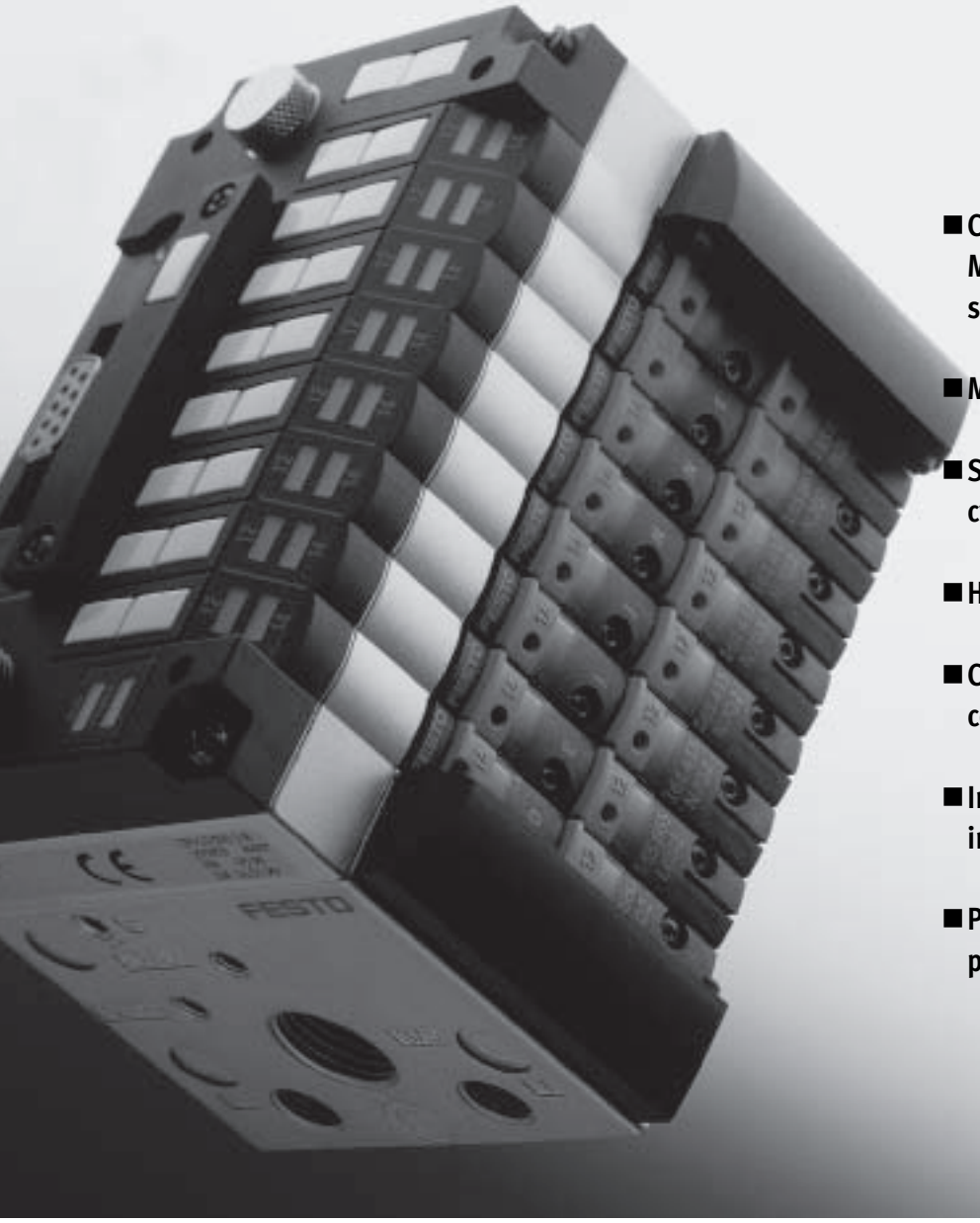
Valve terminal type 10 CPV, Compact Performance



- Compact Performance: Maximum flow with minimum space requirement
- Mounted on-site
- Short tubing lengths, short cycle times
- Huge range of valve functions
- Comprehensive electrical connection concept
- Integrated assembly and installation concept
- Pneumatic multi-connector plate

Valve terminal type 10 CPV, Compact Performance

Key features

Valve terminal type 10 CPV

General data

- Cubic design for exceptional performance and low weight
- Highly flexible thanks to various pneumatic functions (valve variants), different pressure ranges, vacuum switches and the option of integrated vacuum generation
- Separator plates for the formation of pressure zones
- Blanking plates for future expansion
- LED displays
- Manual valve overrides
- Low installation and bus connection costs
- Protection class to IP65

Application

- Flexible and cost-effective connection of 2 to 8 valve slices
- Decentralised machines and system structures, for example
  - in handling technology
  - in conveyor technology
  - in the packaging industry
  - in sorting systems
  - in upstream machine functions

The pneumatic part as well as individual and multi-pin connections are described in detail in this chapter, whilst the electrical functions are described in the chapters

➔ CPV with Direct Link fieldbus
4 / 4.7-2

➔ AS-interface components
4 / 4.9-2

➔ CP installation system
4 / 4.6-2

Valve terminal type 10 CPV, Compact Performance

Key features

Equipment options

The CPV valve terminal is available with the following valve functions:

- 2x 2/2-way, open and closed
- 2x 2/2-way, closed
- 2x 3/2-way, open
- 2x 3/2-way, closed
- 2x 3/2-way, open and closed
- 5/2-way, single solenoid
- 5/2-way, double solenoid
- 5/3-way valve, mid-position pressurised
- 5/3-way valve, mid-position exhausted
- 5/3-way valve, mid-position closed
- Vacuum generator and 2/2-way valve for ejector pulse
- Vacuum generator

Certain terminals allow the choice of a relay slice with two floating contacts in place of a valve slice.

Valve terminal configurator

Online via: ➔ www.festo.com/en/engineering

A valve terminal configurator is available to help you select a suitable valve terminal CPV. This makes it much easier for you to find the right product.

Valve terminals are equipped and assembled according to customer requirements. This results in minimal installation time. They are also fully inspected before shipment and only need to be mounted with a few screws – ready to go.

Note

Ordering

A type 10 valve terminal is ordered via an order code.
For valve terminals with fieldbus connection, this order code consists of a pneumatic and an electrical part.

The pneumatic part suffices for valve terminals with individual connection, multi-pin connection, AS-interface®, CPV Direct or ET200X.

- **10P-... (pneumatic components)**
  For information about the ordering system for type 10 see
  ➔ 4 / 2.1-57
- **ECP-... (CP installation system)**
  CP installation system
  ➔ 4 / 4.6-68

Valve terminal type 10 CPV, Compact Performance

Peripherals overview

CPV – The benefits at a glance

The CPV valve terminal is of unique design. It permits the flexible combination of pneumatic performance, electrical connection technologies and a wide range of mounting options. The generously dimensioned flow ducts and powerful surface mounted silencers ensure high flow rates. This means that even comparatively large pneumatic cylinders can be driven with ease.
All valves are in the form of valve slices. They are optimised for flow performance and are also extremely compact. Two functions per valve slice (e.g. 2x 3/2-way valves) mean that twice the component density can be achieved. This saves space and reduces costs.
The cubic design permits exceptional performance yet a comparatively low weight. The benefits of this design are obvious when the valve terminal is used on a moving installation. However robustness must not be sacrificed in favour of compactness.
The connecting thread and mounting attachments are metallic.
The manual override for the valves can be adapted for different operating situations. If, for example, a detenting manual override is required for setting-up mode, the manual override can be easily converted for that application in a way that rules out operational errors. The clear, large labelling system also contributes to the safe operation of the valve terminal.
A particular plus is the range of electrical connection technologies supported. All types of valve actuation are possible, from individual valve connections up to bus systems with versatile expansion options. The integration of electrical input and output modules permits cost-effective solutions within the different installation concepts.
A PC-based software configurator that selects the correct CPV valve terminal is provided. This makes it much easier for you to find the right product.

The design principle

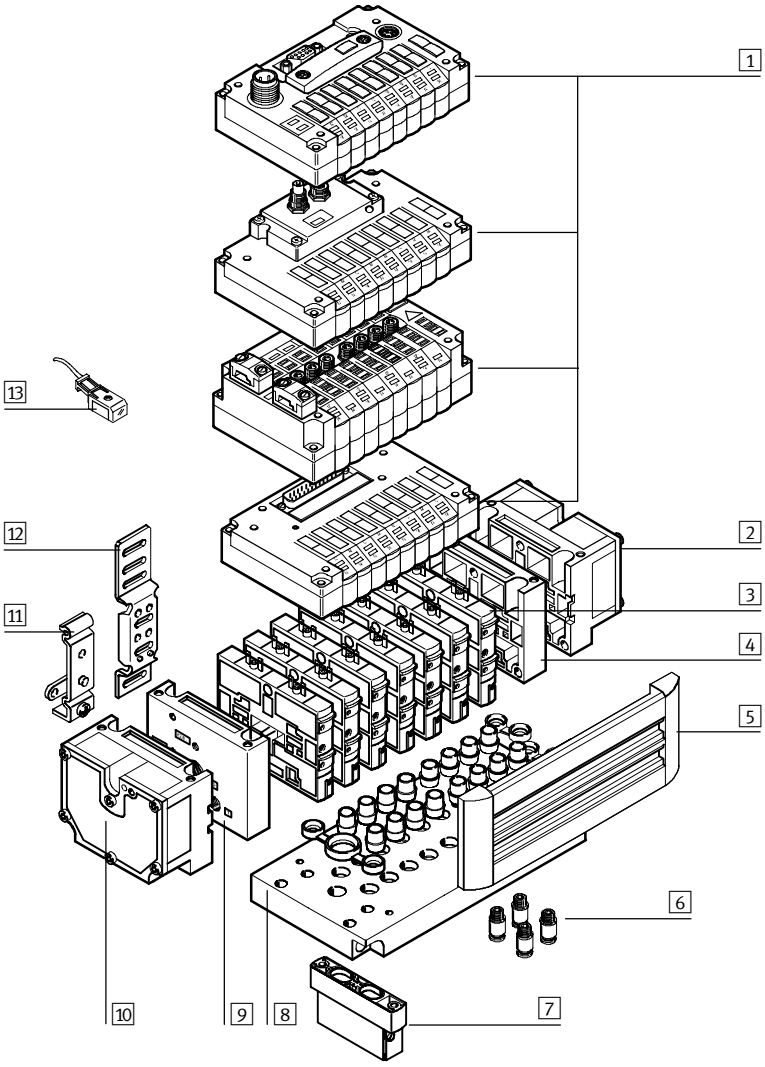
The cubic design provides a clearly assigned function on each side. Thus, for example, the electrical connection is mounted on the top surface. An optional inscription label holder can be placed on the front of the valve terminal. The different combination options ensure the optimum solution for the task at hand.

- Pneumatic supply connections on the left, right or underneath
- Pneumatic working lines and functional modules (vertical stacking) on the bottom
- Manual operation/identification on the front
- Electrical connection surface on the top
- Mounting surface at the back or even at the front via a pneumatic multi-connector plate

Valve terminal type 10 CPV, Compact Performance

Peripherals overview

Components



1 Basic electrical unit (MP, AS-interface, FB, CPV Direct)
2 Right-hand end plate (threaded connection not in conjunction with pneumatic multi-connector plate)
3 Valve functions
4 Right-hand end plate
5 Holder for inscription label
6 QS push-in connectors
7 Functional module (vertical stacking)
8 Pneumatic multi-connector plate
9 Left-hand end plate (threaded connection not in conjunction with pneumatic multi-connector plate)
10 Left-hand end plate with surface mounted silencer
11 H-rail mounting
12 Wall mounting
13 Plug socket with cable

Valve terminal type 10 CPV, Compact Performance

Peripherals overview

Individual connection

Connection is independent of the control technology used. This ensures correct polarity during installation. The connector plug is equipped with an LED which indicates switching status, and a voltage overload protective circuit. It also features a built-in current reduction circuit.

Individual connection permits the selection of 2 to 16 solenoid coils (divided between two to eight valve slices, including in uneven stages).

Multi-pin connection

Control signals from the controller to the valve terminal are transmitted via a pre-assembled multi-core cable, which substantially reduces installation time. The current reduction circuit for the valves is also integrated in the multi-pin connection.

This valve terminal can be equipped with 4 to 16 solenoid coils (4, 6 or 8 valve slices).

AS-interface connection

A special feature of AS-interface is its ability to simultaneously transmit data and supply power via a two-core cable. The encoded cable profile prevents connection with incorrect polarity. If the valves have to be disconnected from mains power in an emergency, they can be supplied with electrical power via a separate connection.

The valve terminal with AS-interface can be configured as follows:

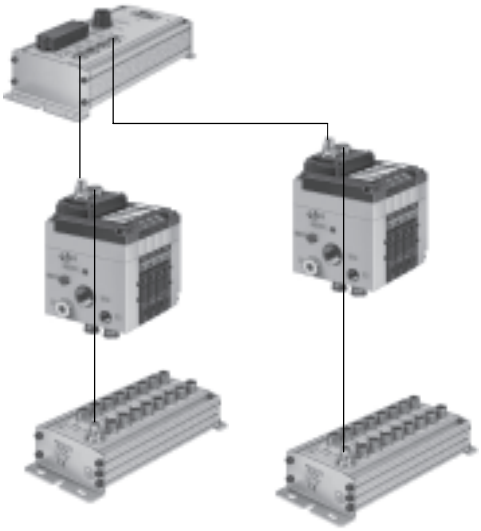
- without inputs, with two or four valve slices (max. 4 solenoid coils)
- without inputs, with two or four valve slices (max. 4 solenoid coils) and additional power supply
- with four or eight inputs and four or eight valve slices (max. 8 solenoid coils)
- with four or eight inputs and four or eight valve slices (max. 8 solenoid coils) and additional power supply
- with four or eight inputs and four or eight valve slices (max. 6 solenoid coils) and additional power supply for A/B operation to SPEC. 2.1

Further information
➔ 4 / 4.9-2

Valve terminal type 10 CPV, Compact Performance

Peripherals overview

CP installation system



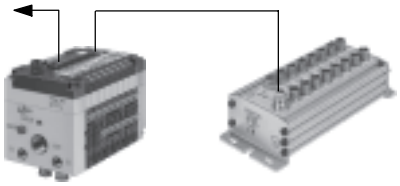
Valve terminal for CP installation system:
Valve terminals with fieldbus connection are intended for connection to higher-order fieldbus nodes or to control blocks. A fieldbus node or control block also allows the connection of decentralised input/output units. The following fieldbus protocols are supported:

- Festo fieldbus, ABB CS31, Moeller Suconet K
- Interbus
- Allen Bradley (1771 RIO)
- DeviceNet
- Profibus DP, 12 MBd

Four strings, each with 16 digital inputs and 16 outputs or 16 digital inputs and 4, 6 or 8 valve slices (4 to 16 solenoid coils per terminal), can be connected to a fieldbus node or control block. The connector cables transmit the power supply for the input modules and the load voltage for the valves as well as control signals.

Further information
➔ 4 / 4.6-2

CPV Direct

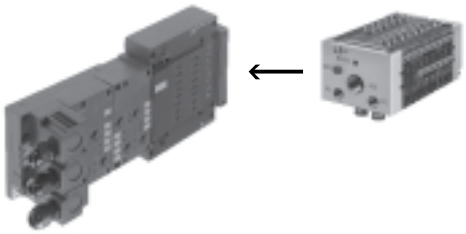


CPV Direct is a system for the compact connection of a CPV valve terminal to different fieldbus standards such as Profibus, Interbus, DeviceNet and CANopen, etc.
The fieldbus node is directly integrated in the electrical interface of the CPV valve terminal and therefore takes up only a minimal amount of space.

The CP string extension option allows the functions and components of the CP installation system to be used.
A CPV valve terminal with four or eight valve slices (max. 16 solenoid coils) can be used instead of an output module with 8 digital outputs.

Further information
➔ 4 / 4.7-2

ET200X pneumatic interface for CPV10 and CPV14



Adaptation of the CPV valve terminal to the input/output module ET200X from Siemens:
The combination of the ET200X function modules and the pneumatic functions of the CPV valve terminal provides a highly integrateable automation solution for systems using electrical and pneumatic drives with

- up to 16 CPV valves (8 valve slices)
- fast and secure contacting to IP65
- CPV10 and CPV14 valve terminals
- high degree of protection IP65/IP67
- modular design

Valve terminal type 10 CPV, Compact Performance

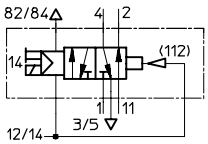
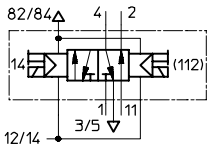
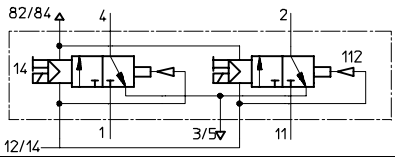
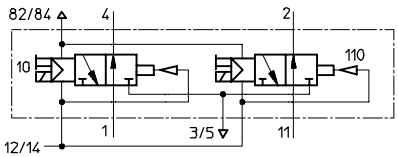
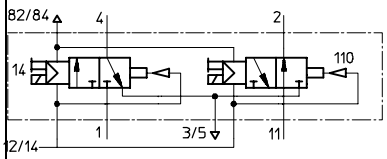
Key features – Pneumatic components

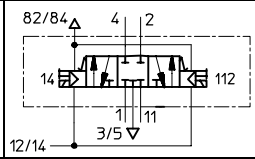
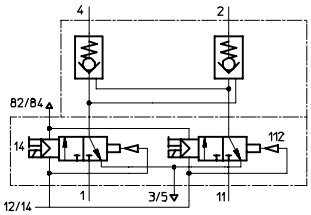
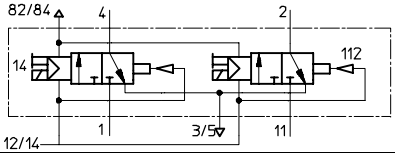
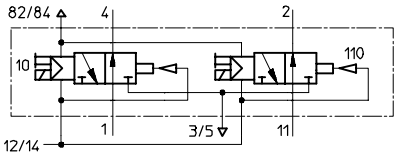
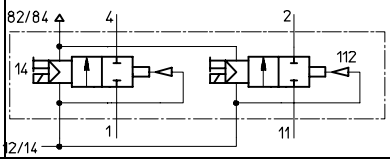
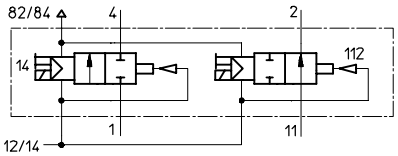
FESTO

Valves

CPV valves are series manifold valves, i.e. in addition to the valve function they contain all of the pneumatic ducts for supply, exhaust and the working lines. The supply ducts are a central component of the valve slices and allow a direct flow of air through the valve slices.
This helps 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 a patented sealing principle that guarantees its suitability for a wide range of applications as well as a long service life.
The pneumatic components and functions are always identical for all actuator types. Most functions are also available in the various valve sizes (spacing). Restrictions are noted where applicable.

Valve function

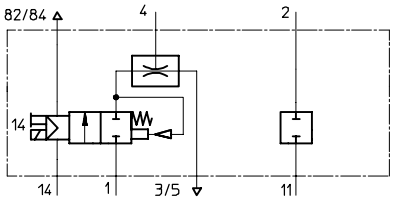
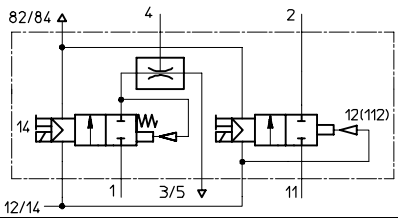
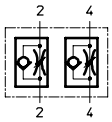
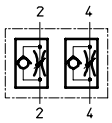
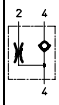
Code	Circuit symbol	Size 10	14	18	Description
M		■	■	■	5/2-way valve, single solenoid
F		■			The valve slice F has a modified pilot system that permits quicker on/off switching times. Valve slice F: ■ Only available for size 10 mm ■ Pneumatic spring return
J		■	■	■	5/2-way valve, double solenoid
C		■	■	■	2x 3/2-way valve, single solenoid ■ Normally closed ■ Pneumatic spring return
N		■	■	■	2x 3/2-way valve, single solenoid ■ Normally open ■ Pneumatic spring return ■ The function of a 5/3-way valve pressurised in mid-position can be realised with these valves in the open initial position
H		■	■	■	2x 3/2-way valve, single solenoid ■ Normal position 1x open (pilot control 12) 1x closed (pilot control 14) For optimised cylinder movement. Corresponds to valve function M with simultaneous actuation of both solenoid coils (5/2-way, single solenoid). Since the piston area on each side can be pressurised or exhausted separately, the cylinder can move faster. ■ Pneumatic spring return

Valve function					
Code	Circuit symbol	Size			Description
		10	14	18	
G		–	–	■	5/3G function, mid-position closed Only available for size 18 mm ■ Double solenoid ■ Spring force return
		■	■	–	5/3G function, mid-position closed The valve function “mid-position closed” is created from one 2x 3/2-way valve, normally closed (code C). The module CPV...-BS-5/3-... (incorporates a double piloted non-return function) is required for this. This module is intended for applications with one working pressure level per valve slice, i.e. it may not be used in dual-pressure applications (where there are different pressure levels at port 1 and 11). If other valve slices are to be used in dual-pressure mode, then the valve slice equipped with the 5/3G valve actuator must be separated from compressed air duct 1 and 11 by means of a separator plate. Not in first or last position with accessories M, P, V (pneumatic multi-connector plate) with size 10/14.
		■	■	■	5/3-way valve function, mid-position exhausted The valve function “mid-position exhausted” is created from one 2x 3/2-way valve, normally closed (code C). ■ Pneumatic spring return
		■	■	■	5/3-way valve function, mid-position pressurised The valve function “mid-position pressurised” is created from one 2x 3/2-way valve, normally open (code C). ■ Pneumatic spring return
D		■	■	■	2x 2/2-way valve, single solenoid ■ Normally closed ■ Pneumatic spring return
I		■	■	■	2x 2/2-way valve, single solenoid ■ Normal position 1x open 1x closed ■ Control side 14 normally closed ■ Control side 12 normally open ■ Pneumatic spring return

Valve terminal type 10 CPV, Compact Performance

Key features – Pneumatic components

FESTO

Additional pneumatic functions					
Code	Circuit symbol	Size			Description
		10	14	18	
A	Vacuum generator 	■	■	■	Vacuum generation according to the ejector principle. Vacuum slices of different widths for different suction capacities. Combinations with a number of vacuum slices and/or directional control function slices are possible on the same valve terminal. In principle, an open connection is formed between the exhaust duct 3/5 and the working line 4. When the nozzle is not activated, the resulting back pressure in the exhaust duct flows back into the working line. When the nozzle is activated, the vacuum can be greatly reduced by resulting back pressure. This effect is improved through optimised exhausting. This effect does not occur where there is only one vacuum generator per valve terminal and where separator plates (code S) are used for separation. ■ Vacuum generator on control side 14 ■ Reset via mechanical spring and pneumatic spring ■ Ejector pulse on control side 12 (code E) ■ Note air supply and exhaust when using more than two vacuum generators
E	Vacuum generator with ejector pulse 	■	■	■	
P	2x one-way flow control valve, supply air 	■	■	–	Module (actuator) for direct flange mounting on the CPV valves. Also suitable for pneumatic multi-connector plates. Different valve actuators cannot be combined. ■ Not with valve function G ■ Not in first or last position with accessories M, P, V (pneumatic multi-connector plate)
Q	2x one-way flow control valve, exhaust air 	■	■	–	Module (actuator) for direct flange mounting on the CPV valves. Also suitable for pneumatic multi-connector plates. Different valve actuators cannot be combined. ■ Not with valve function G ■ Not in first or last position with accessories M, P, V (pneumatic multi-connector plate)
V	One-way flow control valve for vacuum 	■	■	–	The module CPV-...-BS-GRZ-V-... has a built-in non-return valve as well as a throttle function for adjusting the ejector pulse. The non-return valve serves to temporarily maintain the vacuum, even if the vacuum generator is switched off. The module is suitable for vacuum generators (code A, E). ■ Not in first or last position with accessories M, P, V (pneumatic multi-connector plate)

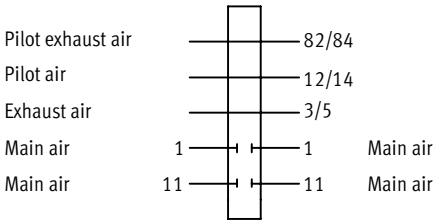
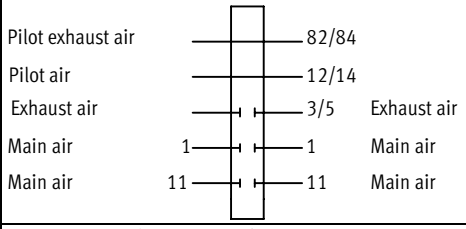
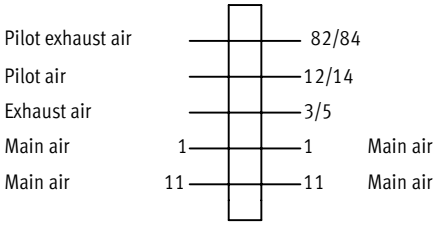
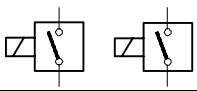
Pressure zones

Pressure zones within the CPV valve terminals. The maximum number of pressure zones possible is determined by the combination of the following components:

- Use of a separator plate
- End plate pair type
- Valve plate type

You can divide the CPV valve terminal into 2 to 4 pressure zones by using separator plates.

Separator plates

Code	Graphical symbol	Size 10	Size 14	Size 18	Note
T	Separator plate (for formation of pressure zones), supply duct 1 separated 	■	■	■	A separator plate (code T) is used to separate the duct for the air supply (port 1 and 11) to provide two pressure zones. ■ Not for first or last valve position ■ Not with pressure supply A, B, C, D, U, V, W, X
S	Separator plate (for formation of pressure zones), supply duct 1 and exhaust 3/5 separated 	■	■	■	The separator plate (code S) interrupts the exhaust duct 3/5 as well as the supply duct 1 and 11. This plate should be used if one of the pressure zones is under vacuum to avoid any effects on the vacuum or to prevent backpressure on neighbouring valve functions. ■ Not for first or last valve position ■ Not with pressure supply A, B, C, D, U, V, W, X (single-side pressure supply)
L	Vacant position (spare position) 	■	■	■	A reserve position is formed by using a blanking plate (code L) and a valve can be positioned here at a later date.
R	Relay plate (2 floating contacts) 	■	■	–	A relay plate (code R) with (normally open contact) can also be used instead of a valve. Each relay plate has two relays for actuating two electrically isolated outputs. Load capacity: 24 V DC, 1 A. ■ Connecting cable KRP-1-24-... ■ An inscription label holder cannot be used

Valve terminal type 10 CPV, Compact Performance

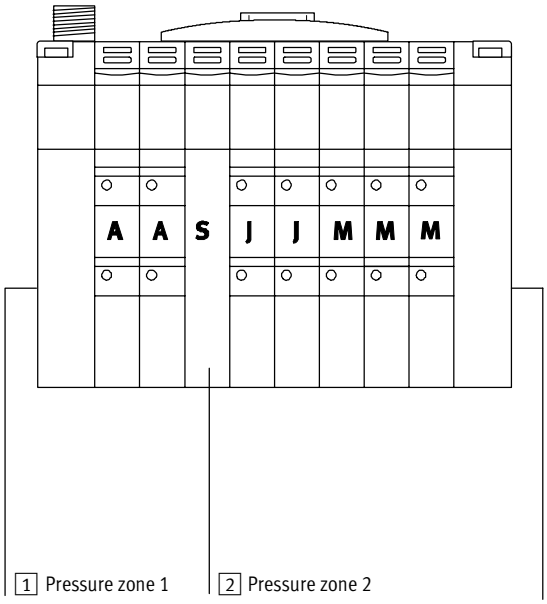
Key features – Pneumatic components

FESTO

Pressure zones

- Different pressures at port 1 and 11 result in two pressure levels per valve. This means, for example, that a cylinder drive can be extended with high pressure and retracted with low pressure to save energy.
- A separating plate T separates the compressed air supply 1 and 11 of a valve group to its left from the compressed air supply of a valve group to its right.
- A separating plate S also separates exhaust ducts 3/5 in addition to pressure ducts 1 and 11.

Example: Creating pressure zones



A CPV valve terminal can be divided into 2 to 4 pressure zones using a separator plate.

1 –0.9 ... 10 bar
2 3 ... 8 bar

Valve terminal type 10 CPV, Compact Performance

Key features – Pneumatic components

Compressed air supply and venting

The two end plates which supply the valve slices with pressure and exhaust them are a characteristic feature of a CPV valve terminal.

- Large duct cross sections ensure maximum flow rates even when multiple valves are switched in parallel
- Surface mounted silencers in the end plates
- Internal/external pilot air supply

Each individual valve is supplied with compressed air from two individual ducts (supply ports 1/11) and exhausted via a large, integrated exhaust duct (exhaust 3/5). This design permits a unique function profile and singular flexibility. It is the easiest way of realising a number of pressure zones per terminal or combinations of vacuum applications.

The valve terminal is supplied via end plates, either on the left, on the right, or on both sides. End plate combinations other than those listed are possible (on request).

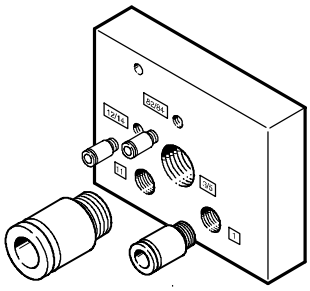
Pilot air supply

Internal pilot air supply:
An internal pilot air supply can be selected if the supply pressure at pneumatic connection 1 is 3 ... 8 bar. The branch is located in the right-hand end plate with an internal pilot air supply. The pilot air port 12/14 is omitted.

External pilot air supply:
An external pilot air supply is required if the supply pressure at pneumatic connection 1 is ≤3 bar or ≥8 bar. In this case, pressure of 3 ... 8 bar is applied at pilot air port 12/14.

If a gradual pressure build-up in the system using a pressurised on-off valve is required, an external pilot air supply should be selected whereby the control pressure applied during switch-on is already very high.

End plates



Example of an end plate:
The figure shows a left-hand end plate with external pilot air supply. The exhaust ports 3/5 and 82/84 can be fitted with threaded connections or silencers. Ports 12/14 and 11 are not provided in end plates used for internal pilot air supply. Port 82/84 is always present and should be fitted with a silencer. Port 12/14 is internally connected with port 1.

- Note

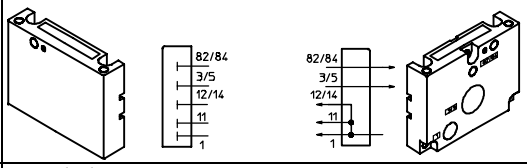
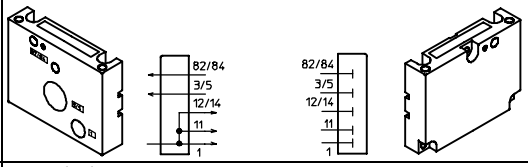
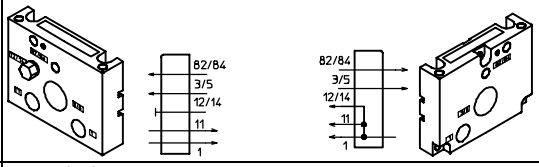
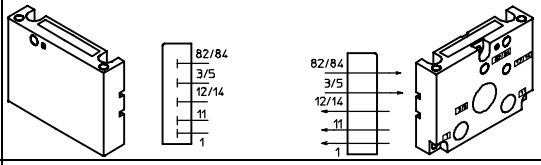
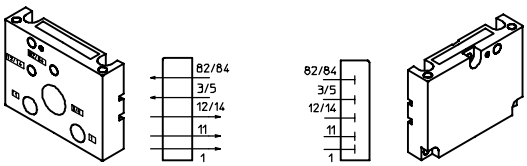
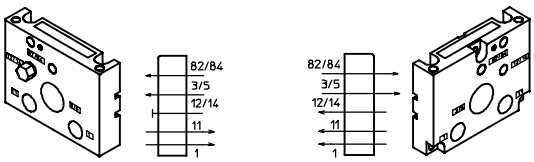
When using a separator plate to form two pressure zones, supply at both sides is always required.

Valve terminal type 10 CPV, Compact Performance

Key features – Pneumatic components

FESTO

Permissible end plate combinations

Code	Graphical symbol Type of pilot air supply	Size 10	14	18	Note
U	Internal pilot air 	■	■	■	■ Ports in right-hand end plate only ■ No pressure zone separation permissible ■ Not suitable for vacuum
V	Internal pilot air 	■	■	■	■ Ports in left-hand end plate only ■ No pressure zone separation permissible ■ Not suitable for vacuum
Y	Internal pilot air 	■	■	■	■ Ports in left-hand and right-hand end plate ■ Maximum number of pressure zones: 3 ■ Valves to the left of the separator plate suitable for vacuum
W	External pilot air 	■	■	■	■ Ports in right-hand end plate only ■ No pressure zone separation permissible ■ Suitable for vacuum
X	External pilot air 	■	■	■	■ Ports in left-hand end plate only ■ No pressure zone separation permissible ■ Suitable for vacuum
Z	External pilot air 	■	■	■	■ Ports in left-hand and right-hand end plate ■ Maximum number of pressure zones: 4 ■ Suitable for vacuum

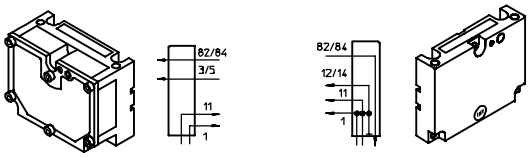
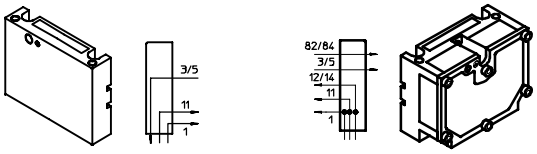
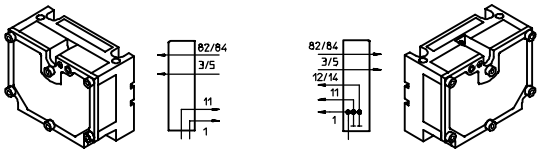
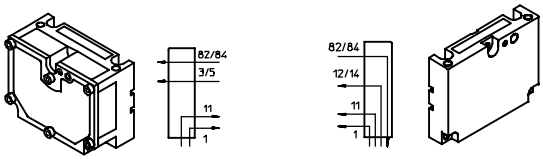
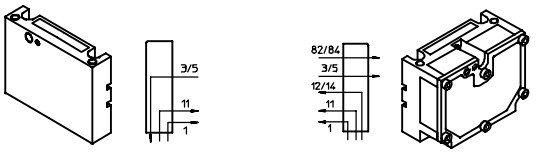
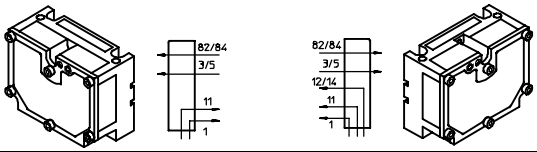
Permissible end plate combinations					
Code	Graphical symbol Type of pilot air supply	Size 10	14	18	Note
A	Internal pilot air	■	■	■	■ Ports in right-hand end plate ■ No pressure zone separation permissible ■ Not suitable for vacuum
B	Internal pilot air	■	■	■	■ Ports in left-hand end plate ■ No pressure zone separation permissible ■ Not suitable for vacuum
D	External pilot air	■	■	■	■ Ports in left-hand end plate ■ No pressure zone separation permissible ■ Suitable for vacuum
C	External pilot air	■	■	■	■ Ports in right-hand end plate ■ No pressure zone separation permissible ■ Suitable for vacuum

Permissible end plate combinations for pneumatic multi-connector plate					
Code	Graphical symbol Type of pilot air supply	Size 10	14	18	Note
Y	Internal pilot air	■	■	■	■ Ports on pneumatic multi-connector plate ■ Pressure zone separation only permissible with separator plate (code T) ■ Maximum number of pressure zones: 2 ■ Valves to the left of the separator plate suitable for vacuum ■ Only for accessories M, P, V (pneumatic multi-connector plate)
Z	External pilot air	■	■	■	■ Ports on pneumatic multi-connector plate ■ Pressure zone separation only permissible with separator plate (code T) ■ Maximum number of pressure zones: 3 ■ Suitable for vacuum ■ Only for accessories M, P, V (pneumatic multi-connector plate)

Valve terminal type 10 CPV, Compact Performance

Key features – Pneumatic components

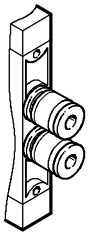
FESTO

Permissible end plate combinations for pneumatic multi-connector plate					
Code	Graphical symbol Type of pilot air supply	Size 10	14	18	Note
G	Internal pilot air 	■	■	■	■ Ports on pneumatic multi-connector plate ■ Exhaust air vented via surface mounted silencers ■ Pressure zone separation only permissible with separator plate (code T) ■ Maximum number of pressure zones: 3 ■ Not suitable for vacuum ■ Only for accessories M, P, V (pneumatic multi-connector plate)
K	Internal pilot air 	■	■	■	■ Ports on pneumatic multi-connector plate ■ Exhaust air vented via surface mounted silencers ■ Pressure zone separation permissible ■ Maximum number of pressure zones: 3 ■ Suitable for vacuum in combination with separator plate ■ Only for accessories M, P, V (pneumatic multi-connector plate)
J	Internal pilot air 	■	■	■	■ Ports on pneumatic multi-connector plate ■ Exhaust air vented via surface mounted silencers ■ Pressure zone separation permissible ■ Maximum number of pressure zones: 3 ■ Valves to the left of the separator plate suitable for vacuum ■ Only for accessories M, P, V (pneumatic multi-connector plate)
F	External pilot air 	■	■	■	■ Ports on pneumatic multi-connector plate ■ Exhaust air vented via surface mounted silencers ■ Pressure zone separation only permissible with separator plate (code T) ■ Maximum number of pressure zones: 4 ■ Suitable for vacuum ■ Only for accessories M, P, V (pneumatic multi-connector plate)
E	External pilot air 	■	■	■	■ Ports on pneumatic multi-connector plate ■ Exhaust air vented via surface mounted silencers ■ Pressure zone separation only permissible with separator plate (code T) ■ Maximum number of pressure zones: 4 ■ Suitable for vacuum ■ Only for accessories M, P, V (pneumatic multi-connector plate)
H	External pilot air 	■	■	■	■ Ports on pneumatic multi-connector plate ■ Exhaust air vented via surface mounted silencers ■ Pressure zone separation permissible ■ Suitable for vacuum ■ Only for accessories M, P, V (pneumatic multi-connector plate)

Valve terminal type 10 CPV, Compact Performance

Key features – Pneumatic components

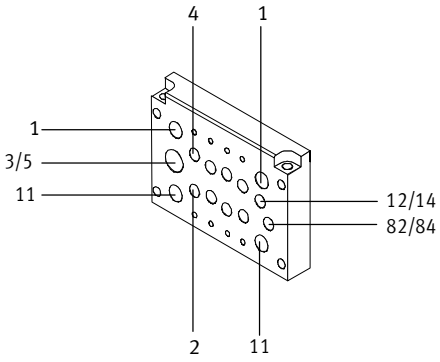
Pneumatic connection



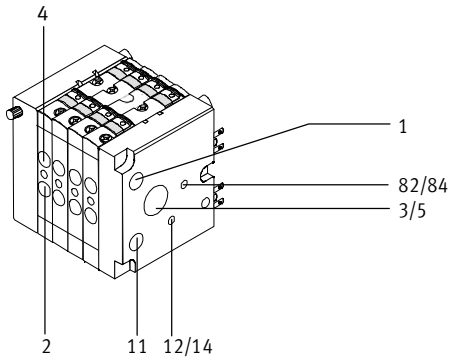
The working lines are located directly in the valve slices. Threaded connections and Quick Star push-in fittings (QS) are available for different tubing sizes. The support ports are located in the end plates or in the pneumatic multi-connector plate.

Push-in fittings are available fully assembled. Push-in fittings for the supply ports can be selected by means of the order code "A" in the accessories. Connection sizes for the threaded and QS push-in fittings can be found in the table below.

Pneumatic multi-connector plate



CPV valve terminal



Connection sizes

Connection to ISO 5599		CPV10	CPV14	CPV18	Remarks
1/11	Main air	G⅛	G¼	G⅜	Fitting in end plate or pneumatic multi-connector plate
2/4	Working line	M7 (QS6/QS4)	G⅛ (QS8/QS6)	G¼ (QS10/QS8)	Connection in valve slice, push-in fitting via clip
3/5	Exhaust air right-hand/left-hand end plate or pneumatic multi-connector plate	G⅜	G½	G½	For ducted exhaust air
		G¼	G⅜	G½	For silencer
12/14	Pilot air connection/pilot exhaust air connection	M5	G⅛	G¼	For ducted exhaust air
82/84	Exhaust air right-hand/left-hand end plate or pneumatic multi-connector plate	M5	G⅛	G¼	For ducted exhaust air
		M7 (M5)[1)]	G⅛	G¼	For silencer

1) with pneumatic multi-connector plate with flange

Valve terminal type 10 CPV, Compact Performance

Key features – Pneumatic components

FESTO

Pneumatic multi-connector plate

One-piece "sub-bases" which contain both working lines and supply ports are available in the form of a pneumatic multi-connector plate. These connector plates allow the valve terminal as a pneumatic "function" to be separated from the ports.
The pneumatic multi-connector plate permits different mounting options from wall mounting to direct passage through a housing wall.

Service-friendly and flexible connection technology using:
- Common connection via the pneumatic multi-connector plate with all connections on one side
- The valve terminal can be removed/fitted using only 4 screws, whereby the pneumatics remain fully connected
- Quick removal/fitting
- No errors upon recommissioning as a result of incorrect connection of tubing

Variants

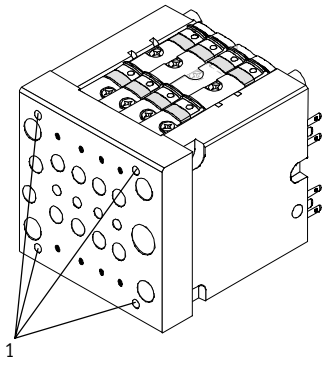
The pneumatic multi-connector plate is available in two variants as standard.
Special multi-connector plate variants on request.

- Without mounting flange:
  This pneumatic multi-connector plate locks flush with the end plates. The mounting holes for wall or foot mounting are on the connection side of the pneumatic multi-connector plate.
- With mounting flange:
  This pneumatic multi-connector plate projects past the end plates. The mounting holes are located in the flange for ease of mounting. Two additional holes running crossways through this multi-connector plate also allow rear mounting of the CPV valve terminal.

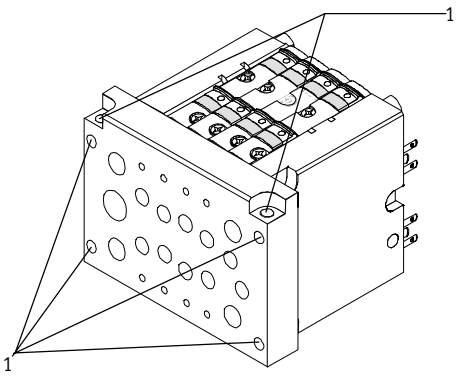
Note

The outer valve slices cannot be equipped with valve extensions (e.g. one-way flow control valve) when using the pneumatic multi-connector plate with mounting flange. CPV valve terminals with surface mounted silencers are only suitable for wall mounting.

Pneumatic multi-connector plate (without flange)



Pneumatic multi-connector plate (with flange)



[1] Mounting holes

Pneumatic connection: End plates/pressure supply connection components					
Code	Port	Designation	Size 10 QS6 Type	Size 14 QS8 Type	Size 18 QS10 Type
Without pneumatic multi-connector plate					
U, V	82/84	Silencer	U-M5	U-1/8-B	U-1/4-B
	3/5	Silencer	U-3/8-B	U-1/2-B	U-1/2-B
	1	Push-in connector	QS-1/8-8-I	QS-1/4-10-I	QS-3/8-12-I
W, X	82/84	Silencer	U-M5	U-1/8-B	U-1/4-B
	3/5	Silencer	U-3/8-B	U-1/2-B	U-1/2-B
	1	Push-in connector	QS-1/8-8-I	QS-1/4-10-I	QS-3/8-12-I
	12/14	Push-in connector	QSM-M5-6-I	QS-1/8-8-I	QS-1/4-10-I
Y	82/84 on right	Silencer	U-M5	U-1/8-B	U-1/4-B
	82/84 on left	Blanking plug	B-M5	B-1/8	B-1/4
	3/5 on right	Silencer	U-3/8-B	U-1/2-B	U-1/2-B
	3/5 on left	Blanking plug	B-3/8	B-1/2	B-1/2
	1/11 on left	Push-in connector	QS-1/8-8-I	QS-1/4-10-I	QS-3/8-12-I
Z	82/84 on right	Silencer	U-M5	U-1/8-B	U-1/4-B
	82/84 on left	Blanking plug	B-M5	B-1/8	B-1/4
	3/5 on right	Silencer	U-3/8-B	U-1/2-B	U-1/2-B
	3/5 on left	Blanking plug	B-3/8	B-1/2	B-1/2
	12/14 on right	Push-in connector	QSM-M5-6-I	QS-1/8-8-I	QS-1/4-10-I
	12/14 on left	Blanking plug	B-M5	B-1/8	B-1/4
	1/11	Push-in connector	QS-1/8-8-I	QS-1/4-10-I	QS-3/8-12-I
With standard pneumatic multi-connector plate code: M					
Y	82/84	Silencer	UC-M7	U-1/8-B	U-1/4-B
	12/14	Blanking plug	B-M7	B-1/8	B-1/4
	3/5	Silencer	U-1/4-B	U-3/8-B	U-1/2-B
	1/11 on left	Push-in connector	QS-1/8-8-I	QS-1/4-10-I	QS-3/8-12-I
	11 on right	Blanking plug	B-1/8	B-1/4	B-3/8
Z	82/84	Silencer	UC-M7	U-1/8-B	U-1/4-B
	3/5	Silencer	U-1/4-B	U-3/8-B	U-1/2-B
	12/14	Push-in connector	QSM-M7-6-I	QS-1/8-8-I	QS-1/4-10-I
	1/11 on left	Push-in connector	QS-1/8-8-I	QS-1/4-10-I	QS-3/8-12-I
With special pneumatic multi-connector plate code: P					
Y	82/84	Silencer	U-M5	U-1/8-B	U-1/4-B
	12/14	Blanking plug	B-M5	B-1/8	B-1/4
	3/5	Silencer	U-1/4-B	U-3/8-B	U-1/2-B
	1/11 on left	Push-in connector	QS-1/8-8-I	QS-1/4-10-I	QS-3/8-12-I
	11 on right	Blanking plug	B-1/8	B-1/4	B-3/8
Z	82/84	Silencer	U-M5	U-1/8-B	U-1/4-B
	3/5	Silencer	U-1/4-B	U-3/8-B	U-1/2-B
	12/14	Push-in connector	QSM-M5-6-I	QS-1/8-8-I	QS-1/4-10-I
	1/11 on left	Push-in connector	QS-1/8-8-I	QS-1/4-10-I	QS-3/8-12-I

Valve terminal type 10 CPV, Compact Performance

Key features – Pneumatic components

FESTO

Pneumatic connection: End plates/pressure supply connection components					
Code	Port	Designation	Size 10 QS6 Type	Size 14 QS8 Type	Size 18 QS10 Type
Without pneumatic multi-connector plate					
A, B	82/84	Blanking plug	B-M5	B-⅛	B-¼
	3/5	Blanking plug	B-⅜	B-½	B-½
	1	Push-in connector	QS-⅛-8-I	QS-¼-10-I	QS-⅜-12-I
C, D	82/84	Blanking plug	B-M5	B-⅛	B-¼
	3/5	Blanking plug	B-⅜	B-½	B-½
	1	Push-in connector	QS-⅛-8-I	QS-¼-10-I	QS-⅜-12-I
	12/14	Push-in connector	QSM-M5-6-I	QS-⅛-8-I	QS-¼-10-I
With standard pneumatic multi-connector plate code: M					
E, F, H	82/84	Blanking plug	B-M7	B-⅛	B-¼
	3/5	Blanking plug	B-¼	B-⅜	B-½
	1/11	Push-in connector	QS-⅛-8-I	QS-¼-10-I	QS-⅜-12-I
	12/14	Push-in connector	QSM-M7-6-I	QS-⅛-8-I	QS-¼-10-I
G, J, K	82/84	Blanking plug	B-M7	B-⅛	B-¼
	3/5	Blanking plug	B-¼	B-⅜	B-½
	on right in 1, left	Push-in connector	QS-⅛-8-I	QS-¼-10-I	QS-⅜-12-I
	on right in 11	Blanking plug	B-⅛	B-¼	B-⅜
	12/14	Blanking plug	B-M7	B-⅛	B-¼
With special pneumatic multi-connector plate code: P					
E, F, H	82/84	Blanking plug	B-M5	B-⅛	B-¼
	3/5	Blanking plug	B-¼	B-⅜	B-½
	1/11	Push-in connector	QS-⅛-8-I	QS-¼-10-I	QS-⅜-12-I
	12/14	Push-in connector	QSM-M5-6-I	QS-⅛-8-I	QS-¼-10-I
G, J, K	82/84	Blanking plug	B-M5	B-⅛	B-¼
	3/5	Blanking plug	B-¼	B-⅜	B-½
	on right in 1, left	Push-in connector	QS-⅛-8-I	QS-¼-10-I	QS-⅜-12-I
	on right in 11	Blanking plug	B-⅛	B-¼	B-⅜
	12/14	Blanking plug	B-M5	B-⅛	B-¼

Valve terminal type 10 CPV, Compact Performance

Key features – Pneumatic components

CPV valve terminal with valve extensions

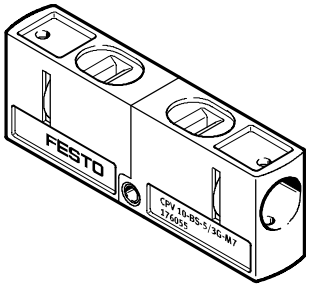
These valve extensions (vertical stacking) can be used to add further pneumatic functions to the CPV valve terminal. They cannot be used in the first or last valve position in conjunction with the pneumatic multi-connector plate.

- Module 5/3G for creating a 5/3-way function, mid-position closed
- Vacuum with module for vacuum saving function and adjustable ejector pulse
- Two one-way flow control valves for flow regulation directly at the valve terminal for
  - supply air flow control
  - exhaust air flow control

Functional modules

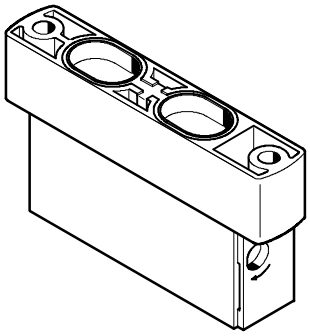
Module 5/3G

2x 3/2G+CPV...-BS-5/3GS-...



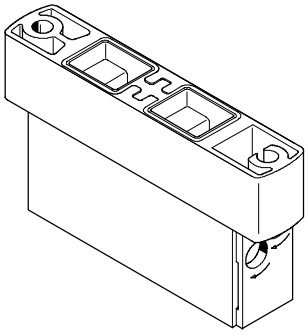
One-way flow control valve for vacuum

CPV...-BS-GRZ-V-...



2x one-way flow control valve

CPV-BS-2xGR...-...



Valve terminal type 10 CPV, Compact Performance

Key features – Mounting

Mounting options

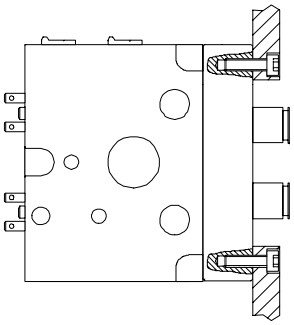
The valve terminals have holes for four mounting screws, the mounting side is the pneumatic threaded connector side. These screws are also used to mount a valve terminal on a pneumatic multi-connector plate. There are other mounting options in addition to this mounting method:

- H-rail mounting
- Wall mounting
- Wall mounting via flanged multi-connector plate
- On rear side via wall mounting
- On head side (CPV10/14 with IC connection only)
- Via through-hole in wall

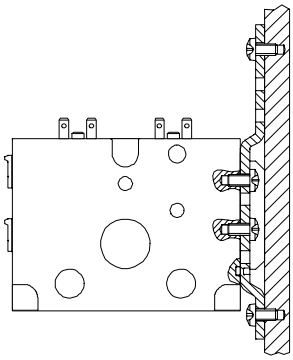
The attachments are mounted with a screw and fixing bolt on the left-hand and right-hand end plates.

Examples of mounting methods

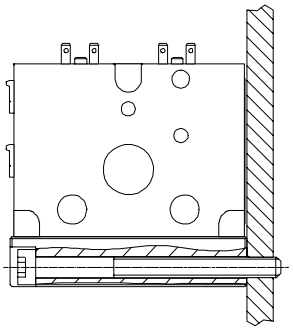
Through-hole in wall, for example on the machine



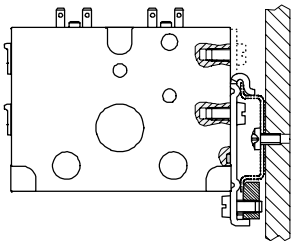
Wall mounting



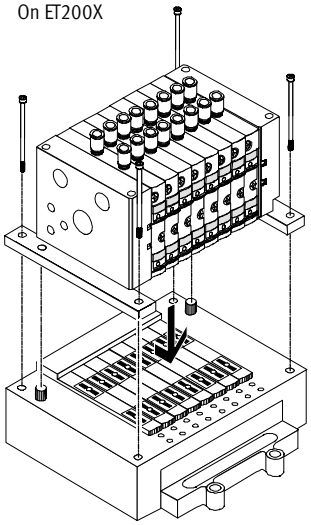
Wall mounting via pneumatic multi-connector plate



H-rail



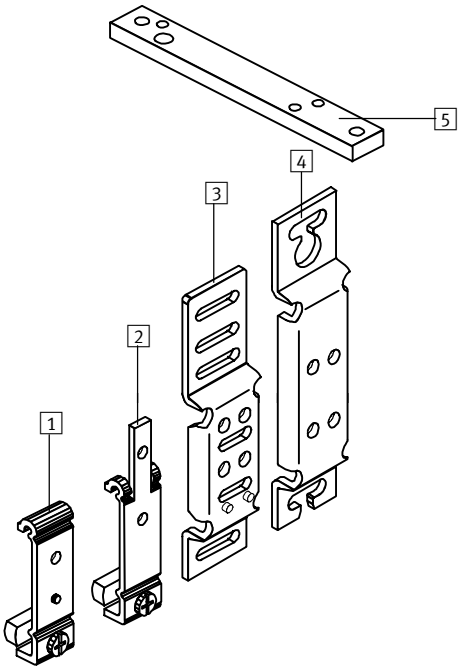
On ET200X



Valve terminal type 10 CPV, Compact Performance

Key features – Mounting

Mounting



1 H-rail mounting CPV10/14
type CPV10/14-VI-BG-NRH-35
(code H)

2 H-rail mounting CPV18
type CPV18-VI-BG-NRH-35
(code H)

3 Wall mounting CPV10/14
type CPV10/14-VI-BG-RWL-B
(code U)

4 Wall mounting CPV18
type CPV18-VI-BG-RW
(code W)

5 Mounting kit for ET200X
type CPV...-VI-BG-ET200X
(code X)

An extensive range of mounting accessories (kits) is available for mounting the CPV valve terminal, see illustration opposite.

H-rail to DIN EN 50 022, not for accessories M, P, V (pneumatic multi-connector plate)

- Note

The CPV valve terminal can also be mounted via the pneumatic multi-connector plate with flanges.

Valve terminal type 10 CPV, Compact Performance

Key features – Display and operation

Display and operation

You will find the following connection and control elements on the top of the CPV valve terminal:

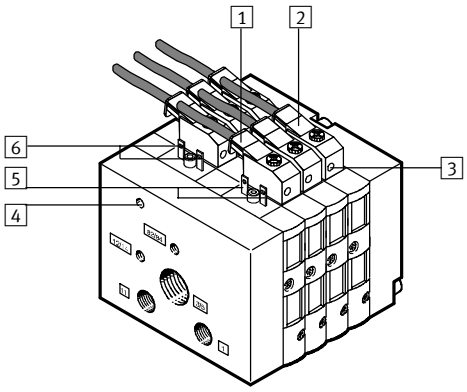
- The LEDs for indicating the switching status
- Readable from the "top" as well as from the "front"
- Indicator 12 shows the switching status of the pilot control for output 2
- Indicator 14 shows the switching status of the pilot control for output 4

With an IC connection the LED is located in the connection plug.

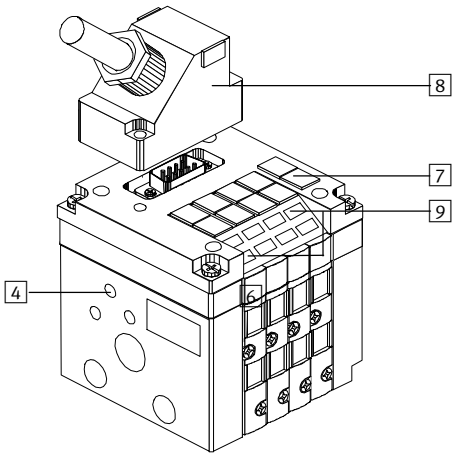
Inscription labels

- Clip with inscription field on cable socket (with individual connection)
- Inscription clips on connection node (MP, CP, CPV Direct and AS-interface)

CPV valve terminal with individual connection (IC)



CPV valve terminal with multi-pin connection (MP)



1 Pre-assembled connection socket for each pilot solenoid coil
2 Inscription label (for each connection socket)
3 Yellow LED, signal status display for pilot solenoid coils (for each connection socket)
4 Earth terminal
5 Terminal lug for pilot solenoid coil 14
6 Terminal lug for pilot solenoid coil 12
7 Inscription label
8 Sub-D multi-pin plug (9-pin for valve terminals with 4 valves, 25-pin for valve terminals with 6 or 8 valves)
9 Yellow LED, signal status display for pilot solenoid coils

Valve terminal type 10 CPV, Compact Performance

Key features – Display and operation

Manual override

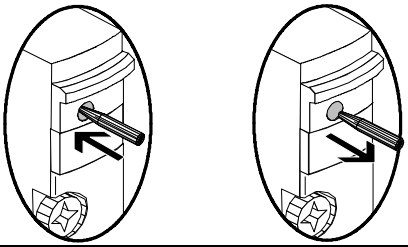
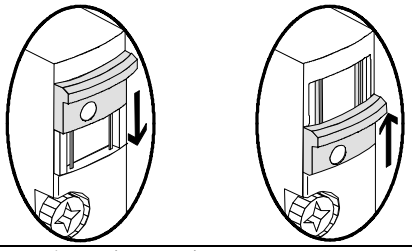
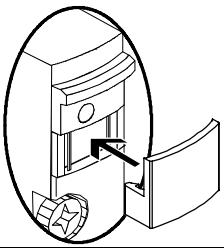
Three types of manual override are available:
- Non-locking with slide
- Detenting
- Covered

A subsequent conversion of the manual override (MO) from non-locking to detenting or covered is possible at any time.

- Note

See the user documentation for instructions.

MO

Code	Graphical symbol	Size 10	Size 14	Size 18	Note
N	Manual override, non-locking 	■	■	■	In the "non-locking" version, a locking clip prevents the movement of the blue slide. A pointed object (e.g. pen, etc.) can be used to activate the MO through the opening.
R	Manual override, detenting 	■	■	■	In the "detenting" version, the locking clip is removed and the MO is activated by moving the slide down. The non-locking function can be restored at any time by re-installing the locking clip.
V	Manual override, covered 	■	■	■	In the "covered" version, activation of the MO via non-locking or detenting is prevented by means of a cover. Like the push-in locking clip, the cover can be added subsequently, but cannot be detached from the valve once this has been done.

Valve terminal type 10 CPV, Compact Performance

Key features – Display and operation

Inscription system

Inscription labels can be affixed as follows:

- On the top of the electrical interface unit
- On the inscription label holder

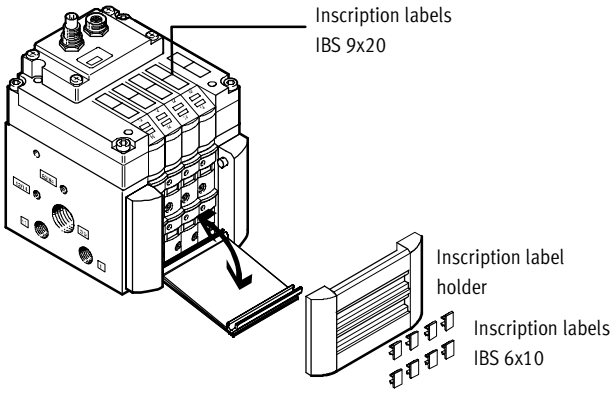
The inscription label holder permits the addition of inscription labels, protects the manual overrides and prevents them from being accidentally activated. The inscription labels are used to record additional information regarding the valves.

The inscription label holders can be ordered together with the valve terminal using the order code. The relevant inscription labels are supplied in a frame containing 64 labels and are ordered separately using part numbers. The transparent inscription label holder CPV...-VI-ST-... offers a further labelling option, for example for paper labels.

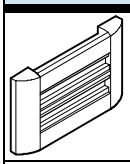
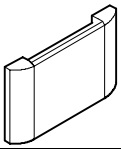
The inscription label holder cannot be used together with relay slices.

- Note

The Word templates for CPV label holders can be found at: www.festo.com/en/engineering



Inscription label holder

	Code	Designation	Part No.
	Z	Inscription label holder	Dependent on the number of valve positions ➔ 4 / 2.1-75
	T	Inscription label holder, transparent	

Ordering data

Designation		Type	Part No.
Inscription labels			
	6x10 in frames, 64 pieces in each frame	**IBS-6x10**	**18 576**
	9x20 in frames, 20 pieces in each frame (CPV18 only)	**IBS-9x20**	**18 182**

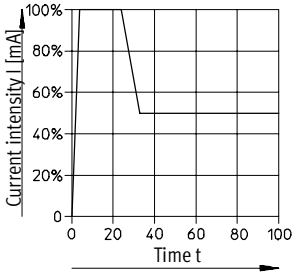
Valve terminal type 10 CPV, Compact Performance

Key features – Electrical components

Electrical connection

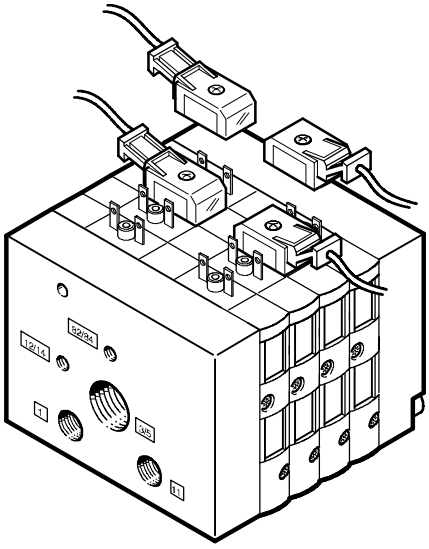
Contacts which are fitted on the top of the valve slice form the interface for various electrical connection options. The electrical connection is attached from above using a screw. This means that the valve terminal can be adapted to different electrical requirements or fieldbus protocols using the same pneumatic part.

Electrical power



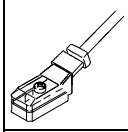
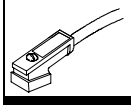
CPV10/14 valves are actuated by means of an integrated current reduction circuit, which reduces power consumption and heat build-up. This current reduction circuit is integrated in the electrical interface unit (multi-pin or fieldbus connection) or in the individual connecting cable.

Individual connection



Integration is only carried out in the pneumatic part with individual connection whereby the solenoid valves are connected with individual cables.

Ordering data

Designation	Code	Designation		Type	Part No.
CPV10/14					
	D	Plug socket with cable (suitable for chain link trunking)	2.5 m	**KMYZ-7-24-2,5-LED-PUR-B**	**193 683**
	E	Plug socket with cable (suitable for chain link trunking)	5 m	**KMYZ-7-24-5-LED-PUR-B**	**193 685**
	F	Plug socket with cable (suitable for chain link trunking)	10 m	**KMYZ-7-24-10-LED-PUR-B**	**196 070**
CPV18					
	D	Plug socket with cable	2.5 m	**KMEB-2-24-2,5-LED**	**174 844**
	E		5 m	**KMEB-2-24-5-LED**	**174 845**

- Note

Connecting cables are pre-assembled. They include a protective circuit and an LED indicating the operating status.

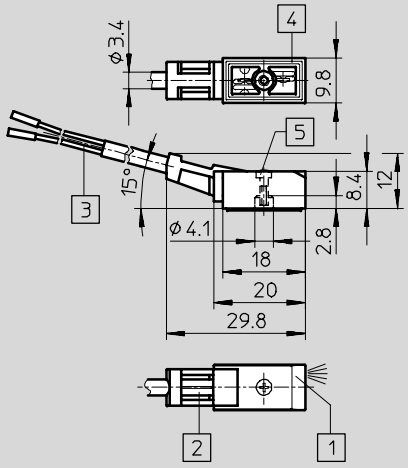
Valve terminal type 10 CPV, Compact Performance

Key features – Electrical components

FESTO

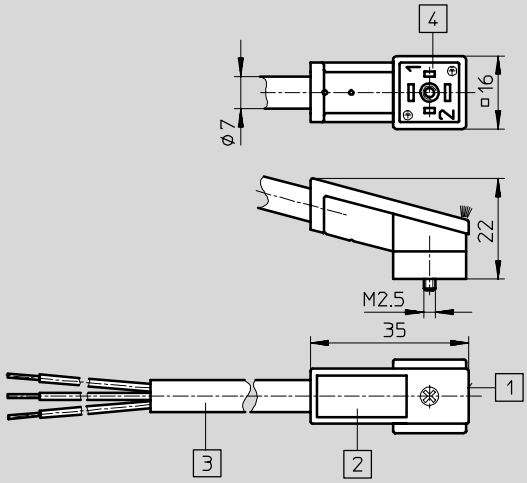
Dimensions – Connecting cable for individual connection Download CAD data ➔ **www.festo.com/en/engineering**

KMYZ-7-24-...



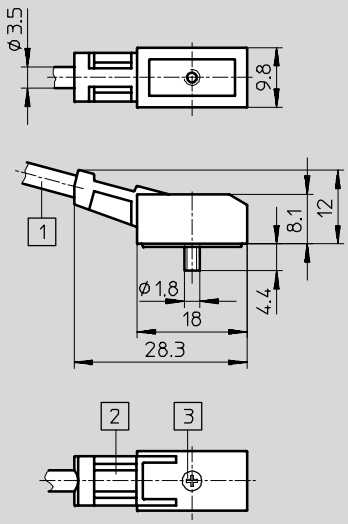
1 LED illuminated area
2 Location for inscription label
3 2-core cable 2.5 m, 5 m or 10 m (2x 0.25 mm²)
4 Connection pattern for MZC
5 Mounting screw max. tightening torque 0.35 Nm (self-tapping KB 18x7)

KMEB-2-24-...-LED



1 LED illuminated area
2 Inscription label
3 3-core cable 2.5 or 5 m (3x 0.75 mm²)
4 Connection pattern to DIN 43 650 type C

KRP-1-24-...[1)]



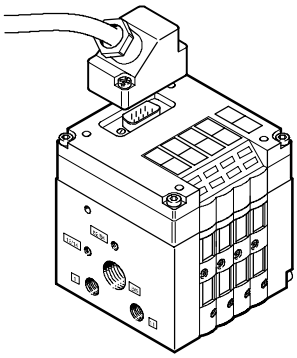
1 Cable 2x 0.25 mm²
2 Location for inscription labels (order code IBS 6x10, Part No. 18 576)
3 Mounting screw (self-tapping KB 1.8x9)

1) not for IC connection

Valve terminal type 10 CPV, Compact Performance

Key features – Electrical components

Multi-pin connection



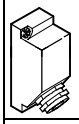
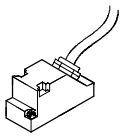
In addition to pneumatic integration, multi-pin connection results in integration of the electrical side as well, and facilitates connection from the control cabinet to the valve terminal via a single cable.
Sub-D 9-pin and 25-pin plugs are used for connection. The plug housing of the KMP-...- cable provides the Sub-D connectors with IP65 protection.

Two sizes of plug connector are used:
- Valve terminal, 4-fold: 9-pin
- Valve terminal, 6-fold: 25-pin
- Valve terminal, 8-fold: 25-pin

Pre-assembled connecting cables are available for easy connection. Standard lengths of 5 m and 10 m are available. The pre-assembled connecting cables are also available as accessories, in a design suitable for chain link trunking.

The cable KMP6-... can be used instead for applications with IP20 protection.

Ordering data

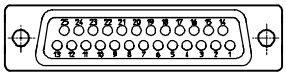
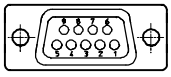
	Code	Designation			Type	Part No.
Multi-pin cable						
	Y	Plug socket (Sub-D plug can be crimped), self-assembly	9-pin		**SD-SUB-D-BU9**	**18 708**
			25-pin		**SD-SUB-D-BU25**	**18 709**
	R	Connecting cable, polyvinylchloride	9-pin	5 m	**KMP3-9P-08-5**	**18 698**
			25-pin		**KMP3-25P-16-5**	**18 624**
	S		9-pin	10 m	**KMP3-9P-08-10**	**18 579**
			25-pin		**KMP3-25P-16-10**	**18 625**
	–	Connecting cable, polyurethane	9-pin	5 m	**KMP4-9P-5-PUR**	**193 014**
			25-pin		**KMP4-25P-5-PUR**	**193 018**
	–		9-pin	10 m	**KMP4-9P-10-PUR**	**193 015**
			25-pin		**KMP4-25P-10-PUR**	**193 019**

Valve terminal type 10 CPV, Compact Performance

Key features – Electrical components

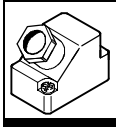
FESTO

Pin allocation – Pre-assembled multi-pin cable (viewed from plug-in direction)

Plug view	Pin	Core colour	Valve 24 V DC	
Cable with 25-pin Sub-D plug for 6-fold and 8-fold valve terminal				
 	1	White	1	14
	2	Green		12
	3	Yellow	2	14
	4	Grey		12
	5	Pink	3	14
	6	Blue		12
	7	Red	4	14
	8	Magenta		12
	9	Grey-pink	5	14
	10	Red-blue		12
	11	White-green	6	14
	12	Brown-green		12
	13	White-yellow	7	14
	14	Yellow-brown		12
	15	White-grey	8	14
	16	Grey-brown		12
	17			
	18			
	19			
	20			
	21			
	22			
	23			
	24	Brown	(0 V)[1)]	
	25	Black	(0 V)[1)]	
Cable with 9-pin Sub-D plug for 4-fold valve terminal				
 	1	White	1	14
	2	Green		12
	3	Yellow	2	14
	4	Grey		12
	5	Pink	3	14
	6	Blue		12
	7	Red	4	14
	8	Magenta		12
	9	Black	Common	

1) 0 V for positive switching control signals; connect 24 V for negative switching control signals; mixed operation is not permitted.

Multi-pin cable

	Designation	Type
	Sub-D plug, 9-pin for self-assembly	**SD-Sub-D-Bu9**
	Sub-D plug, 25-pin for self-assembly	**SD-Sub-D-Bu25**

Valve terminal type 10 CPV, Compact Performance

Key features – Electrical components

Valve terminal type 10 – AS-interface valve terminal

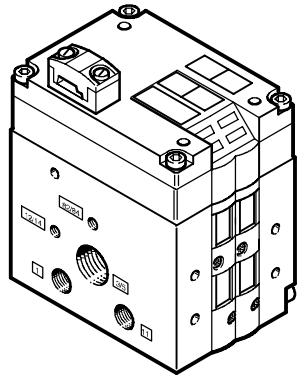
The AS-interface permits the spatial distribution of individual components or small component groups.
The AS-interface connection of valve terminal type 10 can be used to control up to 8 solenoid coils. This results in small valve terminals with 2, 4 or 8 valves.

The valve terminal cover contains the LEDs which indicate the operating status and the protective circuit for the valves. The standard AS-interface protocol permits a maximum of 4 inputs and 4 outputs in one unit.
The use of 2 AS-interface slaves in one valve terminal means that 8 inputs and 8 outputs can be controlled in an 8-fold valve terminal (8 solenoid coils).
All CPV valve terminals can be operated using additional functions, e.g. relay or vacuum slices.

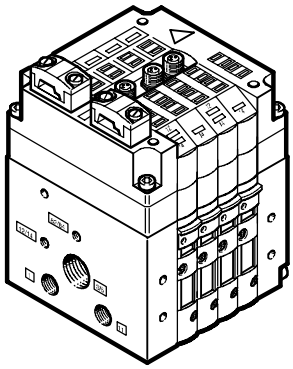
Valve terminals CPV with inputs are also available for A/B operation to SPEC 2.1.

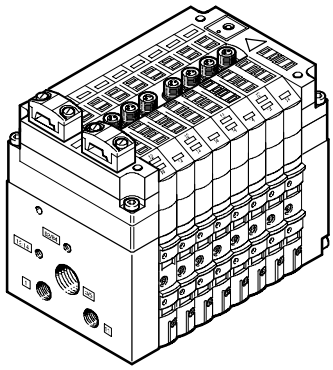
➔ AS-interface components
4 / 4.9-2

Standard AS-interface valve terminal

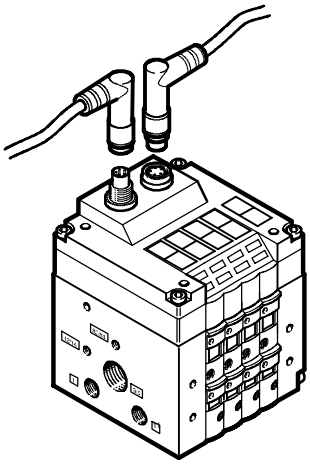


AS-interface valve terminal with additional power supply and inputs





CP system connection



Integration of valve terminal type 10 into a fieldbus system or independent control system is accomplished by connecting the terminals to the corresponding fieldbus node or control block with simple, pre-assembled terminal connectors.
The 5-pin connecting cables carry the supply power and control signals.
The valve terminal cover contains the LEDs which indicate the operating status and the protective circuits for the valves.

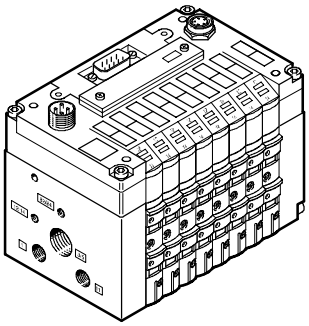
- Max. 16 valves in 8 valve slices

➔ CP installation system
4 / 4.6-2

Valve terminal type 10 CPV, Compact Performance

Key features – Electrical components

Valve terminals with direct integration of standard fieldbus protocols



Valve terminals are available for PROFIBUS DP, Festo fieldbus, ABB CS31, Moeller SUConet K, INTERBUS, CANopen, DeviceNet and CC-Link in all three sizes: 10, 14 and 18 mm, each with 8 valve slices.

These valve terminals can be equipped with any valve without restrictions.

➔ CPV with Direct Link fieldbus 4 / 4.7-2

ET200X pneumatic interface for CPV10 and CPV14

Adaptation of CPV valve terminal to Siemens ET200X I/O module. The combination of the ET200X function modules and the pneumatic functions of the CPV valve terminal provides a highly integrateable automation solution for systems using electrical and pneumatic drives with

- up to 16 CPV valves
- fast and secure contacting to IP65
- CPV 10 and CPV 14 valve terminals
- high degree of protection IP65/IP67
- modular configuration
- large number of I/O modules
  - digital I/O
  - analogue I/O
  - supply branching for activation of AC motors
- PROFIBUS DP interface

Mounting kit for ET200X
CPV-...-VI-BG-ET200X

Specific data on the ET200X pneumatic interface can be found in Siemens product catalogues.

Pneumatic equipment

Operate your equipment with unlubricated compressed air if possible. Festo valves and cylinders are designed for operation under normal use without any additional lubrication, yet still have a long service life. The quality of compressed air downstream from the compressor must correspond to that of unlubricated compressed air. If possible, do not operate all of your equipment with lubricated compressed air. The lubricators should, where possible, always be installed directly upstream of the actuator 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 51 524-HLP32; basic oil viscosity 32 CST at 40 °C).

Bio-oils
When using bio-oils (oils which are based upon synthetic or native ester, e.g. rapeseed oil methyl ester), the maximum residual oil content of 0.1 mg/m^3 must not be exceeded (see ISO 8573-1 Class 2).

Mineral oils
When using mineral oils (e.g. HLP oils to DIN 51 524, parts 1 through 3) or similar oils based on poly-alpha-olefins (PAO), the maximum residual oil content of 5 mg/m^3 must not be exceeded (see ISO 8573-1 Class 4).
A higher residual oil content irrespective of the compressor oil cannot be permitted, as the basic lubricant would be washed away over time.

Certifications		
		Approved variants
c UL us	Certification to UL 429 Certification to CSA 22.2 No. 139	All, other than: I1, N2, C2, CC, IP (in preparation)
	Use in hazardous locations Class I, Division 2, Groups A,B,C and D Certification to UL 1604 Certification to CSA 22.2 No. 213	MP, IC
Ex	In accordance with EU Directive 94/9/EU Use in hazardous locations II 3G/D EEx nA II T5 X –5°C ≤ Ta ≤ 50°C T 80°C IP65	All
CE	In accordance with EU Directive 89/336/EU Interference emission tested to EN 61 000-6-4 Interference immunity tested to EN 61 000-6-2	All

Valve terminal type 10 CPV, Compact Performance

Technical data

FESTO

- Flow rates of up to
  CPV10: 400 l/min
  CPV14: 800 l/min
  CPV18: 1600 l/min

- Valve width
  CPV10: 10 mm
  CPV14: 14 mm
  CPV18: 18 mm

- Voltage
  24 V DC

General technical data – CPV10												
Valve function	5/2-way valve			2x 3/2-way valve Normal position			5/3-way valve Mid-position	2x 2/2-way valve Normal position		Vacuum generator	
	single solenoid	fast switching	double solenoid	open	closed	1x open 1x closed	closed	closed	1x open 1x closed		with ejector pulse
Valve function order code	M	F	J	N	C	H	G	D	I	A	E

Constructional design		Electromagnetically actuated piston spool valve
Width	[mm]	10
Nominal size	[mm]	4
Lubrication		Lubrication for life, PWIS-free (free of paint wetting impairment substances)
Type of mounting		Via pneumatic multi-connector plate
		Via backwall
		On H-rail
Mounting position		Any
Manual override		Pushing, detenting or covered
Nominal flow rate without fitting	[l/min]	400
Pneumatic connections[1]		
Pneumatic connection		Via end plate
Supply port	1/11	G⅛
Exhaust port	3/5	G⅜ (G¼)
Working lines	2/4	M7
Pilot air port	12/14	M5 (M7)
Pilot exhaust air port	82/84	M5 (M7)

1) Connection dimensions in brackets for pneumatic multi-connector plate

Operating pressure [bar]												
Valve function order code		M	F	J	N	C	H	G	D	I	A	E
Without pilot air supply		3 ... 8										
With pilot air supply	P_1=P_{11}	–0.9 ... +10										
Pilot pressure	P_{12}=P_{14}	3 ... 8										

Valve terminal type 10 CPV, Compact Performance

Technical data

FESTO

Valve response times [ms]											
Valve function order code		M	F	J	N	C	H	G	D	I	A	E
Response times	on	17	13	–	17	17	17	20	15	15	–	15
	off	27	17	–	25	25	25	30	17	17	–	17
	change-over	–	–	10	–	–	–	–	–	–	–	

Operating and environmental conditions												
Valve function order code		M	F	J	N	C	H	G	D	I	A	E
Operating medium		Filtered compressed air, lubricated or unlubricated, inert gases ➔ 4 / 2.1-33										
Grade of filtration	[µm]	40 (average pore size)										
Ambient temperature	[°C]	–5 ... +50 (vacuum generators: 0 ... +50)										
Temperature of medium	[°C]	–5 ... +50 (vacuum generators: 0 ... +50)										
Corrosion resistance class CRC[1]		2[2] (vacuum generators[1])										

1) Corrosion resistance class 1 according to Festo standard 940 070
Components requiring low corrosion resistance. Transport and storage protection. Parts that do not have primarily decorative surface requirements, e.g. in internal areas that are not visible or behind covers.
2) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents.

Electrical data		
Electromagnetic compatibility of CP valve terminal with CP connection		Interference emission tested to EN 61 000-6-4, "Interference emission in industrial areas"
		Interference immunity[1] tested to EN 61 000-6-2, "Interference immunity in industrial areas"
Protection against electric shock (protection against direct and indirect contact to EN 60204-1/IEC 204)		By means of PELV power supply unit
Explosion protection class		In accordance with EU Directive 94/9/EU, II 3 G/D EEx nA II T5 –5°C ‹ Ta ‹ +50°C T 80°C IP65
		Certification to UL 429, CSA 22.2 No. 139
CE certification		In accordance with EU Directive 89/336/EU
Operating voltage	[V]	24 DC (+10/–15%)
Edge steepness (IC and MP only)		› 0.4 V/ms minimal voltage rise time to reach the high-current phase
Residual ripple	[Vss]	4
Electrical power consumption	[W]	0.6 (0.45 at 21 V); (with CPV10-M11H-... 0.65)
Duty cycle With auxiliary pilot air $P_1 = P_{11}$		100% –0.9 ... +10
Protection class to EN 60 529		IP65 (for all types of signal transmission in assembled state)
Relative air humidity		95% non-condensing
Vibration resistance		To DIN/IEC 68/EN 60 068, Parts 2-6
Shock resistance		To DIN/IEC 68/EN 60 068, Parts 2-27
Continuous shock resistance		To DIN/IEC 68/EN 60 068, Parts 2-29

1) The maximum signal line length is 30 m

Relay plate		
Operating voltage	[V]	20.4 ... 26.4 DC
Electrical power consumption		1.2 W
Number of relays		2 with electrically isolated outputs
Load current circuit		Each 1 A/24 V DC +10%
Relay response times	on	5 ms
	off	2 ms

Valve terminal type 10 CPV, Compact Performance

Technical data

General technical data – CPV14											
Valve function		5/2-way valve		2x 3/2-way valve Normal position			5/3-way valve Mid-position	2x 2/2-way valve Normal position		Vacuum generator	
		single solenoid	double solenoid	open	closed	1x open 1x closed	closed	closed	1x open 1x closed		with ejector pulse
Valve function order code		M	J	N	C	H	G	D	I	A	E
Constructional design		Electromagnetically actuated piston spool valve									
Width	[mm]	14									
Nominal size	[mm]	6									
Lubrication		Lubrication for life, PWIS-free (free of paint wetting impairment substances)									
Type of mounting		Via pneumatic multi-connector plate									
		Via backwall									
		On H-rail									
Mounting position		Any									
Manual override		Pushing, detenting or covered									
Nominal flow rate without fitting	[l/min]	800									
Pneumatic connections[1]											
Pneumatic connection		Via end plate									
Supply port	1/11	G1/4									
Exhaust port	3/5	G1/2 (G3/8)									
Working lines	2/4	G1/8									
Pilot air port	12/14	G1/4									
Pilot exhaust air port	82/84	G1/8									

1) Connection dimensions in brackets for pneumatic multi-connector plate

Operating pressure [bar]											
Valve function order code		M	J	N	C	H	G	D	I	A	E
Without pilot air supply		3 ... 8									
With pilot air supply	P_1=P_{11}	–0.9 ... +10									
Pilot pressure	P_{12}=P_{14}	3 ... 8									

Valve response times [ms]											
Valve function order code		M	J	N	C	H	G	D	I	A	E
Response times	on	25	–	24	24	24	22	13	13	–	13
	off	35	–	30	30	30	30	16	16	–	16
	change-over	–	12	–	–	–	–	–	–	–	–

Valve terminal type 10 CPV, Compact Performance

Technical data

FESTO

Operating and environmental conditions											
Valve function order code		M	J	N	C	H	G	D	I	A	E
Operating medium		Filtered compressed air, lubricated or unlubricated, inert gases ➔ 4 / 2.1-33									
Grade of filtration	[µm]	40 (average pore size)									
Ambient temperature	[°C]	–5 ... +50 (vacuum generators: 0 ... +50)									
Temperature of medium	[°C]	–5 ... +50 (vacuum generators: 0 ... +50)									
Corrosion resistance class CRC[1)]		2[2)] (vacuum generators[1)])									

1) Corrosion resistance class 1 according to Festo standard 940 070
Components requiring low corrosion resistance. Transport and storage protection. Parts that do not have primarily decorative surface requirements, e.g. in internal areas that are not visible or behind covers.
2) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents.

Electrical data		
Electromagnetic compatibility of CP valve terminal with CP connection		Interference emission tested to EN 61 000-6-4, “Interference emission in industrial areas”
		Interference immunity[1)] tested to EN 61 000-6-2, “Interference immunity in industrial areas”
Protection against electric shock (protection against direct and indirect contact to EN 60204-1/IEC 204)		By means of PELV power supply unit
Explosion protection class		In accordance with EU Directive 94/9/EU, II 3 G/D EEx nA II T5 –5°C ‹ Ta ‹ +50°C T 80°C IP65
		Certification to UL 429, CSA 22.2 No. 139
CE certification		In accordance with EU Directive 89/336/EU
Operating voltage	[V]	24 DC (+10/–15%)
Edge steepness (IC and MP only)		› 0.4 V/ms minimal voltage rise time to reach the high-current phase
Residual ripple	[Vss]	4
Electrical power consumption	[W]	0.9 (0.65 at 21 V)
Duty cycle With auxiliary pilot air $P_1 = P_{11}$		100% –0.9 ... +10
Protection class to EN 60 529		IP65 (for all types of signal transmission in assembled state)
Relative air humidity		95% non-condensing
Vibration resistance		To DIN/IEC 68/EN 60 068, Parts 2-6
Shock resistance		To DIN/IEC 68/EN 60 068, Parts 2-27
Continuous shock resistance		To DIN/IEC 68/EN 60 068, Parts 2-29

1) The maximum signal line length is 30 m

Relay plate		
Operating voltage	[V]	20.4 ... 26.4 DC
Electrical power consumption		1.2 W
Number of relays		2 with electrically isolated outputs
Load current circuit		Each 1 A/24 V DC +10%
Relay response times	on	5 ms
	off	2 ms

Valve terminal type 10 CPV, Compact Performance

Technical data

General technical data – CPV18											
Valve function		5/2-way valve		2x 3/2-way valve Normal position			5/3-way valve Mid-position	2x 2/2-way valve Normal position		Vacuum generator	
		single solenoid	double solenoid	open	closed	1x open 1x closed	closed	closed	1x open 1x closed		with ejector pulse
Valve function order code		M	J	N	C	H	G	D	I	A	E
Constructional design		Electromagnetically actuated piston spool valve									
Width	[mm]	18									
Nominal size	[mm]	8									
Lubrication		Lubrication for life, PWIS-free (free of paint wetting impairment substances)									
Type of mounting		Via pneumatic multi-connector plate									
		Via backwall									
		On H-rail									
Mounting position		Any									
Manual override		Pushing, detenting or covered									
Nominal flow rate without fitting	[l/min]	1600									
Pneumatic connections[1]											
Pneumatic connection		Via end plate									
Supply port	1/11	G3/8									
Exhaust port	3/5	G1/2									
Working lines	2/4	G1/4									
Pilot air port	12/14	G1/4									
Pilot exhaust air port	82/84	G1/4									

1) Connection dimensions in brackets for pneumatic multi-connector plate

Operating pressure [bar]											
Valve function order code		M	J	N	C	H	G	D	I	A	E
Without pilot air supply		3 ... 8									
With pilot air supply	P_1=P_{11}	–0.9 ... +10									
Pilot pressure	P_{12}=P_{14}	3 ... 8									

Valve response times [ms]											
Valve function order code		M	J	N	C	H	G	D	I	A	E
Response times	on	18	–	18	18	18	14	14	14	–	14
	off	26	–	24	24	24	32	20	20	–	20
	change-over	–	12	–	–	–	–	–	–	–	–

Valve terminal type 10 CPV, Compact Performance

Technical data

FESTO

Operating and environmental conditions											
Valve function order code		M	J	N	C	H	G	D	I	A	E
Operating medium		Filtered compressed air, lubricated or unlubricated, inert gases ➔ 4 / 2.1-33									
Grade of filtration	[µm]	40 (average pore size)									
Ambient temperature	[°C]	–5 ... +50 (vacuum generators: 0 ... +50)									
Temperature of medium	[°C]	–5 ... +50 (vacuum generators: 0 ... +50)									
Corrosion resistance class CRC[1]		2[2] (vacuum generators[1])									

1) Corrosion resistance class 1 according to Festo standard 940 070
Components requiring low corrosion resistance. Transport and storage protection. Parts that do not have primarily decorative surface requirements, e.g. in internal areas that are not visible or behind covers.
2) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents.

Electrical data		
Electromagnetic compatibility of CP valve terminal with CP connection		Interference emission tested to EN 61 000-6-4, “Interference emission in industrial areas”
		Interference immunity[1] tested to EN 61 000-6-2, “Interference immunity in industrial areas”
Protection against electric shock (protection against direct and indirect contact to EN 60204-1/IEC 204)		By means of PELV power supply unit
Explosion protection class		In accordance with EU Directive 94/9/EU, II 3 G/D EEx nA II T5 –5°C ‹ Ta ‹ +50°C T 80°C IP65
		Certification to UL 429, CSA 22.2 No. 139
CE certification		In accordance with EU Directive 89/336/EU
Operating voltage	[V]	24 DC (+10/–15%)
Edge steepness (IC and MP only)		› 0.4 V/ms minimal voltage rise time to reach the high-current phase
Residual ripple	[Vss]	4
Electrical power consumption	[W]	1.5 (0.95 at 21 V)
Duty cycle With auxiliary pilot air $P_1 = P_{11}$		100% –0.9 ... +10
Protection class to EN 60 529		IP65 (for all types of signal transmission in assembled state)
Relative air humidity		95% non-condensing
Vibration resistance		To DIN/IEC 68/EN 60 068, Parts 2-6
Shock resistance		To DIN/IEC 68/EN 60 068, Parts 2-27
Continuous shock resistance		To DIN/IEC 68/EN 60 068, Parts 2-29

1) The maximum signal line length is 30 m

Valve terminal type 10 CPV, Compact Performance

Technical data

Materials	
Basic electrical unit	Die-cast aluminium, polyamide (PA), nitrile rubber (NBR)
Valve slices	Die-cast aluminium
Valve module 5/3G	Die-cast aluminium, polyacetate (POM)
Relay plate	Polyamide (PA), brass
Blanking plate/separator plate	Polyamide (PA)
End plates	Die-cast aluminium
Surface mounted silencer	Die-cast aluminium, polyethylene (PE)
Pneumatic multi-connector plate	Wrought aluminium alloy
Inscription label holder	Polyacetate (POM), polyvinylchloride (PVC)
Seal	nitrile rubber (NBR), hydrogenated nitrile rubber (HNBR)

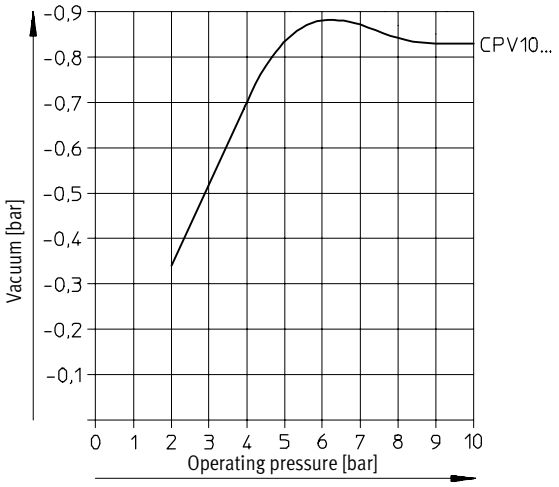
Product weight [g]	Approx. weights		
	CPV10	CPV14	CPV18
Electrical connection plates with AS-i connection			
■ on CP valve terminals with 2 valve positions	85	130	275
■ on CP valve terminals with 4 valve positions	110	175	355
■ on CP valve terminals with 8 valve positions	400	460	–
Electrical connection plates with CP connection			
■ on CP valve terminals with 4 valve positions	145	230	375
■ on CP valve terminals with 6 valve positions	180	250	450
■ on CP valve terminals with 8 valve positions	200	300	540
Electrical connection plates with MP connection			
■ on CP valve terminals with 4 valve positions	110	170	400
■ on CP valve terminals with 6 valve positions	140	230	425
■ on CP valve terminals with 8 valve positions	165	275	515
End plates (2 pieces)	160	280	740
Pneumatic multi-connector plate			
■ on CP valve terminals with 2 valve positions	120	270	520
■ on CP valve terminals with 4 valve positions	165	390	750
■ on CP valve terminals with 6 valve positions	225	510	870
■ on CP valve terminals with 8 valve positions	270	630	1300
Surface mounted silencer	147	234	–
Relay plate	35	55	–
Blanking plate	25	45	90
Separator plate	25	45	90
Valve sub-bases, vacuum generators	65	110	260
Functional module: 5/3G function	46	105	–
Functional module: One-way flow control valves	25	54	125

Valve terminal type 10 CPV, Compact Performance

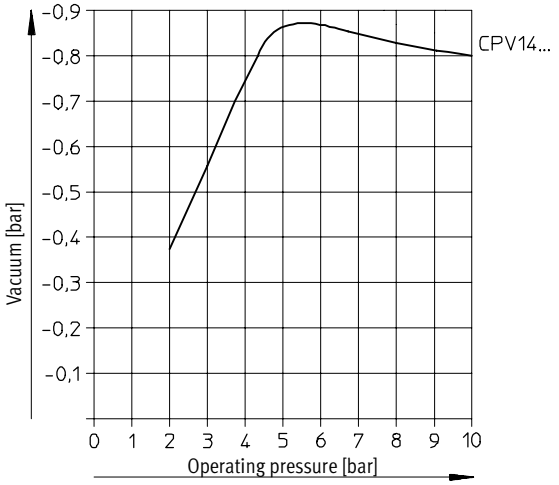
Technical data

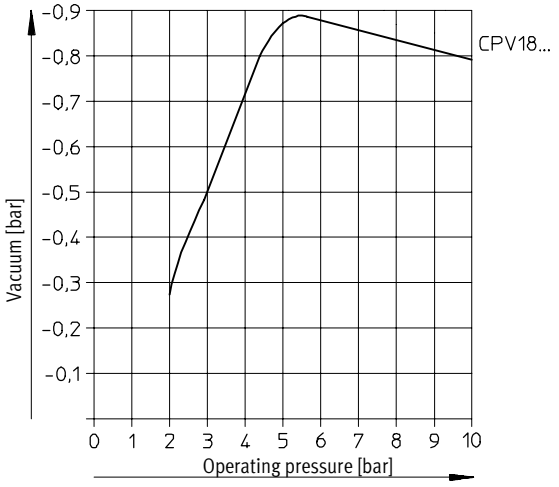
FESTO

Vacuum generator



Vacuum as a function of operating pressure

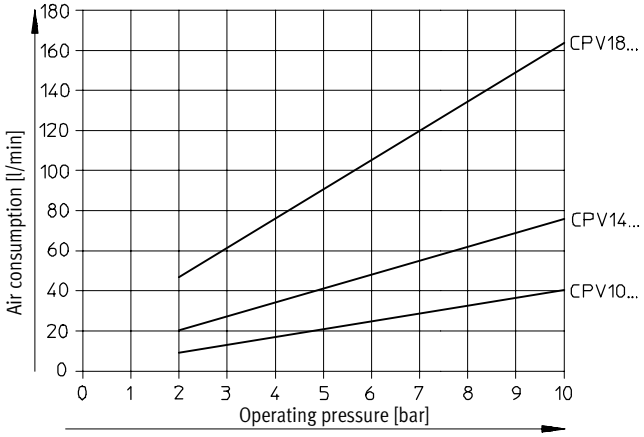




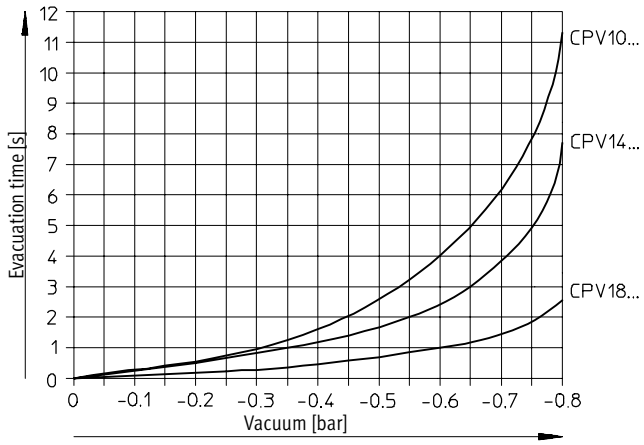
Valve terminal type 10 CPV, Compact Performance

Technical data

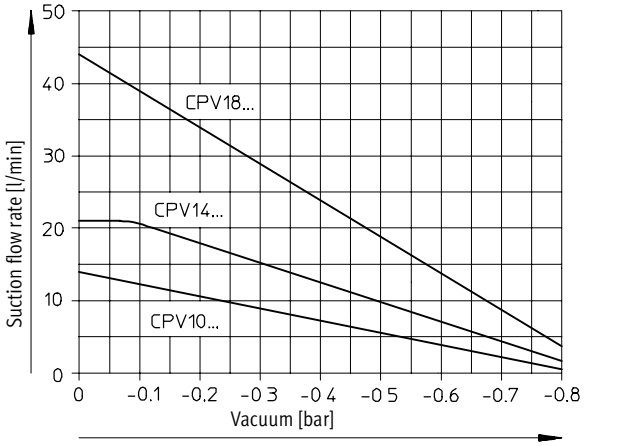
Vacuum generator



Air consumption as a function of operating pressure



Evacuation time for a volume of 1 litre at $P_{nominal}$



Suction capacity as a function of partial vacuum at $P_{nominal}$

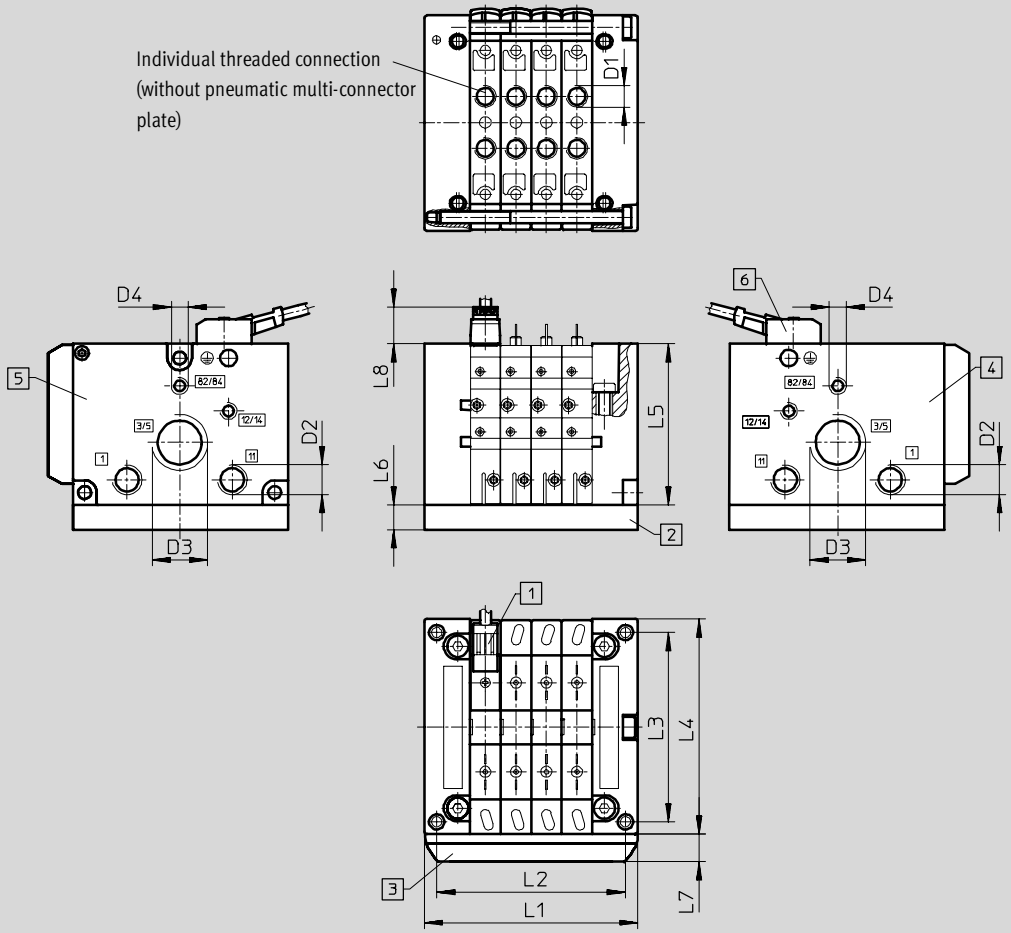
Valve terminal type 10 CPV, Compact Performance

Technical data

FESTO

Dimensions Download CAD data ➔ **www.festo.com/en/engineering**

Valve terminal with individual connections – CPV10/14/18-VI-IC-...



1 Slots for inscription labels
2 Pneumatic multi-connector plate (type CPV-...-VI-...)
3 Inscription label holder
4 Left-hand end plate (threaded connection not in conjunction with pneumatic multi-connector plate)
5 Right-hand end plate (threaded connection not in conjunction with pneumatic multi-connector plate)
6 Plug socket with cable type KMYZ-7-... for CPV10/14 type KMEB-2-... for CPV18

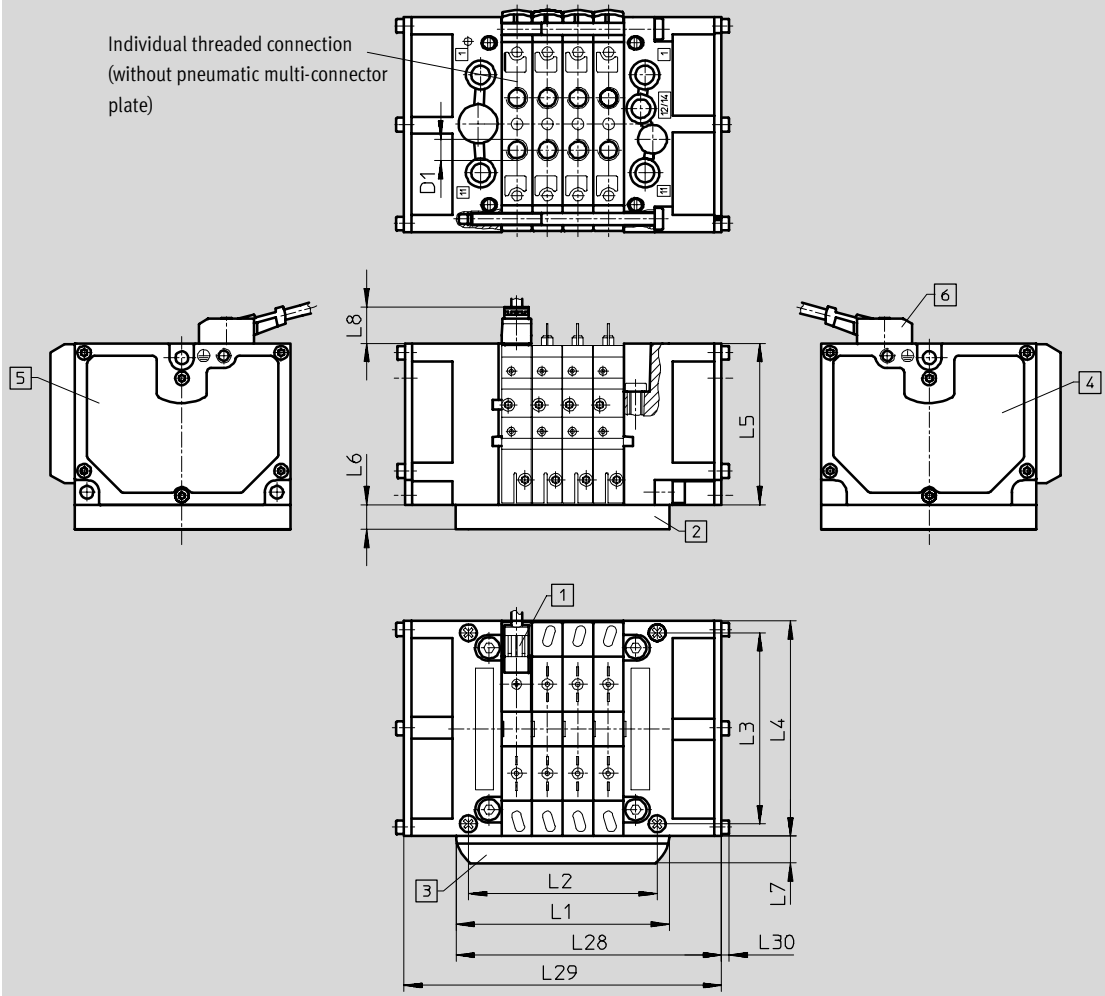
		L1	L2	L3	L4	L5	L6	L7	L8	D1	D2	D3	D4
CPV10	2-fold	50	41.8	62	71	52.8	15	9.5	11.8	M7	G1⁄8	G3⁄8	M5
	4-fold	70	61.8										
	6-fold	90	81.8										
	8-fold	110	101.8										
CPV14	2-fold	68	58	78	89	58.8	20	9.5	11.8	G1⁄8	G1⁄4	G1⁄2	G1⁄8
	4-fold	96	86										
	6-fold	124	114										
	8-fold	152	142										
CPV18	2-fold	96	85.5	106.5	118	73	20	9.5	21.6	G1⁄4	G3⁄8	G1⁄2	G1⁄4
	4-fold	132	121.5										
	6-fold	168	157.5										
	8-fold	204	193.5										

Valve terminal type 10 CPV, Compact Performance

Technical data

Dimensions Download CAD data ➔ **www.festo.com/en/engineering**

Valve terminal with surface mounted silencers – CPV10/14/18-VI-IC-...



1 Slots for inscription labels
2 Pneumatic multi-connector plate type CPV-...-VI-...
3 Inscription label holder
4 Left-hand surface mounted silencer
5 Right-hand surface mounted silencer
6 Plug socket with cable type KMYZ-7-... for CPV10/14 type KMBE-2-... for CPV18

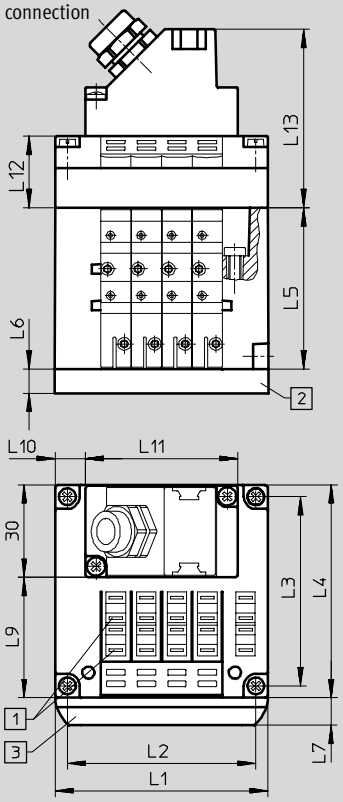
		L1	L2	L3	L4	L5	L6	L7	L8	L28	L29	L30	D1
CPV10	2-fold	50	71.8	62	71	52.8	15	9.5	11.5	67	84	2.5	M7
	4-fold	70	81.8							87	104		
	6-fold	90	81.8							107	124		
	8-fold	110	101.8							127	144		
CPV14	2-fold	68	58	78	89	58.8	20	9.5	11.8	85	102	3	G⅛
	4-fold	96	86							113	130		
	6-fold	124	114							141	158		
	8-fold	152	142							169	186		
CPV18	2-fold	96	85.5	106.5	118	73	20	9.5	21.6	127	158	4.55	G¼
	4-fold	132	121.5							163	194		
	6-fold	168	157.5							199	230		
	8-fold	204	193.5							235	266		

Valve terminal type 10 CPV, Compact Performance

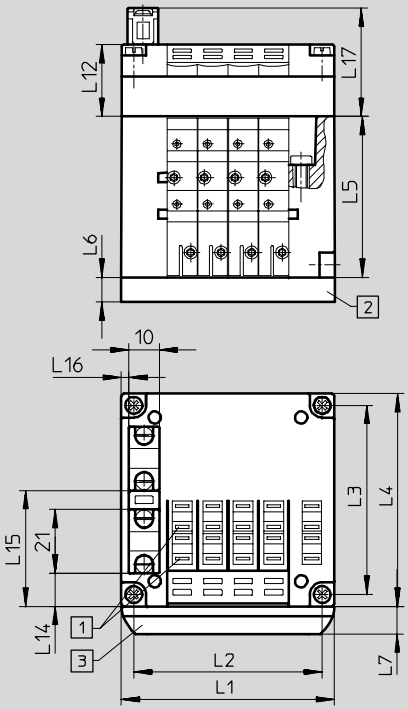
Technical data

Dimensions Download CAD data ➔ **www.festo.com/en/engineering**

Valve terminal with multi-pin connection



Valve terminal with AS-interface connection



1 Slots for inscription labels
2 Pneumatic multi-connector plate
3 Inscription label holder

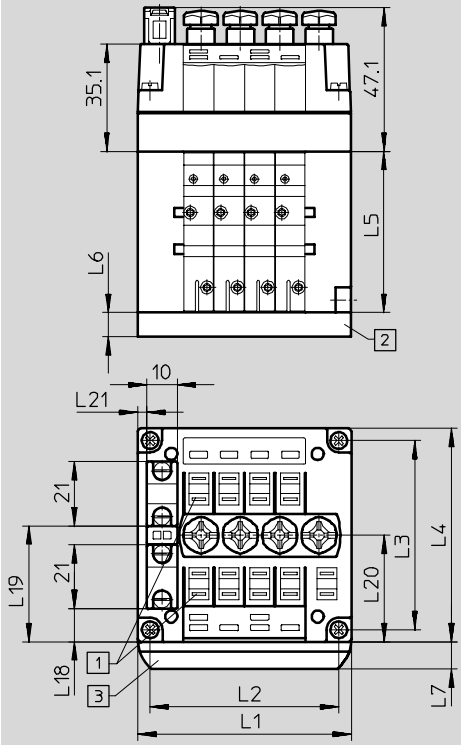
		L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15	L16	L17
CPV10	2-fold	50	41.8	62	71	52.8	15	9.5	–	–	–	–	–	–	10.9	38.1	2.5	35.5
	4-fold	70	61.8						11.8	39.5	10	50	23.5	58.8				
	6-fold	90	81.8								10	70			–	–	–	–
	8-fold	110	101.8								20	70			–	–	–	–
CPV14	2-fold	68	58	78	89	58.8	20	9.5	–	–	–	–	–	–	14	52	5	35.5
	4-fold	96	86						11.8	61.8	23	50	23.5	58.8				
	6-fold	124	114								27	70			–	–	–	–
	8-fold	152	142								41	70			–	–	–	–
CPV18	2-fold	96	85.5	106.5	118	73	20	9.5	–	–	–	–	–	–	27.4	68.2	10.4	40
	4-fold	132	121.5						21.6	88.4	41	50	28	63				
	6-fold	168	157.5								49	70			–	–	–	–
	8-fold	204	193.5								67	70			–	–	–	–

Valve terminal type 10 CPV, Compact Performance

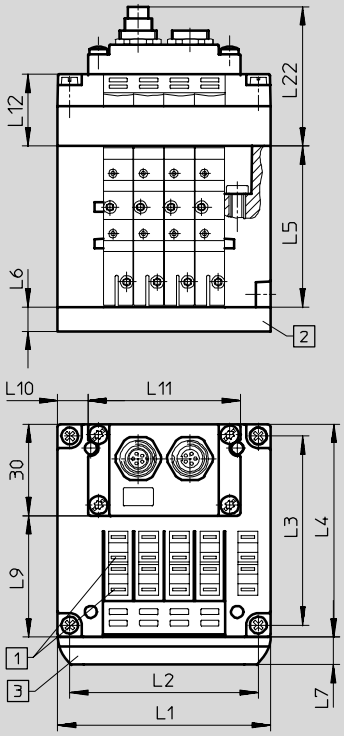
Technical data

Dimensions Download CAD data ➔ **www.festo.com/en/engineering**

Valve terminal with AS-interface connection and additional inputs



Valve terminal with fieldbus connection



1 Slots for inscription labels 2 Pneumatic multi-connector plate 3 Inscription label holder

		L1	L2	L3	L4	L5	L6	L7	L9	L10	L11	L12	L18	L19	L20	L21	L22
CPV10	2-fold	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	4-fold	70	61.8							10	50		10.9	38.1	35	3	
	6-fold	90	81	62	71	52.8	15	9.5	39.5	10	70	23.5	–	–	–	–	46
	8-fold	110	101.8							20	70		10.4	38.6	31.9	3	
CPV14	2-fold	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	4-fold	96	86							23	50		18.8	46.8	43.3	5	
	6-fold	124	114	78	89	58.8	20	9.5	61.8	27	70	23.5	–	–	–	–	46
	8-fold	152	142							41	70		18.8	46.8	46.3	5	
CPV18	2-fold	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	4-fold	132	121.5							41	50		–	–	–	–	
	6-fold			106.5	118	73	20	9.5	88.4	49	70	28	–	–	–	–	50.5
	8-fold									67	70		–	–	–	–	

Valve terminal type 10 CPV, Compact Performance

Technical data

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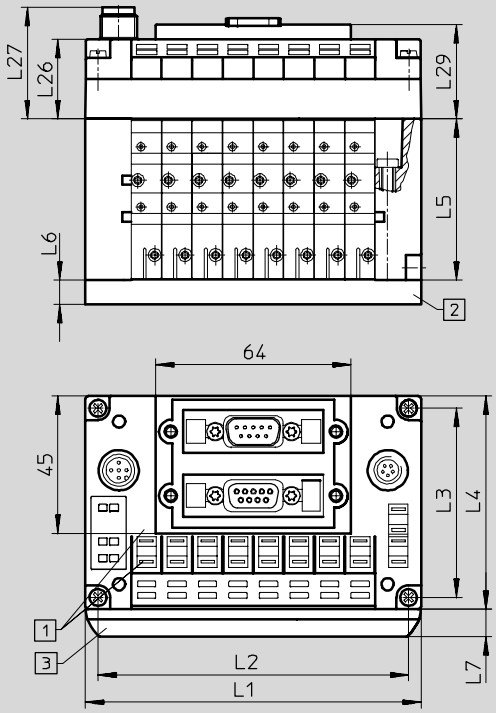
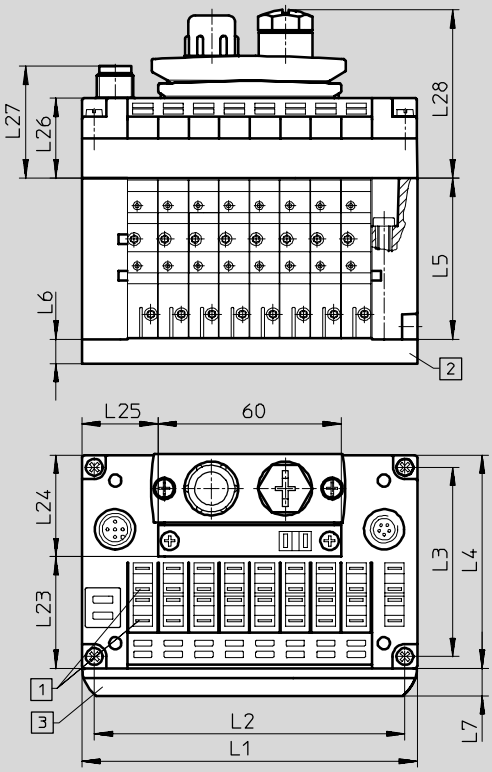
Dimensions Download CAD data ➔ **www.festo.com/en/engineering**

Valve terminal with direct integration

CPV10/14/18-VI-IB-8



CPV10/14/18-VI-DN2-8
CPV10/14/18-VI-CO2-8
CPV10/14/18-VI-CC-8



1 Slots for inscription labels
2 Pneumatic multi-connector plate
3 Inscription label holder

		L1	L2	L3	L4	L5	L6	L7	L23	L24	L25	L26	L27	L28	L29
CPV10	2-fold	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	4-fold	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	6-fold	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	8-fold	110	101.8	62	71	52.8	15	9.5	35.8	34.6	25	26.2	36.7	55.1	30.9
CPV14	2-fold	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	4-fold	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	6-fold	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	8-fold	152	142	78	89	58.8	20	9.5	52.8	34.6	46	26.2	36.7	55.1	30.9
CPV18	2-fold	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	4-fold	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	6-fold	–	–	–	–	–	–	–	–	–	–	–	–	–	–
	8-fold	204	193.5	106.5	118	7	20	9.5	79.8	36.6	72	31.2	41.7	59.6	35.9

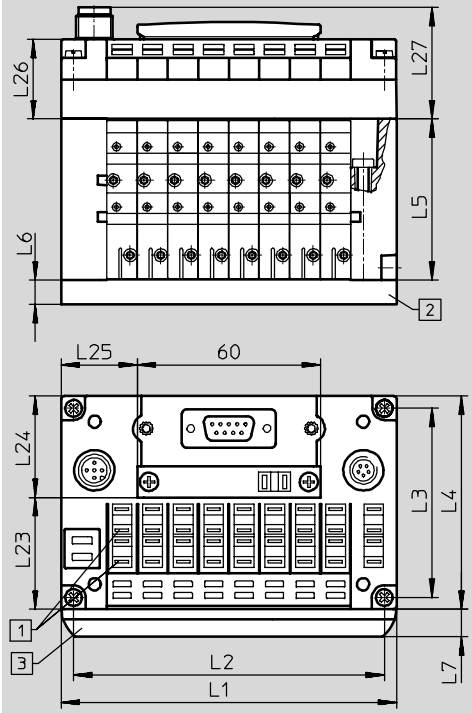
Valve terminal type 10 CPV, Compact Performance

Technical data

Dimensions Download CAD data ➔ **www.festo.com/en/engineering**

Valve terminal with direct integration

CPV10/14/18-VI-DI01-8



1 Slots for inscription labels 2 Pneumatic multi-connector plate 3 Inscription label holder

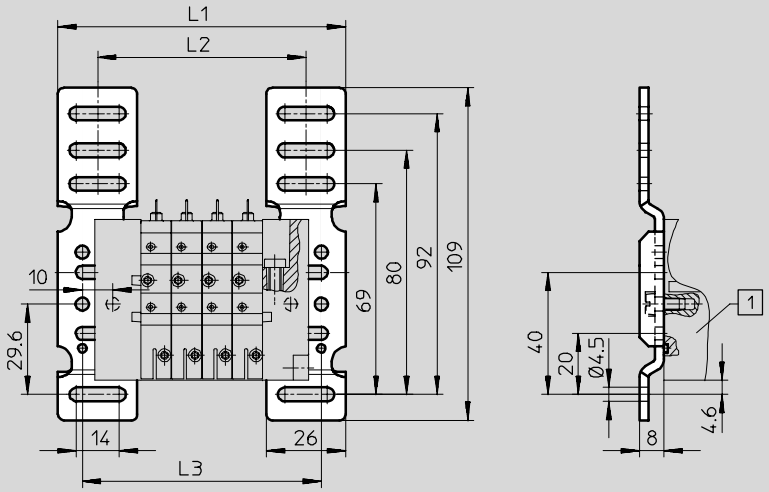
		L1	L2	L3	L4	L5	L6	L7	L23	L24	L25	L26	L27
CPV10	2-fold	–	–	–	–	–	–	–	–	–	–	–	–
	4-fold	–	–	–	–	–	–	–	–	–	–	–	–
	6-fold	–	–	–	–	–	–	–	–	–	–	–	–
	8-fold	110	101.8	62	71	52.8	15	9.5	35.5	34.6	25	26.2	36.7
CPV14	2-fold	–	–	–	–	–	–	–	–	–	–	–	–
	4-fold	–	–	–	–	–	–	–	–	–	–	–	–
	6-fold	–	–	–	–	–	–	–	–	–	–	–	–
	8-fold	152	142	78	89	58.8	20	9.5	52.8	34.6	46	26.2	36.7
CPV18	2-fold	–	–	–	–	–	–	–	–	–	–	–	–
	4-fold	–	–	–	–	–	–	–	–	–	–	–	–
	6-fold	–	–	–	–	–	–	–	–	–	–	–	–
	8-fold	204	193.5	106.5	118	7	20	9.5	79.8	36.6	72	31.2	41.7

Valve terminal type 10 CPV, Compact Performance

Technical data

Dimensions Download CAD data ➔ **www.festo.com/en/engineering**

Wall mounting for CPV10/14

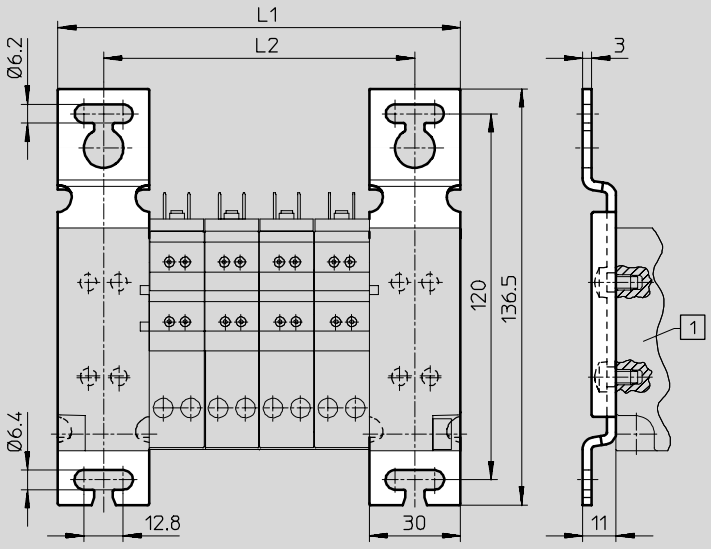


1 Valve terminal CPV-...

	CPV10							CPV14						
	2-fold	3-fold	4-fold	5-fold	6-fold	7-fold	8-fold	2-fold	3-fold	4-fold	5-fold	6-fold	7-fold	8-fold
L1	74	84	94	104	114	124	134	90	104	118	132	146	160	174
L2	48	58	68	78	88	98	108	64	78	92	106	120	134	148
L3	68	78	88	98	108	118	128	74	88	102	116	130	144	158

Dimensions Download CAD data ➔ **www.festo.com/en/engineering**

Wall mounting for CPV18



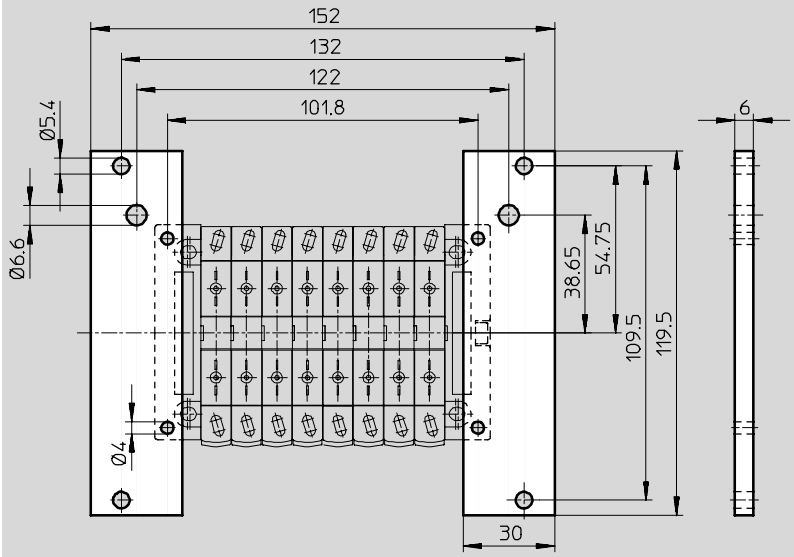
1 Valve terminal CPV-...

	CPV18						
	2-fold	3-fold	4-fold	5-fold	6-fold	7-fold	8-fold
L1	96	114	132	150	168	186	204
L2	66	84	102	120	138	156	174

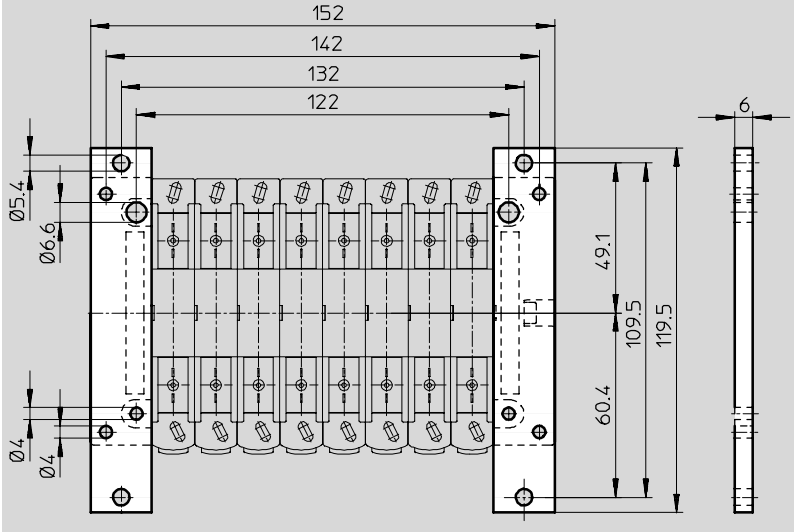
Dimensions Download CAD data ➔ **www.festo.com/en/engineering**

Mounting kit for ET200X

CPV10-VI-BG-ET200X



CPV14-VI-BG-ET200X



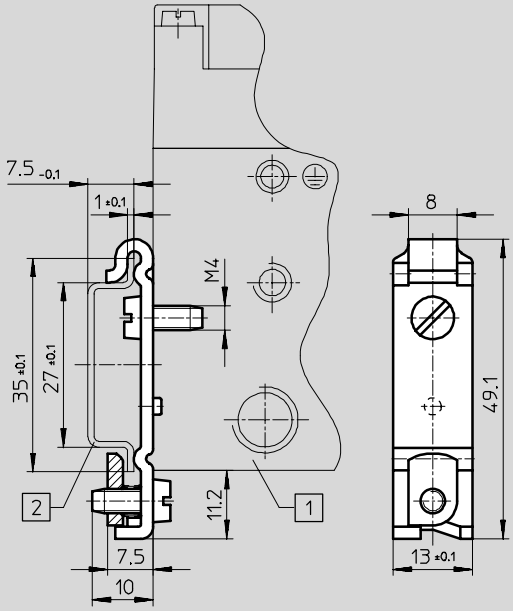
Valve terminal type 10 CPV, Compact Performance

Technical data

Dimensions Download CAD data ➔ **www.festo.com/en/engineering**

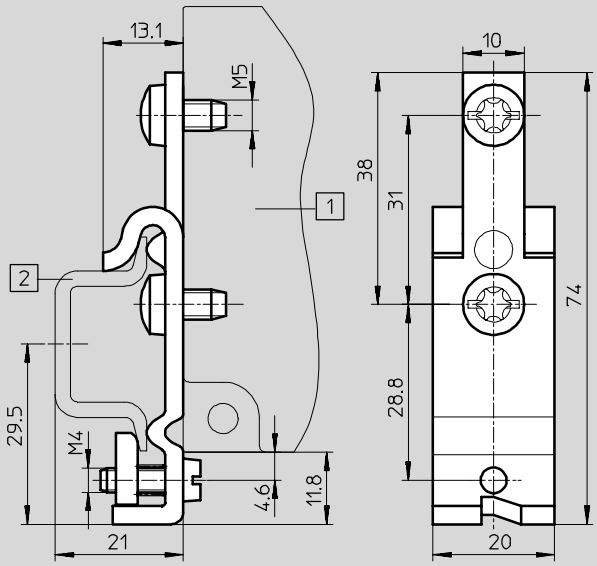
Rail mounting

Clip CPV10/14-VI-BG-NRH



1 Valve terminal CPV10/14 2 H-rail to DIN 50 022

Clip CPV18-VI-BG-NRH



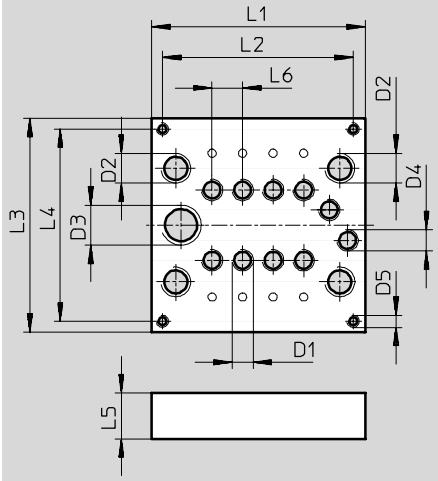
1 Valve terminal CPV18 2 H-rail to DIN 50 022

Valve terminal type 10 CPV, Compact Performance

Technical data

Dimensions Download CAD data ➔ **www.festo.com/en/engineering**

Pneumatic multi-connector plate – CPV-...-VI-P-...



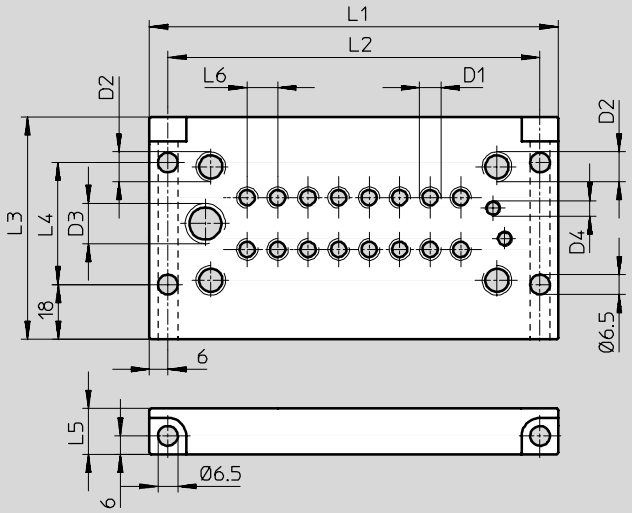
		L1	L2	L3	L4	L5	L6	D1	D2	D3	D4	D5
CPV10	2-fold	49.5	42.5	70	63	15	10	M7	G⅛	G¼	M7	M4
	4-fold	69.5	62.5									
	6-fold	89.5	82.5									
	8-fold	109.5	102.5									
CPV14	2-fold	67.5	53.5	86.6	76.6	20	14	G⅛	G¼	G⅜	G⅛	M4
	4-fold	95.5	81.5									
	6-fold	123.5	109.5									
	8-fold	151.5	137.5									
CPV18	2-fold	95.5	87.5	119.6	108	20	18	G¼	G⅜	G½	G¼	M5
	4-fold	131	123									
	6-fold	167	159									
	8-fold	203	195									

Valve terminal type 10 CPV, Compact Performance

Technical data

Dimensions Download CAD data ➔ **www.festo.com/en/engineering**

Pneumatic multi-connector plate with flange – CPV-...-VI-P-...-B



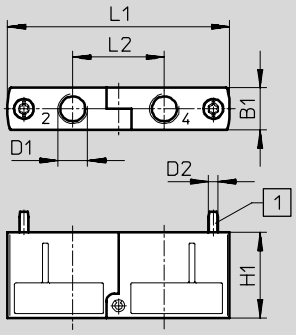
		L1	L2	L3	L4	L5	L6	D1	D2	D3	D4
CPV10	2-fold	74	62	73	40	15	10	M7	G1⁄8	G1⁄4	M5
	4-fold	94	82								
	6-fold	114	102								
	8-fold	134	122								
CPV14	2-fold	92	80	89	59	20	14	G1⁄8	G1⁄4	G3⁄8	G1⁄8
	4-fold	120	108								
	6-fold	148	136								
	8-fold	176	164								
CPV18	2-fold	119	107	118	88	20	18	G1⁄4	G3⁄8	G1⁄2	G1⁄4
	4-fold	155	143								
	6-fold	191	179								
	8-fold	227	215								

Valve terminal type 10 CPV, Compact Performance

Technical data

Dimensions Download CAD data ➔ **www.festo.com/en/engineering**

Functional module – CPV-...-BS-5/3GS-...



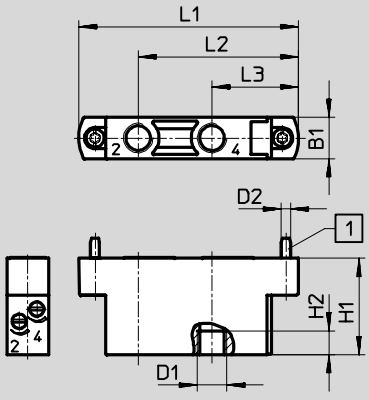
1 Mounting screw supplied loose

Type	B1	D1	D2	H1	L1	L2
CPV10-BS-5/3G-M7	9.9	M7	M2.5	22	55.8	23
CPV14-BS-5/3G-⅛	13.8	G⅛	M3	28	72.8	30

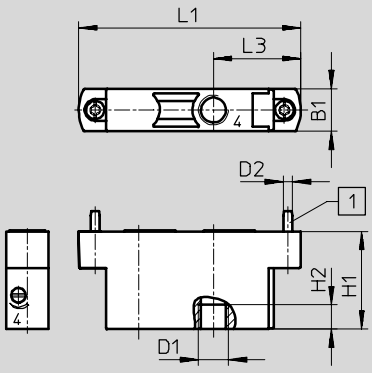
Dimensions Download CAD data ➔ **www.festo.com/en/engineering**

Functional module – One-way flow control valve/one-way flow control valve for vacuum

CPV-...-BS-2xGR...-...



CPV-...-BS-2xGRZ-V-...



1 Mounting screw supplied loose

Type	B1	D1	D2	H1	H2	L1	L2	L3
CPV10-BS-2xGR...-M7	9.9	M7	M2.5	26	6	55.8	41.4	22.9
CPV10-BS-2xGRZ-V...-M7							–	
CPV14-BS-2xGR...-⅛	13.8	G⅛	M3	32	8	72.8	53.15	28.65
CPV14-BS-2xGRZ-V...-⅛							–	

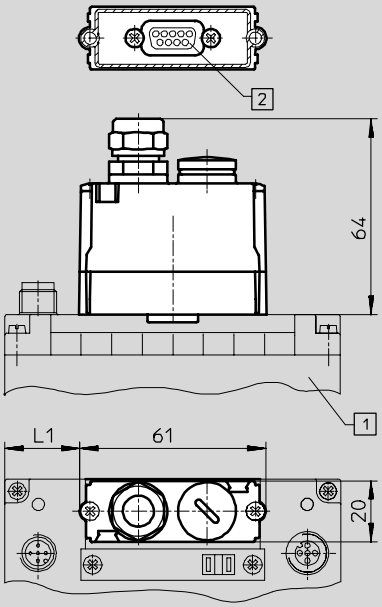
Valve terminal type 10 CPV, Compact Performance

Technical data

Dimensions Download CAD data ➔ **www.festo.com/en/engineering**

Bus connection

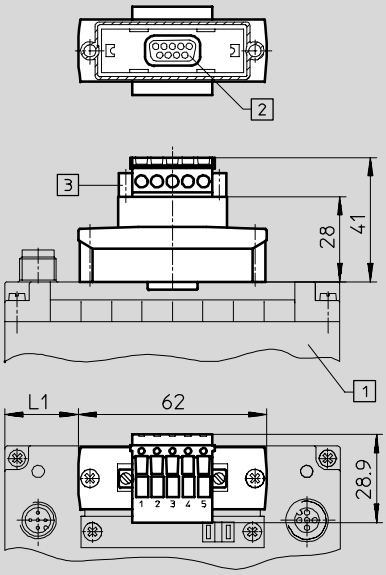
FBS-SUB-9-BU-2x4PIN



1 CPV10/14/18-GE-CO/DN2-8
2 Sub-D socket, 9-pin

	CPV10 8-fold	CPV14 8-fold	CPV18 8-fold
L1	24.5	45.5	71.5

FBSD-KL-2x5PIN



1 CPV10/14/18-GE-CO/DN2-8
2 Sub-D socket, 9-pin
3 Terminal strip FBSD-KL-2x5pin

	CPV10 8-fold	CPV14 8-fold	CPV18 8-fold
L1	24	45	71

Valve terminal type 10 CPV, Compact Performance – Individual connection

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Ordering data – Modular products

M **Mandatory data** →

Module No.	Valve terminal, pneumatic part		Size		Number of valve positions	Pneumatic connection		Electrical connection		Manual override		End plates/ pressure supply
18 200 18 210 18 220	10P		10 14 18		2 ... 8	A B C		IC		N R		U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, J, K
Ordering example												
18 200	**10P**	–	**10**	–	**8**	**C**	–	**IC**	–	**N**	–	**U**
1	2		3		4	5		6		7		8

Ordering table

Size			10	14	18	Condi-tions	Code		Enter code
M	1	Module No.	**18 200**	**18 210**	**18 220**				
		Basic configuration							
	2	Valve terminal, pneumatic part	Compact Performance CPV type 10				**10P**		10P
	3	Size	10	14	18		-...		
	4	Number of valve positions	2, 3, 4, 5, 6, 7, 8				-...		
	5	Pneumatic connection	Push-in connectors, large (QS6)	(QS8)	(QS10)	1	**A**		
			Push-in connectors, small (QS4)	(QS6)	(QS8)	1	**B**		
			Threaded connections				**C**		
	6	Electrical connection	Individual connection				**-IC**		-IC
	7	Manual override	Non-locking				**-N**		
			Detenting				**-R**		
	8	End plates/pressure supply	Internal auxiliary pilot air, supply at right, ducted exhaust air				**-U**		
			Internal auxiliary pilot air, supply at left, ducted exhaust air				**-V**		
			External auxiliary pilot air, supply at right, ducted exhaust air				**-W**		
			External auxiliary pilot air, supply at left, ducted exhaust air				**-X**		
			Internal auxiliary pilot air, supply at both ends, ducted exhaust air				**-Y**		
			External auxiliary pilot air, supply at both ends, ducted exhaust air				**-Z**		
			Internal auxiliary pilot air, supply at right, surface mounted silencer				**-A**		
			Internal auxiliary pilot air, supply at left, surface mounted silencer				**-B**		
			External auxiliary pilot air, supply at right, surface mounted silencer				**-C**		
			External auxiliary pilot air, supply at left, surface mounted silencer				**-D**		
			External auxiliary pilot air, supply at both ends, surface mounted silencer at right			2	**-E**		
			External auxiliary pilot air, supply at both ends, surface mounted silencer at left			2	**-F**		
			Internal auxiliary pilot air, supply at both ends, surface mounted silencer at left			2	**-G**		
			External auxiliary pilot air, supply at both ends, surface mounted silencer at both ends			2	**-H**		
			Internal auxiliary pilot air, supply at both ends, surface mounted silencer at both ends			2	**-J**		
↓			Internal auxiliary pilot air, supply at both ends, surface mounted silencer at right			2	**-K**		

1 **A, B** Not if the other equipment consists solely of separator plate T, S and blanking plate L.

2 **E, F, G, H, J, K**
Only with pneumatic multi-connector plate M, P, V and an even number of valve positions.

Transfer order code

	10P	–		–			–	IC	–		–	
1	2		3		4	5		6		7		8

Valve terminal type 10 CPV, Compact Performance – Individual connection

Ordering data – Modular products

FESTO

M Mandatory data	O Options
Equipment at valve position 0 ... 7	**Accessories**
9 Valve functions: M, J, N, C, H, G, D, I, F, A, E, T, S, L	M, P, V, Z, T, H, W, U, X, ...D, ...E, ...F, A, B

Valve position

	0	1	2	3	4	5	6	7		
–	M	M	M	M	M	M	M	J	+	B
	9									10

Ordering table

Size			10	14	18	Conditions	Code		Enter code
↓		Equipment at valve position 0 ... 7				3	-		-
M	9	Valve functions	5/2-way valve, single solenoid				M		Enter the pneumatic equipment selected in the order code
			5/2-way valve, double solenoid				J		
			2x3/2-way valve, normally open				N		
			2x3/2-way valve, normally closed				C		
			2x3/2-way valve, 1x normally open, 1x closed				H		
			5/3-way valve, mid-position closed			4	G		
			2x2/2-way valve, normally closed				D		
			2x2/2-way valve, 1x normally open, 1x closed				I		
			5/2-way valve, single solenoid, fast switching	–	–		F		
			Vacuum generator			5	A		
			Vacuum generator with ejector pulse			5	E		
			Separator plate, 1/11 closed			6	T		
			Separator plate, 1/11 and 3/5 closed			6 7	S		
			Blanking plate for vacant position				L		
O	10	Accessories					+		+
		Pneumatic multi-connector plate	Standard multi-connector plate			8	M		
			Special pneumatic multi-connector plate			8	P		
			Prepared for pneumatic multi-connector plate			8 9	V		
		Holder	for inscription labels				Z		
			for inscription labels, transparent				T		
		Mounting	H-rail mounting				H		
			–		Wall mounting		W		
			Wall mounting		–		U		
			Mounting kit for ET200X		–		X		
		Connecting cable for individual connection, 2.5 m	1 ... 99				...D		
		5 m	1 ... 99				...E		
		10 m	1 ... 99		–		...F		
		Set of fittings for end plates	Connector and silencer			10	A		
		User documentation	Express waiver - no manual to be included (already available)				B		

3 **Equipment at valve position 0 ... 7**
The valve positions must be equipped throughout without any gaps.

4 **G** Not on the first or last valve position.

5 **A, E** Note air supply and exhaust when using more than 2 vacuum generators.

6 **T, S** Only possible once per terminal, but not on the first or last valve position and only with pressure supply Y, Z, E, F, G, H, K, J; the equipment to the right must consist of more than blanking plate L.

7 **S** Only with pressure supply F, G or pressure supply Y, Z together with pneumatic multi-connector plate M, P if the equipment to the right consists solely of D, I, L.

8 **M, P, V** Only with an even number of valve positions and only with pressure supply Y, Z, E, F, G, H, K, J.

9 **V** Only with working line C (threaded connection).

10 **A** Not with accessory V (preparation for pneumatic multi-connector plate).

Transfer order code

	0	1	2	3	4	5	6	7		
–									+	
	9									10

Valve terminal type 10 CPV, Compact Performance – Multi-pin connection

Ordering data – Modular products

FESTO

M **Mandatory data** →

	Module No.	Valve terminal, pneumatic part		Size		Number of valve positions	Pneumatic connection		Electrical connection		Manual override		End plates/ pressure supply
	18 200 18 210 18 220 **Ordering example**	10P	–	10 14 18	–	4, 6, 8	A B C	–	MP	–	N R V	–	U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, J, K
	18 200	**10P**	–	**10**	–	**8**	**C**	–	**MP**	–	**N**	–	**U**
	1	**2**		**3**		**4**	**5**		**6**		**7**		**8**

Ordering table

Size			10	14	18	Condi-tions	Code		Enter code
M	**1**	Module No.	**18 200**	**18 210**	**18 220**				
		Basic configuration							
	2	Valve terminal, pneumatic part	Compact Performance CPV type 10				**10P**		10P
	3	Size	10	14	18		**-...**		
	4	Number of valve positions	4, 6, 8				**-...**		
	5	Pneumatic connection	Push-in connectors, large (QS6)	(QS8)	(QS10)	1	**A**		
			Push-in connectors, small (QS4)	(QS6)	(QS8)	1	**B**		
			Threaded connections				**C**		
	6	Electrical connection	Multi-pin connection				**-MP**		-MP
	7	Manual override	Non-locking				**-N**		
			Detenting				**-R**		
			Covered				**-V**		
	8	End plates/pressure supply	Internal auxiliary pilot air, supply at right, ducted exhaust air				**-U**		
			Internal auxiliary pilot air, supply at left, ducted exhaust air				**-V**		
			External auxiliary pilot air, supply at right, ducted exhaust air				**-W**		
			External auxiliary pilot air, supply at left, ducted exhaust air				**-X**		
			Internal auxiliary pilot air, supply at both ends, ducted exhaust air				**-Y**		
			External auxiliary pilot air, supply at both ends, ducted exhaust air				**-Z**		
			Internal auxiliary pilot air, supply at right, surface mounted silencer				**-A**		
			Internal auxiliary pilot air, supply at left, surface mounted silencer				**-B**		
			External auxiliary pilot air, supply at right, surface mounted silencer				**-C**		
			External auxiliary pilot air, supply at left, surface mounted silencer				**-D**		
			External auxiliary pilot air, supply at both ends, surface mounted silencer at right			2	**-E**		
			External auxiliary pilot air, supply at both ends, surface mounted silencer at left			2	**-F**		
			Internal auxiliary pilot air, supply at both ends, surface mounted silencer at left			2	**-G**		
			External auxiliary pilot air, supply at both ends, surface mounted silencer at both ends			2	**-H**		
			Internal auxiliary pilot air, supply at both ends, surface mounted silencer at both ends			2	**-J**		
↓			Internal auxiliary pilot air, supply at both ends, surface mounted silencer at right			2	**-K**		

1 **A, B** Not if the other equipment consists solely of separator plate T, S, blanking plate L, relay plate R.

2 **E, F, G, H, J, K** Only with pneumatic multi-connector plate M, P, V.

Transfer order code

	10P	–		–			–	**MP**	–		–		
1	**2**		**3**		**4**	**5**		**6**		**7**		**8**	

Valve terminal type 10 CPV, Compact Performance – Multi-pin connection

Ordering data – Modular products

FESTO

M Mandatory data

Equipment at valve position 0 ... 7

9 Valve functions: M, J, N, C, H, G, D, I, F, A, E, T, S, L, R

Valve position

	0	1	2	3	4	5	6	7
–	M	M	M	M	M	M	M	J
	9							

Ordering table

Size			10	14	18	Conditions	Code		Enter code
↓		Equipment at valve position 0 ... 7				3	-		-
M	9	Valve functions	5/2-way valve, single solenoid				M		Enter the pneumatic equipment selected in the order code
			5/2-way valve, double solenoid				J		
			2x3/2-way valve, normally open				N		
			2x3/2-way valve, normally closed				C		
			2x3/2-way valve, 1x normally open, 1x closed				H		
			5/3-way valve, mid-position closed			4	G		
			2x2/2-way valve, normally closed				D		
			2x2/2-way valve, 1x normally open, 1x closed				I		
			5/2-way valve, single solenoid, fast switching	–	–		F		
			Vacuum generator			5	A		
			Vacuum generator with ejector pulse			5	E		
			Separator plate, 1/11 closed			6	T		
			Separator plate, 1/11 and 3/5 closed			6 7	S		
			Blanking plate for vacant position				L		
↓			Relay plate		–		R		

3 **Equipment at valve position 0 ... 7**
The valve positions must be equipped throughout without any gaps.

4 **G**
Not on the first or last valve position.

5 **A, E**
Note air supply and exhaust when using more than 2 vacuum generators.

6 **T, S**
Only possible once per terminal, but not on the first or last valve position and only with pressure supply Y, Z, E, F, G, H, K, J;
the equipment to the right must consist of more than blanking plate L, relay plate R.

7 **S**
Only with pressure supply F, G or pressure supply Y, Z together with pneumatic multi-connector plate M, P if the equipment to the right consists solely of D, I, L.

Transfer order code

	0	1	2	3	4	5	6	7
–								
	9							

Valve terminal type 10 CPV, Compact Performance – Multi-pin connection

Ordering data – Modular products

FESTO

	0	**Options**
		Accessories
		M, P, V, Z, T, H, W, U, Y, R, S, ...K, ...L, A, B
+		**B**
	10	

Ordering table

Size			10	14	18	Conditions	Code		Enter code
0	**10**	Accessories					**+**		+
		Pneumatic multi-connector plate	Standard multi-connector plate			8	**M**		
			Special pneumatic multi-connector plate			8	**P**		
			Prepared for pneumatic multi-connector plate			8 9	**V**		
		Holder	for inscription labels			10	**Z**		
			for inscription labels, transparent			10	**T**		
		Mounting	H-rail mounting				**H**		
			–		Wall mounting		**W**		
			Wall mounting		–		**U**		
		Electrical connection 9-pin with 4-fold, 25-pin with 6-/8-fold	Plug socket Sub-D				**Y**		
			Pre-assembled multi-pin cable, 5 m				**R**		
			Pre-assembled multi-pin cable, 10 m				**S**		
		Connecting cable for relay plate 2.5 m	1 ... 99		–		**...K**		
		Connecting cable for relay plate 5 m	1 ... 99		–		**...L**		
		Set of fittings for end plates	Connector and silencer			11	**A**		
		User documentation	Express waiver - no manual to be included (already available)				**B**		

8 **M, P, V** Only with pressure supply Y, Z, E, F, G, H, K, J.

9 **V** Only with working line C (threaded connection).

10 **Z, T** Not with relay plate R.

11 **A** Not with accessory V (preparation for pneumatic multi-connector plate).

Transfer order code

+		
	10	

Valve terminal type 10 CPV, Compact Performance – AS-interface

Ordering data – Modular products

FESTO

M Mandatory data →

Module No.	Valve terminal, pneumatic part		Size		Number of valve positions	Pneumatic connection		Electrical connection		Manual override
18 200 18 210 18 220	10P		10 14 18		2, 4, 8	A B C		AS, AZ, AE, AO, BE		N R V
Ordering example										
18 200	**10P**	–	**10**	–	**8**	**C**	–	**AE**	–	**N**
1	**2**		**3**		**4**	**5**		**6**		**7**

Ordering table

Size			10	14	18	Conditions	Code		Enter code
M	**1**	Module No.	**18 200**	**18 210**	**18 220**				
		Basic configuration							
	2	Valve terminal, pneumatic part	Compact Performance CPV type 10				**10P**		10P
	3	Size	10	14	18		**-...**		
	4	Number of valve positions	2, 4, 8		2, 4		**-...**		
	5	Pneumatic connection	Push-in connectors, large (QS6)	(QS8)	(QS10)	[1]	**A**		
			Push-in connectors, small (QS4)	(QS6)	(QS8)	[1]	**B**		
			Threaded connections				**C**		
	6	Electrical connection	AS-interface standard ·ɻ·			[2] [3]	**-AS**		
			AS-interface additional power supply ·ɻ·		AS-interface additional power supply	[2] [3]	**-AZ**		
			AS-interface electrical inputs		–	[2] [4] [5]	**-AE**		
			AS-interface electrical inputs without additional power supply		–	[2] [4] [6]	**-AO**		
			AS-interface electrical inputs, A/B slave		–	[2] [4] [5] [7]	**-BE**		
	7	Manual override	Non-locking				**-N**		
			Detenting				**-R**		
↓			Covered				**-V**		

[1] **A, B** Not if the other equipment consists solely of separator plate T, S, blanking plate L, relay plate R.

·ɻ· Type to be discontinued, do not use for new designs.

[2] **AS, AZ, AE, AO, BE**
Note maximum number of coils:
0 coils: T, S, L; 1 coil: M, F, A; 2 coils: J, N, C, H, G, D, I, E, R.

Electrical connection		
	AS: Max. number of coils	4
	AZ:	4
	AE:	4 (8 for 8-fold terminal)
	AO:	4
	BE:	3 (6 for 8-fold terminal)

[3] **AS, AZ** Not with 8-fold terminal.

[4] **AE, AO, BE** The equipment J, N, C, H, G, D, I, E, R may only be used on valve position 0, 2, 4, 6 (with AO: 0, 2); the equipment T, S, L must be used directly thereafter.

[5] **AE, BE** Only with 4-fold or 8-fold terminal.

[6] **AO** Only with 4-fold terminal.

[7] **BE** Last valve position must be equipped with L.

Transfer order code

	10P	–		–			–		–					
1	**2**		**3**		**4**		**5**		**6**		**7**			

Valve terminal type 10 CPV, Compact Performance – AS-interface

Ordering data – Modular products

FESTO

M **Mandatory data** →

End plates/pressure supply
U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, J, K
U

–

8

Ordering table

	Size		10	14	18	Condi-tions	Code		Enter code
↓	**8**	End plates/pressure supply	Internal auxiliary pilot air, supply at right, ducted exhaust air				**-U**		
M			Internal auxiliary pilot air, supply at left, ducted exhaust air				**-V**		
			External auxiliary pilot air, supply at right, ducted exhaust air				**-W**		
			External auxiliary pilot air, supply at left, ducted exhaust air				**-X**		
			Internal auxiliary pilot air, supply at both ends, ducted exhaust air				**-Y**		
			External auxiliary pilot air, supply at both ends, ducted exhaust air				**-Z**		
			Internal auxiliary pilot air, supply at right, surface mounted silencer				**-A**		
			Internal auxiliary pilot air, supply at left, surface mounted silencer				**-B**		
			External auxiliary pilot air, supply at right, surface mounted silencer				**-C**		
			External auxiliary pilot air, supply at left, surface mounted silencer				**-D**		
			External auxiliary pilot air, supply at both ends, surface mounted silencer at right			8	**-E**		
			External auxiliary pilot air, supply at both ends, surface mounted silencer at left			8	**-F**		
			Internal auxiliary pilot air, supply at both ends, surface mounted silencer at left			8	**-G**		
			External auxiliary pilot air, supply at both ends, surface mounted silencer at both ends			8	**-H**		
			Internal auxiliary pilot air, supply at both ends, surface mounted silencer at both ends			8	**-J**		
↓			Internal auxiliary pilot air, supply at both ends, surface mounted silencer at right			8	**-K**		

8 **E, F, G, H, J, K**
Only with pneumatic multi-connector plate M, P, V.

Transfer order code

–

8

Valve terminal type 10 CPV, Compact Performance – AS-interface

Ordering data – Modular products

FESTO

M Mandatory data										O Options
Equipment at valve position 0 ... 7										Accessories
9 Valve functions: M, J, N, C, H, G, D, I, F, A, E, T, S, L, R										M, P, V, Z, T, H, W, U, ...K, ...L, A, B
Valve position	0	1	2	3	4	5	6	7		
–	M	M	M	M	M	M	M	J	+	B
	9									10

Ordering table

Size			10	14	18	Conditions	Code		Enter code
↓		Equipment at valve position 0 ... 7				9	-		-
M	9	Valve functions	5/2-way valve, single solenoid				M		Enter the pneumatic equipment selected in the order code
			5/2-way valve, double solenoid				J		
			2x3/2-way valve, normally open				N		
			2x3/2-way valve, normally closed				C		
			2x3/2-way valve, 1x normally open, 1x closed				H		
			5/3-way valve, mid-position closed			10	G		
			2x2/2-way valve, normally closed				D		
			2x2/2-way valve, 1x normally open, 1x closed				I		
			5/2-way valve, single solenoid, fast switching	–	–		F		
			Vacuum generator			11	A		
			Vacuum generator with ejector pulse			11	E		
			Separator plate, 1/11 closed			12	T		
			Separator plate, 1/11 and 3/5 closed			12 13	S		
			Blanking plate for vacant position				L		
			Relay plate	–	–		R		
O	10	Accessories					+		+
		Pneumatic multi-connector plate	Standard multi-connector plate			14	M		
			Special pneumatic multi-connector plate			14	P		
			Prepared for pneumatic multi-connector plate			14 15	V		
		Holder	for inscription labels			16	Z		
			for inscription labels, transparent			16	T		
		Mounting	H-rail mounting				H		
			–		Wall mounting		W		
			Wall mounting		–		U		
		Connecting cable for relay plate 2.5 m	1 ... 99	–	–		...K		
		Connecting cable for relay plate 5 m	1 ... 99	–	–		...L		
		Set of fittings for end plates	Connector and silencer			17	A		
		User documentation	Express waiver - no manual to be included (already available)				B		

9 **Equipment at valve position 0 ... 7**
The valve positions must be equipped throughout without any gaps.

10 **G** Not on the first or last valve position.

11 **A, E** Note air supply and exhaust when using more than 2 vacuum generators.

12 **T, S** Only possible once per terminal, but not on the first or last valve position and only with pressure supply Y, Z, E, F, G, H, K, J; the equipment to the right must consist of more than blanking plate L, relay plate R.

13 **S** Only with pressure supply F, G or pressure supply Y, Z together with pneumatic multi-connector plate M, P if the equipment to the right consists solely of D, I, L.

14 **M, P, V** Only with pressure supply Y, Z, E, F, G, H, K, J.

15 **V** Only with working line C (threaded connection).

16 **Z, T** Not with relay plate R.

17 **A** Not with accessory V (preparation for pneumatic multi-connector plate).

Transfer order code

	0	1	2	3	4	5	6	7		
–									+	
	9									10

Valve terminal type 10 CPV, Compact Performance – Fieldbus

Ordering data – Modular products

FESTO

M **Mandatory data** →

Module No.	Valve terminal, pneumatic part		Size		Number of valve positions	Pneumatic connection		Electrical connection		Manual override		End plates/ pressure supply
18 200 18 210 18 220 **Ordering example**	10P		10 14 18		4, 6, 8	A B C		FB		N R V		U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, J, K
18 200	**10P**	–	**10**	–	**8**	**C**	–	**FB**	–	**N**	–	**U**
1	2		3		4	5		6		7		8

Ordering table

Size			10	14	18	Condi-tions	Code		Enter code
M	1	Module No.	**18 200**	**18 210**	**18 220**				
		Basic configuration							
	2	Valve terminal, pneumatic part	Compact Performance CPV type 10				**10P**		10P
	3	Size	10	14	18		**-...**		
	4	Number of valve positions	4, 6, 8				**-...**		
	5	Pneumatic connection	Push-in connectors, large (QS6)	(QS8)	(QS10)	1	**A**		
			Push-in connectors, small (QS4)	(QS6)	(QS8)	1	**B**		
			Threaded connections				**C**		
	6	Electrical connection	Fieldbus				**-FB**		-FB
	7	Manual override	Non-locking				**-N**		
			Detenting				**-R**		
			Covered				**-V**		
	8	End plates/pressure supply	Internal auxiliary pilot air, supply at right, ducted exhaust air				**-U**		
			Internal auxiliary pilot air, supply at left, ducted exhaust air				**-V**		
			External auxiliary pilot air, supply at right, ducted exhaust air				**-W**		
			External auxiliary pilot air, supply at left, ducted exhaust air				**-X**		
			Internal auxiliary pilot air, supply at both ends, ducted exhaust air				**-Y**		
			External auxiliary pilot air, supply at both ends, ducted exhaust air				**-Z**		
			Internal auxiliary pilot air, supply at right, surface mounted silencer				**-A**		
			Internal auxiliary pilot air, supply at left, surface mounted silencer				**-B**		
			External auxiliary pilot air, supply at right, surface mounted silencer				**-C**		
			External auxiliary pilot air, supply at left, surface mounted silencer				**-D**		
			External auxiliary pilot air, supply at both ends, surface mounted silencer at right			2	**-E**		
			External auxiliary pilot air, supply at both ends, surface mounted silencer at left			2	**-F**		
			Internal auxiliary pilot air, supply at both ends, surface mounted silencer at left			2	**-G**		
			External auxiliary pilot air, supply at both ends, surface mounted silencer at both ends			2	**-H**		
			Internal auxiliary pilot air, supply at both ends, surface mounted silencer at both ends			2	**-J**		
↓			Internal auxiliary pilot air, supply at both ends, surface mounted silencer at right			2	**-K**		

1 **A, B** Not if the other equipment consists solely of separator plate T, S, blanking plate L, relay plate R.

2 **E, F, G, H, J, K** Only with pneumatic multi-connector plate M, P, V.

Transfer order code

	10P	–		–			–	FB	–		–	
1	2		3		4	5		6		7		8

Valve terminal type 10 CPV, Compact Performance – Fieldbus

Ordering data – Modular products

FESTO

M Mandatory data										O Options
Equipment at valve position 0 ... 7										Accessories
9 Valve functions: M, J, N, C, H, G, D, I, F, A, E, T, S, L, R										M, P, V, Z, T, H, W, U, ...K, ...L, A, B
Valve position	0	1	2	3	4	5	6	7		
–	M	M	M	M	M	M	M	J	+	B
	9									10

Ordering table

Size			10	14	18	Conditions	Code		Enter code
↓		Equipment at valve position 0 ... 7				3	-		-
M	9	Valve functions	5/2-way valve, single solenoid				M		Enter the pneumatic equipment selected in the order code
			5/2-way valve, double solenoid				J		
			2x3/2-way valve, normally open				N		
			2x3/2-way valve, normally closed				C		
			2x3/2-way valve, 1x normally open, 1x closed				H		
			5/3-way valve, mid-position closed			4	G		
			2x2/2-way valve, normally closed				D		
			2x2/2-way valve, 1x normally open, 1x closed				I		
			5/2-way valve, single solenoid, fast switching	–	–		F		
			Vacuum generator			5	A		
			Vacuum generator with ejector pulse			5	E		
			Separator plate, 1/11 closed			6	T		
			Separator plate, 1/11 and 3/5 closed			6 7	S		
			Blanking plate for vacant position				L		
			Relay plate		–		R		
O	10	Accessories					+		+
		Pneumatic multi-connector plate	Standard multi-connector plate			8	M		
			Special pneumatic multi-connector plate			8	P		
			Prepared for pneumatic multi-connector plate			8 9	V		
		Holder	for inscription labels			10	Z		
			for inscription labels, transparent			10	T		
		Mounting	H-rail mounting				H		
			–		Wall mounting		W		
			Wall mounting		–		U		
		Connecting cable for relay plate, 2.5 m	1 ... 99		–		...K		
		Connecting cable for relay plate, 5 m	1 ... 99		–		...L		
		Set of fittings for end plates	Connector and silencer			11	A		
		User documentation	Express waiver - no manual to be included (already available)				B		

3 **Equipment at valve position 0 ... 7**
The valve positions must be equipped throughout without any gaps.

4 **G** Not on the first or last valve position.

5 **A, E** Note air supply and exhaust when using more than 2 vacuum generators.

6 **T, S** Only possible once per terminal, but not on the first or last valve position and only with pressure supply Y, Z, E, F, G, H, K, J; the equipment to the right must consist of more than blanking plate L, relay plate R.

7 **S** Only with pressure supply F, G or pressure supply Y, Z together with pneumatic multi-connector plate M, P if the equipment to the right consists solely of D, I, L.

8 **M, P, V** Only with pressure supply Y, Z, E, F, G, H, K, J.

9 **V** Only with working line C (threaded connection).

10 **Z, T** Not with relay plate R.

11 **A** Not with accessory V (preparation for pneumatic multi-connector plate).

Transfer order code

	0	1	2	3	4	5	6	7		
–									+	
	9									10

Valve terminal type 10 CPV, Compact Performance – Direct link

Ordering data – Modular products

FESTO

M Mandatory data →

Module No.	Valve terminal, pneumatic part		Size		Number of valve positions	Pneumatic connection		Electrical connection		Manual override
18 200 18 210 18 220	10P		10 14 18		8	A B C		IL, CO, DN, SD, IP, D1, I1, N2, C2, CC		N R V
Ordering example										
18 200	**10P**	–	**10**	–	**8**	**C**	–	**IL**	–	**N**
1	**2**		**3**		**4**	**5**		**6**		**7**

Ordering table

Size			10	14	18	Conditions	Code		Enter code
M	**1**	Module No.	**18 200**	**18 210**	**18 220**				
		Basic configuration							
	2	Valve terminal, pneumatic part	Compact Performance CPV type 10				**10P**		10P
	3	Size	10	14	18		**-...**		
	4	Number of valve positions	8				**-8**		-8
	5	Pneumatic connection	Push-in connectors, large						
			(QS6)	(QS8)	(QS10)	1	**A**		
			Push-in connectors, small						
			(QS4)	(QS6)	(QS8)	1	**B**		
			Threaded connections				**C**		
	6	Electrical connection	Interbus Loop ·ɿ·		–		**-IL**		
			CANopen ·ɿ·				**-CO**		
			DeviceNet ·ɿ·				**-DN**		
			SDS ·ɿ·				**-SD**		
			IP-Link (without connection accessories)		–		**-IP**		
			Profibus DP including Festo fieldbus, ABB CS31, Moeller Suconet K, with extension string			2	**-D1**		
			Interbus with extension string			2	**-I1**		
			DeviceNet with extension string			2	**-N2**		
			CANopen with extension string			2	**-C2**		
			CC-Link with extension string			2	**-CC**		
	7	Manual override	Non-locking				**-N**		
			Detenting				**-R**		
↓			Covered				**-V**		

1 **A, B** Not if the other equipment consists solely of separator plate T, S, blanking plate L, relay plate R.

2 **D1, I1, N2, C2, CC** Only with selectable connection technology for fieldbus nodes.

·ɿ· Type to be discontinued, do not use for new designs.

Transfer order code

	10P	–		–	8		–		–	
1	**2**		**3**		**4**	**5**		**6**		**7**

Valve terminal type 10 CPV, Compact Performance – Direct link

FESTO

Ordering data – Modular products

M **Mandatory data** ➔

End plates/pressure supply
U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, J, K

– **U**

8

Ordering table

Size			10	14	18	Conditions	Code		Enter code
↓	**8**	End plates/pressure supply	Internal auxiliary pilot air, supply at right, ducted exhaust air				**-U**		
M			Internal auxiliary pilot air, supply at left, ducted exhaust air				**-V**		
			External auxiliary pilot air, supply at right, ducted exhaust air				**-W**		
			External auxiliary pilot air, supply at left, ducted exhaust air				**-X**		
			Internal auxiliary pilot air, supply at both ends, ducted exhaust air				**-Y**		
			External auxiliary pilot air, supply at both ends, ducted exhaust air				**-Z**		
			Internal auxiliary pilot air, supply at right, surface mounted silencer				**-A**		
			Internal auxiliary pilot air, supply at left, surface mounted silencer				**-B**		
			External auxiliary pilot air, supply at right, surface mounted silencer				**-C**		
			External auxiliary pilot air, supply at left, surface mounted silencer				**-D**		
			External auxiliary pilot air, supply at both ends, surface mounted silencer at right			3	**-E**		
			External auxiliary pilot air, supply at both ends, surface mounted silencer at left			3	**-F**		
			Internal auxiliary pilot air, supply at both ends, surface mounted silencer at left			3	**-G**		
			External auxiliary pilot air, supply at both ends, surface mounted silencer at both ends			3	**-H**		
			Internal auxiliary pilot air, supply at both ends, surface mounted silencer at both ends			3	**-J**		
↓			Internal auxiliary pilot air, supply at both ends, surface mounted silencer at right			3	**-K**		

3 **E, F, G, H, J, K**
Only with pneumatic multi-connector plate M, P, V.

Transfer order code

–

8

Valve terminal type 10 CPV, Compact Performance – Direct link

Ordering data – Modular products

FESTO

M Mandatory data

Equipment at valve position 0 ... 7

9 Valve functions: M, J, N, C, H, G, D, I, F, A, E, T, S, L, R

Valve position

	0	1	2	3	4	5	6	7
–	**M**	**M**	**M**	**M**	**M**	**M**	**M**	**J**
	9							

Ordering table

Size			10	14	18	Conditions	Code		Enter code
↓		Equipment at valve position 0 ... 7				4	-		-
M	9	Valve functions	5/2-way valve, single solenoid				M		Enter the pneumatic equipment selected in the order code
			5/2-way valve, double solenoid				J		
			2x3/2-way valve, normally open				N		
			2x3/2-way valve, normally closed				C		
			2x3/2-way valve, 1x normally open, 1x closed				H		
			5/3-way valve, mid-position closed			5	G		
			2x2/2-way valve, normally closed				D		
			2x2/2-way valve, 1x normally open, 1x closed				I		
			5/2-way valve, single solenoid, fast switching	–	–		F		
			Vacuum generator			6	A		
			Vacuum generator with ejector pulse			6	E		
			Separator plate, 1/11 closed			7	T		
			Separator plate, 1/11 and 3/5 closed			7 8	S		
			Blanking plate for vacant position				L		
↓			Relay plate		–		R		

4 **Equipment at valve position 0 ... 7**
The valve positions must be equipped throughout without any gaps.

5 **G** Not on the first or last valve position.

6 **A, E** Note air supply and exhaust when using more than 2 vacuum generators.

7 **T, S** Only possible once per terminal, but not on the first or last valve position and only with pressure supply Y, Z, E, F, G, H, K, J; the equipment to the right must consist of more than blanking plate L, relay plate R.

8 **S** Only with pressure supply F, G or pressure supply Y, Z together with pneumatic multi-connector plate M, P if the equipment to the right consists solely of D, I, L.

Transfer order code

	0	1	2	3	4	5	6	7
–								
	9							

Valve terminal type 10 CPV, Compact Performance – Direct link

Ordering data – Modular products

FESTO

0 Options		
	Selectable connection technology for fieldbus nodes	Accessories
	GA, GB, GC, GD, GE, GF, GI, GL, GM	M, P, V, Z, T, H, W, U, ...K, ...L, A, B
+		B
	10	11

Ordering table

Size			10	14	18	Conditions	Code		Enter code
0	10	Accessories					+		+
		Selectable connection technology for fieldbus nodes	Fieldbus connection, 2xM12, 5-pin for DeviceNet/CANopen			9	GA		
			Connection set, 5-pin clamp for DeviceNet/CAN			9	GB		
			Connection, 9-pin Sub-D, no fieldbus connector			10	GC		
			Fieldbus connector IP65 for DeviceNet/CANopen			9	GD		
			Fieldbus connector IP65 for Profibus DP			11	GE		
			Fieldbus connection, 2xM12, ReverseKey for Profibus DP			11	GF		
			Connection set, 9-pin Sub-D, IP65 for Interbus			12	GI		
			Fieldbus connection screw terminal for CC-Link			13	GL		
			Fieldbus connector IP65 for CC-Link			13	GM		
	11	Pneumatic multi-connector plate	Standard multi-connector plate			14	M		
			Special pneumatic multi-connector plate			14	P		
			Prepared for pneumatic multi-connector plate			14 15	V		
		Holder	for inscription labels			16	Z		
			for inscription labels, transparent			16	T		
		Mounting	H-rail mounting				H		
			–		Wall mounting		W		
			Wall mounting		–		U		
		Connecting cable for relay plate 2.5 m	1 ... 99		–		...K		
		Connecting cable for relay plate 5 m	1 ... 99		–		...L		
		Set of fittings for end plates	Connector and silencer			17	A		
		User documentation	Express waiver - no manual to be included (already available)				B		

9 **GA, GB, GD** Only with electrical connection N2, D2.
10 **GC** Only with electrical connection D1, I1, N2, C2, CC.
11 **GE, GF** Only with electrical connection D1.
12 **GI** Only with electrical connection I1.
13 **GL, GM** Only with electrical connection CC.
14 **M, P, V** Only with pressure supply Y, Z, E, F, G, H, K, J.
15 **V** Only with working line C (threaded connection).
16 **Z, T** Not with relay plate R.
17 **A** Not with accessory V (preparation for pneumatic multi-connector plate).

Transfer order code

+		
	10	11

Valve terminal type 10 CPV, Compact Performance – ET200X

FESTO

Ordering data – Modular products

M **Mandatory data** →

Module No.	Valve terminal, pneumatic part		Size		Number of valve positions	Pneumatic connection		Electrical connection		Manual override		End plates/ pressure supply
18 200 18 210 **Ordering example**	10P		10 14		8	A B C		ET		N R V		U, V, W, X, Y, Z, A, B, C, D, E, F, G, H, J, K
18 200	**10P**	–	**10**	–	**8**	**C**	–	**ET**	–	**N**	–	**U**
1	2		3		4	5		6		7		8

Ordering table

Size			10	14	Condi-tions	Code		Enter code
M	1	Module No.	**18 200**	**18 210**				
		Basic configuration						
	2	Valve terminal, pneumatic part	Compact Performance CPV type 10			**10P**		10P
	3	Size	10	14		**-...**		
	4	Number of valve positions	8			**-8**		-8
	5	Pneumatic connection	Push-in connectors, large (QS6)	(QS8)	1	**A**		
			Push-in connectors, small (QS4)	(QS6)	1	**B**		
			Threaded connections			**C**		
	6	Electrical connection	ET200X connection			**-ET**		-ET
	7	Manual override	Non-locking			**-N**		
			Detenting			**-R**		
			Covered			**-V**		
	8	End plates/pressure supply	Internal auxiliary pilot air, supply at right, ducted exhaust air			**-U**		
			Internal auxiliary pilot air, supply at left, ducted exhaust air			**-V**		
			External auxiliary pilot air, supply at right, ducted exhaust air			**-W**		
			External auxiliary pilot air, supply at left, ducted exhaust air			**-X**		
			Internal auxiliary pilot air, supply at both ends, ducted exhaust air			**-Y**		
			External auxiliary pilot air, supply at both ends, ducted exhaust air			**-Z**		
			Internal auxiliary pilot air, supply at right, surface mounted silencer			**-A**		
			Internal auxiliary pilot air, supply at left, surface mounted silencer			**-B**		
			External auxiliary pilot air, supply at right, surface mounted silencer			**-C**		
			External auxiliary pilot air, supply at left, surface mounted silencer			**-D**		
			External auxiliary pilot air, supply at both ends, surface mounted silencer at right		2	**-E**		
			External auxiliary pilot air, supply at both ends, surface mounted silencer at left		2	**-F**		
			Internal auxiliary pilot air, supply at both ends, surface mounted silencer at left		2	**-G**		
			External auxiliary pilot air, supply at both ends, surface mounted silencer at both ends		2	**-H**		
			Internal auxiliary pilot air, supply at both ends, surface mounted silencer at both ends		2	**-J**		
↓			Internal auxiliary pilot air, supply at both ends, surface mounted silencer at right		2	**-K**		

1 **A, B** Not if the other equipment consists solely of separator plate T, S and blanking plate L.

2 **E, F, G, H, J, K** Only with pneumatic multi-connector plate M, P, V.

Transfer order code

	10P	–		–	8		–	ET	–		–	
1	2		3		4	5		6		7		8

Valve terminal type 10 CPV, Compact Performance – ET200X

Ordering data – Modular products

FESTO

M Mandatory data	O Options
Equipment at valve position 0 ... 7	**Accessories**
9 Valve functions: M, J, N, C, H, G, D, I, A, E, T, S, L	M, P, V, Z, T, A, B

Valve position

	0	1	2	3	4	5	6	7		
–	M	M	M	M	M	M	M	J	+	B
	9									10

Ordering table

Size			10	14	18	Conditions	Code		Enter code
↓		Equipment at valve position 0 ... 7				3	-		-
M	9	Valve functions	5/2-way valve, single solenoid				M		Enter the pneumatic equipment selected in the order code
			5/2-way valve, double solenoid				J		
			2x3/2-way valve, normally open				N		
			2x3/2-way valve, normally closed				C		
			2x3/2-way valve, 1x normally open, 1x closed				H		
			5/3-way valve, mid-position closed			4	G		
			2x2/2-way valve, normally closed				D		
			2x2/2-way valve, 1x normally open, 1x closed				I		
			Vacuum generator			5	A		
			Vacuum generator with ejector pulse			5	E		
			Separator plate, 1/11 closed			6	T		
			Separator plate, 1/11 and 3/5 closed			6 7	S		
			Blanking plate for vacant position				L		
O	10	Accessories					+		+
		Pneumatic multi-connector plate	Standard multi-connector plate			8	M		
			Special pneumatic multi-connector plate			8	P		
			Prepared for pneumatic multi-connector plate			8 9	V		
		Holder	for inscription labels				Z		
			for inscription labels, transparent				T		
		Set of fittings for end plates	Connector and silencer			10	A		
		User documentation	Express waiver - no manual to be included (already available)				B		

3 **Equipment at valve position 0 ... 7**
The valve positions must be equipped throughout without any gaps.

4 **G** Not on the first or last valve position.

5 **A, E** Note air supply and exhaust when using more than 2 vacuum generators.

6 **T, S** Only possible once per terminal, but not on the first or last valve position and only with pressure supply Y, Z, E, F, G, H, K, J; the equipment to the right must consist of more than blanking plate L.

7 **S** Only with pressure supply F, G or pressure supply Y, Z together with pneumatic multi-connector plate M, P if the equipment to the right consists solely of D, I, L.

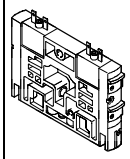
8 **M, P, V** Only with pressure supply Y, Z, E, F, G, H, K, J.

9 **V** Only with working line C (threaded connection).

10 **A** Not with accessory V (preparation for pneumatic multi-connector plate).

Transfer order code

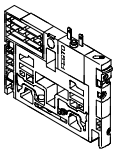
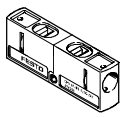
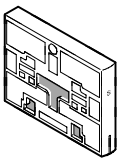
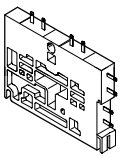
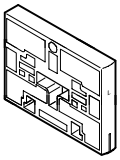
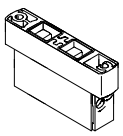
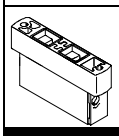
	0	1	2	3	4	5	6	7		
–									+	
	9									10

Ordering data				
	Code	Valve function	Type	Part No.
Individual valve slice, size 10/14/18				
	M	5/2-way valve, single solenoid	**CPV10-M1H-5LS-M7**	**161 414**
			CPV14-M1H-5LS-⅛	**161 360**
			CPV18-M1H-5LS-¼	**163 190**
	F	5/2-way valve, single solenoid, fast switching	**CPV10-M11H-5LS-M7**	**187 439**
	J	5/2-way valve, double solenoid	**CPV10-M1H-5JS-M7**	**161 415**
			CPV14-M1H-5JS-⅛	**161 361**
			CPV18-M1H-5JS-¼	**163 191**
	N	2x 3/2-way valve, normally open	**CPV10-M1H-2x3-OLS-M7**	**161 417**
			CPV14-M1H-2x3-OLS-⅛	**161 363**
			CPV18-M1H-2x3-OLS-¼	**163 188**
	C	2 x 3/2- way valve, normally closed	**CPV10-M1H-2x3-GLS-M7**	**161 416**
			CPV14-M1H-2x3-GLS-⅛	**161 362**
			CPV18-M1H-2x3-GLS-¼	**163 189**
	H	2 x 3/2- way valve, 1x normally open, 1x closed	**CPV10-M1H-3OLS-3GLS-M7**	**176 064**
			CPV14-M1H-3OLS-3GLS-⅛	**176 067**
			CPV18-M1H-3OLS-3GLS-¼	**176 070**
	G	5/3-way valve, mid-position closed	**CPV18-M1H-5/3GS-¼**	**176 061**
	D	2x 2/2-way valve, normally closed	**CPV10-M1H-2x2-GLS-M7**	**185 880**
			CPV14-M1H-2x2-GLS-⅛	**185 883**
			CPV18-M1H-2x2-GLS-¼	**185 886**
	I	2x 2/2-way valve, 1x normally open, 1x closed	**CPV10-M1H-2OLS-2GLS-M7**	**187 843**
			CPV14-M1H-2OLS-2GLS-⅛	**187 846**
			CPV18-M1H-2OLS-2GLS-¼	**187 849**

Valve terminal type 10 CPV, Compact Performance

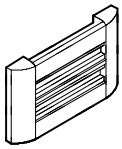
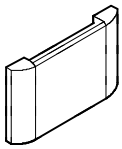
Accessories

FESTO

Ordering data				
	Code	Designation	Type	Part No.
Vacuum generator				
	A	Vacuum generator	**CPV10-M1H-V70-M7**	**185 862**
			CPV14-M1H-V95-⅛	**185 868**
			CPV18-M1H-V140-¼	**185 874**
	E	Vacuum generator with ejector pulse	**CPV10-M1H-VI70-2GLS-M7**	**185 865**
			CPV14-M1H-VI95-2GLS-⅛	**185 871**
			CPV18-M1H-VI140-2GLS-¼	**185 877**
Additional module				
	G	Additional module for 5/3-way valve function, closed (in combination with valve slice C)	**CPV10-BS-5/3G-M7**	**176 055**
			CPV-14-BS-5/3G-⅛	**176 057**
Separator plates				
	T	Separator plate, duct 1/11 closed	**CPV10-DZP**	**161 369**
			CPV14-DZP	**162 551**
			CPV18-DZP	**163 282**
	S	Separator plate, duct 1/11, 3/5 closed	**CPV10-DZPR**	**178 678**
			CPV14-DZPR	**178 680**
			CPV18-DZPR	**184 543**
Relay plate				
	R	Relay plate	**CPV10-RP2**	**174 478**
			CPV14-RP2	**174 480**
Blanking plate				
	L	Blanking plate	**CPV10-RZP**	**161 368**
			CPV14-RZP	**162 550**
			CPV18-RZP	**163 283**
Additional functions for valve positions				
	P	One-way flow control valve, 2x supply air	**CPV-10-BS-2xGRZZ-M7**	**184 140**
			CPV-14-BS-2xGRZZ-⅛	**184 142**
	Q	One-way flow control valve, 2x exhaust air	**CPV-10-BS-2xGRAZ-M7**	**184 141**
			CPV-14-BS-2xGRAZ-⅛	**184 143**
	V	One-way flow control valve for vacuum	**CPV-10-BS-2xGRZ-V-M7**	**185 889**
			CPV-14-BS-2xGRZ-V-⅛	**185 891**

Valve terminal type 10 CPV, Compact Performance

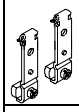
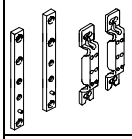
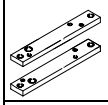
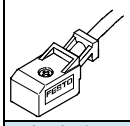
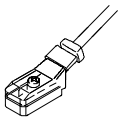
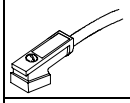
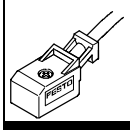
Accessories

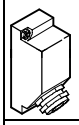
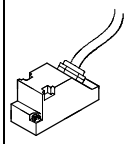
Ordering data				
	Code	Designation	Type	Part No.
Holder				
	Z	Holder for inscription labels	CPV10-VI-BZ-T-2	162 560
			CPV10-VI-BZ-T-3	162 561
			CPV10-VI-BZ-T-4	162 562
			CPV10-VI-BZ-T-5	162 563
			CPV10-VI-BZ-T-6	162 564
			CPV10-VI-BZ-T-7	162 565
			CPV10-VI-BZ-T-8	162 566
			CPV14-VI-BZ-T-2	162 567
			CPV14-VI-BZ-T-3	162 568
			CPV14-VI-BZ-T-4	162 569
			CPV14-VI-BZ-T-5	162 570
			CPV14-VI-BZ-T-6	162 571
			CPV14-VI-BZ-T-7	162 572
			CPV14-VI-BZ-T-8	162 573
			CPV18-VI-BZ-T-2	163 293
			CPV18-VI-BZ-T-3	163 294
			CPV18-VI-BZ-T-4	163 295
			CPV18-VI-BZ-T-5	163 296
			CPV18-VI-BZ-T-6	163 297
			CPV18-VI-BZ-T-7	163 298
			CPV18-VI-BZ-T-8	163 299
	T	Holder for inscription labels, transparent	CPV10-VI-ST-T-2	194 066
			CPV10-VI-ST-T-3	194 067
			CPV10-VI-ST-T-4	194 068
			CPV10-VI-ST-T-5	194 069
			CPV10-VI-ST-T-6	194 070
			CPV10-VI-ST-T-7	194 071
			CPV10-VI-ST-T-8	194 072
			CPV14-VI-ST-T-2	194 073
			CPV14-VI-ST-T-3	194 074
			CPV14-VI-ST-T-4	194 075
			CPV14-VI-ST-T-5	194 076
			CPV14-VI-ST-T-6	194 077
			CPV14-VI-ST-T-7	194 078
			CPV14-VI-ST-T-8	194 079
			CPV18-VI-ST-T-2	194 080
			CPV18-VI-ST-T-3	194 081
			CPV18-VI-ST-T-4	194 082
			CPV18-VI-ST-T-5	194 083
			CPV18-VI-ST-T-6	194 084
			CPV18-VI-ST-T-7	194 085
			CPV18-VI-ST-T-8	194 086

Valve terminal type 10 CPV, Compact Performance

Accessories

FESTO

Ordering data					
	Code	Designation		Type	Part No.
Mounting					
	H	Mounting (for H-rail)		**CPV10/14-VI-BG-NRH-35**	**162 556**
				CPV18-VI-BG-NRH-35	**163 291**
	W	Mounting (wall)		**CPV10/14-VI-BG-RW**	**162 557**
				CPV18-VI-BG-RW	**163 292**
	U			**CPV10/14-VI-BG-RWL-B**	**189 541**
	X	Mounting (for ET200X)		**CPV10-VI-BG-ET200X**	**165 801**
				CPV14-VI-BG-ET200X	**165 803**
Manual override					
	–	Locking clip (for manual override)		**CPV10/14-HS**	**526 203**
				CPV18-HS	**526 204**
	V	Cover (for manual override)		**CPV10/14-HV**	**530 055**
				CPV18-HV	**530 056**
Inscription labels					
	–	6x10 in frames, 64 pieces		**IBS 6x10**	**18 576**
		9x20 in frames, 20 pieces		**IBS 9x20**	**18 182**
Relay plate					
	K	Connecting cable for relay plate	2.5 m	**KRP-1-24-2,5**	**165 612**
	L		5 m	**KRP-1-24-5**	**165 613**
Individual connection, electrical					
	D	Plug socket with cable (CPV10/14), suitable for chain link trunking	2.5 m	**KMYZ-7-24-2,5-LED-PUR**	**193 683**
	E		5 m	**KMYZ-7-24-5-LED-PUR**	**193 685**
	F		10 m	**KMYZ-7-24-10-LED-PUR**	**196 070**
	D	Plug socket with cable (CPV18)	2.5 m	**KMEB-2-24-2,5-LED**	**174 844**
	E		5 m	**KMEB-2-24-5-LED**	**174 845**
	K	Connecting cable for relay plate	2.5 m	**KRP-1-24-2,5**	**165 612**
	L		5 m	**KRP-1-24-5**	**165 613**

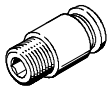
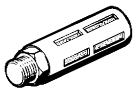
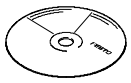
Dimensions and ordering data					
	Code	Designation		Type	Part No.
Multi-pin connection, electrical					
	Y	Plug socket 9-pin		**SD-SUB-D-BU9**	**18 708**
		Plug socket 25-pin		**SD-SUB-D-BU25**	**18 709**
	R	Connecting cable, 9-pin, PVC	5 m	**KMP4-9P-5-PVC**	**193 012**
		Connecting cable, 25-pin, PVC		**KMP4-25P-5-PVC**	**193 016**
	S	Connecting cable, 9-pin, PVC	10 m	**KMP4-9P-10-PVC**	**193 013**
		Connecting cable, 25-pin, PVC		**KMP4-25P-10-PVC**	**193 017**
	–	Connecting cable, 9-pin, PUR	5 m	**KMP4-9P-5-PUR**	**193 014**
		Connecting cable, 25-pin, PUR		**KMP4-25P-5-PUR**	**193 018**
	–	Connecting cable, 9-pin, PUR	10 m	**KMP4-9P-10-PUR**	**193 015**
		Connecting cable, 25-pin, PUR		**KMP4-25P-10-PUR**	**193 019**
	–	Connecting cable, for chain link trunking, with 9-pin Sub-D plug, IP20, PVC cable	2.5 m	**KMP6-09P-8-2,5**	**531 184**
			5 m	**KMP6-09P-8-5**	**531 185**
			10 m	**KMP6-09P-8-10**	**531 186**
	–	Connecting cable, for chain link trunking, with 25-pin Sub-D plug, IP20, PVC cable	2.5 m	**KMP6-25P-20-2,5**	**530 046**
			5 m	**KMP6-25P-20-5**	**530 047**
			10 m	**KMP6-25P-20-10**	**530 048**

Valve terminal type 10 CPV, Compact Performance

Accessories

FESTO

Ordering data

Designation			Type	Part No.
Blanking plug				
	Blanking plug		**B-M5**	**3 843**
			B-M7	**174 309**
			B-1/8	**3 568**
			B-1/4	**3 569**
			B-3/8	**3 570**
			B-1/2	**3 571**
Push-in fitting				
	Push-in fitting		**QS-1/8-8-I**	**153 015**
			QS-1/4-10-I	**153 018**
			QS-3/8-12-I	**153 020**
			QSM-M5-6-I	**153 317**
			QSM-M7-6-I	**153 321**
Silencer				
	Silencer		**U-M5**	**4 645**
			U-1/8-B	**6 841**
			U-1/4-B	**6 842**
			U-3/8-B	**6 843**
			U-1/2-B	**6 844**
			UC-M7	**161 418**
User documentation				
	CPV Pneumatics	German	**P.BE-CPV-DE**	**165 100**
		English	**P.BE-CPV-EN**	**165 200**
		French	**P.BE-CPV-FR**	**165 130**
		Italian	**P.BE-CPV-IT**	**165 160**
		Spanish	**P.BE-CPV-ES**	**165 230**
		Swedish	**P.BE-CPV-SV**	**165 260**
Software				
	CD-ROM	Valve terminal user documentation (PDF)	**P.CD-VALVE-T**	**183 350**
		Utilities	**P.CD-VI-UTILITIES-2**	**533 500**