMEB-1-24-10-LED | |
| Connecting cable for electrical connection of the position detection sensor | | | | | | |
| GM |  | Straight socket, M8x1, 3-pin Open end, 3-wire | | 2.5 m | 541333 NEBU-M8G3-K-2,5-LE3 | |
| GN | | | | 5 m | 541334 NEBU-M8G3-K-5-LE3 | |
| GO |  | Angled socket, M8x1, 3-pin Open end, 3-wire | – | 2.5 m | 541338 NEBU-M8W3-K-2,5-LE3 | |
| GP | | | | 5 m | 541341 NEBU-M8W3-K-5-LE3 | |
| – | | | | Rotatable socket | 2.5 m | 8001660 NEBU-M8R3-K-2,5-LE3 |
| – | | | | | 5 m | 8001661 NEBU-M8R3-K-5-LE3 |
| GQ |  | Straight socket, M8x1, 3-pin Straight plug, M8x1, 4-pin | | 2.5 m | 554037 NEBU-M8G3-K-2,5-M8G4 | |

Solenoid valves VSVA, with central plug M8x1, M12x1

FESTO

Technical data – Width 18 mm

-  Flow rate
Max. 750 l/min

-  Voltage
24 V DC



| General technical data | | | | | | | | | |
|--|-------------------------|-----------------|-----------------|---|----------|-----------------|-----------------|-----------------|-------|
| Valve function | 2x 3/2-way | | | 5/2-way | | 5/3-way | | | |
| Normal position | C ¹⁾ | U ²⁾ | H ⁴⁾ | – | – | C ¹⁾ | U ²⁾ | E ³⁾ | |
| Stable position | Monostable | | | | Bistable | | Monostable | | |
| Reset method: pneumatic spring | Yes | | | Yes | – | No | | | |
| Reset method: mechanical spring | No | | | Yes | – | Yes | | | |
| Design | Piston spool | | | | | | | | |
| Sealing principle | Soft | | | | | | | | |
| Type of actuation | Electrical | | | | | | | | |
| Type of pilot control | Piloted | | | | | | | | |
| Pilot air supply port | Internal or external | | | | | | | | |
| Direction of flow | Non-reversible | | | Reversible with external pilot air supply | | | | | |
| Exhaust air function | With flow control | | | | | | | | |
| Manual override | Non-detenting | | | | | | | | |
| Type of mounting | On sub-base | | | | | | | | |
| Mounting position | Any | | | | | | | | |
| Nominal width | [mm] | 5 | | | | | | | |
| Flow rate of valve | [l/min] | 600 | | | 750 | | 650 | | |
| Flow rate of valve on individual sub-base | [l/min] | 450 | | | 550 | | 500 | | |
| Flow rate of pneumatically interlinked valve | [l/min] | 400 | | | 550 | | 450 | | |
| Standard nominal flow rate | [l/min] | 400 | | | 550 | | 450 | | |
| Switching time on/off, pneumatic spring | [ms] | 10/22 | | | 20/25 | | – | | – |
| Switching time on/off, mechanical spring | [ms] | – | | | 12/34 | | – | | 15/36 |
| Changeover time | [ms] | – | | | – | | 10 | | – |
| Non-overlapping | Yes | | | | | | | | |
| Width | [mm] | 18 | | | | | | | |
| Ports on the sub-base | 1, 2, 3, 4, 5 | G1/8 | | | | | | | |
| | 12, 14 | M5 | | | | | | | |
| Tightening torque for valve mounting | [Nm] | 0.9 ... 1.1 | | | | | | | |
| Product weight | [g] | 140 | | | | | | | |
| Noise level | [dB (A)] | 85 | | | | | | | |
| Conforms to standard | ISO 15407-1, VDMA 24563 | | | | | | | | |

- 1) C=Normally closed
- 2) U = Normally open
- 3) E = Normally exhausted
- 4) H=2x 3/2-way valve in one housing with 1x normally closed and 1x normally open

Solenoid valves VSVA, with central plug M8x1, M12x1

Technical data – Width 18 mm

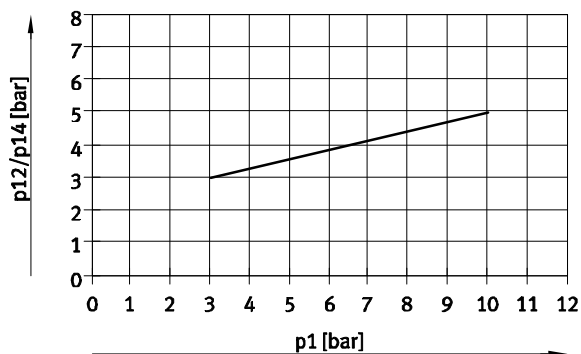
| Safety characteristics | |
|---|--|
| CE marking (see declaration of conformity) | To EU EMC Directive ¹⁾ |
| Max. positive test pulse with 0 signal [μs] | 500 |
| Max. negative test pulse with 1 signal [μs] | 500 |
| Shock resistance | Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27 |
| Vibration resistance | Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6 |

- 1) For information about the applicability of the component see the manufacturer's EC declaration of conformity at: www.festo.com/sp → Certificates.
If the component is subject to restrictions on usage in residential, office or commercial environments or small businesses, further measures to reduce the emitted interference may be necessary.

| Operating and environmental conditions | | | | |
|--|---------------------------------|--|-------------|-------------|
| Valve function | | 2x3/2-way | 5/2-way | 5/3-way |
| Operating medium | | Compressed air to ISO 8573-12010 [7:4:4] | | |
| Note on operating/pilot medium | | Lubricated operation possible (in which case lubricated operation will always be required) | | |
| Operating pressure | Internal pilot air supply [bar] | 3 ... 8 | 3 ... 8 | 3 ... 8 |
| | External pilot air supply [bar] | 3 ... 10 | -0.9 ... 10 | -0.9 ... 10 |
| Pilot pressure [bar] | | 3 ... 8 ¹⁾ | 3 ... 8 | 3 ... 8 |
| Ambient temperature [°C] | | -5 ... +50 | | |
| Temperature of medium [°C] | | -5 ... +50 | | |
| Relative humidity [%] | | 0 ... 90 | | |
| Corrosion resistance class CRC ²⁾ | | 2 | | |
| Certification | | c CSA us (OL) | | |
| | | c UL us - Recognized (OL) | | |
| | | C-Tick | | |

- 1) Pilot pressure dependent on operating pressure → Graph
2) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Minimum pilot pressure p12, p14 as a function of operating pressure p1 (external pilot air supply) for the 2x 3/2-way solenoid valves



| Electrical data | | | |
|----------------------------------|-----------------|--|--|
| Electrical connection | | Central plug, round design, M8x1 4-pin or M12x1 3-pin | |
| Characteristic coil data | Voltage [V DC] | 24±10% = 21.6 ... 26.4 | |
| | Performance [W] | High-current phase: 2.4 ; Low-current phase: 1 ¹⁾ | |
| Duty cycle | | % | |
| Degree of protection to EN 60529 | | IP65 (in combination with plug socket) | |
| Signal status display | | LED | |

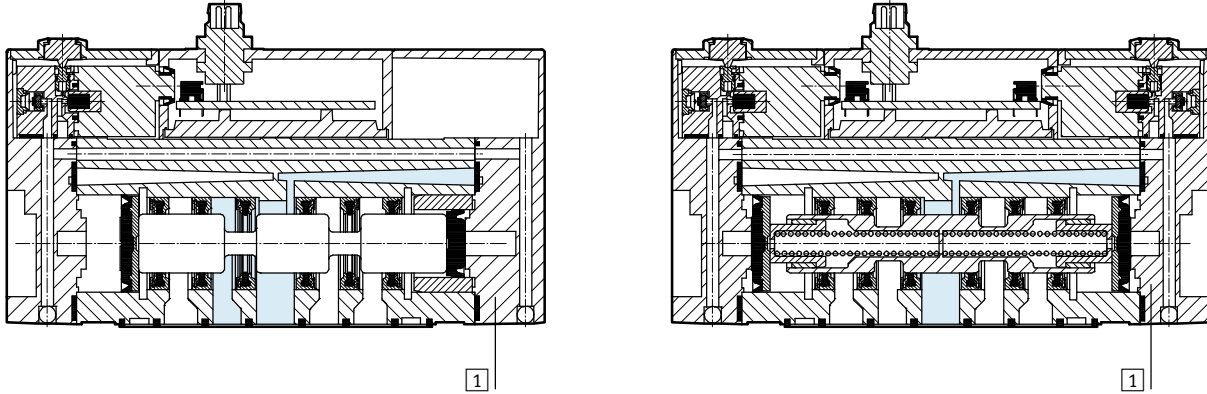
- 1) Controlled by integrated current reduction

Solenoid valves VSVA, with central plug M8x1, M12x1

Technical data – Width 18 mm

Materials

Sectional view



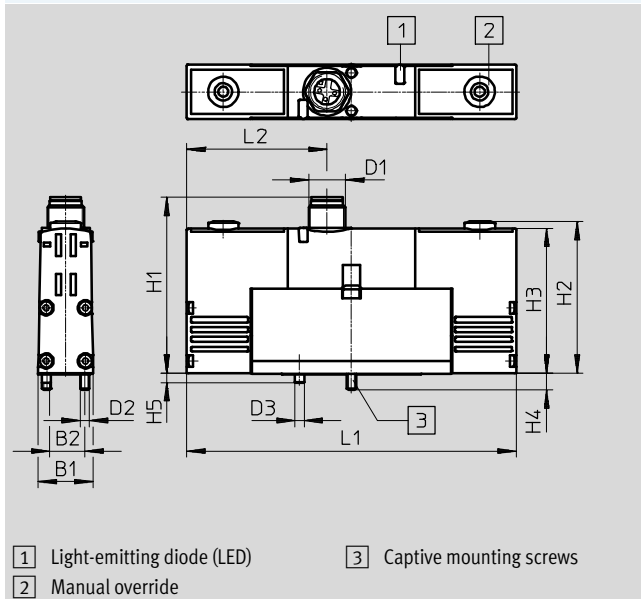
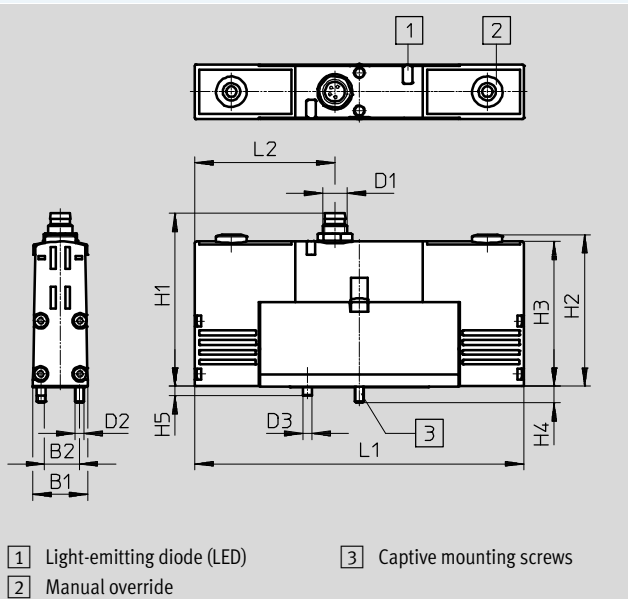
| | | |
|---|-------------------|-------------------------|
| 1 | Housing | Die-cast aluminium, POM |
| - | Seals | NBR |
| - | Note on materials | RoHS compliant |

Dimensions

Download CAD data → www.festo.com

Valve with central plug M8x1, VSVA-B-...-1R2L

Valve with central plug M12x1, VSVA-B-...-1R5L



- 1 Light-emitting diode (LED)
- 2 Manual override
- 3 Captive mounting screws

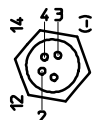
- 1 Light-emitting diode (LED)
- 2 Manual override
- 3 Captive mounting screws

| Type | B1 | B2 | D1 | D2 | D3 | H1 | H2 | H3 | H4 | H5 | L1 | L2 |
|-----------------|----|------|-------|----|----|------|------|------|-----|----|-------|------|
| VSVA-B-...-1R2L | 18 | 12.5 | M8x1 | M3 | 3 | 54.4 | 49.8 | 47.6 | 5.4 | 3 | 107.8 | 46.9 |
| VSVA-B-...-1R5L | | | M12x1 | | | 58.2 | | | | | | |

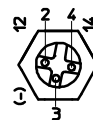
Pin allocation

M8x1

M12x1



- 1 Unused
- 2 Signal (+) solenoid 12/10
- 3 com (-)
- 4 Signal (+) Solenoid 14/10



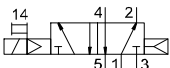
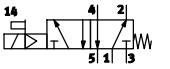
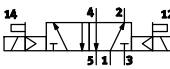
- 2 Signal (+) Solenoid 12
- 3 com (-)
- 4 Signal (+) Solenoid 14

Solenoid valves VSVA, with central plug M8x1, M12x1

FESTO

Technical data – Width 18 mm

★ Core product range

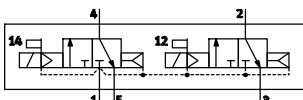
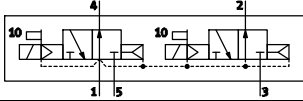
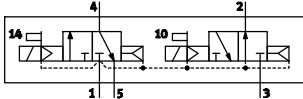
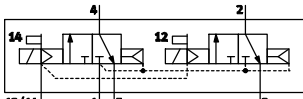
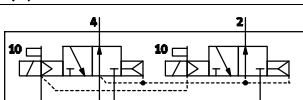
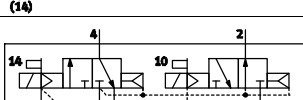
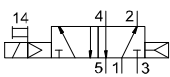
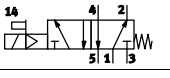
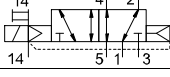
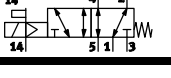
| Ordering data | | | | | | |
|--------------------------------|---|---------------------|---------------------------|----------|----------|-----------------------|
| Code | Circuit symbol | | | Part No. | Type | |
| 5/2-way valve, single solenoid | | | | | | |
| M |  | Pneumatic spring | Internal pilot air supply | M12x1 | ★ 546767 | VSVA-B-M52-AH-A2-1R5L |
| O |  | Mechanical spring | Internal pilot air supply | M12x1 | ★ 546768 | VSVA-B-M52-MH-A2-1R5L |
| 5/2-way valve, double solenoid | | | | | | |
| J |  | Dominant 1st signal | Internal pilot air supply | M12x1 | ★ 546769 | VSVA-B-B52-H-A2-1R5L |

Festo core product range

- ★ Generally ready for shipping ex works in 24 hours
- ☆ Generally ready for shipping ex works in 5 days

Solenoid valves VSVA, with central plug M8x1, M12x1

Technical data – Width 18 mm

| Ordering data | | | | | | |
|---------------------------------------|---|--|---------------------------|----------|--------|-------------------------|
| Code | Circuit symbol | | | Part No. | Type | |
| 2x 3/2-way solenoid valve | | | | | | |
| K |  | Normal position: 2x closed | Internal pilot air supply | M8x1 | 534771 | VSVA-B-T32C-AH-A2-1R2L |
| | | | | M12x1 | 546764 | VSVA-B-T32C-AH-A2-1R5L |
| N |  | Normal position: 2x open | Internal pilot air supply | M8x1 | 534772 | VSVA-B-T32U-AH-A2-1R2L |
| | | | | M12x1 | 546765 | VSVA-B-T32U-AH-A2-1R5L |
| H |  | Normal position: 1x closed 1x open | Internal pilot air supply | M8x1 | 534773 | VSVA-B-T32H-AH-A2-1R2L |
| | | | | M12x1 | 546766 | VSVA-B-T32H-AH-A2-1R5L |
| K |  | Normal position: 2x closed | External pilot air supply | M8x1 | 534781 | VSVA-B-T32C-AZH-A2-1R2L |
| | | | | M12x1 | 546774 | VSVA-B-T32C-AZH-A2-1R5L |
| N |  | Normal position: 2x open | External pilot air supply | M8x1 | 534782 | VSVA-B-T32U-AZH-A2-1R2L |
| | | | | M12x1 | 546775 | VSVA-B-T32U-AZH-A2-1R5L |
| H |  | Normal position: 1x closed 1x open | External pilot air supply | M8x1 | 534783 | VSVA-B-T32H-AZH-A2-1R2L |
| | | | | M12x1 | 546776 | VSVA-B-T32H-AZH-A2-1R5L |
| 5/2-way valve, single solenoid | | | | | | |
| M |  | Pneumatic spring | Internal pilot air supply | M8x1 | 534774 | VSVA-B-M52-AH-A2-1R2L |
| O |  | Mechanical spring | Internal pilot air supply | M8x1 | 534775 | VSVA-B-M52-MH-A2-1R2L |
| M |  | Pneumatic spring | External pilot air supply | M8x1 | 534784 | VSVA-B-M52-AZH-A2-1R2L |
| | | | | M12x1 | 546777 | VSVA-B-M52-AZH-A2-1R5L |
| O |  | Mechanical spring | External pilot air supply | M8x1 | 534785 | VSVA-B-M52-MZH-A2-1R2L |
| | | | | M12x1 | 546778 | VSVA-B-M52-MZH-A2-1R5L |

Solenoid valves VSVA, with central plug M8x1, M12x1


Technical data – Width 18 mm

| Ordering data | | | | | | |
|---------------------------------------|----------------|---------------------|---------------------------|-------|----------|------------------------|
| Code | Circuit symbol | | | | Part No. | Type |
| 5/2-way valve, double solenoid | | | | | | |
| J | | Dominant 1st signal | Internal pilot air supply | M8x1 | 534776 | VSVA-B-B52-H-A2-1R2L |
| D | | Dominant at 14 | Internal pilot air supply | M8x1 | 534777 | VSVA-B-D52-H-A2-1R2L |
| | | | | M12x1 | 546770 | VSVA-B-D52-H-A2-1R5L |
| J | | Dominant 1st signal | External pilot air supply | M8x1 | 534786 | VSVA-B-B52-ZH-A2-1R2L |
| | | | | M12x1 | 546779 | VSVA-B-B52-ZH-A2-1R5L |
| D | | Dominant at 14 | External pilot air supply | M8x1 | 534787 | VSVA-B-D52-ZH-A2-1R2L |
| | | | | M12x1 | 546780 | VSVA-B-D52-ZH-A2-1R5L |
| 5/3-way valve | | | | | | |
| G | | Normally closed | Internal pilot air supply | M8x1 | 534778 | VSVA-B-P53C-H-A2-1R2L |
| | | | | M12x1 | 546771 | VSVA-B-P53C-H-A2-1R5L |
| B | | Normally open | Internal pilot air supply | M8x1 | 534780 | VSVA-B-P53U-H-A2-1R2L |
| | | | | M12x1 | 546773 | VSVA-B-P53U-H-A2-1R5L |
| E | | Normally exhausted | Internal pilot air supply | M8x1 | 534779 | VSVA-B-P53E-H-A2-1R2L |
| | | | | M12x1 | 546772 | VSVA-B-P53E-H-A2-1R5L |
| G | | Normally closed | External pilot air supply | M8x1 | 534788 | VSVA-B-P53C-ZH-A2-1R2L |
| | | | | M12x1 | 546781 | VSVA-B-P53C-ZH-A2-1R5L |
| B | | Normally open | External pilot air supply | M8x1 | 534790 | VSVA-B-P53U-ZH-A2-1R2L |
| | | | | M12x1 | 546783 | VSVA-B-P53U-ZH-A2-1R5L |
| E | | Normally exhausted | External pilot air supply | M8x1 | 534789 | VSVA-B-P53E-ZH-A2-1R2L |
| | | | | M12x1 | 546782 | VSVA-B-P53E-ZH-A2-1R5L |

Solenoid valves VSVA, with central plug M8x1, M12x1

FESTO

Technical data – Width 26 mm

-  - Flow rate
Max. 1400 l/min

-  - Voltage
24 V DC



| General technical data | | | | | | | | | |
|--|--|-----------------|-----------------|---|----------|-----------------|-----------------|-----------------|--|
| Valve function | 2x 3/2-way | | | 5/2-way | | 5/3-way | | | |
| Normal position | C ¹⁾ | U ²⁾ | H ⁴⁾ | – | – | C ¹⁾ | U ²⁾ | E ³⁾ | |
| Stable position | Monostable | | | Monostable | Bistable | Monostable | | | |
| Reset method: pneumatic spring | Yes | | | Yes | – | No | | | |
| Reset method: mechanical spring | No | | | Yes | – | Yes | | | |
| Design | Piston spool | | | | | | | | |
| Sealing principle | Soft | | | | | | | | |
| Type of actuation | Electrical | | | | | | | | |
| Type of pilot control | Piloted | | | | | | | | |
| Pilot air supply port | Internal or external | | | | | | | | |
| Direction of flow | Non-reversible | | | Reversible with external pilot air supply | | | | | |
| Exhaust air function | Flow control possible, via flow control plate, via individual sub-base | | | | | | | | |
| Manual override | Non-detenting | | | | | | | | |
| Type of mounting | On sub-base | | | | | | | | |
| Mounting position | Any | | | | | | | | |
| Nominal width | [mm] | 9 | | | | | | | |
| Flow rate of valve | [l/min] | 1250 | | 1400 | | 1400 | | | |
| Flow rate of valve on individual sub-base | [l/min] | 1000 | | 1100 | | 1100 | | | |
| Flow rate of pneumatically interlinked valve | [l/min] | 900 | | 1100 | | 1000 | | | |
| Standard nominal flow rate | [l/min] | 900 | | 1100 | | 1000 | | | |
| Switching time on/off, pneumatic spring | [ms] | 20/33 | | 25/40 | | – | | | |
| Switching time on/off, mechanical spring | [ms] | – | | 20/52 | | – | | | |
| Changeover time, dominant 1st signal | [ms] | – | | | | 15 | | – | |
| Changeover time, dominant at 14 | [ms] | – | | | | 25 | | – | |
| Non-overlapping | Yes | | | | | | | | |
| Width | [mm] | 26 | | | | | | | |
| Ports on the sub-base | 1, 2, 3, 4, 5 | G1/4 | | | | | | | |
| | 12, 14 | M5 | | | | | | | |
| Tightening torque for valve mounting | [Nm] | 1.8 ... 2.2 | | | | | | | |
| Product weight | [g] | 270 | | | | | | | |
| Conforms to standard | ISO 15407-1 | | | | | | | | |

- 1) C=Normally closed
- 2) U = Normally open
- 3) E = Normally exhausted
- 4) H=2x 3/2-way valve in one housing with 1x normally closed and 1x normally open

Solenoid valves VSVA, with central plug M8x1, M12x1

Technical data – Width 26 mm

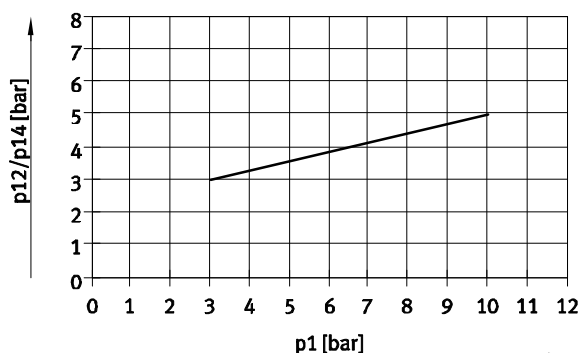
| Safety data | |
|---|--|
| CE marking (see declaration of conformity) | To EU EMC Directive ¹⁾ |
| Max. positive test pulse with 0 signal [μs] | 500 |
| Max. negative test pulse with 1 signal [μs] | 500 |
| Shock resistance | Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27 |
| Vibration resistance | Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6 |

- 1) For information about the applicability of the component see the manufacturer's EC declaration of conformity at: www.festo.com/sp → Certificates.
If the component is subject to restrictions on usage in residential, office or commercial environments or small businesses, further measures to reduce the emitted interference may be necessary.

| Operating and environmental conditions | | | | |
|--|---------------------------------|--|-------------|-------------|
| Valve function | | 2x3/2-way | 5/2-way | 5/3-way |
| Operating medium | | Compressed air to ISO 8573-1:2010 [7:4:4] | | |
| Pilot medium | | Compressed air to ISO 8573-1:2010 [7:4:4] | | |
| Note on operating/pilot medium | | Lubricated operation possible (in which case lubricated operation will always be required) | | |
| Operating pressure | Internal pilot air supply [bar] | 3 ... 8 | 3 ... 8 | 3 ... 8 |
| | External pilot air supply [bar] | 3 ... 10 | -0.9 ... 16 | -0.9 ... 16 |
| Pilot pressure [bar] | | 3 ... 8 ¹⁾ | 3 ... 8 | 3 ... 8 |
| Ambient temperature [°C] | | -5 ... +50 | | |
| Temperature of medium [°C] | | -5 ... +50 | | |
| Corrosion resistance class CRC ²⁾ | | 2 | | |
| Certification | | c CSA us (OL) | | |
| | | c UL us - Recognized (OL) | | |
| | | C-Tick | | |

- 1) Pilot pressure dependent on operating pressure → Graph
2) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Minimum pilot pressure p12, p14 as a function of operating pressure p1 (external pilot air supply) for the 2x 3/2-way solenoid valves



| Electrical data | | | |
|--|-----------------|--|--|
| Electrical connection | | Central plug, round design, M8x1 4-pin or M12x1 3-pin | |
| Characteristic coil data | Voltage [V DC] | 24±10% = 21.6 ... 26.4 | |
| | Performance [W] | High-current phase: 2.4 ; Low-current phase: 1 ¹⁾ | |
| Nominal pick-up current per solenoid coil [mA] | | 110 to 20 ms | |
| Nominal current with current reduction [mA] | | 30 after 20 ms | |
| Duty cycle % | | 100 | |
| Degree of protection to EN 60529 | | IP65, Nema 4 (in combination with plug socket) | |
| Signal status display | | LED | |

- 1) Controlled by integrated current reduction

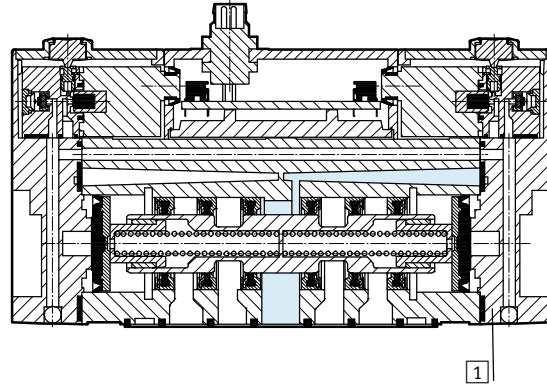
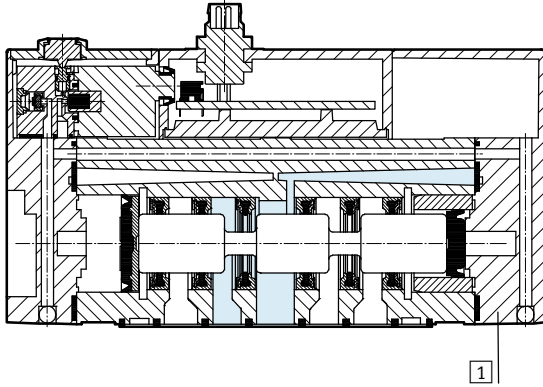
Solenoid valves VSVA, with central plug M8x1, M12x1

Technical data – Width 26 mm



Materials

Sectional view



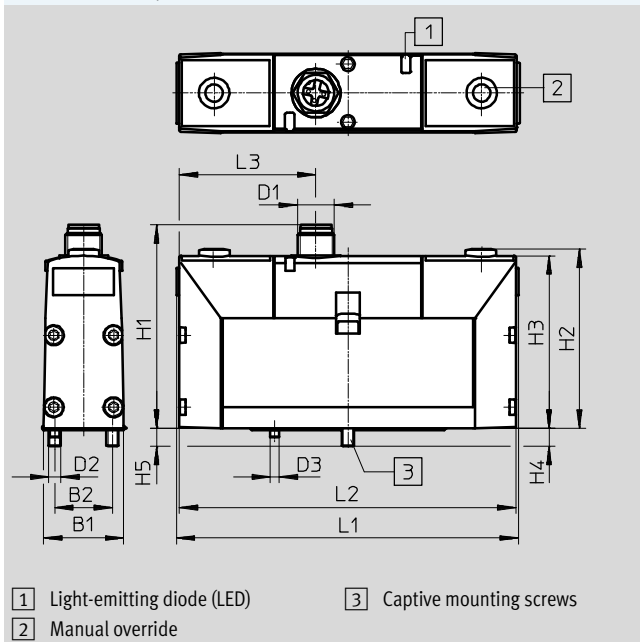
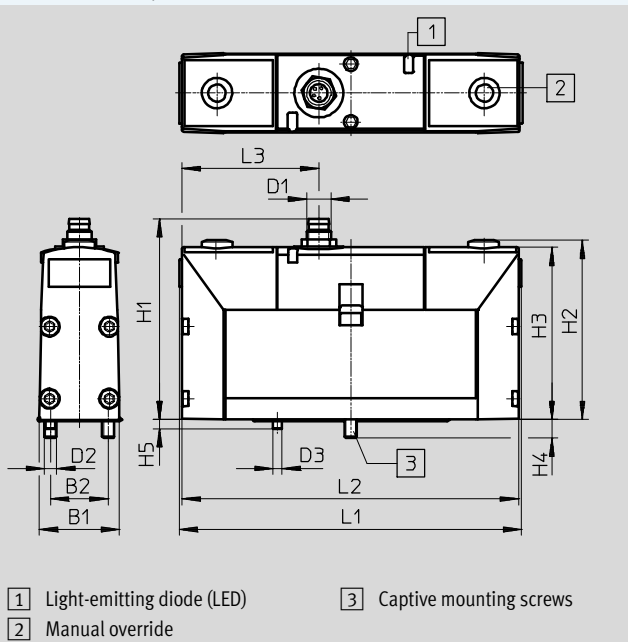
| | | |
|---|-------------------|-------------------------|
| 1 | Housing | Die-cast aluminium, POM |
| - | Seals | HNBR, NBR, FPM |
| - | Note on materials | RoHS compliant |

Dimensions

Download CAD data → www.festo.com

Valve with central plug M8x1, VSVA-B-...-1R2L

Valve with central plug M12x1, VSVA-B-...-1R5L

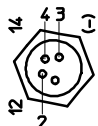


| Type | B1 | B2 | D1 | D2 | D3 | H1 | H2 | H3 | H4 | H5 | L1 | L2 | L3 |
|-----------------|------|----|-------|----|----|------|------|------|----|----|-------|-------|------|
| VSVA-B-...-1R2L | 26.3 | 19 | M8x1 | M4 | 3 | 63.3 | 59.2 | 56.6 | 6 | 3 | 112.5 | 110.7 | 46.5 |
| VSVA-B-...-1R5L | | | M12x1 | | | 66.6 | | | | | | | |

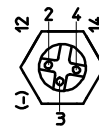
Pin allocation

M8x1

M12x1



- 1 Unused
- 2 Signal (+) solenoid 12/10
- 3 com (-)
- 4 Signal (+) Solenoid 14/10

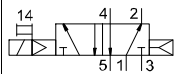
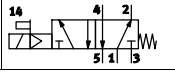
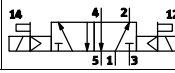
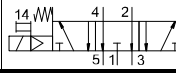


- 1 Unused
- 2 Signal (+) Solenoid 12
- 3 com (-)
- 4 Signal (+) Solenoid 14

Solenoid valves VSVA, with central plug M8x1, M12x1

Technical data – Width 26 mm

★ Core product range

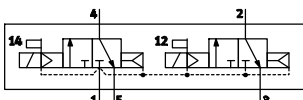
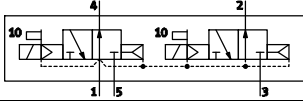
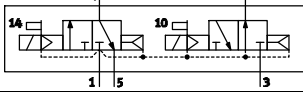
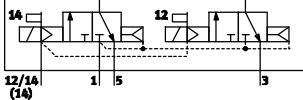
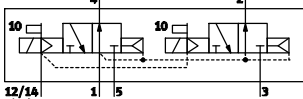
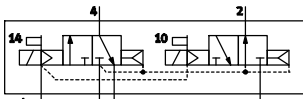
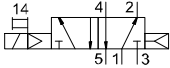
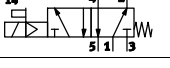
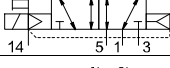
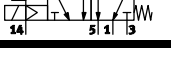
| Ordering data | | | | | | |
|--------------------------------|---|---------------------|---------------------------|----------|----------|-----------------------|
| Code | Circuit symbol | | | Part No. | Type | |
| 5/2-way valve, single solenoid | | | | | | |
| M |  | Pneumatic spring | Internal pilot air supply | M12x1 | ★ 534555 | VSVA-B-M52-AH-A1-1R5L |
| O |  | Mechanical spring | Internal pilot air supply | M12x1 | ★ 534556 | VSVA-B-M52-MH-A1-1R5L |
| 5/2-way valve, double solenoid | | | | | | |
| J |  | Dominant 1st signal | Internal pilot air supply | M12x1 | ★ 534557 | VSVA-B-B52-H-A1-1R5L |
| 5/3-way valve | | | | | | |
| E |  | Normally exhausted | Internal pilot air supply | M12x1 | ★ 534560 | VSVA-B-P53E-H-A1-1R5L |

Festo core product range

- ★ Generally ready for shipping ex works in 24 hours
- ☆ Generally ready for shipping ex works in 5 days

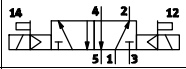
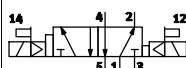
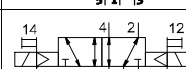
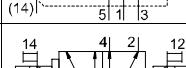
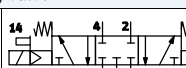
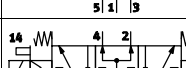
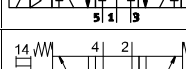
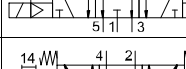
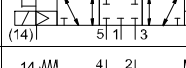
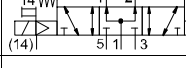
Solenoid valves VSVA, with central plug M8x1, M12x1

Technical data – Width 26 mm

| Ordering data | | | | | | |
|---------------------------------------|---|--|---------------------------|----------|--------|-------------------------|
| Code | Circuit symbol | | | Part No. | Type | |
| 2x 3/2-way solenoid valve | | | | | | |
| K |  | Normal position: 2x closed | Internal pilot air supply | M8x1 | 534532 | VSVA-B-T32C-AH-A1-1R2L |
| | | | | M12x1 | 534552 | VSVA-B-T32C-AH-A1-1R5L |
| N |  | Normal position: 2x open | Internal pilot air supply | M8x1 | 534533 | VSVA-B-T32U-AH-A1-1R2L |
| | | | | M12x1 | 534553 | VSVA-B-T32U-AH-A1-1R5L |
| H |  | Normal position: 1x closed 1x open | Internal pilot air supply | M8x1 | 534534 | VSVA-B-T32H-AH-A1-1R2L |
| | | | | M12x1 | 534554 | VSVA-B-T32H-AH-A1-1R5L |
| K |  | Normal position: 2x closed | External pilot air supply | M8x1 | 534522 | VSVA-B-T32C-AZH-A1-1R2L |
| | | | | M12x1 | 534542 | VSVA-B-T32C-AZH-A1-1R5L |
| N |  | Normal position: 2x open | External pilot air supply | M8x1 | 534523 | VSVA-B-T32U-AZH-A1-1R2L |
| | | | | M12x1 | 534543 | VSVA-B-T32U-AZH-A1-1R5L |
| H |  | Normal position: 1x closed 1x open | External pilot air supply | M8x1 | 534524 | VSVA-B-T32H-AZH-A1-1R2L |
| | | | | M12x1 | 534544 | VSVA-B-T32H-AZH-A1-1R5L |
| 5/2-way valve, single solenoid | | | | | | |
| M |  | Pneumatic spring | Internal pilot air supply | M8x1 | 534535 | VSVA-B-M52-AH-A1-1R2L |
| O |  | Mechanical spring | Internal pilot air supply | M8x1 | 534536 | VSVA-B-M52-MH-A1-1R2L |
| M |  | Pneumatic spring | External pilot air supply | M8x1 | 534525 | VSVA-B-M52-AZH-A1-1R2L |
| | | | | M12x1 | 534545 | VSVA-B-M52-AZH-A1-1R5L |
| O |  | Mechanical spring | External pilot air supply | M8x1 | 534526 | VSVA-B-M52-MZH-A1-1R2L |
| | | | | M12x1 | 534546 | VSVA-B-M52-MZH-A1-1R5L |

Solenoid valves VSVA, with central plug M8x1, M12x1

Technical data – Width 26 mm

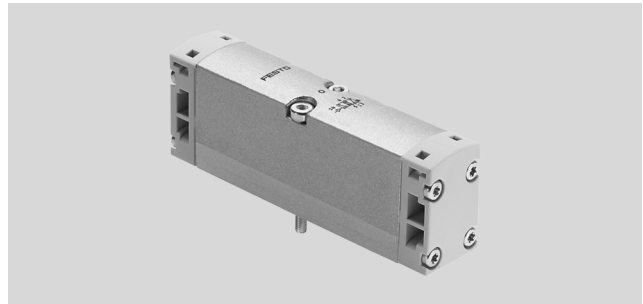
| Ordering data | | | | | | |
|---------------------------------------|---|---------------------|---------------------------|-------|----------|------------------------|
| Code | Circuit symbol | | | | Part No. | Type |
| 5/2-way valve, double solenoid | | | | | | |
| J |  | Dominant 1st signal | Internal pilot air supply | M8x1 | 534537 | VSVA-B-B52-H-A1-1R2L |
| D |  | Dominant at 14 | Internal pilot air supply | M8x1 | 534538 | VSVA-B-D52-H-A1-1R2L |
| | | | | M12x1 | 534558 | VSVA-B-D52-H-A1-1R5L |
| J |  | Dominant 1st signal | External pilot air supply | M8x1 | 534527 | VSVA-B-B52-ZH-A1-1R2L |
| | | | | M12x1 | 534547 | VSVA-B-B52-ZH-A1-1R5L |
| D |  | Dominant at 14 | External pilot air supply | M8x1 | 534528 | VSVA-B-D52-ZH-A1-1R2L |
| | | | | M12x1 | 534548 | VSVA-B-D52-ZH-A1-1R5L |
| 5/3-way valve | | | | | | |
| G |  | Normally closed | Internal pilot air supply | M8x1 | 534539 | VSVA-B-P53C-H-A1-1R2L |
| | | | | M12x1 | 534559 | VSVA-B-P53C-H-A1-1R5L |
| B |  | Normally open | Internal pilot air supply | M8x1 | 534541 | VSVA-B-P53U-H-A1-1R2L |
| | | | | M12x1 | 534561 | VSVA-B-P53U-H-A1-1R5L |
| E |  | Normally exhausted | Internal pilot air supply | M8x1 | 534540 | VSVA-B-P53E-H-A1-1R2L |
| G |  | Normally closed | External pilot air supply | M8x1 | 534529 | VSVA-B-P53C-ZH-A1-1R2L |
| | | | | M12x1 | 534549 | VSVA-B-P53C-ZH-A1-1R5L |
| B |  | Normally open | External pilot air supply | M8x1 | 534531 | VSVA-B-P53U-ZH-A1-1R2L |
| | | | | M12x1 | 534551 | VSVA-B-P53U-ZH-A1-1R5L |
| E |  | Normally exhausted | External pilot air supply | M8x1 | 534530 | VSVA-B-P53E-ZH-A1-1R2L |
| | | | | M12x1 | 534550 | VSVA-B-P53E-ZH-A1-1R5L |

Pneumatic valves VSPA, ISO 15407-1

FESTO

Technical data – Width 18 mm

Flow rate
550 ... 750 l/min



| General technical data | | | | | |
|--|---|------|------------|------------|---|
| Valve function | 2x 3/2-way | | 5/2-way | | 5/3-way |
| Normal position | C ¹⁾ , U ²⁾ , H ⁴⁾ | | – | | C ¹⁾ , U ²⁾ , E ³⁾ |
| Stable position | Monostable | | Monostable | Bistable | Monostable |
| Reset method: pneumatic spring | Yes | | Yes | – | No |
| Reset method: mechanical spring | No | | Yes | – | Yes |
| Design | Piston spool | | | | |
| Sealing principle | Soft | | | | |
| Type of actuation | Pneumatic | | | | |
| Type of pilot control | Direct | | | | |
| Direction of flow | Non-reversible | | Reversible | Reversible | Reversible |
| Exhaust function | With flow control | | | | |
| Type of mounting | On sub-base | | | | |
| Mounting position | Any | | | | |
| Nominal width [mm] | 5 | | | | |
| Flow rate of valve [l/min] | 600 | | 750 | 750 | 650 |
| Flow rate of valve on individual sub-base [l/min] | 450 | | 550 | 550 | 500 |
| Flow rate of pneumatically interlinked valve [l/min] | 400 | | 550 | 550 | 450 |
| Standard nominal flow rate [l/min] | 400 | | 550 | 550 | 450 |
| Switching time on/off, pneumatic spring [ms] | 10/15 | | 11/20 | – | – |
| Switching time on/off, mechanical spring [ms] | – | | 8/18 | – | 9/18 |
| Changeover time [ms] | – | | – | 6 | – |
| Changeover time (dominant) [ms] | – | | – | 6 | – |
| Non-overlapping | Yes | | | | |
| Width [mm] | 18 | | | | |
| Ports on the sub-base | 1, 2, 3, 4, 5 | G1/8 | | | |
| | 12, 14 | M5 | | | |
| Tightening torque for valve mounting [Nm] | 0.9 ... 1.1 | | | | |
| Product weight [g] | 80 | | | | |
| Conforms to standard | ISO 15407-1, VDMA 24563 | | | | |

- 1) C = Normally closed
- 2) U = Normally open
- 3) E = Normally exhausted
- 4) H = 2x3/2-way valve in one housing with 1x normally closed and 1x normally open

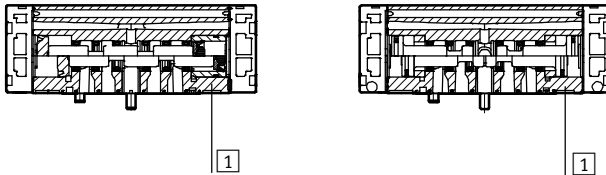
| Operating and environmental conditions | | | | | |
|--|--|---------------------|-------------------|-------------------|-------------|
| Valve function | 2x3/2-way | 5/2-way, monostable | | 5/2-way, bistable | 5/3-way |
| | | Pneumatic spring | Mechanical spring | | |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] | | | | |
| Pilot medium | Compressed air to ISO 8573-1:2010 [7:4:4] | | | | |
| Note on operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) | | | | |
| Operating pressure [bar] | 2 ... 10 | 2 ... 10 | –0.9 ... 10 | –0.9 ... 10 | –0.9 ... 10 |
| Pilot pressure [bar] | 2 ... 10 | 2 ... 10 | 3 ... 10 | 2 ... 10 | 3 ... 10 |
| Ambient temperature [°C] | –10 ... +60 | | | | |
| Temperature of medium [°C] | –10 ... +60 | | | | |

Pneumatic valves VSPA, to ISO 15407-1

Technical data – Width 18 mm

Materials

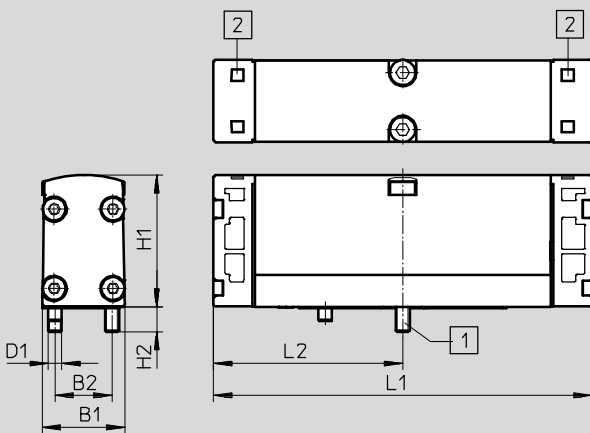
Sectional view



| | | |
|---|-------------------|--------------------|
| 1 | Housing | Die-cast aluminium |
| - | Seals | NBR |
| - | Screws | Galvanised steel |
| - | Note on materials | RoHS compliant |

Dimensions

Download CAD data → www.festo.com

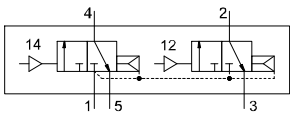
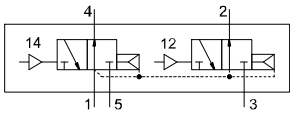
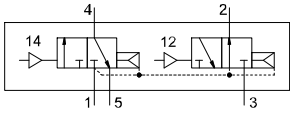
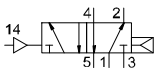
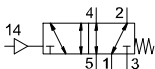
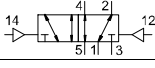
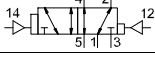
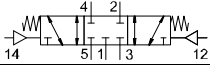
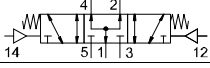
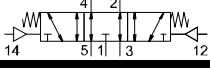


1 Captive screws 2 Slot for inscription label

| | B1 | B2 | D1 | H1 | H2 | L1 | L2 |
|--------|----|------|----|----|-----|----|------|
| VSPA-B | 18 | 12.5 | M3 | 29 | 5.4 | 83 | 41.5 |

Pneumatic valves VSPA, ISO 15407-1


Technical data – Width 18 mm

| Ordering data | | | |
|--|---|--|------------------------|
| Code | Circuit symbol | | Part No. Type |
| 2x 3/2-way pneumatic valve | | | |
| K |  | 2x normally closed | 546721 VSPA-B-T32C-A2 |
| N |  | 2x normally open | 546722 VSPA-B-T32U-A2 |
| H |  | Normal position: 1x closed 1x open | 546723 VSPA-B-T32H-A2 |
| 5/2-way pneumatic valve, monostable | | | |
| M |  | Pneumatic spring | 546726 VSPA-B-M52-A-A2 |
| O |  | Mechanical spring | 546727 VSPA-B-M52-M-A2 |
| 5/2-way pneumatic valve, bistable | | | |
| J |  | Dominant 1st signal | 546724 VSPA-B-B52-A2 |
| D |  | Dominant at 14 | 546725 VSPA-B-D52-A2 |
| 5/3-way pneumatic valve | | | |
| G |  | Normally closed | 546730 VSPA-B-P53C-A2 |
| B |  | Normally open | 546728 VSPA-B-P53U-A2 |
| E |  | Normally exhausted | 546729 VSPA-B-P53E-A2 |

Pneumatic valves VSPA, ISO 15407-1

FESTO

Technical data – Width 26 mm

 Flow rate
 1250 ... 1400 l/min



| General technical data | | | | | |
|--|---|------------|------------|------------|---|
| Valve function | 2x 3/2-way | | 5/2-way | | 5/3-way |
| Normal position | C ¹⁾ , U ²⁾ , H ⁴⁾ | | – | – | C ¹⁾ , U ²⁾ , E ³⁾ |
| Stable position | Monostable | | Monostable | Bistable | Monostable |
| Reset method: pneumatic spring | Yes | | Yes | – | No |
| Reset method: mechanical spring | No | | Yes | – | Yes |
| Design | Piston spool | | | | |
| Sealing principle | Soft | | | | |
| Type of actuation | Pneumatic | | | | |
| Type of pilot control | Direct | | | | |
| Direction of flow | Non-reversible | | Reversible | Reversible | Reversible |
| Exhaust function | With flow control | | | | |
| Type of mounting | On sub-base | | | | |
| Mounting position | Any | | | | |
| Nominal width [mm] | 9 | | | | |
| Flow rate of valve [l/min] | 1250 | 1400 | 1400 | 1400 | 1400 |
| Flow rate of valve on individual sub-base [l/min] | 1000 | 1100 | 1100 | 1100 | 1100 |
| Flow rate of pneumatically interlinked valve [l/min] | 900 | 1100 | 1100 | 1100 | 1000 |
| Standard nominal flow rate [l/min] | 900 | 1100 | 1100 | 1100 | 1000 |
| Switching time on/off, pneumatic spring [ms] | 15/28 | 18/30 | – | – | – |
| Switching time on/off, mechanical spring [ms] | – | 10/35 | – | – | 13/32 |
| Changeover time [ms] | – | – | 10 | – | – |
| Changeover time (dominant) [ms] | – | – | 10 | – | – |
| Non-overlapping | Yes | | | | |
| Width [mm] | 26 | | | | |
| Ports on the sub-base | 1, 2, 3, 4, 5 12, 14 | G1/4 M5 | | | |
| Tightening torque for valve mounting [Nm] | 1.8 ... 2.2 | | | | |
| Product weight [g] | 180 | | | | |
| Conforms to standard | ISO 15407-1, VDMA 24563 | | | | |

- 1) C = Normally closed
 2) U = Normally open
 3) E = Normally exhausted
 4) H = 2x3/2-way valve in one housing with 1x normally closed and 1x normally open

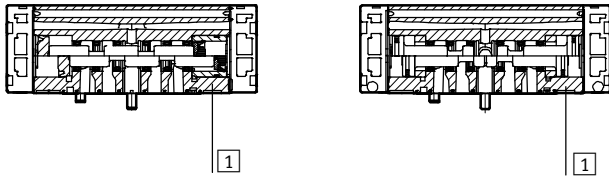
| Operating and environmental conditions | | | | | |
|--|--|---------------------|-------------------|---------------------|-------------|
| Valve function | 2x3/2-way | 5/2-way, monostable | | 5/2-way, monostable | 5/3-way |
| | | Pneumatic spring | Mechanical spring | | |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] | | | | |
| Pilot medium | Compressed air to ISO 8573-1:2010 [7:4:4] | | | | |
| Note on operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) | | | | |
| Operating pressure [bar] | 2 ... 10 | 2 ... 10 | –0.9 ... 16 | –0.9 ... 16 | –0.9 ... 16 |
| Pilot pressure [bar] | 2 ... 10 | 2 ... 10 | 3 ... 10 | 2 ... 10 | 3 ... 10 |
| Ambient temperature [°C] | –10 ... +60 | | | | |
| Temperature of medium [°C] | –10 ... +60 | | | | |

Pneumatic valves VSPA, to ISO 15407-1

Technical data – Width 26 mm

Materials

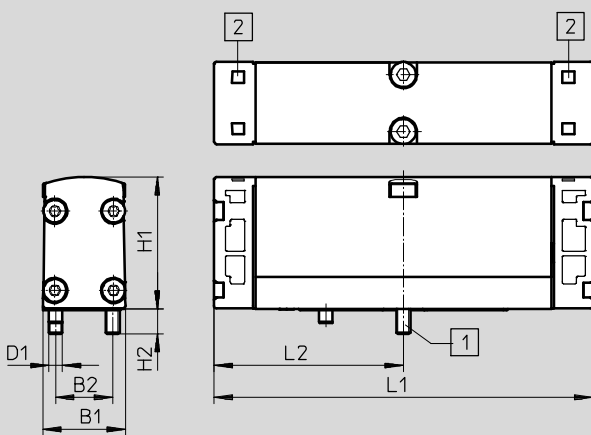
Sectional view



| | | |
|---|-------------------|--------------------|
| 1 | Housing | Die-cast aluminium |
| - | Seals | NBR |
| - | Screws | Galvanised steel |
| - | Note on materials | RoHS compliant |

Dimensions

Download CAD data → www.festo.com



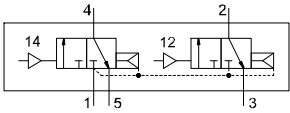
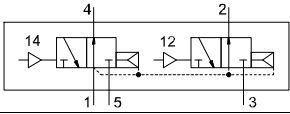
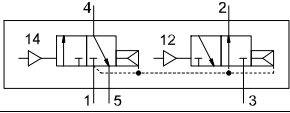
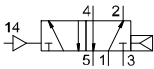
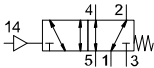
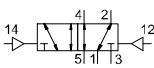
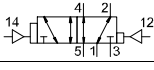
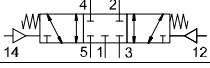
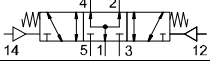

1 Captive screws

2 Slot for inscription label

| | B1 | B2 | D1 | H1 | H2 | L1 | L2 |
|--------|------|----|----|----|----|-----|----|
| VSPA-B | 26.2 | 19 | M4 | 38 | 7 | 100 | 50 |

Pneumatic valves VSPA, to ISO 15407-1

Technical data – Width 26 mm

| Ordering data | | | |
|--|---|--|------------------------|
| Code | Circuit symbol | Part No. | Type |
| 2x 3/2-way pneumatic valve | | | |
| K |  | 2x normally closed | 546711 VSPA-B-T32C-A1 |
| N |  | 2x normally open | 546712 VSPA-B-T32U-A1 |
| H |  | Normal position: 1x closed 1x open | 546713 VSPA-B-T32H-A1 |
| 5/2-way pneumatic valve, monostable | | | |
| M |  | Pneumatic spring | 546716 VSPA-B-M52-A-A1 |
| O |  | Mechanical spring | 546717 VSPA-B-M52-M-A1 |
| 5/2-way pneumatic valve, bistable | | | |
| J |  | Dominant 1st signal | 546714 VSPA-B-B52-A1 |
| D |  | Dominant at 14 | 546715 VSPA-B-D52-A1 |
| 5/3-way pneumatic valve | | | |
| G |  | Normally closed | 546720 VSPA-B-P53C-A1 |
| B |  | Normally open | 546718 VSPA-B-P53U-A1 |
| E |  | Normally exhausted | 546719 VSPA-B-P53E-A1 |

Manifold components, ISO 15407-1

Vertical stacking



Regulator plate

VABF-S3-2-R

VABF-S3-1-R

Temperature range
-5 ... +50 °C

Input pressure
0.5 ... 10 bar

Pressure regulation ranges:

0.5 ... 6 bar, 0.5 ... 10 bar

Output pressure constant with secondary venting

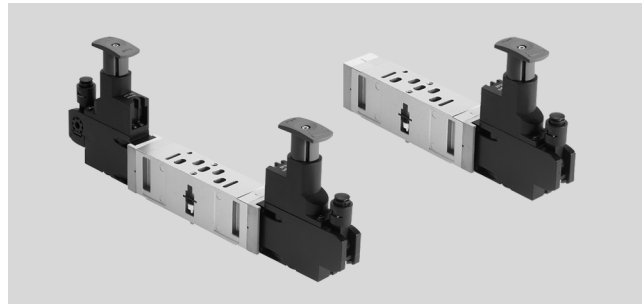
Materials:

Housing: Die-cast aluminium

Control section: PA

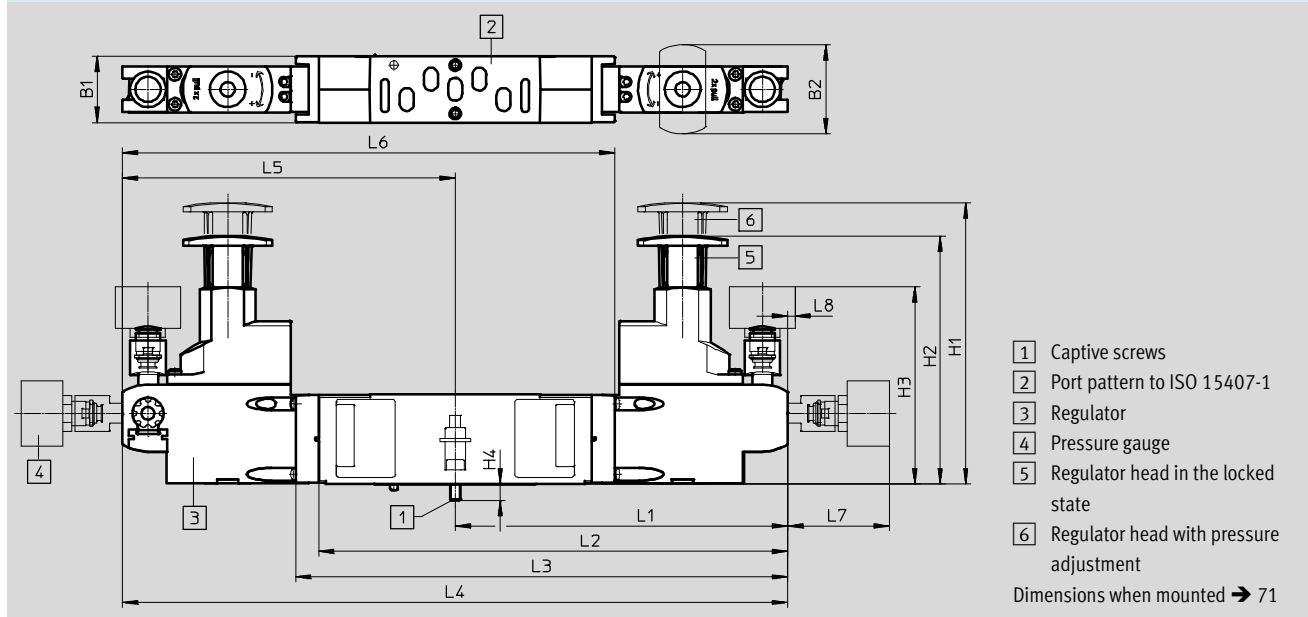
Note on materials:

RoHS compliant



| Operating and environmental conditions | |
|--|--|
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Note on operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) |

Dimensions Download CAD data → www.festo.com



| Type | B1 | B2 | H1 | H2 | H3 | H4 | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 |
|--------------|----|----|-----|----|------|-----|-------|-------|-------|-------|-------|-------|------|-----|
| VABF-S3-2-R1 | 18 | 35 | 110 | 97 | 77.3 | 5.6 | 126.7 | 180.6 | - | - | - | - | 39.8 | 2.9 |
| VABF-S3-2-R2 | | | | | | | 126.7 | - | 187.7 | - | - | - | | |
| VABF-S3-2-R3 | | | | | | | - | - | - | - | 126.7 | 187.7 | | |
| VABF-S3-2-R4 | | | | | | | 126.7 | - | - | 253.4 | - | - | | |
| VABF-S3-2-R5 | | | | | | | 126.7 | - | - | 253.4 | - | - | | |
| VABF-S3-2-R6 | | | | | | | 126.7 | - | 187.7 | - | - | - | | |
| VABF-S3-2-R7 | | | | | | | - | - | - | - | 126.7 | 187.7 | | |
| VABF-S3-1-R1 | 26 | 35 | 110 | 97 | 77.3 | 5.6 | 130.4 | 183.9 | 183.9 | - | - | - | 39.8 | 2.9 |
| VABF-S3-1-R2 | | | | | | | 130.4 | - | 192.9 | - | - | - | | |
| VABF-S3-1-R3 | | | | | | | - | - | - | - | 130.4 | 192.9 | | |
| VABF-S3-1-R4 | | | | | | | 130.4 | - | - | 260.7 | - | - | | |
| VABF-S3-1-R5 | | | | | | | 130.4 | - | - | 260.7 | - | - | | |
| VABF-S3-1-R6 | | | | | | | 130.4 | 195 | 195 | - | - | - | | |
| VABF-S3-1-R7 | | | | | | | - | - | - | - | 130.4 | 192.9 | | |

Manifold components, ISO 15407-1

Vertical stacking

| Ordering data | | | | | | | | | | | |
|---------------|----------------|------------------------|-----------------|-----------------|---------------|---------------|-----------------|---------------------|-----|--------|---------------------|
| Code | Circuit symbol | For port | Control- ler | Control range | Width [mm] | Weight [g] | Part No. | Type | | | |
| ZA | | 1 | P | 0.5 ... 8.5 bar | 18 | 380 | 543526 | VABF-S3-2-R1C2-C-10 | | | |
| | | | | | 26 | 439 | 543527 | VABF-S3-1-R1C2-C-10 | | | |
| ZF | | | | 0.5 ... 6 bar | 18 | 380 | 543524 | VABF-S3-2-R1C2-C-6 | | | |
| | | | | | 26 | 439 | 543525 | VABF-S3-1-R1C2-C-6 | | | |
| ZC | | | | | 2 | B | 2 ... 8.5 bar | 18 | 390 | 543534 | VABF-S3-2-R2C2-C-10 |
| | | | | | | | | 26 | 452 | 543535 | VABF-S3-1-R2C2-C-10 |
| ZH | 2 ... 6 bar | 18 | 390 | | | | 543532 | VABF-S3-2-R2C2-C-6 | | | |
| | | 26 | 452 | | | | 543533 | VABF-S3-1-R2C2-C-6 | | | |
| ZB | | 4 | A | | | | 2 ... 8.5 bar | 18 | 390 | 543530 | VABF-S3-2-R3C2-C-10 |
| | | | | | | | | 26 | 452 | 543531 | VABF-S3-1-R3C2-C-10 |
| ZG | | | | 2 ... 6 bar | 18 | 390 | 543528 | VABF-S3-2-R3C2-C-6 | | | |
| | | | | | 26 | 452 | 543529 | VABF-S3-1-R3C2-C-6 | | | |
| ZD | | | | | 2 and 4 | AB | 2 ... 8.5 bar | 18 | 650 | 543538 | VABF-S3-2-R4C2-C-10 |
| | | | | | | | | 26 | 712 | 543539 | VABF-S3-1-R4C2-C-10 |
| ZI | 2 ... 6 bar | 18 | 650 | | | | 543536 | VABF-S3-2-R4C2-C-6 | | | |
| | | 26 | 712 | | | | 543537 | VABF-S3-1-R4C2-C-6 | | | |
| ZE | | 2 and 4, reversible | AB | | | | 0.5 ... 8.5 bar | 18 | 650 | 543542 | VABF-S3-2-R5C2-C-10 |
| | | | | | | | | 26 | 712 | 543543 | VABF-S3-1-R5C2-C-10 |
| ZJ | | | | 0.5 ... 6 bar | 18 | 650 | 543540 | VABF-S3-2-R5C2-C-6 | | | |
| | | | | | 26 | 712 | 543541 | VABF-S3-1-R5C2-C-6 | | | |
| ZL | | | | | 2, reversible | B | 0.5 ... 8.5 bar | 18 | 390 | 546788 | VABF-S3-2-R6C2-C-10 |
| | | | | | | | | 26 | 452 | 546789 | VABF-S3-1-R6C2-C-10 |
| ZN | 0.5 ... 6 bar | 18 | 390 | | | | 546786 | VABF-S3-2-R6C2-C-6 | | | |
| | | 26 | 452 | | | | 546787 | VABF-S3-1-R6C2-C-6 | | | |
| ZK | | 4, reversible | A | | | | 0.5 ... 8.5 bar | 18 | 390 | 546792 | VABF-S3-2-R7C2-C-10 |
| | | | | | | | | 26 | 452 | 546793 | VABF-S3-1-R7C2-C-10 |
| ZM | | | | 0.5 ... 6 bar | 18 | 390 | 546790 | VABF-S3-2-R7C2-C-6 | | | |
| | | | | | 26 | 452 | 546791 | VABF-S3-1-R7C2-C-6 | | | |

Manifold components, ISO 15407-1

Vertical stacking

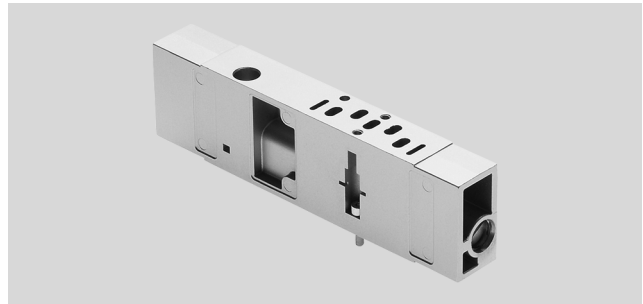


Flow control plate
VABF-S3-2-F
VABF-S3-1-F

Materials:
 Housing: Die-cast aluminium

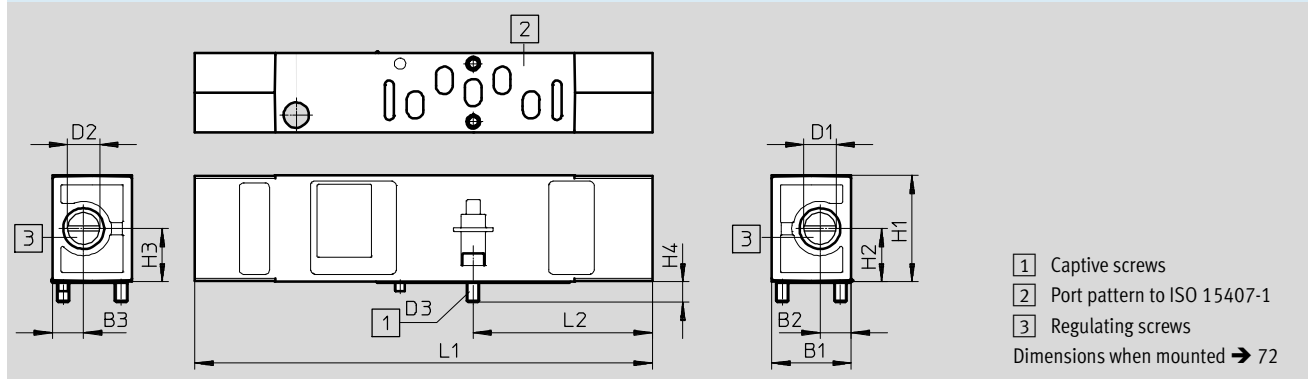
Note on materials:
 RoHS compliant

- Temperature range
 -5 ... +50 °C
- Input pressure
 -0.9 ... 10 bar



| Operating and environmental conditions | |
|--|--|
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Note on operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) |

Dimensions Download CAD data → www.festo.com



| Type | B1 | B2 | B3 | D1 | D2 | D3 | H1 | H2 | H3 | H4 | L1 | L2 |
|------------------|----|------|------|------|------|--------|----|------|------|-----|-----|------|
| VABF-S3-2-F1B1-C | 18 | 6.5 | 6.5 | 9.3 | 9.3 | M3x 12 | 35 | 12 | 12 | 5.6 | 130 | 43.3 |
| VABF-S3-1-F1B1-C | 26 | 10.2 | 10.2 | 11.2 | 11.2 | M4x 12 | 35 | 17.5 | 17.5 | 6.7 | 150 | 58.8 |

| Ordering data | | | | | | | |
|---------------|----------------|--|------------|------------|---------------|-------------------------|--|
| Code | Circuit symbol | Description | Width [mm] | Weight [g] | Part No. | Type | |
| X | | For exhaust air flow control in ducts 3 and 5 on the valve | 18 | 228 | 543603 | VABF-S3-2-F1B1-C | |
| | | | 26 | 320 | 543604 | VABF-S3-1-F1B1-C | |

Manifold components, ISO 15407-1

Vertical stacking



Vertical supply plate

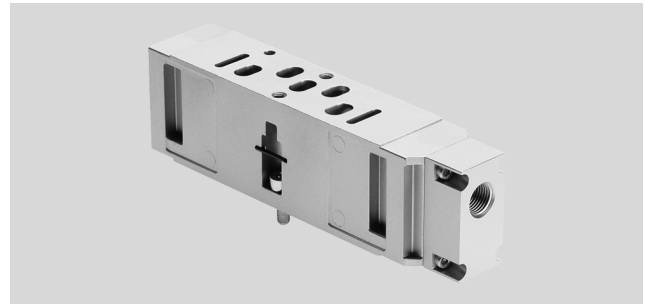
VABF-S3-2-P

VABF-S3-1-P

Materials:
Housing: Die-cast aluminium

Note on materials:
RoHS compliant

-  - Temperature range
-5 ... +50 °C
-  - Operating pressure
-0.9 ... +10 bar

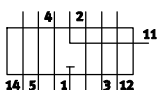


| Operating and environmental conditions | |
|--|--|
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Note on operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) |

Dimensions Download CAD data → www.festo.com

1 Captive screws
2 Port pattern to ISO 15407-1
 Dimensions when mounted → 73

| Type | B1 | B2 | D1 | D2 | H1 | H2 | H3 | L1 | L2 |
|--------------------|----|----|-----------------|--------|----|------|-----|-------|------|
| VABF-S3-2-P1A3-G18 | 18 | 9 | G $\frac{1}{8}$ | M3x 12 | 35 | 23.4 | 5.6 | 121.6 | 67.7 |
| VABF-S3-1-P1A3-G14 | 26 | 13 | G $\frac{1}{4}$ | M4x 12 | 35 | 23.2 | 6.7 | 128.1 | 74.6 |

| Ordering data | | | | | | | |
|---------------|---|---------------------------------------|------------|--------------------|------------|---------------|---------------------------|
| Code | Circuit symbol | Description | Width [mm] | Flow rates [l/min] | Weight [g] | Part No. | Type |
| ZU |  | For the independent supply of a valve | 18 | 500 | 146 | 544435 | VABF-S3-2-P1A3-G18 |
| | | | 26 | 1000 | 201 | 544434 | VABF-S3-1-P1A3-G14 |

Manifold components, ISO 15407-1

Vertical stacking



Vertical pressure shut-off plate

VABF-S3-2-L

VABF-S3-1-L

Materials:

Housing: Die-cast aluminium

Note on materials:

RoHS compliant

- - Temperature range
-5 ... +50 °C
- - Input pressure
-0.9 ... +10 bar
- - Flow rate
800 l/min



| Operating and environmental conditions | |
|--|--|
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Note on operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) |

Dimensions Download CAD data → www.festo.com

1 Captive screws
2 Port pattern to ISO 15407-1
3 Plug screw
Dimensions when mounted → 74

| Type | B1 | B2 | B3 | D1 | D2 | H1 | H2 | H3 | H4 | L1 | L2 |
|------------------|----|----|-----|----|--------|----|------|-----|-----|-------|-------|
| VABF-S3-2-L1D1-C | 18 | 9 | 5.1 | M5 | M3x 12 | 35 | 11.7 | 5.6 | 5.3 | 163.7 | 109.8 |
| VABF-S3-1-L1D1-C | 26 | 13 | 9.1 | M5 | M4x 12 | 35 | 11.6 | 6.7 | 5.3 | 167 | 113.4 |

Ordering data

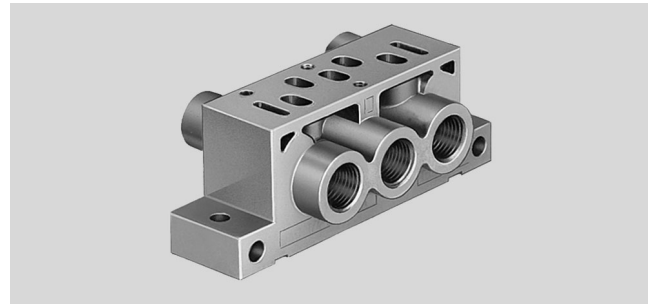
| Code | Circuit symbol | Description | Width [mm] | Flow rates [l/min] | Weight [g] | Part No. | Type |
|------|----------------|---|------------|--------------------|------------|---------------|-------------------------|
| ZT | | For shutting off a valve from the supply pressure | 18 | 400 | 212 | 543601 | VABF-S3-2-L1D1-C |
| | | | 26 | 800 | 286 | 543602 | VABF-S3-1-L1D1-C |

Manifold components, ISO 15407-1

Individual linking

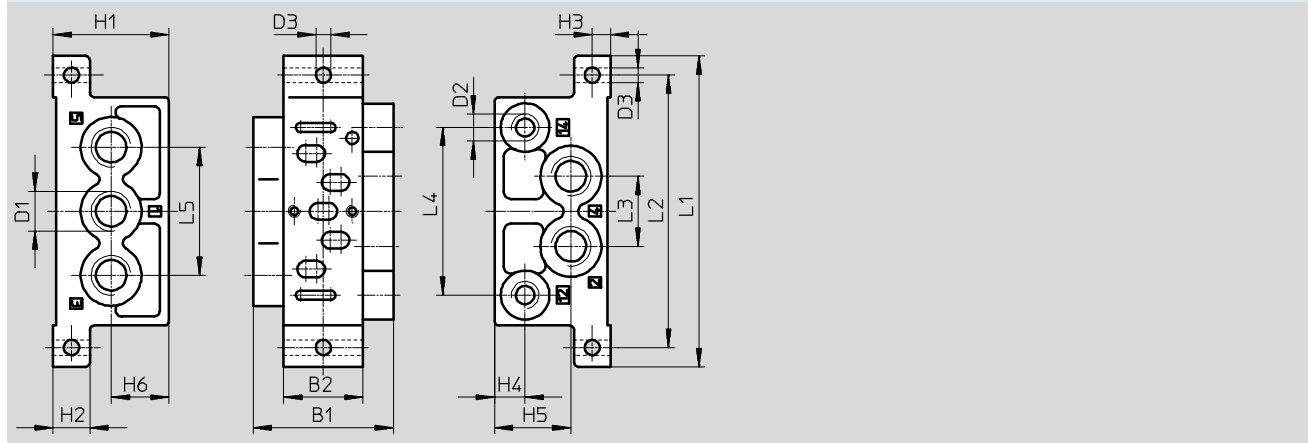
Individual sub-base NAS

Materials:
Die-cast aluminium



| Operating and environmental conditions | |
|--|--|
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Note on operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) |

Dimensions Download CAD data → www.festo.com



| Type | B1 | B2 | D1 | D2 | D3 | H1 | H2 | H3 | H4 | H5 | H6 | L1 | L2 | L3 | L4 | L5 |
|-----------------|------|----|------|------|-----|----|----|----|----|----|------|-----|------|----|----|----|
| NAS-1/8-02-VDMA | 28.5 | 18 | G1/8 | M5 | 5.5 | 31 | 10 | 5 | 7 | 20 | 14.5 | 79 | 66.5 | 17 | 40 | 32 |
| NAS-1/4-01-VDMA | 46 | 26 | G1/4 | G1/8 | 5 | 38 | 12 | 6 | 10 | 25 | 19 | 102 | 89.4 | 23 | 55 | 42 |

| Ordering data | | | | | | |
|--------------------------------|------------|----------------|--------|------------|----------|-----------------|
| Type of mounting | Width [mm] | Pneumatic port | | Weight [g] | Part No. | Type |
| | | 1, 2, 3, 4, 5 | 12, 14 | | | |
| 2 through-holes in the housing | 18 | G1/8 | M5 | 67 | ★ 161115 | NAS-1/8-02-VDMA |
| | 26 | G1/4 | G1/8 | 160 | ★ 161109 | NAS-1/4-01-VDMA |

Festo core product range

- ★ Generally ready for shipping ex works in 24 hours
- ☆ Generally ready for shipping ex works in 5 days

Manifold components, ISO 15407-1

Horizontal stacking

FESTO

Manifold sub-base NAW

Materials:
Die-cast aluminium



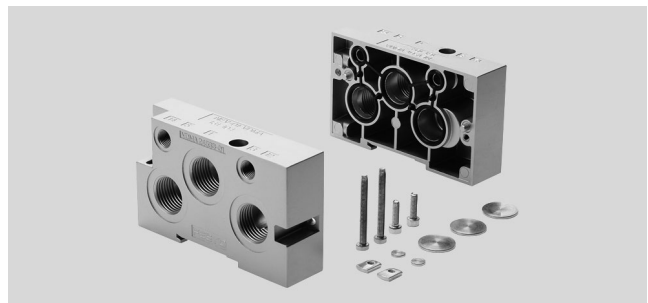
| Operating and environmental conditions | |
|--|--|
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Note on operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) |

| Ordering data | | | | | | |
|----------------------|-------------|-----------------|--------|------------|----------|--------------------------------|
| Manifold sub-base | Widths [mm] | Pneumatic port | | Weight [g] | Part No. | Type |
| | | 2, 4 | 12, 14 | | | |
| For solenoid valves | 18 | G $\frac{1}{8}$ | – | 130 | ★ 161110 | NAW- $\frac{1}{8}$ -02-VDMA |
| | 26 | G $\frac{1}{4}$ | – | 225 | ★ 161102 | NAW- $\frac{1}{4}$ -01-VDMA |
| For pneumatic valves | 18 | G $\frac{1}{8}$ | M5 | 130 | 161111 | NAW- $\frac{1}{8}$ -02-VDMA-VL |
| | 26 | G $\frac{1}{4}$ | M5 | 225 | 161103 | NAW- $\frac{1}{4}$ -01-VDMA-VL |

Dimensions → 68

End plate kit NEV

Materials:
Die-cast aluminium



| Operating and environmental conditions | |
|--|--|
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Note on operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) |

| Ordering data | | | | | | |
|---|------------|-----------------------------------|-----------------|------------|----------|----------------|
| Scope of delivery | Width [mm] | Pneumatic port | | Weight [g] | Part No. | Type |
| | | 1, 3, 5 | 12, 14 | | | |
| End plate left and right, screws, H-rail mounting, one isolating disc each for ports 1, 3, 5, 12 and 14 | 18 | G $\frac{3}{8}$ | G $\frac{1}{8}$ | 280 | ★ 161112 | NEV-02-VDMA |
| | 26 | G $\frac{1}{2}$ | G $\frac{1}{8}$ | 445 | ★ 161104 | NEV-01-VDMA |
| End plate left 18 mm and right 26 mm, screws, H-rail mounting | 18, 26 | G $\frac{3}{8}$, G $\frac{1}{2}$ | G $\frac{1}{8}$ | 372 | 191405 | NEV-02-01-VDMA |

Dimensions → 68

Festo core product range

- ★ Generally ready for shipping ex works in 24 hours
- ☆ Generally ready for shipping ex works in 5 days

Manifold components, ISO 15407-1

Horizontal stacking

Intermediate plate NZV

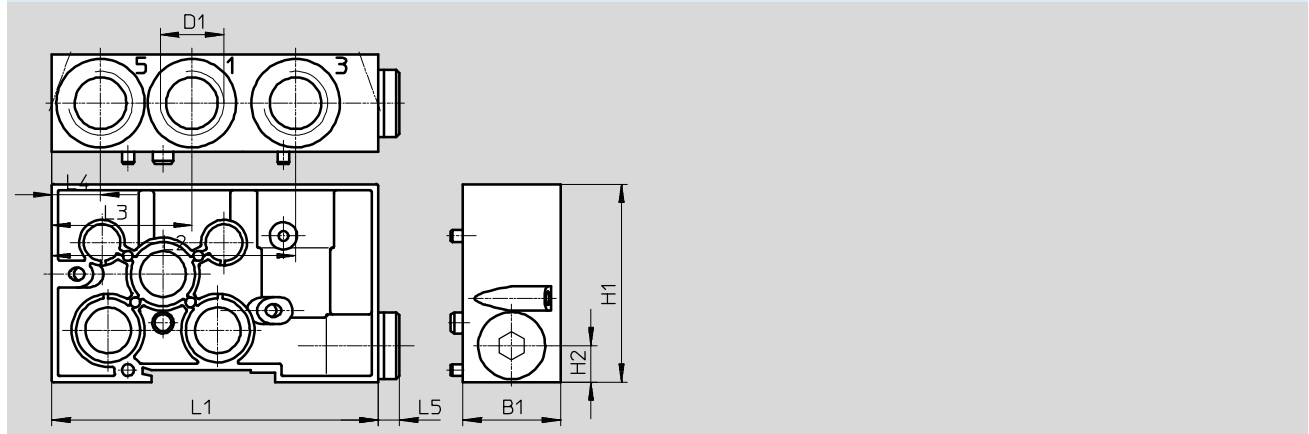
For combi manifold with widths of 18 mm and 26 mm

Materials:
Die-cast aluminium



| Operating and environmental conditions | |
|--|--|
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Note on operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) |

Dimensions Download CAD data → www.festo.com



| Type | B1 | D1 | H1 | H2 | L1 | L2 | L3 | L4 | L5 |
|----------------|----|------|----|----|-----|----|----|----|----|
| NZV-01/02-VDMA | 32 | G1/2 | 65 | 12 | 107 | 80 | 46 | 16 | 7 |

| Ordering data | | | | | | |
|--|------------|----------------|--------|------------|---------------|-----------------------|
| Description | Width [mm] | Pneumatic port | | Weight [g] | Part No. | Type |
| | | 1, 3, 5 | 12, 14 | | | |
| Intermediate plate to combine manifold sub-bases of widths 18 mm and 26 mm | 18 and 26 | G1/2 | – | 270 | 161108 | NZV-01/02-VDMA |

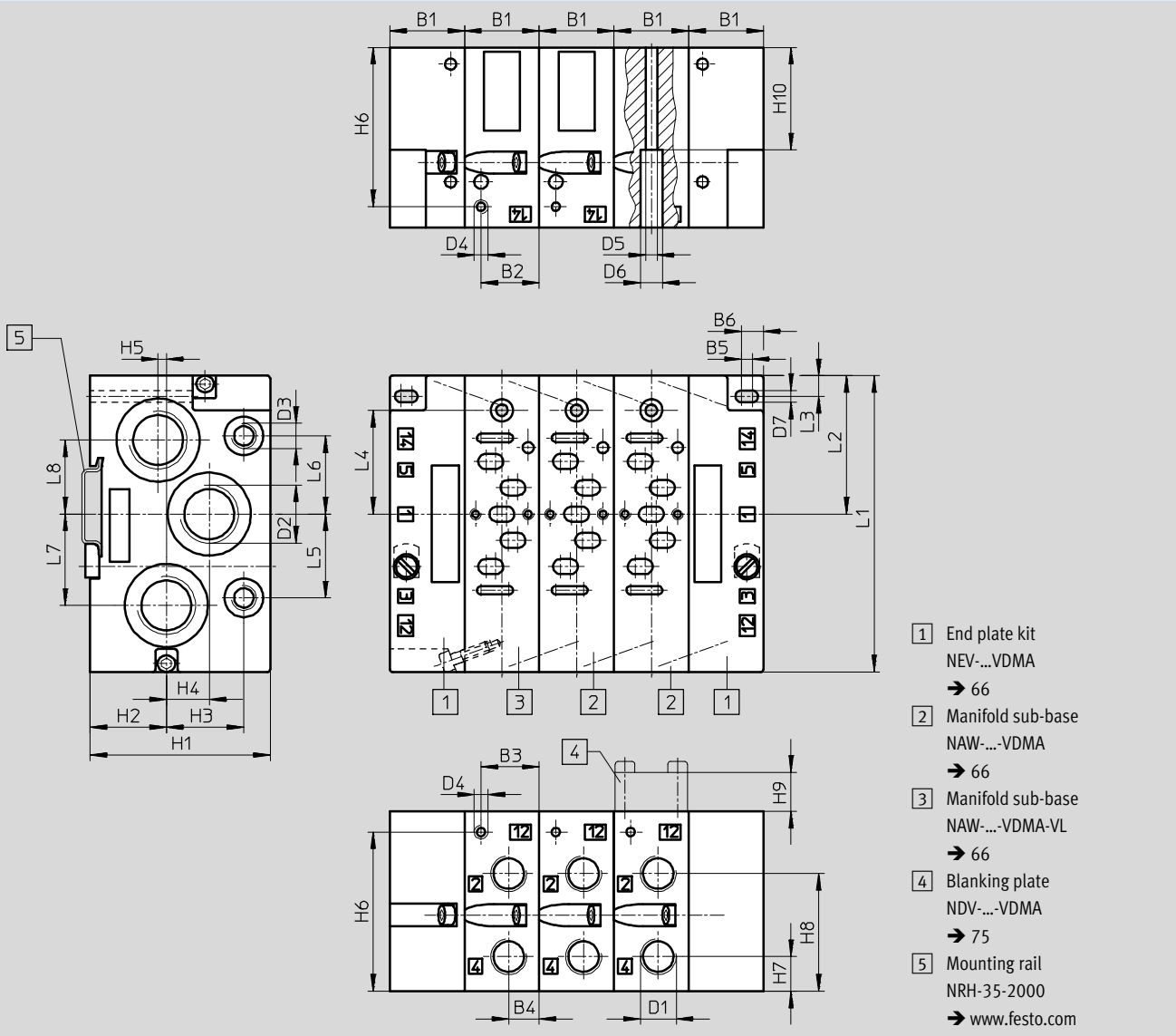
Manifold components, ISO 15407-1

Technical data

FESTO

Dimensions – Manifold sub-bases without valves

Download CAD data → www.festo.com



| Width [mm] | B1 | B2 | B3 | B4 | B5 | B6 | D1 | D2 | D3 | D4 | D5 | D6 | D7 |
|------------|----|----|----|-----|----|-----|-----------------|-----------------|-----------------|----|-----|-----|-----|
| 18 | 19 | 6 | 13 | 7.5 | 1 | 4.5 | G $\frac{3}{8}$ | G $\frac{3}{8}$ | G $\frac{3}{8}$ | M5 | 3.3 | 6.3 | 4.3 |
| 26 | 27 | 21 | 21 | 11 | 4 | 8 | G $\frac{1}{4}$ | G $\frac{1}{2}$ | G $\frac{3}{8}$ | M5 | 4.2 | 8 | 4.2 |

| Width [mm] | H1 | H2 | H3 | H4 | H5 | H6 | H7 | H8 | H9 | H10 | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 |
|------------|----|------|------|------|----|------|------|------|----|-----|-----|------|-----|------|------|------|----|------|
| 18 | 55 | 17 | 28.8 | 18.5 | – | 48 | 10.5 | 35.5 | 12 | 40 | 81 | 36.5 | 5.6 | 30.9 | 20 | 20 | 18 | 18 |
| 26 | 65 | 27.5 | 28 | 15.5 | 3 | 57.5 | 12.5 | 42.5 | 14 | 37 | 107 | 50 | 7.5 | 37.5 | 30.3 | 28.3 | 33 | 26.8 |

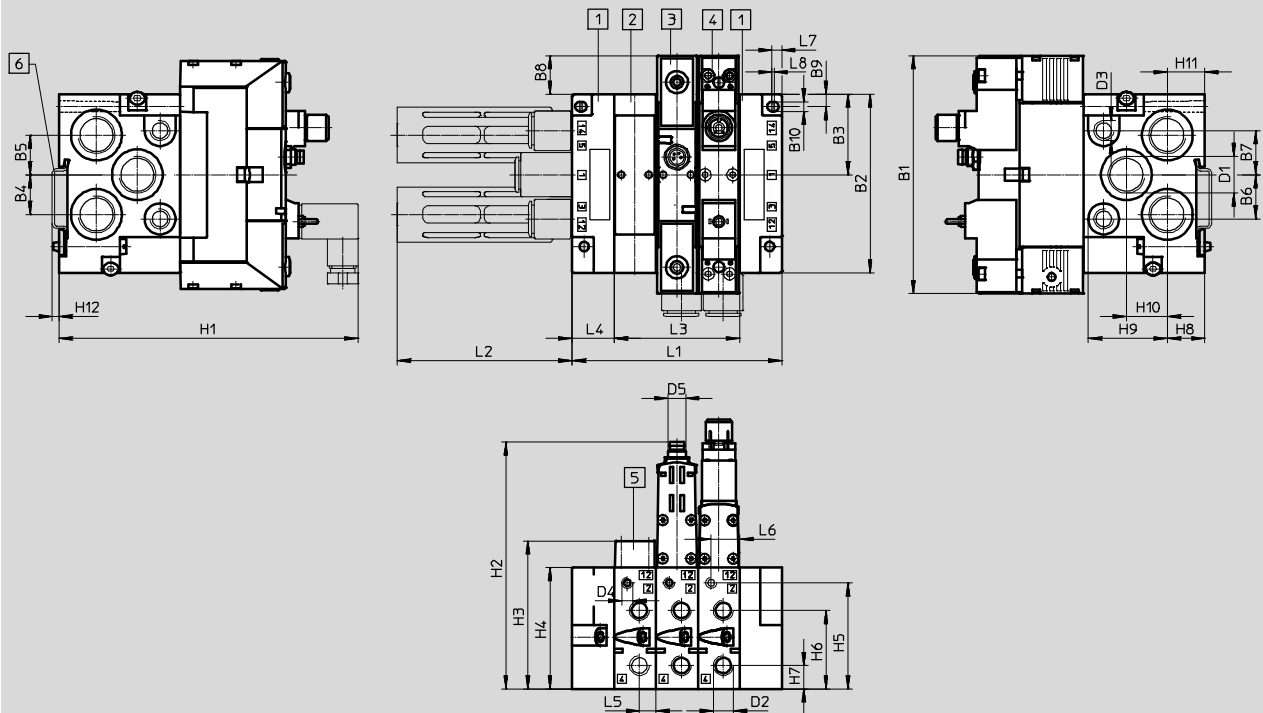
Manifold components, ISO 15407-1

Technical data

FESTO

Dimensions – Manifold assembly, width 18 mm

Download CAD data → www.festo.com



- | | | | |
|--|---|---------------------------------------|---|
| 1 End plate kit type NEV-02-VDMA | 4 Solenoid valve with pilot interface to ISO 15218 | 6 Mounting rail NRH-35-2000 | 8 Solenoid valve with pilot interface to ISO 15218 |
| 2 Manifold sub-bases type NAW-1/8-02-VDMA | 5 Blanking plate NDV-02-VDMA | 7 Solenoid valve with central plug | |
| 3 Solenoid valve with central plug | | | |

| | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | D1 | D2 | D3 | D4 | D5 | H1 | H2 | H3 |
|------------------|-------|----|------|----|----|----|----|------|-----|-----|------|------|------|----|-----|-------|-------|----|
| VSVA-B-...A2 | 107.8 | 81 | 36.5 | 18 | 18 | 20 | 20 | 17.4 | 5.6 | 4.3 | G3/8 | G1/8 | G1/8 | M5 | - | 135.6 | 55 | 67 |
| VSVA-B-M52-...A2 | 95.4 | 81 | 36.5 | 18 | 18 | 20 | 20 | 5 | 5.6 | 4.3 | G3/8 | G1/8 | G1/8 | M5 | - | 135.6 | 55 | 67 |
| VSVA-B-...A2-R2L | 107.8 | 81 | 36.5 | 18 | 18 | 20 | 20 | 17.4 | 5.6 | 4.3 | G3/8 | G1/8 | G1/8 | M5 | M 8 | 121.8 | 111.8 | 67 |
| VSVA-B-...A2-R5L | 107.8 | 81 | 36.5 | 18 | 18 | 20 | 20 | 17.4 | 5.6 | 4.3 | G3/8 | G1/8 | G1/8 | M5 | M12 | 121.8 | 111.8 | 67 |

| | H4 | H5 | H6 | H7 | H8 | H9 | H10 | H11 | H12 | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 |
|------------------|----|----|------|------|----|------|------|-----|-----|------------|------|-------|----|-----|----|-----|----|
| VSVA-B-...A2 | 55 | 48 | 35.5 | 10.5 | 17 | 35.9 | 18.5 | 17 | 3.5 | 38 + nx 19 | 79.1 | nx 19 | 19 | 7.5 | 13 | 4.5 | 1 |
| VSVA-B-M52-...A2 | 55 | 48 | 35.5 | 10.5 | 17 | 35.9 | 18.5 | 17 | 3.5 | 38 + nx 19 | 79.1 | nx 19 | 19 | 7.5 | 13 | 4.5 | 1 |
| VSVA-B-...A2-R2L | 55 | 48 | 35.5 | 10.5 | 17 | 35.8 | 18.5 | 17 | 3.5 | 38 + nx 19 | 79.1 | nx 19 | 19 | 7.5 | 13 | 4.5 | 1 |
| VSVA-B-...A2-R5L | 55 | 48 | 35.5 | 10.5 | 17 | 35.8 | 18.5 | 17 | 3.5 | 38 + nx 19 | 79.1 | nx 19 | 19 | 7.5 | 13 | 4.5 | 1 |

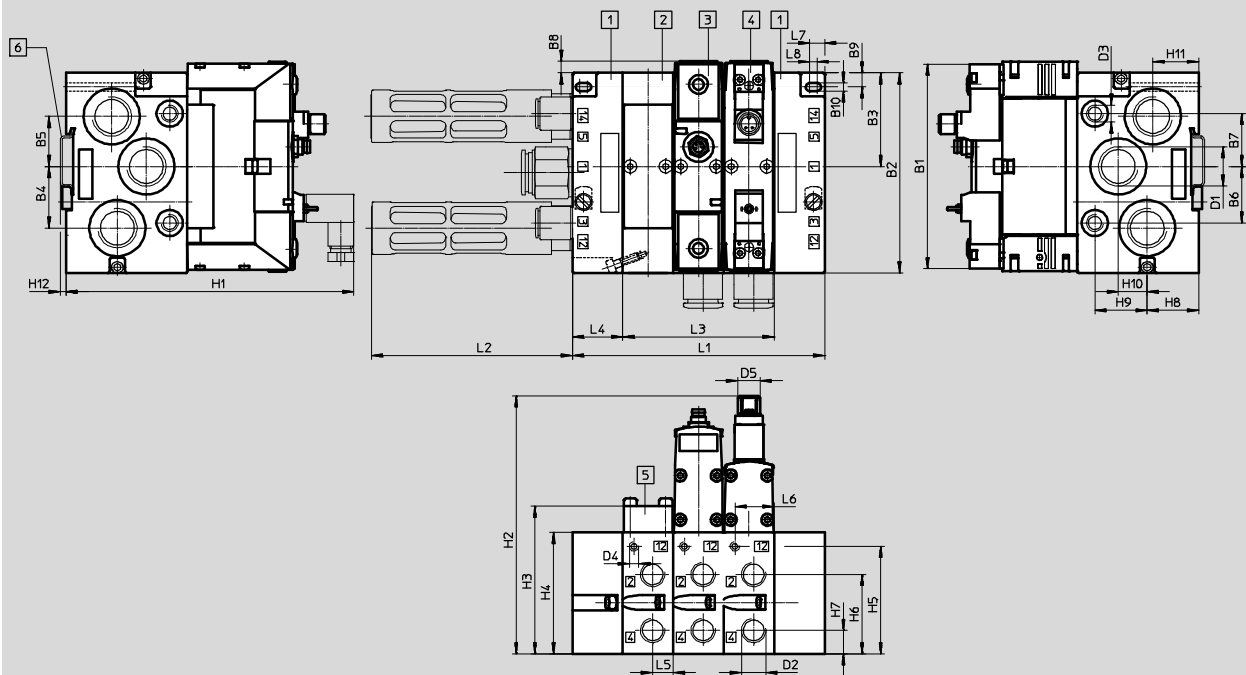
Manifold components, ISO 15407-1

Technical data

FESTO

Dimensions – Manifold assembly, width 26 mm

Download CAD data → www.festo.com



- | | | | |
|--|---|---------------------------------------|---|
| 1 End plate kit type NEV-01-VDMA | 4 Solenoid valve with pilot interface to ISO 15218 | 6 Mounting rail NRH-35-2000 | 8 Solenoid valve with pilot interface to ISO 15218 |
| 2 Manifold sub-bases type NAW-1/4-01-VDMA | 5 Blanking plate NDV-01-VDMA | 7 Solenoid valve with central plug | |
| 3 Solenoid valve with central plug | | | |

| | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | D1 | D2 | D3 | D4 | D5 | H1 | H2 |
|------------------|-------|-----|----|----|------|------|------|------|-----|-----|-----------------|-----------------|-----------------|----|--------|-------|-------|
| VSVA-B-...A1 | 113.1 | 107 | 50 | 33 | 26.8 | 30.3 | 28.3 | 13.1 | 7.5 | 4.2 | G $\frac{1}{2}$ | G $\frac{1}{4}$ | G $\frac{1}{8}$ | M5 | - | 154.2 | 65 |
| VSVA-B-M52-...A1 | 126.2 | 107 | 50 | 33 | 26.8 | 30.3 | 28.3 | 13.1 | 7.5 | 4.2 | G $\frac{1}{2}$ | G $\frac{1}{4}$ | G $\frac{1}{8}$ | M5 | - | 154.2 | 65 |
| VSVA-B-...A1-R2L | 112.5 | 107 | 50 | 33 | 26.8 | 30.3 | 28.3 | 6.3 | 7.5 | 4.2 | G $\frac{1}{2}$ | G $\frac{1}{4}$ | G $\frac{1}{8}$ | M5 | M8x 1 | 157 | 128.3 |
| VSVA-B-...A1-R5L | 112.5 | 107 | 50 | 33 | 26.8 | 30.3 | 28.3 | 6.3 | 7.5 | 4.2 | G $\frac{1}{2}$ | G $\frac{1}{4}$ | G $\frac{1}{8}$ | M5 | M12x 1 | 157 | 131.6 |

| | H3 | H4 | H5 | H6 | H7 | H8 | H9 | H10 | H11 | H12 | L1 | L2 | L3 | L4 | L5 | L6 | L7 | L8 |
|------------------|----|----|------|------|------|------|----|------|------|-----|------------|-------|-------|----|----|----|----|----|
| VSVA-B-...A1 | 79 | 65 | 57.5 | 42.5 | 12.5 | 27.5 | 28 | 15.5 | 24.5 | 3.5 | 54 + nx 27 | 107.5 | nx 27 | 27 | 11 | 21 | 8 | 4 |
| VSVA-B-M52-...A1 | 79 | 65 | 57.5 | 42.5 | 12.5 | 27.5 | 28 | 15.5 | 24.5 | 3.5 | 54 + nx 27 | 107.5 | nx 27 | 27 | 11 | 21 | 8 | 4 |
| VSVA-B-...A1-R2L | 79 | 65 | 57.5 | 42.5 | 12.5 | 27.5 | 28 | 15.5 | 24.5 | 3.5 | 54 + nx 27 | 107.5 | nx 27 | 27 | 11 | 21 | 8 | 4 |
| VSVA-B-...A1-R5L | 79 | 65 | 57.5 | 42.5 | 12.5 | 27.5 | 28 | 15.5 | 24.5 | 3.5 | 54 + nx 27 | 107.5 | nx 27 | 27 | 11 | 21 | 8 | 4 |

Manifold components, ISO 15407-1

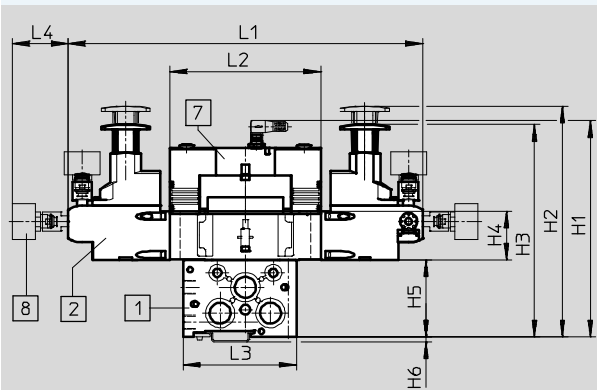
Technical data

FESTO

Dimensions – Pressure regulator

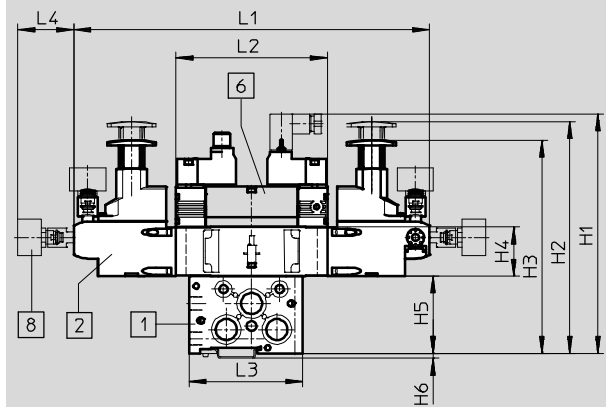
Download CAD data → www.festo.com

Width 18 mm with manifold sub-base and solenoid valve with central plug



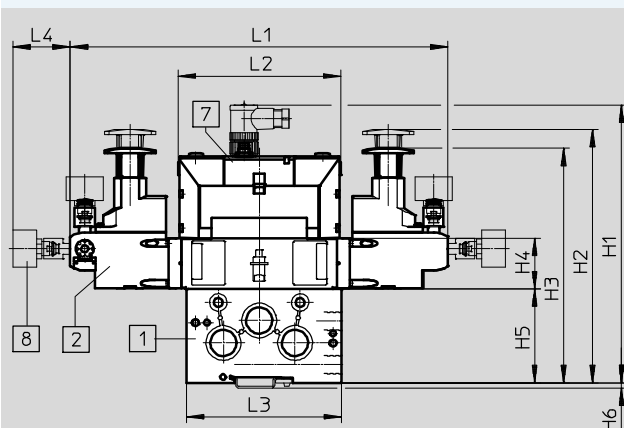
- 1 Manifold sub-base NAW
- 2 Regulator plate
- 7 Solenoid valve VSVA
- 8 Pressure gauge, freely positionable

Width 18 mm with manifold sub-base and solenoid valve with pilot interface to ISO 15218



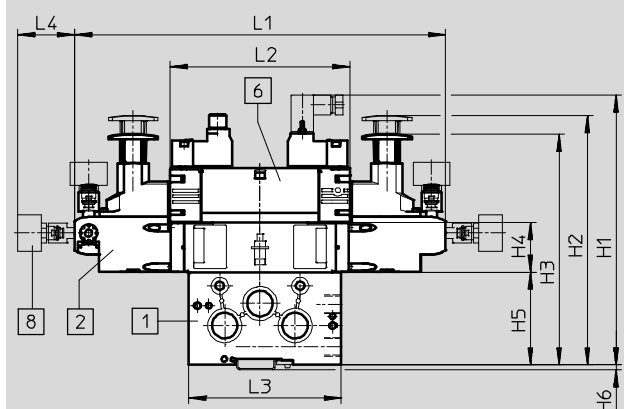
- 1 Manifold sub-base NAW
- 2 Regulator plate
- 6 Solenoid valve VSVA
- 8 Pressure gauge, freely positionable

Width 26 mm with manifold sub-base and solenoid valve with central plug



- 1 Manifold sub-base NAW
- 2 Regulator plate
- 7 Solenoid valve VSVA
- 8 Pressure gauge, freely positionable

Width 26 mm with manifold sub-base and solenoid valve with pilot interface to ISO 15218



- 1 Manifold sub-base NAW
- 2 Regulator plate
- 6 Solenoid valve VSVA
- 8 Pressure gauge, freely positionable

| Width [mm] | Solenoid valve | H1 | H2 | H3 | H4 | H5 | H6 | L1 | L2 | L3 | L4 |
|------------|-----------------------------------|-------|-----|-----|----|----|-----|-------|-------|-----|------|
| 18 | With central plug | 156.8 | 165 | 152 | 35 | 55 | 3.5 | 253.4 | 107.8 | 81 | 39.8 |
| | With pilot interface to ISO 15218 | 170.6 | | | | | | | | | |
| 26 | With central plug | 192 | 175 | 162 | 35 | 65 | 3.5 | 260.7 | 112.5 | 107 | 39.8 |
| | With pilot interface to ISO 15218 | 189.6 | | | | | | | 126.2 | | |

Manifold components, ISO 15407-1

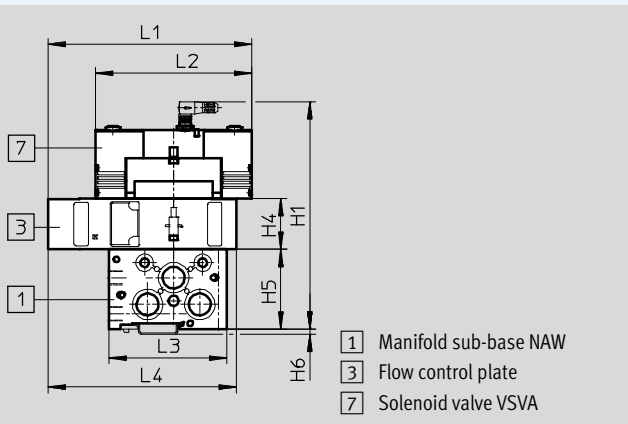
Technical data



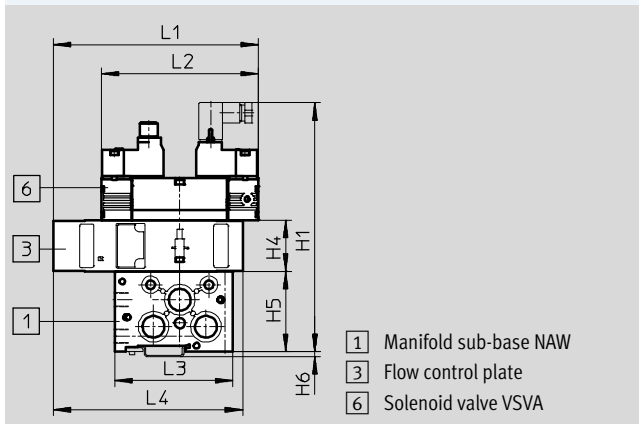
Dimensions – Flow control plate

Download CAD data → www.festo.com

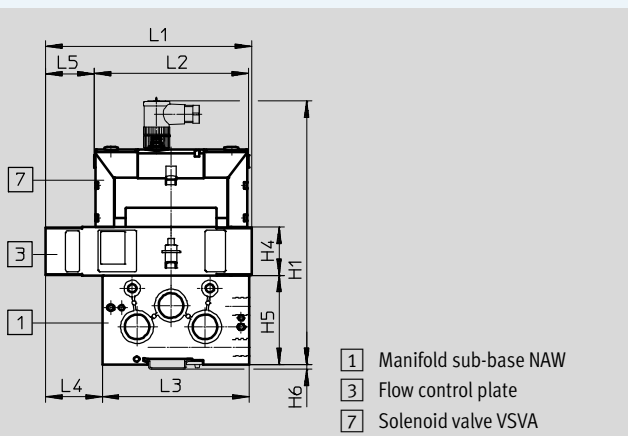
Width 18 mm with manifold sub-base and solenoid valve with central plug



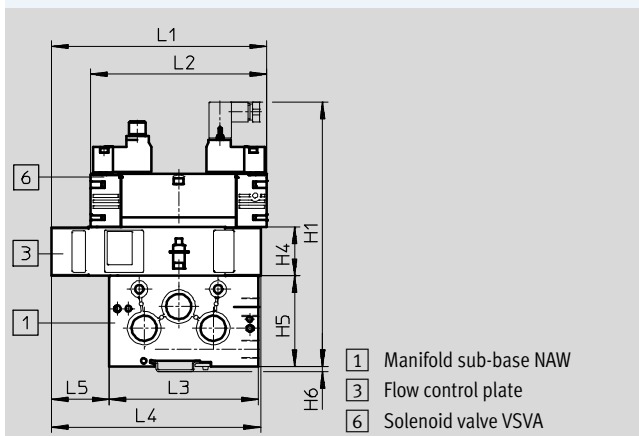
Width 18 mm with manifold sub-base and solenoid valve with pilot interface to ISO 15218



Width 26 mm with manifold sub-base and solenoid valve with central plug



Width 26 mm with manifold sub-base and solenoid valve with pilot interface to ISO 15218



| Width [mm] | Solenoid valve | H1 | H4 | H5 | H6 | L1 | L2 | L3 | L4 | L5 |
|------------|-----------------------------------|-------|----|----|-----|-------|-------|-----|------|------|
| 18 | With central plug | 156.8 | 35 | 55 | 3.5 | 140.8 | 107.8 | 81 | 130 | - |
| | With pilot interface to ISO 15218 | 170.6 | | | | | | | | |
| 26 | With central plug | 192 | 35 | 65 | 3.5 | 150 | 112.5 | 107 | 41.3 | 35 |
| | With pilot interface to ISO 15218 | 189.6 | | | | 154.4 | 126.2 | | 150 | 41.3 |

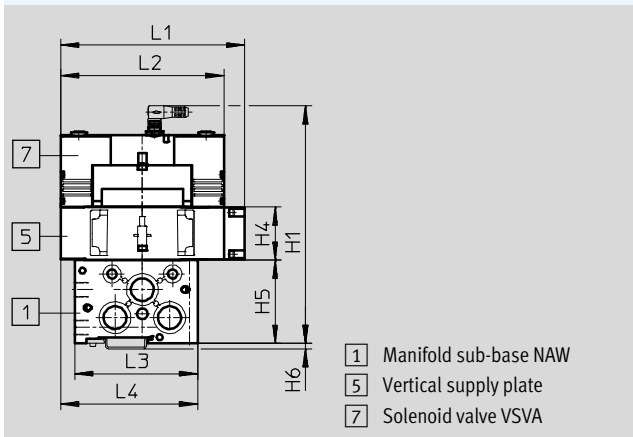
Manifold components, ISO 15407-1

Technical data

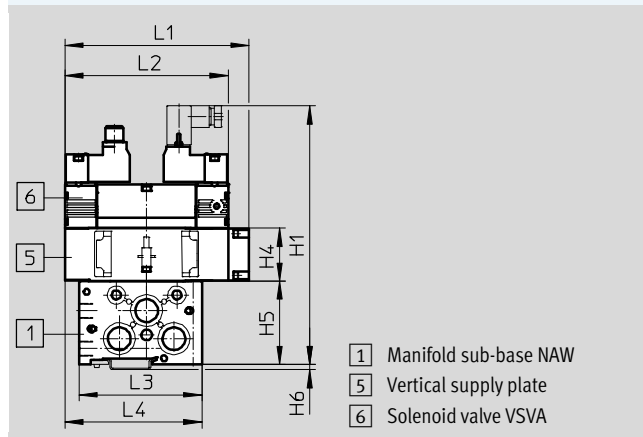
Dimensions – Vertical supply plate

Download CAD data → www.festo.com

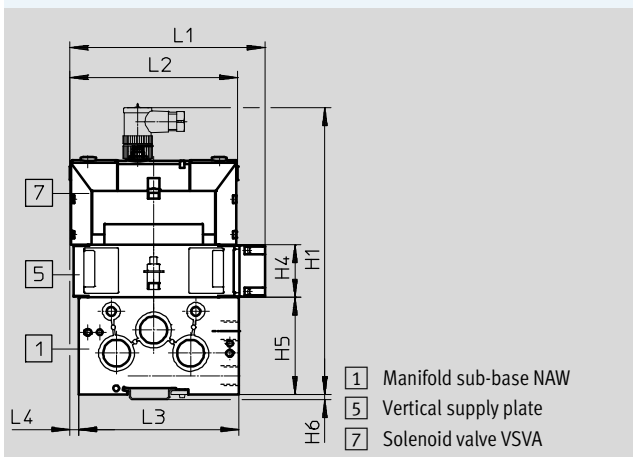
Width 18 mm with manifold sub-base and solenoid valve with central plug



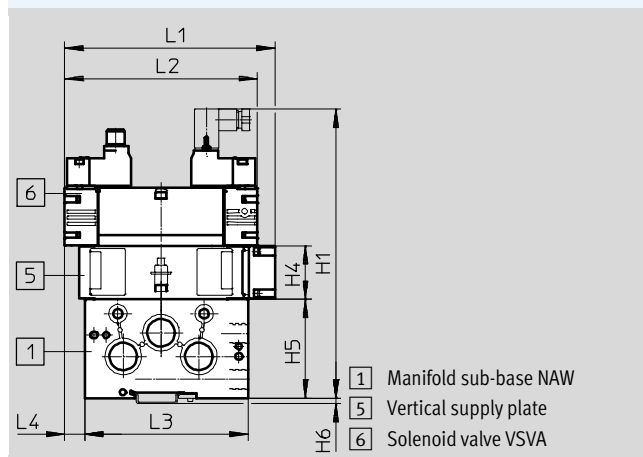
Width 18 mm with manifold sub-base and solenoid valve with pilot interface to ISO 15218



Width 26 mm with manifold sub-base and solenoid valve with central plug



Width 26 mm with manifold sub-base and solenoid valve with pilot interface to ISO 15218



| Width [mm] | Solenoid valve | H1 | H4 | H5 | H6 | L1 | L2 | L3 | L4 |
|------------|-----------------------------------|-------|----|----|-----|--------|-------|-----|------|
| 18 | With central plug | 156.8 | 35 | 55 | 3.5 | 121.55 | 107.8 | 81 | 90.4 |
| | With pilot interface to ISO 15218 | 170.6 | | | | | | | |
| 26 | With central plug | 192 | 35 | 65 | 3.5 | 130.8 | 112.5 | 107 | 6.3 |
| | With pilot interface to ISO 15218 | 189.6 | | | | | | | 13.1 |

Manifold components, ISO 15407-1

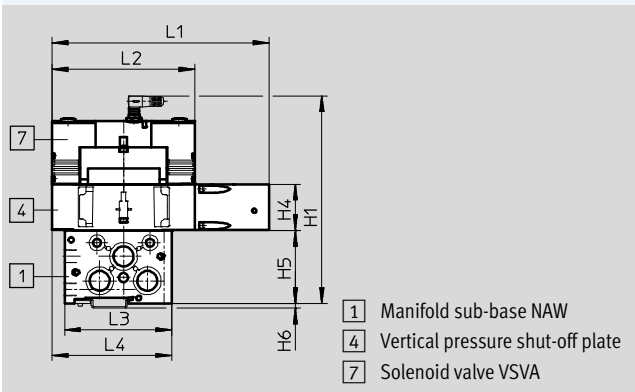
Technical data



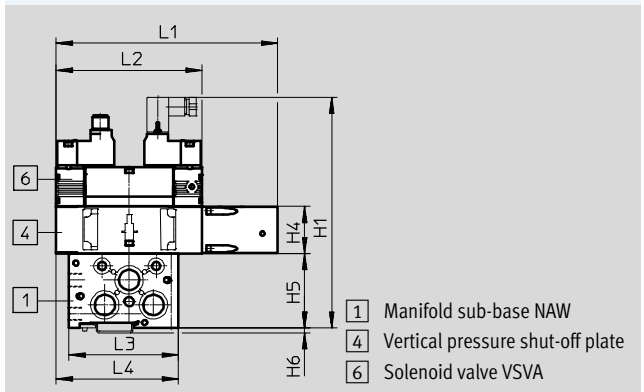
Dimensions – Vertical pressure shut-off plate

Download CAD data → www.festo.com

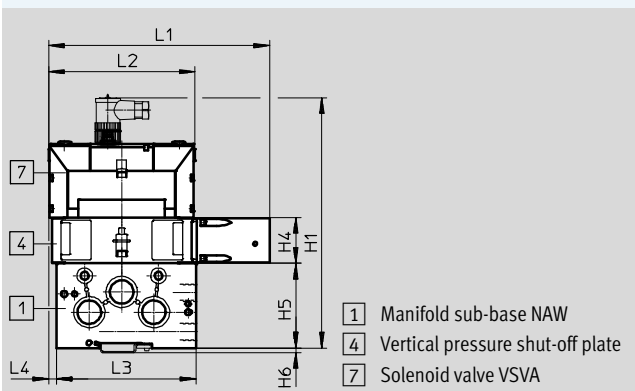
Width 18 mm with manifold sub-base and solenoid valve with central plug



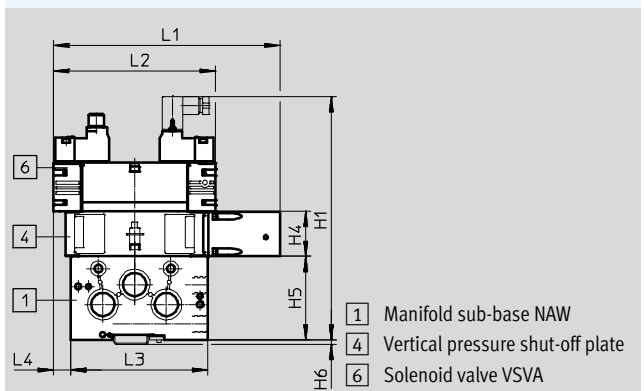
Width 18 mm with manifold sub-base and solenoid valve with pilot interface to ISO 15218



Width 26 mm with manifold sub-base and solenoid valve with central plug



Width 26 mm with manifold sub-base and solenoid valve with pilot interface to ISO 15218



| Width [mm] | Solenoid valve | H1 | H4 | H5 | H6 | L1 | L2 | L3 | L4 |
|------------|-----------------------------------|-------|----|----|-----|-------|-------|-----|------|
| 18 | With central plug | 156.8 | 35 | 55 | 3.5 | 163.8 | 107.8 | 81 | 90.4 |
| | With pilot interface to ISO 15218 | 170.6 | | | | | | | |
| 26 | With central plug | 192 | 35 | 65 | 3.5 | 169.7 | 112.5 | 107 | 6.3 |
| | With pilot interface to ISO 15218 | 189.6 | | | | | | | |

Solenoid/pneumatic valves, ISO 15407-1

Accessories

Isolating disc NSC

Materials:
Aluminium



| Operating and environmental conditions | |
|--|--|
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Note on operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) |

| Ordering data | | | | |
|--|------------|------------|---------------|------------------------|
| Description | Width [mm] | Weight [g] | Part No. | Type |
| Isolating disc for ports 1, 3, 5 (solenoid/pneumatic valves) | 18 | 2 | 161113 | NSC-3/8-02-VDMA |
| | 26 | 2 | 161105 | NSC-1/2-01-VDMA |
| Isolating disc for ports 12, 14 (pneumatic valves) | 18 | 2 | 161106 | NSC-1/8-01-VDMA |
| | 26 | 2 | 161106 | NSC-1/8-01-VDMA |

Blanking plate NDV

Materials:
Polymer
Free of copper and PTFE



| Operating and environmental conditions | |
|--|--|
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Note on operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) |

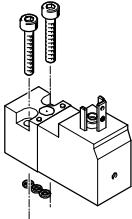
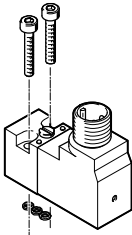
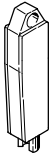
| Ordering data | | | | |
|--|------------|------------|-----------------|--------------------|
| Description | Width [mm] | Weight [g] | Part No. | Type |
| Blanking plate to seal spare or vacant valve positions | 18 | 22 | ★ 161114 | NDV-02-VDMA |
| | 26 | 36 | ★ 161107 | NDV-01-VDMA |

Festo core product range

- ★ Generally ready for shipping ex works in 24 hours
- ☆ Generally ready for shipping ex works in 5 days

Solenoid/pneumatic valves, ISO 15407-1






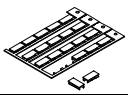

Accessories

| Ordering data – Pilot valve to ISO 15218 | | | | | | | | |
|---|--|-------|---------|---------|--------|---------------|------------------------------|------------------------------|
| | | Power | | Voltage | | Part No. | Type | |
| | | [W] | [VA] | [V DC] | [V AC] | | | |
| Plug, square, type C EN 175301-803 | | | | | | | | |
|  | Manual override non-detenting | 1.8 | – | 12 | – | 546257 | VSCS-B-M32-MH-WA-5C1 | |
| | | | | 24 | | 546256 | VSCS-B-M32-MH-WA-1C1 | |
| | | – | 3.1/2.3 | – | 24 | 546258 | VSCS-B-M32-MH-WA-1AC1 | |
| | | | | | | 110 | 546259 | VSCS-B-M32-MH-WA-2AC1 |
| | | | | | | | 230 | 546260 |
| | Manual override, non-detenting/detenting | 1.8 | – | 12 | – | 571062 | VSCS-B-M32-MD-WA-5C1 | |
| | | | | 24 | | 571061 | VSCS-B-M32-MD-WA-1C1 | |
| | | – | 3.1/2.3 | – | 24 | 571063 | VSCS-B-M32-MD-WA-1AC1 | |
| | | | | | | 230 | 571065 | VSCS-B-M32-MD-WA-3AC1 |
| | | | | | | | 110 | 571064 |
| Plug M12 IEC 61076-2-101 | | | | | | | | |
|  | Manual override, non-detenting/detenting | 1.8 | – | 24 | – | 573215 | VSCS-B-M32-MD-WA-1R3 | |
| | Manual override, detenting | 1.8 | – | 24 | – | 573214 | VSCS-B-M32-MH-WA-1R3 | |
| Tool for manual override | | | | | | | | |
|  | For manual override, detenting, with pilot valve VSCS-B-M32-MT | | | | | 157601 | AHB-MEB | |

Solenoid/pneumatic valves, ISO 15407-1

Accessories






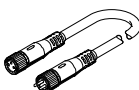


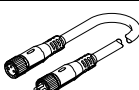
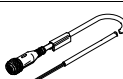

FESTO

| Ordering data | | | | Part No. | Type |
|---|---|---------------------------------|---------------|-------------------|-----------------------|
| Pressure gauge | | Technical data → Internet: pagn | | | |
|  | With cartridge connection for regulator | 0 ... 16 bar | | 543487 | PAGN-26-16-P10 |
| | | 0 ... 10 bar | | 543488 | PAGN-26-10-P10 |
| Cartridge for regulator plate | | | | | |
|  | For tubing O.D. | 4 mm | 10 pieces | 172972 | QSP10-4 |
| Push-in fitting | | Technical data → Internet: qs | | | |
|  | Connecting thread M5 for tubing O.D. | 4 mm | 10 pieces | 153315 | QSM-M5-4-I |
| | | 6 mm | 10 pieces | 153317 | QSM-M5-6-I |
| | Connecting thread G1/8 for tubing O.D. | 6 mm | 10 pieces | 186096 | QS-G1/8-6 |
| | | 8 mm | 10 pieces | 186098 | QS-G1/8-8 |
| | Connecting thread G1/4 for tubing O.D. | 8 mm | 10 pieces | 186099 | QS-G1/4-8 |
| | | 10 mm | 10 pieces | 186101 | QS-G1/4-10 |
| | Connecting thread G3/8 for tubing O.D. | 12 mm | 10 pieces | 186103 | QS-G3/8-12 |
| | | 16 mm | 1 piece | 186347 | QS-G3/8-16 |
| Connecting thread G1/2 for tubing O.D. | 12 mm | 1 piece | 186104 | QS-G1/2-12 | |
| | 16 mm | 1 piece | 186105 | QS-G1/2-16 | |
| Blanking plug | | Technical data → Internet: b | | | |
|  | For sealing ports that are not required | For thread M5 | 10 pieces | 3843 | B-M5 |
| | | For thread G1/8 | 10 pieces | 3568 | B-1/8 |
| | | For thread G1/4 | 10 pieces | 3569 | B-1/4 |
| | | For thread G3/8 | 10 pieces | 3570 | B-3/8 |
| | | For thread G1/2 | 10 pieces | 3571 | B-1/2 |
| Silencers | | Technical data → Internet: u | | | |
|  | For noise reduction at venting ports | For thread G1/8 | | 6841 | U-1/8-B |
| | | For thread G1/4 | | 6842 | U-1/4-B |
| | | For thread G3/8 | | 6843 | U-3/8-B |
| | | For thread G1/2 | | 6844 | U-1/2-B |
| Inscription label | | Technical data → Internet: ibs | | | |
|  | Inscription label, 9x20 mm, for valves | In frames | 24 units | 18182 | IBS-9x20 |
| Inscription label holder | | Technical data → Internet: ascf | | | |
|  | Clip-on inscription label holder for valve cap, for pneumatic valves VSPA | | 5 pieces | 540888 | ASCF-T-S6 |

Solenoid/pneumatic valves, ISO 15407-1

Accessories

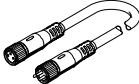





FESTO

| Ordering data | | Part No. | Type | | |
|---|--|---|------------------------------------|--|---|
| Plug socket for port pattern to EN 175301-803, type C | | Technical data → Internet: mssd | | | |
|  | Via screw terminals | Cable connector Pg7 | 151687 MSSD-EB | | |
| | | Cable connector M12 | 539712 MSSD-EB-M12 | | |
|  | With insulation displacement connection | Cable connector M14 | 192745 MSSD-EB-S-M14 | | |
| Connecting cable for port pattern EN 175301-803, type C | | Technical data → Internet: kmeb | | | |
|  | With LED signal status display | 24 V DC | 2.5 m | 151688 KMEB-1-24-2,5-LED | |
| | | 24 V DC | 5 m | 151689 KMEB-1-24-5-LED | |
| | | 24 V DC | 10 m | 193457 KMEB-1-24-10-LED | |
| | Without signal status display | Up to 240 V | 2.5 m | 151690 KMEB-1-230AC-2,5 | |
| | | Up to 240 V | 5 m | 151691 KMEB-1-230AC-5 | |
| Illuminating seal for port pattern EN 175301-803, type C | | Technical data → Internet: meb-ld | | | |
|  | For displaying the signal status | 12 ... 24 V DC | – | 151717 MEB-LD-12-24DC | |
| | | 230 V AC | – | 151718 MEB-LD-230AC | |
| Plug sockets for valves, round plug M12x1 | | Technical data → Internet: necu | | | |
|  | Angled socket, 4-pin, type A, screw terminal | Cable connector Pg7 | 12956 SIE-WD-TR | | |
| Connecting cable for valves with round plug M8x1 | | Technical data → Internet: nebu | | | |
|  | Modular system for connecting cables → Internet: nebu | 0.1 ... 30 m | – | NEBU-... | |
| | |  | Straight socket, 4-pin | 2.5 m | 541342 NEBU-M8G4-K-2,5-LE4 |
| | | | Open cable end, 4-pin | 5 m | 541343 NEBU-M8G4-K-5-LE4 |
| | |  | Angled socket, 4-pin | 2.5 m | 541344 NEBU-M8W4-K-2,5-LE4 |
| | | | Open cable end, 4-pin | 5 m | 541345 NEBU-M8W4-K-5-LE4 |
| Connecting cable for valves with round plug M12x1 | | Technical data → Internet: nebu | | | |
|  | Modular system for connecting cables → Internet: nebu | 0.1 ... 30 m | – | NEBU-... | |
| | |  | Straight socket, 5-pin | 2.5 m | 550326 NEBU-M12G5-K-2,5-LE4 |
| | | | Open cable end, 4-wire | 5 m | 541328 NEBU-M12G5-K-5-LE4 |
| | |  | Angled socket, 5-pin | 2.5 m | 550325 NEBU-M12W5-K-2,5-LE4 |
| | | | Open cable end, 4-wire | 5 m | 541329 NEBU-M12W5-K-5-LE4 |

Solenoid/pneumatic valves, ISO 15407-1

Accessories

FESTO

| Ordering data | | Part No. | Type |
|---|--|------------------|------------------------------------|
| Connecting cable for electrical connection of the switching status sensor | | | |
|  | Modular system for connecting cables → Internet: nebu | 0.1 ... 30 m | – NEBU-... |
|  | Straight socket, M8x1, 3-pin Open end, 3-wire | 2.5 m | 541333 NEBU-M8G3-K-2,5-LE3 |
| | | 5 m | 541334 NEBU-M8G3-K-5-LE3 |
|  | Angled socket, M8x1, 3-pin Open end, 3-wire | – | |
| | | 2.5 m | 541338 NEBU-M8W3-K-2,5-LE3 |
| | | 5 m | 541341 NEBU-M8W3-K-5-LE3 |
| | | Rotatable socket | |
| | | 2.5 m | 8001660 NEBU-M8R3-K-2.5-LE3 |
| | | 5 m | 8001661 NEBU-M8R3-K-5-LE3 |
|  | Straight socket, M8x1, 3-pin Straight plug, M8x1, 4-pin | 2.5 m | 554037 NEBU-M8G3-K-2,5-M8G4 |
| H-rail mounting | | | |
|  | For end plate width 18 mm | 2 pieces | 553996 VAME-S3-2-H |
| | For end plate width 26 mm | 2 pieces | 553995 VAME-S3-1-H |
| User documentation | | | |
|  | Valve manifold VTIA | German | 538928 P.BE-VTIA-DE |
| | | English | 538929 P.BE-VTIA-EN |
| | | French | 538931 P.BE-VTIA-FR |
| | | Spanish | 538930 P.BE-VTIA-ES |
| | | Italian | 538932 P.BE-VTIA-IT |

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