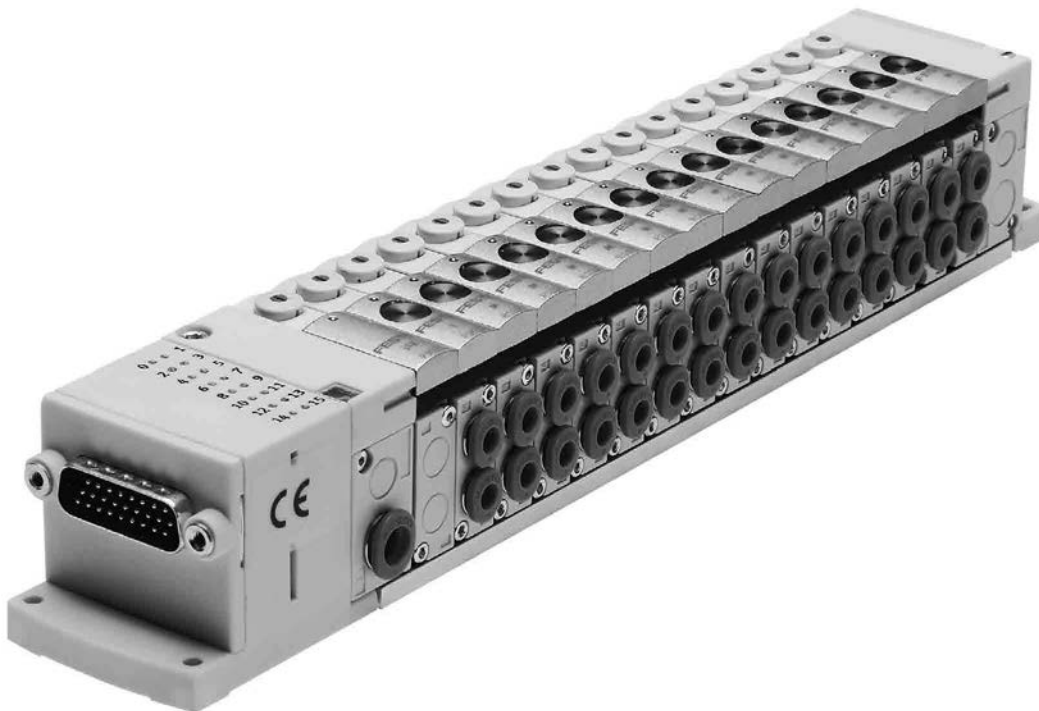


Valve terminal CPV-SC, Smart Cubic

FESTO



Key features



Innovative

- Small, compact valve terminal for a wide range of pneumatic applications
- Great flexibility during planning, assembly and operation
- Multi-pin interface
- Wide range of selectable valve functions; 5/2-way, 3/2-way and 2/2-way functions
- With a flow rate of 170 l/min, CPV-SC offers outstanding pneumatic performance for a wide range of applications
- Light weight

Versatile

- Provides 2 ... 16 valve positions on one terminal
- Particularly suitable for operation of small pneumatic drives in restricted installation space
- Flexibility of the pneumatic working ports provides a practical solution to different requirements
- Round silencers, integrated flat plate silencers or threaded/push-in connection for ducted exhaust air
- Suitable for vacuum
- Enables multiple pressure zones on a single valve terminal

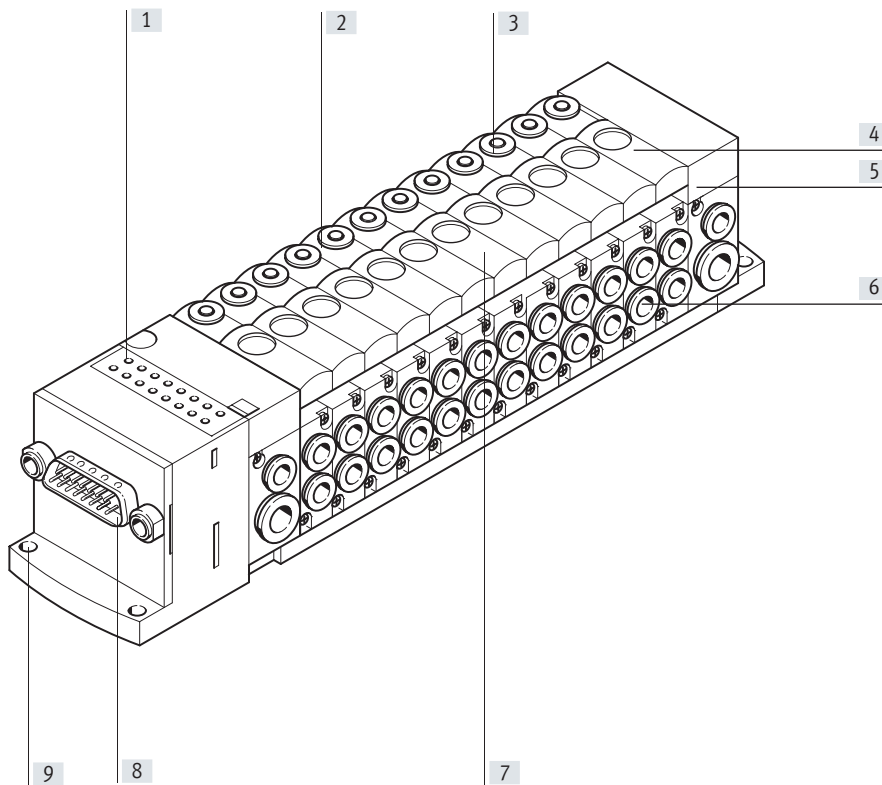
Reliable

- Manual override
- Durable thanks to tried-and-tested piston spool valves
- Sturdy thanks to metal housing and connecting thread
- Fast troubleshooting thanks to an LED on each valve and diagnostics via fieldbus

Easy to mount

- Fully assembled and tested valve terminal
- Reduced ordering, assembly and commissioning costs
- Suitable for direct mounting even on moving system components

Key features



- [1] Reduced downtimes: light emitting diodes indicate the switching status
- [2] Valve size 10 mm
- [3] Reliable operation: manual override non-detenting and detenting
- [4] Simple to extend: blanking plates reserve space for additional valves
- [5] Space saving: Grid 40x40 mm Maximum 16 valves
- [6] Practical connection: thread or push-in connector
- [7] Comprehensive range of valve functions
- [8] Simple electrical connections: individual valve connection, Sub-D plug, ribbon cable
- [9] Quick to mount: secure directly using screws

Equipment options

Valve functions

- | | |
|--|--|
| <ul style="list-style-type: none"> • 5/2-way valve, single solenoid • 5/2-way valve, double solenoid • 3/2-way valve, normally open | <ul style="list-style-type: none"> • 3/2-way valve, normally closed • 2/2-way valve, normally closed |
|--|--|

Separator plate with additional compressed air supply

- Compressed air duct (1) closed
- Compressed air duct (1) and exhaust duct (3/5) closed

Blanking plate

- Plate without valve function for reserving a valve position

Electrical connection options

Individual connection

- 2 ... 16 valve positions/ max.16 solenoid coils
- Individual connection, horizontal (H)
- Individual connection, vertical (T)

Multi-pin

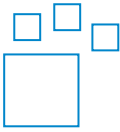
- 4 ... 16 valve positions/ max. 16 solenoid coils
- Sub-D
- Ribbon cable

CP interface

- 4 ... 16 valve positions/ max. 16 solenoid coils
- Additional valve terminals CPV-SC-CPI or from CPV series

Key features

Ordering data – Product options

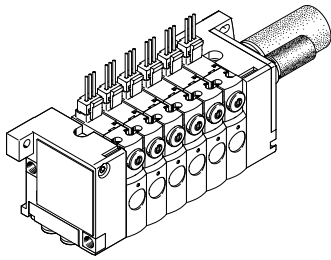


Configurable product
This product and all its product options can be ordered using the configurator.

The configurator can be found under Products on the DVD or at
→ www.festo.com/catalogue/...

| Part no. | Type |
|----------|--------------|
| 525675 | CPV-SC-MP-VI |
| 538510 | CPV-SC-FB-VI |

Individual connection



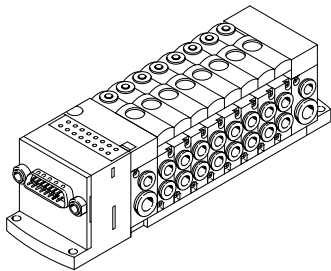
The connection is independent of the control technology and flexible using pre-assembled cables. This ensures that the connection is reverse polarity protected.

Valves with integrated LED (CPVSC1-M1LH- ...) are optionally available for switching status indication.
2 to 16 solenoid coils (divided between 2 to 16 valve positions) can be selected with individual connection.

Versions

- Individual connection, horizontal
- Individual connection, vertical
- 2 to 16 solenoid coils

Multi-pin plug connection



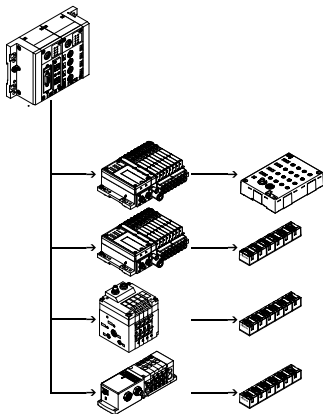
Control signals to the valve terminal are transmitted via a pre-assembled multi-core cable, which substantially reduces installation time.

4 to 16 solenoid coils (divided between 4 to 16 valve positions) can be selected with multi-pin plug connection.

Versions

- Sub-D connection
- Ribbon cable connection
- 4 to 16 solenoid coils

Installation system CPI



Valve terminal for installation system CPI:
The valve terminal with CP connection is provided for connection to a higher-level bus node or to control blocks. A bus node or control block additionally enables connection of decentralised input/output units.

The following bus protocols are supported:

- PROFIBUS DP
- INTERBUS
- DeviceNet
- CANopen
- CC-Link
- EtherNet/IP
- PROFINET
- POWERLINK
- EtherCAT
- Sercos III

Four strings having up to 32 inputs and outputs can be connected to a bus node or control block. The connecting cables transmit the power supply for the input modules and the load voltage for the valves as well as control signals.

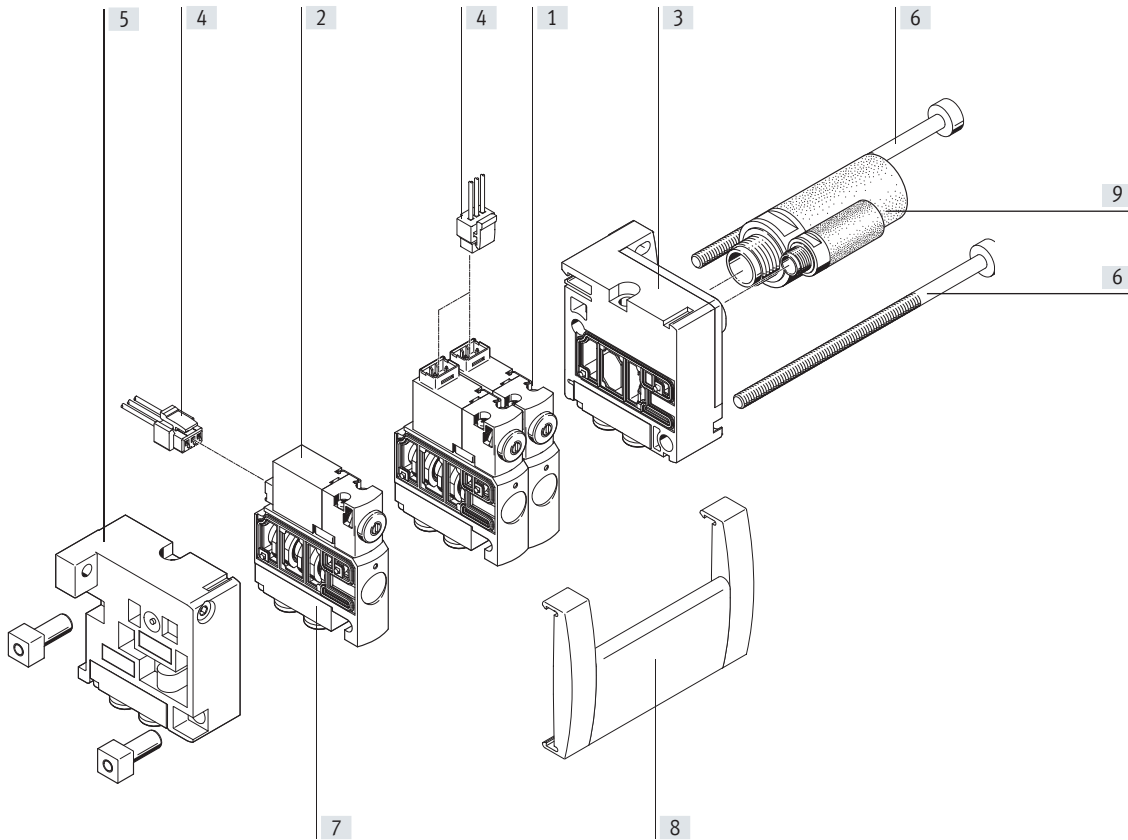
Additional information
→ Internet: ctec

Peripherals overview

Overview – CPV-SC valve terminal

Valve terminal with individual electrical connections

- Vertical individual connection
Code: T
 - Horizontal individual connection
Code: H
- Valve terminals with individual electrical connection can be equipped with 2 to max. 16 valve positions.
- Each valve position can either be equipped with a valve or a blanking plate.



- | | | | |
|--|---|--|------------------------------|
| [1] Valve with vertical individual connection | [4] Plug socket with cable for individual electrical connection of the valves | [6] Tie rod | [8] Inscription label holder |
| [2] Valve with horizontal individual connection | [5] Left-hand end plate for compressed air supply 1 or 12/14 | [7] Sub-base for working ports (push-in fitting or thread) | [9] Silencer |
| [3] Right-hand sub-base for unducted exhaust air | | | |

Peripherals overview

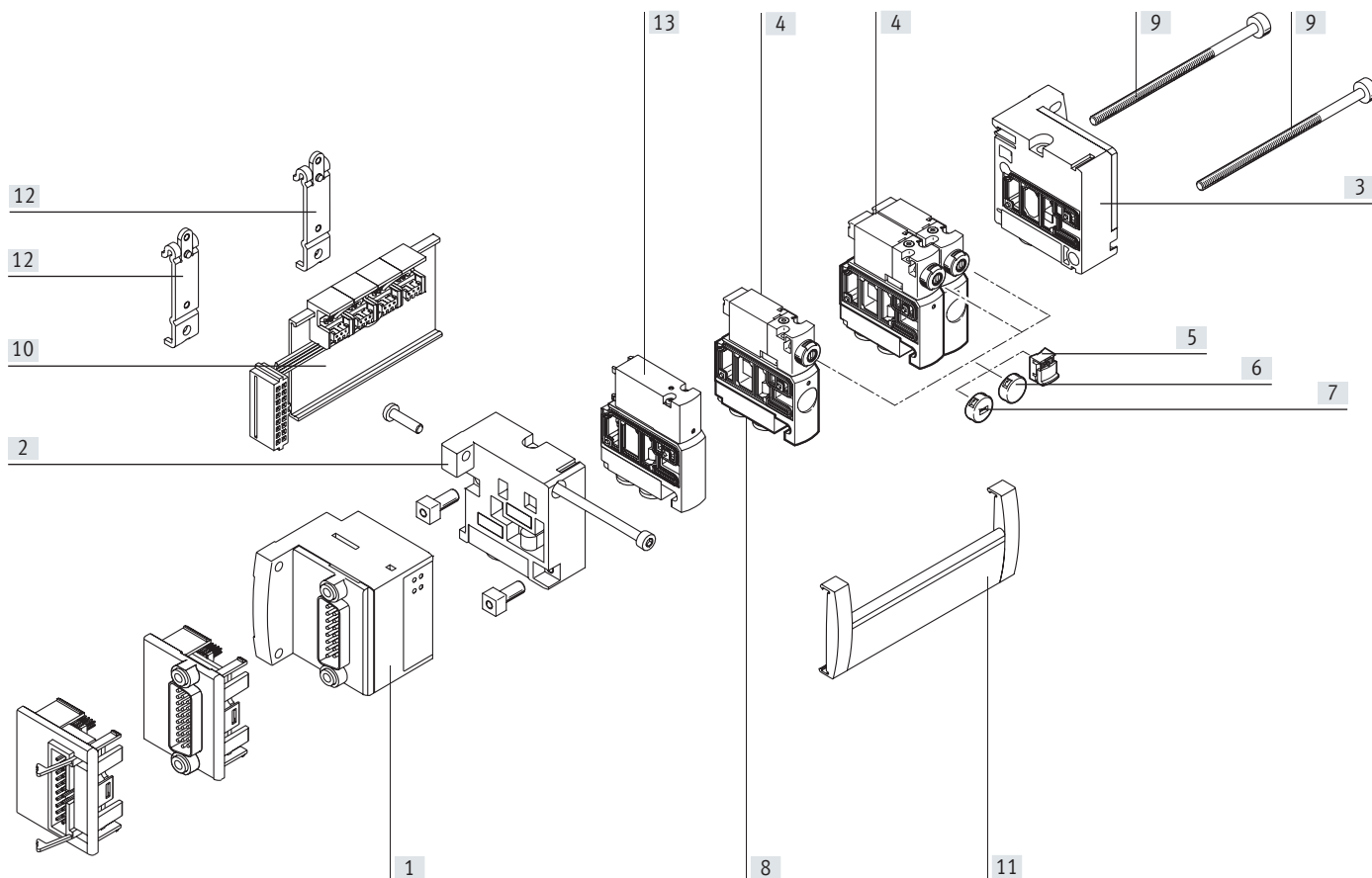
Valve terminal with electrical multi-pin plug connection

- 15-pin and 26-pin Sub-D multi-pin plug connection
 - Code: MS, MH
- or
- 20-pin multi-pin plug connection with connector for ribbon cable
 - Code: MF

Valves and end plates are the basic pneumatic components of the valve terminal.
The valve terminals are connected to the end plates using tie rods.

Valve terminals with electrical multi-pin plug connection can be equipped with 4 to max. 16 valve positions. Each valve position can either be equipped with a valve or a blanking plate.

The electrical connection is located on the left-hand side, enabling a particularly flat installation.



- [1] Electrical control unit (with LED switching status indications) for Sub-D plug or ribbon cable
- [2] Left-hand end plate for compressed air supply 1 or 12/14
- [3] Right-hand end plate for ducted exhaust air or silencer (3/5 or 82/84)

- [4] Valve
- [5] Cover cap for manual override, manually operated without accessories (code Y)

- [6] Cover cap for manual override, MO blocked (code V)
- [7] Cover cap coded, MO non-detenting (code K)
- [8] Sub-base for working ports (push-in fitting or thread)

- [9] Tie rod
- [10] Electrical valve linking module
- [11] Inscription label holder
- [12] H-rail mounting
- [13] Blanking plate for vacant position

Peripherals overview

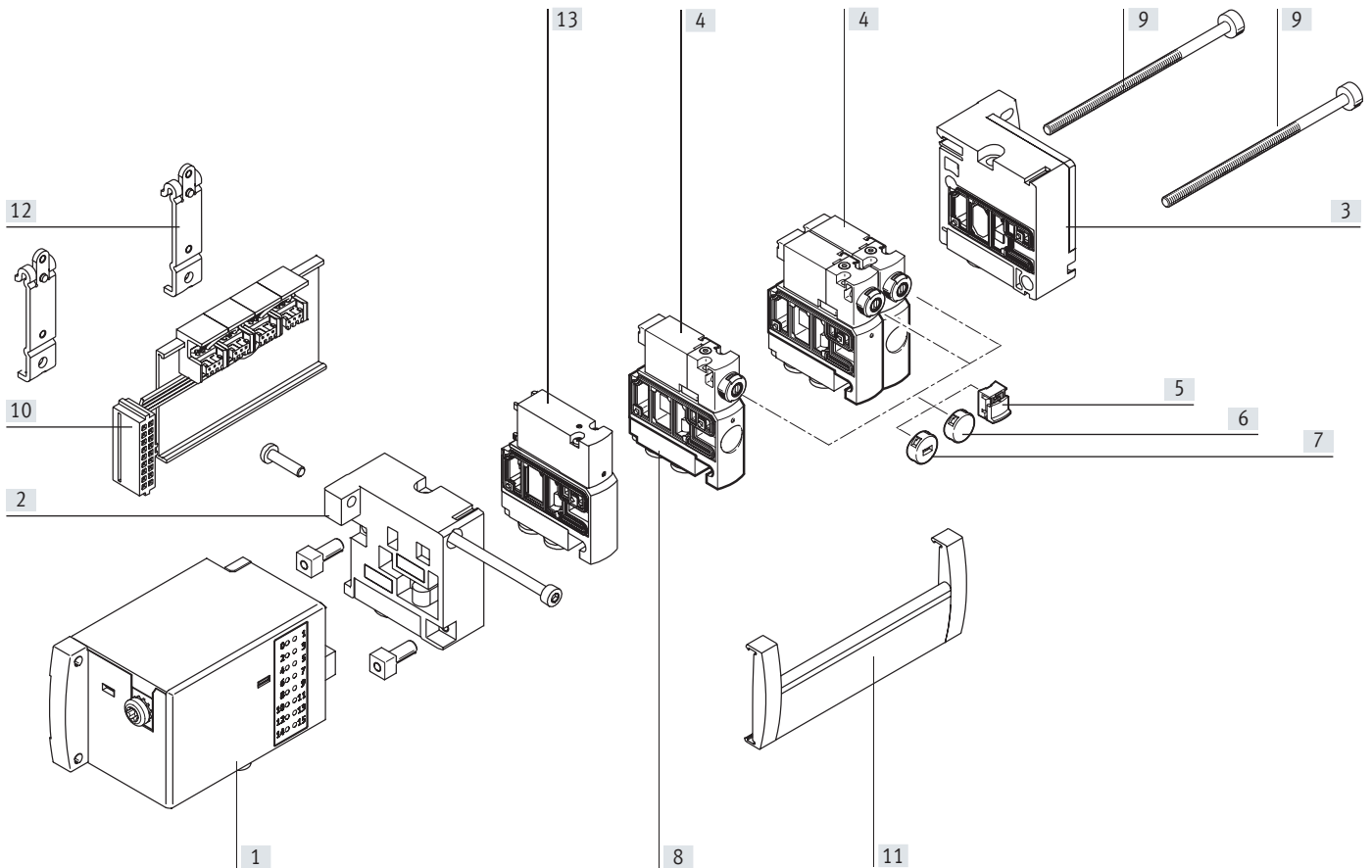
Valve terminal with CPI connection

- CP interface M9, 5-pin
- Code: CP

Valves and end plates are the basic pneumatic components of the valve terminal. The valve terminals are connected to the end plates using tie rods.

Valve terminals with CP interface can be equipped with 4 to max. 16 valve positions. Each valve position can either be equipped with a valve or a blanking plate.

The electrical connection is in the same direction as the tubing connection in order to save space.



- | | | | |
|--|---|--|---|
| [1] CPI connection | [5] Cover cap for manual override, manually operated without accessories (code Y) | [7] Cover cap coded, MO non-detenting (code K) | [10] Electrical valve linking module |
| [2] Left-hand end plate for compressed air supply 1 or 12/14 | [6] Cover cap for manual override, MO blocked (code V) | [8] Sub-base for working ports (push-in fitting or thread) | [11] Inscription label holder |
| [3] Right-hand end plate for ducted exhaust air or silencer (3/5 or 82/84) | | [9] Tie rod | [12] H-rail mounting |
| [4] Valve | | | [13] Blanking plate for vacant position |

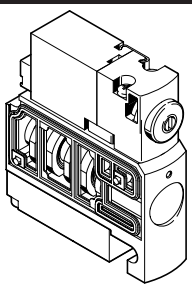
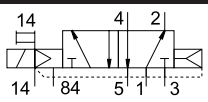
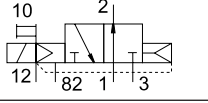
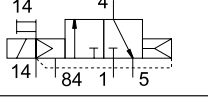
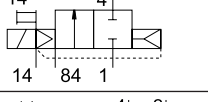
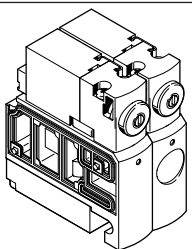
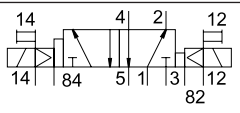
Key features – Pneumatic components


Valves

Valves CPVSC1 are valves with integrated sub-bases, i.e. in addition to the valve function they also include all ducts for supply, exhaust and for the working connections. The supply ducts

are the central component of the valve slices and enable direct through flow. This makes it possible to achieve maximum flow rates. All valves have a pneumatic pilot control for optimising

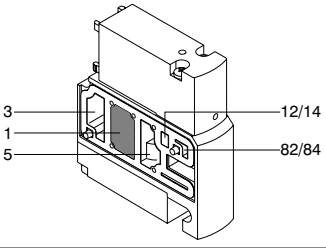
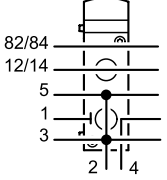
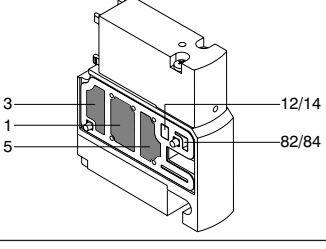
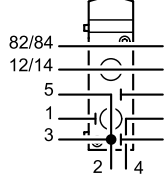
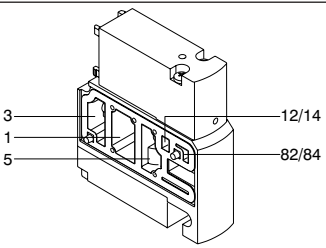
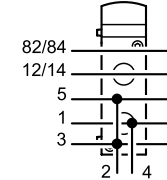
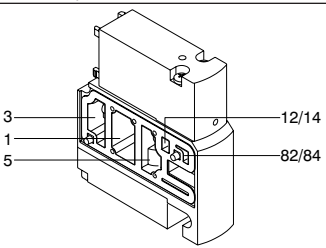
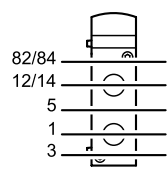
performance. The valve function is based on a piston spool system with patented sealing principle, ensuring a broad range of applications and long service life.

| Valve functions | Code | Circuit symbol | Valve size 10 mm | Description |
|---|------|--|---------------------|--|
|  | M |  | ■ | 5/2-way valve, single solenoid • Pneumatic spring return |
| | N |  | ■ | 3/2-way valve, single solenoid • Normally open • Pneumatic spring return |
| | K |  | ■ | 3/2-way valve, single solenoid • Normally closed • Pneumatic spring return |
| | D |  | ■ | 2/2-way valve, single solenoid • Normally closed • Pneumatic spring return |
|  | J |  | ■ | 5/2-way valve, double solenoid This valve consists of two valve housings and therefore occupies two valve positions. The pilot control with coil 12 is situated on the left and marked "12". If both coils are actuated, the signal on port "14" dominates in the switching position. |

 - **Note**

A filter must be installed upstream of valves operated in vacuum mode. This prevents any foreign matter in the intake air getting into the valve (e.g. when operating a suction cup with connector).

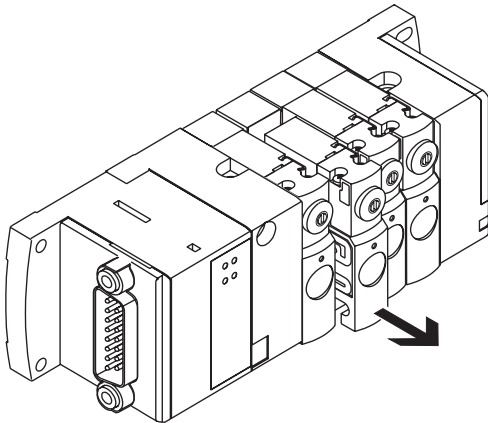
Key features – Pneumatic components

| Valves | Code | Circuit symbol | Valve size 10 mm | Description |
|---|------|---|---------------------|--|
| Pneumatic supply plate with duct separation | | | | |
|  | T |  | ■ | Compressed air duct (1) closed For separating pressure zones with common exhaust. (Instructions for using pressure zones → page 11) Pneumatic connection QS -4, M5 |
|  | S |  | ■ | Compressed air duct (1) and exhaust duct (3/5) closed For separating pressure zones with separate exhaust. (Instructions for using pressure zones → page 11) Pneumatic connection QS -4, M5 |
| Pneumatic supply plate without duct separation | | | | |
|  | U |  | ■ | Additional supply of compressed air (1) and additional exhaust (3/5). Pneumatic connection QS -4, M5 |
| Blanking plate | | | | |
|  | L |  | ■ | Plate without valve function for reserving a valve position No pneumatic connection |

When configuring the compressed air supply code S or T (exhaust via flat plate silencer), a push-in silencer UC-QS-4H is included for plates with supply port.

Key features – Pneumatic components

Design



Valve replacement

Valves can be replaced quickly and easily in just a few movements. Separating seals between the valves are based on a metal support and are secured in place.

Extension

Valves can be ordered as accessories and are available with fully assembled sub-bases with QS push-in fittings or threaded connections. The valve terminal can thus be extended with additional functions by replacing blanking plates. Valves have the valve code on the front and the product type on the back to facilitate ordering.

Materials

The valve housing and thread in the sub-bases are made of metal; further housing parts are made of sturdy plastic materials.

Note

The valve with working sub-base is a unit that has been tested for leakage by Festo.

Pilot air supply

The port for the main pneumatic supply is located on the left-hand end plate.

The ports differ for the following types of pilot air supply:

- Internal
- External

Internal pilot air supply

Internal pilot air supply can be selected if the terminal is working in an operating pressure range between 3 and 7¹⁾ bar.

The pilot air supply is then branched from the compressed air supply 1 in the left-hand end plate using an internal connection. Port 12/14 is sealed with a blanking plug.

External pilot air supply

External pilot air supply must be used if the valve terminal CPV-SC is working in an operating pressure range of –0.9 to 3 bar. In this case, the pilot air is additionally supplied via port 12/14 on the left-hand end plate.

1) 8 bar upon request

Creating pressure zones and separating exhaust air

The valve terminal CPV-SC can be operated with several pressure zones. For more than two pressure zones, a supply port with duct separation is required for each additional pressure zone. It always occupies one valve

position. An isolating disc T is used to separate the compressed air supply for groups of valves situated to the left and right of the compressed air supply. The pressure zone on the right is supplied at port 4 of the supply plate. Port

2 allows additional exhausting of the left-hand pressure zone. All exhaust ducts for the valves are connected to one another and exhausted via the right-hand end plate. An isolating disc S is used to separate the two exhaust

ducts 3 and 5 in addition to the pressure duct 1.

Note

Larger cylinders or those operated simultaneously generate a backpressure in the exhaust duct of the valve terminal; the level of this pressure depends on the exhaust capacity of the silencer. In order to prevent interaction with adjacent valves, valves

can be separated by means of duct separation using isolating disc S. The pressure zone situated to the left of an isolating disc S is exhausted via the supplied push-in silencer. If there are more than two valves in such a pressure zone, a further supply port

with additional exhaust may be necessary. It is therefore advantageous to have higher exhaust requirements in the pressure zone that is exhausted through the right-hand end plate.

Key features – Pneumatic components

| Creating pressure zones | | Code | Description |
|-------------------------|--|------|---------------------------|
| | | S | Ducts 1 and 3/5 separated |
| | | T | Duct 1 separate |

| Pneumatic working ports | | Code | Description |
|---|---|---|-------------|
| Working port | | | |
| | B | M5 threaded connection | |
| | E | QS-3 push-in connector | |
| | F | QS-4 push-in connector | |
| | | | |
| Supply port, left-hand end plate | | | |
| | C | Threaded connection <ul style="list-style-type: none"> • M7 (internal pilot air supply) • M5 and M7 (external pilot air supply) | |
| | G | Push-in connector <ul style="list-style-type: none"> • QS-6 (internal pilot air supply) • QS-4 and QS-6 (external pilot air supply) | |

Key features – Pneumatic components

Ports for supply and exhaust

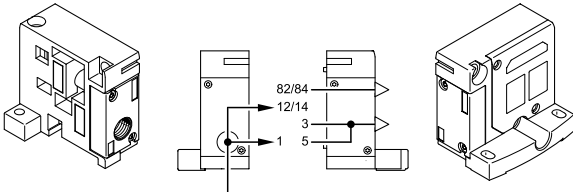
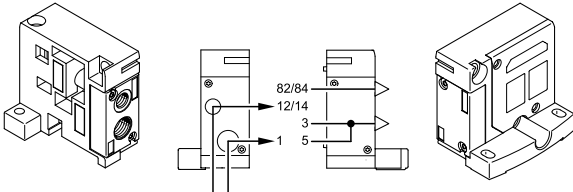
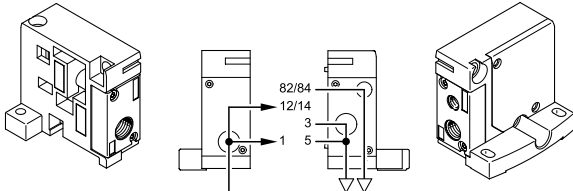
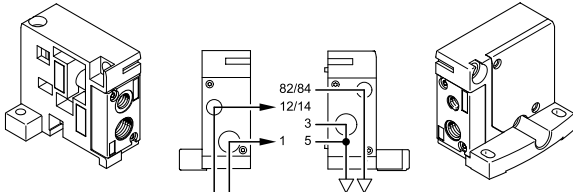
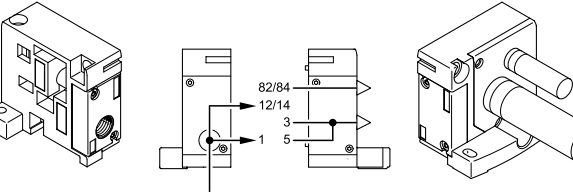
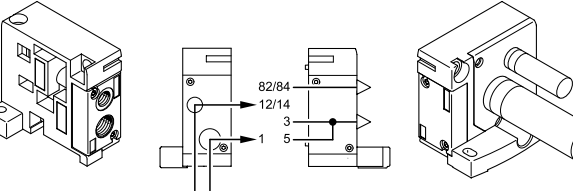
Supply and exhaust

A basic feature of a CPV-SC valve terminal are the two end plates. The left-hand end plate is for compressed air supply and the right-hand one is for exhausting the valve terminal. The exhaust air escapes optionally through an integrated flat plate silencer, a round silencer or through a push-in or threaded connection.

Connections for exhaust

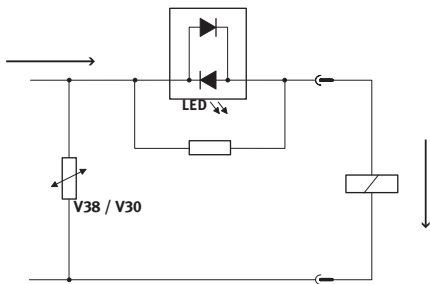
| Code | Description |
|------|---|
| S | <ul style="list-style-type: none"> Internal pilot air supply Exhaust from duct 3/5 an 82/84 via a flat plate silencer Replacement part (insert) for flat plate silencer type CPVSC1-UA |
| T | <ul style="list-style-type: none"> External pilot air supply Exhaust from duct 3/5 an 82/84 via a flat plate silencer Replacement part (insert) for flat plate silencer type CPVSC1-UA |
| V | <ul style="list-style-type: none"> Internal pilot air supply Exhaust from duct 3/5 and 82/84 via ducted exhaust air |
| X | <ul style="list-style-type: none"> External pilot air supply Exhaust from duct 3/5 and 82/84 via ducted exhaust air |
| Y | <ul style="list-style-type: none"> Internal pilot air supply Exhaust from duct 3/5 and 82/84 via round silencer |
| Z | <ul style="list-style-type: none"> External pilot air supply Exhaust from duct 3/5 and 82/84 via round silencer |

Key features – Pneumatic components

| Pneumatic supply End plate combination | Code | Description |
|---|------|---|
|  | S | Internal pilot air supply Flat plate silencer For operating pressure in the range 3 ... 7 bar |
|  | T | External pilot air supply Flat plate silencer For operating pressure in the range -0.9 ... +7 bar |
|  | V | Internal pilot air supply Ducted exhaust air For operating pressure in the range 3 ... 7 bar |
|  | X | External pilot air supply Ducted exhaust air For operating pressure in the range -0.9 ... +7 bar |
|  | Y | Internal pilot air supply Round silencer For operating pressure in the range 3 ... 7 bar |
|  | Z | External pilot air supply Round silencer For operating pressure in the range -0.9 ... +7 bar |

Key features – Electrical components

Protective circuit



Each solenoid coil is protected with a spark-arresting protective circuit as well as against polarity reversal.

Electrical multi-pin plug connection

There are two multi-pin connection types to choose from for valve terminal CPV-SC:

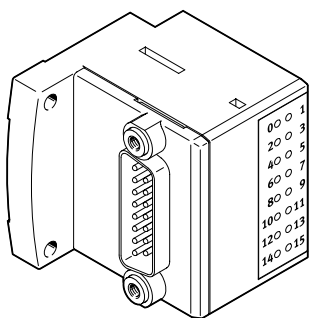
- Sub-D multi-pin plug connection (15- and 26-pin) or
- Multi-pin plug connection with contact strip for ribbon cable (20-pin)

The CPV-SC is connected via a multi-pin connection with Sub-D or ribbon cable. Each pin of the multi-pin plug is allocated to max. one valve position and thus to one coil or address.

Double-solenoid valves "J" occupy two valve positions. The left-hand valve position with pilot control 12 is controlled by the lower of the two address values.

Electrical multi-pin plug connection – Sub-D

Code MS, MH

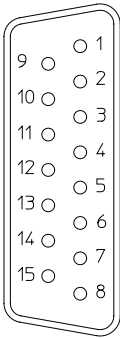



With this electrical connection variant, all valves are controlled centrally via the 15- and 26-pin connector plug. The electrical connection is located on the left-hand side.

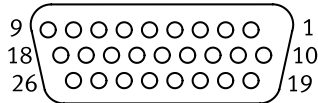

Ordering data – Sub-D connecting cable

| | Code | Description | Length [m] | Part no. | Type |
|--|------|-------------------------------|------------|----------|-----------------|
| | CP | 15-pin for 12 coils (code MS) | 2.5 | 527543 | KMP6-15P-12-2.5 |
| | CQ | Material: PVC | 5 | 527544 | KMP6-15P-12-5 |
| | CR | | 10 | 527545 | KMP6-15P-12-10 |
| | CP | 26-pin for 16 coils (code MH) | 2.5 | 527546 | KMP6-26P-16-2.5 |
| | CQ | Material: PVC | 5 | 527547 | KMP6-26P-16-5 |
| | CR | | 10 | 527548 | KMP6-26P-16-10 |

Key features – Electrical components

| Pin allocation for 15-pin Sub-D (code MS) KMP6-15P-12-... | | Description | Pin | Wire colour | Address/coil |
|---|---|--|-----|--------------|-------------------|
|  | Plug socket with cable for the valve terminal CPV-SC with max. 12 valve positions |  Note The drawing shows a view of the Sub-D socket on the multi-pin cable KMP6-15P-12-... | 1 | White | Coil 0 |
| | | | 2 | Brown | Coil 1 |
| | | | 3 | Green | Coil 2 |
| | | | 4 | Yellow | Coil 3 |
| | | | 5 | Grey | Coil 4 |
| | | | 6 | Pink | Coil 5 |
| | | | 7 | Blue | Coil 6 |
| | | | 8 | Red | Coil 7 |
| | | | 9 | Black | Coil 8 |
| | | | 10 | Violet | Coil 9 |
| | | | 11 | Grey-pink | Coil 10 |
| | | | 12 | Red-blue | Coil 11 |
| | | | 13 | White-green | n.c. |
| | | | 14 | Brown-green | 0 V ¹⁾ |
| | | | 15 | White-yellow | 0 V ¹⁾ |

- 1) Pin 14 to pin 15 are bridged in the valve terminal
 0 V for positive switching control signals; 24 V can be connected for negative switching control signals

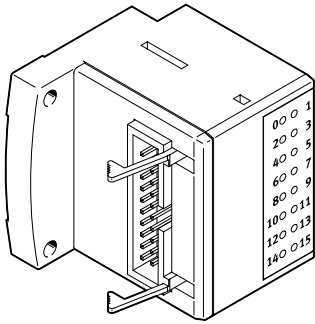
| Pin allocation for 26-pin Sub-D (code MH) KMP6-26P-16-... | | Description | Pin | Wire colour | Allocation |
|--|--|--|-----|--------------|-------------------|
|  | Plug socket with cable for the valve terminal CPV-SC with 16 valve positions |  Note The drawing shows a view of the Sub-D socket on the multi-pin cable KMP6-26P-12-... | 1 | White | Coil 0 |
| | | | 2 | Brown | Coil 1 |
| | | | 3 | Green | Coil 2 |
| | | | 4 | Yellow | Coil 3 |
| | | | 5 | Grey | Coil 4 |
| | | | 6 | Pink | Coil 5 |
| | | | 7 | Blue | Coil 6 |
| | | | 8 | Red | Coil 7 |
| | | | 9 | Black | Coil 8 |
| | | | 10 | Violet | Coil 9 |
| | | | 11 | Grey-pink | Coil 10 |
| | | | 12 | Red-blue | Coil 11 |
| | | | 13 | White-green | Coil 12 |
| | | | 14 | Brown-green | Coil 13 |
| | | | 15 | White-yellow | Coil 14 |
| | | | 16 | Yellow-brown | Coil 15 |
| | | | 17 | – | n.c. |
| | | | 18 | – | n.c. |
| | | | 19 | – | n.c. |
| | | | 20 | – | n.c. |
| | | | 21 | – | n.c. |
| | | | 22 | – | n.c. |
| | | | 23 | White-grey | 0 V ¹⁾ |
| | | | 24 | Grey-brown | 0 V ¹⁾ |
| | | | 25 | White-pink | 0 V ¹⁾ |
| | | | 26 | Pink-brown | 0 V ¹⁾ |

- 1) Pin 17 to pin 22 are bridged in the valve terminal
 0 V for positive switching control signals; 24 V can be connected for negative switching control signals

Key features – Electrical components

Electrical multi-pin plug connection – Connector for ribbon cable

Code MF



With this electrical connection variant, all valves are controlled centrally via the 20-pin connector plug. The electrical connection is located on the left-hand side.

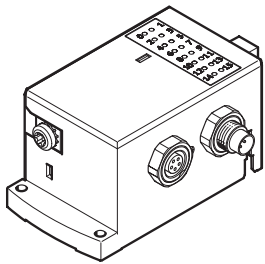
Pin allocation – Connector for ribbon cable (code MF)

| | | Pin | Allocation |
|--|---|-------------------|-------------------|
| | Valve terminal CPV-SC with up to 16 valve positions and 20-pin multi-pin socket for ribbon cables to DIN 41561-1, -2 or IEC 60603-13-C020FD-7C1E-2G | 1 | Coil 0 |
| | Contact surface gold Ribbon cable with grid of 1.27 mm Conductor cross section 0.13 mm ² | 2 | Coil 1 |
| | | 3 | Coil 2 |
| | | 4 | Coil 3 |
| | | 5 | Coil 4 |
| | | 6 | Coil 5 |
| | | 7 | Coil 6 |
| | | 8 | Coil 7 |
| | | 9 | Coil 8 |
| | | 10 | Coil 9 |
| | | 11 | Coil 10 |
| | | 12 | Coil 11 |
| | | 13 | Coil 12 |
| | | 14 | Coil 13 |
| | | 15 | Coil 14 |
| | | 16 | Coil 15 |
| | | 17 | 0 V ¹⁾ |
| | 18 | 0 V ¹⁾ | |
| | 19 | 0 V ¹⁾ | |
| | 20 | 0 V ¹⁾ | |

1) Pin 17 to pin 20 are bridged in the valve terminal.

Key features – Electrical components

CP connection

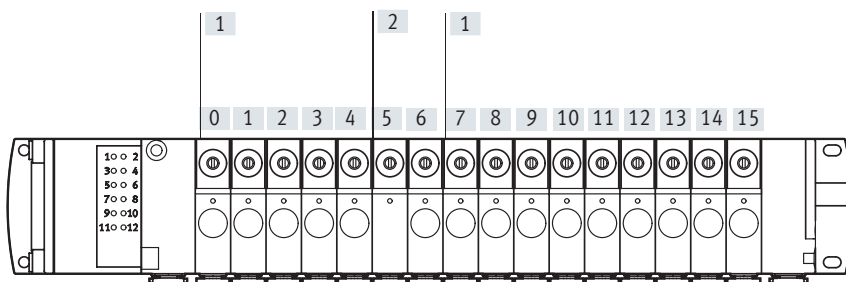


All CP valve terminals and CP modules are connected using a ready-to-install CP cable, and are attached to the CP interface. Four modules in each case, for example one valve terminal CPV-SC and one to three CP input modules, make up an installation string that ends at the CP interface.

The installation system supports a maximum of 4 installation strings that can be connected to a bus node. The CP interface of CPV-SC is represented in the CP/CPI system as a module having 16 outputs.

Additional information
→ Internet: ctec

Address allocation – Solenoid coils



Example:

Valve terminal in which valve positions 5 and 6 are prepared for a double-solenoid valve.

[1] Single solenoid valves occupy one valve position

[2] Double-solenoid valves occupy two valve positions

Addresses are allocated to valve positions on the CPV-SC from left to right. Each valve position occupies one address, regardless of whether a valve is mounted or not.

Double-solenoid valves "J" occupy two valve positions. The left-hand valve position with pilot control 12 is controlled by the lower of the two address values.

Key features – Display and operation

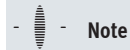
Display and operation

Each solenoid coil is assigned an LED on the command unit for switching status indication. Inscription labels (type MH-BZ-80x) can be applied to each valve for labelling purposes.

The manual override (MO) enables the valve to be switched when not electrically actuated or energised. The valve is switched by pushing the manual override. The set switching status can also be locked by turning the manual override.

The cover cap (detenting without accessories, code Y) can be used to operate the manual override without any tools.

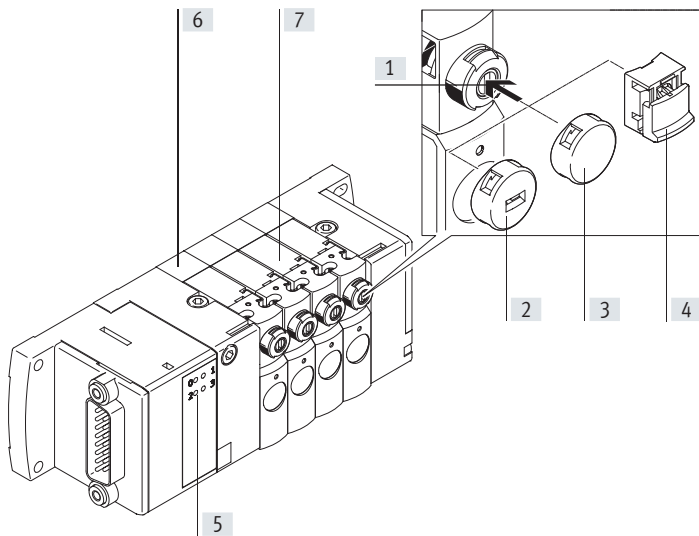
A cover can be fitted over the manual override to prevent it from being accidentally activated (code V).



Note

A manually operated valve (manual override) cannot be reset electrically. Conversely, an electrically actuated valve cannot be reset using the mechanical manual override.

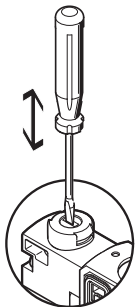
Manual override (MO)



- [1] Manual override, MO non-detenting or detenting by turning (code N – without cover cap)
- [2] Cover cap coded, MO non-detenting (code K – with coded cover cap)
- [3] Cover cap for manual override, MO blocked (code V)

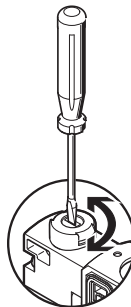
- [4] Cover cap, MO manually operated without accessories (code Y – with cover cap)
- [5] LED signal status indication for each valve position
- [6] Numbering of valve positions
- [7] Location for valve position inscription label (type MH-BZ-80x)

MO with automatic return (non-detenting), code N – without cover cap



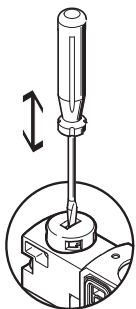
Manual override is actuated by pushing it with a pointed object or screwdriver and reset by spring force.

MO with lock (detenting), code N – without cover cap



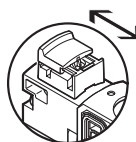
Manual override remains active until it is reset with a screwdriver.

MO with automatic return (non-detenting), code K – with coded cover cap



MO is actuated by pushing it with a pointed object or screwdriver and reset by spring force (detenting position prevented by coded cover cap).

MO with lock (detenting without accessories), code Y – with cover cap

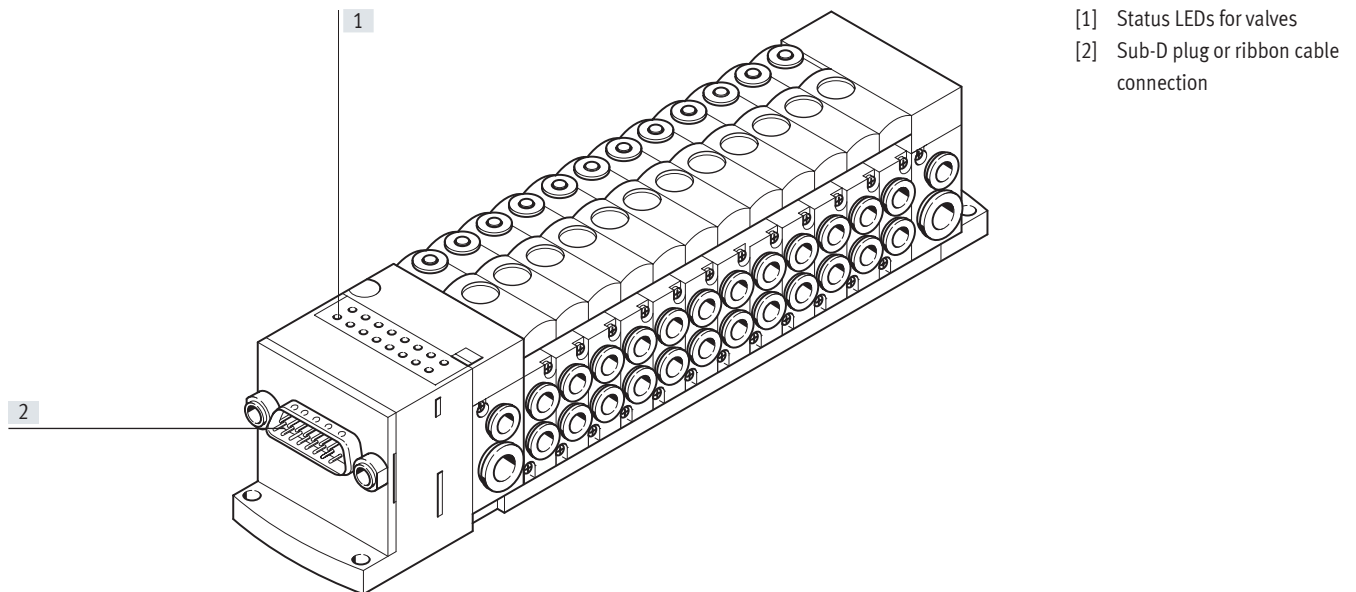


Manual override remains active until it is reset manually (without any aids).

Key features – Display and operation

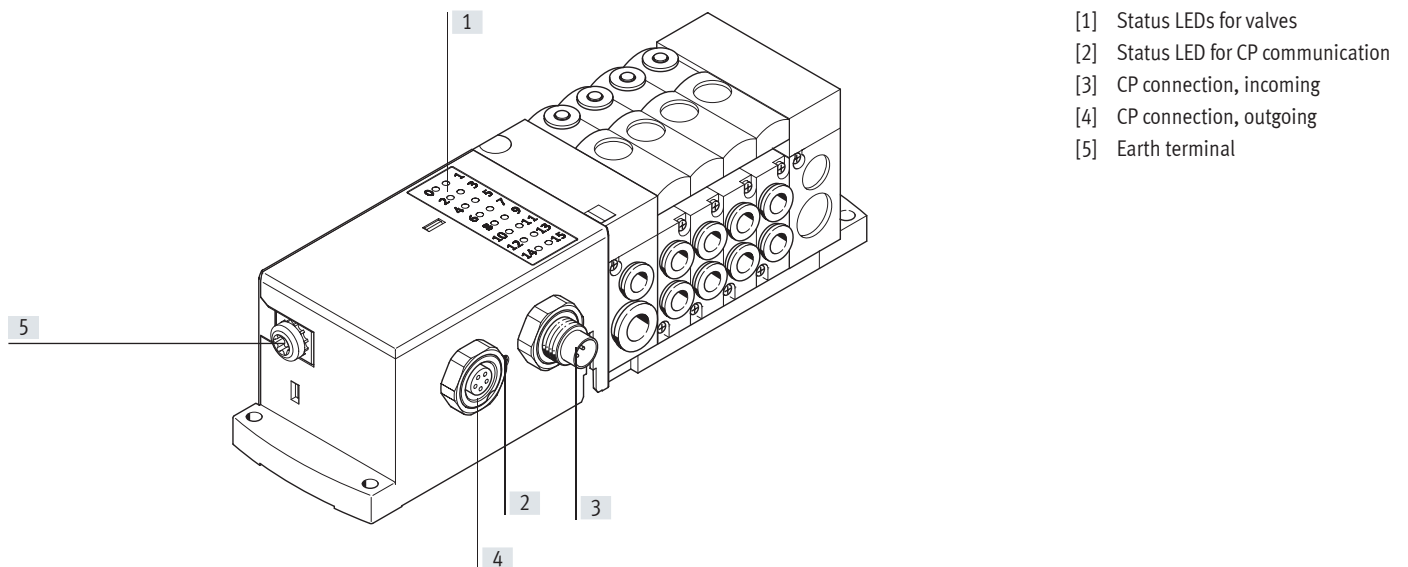
Display and operation

Multi-pin



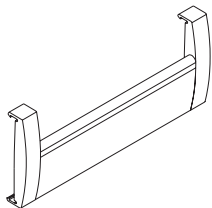
- [1] Status LEDs for valves
- [2] Sub-D plug or ribbon cable connection

CP interface



- [1] Status LEDs for valves
- [2] Status LED for CP communication
- [3] CP connection, incoming
- [4] CP connection, outgoing
- [5] Earth terminal

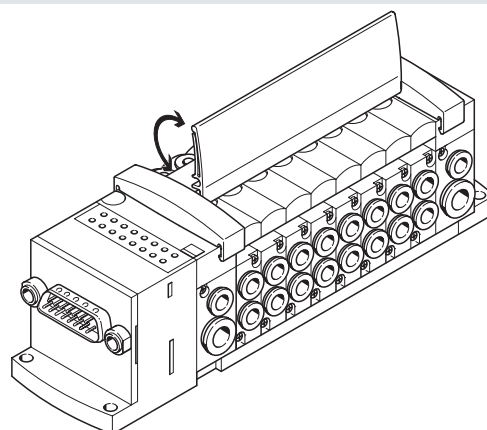
Inscription label holder



The transparent inscription label holder provides sufficient space for individually created labels on paper or film.

Labelling templates are available on the Festo website:

→ www.festo.com
in the "Downloads" area under "Software".



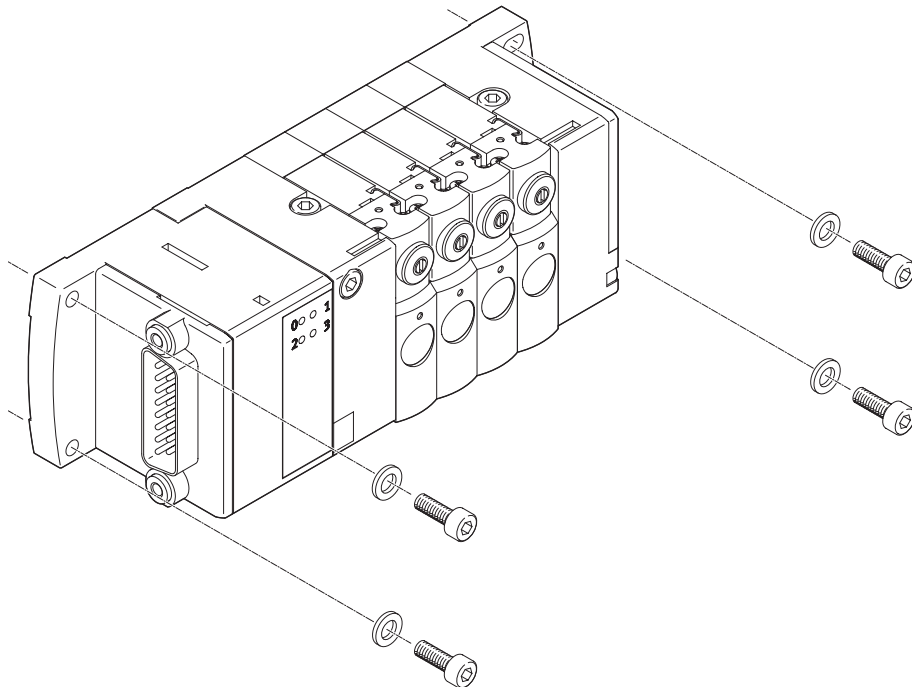
Key features – Types of mounting

Mounting – Valve terminal

Sturdy terminal mounting via:

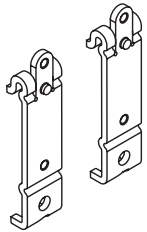
- Four through-holes for wall mounting
- H-rail mounting

Wall mounting

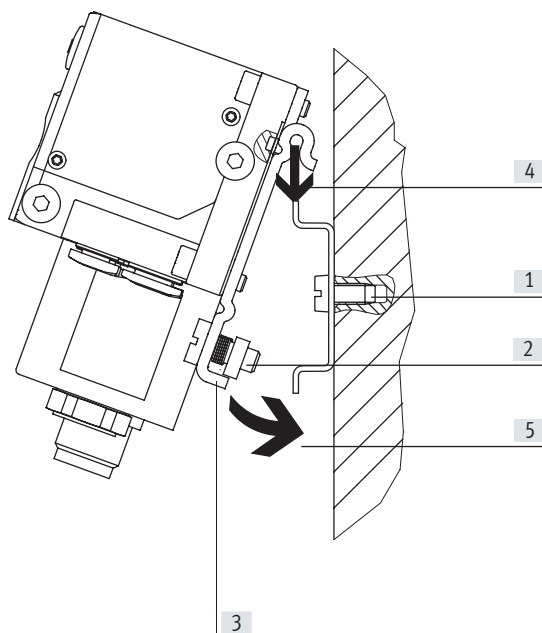


Mounting holes for screws M3

H-rail mounting



The mounting CPVSC1-HS35 facilitates mounting on an H-rail to EN 60715.



The valve terminal CPV-SC is attached to the H-rail → arrow [4].

It is then swivelled onto the H-rail and secured in place with the clamping component → arrow [5].

- [1] Holes for wall mounting
- [2] Self-tapping M4x10 screw for H-rail clamping unit
- [3] Clamping element of the H-rail clamping unit

Data sheet

Operating fluids

Operate your system with unlubricated compressed air if possible. Festo valves and cylinders are designed so that, if used as intended, they will not require additional lubrication and will still achieve a long service life.

The quality of compressed air downstream of the compressor must correspond to that of unlubricated compressed air. If possible, do not operate the entire system with lubricated compressed air. The lubricators should, where possible, always be installed directly upstream of the cylinders used.

Incorrect additional oil and too high an oil content in the compressed air reduce the service life of the valve terminal.

Use Festo special oil OFSW-32 or the alternatives listed in the Festo catalogue (as specified in DIN 51524 HLP32; basic oil viscosity 32 CST at 40°C).

Bio-oils




When using bio-oils (oils which are based on synthetic or native esters, e.g. rapeseed oil methyl ester), the maximum residual oil content of 0.1 mg/m³ must not be exceeded (see ISO 8573-1 Class 2).

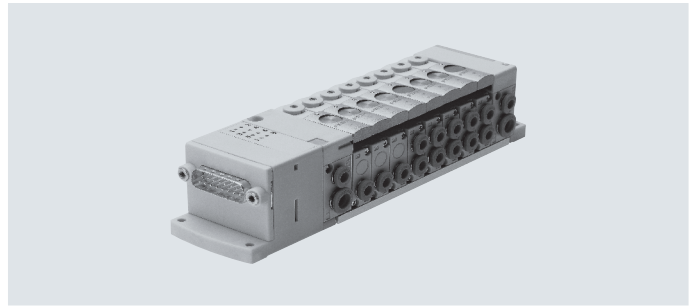
Mineral oils

When using mineral oils (e.g. HLP oils to DIN 51524, parts 1 to 3) or similar oils based on poly-alpha-olefins (PAO), the maximum residual oil content of 5 mg/m³ must not be exceeded (see ISO 8573-1 Class 4).

A higher residual oil content is not permitted, regardless of the compressor oil, because the permanent lubrication would otherwise be flushed out over a period of time.

Data sheet

-  - Flow rate
170 l/min
-  - Valve width
10 mm
-  - Voltage
5, 12, 24 V DC

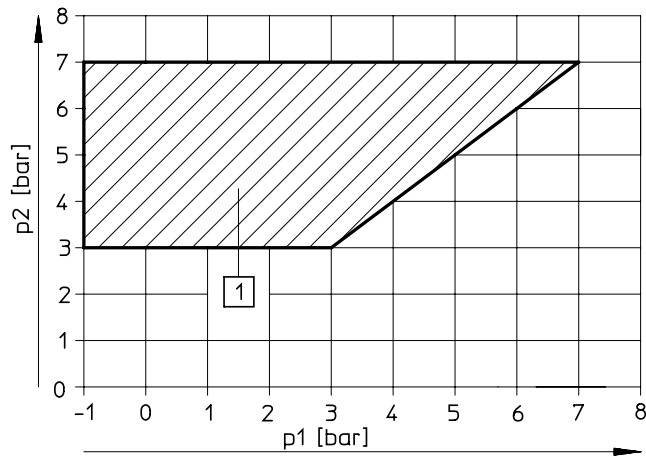


General technical data

| Valve | 5/2-way valve | | 3/2-way valve | | 2/2-way valve |
|------------------------------------|---|---|----------------------|------------------------|------------------------|
| | Single solenoid | Double solenoid | Normal position Open | Normal position Closed | Normal position Closed |
| Valve function order code | M | J | N | K | D |
| Design | Electromagnetically actuated piston spool valve | | | | |
| Reset method | Pneumatic spring | - | Pneumatic spring | Pneumatic spring | Pneumatic spring |
| Valve size [mm] | 10 | | 10 | | 10 |
| Nominal width [mm] | 2.5 | | 2.5 | | 2.5 |
| Standard nominal flow rate [l/min] | 170 | | 170 | | 150 |
| Sealing principle | Soft | | | | |
| Overlap | Positive overlap | | | | |
| Type of control | Piloted | | | | |
| Lubrication | Lifetime lubrication | | | | |
| Type of mounting | Wall mounting | | | | |
| Mounting position | Any | | | | |
| Manual override | Non-detenting/detenting/covered | | | | |
| Exhaust air function | Cannot be throttled | | | | |
| Flow direction | Non-reversible | | | | |
| Pneumatic connections | | | | | |
| Supply | 1 | M7, QS-6 | | | |
| Exhaust port | 3/5 | M7, QS-6, round silencer or integrated flat plate silencer | | | |
| Working ports | 2/4 | Dependent on the connection type selected • M5 • QS-3 • QS-4 | | | |
| Pilot air connection | 12/14 | M5, QS-4 | | | |
| Pilot exhaust air port | 82/84 | M5, QS-4, round silencer or integrated flat plate silencer | | | |

Data sheet

Pilot pressure p2 as a function of working pressure p1



[1] Operating range for valves with external pilot air supply

Valve switching times [ms]

| Valve function order code | | M | J | N | K | D |
|---------------------------|------------|----|---|----|----|----|
| Switching times | On | 10 | - | 10 | 10 | 10 |
| | Off | 10 | - | 10 | 10 | 10 |
| | Changeover | - | 8 | - | - | - |

Operating and environmental conditions

| | | |
|--|-------|--|
| Operating medium | | Compressed air to ISO 8573-1:2010 [7:4:4] → page 21 |
| Note on the operating/pilot medium | | Lubricated operation possible (in which case lubricated operation will always be required) |
| PWIS criterion | | Free |
| Certification | | c UL us - Recognized (OL) |
| Operating pressure | [MPa] | -0.09 ... +0.7 |
| | [bar] | -0.9 ... +7 |
| Operating pressure for valve terminal with internal pilot air supply | [MPa] | 0.3 ... 0.7 |
| | [bar] | 3 ... 7 |
| Pilot pressure | [MPa] | 0.3 ... 0.7 |
| | [bar] | 3 ... 7 |
| Ambient temperature | [°C] | -5 ... +50 |
| Temperature of medium | [°C] | -5 ... +50 |
| CE marking (see declaration of conformity) | | To EU EMC Directive ¹⁾ |
| KC mark | | KC EMC |
| Note on materials | | RoHS-compliant |

1) For information about the area of use, see the EC declaration of conformity at: www.festo.com/catalogue/cpv → Support/Downloads.

If the devices are subject to usage restrictions in residential, commercial or light-industrial environments, further measures for the reduction of the emitted interference may be necessary.

Data sheet

| Electrical data | |
|--|----------------------------------|
| Electrical control | Individual connection |
| | Multi-pin |
| | CP fieldbus |
| Electromagnetic compatibility of the valve terminal CPV-SC with Sub-D or ribbon cable connection | |
| Interference emission tested to DIN EN 61000-6-4, industry | |
| Interference immunity ¹⁾ tested to DIN EN 61000-6-2, industry | |
| Protection against electric shock (protection against direct and indirect contact as per EN 60204-1/IEC 204) | |
| Via PELV power supply | |
| Nominal operating voltage | Multi-pin plug connection [V DC] |
| | Individual connection [V DC] |
| 24 | |
| Permissible voltage fluctuations | [V DC] |
| | [%] |
| ±10 | |
| Characteristic coil data | Nominal voltage [V DC] |
| | Electrical power consumption [W] |
| | |
| 5, 12, 22, 24 | |
| 1 | |
| Duty cycle ED | |
| 100% at 40°C ambient temperature | |
| Degree of protection to EN 60529 | |
| IP40 (in assembled state and with detenting plug) | |
| Relative humidity [%] | |
| 90% at 40°C, non-condensing | |

1) The maximum signal cable length is 10 m

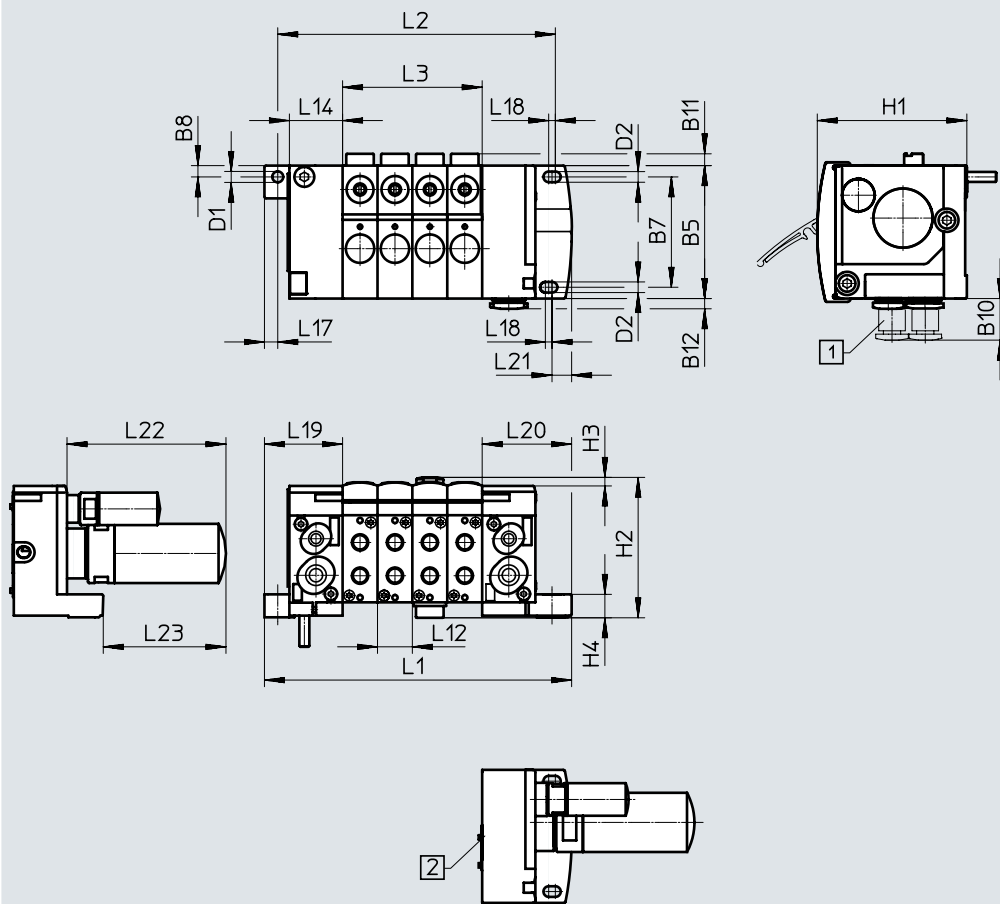
| Materials | |
|--------------------------------|--------------------|
| Electrical interface | Polymer |
| End plate, electrical sub-base | Polymer |
| Seals | NBR |
| Valve sub-base | Die-cast aluminium |
| Sub-base for working ports | PA |

| Product weight [g] | |
|--|------|
| Single solenoid valves (code M, N, K, D) | 30.5 |
| Double solenoid valves (code J) | 56.5 |
| Vacant position | 22.5 |
| Right-hand end plate | 42.5 |
| Left-hand end plate | 28 |
| Actuator housing | 43 |
| Tie rod, 16-fold | 29.6 |
| Electrical manifold module, 16-fold | 64 |
| Electrical interface CPI | 150 |

Data sheet

Dimensions – With individual connection

Download CAD data → www.festo.com



[1] QS fitting

[2] End plate with silencer

| Type | B5 | B7 | B8 | B10 | B11 | B12 | D1 ∅ | D2 ∅ |
|----------------------------|----|------|-----|------|-----|-----|---------|---------|
| With individual connection | 40 | 33.2 | 3.4 | 10.5 | 3.6 | 3.1 | 3.3 | 3.2 |

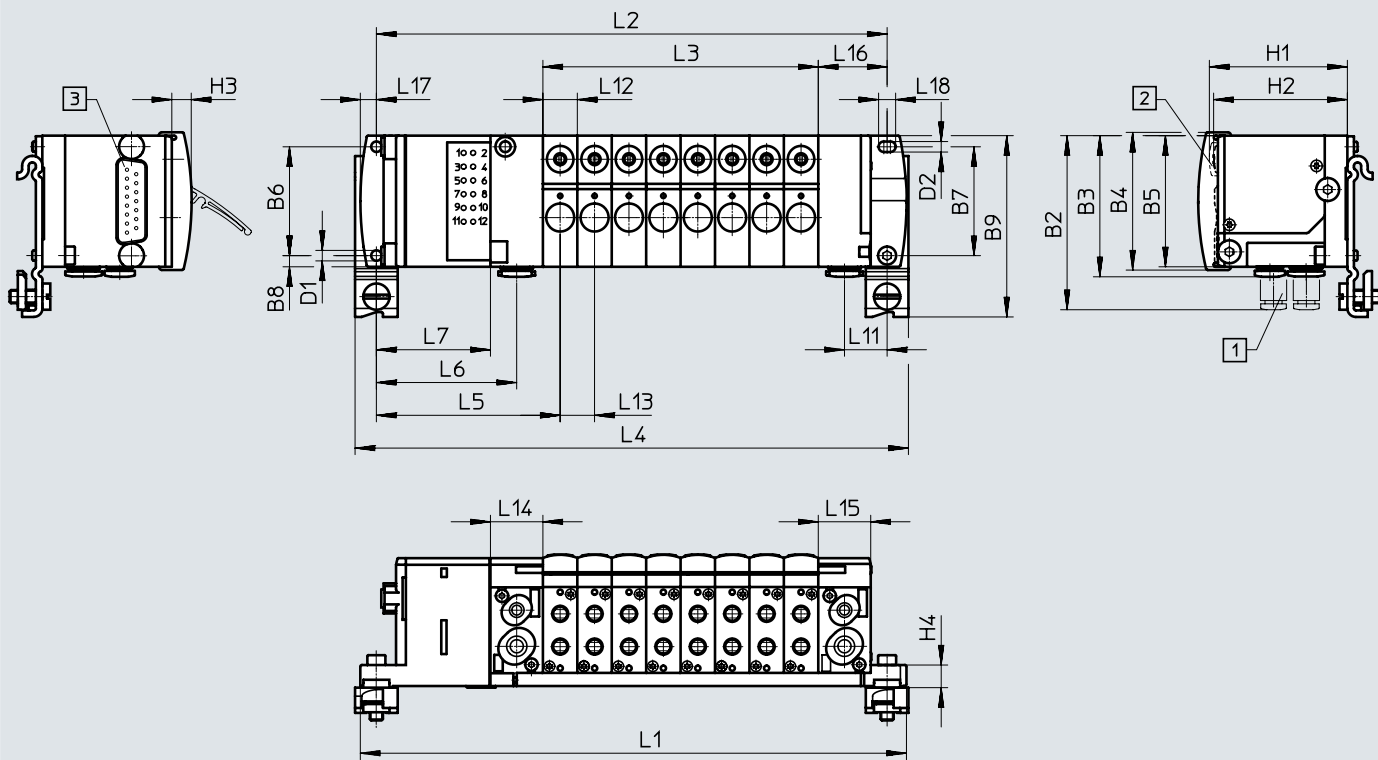
| Type | H1 | H2 | H3 | H4 | L12 | L14 | L17 | L18 | L19 | L20 | L21 | L22 | L23 |
|----------------------------|----|------|-----|-----|------|-----|-----|-----|------|------|-----|-----|-----|
| With individual connection | 45 | 42.2 | 2.6 | 6.9 | 10.5 | 16 | 4 | 2 | 23.5 | 26.9 | 4.9 | 48 | 37 |

| Valve positions n | L1 | L2 | L3 |
|-------------------|-------|-------|-------|
| 2 | 71.4 | 62.5 | 21 |
| 3 | 81.9 | 73 | 31.5 |
| 4 | 92.4 | 83.5 | 42 |
| 5 | 102.9 | 94 | 52.5 |
| 6 | 113.4 | 104.5 | 63 |
| 7 | 123.9 | 115 | 73.5 |
| 8 | 134 | 125.1 | 84 |
| 9 | 144.9 | 136 | 94.5 |
| 10 | 155.4 | 146.5 | 105 |
| 11 | 165.9 | 157 | 115.5 |
| 12 | 176.4 | 167.5 | 126 |
| 13 | 186.9 | 178 | 136.5 |
| 14 | 197.4 | 188.5 | 147 |
| 15 | 207.9 | 199 | 157.5 |
| 16 | 218.4 | 209.5 | 168 |

Data sheet

Dimensions – With multi-pin plug connection

Download CAD data → www.festo.com



[1] QS fitting

[2] Cover cap

[3] Multi-pin connection with 20-pin ribbon cable or 15/26-pin Sub-D multi-pin connection

| Type | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | D1 ∅ | D2 ∅ |
|--------------------------------|------|------|----|----|------|------|-----|------|---------|---------|
| With multi-pin plug connection | 53.5 | 43.5 | 42 | 40 | 33.2 | 33.2 | 3.4 | 55.3 | 3.2 | 3.2 |

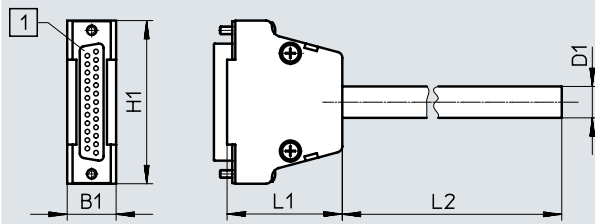
| Type | H1 | H2 | H3 | H4 | L5 | L6 | L7 | L11 | L12 | L13 | L14 | L15 | L16 | L17 | L18 |
|--------------------------------|------|------|----|-----|------|------|------|-----|------|------|-----|-----|-----|-----|-----|
| With multi-pin plug connection | 43.4 | 42.1 | 6 | 6.9 | 56.1 | 42.8 | 34.8 | 13 | 10.5 | 10.5 | 16 | 16 | 21 | 4.9 | 5.2 |

| Valve positions n | L1 | L2 | L3 |
|-------------------|-------|-------|-------|
| 4 | 125 | 114 | 42 |
| 5 | 135.5 | 124.5 | 52.5 |
| 6 | 146 | 135 | 63 |
| 7 | 146.5 | 145.5 | 73.5 |
| 8 | 167 | 156 | 84 |
| 9 | 177.5 | 166.5 | 94.5 |
| 10 | 188 | 177 | 105 |
| 11 | 198.5 | 187.5 | 115.5 |
| 12 | 209 | 198 | 126 |
| 13 | 219.5 | 208.5 | 136.5 |
| 14 | 230 | 219 | 147 |
| 15 | 240.5 | 229.5 | 157.5 |
| 16 | 251 | 240 | 168 |

Data sheet

Dimensions – Sub-D plug with cable

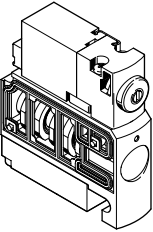
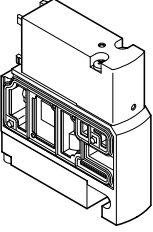
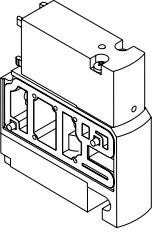
Download CAD data → www.festo.com



[1] 15/26-pin plug

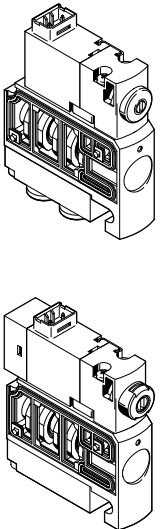
| Type | B1 | D1 | H1 | L1 | L2 | | | Number of pins |
|-----------------|----|-----|----|------|------|------|-------|----------------|
| KMP6-15P-12-... | 16 | 8.5 | 40 | 34.5 | 2500 | 5000 | 10000 | 15 |
| KMP6-26P-16-... | 16 | 8.6 | 40 | 34.5 | 2500 | 5000 | 10000 | 26 |

Accessories

| Ordering data – Valves with electrical plug-in connection | | Part no. | Type |
|--|--|--------------------|--------------------|
|  | Solenoid valve with M5 connections | | |
| | 5/2-way valve, single solenoid | 527550 | CPVSC1-M1H-M-P-M5 |
| | 5/2-way valve, double solenoid | 527553 | CPVSC1-M1H-J-P-M5 |
| | 3/2-way valve, normally open | 527551 | CPVSC1-M1H-N-P-M50 |
| | 3/2-way valve, normally closed | 527552 | CPVSC1-M1H-K-P-M5C |
| | 2/2-way valve, normally closed | 527554 | CPVSC1-M1H-D-P-M5C |
| | Solenoid valve with QS-3 push-in connectors | | |
| | 5/2-way valve, single solenoid | 527555 | CPVSC1-M1H-M-P-Q3 |
| | 5/2-way valve, double solenoid | 527558 | CPVSC1-M1H-J-P-Q3 |
| | 3/2-way valve, normally open | 527556 | CPVSC1-M1H-N-P-Q30 |
| | 3/2-way valve, normally closed | 527557 | CPVSC1-M1H-K-P-Q3C |
| | 2/2-way valve, normally closed | 527559 | CPVSC1-M1H-D-P-Q3C |
| | Solenoid valve with QS-4 push-in connectors | | |
| | 5/2-way valve, single solenoid | 527560 | CPVSC1-M1H-M-P-Q4 |
| | 5/2-way valve, double solenoid | 527563 | CPVSC1-M1H-J-P-Q4 |
| 3/2-way valve, normally open | 527561 | CPVSC1-M1H-N-P-Q40 | |
| 3/2-way valve, normally closed | 527562 | CPVSC1-M1H-K-P-Q4C | |
| 2/2-way valve, normally closed | 527564 | CPVSC1-M1H-D-P-Q4C | |
|  | Plates with integrated connections | | |
| | Vacant position, with cover plate | 527527 | CPVSC1-RP-B |
|  | Supply plate M5 | | |
| | Duct 1 separate | 527528 | CPVSC1-SP-P-M5 |
| | Duct 1/3/5 separate | 527530 | CPVSC1-SP-PRS-M5 |
| | Without duct separation | 527532 | CPVSC1-SP-M5 |
| | Supply plate, QS-4 push-in connector | | |
| | Duct 1 separate | 527529 | CPVSC1-SP-P-Q4 |
| | Duct 1/3/5 separate | 527531 | CPVSC1-SP-PRS-Q4 |
| | Without duct separation | 527533 | CPVSC1-SP-Q4 |

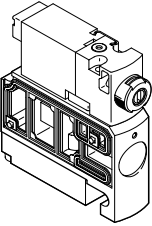
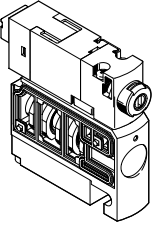
Accessories

Ordering data – Valves with individual electrical connection, detenting manual override, plug at top, 24 V DC

| | Part no. | Type | |
|---|--|---------------------|---------------------|
|  | Solenoid valve with M5 connections | | |
| | 5/2-way valve, single solenoid | 547276 | CPVSC1-M1H-M-T-M5 |
| | 5/2-way valve, double solenoid | 547277 | CPVSC1-M1H-J-T-M5 |
| | 3/2-way valve, normally open | 547275 | CPVSC1-M1H-N-T-M50 |
| | 3/2-way valve, normally closed | 547274 | CPVSC1-M1H-K-T-M5C |
| | 2/2-way valve, normally closed | 547273 | CPVSC1-M1H-D-T-M5C |
| | Solenoid valve with M5 connections and LED | | |
| | 5/2-way valve, single solenoid | 547306 | CPVSC1-M1LH-M-T-M5 |
| | 5/2-way valve, double solenoid | 547307 | CPVSC1-M1LH-J-T-M5 |
| | 3/2-way valve, normally open | 547305 | CPVSC1-M1LH-N-T-M50 |
| | 3/2-way valve, normally closed | 547304 | CPVSC1-M1LH-K-T-M5C |
| | 2/2-way valve, normally closed | 547303 | CPVSC1-M1LH-D-T-M5C |
| | Solenoid valve with QS-3 push-in connectors | | |
| | 5/2-way valve, single solenoid | 547281 | CPVSC1-M1H-M-T-Q3 |
| | 5/2-way valve, double solenoid | 547282 | CPVSC1-M1H-J-T-Q3 |
| | 3/2-way valve, normally open | 547280 | CPVSC1-M1H-N-T-Q30 |
| | 3/2-way valve, normally closed | 547279 | CPVSC1-M1H-K-T-Q3C |
| | 2/2-way valve, normally closed | 547278 | CPVSC1-M1H-D-T-Q3C |
| | Solenoid valve with QS-3 push-in connectors and LED | | |
| | 5/2-way valve, single solenoid | 547311 | CPVSC1-M1LH-M-T-Q3 |
| 5/2-way valve, double solenoid | 547312 | CPVSC1-M1LH-J-T-Q3 | |
| 3/2-way valve, normally open | 547310 | CPVSC1-M1LH-N-T-Q30 | |
| 3/2-way valve, normally closed | 547309 | CPVSC1-M1LH-K-T-Q3C | |
| 2/2-way valve, normally closed | 547308 | CPVSC1-M1LH-D-T-Q3C | |
| Solenoid valve with QS-4 push-in connectors | | | |
| 5/2-way valve, single solenoid | 547286 | CPVSC1-M1H-M-T-Q4 | |
| 5/2-way valve, double solenoid | 547287 | CPVSC1-M1H-J-T-Q4 | |
| 3/2-way valve, normally open | 547285 | CPVSC1-M1H-N-T-Q40 | |
| 3/2-way valve, normally closed | 547284 | CPVSC1-M1H-K-T-Q4C | |
| 2/2-way valve, normally closed | 547283 | CPVSC1-M1H-D-T-Q4C | |
| Solenoid valve with QS-4 push-in connectors and LED | | | |
| 5/2-way valve, single solenoid | 547316 | CPVSC1-M1LH-M-T-Q4 | |
| 5/2-way valve, double solenoid | 547317 | CPVSC1-M1LH-J-T-Q4 | |
| 3/2-way valve, normally open | 547315 | CPVSC1-M1LH-N-T-Q40 | |
| 3/2-way valve, normally closed | 547314 | CPVSC1-M1LH-K-T-Q4C | |
| 2/2-way valve, normally closed | 547313 | CPVSC1-M1LH-D-T-Q4C | |

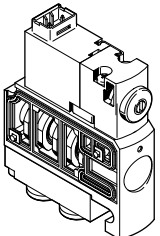
Accessories

Ordering data – Valves with individual electrical connection, detenting manual override, plug at rear, 24 V DC

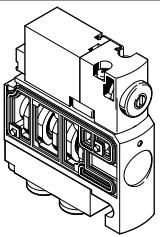
| | Part no. | Type |
|--|--------------------------------|----------------------------|
| Solenoid valve with M5 connections | | |
|  | 5/2-way valve, single solenoid | 547291 CPVSC1-M1H-M-H-M5 |
| | 5/2-way valve, double solenoid | 547292 CPVSC1-M1H-J-H-M5 |
| | 3/2-way valve, normally open | 547290 CPVSC1-M1H-N-H-M50 |
| | 3/2-way valve, normally closed | 547289 CPVSC1-M1H-K-H-M5C |
| | 2/2-way valve, normally closed | 547288 CPVSC1-M1H-D-H-M5C |
| Solenoid valve with M5 connections and LED | | |
|  | 5/2-way valve, single solenoid | 547322 CPVSC1-M1LH-M-H-M5 |
| | 5/2-way valve, double solenoid | 547323 CPVSC1-M1LH-J-H-M5 |
| | 3/2-way valve, normally open | 547321 CPVSC1-M1LH-N-H-M50 |
| | 3/2-way valve, normally closed | 547320 CPVSC1-M1LH-K-H-M5C |
| | 2/2-way valve, normally closed | 547318 CPVSC1-M1LH-D-H-M5C |
| Solenoid valve with QS-3 push-in connectors | | |
| | 5/2-way valve, single solenoid | 547296 CPVSC1-M1H-M-H-Q3 |
| | 5/2-way valve, double solenoid | 547297 CPVSC1-M1H-J-H-Q3 |
| | 3/2-way valve, normally open | 547295 CPVSC1-M1H-N-H-Q30 |
| | 3/2-way valve, normally closed | 547294 CPVSC1-M1H-K-H-Q3C |
| | 2/2-way valve, normally closed | 547293 CPVSC1-M1H-D-H-Q3C |
| Solenoid valve with QS-3 push-in connectors and LED | | |
| | 5/2-way valve, single solenoid | 547327 CPVSC1-M1LH-M-H-Q3 |
| | 5/2-way valve, double solenoid | 547328 CPVSC1-M1LH-J-H-Q3 |
| | 3/2-way valve, normally open | 547326 CPVSC1-M1LH-N-H-Q30 |
| | 3/2-way valve, normally closed | 547325 CPVSC1-M1LH-K-H-Q3C |
| | 2/2-way valve, normally closed | 547324 CPVSC1-M1LH-D-H-Q3C |
| Solenoid valve with QS-4 push-in connectors | | |
| | 5/2-way valve, single solenoid | 547301 CPVSC1-M1H-M-H-Q4 |
| | 5/2-way valve, double solenoid | 547302 CPVSC1-M1H-J-H-Q4 |
| | 3/2-way valve, normally open | 547300 CPVSC1-M1H-N-H-Q40 |
| | 3/2-way valve, normally closed | 547299 CPVSC1-M1H-K-H-Q4C |
| | 2/2-way valve, normally closed | 547298 CPVSC1-M1H-D-H-Q4C |
| Solenoid valve with QS-4 push-in connectors and LED | | |
| | 5/2-way valve, single solenoid | 547332 CPVSC1-M1LH-M-H-Q4 |
| | 5/2-way valve, double solenoid | 547333 CPVSC1-M1LH-J-H-Q4 |
| | 3/2-way valve, normally open | 547331 CPVSC1-M1LH-N-H-Q40 |
| | 3/2-way valve, normally closed | 547330 CPVSC1-M1LH-K-H-Q4C |
| | 2/2-way valve, normally closed | 547329 CPVSC1-M1LH-D-H-Q4C |

Accessories

Ordering data – Valves with individual electrical connection, non-detenting manual override, plug at top, 24 V DC

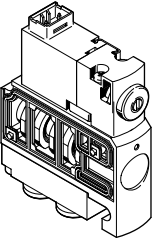
| | Part no. | Type | |
|---|--|---------------------|---------------------|
|  | Solenoid valve with M5 connections | | |
| | 5/2-way valve, single solenoid | 548037 | CPVSC1-M1HT-M-T-M5 |
| | 5/2-way valve, double solenoid | 548038 | CPVSC1-M1HT-J-T-M5 |
| | 3/2-way valve, normally open | 548036 | CPVSC1-M1HT-N-T-M5O |
| | 3/2-way valve, normally closed | 548035 | CPVSC1-M1HT-K-T-M5C |
| | 2/2-way valve, normally closed | 548034 | CPVSC1-M1HT-D-T-M5C |
| | Solenoid valve with QS-3 push-in connectors | | |
| | 5/2-way valve, single solenoid | 548043 | CPVSC1-M1HT-M-T-Q3 |
| | 5/2-way valve, double solenoid | 548044 | CPVSC1-M1HT-J-T-Q3 |
| | 3/2-way valve, normally open | 548042 | CPVSC1-M1HT-N-T-Q3O |
| | 3/2-way valve, normally closed | 548041 | CPVSC1-M1HT-K-T-Q3C |
| | 2/2-way valve, normally closed | 548040 | CPVSC1-M1HT-D-T-Q3C |
| | Solenoid valve with QS-4 push-in connectors | | |
| | 5/2-way valve, single solenoid | 548048 | CPVSC1-M1HT-M-T-Q4 |
| | 5/2-way valve, double solenoid | 548049 | CPVSC1-M1HT-J-T-Q4 |
| 3/2-way valve, normally open | 548047 | CPVSC1-M1HT-N-T-Q4O | |
| 3/2-way valve, normally closed | 548046 | CPVSC1-M1HT-K-T-Q4C | |
| 2/2-way valve, normally closed | 548045 | CPVSC1-M1HT-D-T-Q4C | |

Ordering data – Valves with individual electrical connection, non-detenting manual override, plug at rear, 24 V DC

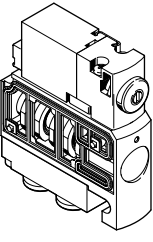
| | Part no. | Type | |
|--|--|---------------------|---------------------|
|  | Solenoid valve with M5 connections | | |
| | 5/2-way valve, single solenoid | 548053 | CPVSC1-M1HT-M-H-M5 |
| | 5/2-way valve, double solenoid | 548054 | CPVSC1-M1HT-J-H-M5 |
| | 3/2-way valve, normally open | 548052 | CPVSC1-M1HT-N-H-M5O |
| | 3/2-way valve, normally closed | 548051 | CPVSC1-M1HT-K-H-M5C |
| | 2/2-way valve, normally closed | 548050 | CPVSC1-M1HT-D-H-M5C |
| | Solenoid valve with QS-3 push-in connectors | | |
| | 5/2-way valve, single solenoid | 548058 | CPVSC1-M1HT-M-H-Q3 |
| | 5/2-way valve, double solenoid | 548059 | CPVSC1-M1HT-J-H-Q3 |
| | 3/2-way valve, normally open | 548057 | CPVSC1-M1HT-N-H-Q3O |
| | 3/2-way valve, normally closed | 548056 | CPVSC1-M1HT-K-H-Q3C |
| | 2/2-way valve, normally closed | 548055 | CPVSC1-M1HT-D-H-Q3C |
| | Solenoid valve with QS-4 push-in connectors | | |
| | 5/2-way valve, single solenoid | 548063 | CPVSC1-M1HT-M-H-Q4 |
| | 5/2-way valve, double solenoid | 548064 | CPVSC1-M1HT-J-H-Q4 |
| 3/2-way valve, normally open | 548062 | CPVSC1-M1HT-N-H-Q4O | |
| 3/2-way valve, normally closed | 548061 | CPVSC1-M1HT-K-H-Q4C | |
| 2/2-way valve, normally closed | 548060 | CPVSC1-M1HT-D-H-Q4C | |

Accessories

Ordering data – Valves with individual electrical connection, detenting manual override, plug at top, 12 V DC

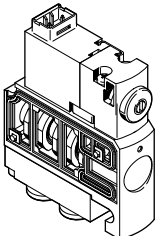
| | Part no. | Type | |
|--|--|--------|--------------------|
|  | Solenoid valve with M5 connections | | |
| | 5/2-way valve, single solenoid | 547367 | CPVSC1-M5H-M-T-M5 |
| | 5/2-way valve, double solenoid | 547368 | CPVSC1-M5H-J-T-M5 |
| | 3/2-way valve, normally open | 547366 | CPVSC1-M5H-N-T-M50 |
| | 3/2-way valve, normally closed | 547365 | CPVSC1-M5H-K-T-M5C |
| | 2/2-way valve, normally closed | 547364 | CPVSC1-M5H-D-T-M5C |
| | Solenoid valve with QS-3 push-in connectors | | |
| | 5/2-way valve, single solenoid | 547372 | CPVSC1-M5H-M-T-Q3 |
| | 5/2-way valve, double solenoid | 547373 | CPVSC1-M5H-J-T-Q3 |
| | 3/2-way valve, normally open | 547371 | CPVSC1-M5H-N-T-Q30 |
| | 3/2-way valve, normally closed | 547370 | CPVSC1-M5H-K-T-Q3C |
| | 2/2-way valve, normally closed | 547369 | CPVSC1-M5H-D-T-Q3C |
| | Solenoid valve with QS-4 push-in connectors | | |
| | 5/2-way valve, single solenoid | 547377 | CPVSC1-M5H-M-T-Q4 |
| | 5/2-way valve, double solenoid | 547378 | CPVSC1-M5H-J-T-Q4 |
| | 3/2-way valve, normally open | 547376 | CPVSC1-M5H-N-T-Q40 |
| | 3/2-way valve, normally closed | 547375 | CPVSC1-M5H-K-T-Q4C |
| | 2/2-way valve, normally closed | 547374 | CPVSC1-M5H-D-T-Q4C |

Ordering data – Valves with individual electrical connection, non-detenting manual override, plug at rear, 12 V DC

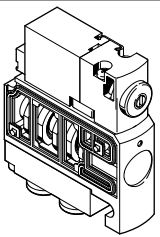
| | Part no. | Type | |
|---|--|--------|--------------------|
|  | Solenoid valve with M5 connections | | |
| | 5/2-way valve, single solenoid | 547382 | CPVSC1-M5H-M-H-M5 |
| | 5/2-way valve, double solenoid | 547383 | CPVSC1-M5H-J-H-M5 |
| | 3/2-way valve, normally open | 547381 | CPVSC1-M5H-N-H-M50 |
| | 3/2-way valve, normally closed | 547380 | CPVSC1-M5H-K-H-M5C |
| | 2/2-way valve, normally closed | 547379 | CPVSC1-M5H-D-H-M5C |
| | Solenoid valve with QS-3 push-in connectors | | |
| | 5/2-way valve, single solenoid | 547387 | CPVSC1-M5H-M-H-Q3 |
| | 5/2-way valve, double solenoid | 547388 | CPVSC1-M5H-J-H-Q3 |
| | 3/2-way valve, normally open | 547386 | CPVSC1-M5H-N-H-Q30 |
| | 3/2-way valve, normally closed | 547385 | CPVSC1-M5H-K-H-Q3C |
| | 2/2-way valve, normally closed | 547384 | CPVSC1-M5H-D-H-Q3C |
| | Solenoid valve with QS-4 push-in connectors | | |
| | 5/2-way valve, single solenoid | 547392 | CPVSC1-M5H-M-H-Q4 |
| | 5/2-way valve, double solenoid | 547393 | CPVSC1-M5H-J-H-Q4 |
| | 3/2-way valve, normally open | 547391 | CPVSC1-M5H-N-H-Q40 |
| | 3/2-way valve, normally closed | 547390 | CPVSC1-M5H-K-H-Q4C |
| | 2/2-way valve, normally closed | 547389 | CPVSC1-M5H-D-H-Q4C |

Accessories

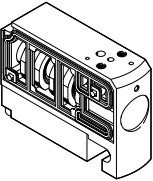


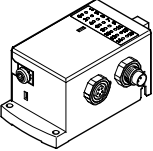
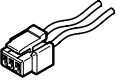
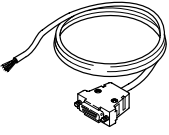



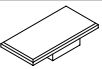
Ordering data – Valves with individual electrical connection, detenting manual override, plug at top, 5 V DC

| | Part no. | Type | |
|---|--|--------|--------------------|
|  | Solenoid valve with M5 connections | | |
| | 5/2-way valve, single solenoid | 547337 | CPVSC1-M4H-M-T-M5 |
| | 5/2-way valve, double solenoid | 547338 | CPVSC1-M4H-J-T-M5 |
| | 3/2-way valve, normally open | 547336 | CPVSC1-M4H-N-T-M50 |
| | 3/2-way valve, normally closed | 547335 | CPVSC1-M4H-K-T-M5C |
| | 2/2-way valve, normally closed | 547334 | CPVSC1-M4H-D-T-M5C |
| | Solenoid valve with QS-3 push-in connectors | | |
| | 5/2-way valve, single solenoid | 547342 | CPVSC1-M4H-M-T-Q3 |
| | 5/2-way valve, double solenoid | 547343 | CPVSC1-M4H-J-T-Q3 |
| | 3/2-way valve, normally open | 547341 | CPVSC1-M4H-N-T-Q30 |
| | 3/2-way valve, normally closed | 547340 | CPVSC1-M4H-K-T-Q3C |
| | 2/2-way valve, normally closed | 547339 | CPVSC1-M4H-D-T-Q3C |
| | Solenoid valve with QS-4 push-in connectors | | |
| | 5/2-way valve, single solenoid | 547347 | CPVSC1-M4H-M-T-Q4 |
| | 5/2-way valve, double solenoid | 547348 | CPVSC1-M4H-J-T-Q4 |
| | 3/2-way valve, normally open | 547346 | CPVSC1-M4H-N-T-Q40 |
| | 3/2-way valve, normally closed | 547345 | CPVSC1-M4H-K-T-Q4C |
| | 2/2-way valve, normally closed | 547344 | CPVSC1-M4H-D-T-Q4C |

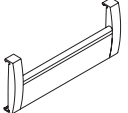

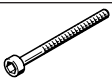
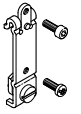
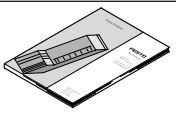
Ordering data – Valves with individual electrical connection, non-detenting manual override, plug at rear, 5 V DC

| | Part no. | Type | |
|--|--|--------|--------------------|
|  | Solenoid valve with M5 connections | | |
| | 5/2-way valve, single solenoid | 547352 | CPVSC1-M4H-M-H-M5 |
| | 5/2-way valve, double solenoid | 547353 | CPVSC1-M4H-J-H-M5 |
| | 3/2-way valve, normally open | 547351 | CPVSC1-M4H-N-H-M50 |
| | 3/2-way valve, normally closed | 547350 | CPVSC1-M4H-K-H-M5C |
| | 2/2-way valve, normally closed | 547349 | CPVSC1-M4H-D-H-M5C |
| | Solenoid valve with QS-3 push-in connectors | | |
| | 5/2-way valve, single solenoid | 547357 | CPVSC1-M4H-M-H-Q3 |
| | 5/2-way valve, double solenoid | 547358 | CPVSC1-M4H-J-H-Q3 |
| | 3/2-way valve, normally open | 547356 | CPVSC1-M4H-N-H-Q30 |
| | 3/2-way valve, normally closed | 547355 | CPVSC1-M4H-K-H-Q3C |
| | 2/2-way valve, normally closed | 547354 | CPVSC1-M4H-D-H-Q3C |
| | Solenoid valve with QS-4 push-in connectors | | |
| | 5/2-way valve, single solenoid | 547362 | CPVSC1-M4H-M-H-Q4 |
| | 5/2-way valve, double solenoid | 547363 | CPVSC1-M4H-J-H-Q4 |
| | 3/2-way valve, normally open | 547361 | CPVSC1-M4H-N-H-Q40 |
| | 3/2-way valve, normally closed | 547360 | CPVSC1-M4H-K-H-Q4C |
| | 2/2-way valve, normally closed | 547359 | CPVSC1-M4H-D-H-Q4C |

Accessories

| Ordering data – Valves without pilot control | | | | Part no. | Type | |
|--|---|--------------------------------|--------------------------------|-------------------------------|-----------------------------|-----------------------|
|  | Valve with M5 connections | | | | | |
| | | | 5/2-way valve, single solenoid | 548901 | CPVSC1-M-M5 | |
| | | | 5/2-way valve, double solenoid | 548902 | CPVSC1-J-M5 | |
| | | | 3/2-way valve, normally open | 548900 | CPVSC1-N-M50 | |
| | | | 3/2-way valve, normally closed | 548899 | CPVSC1-K-M5C | |
| | | | 2/2-way valve, normally closed | 548898 | CPVSC1-D-M5C | |
| | Valve with push-in connectors | | | | | |
| | | | 5/2-way valve, single solenoid | 548906 | CPVSC1-M-QX | |
| | | | 5/2-way valve, double solenoid | 548907 | CPVSC1-J-QX | |
| | | | 3/2-way valve, normally open | 548905 | CPVSC1-N-QXO | |
| | | 3/2-way valve, normally closed | 548904 | CPVSC1-K-QXC | | |
| | | 2/2-way valve, normally closed | 548903 | CPVSC1-D-QXC | | |
| Ordering data – Accessories | | | | Part no. | Type | |
| Pilot control | | | | | Data sheets → Internet: mh1 | |
|  | 3/2-way solenoid valve, normally closed | Plug connection at rear | 5 V DC | – | 197000 | MHA1-M4H-3/2G-0.6-HC |
| | | | 12 V DC | – | 197001 | MHA1-M5H-3/2G-0.6-HC |
| | | | 24 V DC | With signal status indication | 540443 | MHA1-M1LH-3/2G-0.6-HC |
|  | | Plug connection on top | – | – | 197002 | MHA1-M1H-3/2G-0.6-HC |
| | | | 5 V DC | – | 197003 | MHA1-M4H-3/2G-0.6-TC |
| | | | 12 V DC | – | 197004 | MHA1-M5H-3/2G-0.6-TC |
| | | | 24 V DC | With signal status indication | 540444 | MHA1-M1LH-3/2G-0.6-TC |
| | | | – | – | 197005 | MHA1-M1H-3/2G-0.6-TC |
| CP interface | | | | | | |
|  | Electrical interface | | | 541975 | CPVSC1-AE16-CPI | |
| Individual electrical connection | | | | | | |
|  | Plug socket with cable, IP40 | 0.5 m | | 566654 | NEBV-H1G2-KN-0.5-N-LE2 | |
| | | 1 m | | 566655 | NEBV-H1G2-KN-1-N-LE2 | |
| | | 2.5 m | | 566656 | NEBV-H1G2-KN-2.5-N-LE2 | |
| | | 5 m | | 566657 | NEBV-H1G2-KN-5-N-LE2 | |
| Connecting cable to IP40 for multi-pin plug connection | | | | | | |
|  | Sub-D, 15-pin, up to 12 valve positions for code MS Material: PVC | 2.5 m | | 527543 | KMP6-15P-12-2.5 | |
| | | 5 m | | 527544 | KMP6-15P-12-5 | |
| | | 10 m | | 527545 | KMP6-15P-12-10 | |
| | Sub-D, 26-pin, up to 16 valve positions for code MH Material: PVC | 2.5 m | | 527546 | KMP6-26P-16-2.5 | |
| | | 5 m | | 527547 | KMP6-26P-16-5 | |
| | | 10 m | | 527548 | KMP6-26P-16-10 | |
| Cover for manual override | | | | | | |
|  | Non-detenting, with coded cover cap | Pack of 10 | | 540897 | VMPA-HBT-B | |
|  | Covered, manual override blocked | Pack of 10 | | 540898 | VMPA-HBV-B | |
|  | Detenting, manually operated without accessories | Pack of 10 | | 8002234 | VAMC-L1-CD | |
| Inscription labels for valve identification | | | | | | |
|  | 9x4.5 mm | Pack of 80 | | 197259 | MH-BZ-80x | |

Accessories

| Ordering data – Accessories | | Part no. | Type |
|---|--|------------------------|----------------------|
| Inscription label holder | | | |
|  | Pack of 1 | For 2 valve positions | 547395 CPVSC1-ST-2 |
| | | For 3 valve positions | 547396 CPVSC1-ST-3 |
| | | For 4 valve positions | 527631 CPVSC1-ST-4 |
| | | For 5 valve positions | 547397 CPVSC1-ST-5 |
| | | For 6 valve positions | 547398 CPVSC1-ST-6 |
| | | For 7 valve positions | 547399 CPVSC1-ST-7 |
| | | For 8 valve positions | 527633 CPVSC1-ST-8 |
| | | For 9 valve positions | 547400 CPVSC1-ST-9 |
| | | For 10 valve positions | 547401 CPVSC1-ST-10 |
| | | For 11 valve positions | 547402 CPVSC1-ST-11 |
| | | For 12 valve positions | 527635 CPVSC1-ST-12 |
| | | For 13 valve positions | 547403 CPVSC1-ST-13 |
| | | For 14 valve positions | 547404 CPVSC1-ST-14 |
| | | For 15 valve positions | 547405 CPVSC1-ST-15 |
| | | For 16 valve positions | 527637 CPVSC1-ST-16 |
| | | Tie rod | |
|  | Pack of 1 | For 2 valve positions | 547416 CPVSC1-ZA-2 |
| | | For 3 valve positions | 547417 CPVSC1-ZA-3 |
| | | For 4 valve positions | 532807 CPVSC1-ZA-4 |
| | | For 5 valve positions | 547418 CPVSC1-ZA-5 |
| | | For 6 valve positions | 547419 CPVSC1-ZA-6 |
| | | For 7 valve positions | 547420 CPVSC1-ZA-7 |
| | | For 8 valve positions | 532808 CPVSC1-ZA-8 |
| | | For 9 valve positions | 547421 CPVSC1-ZA-9 |
| | | For 10 valve positions | 547422 CPVSC1-ZA-10 |
| | | For 11 valve positions | 547423 CPVSC1-ZA-11 |
| | | For 12 valve positions | 532809 CPVSC1-ZA-12 |
| | | For 13 valve positions | 547424 CPVSC1-ZA-13 |
| | | For 14 valve positions | 547425 CPVSC1-ZA-14 |
| | | For 15 valve positions | 547426 CPVSC1-ZA-15 |
| | | For 16 valve positions | 532810 CPVSC1-ZA-16 |
| | | Mounting | |
|  | Screw for additional terminal mounting | 527643 | M3x45 |
|  | Mounting | 527639 | CPVSC-HS35 |
| User documentation | | | |
|  | User documentation – Pneumatics, valve terminal CPV-SC | German | 530925 P.BE-CPVSC-DE |
| | | English | 530926 P.BE-CPVSC-EN |
| | | French | 530927 P.BE-CPVSC-FR |
| | | Spanish | 530928 P.BE-CPVSC-ES |
| | | Italian | 530929 P.BE-CPVSC-IT |

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