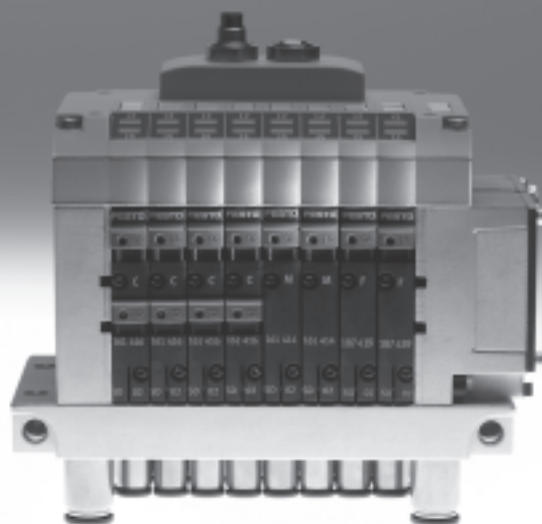


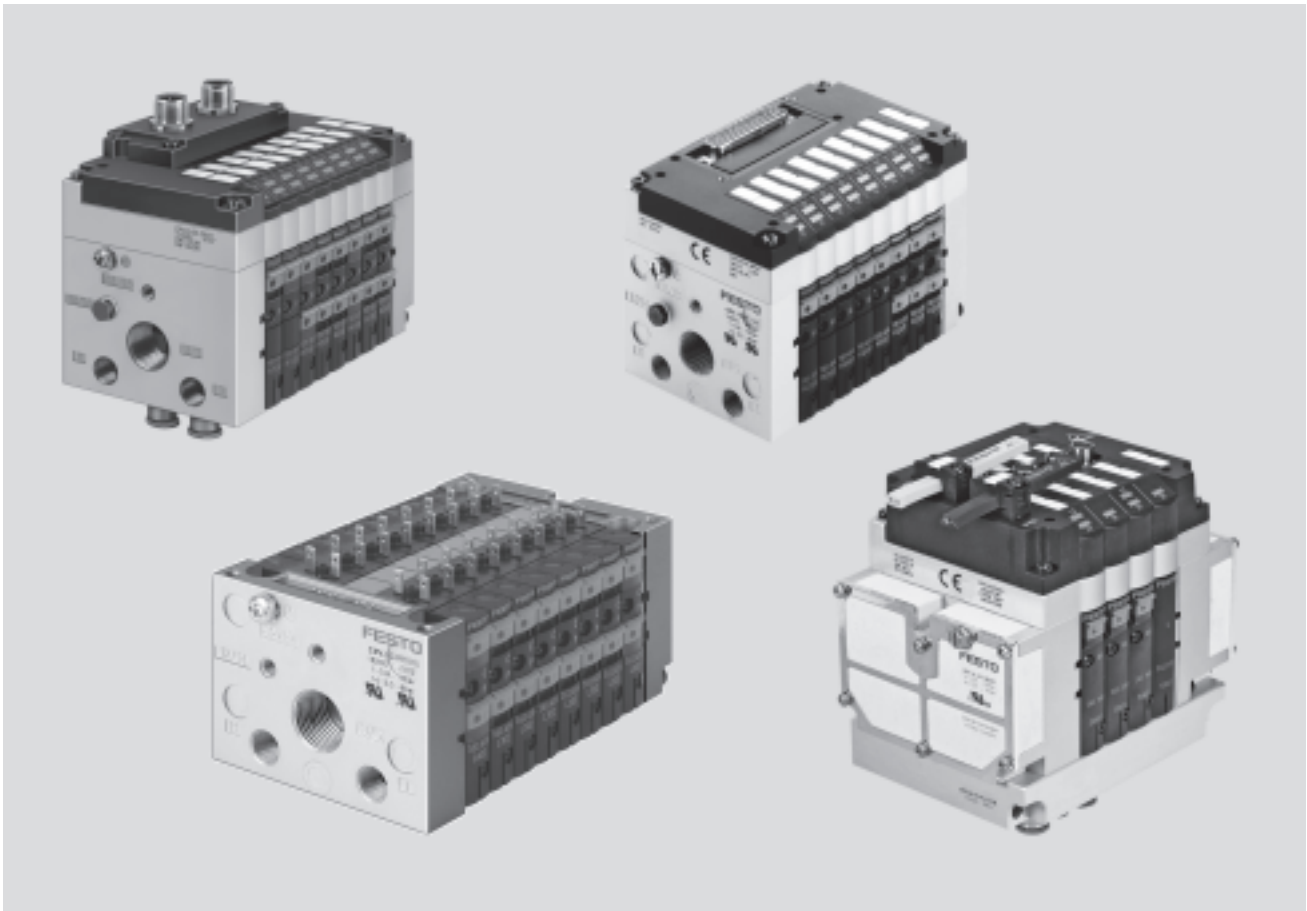
Valve terminals type 10 CPV, Compact Performance



Valve terminals type 10 CPV, Compact Performance

FESTO

Features



Innovative

- Cubic design for exceptional performance and low weight
- Low installation and bus connection costs
- Ideal for decentralised machines and system structures, for example
 - in handling technology
 - in conveyor technology
 - in the packaging industry
 - in sorting systems
 - in upstream machine functions
- Integrated diagnostics, condition monitoring (Fieldbus Direct)
- A string extension for Fieldbus Direct of 8 ... 32 inputs and 8 ... 32 outputs is possible without any difficulty (version-dependent)

Versatile

- Flexible and cost-effective connection of 2 to 8 valve slices
- Highly flexible thanks to:
 - various pneumatic functions (valve variants)
 - different pressure ranges
 - vacuum switches
 - integrated vacuum generation
 - relay plates with floating electrical outputs
- Separator plates for creating pressure zones
- Valves with integrated separation of channels 1 and 11
- Blanking plates for future expansion

Reliable

- LED displays
- Manual valve overrides
- Protection class to IP65
- Protection class IP65 also in conjunction with pneumatic multiple connector plate for control cabinet assembly
- CE mark
- ATEX certification (see Technical Data)

Easy to mount

- Ready-to-install and tested unit
- Lower selection, ordering, installation and commissioning costs
- Secure mounting on wall or H-rail
- Pneumatic multiple connector plate
 - fast assembly without the need to replace the connected tubing
- Optimised assembly for control cabinets

Valve terminals type 10 CPV, Compact Performance

Features

CPV – The benefits at a glance

The CPV valve terminal is of unique design. It provides the flexible combination of pneumatic performance, electrical connection technologies and a wide range of mounting options. The pneumatic multiple connector plate supports space-saving installation in control cabinets. In many cases the valve terminal can be installed in the previously unused wall area of the control cabinet. There is no need to connect the valves in the control cabinet. All tube couplings of the components can also be laid externally.

Instead of individual holes, the pneumatic multiple connector plate requires only one rectangular cutout. The generously sized flow ducts and powerful flat plate silencers ensure high flow rates.

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.

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.

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.

- Compressed air supply connections on the left, right or underneath
- Pneumatic working ports and functional modules (vertical stacking) underneath

- Manual operation/identification on the front
- Electrical connection surface on the top
- Mounting surface at the back or the front via a pneumatic multiple connector plate

Valve terminals type 10 CPV, Compact Performance

Features

Key features

- Simple electrical connections:
 - Individual connection/ET200X/ET200pro
 - Multi-pin plug
 - AS-interface
 - Installation system CP/CPI
 - Fieldbus Direct
- Operating voltage connection
- Quick mounting:
 - Directly using screws
 - On a H-rail
 - Via the pneumatic multiple connector plate
- Robust metal thread or pre-assembled QS fittings
- Inscription labels
- Reduced downtimes: On-the-spot diagnostics via LEDs
- Reliable operation: Manual override, non-detenting, detenting or blocked
- Comprehensive range of valve functions, pressure zone creation, blanking plates
- Width
 - 10 mm
 - 14 mm
 - 18 mm

Equipment options

Valve functions

- 5/2-way valve, single solenoid
- 5/2-way valve (with channel separation 1, 11), single solenoid
- 5/2-way valve, single solenoid, fast-switching
- 5/2-way valve, double solenoid
- 5/2-way valve (with channel separation 1, 11), double-solenoid
- 2x 3/2-way valve, normally closed
- 2x 3/2-way valve (with channel separation 1, 11), normally closed
- 2x 3/2-way valve, normally open
- 2x 3/2-way valve (with channel separation 1, 11), normally open
- 2x 3/2-way valve, 1x normally open, 1x closed
- 2x 3/2-way valve, (with channel separation 1, 11) 1x normally open, 1x closed
- 2x 3/2-way valve, normally closed, integrated back pressure protection
- 5/3-way valve, mid position closed
- 2x 2/2-way valve, normally closed
- 2x 2/2-way valve (with channel separation 1, 11), normally closed
- 2x 2/2-way valve, 1x normally open, 1x closed
- 2x 2/2-way valve, (with channel separation 1, 11) 1x normally open, 1x closed
- Vacuum generator
- Vacuum generator and 2/2-way valve with ejector pulse
- On some terminals a relay plate with two floating contacts can be chosen instead of a valve sub-base

Special features

Individual connection	Multi-pin plug connection	AS-interface	Installation system CP/CPI
<ul style="list-style-type: none"> • 2 ... 8 valve positions, max. 16 solenoid coils 	<ul style="list-style-type: none"> • 4, 6 or 8 valve positions, max. 16 solenoid coils 	<ul style="list-style-type: none"> • 2, 4 or 8 valve positions, max. 8 solenoid coils • 4 or 8 inputs for 4 or 8 valve positions 	<ul style="list-style-type: none"> • 4, 6 or 8 valve positions, max. 16 solenoid coils • With CP/CPI string extension, further valve terminals and I/O modules with CP/CPI function can be connected

Fieldbus Direct	Electrical connection for ET200X/ET200pro
<ul style="list-style-type: none"> • 8 valve positions, max. 16 solenoid coils • With CP/CPI string extension, further valve terminals and I/O modules with CP/CPI functions can be connected 	<ul style="list-style-type: none"> • 8 valve positions, max. 16 solenoid coils

Note

A moulded seal is required for the valve terminal CPV10-ET200pro in order to achieve the IP protection class.

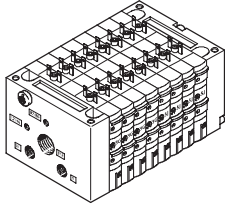
The moulded seal CPV10-...-GE-8 or CPV14-...-GE-8 must be ordered separately.

Valve terminals type 10 CPV, Compact Performance

Features

Electrical connections

Individual connection



Connection is independent of the control technology used and is flexible thanks to pre-assembled cables. This ensures correct polarity during installation. The connector plug is equipped with an LED which indicates switching status, and an overvoltage

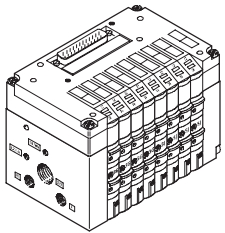
protective circuit. It also features a built-in current reduction circuit. Individual connection permits the selection of 2 to 16 solenoid coils (divided between two to eight valve slices, including in uneven stages).

An intrinsically safe version rounds off the range.

Further information

➔ Internet: cpv10-ex-vi

Multi-pin plug connection

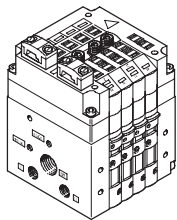
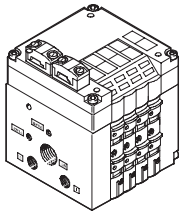


Control signals from the controller to the valve terminal are transmitted via a pre-assembled multi-wire cable, which substantially reduces

installation time. The current reduction circuit for the valves is also integrated in the multi-pin plug 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 the AS-interface is the simultaneous transmission of data and supply power via a two-wire 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 also be supplied with electrical power via a separate connection. Two versions are available for valve terminals for A/B operation.

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

- Without inputs, with two or four valve slices (max. 4 solenoid coils) and additional power supply
- With four inputs and four 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 including vacant position or positions (max. 6 solenoid coils for A/B operation to SPEC.2.1) and additional power supply. In A/B operation to SPEC. 3.0 with profile 7.A.7 eight solenoid coils can be connected in contrast to the SPEC 2.1 version

Further information

➔ Internet: as-interface



Note

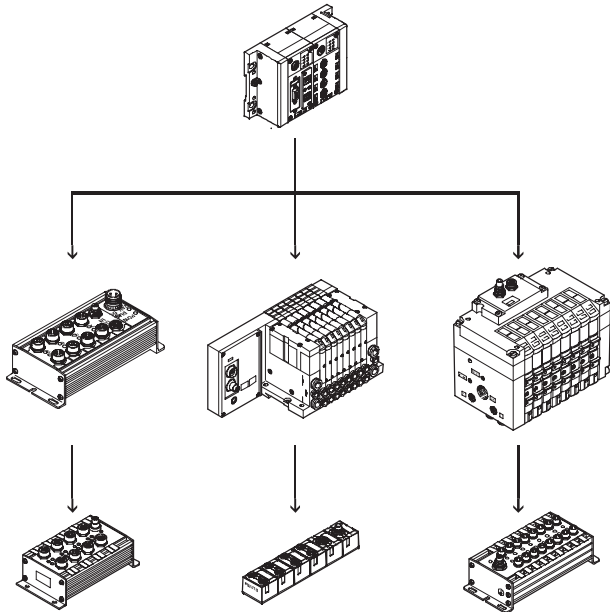
Valve terminals to SPEC.2.1 cannot be operated on a master to SPEC.3.0 with profile 7.A.7.

Valve terminals type 10 CPV, Compact Performance

Features

Electrical connections

Installation system CP/CPI



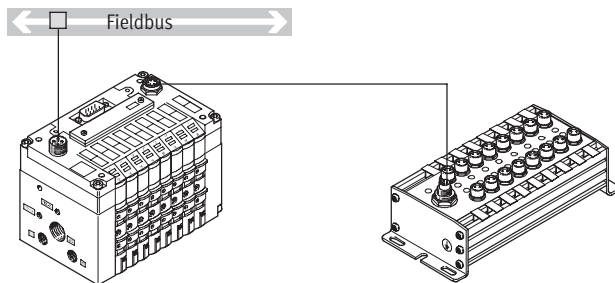
Valve terminals with fieldbus connection are intended for connection to higher-order fieldbus nodes or to control blocks. A fieldbus node or control block also enables the connection of decentralised input/output modules. The following fieldbus protocols are supported:

- Festo fieldbus, ABB CS31, Moeller Suconet K
- Interbus
- Allen Bradley (1771 RIO)
- DeviceNet
- Profibus DP
- CANopen
- CC-Link

Four strings with up to 32 inputs and 32 outputs (version-dependent) can be connected to a fieldbus node or control block. The CPV valve terminal is treated like an output module with up to 8 outputs (4, 6 or 8 valve slices or 4 to 16 solenoid coils per terminal). The connecting cables transmit all required electrical signals (control signals, operating voltage for the internal electronics of the module and load voltage supply for connected valves).

Further information
 → Internet: ctec

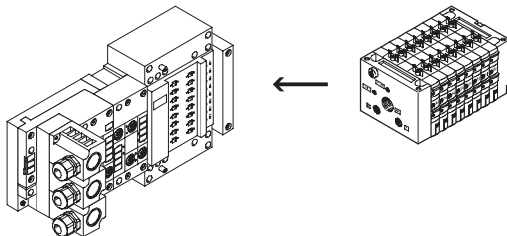
Fieldbus Direct



Fieldbus Direct is a system for the compact connection of a CPV, CPV-SC, CPA-SC or CDVI valve terminal to different fieldbus standards such as Profibus and DeviceNet. The fieldbus node is directly integrated in the electrical interface of the valve terminal and therefore takes up only a minimal amount of space. The CPI string extension option allows the functions and components of the CPI system to be used.

The new high-performance CPI string extension offers up to 4 supplementary CPI modules, combined with CP or CPI-compatible valve terminals for extension purposes. An expansion of the system, Fieldbus Direct of 8 ... 32 inputs and 8 ... 32 outputs is possible without any difficulty.

ET200X/ET200pro pneumatic interface for CPV10 and CPV14



Adaptation of the CPV valve terminal to the input/output module ET200X/ET200pro from Siemens: The combination of the ET200X/ET200pro functional modules and the pneumatic functions of the CPV valve terminal provides a highly integrateable automation solution for systems using electrical and pneumatic drives with:

- 8 valve slices for up to 16 CPV valves
- Fast and secure contacting to IP65
- CPV10 and CPV14 valve terminals
- Not permitted for CPV10-EX-VI
- High degree of protection IP65/IP67
- Modular design

Valve terminals type 10 CPV, Compact Performance

Selection and development

Valve terminal configurator

Online via: → www.festo.com

The appropriate valve terminal can be chosen quickly and easily using the online catalogue. This includes an easy-to-use valve terminal configurator which makes it much easier to find the right product.

The valve terminals are fully assembled according to your order specifications and individually tested. This reduces assembly and installation time to a minimum.

You order a valve terminal type 10 using the order code.

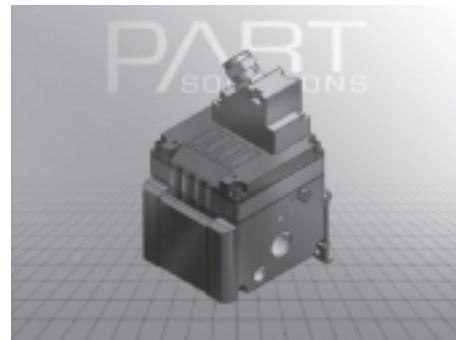
Ordering system for type 10
→ Internet: type 10

2D/3D CAD data

Online via: → www.festo.com

You can request the CAD data for a valve terminal you have configured. To do so, perform the product search as described above. Go to the shopping basket and click on the CAD icon

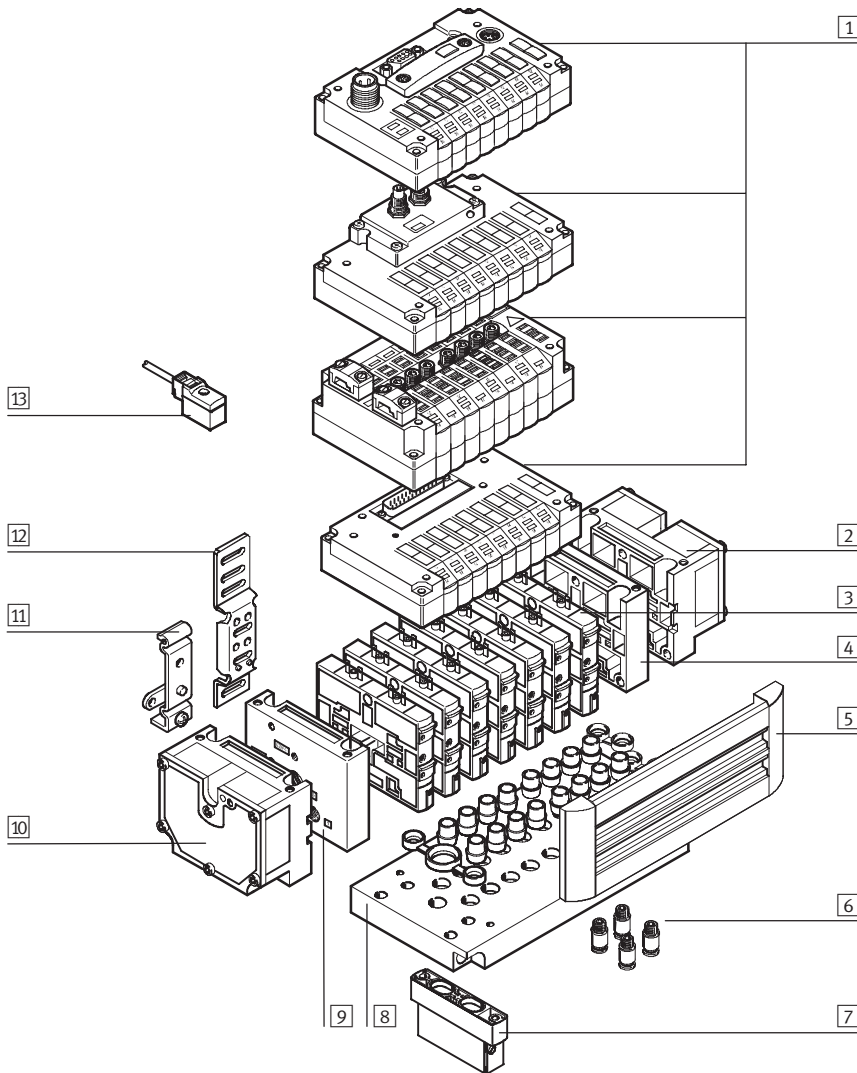
(compass). On the next page you can generate a 3D preview or request another data format of your choice by e-mail.



Valve terminals type 10 CPV, Compact Performance

Peripherals overview

Overview – CPV valve terminal



- | | | | |
|--|--|---|---|
| <p>1 Basic electrical unit (Fieldbus Direct, CP/CPI installation system, AS-interface, multi-pin plug, individual connection)</p> <p>2 Right-hand end plate with flat plate silencer</p> | <p>3 Comprehensive range of valve functions</p> <p>4 Right-hand end plate (threaded connection not in conjunction with pneumatic multiple connector plate)</p> <p>5 Holder for inscription labels</p> <p>6 QS push-in fittings</p> | <p>7 Function block (vertical stacking)</p> <p>8 Pneumatic multiple connector plate</p> <p>9 Left-hand end plate (threaded connection not in conjunction with pneumatic multiple connector plate)</p> | <p>10 Left-hand end plate with flat plate silencer</p> <p>11 H-rail mounting</p> <p>12 Wall mounting</p> <p>13 Plug socket with cable for individual connection</p> |
|--|--|---|---|

Valve terminals type 10 CPV, Compact Performance

Key features – Pneumatic components

Valves

CPV valves are valves with integrated sub-base, i.e. in addition to the valve function they contain all of the pneumatic ducts for supply, exhaust and the working ports. 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 (grid dimensions). Restrictions should be noted where applicable.

Valve function					
Code	Circuit symbol	Size			Description
		10	14	18	
M, MK		■	■	■	5/2-way valve, single solenoid <ul style="list-style-type: none"> • Pneumatic spring return • Piston spool valve • With duct separation 1, 11 for valve MK • Size 18 only available for valve M
F		■	-	-	5/2-way valve, single solenoid <ul style="list-style-type: none"> • Pneumatic spring return • Piston spool valve • Fast switching
J, JK		■	■	■	5/2-way valve, double solenoid <ul style="list-style-type: none"> • Piston spool valve • With duct separation 1, 11 for valve JK • Size 18 only available for valve J
C, CK		■	■	■	2x 3/2-way valve, single solenoid <ul style="list-style-type: none"> • Normally closed • Pneumatic spring return • Piston spool valve • With duct separation 1, 11 for valve CK • Size 18 only available for valve C
CY		■	-	-	2x 3/2-way valve, single solenoid <ul style="list-style-type: none"> • Normally closed • Pneumatic spring return • Integrated back pressure protection • Piston spool valve • Not suitable for vacuum <p> Note</p> <p>If it is necessary to ensure that the back pressure flaps are closed securely in the event of a sudden drop in operating pressure or if the operating pressure is switched off, the valve terminal must be operated with external pilot air supply.</p>

Valve terminals type 10 CPV, Compact Performance

Key features – Pneumatic components

Valve function					
Code	Circuit symbol	Size			Description
		10	14	18	
N, NK		■	■	■	<p>2x 3/2-way valve, single solenoid</p> <ul style="list-style-type: none"> • Normally open • Pneumatic spring return • Piston spool valve • With duct separation 1, 11 for valve NK • Size 18 only available for valve N <p>The function of a 5/3-way valve with mid-position pressurised can be implemented with these valves with initial position open.</p>
H, HK		■	■	■	<p>2x 3/2-way valve, single solenoid</p> <ul style="list-style-type: none"> • Normal position <ul style="list-style-type: none"> – 1x open (pilot control 12) – 1x closed (pilot control 14) • Pneumatic spring return • Piston spool valve • With duct separation 1, 11 for valve HK • Size 18 only available for valve H <p>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, it means that the cylinder can move faster.</p>
G		–	–	■	<p>5/3-way valve, mid-position closed</p> <ul style="list-style-type: none"> • Mechanical spring return • Piston spool valve
		■	■	–	<p>5/3G¹⁾, function, mid-position closed</p> <p>For size 10 and 14</p> <p>The valve function “mid-position closed” is created using a 2x 3/2-way valve, normally closed (code C).</p> <p>The valve kit CPV10-BS-5/3G-M7 or CPV14-BS-5/3G-1/8 (incorporating a double piloted non-return valve function) is used for this. This valve kit is for applications with one working pressure level per valve slice, i.e. it should not be used in dual-pressure applications (where the pressure levels at port 1 and 11 are different).</p> <p>If other valve slices are to be used in dual-pressure mode, then the valve slice equipped with the 5/3G valve kit must be separated from compressed air duct 1 and 11 by means of a separator plate (code T).</p> <p>Not in first or last valve position with pneumatic multiple connector plate P and M. Not used with pneumatic multiple connector plate GQC and GQD.</p> <ul style="list-style-type: none"> • Piston spool valve

1) Cannot be assembled in conjunction with the control cabinet version of the pneumatic multiple connector plate CPV10-VI-P...C or CPV10-VI-P...D

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

Valve terminals type 10 CPV, Compact Performance

Key features – Pneumatic components

Valve function					
Code	Circuit symbol	Size			Description
		10	14	18	
		■	■	■	<p>5/3E function, mid-position exhausted</p> <p>The valve function “mid-position exhausted” is created using a 2x 3/2-way valve, normally closed (code C, CK).</p> <ul style="list-style-type: none"> • Pneumatic spring return • Piston spool valve
		■	■	■	<p>5/3B function, mid-position pressurised</p> <p>The valve function “mid-position pressurised” is created using a 2x 3/2-way valve, normally open (code N, NK).</p> <ul style="list-style-type: none"> • Pneumatic spring return • Piston spool valve
D, DK		■	■	■	<p>2x 2/2-way single solenoid valve</p> <ul style="list-style-type: none"> • Normally closed • Pneumatic spring return • Piston spool valve • With duct separation 1, 11 for valve DK • Size 18 only available for valve D
I, IK		■	■	■	<p>2x 2/2-way single solenoid valve</p> <ul style="list-style-type: none"> • Normal position <ul style="list-style-type: none"> – 1x open (control side 12) – 1x closed (control side 14) • Pneumatic spring return • Piston spool valve • With duct separation 1, 11 for valve IK • Size 18 only available for valve I
R	<p>Relay plate (2 floating contacts)</p>	■	■	–	<p>A relay plate (code R) with (normally open contacts) can also be used instead of a valve slice. Each relay plate has two relays for actuating two electrically isolated outputs. Load capacity: 24 V DC, 1 A.</p> <ul style="list-style-type: none"> • Connecting cable KRP-1-24-... • An inscription label holder cannot be used

Valve terminals type 10 CPV, Compact Performance

Key features – Pneumatic components

Additional pneumatic functions					
Code	Circuit symbol	Size			Description
		10	14	18	
A	<p>Vacuum generator</p>	■	■	■	<p>Vacuum generation according to the ejector principle.</p> <p>Vacuum slices of different widths for different suction capacities.</p> <p>Combinations with a number of vacuum slices and/or directional control function slices are possible on the same valve terminal.</p> <p>In principle, an open connection is formed between the exhaust duct 3/5 and the working line 4. When the nozzle is not switched, the resulting back pressure in the exhaust duct flows back into the working line. When the nozzle is switched, the vacuum can be greatly reduced by the resulting back pressure.</p>
E	<p>Vacuum generator with ejector pulse</p>	■	■	■	<p>This effect is improved through optimised exhausting. It does not occur where there is only one vacuum generator per valve terminal and where separator plates (code S) are used for separation.</p> <p>Vacuum generator on pilot side 14</p> <ul style="list-style-type: none"> • Reset via mechanical spring and pneumatic spring • Ejector pulse on pilot side 12 (code E) • Note air supply and exhaust when using more than two vacuum generators
P	<p>Input (valve side)</p> <p>Output (cylinder side)</p>	■	■	–	<p>2x one-way flow control valve, supply air flow control</p> <p>Module (actuator) for direct flange mounting on the CPV valves.</p> <p>Also suitable for pneumatic multiple connector plates.</p> <p>Different valve actuators cannot be combined.</p> <p>Not with valve function G</p> <ul style="list-style-type: none"> • Not in first or last valve position with accessories M, P, V (pneumatic multiple connector plate) • Not used with accessories GQC and GQD (pneumatic multiple connector plate)
Q	<p>Input (valve side)</p> <p>Output (cylinder side)</p>	■	■	–	<p>2x one-way flow control valve, exhaust air flow control</p> <p>Module (actuator) for direct flange mounting on the CPV valves.</p> <p>Also suitable for pneumatic multiple connector plates.</p> <p>Different valve actuators cannot be combined.</p> <p>Not with valve function G</p> <ul style="list-style-type: none"> • Not in first or last valve position with accessories M, P, V (pneumatic multiple connector plate) • Not used with accessories GQC and GQD (pneumatic multiple connector plate)
V	<p>Input (valve side)</p> <p>Output (cylinder side)</p>	■	■	–	<p>One-way flow control valve for vacuum</p> <p>The module CPV-...-BS-GRZ-V-... has a built-in non-return valve as well as a flow control function for adjusting the ejector pulse. The non-return valve serves to temporarily maintain the vacuum, even if the vacuum generator is switched off.</p> <p>The module is suitable for vacuum generators (code A, E).</p> <ul style="list-style-type: none"> • Not in first or last valve position with accessories M, P, V (pneumatic multiple connector plate) • Not used with accessories GQC and GQD (pneumatic multiple connector plate)

Valve terminals type 10 CPV, Compact Performance

Key features – Pneumatic components

Creating 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 advanced using high pressure and retracted using low pressure to save energy.

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 slice type
- Number of valve slices

With the aid of separator plates or valves with integrated duct separation you can divide the CPV valve terminal into 2 to 4 pressure zones.

Separator plates/valves with integrated duct separation					
Code	Graphical symbol	Size			Note
		10	14	18	
T	Separator plate for creating pressure zones, supply duct 1 and 11 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. <ul style="list-style-type: none"> • Not in first or last valve position • Not with compressed air supply A, B, C, D, U, V, W, X
S	Separator plate for creating pressure zones, supply duct 1, 11 and exhaust 3/5 separated 	■	■	■	The separator plate (code S) separates 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. <ul style="list-style-type: none"> • Not in first or last valve position • Not with compressed air supply A, B, C, D, U, V, W, X (single-side compressed air supply)
L	Blanking plate (vacant position) 	■	■	■	A vacant position is created using a blanking plate (code L); a valve can be positioned here at a later date.
MK, JK, CK, NK, DK, IK	Valve with integrated separation of ducts 1 and 11 	■	■	–	With these valves the ducts for the air supply (connections 1 and 11) are closed to the right-hand side of the valve with a cast membrane. The advantage of using this instead of a separator plate is that no valve location is occupied by a separator plate.

Valve terminals type 10 CPV, Compact Performance

Key features – Pneumatic components

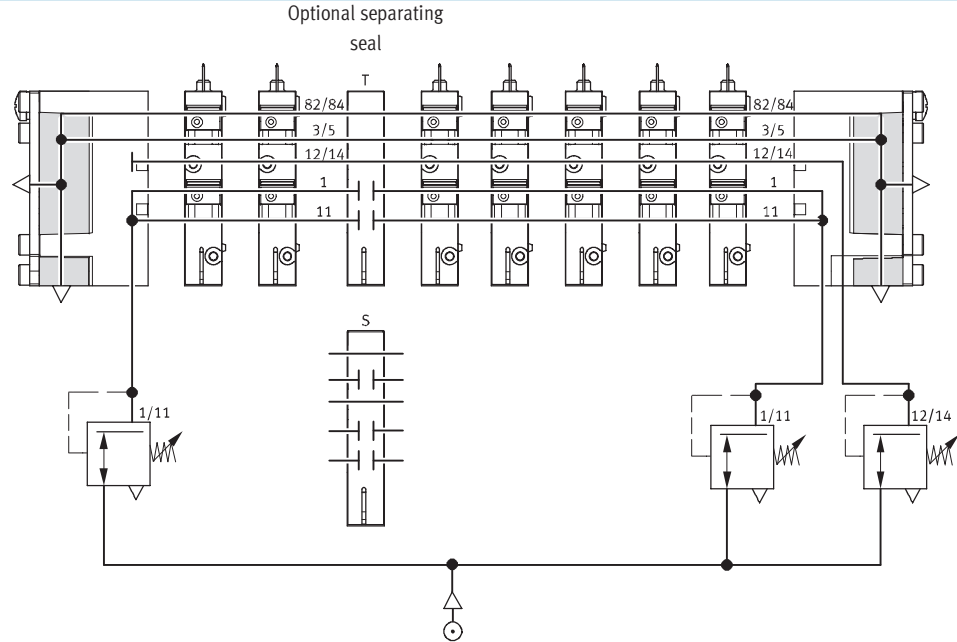
Examples: Pneumatic supply

External pilot air supply, flat plate silencer at both ends

Compressed air supply via pneumatic multiple connector plate

Code H

The diagram opposite shows an example of the configuration and connection of the compressed air supply with external pilot air supply. Port 12/14 on the pneumatic multiple connector plate is equipped with a fitting for this purpose. Ports 3/5 and 82/84 are vented via the flat plate silencers. One separating seal each can be used optionally to create pressure zones.



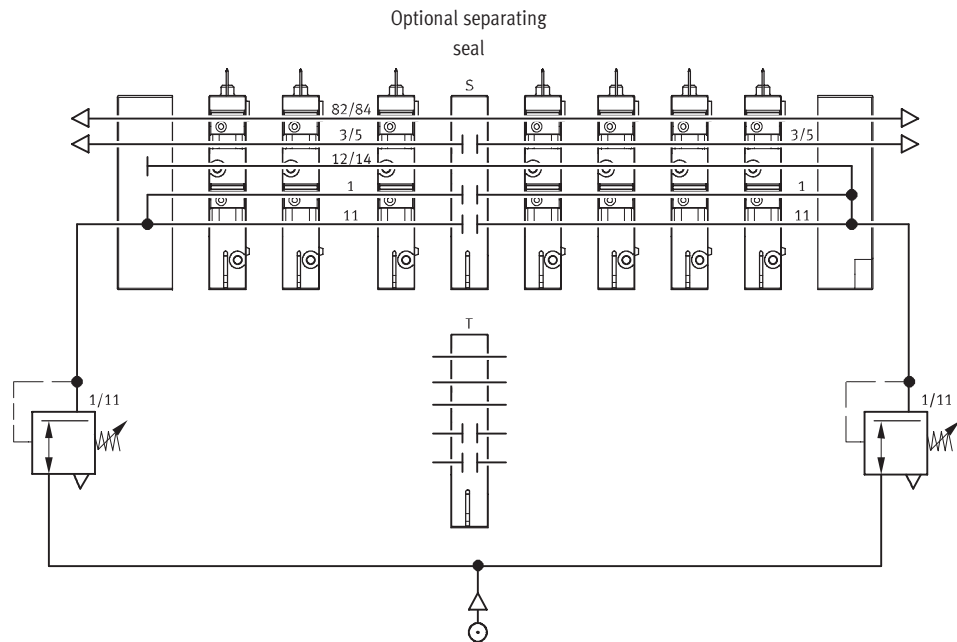
Internal pilot air supply, ducted exhaust air or screw-in silencer

Compressed air supply via end plates:

Code Z

The diagram opposite shows an example of the configuration and connection of the compressed air supply with internal pilot air supply. The pilot air is branched at the right-hand end plate of port 1 or 11.

Ports 3/5 and 82/84 are vented via the screw-in silencer. One separating seal each can be used optionally to create pressure zones.



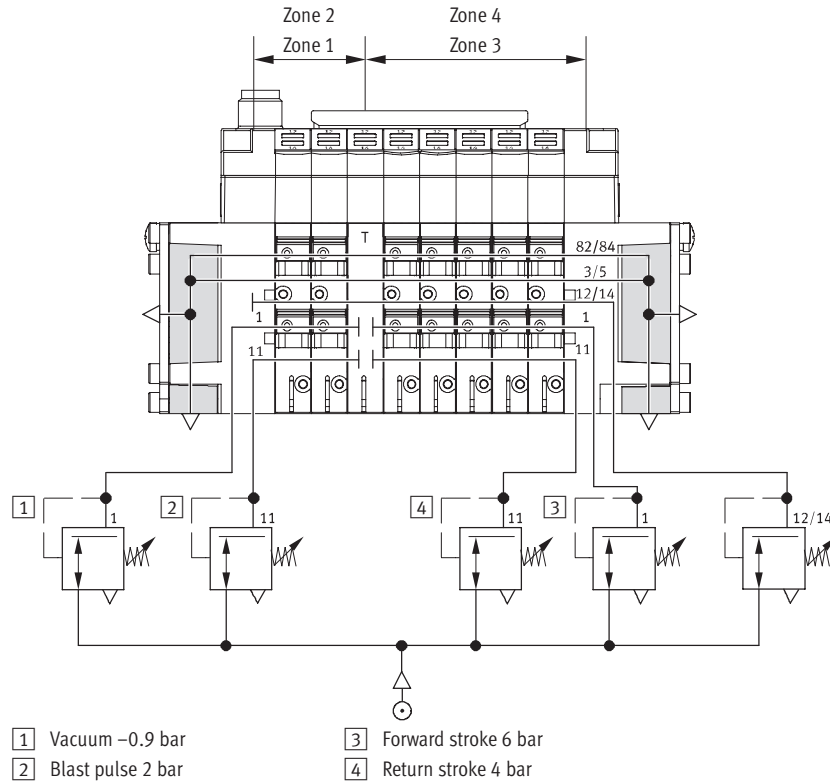
Valve terminals type 10 CPV, Compact Performance

Key features – Pneumatic components

Example: Creating pressure zones

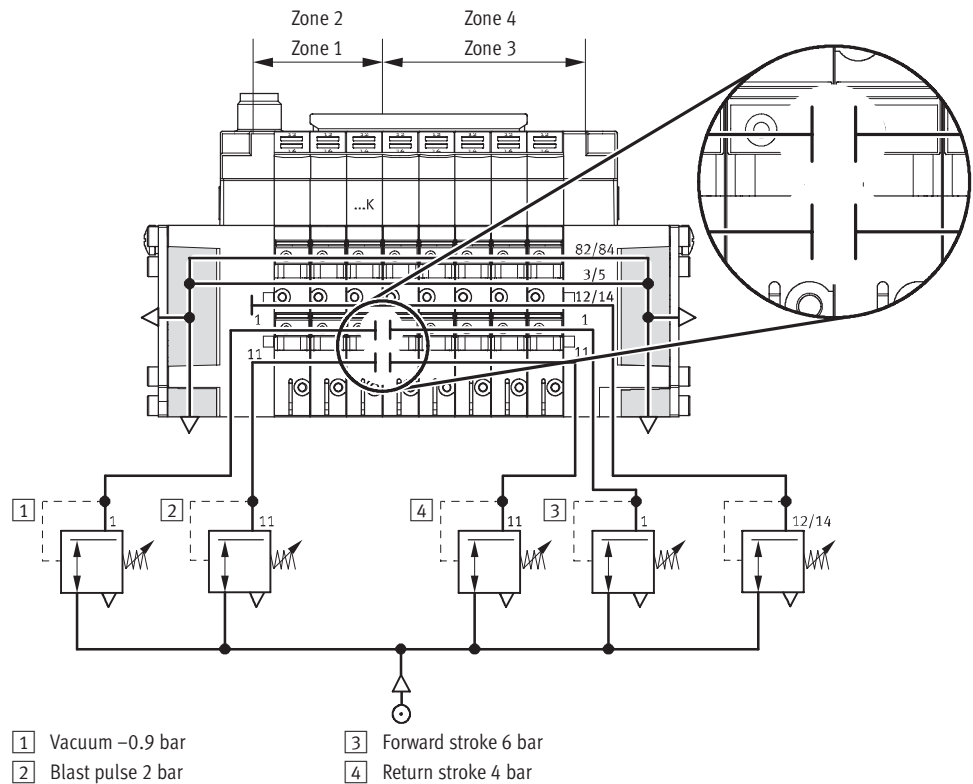
CPV with separator plate T

With the CPV valve terminals up to four pressure zones can be implemented. The diagram shows an example of the configuration and connection of four pressure zones using separator plate code T – with external pilot air supply.



CPV with integrated duct separation 1 and 11 by valves ...K

With the CPV valve terminals up to 4 pressure zones can be implemented. The diagram shows as an example the structure and connection of four pressure zones with external pilot air supply and the use of a valve ...K with integrated duct separation 1 and 11.



Valve terminals type 10 CPV, Compact Performance

Key features – Pneumatic components

FESTO

Compressed air supply and venting

The two end plates which supply the valve slices with pressure and exhaust 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

- Large flat plate 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 unique flexibility and functionality. 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

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 left or right-hand end plate with internal pilot air supply. There is no port 12/14.

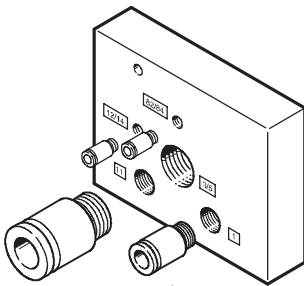
External pilot air supply

External pilot air supply is required if the supply pressure at pneumatic connection 1 is less than 3 bar or greater than 8 bar. In this case, pressure of 3 ... 8 bar is applied at port 12/14. If a gradual pressure build-up in the

system using a pressurised on-off valve is required, external pilot air supply should be selected as the control pressure applied during switch-on is already very high. External pilot air supply is also

required if it is necessary to ensure that the back pressure flaps (valve order code CY) are closed securely in the event of a sudden drop in operating pressure or if the operating pressure is switched off.

End plates



Example of an end plate:

The figure shows a left-hand end plate with external pilot air supply. The exhaust connections 3/5 and 82/84 can be fitted with threaded connections or

silencers. An end plate for internal pilot air supply does not have ports 12/14 and 11. Port 82/84 is always present and

should be provided with a silencer. Port 12/14 is connected internally with port 1 on an end plate for internal pilot air supply.

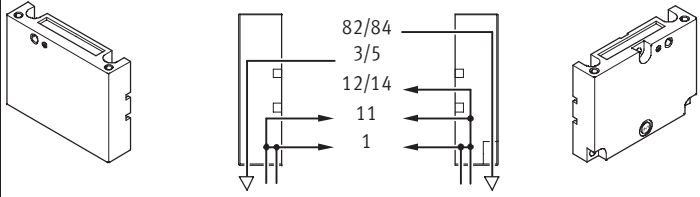
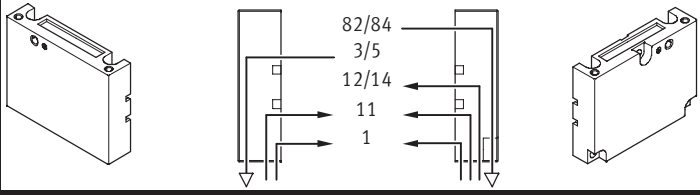
Valve terminals type 10 CPV, Compact Performance

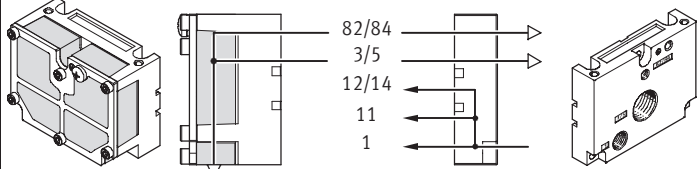
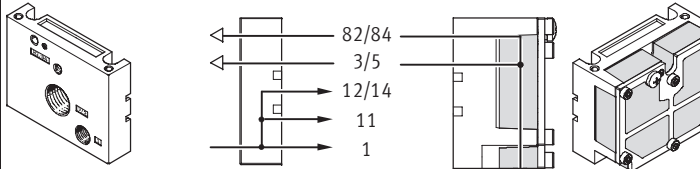
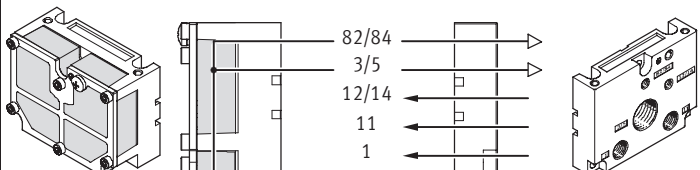
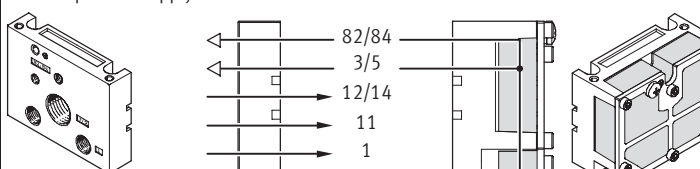
Key features – Pneumatic components

End plate combination for compressed air supply via end plate					
Code	Graphical symbol Type of pilot air supply (internal/external)	Size			Note
		10	14	18	
U	Internal pilot air supply 				<ul style="list-style-type: none"> • Ports in right-hand end plate only • No pressure zone separation permissible • Not suitable for vacuum
V	Internal pilot air supply 				<ul style="list-style-type: none"> • Ports in left-hand end plate only • No pressure zone separation permissible • Not suitable for vacuum
W	External pilot air supply 				<ul style="list-style-type: none"> • Ports in right-hand end plate only • No pressure zone separation permissible • Suitable for vacuum
X	External pilot air supply 				<ul style="list-style-type: none"> • Ports in left-hand end plate only • No pressure zone separation permissible • Suitable for vacuum
Y	Internal pilot air supply 				<ul style="list-style-type: none"> • Ports in left-hand and right-hand end plate • Maximum three pressure zones • Valves to the left of the separator plate suitable for vacuum
Z	External pilot air supply 				<ul style="list-style-type: none"> • Ports in left-hand and right-hand end plate • Maximum four pressure zones • Suitable for vacuum

Valve terminals type 10 CPV, Compact Performance

Key features – Pneumatic components

End plate combination for compressed air supply via pneumatic multiple connector plate					
Code	Graphical symbol Type of pilot air supply (internal/external)	Size			Note
		10	14	18	
Y	Internal pilot air supply 	■	■	■	<ul style="list-style-type: none"> Ports on pneumatic multiple connector plate Pressure zone separation only permissible with separator plate (code T) Maximum two pressure zones Valves to the left of the separator plate suitable for vacuum Only for accessories M, P, V, GQC, GQD (pneumatic multiple connector plate)
Z	External pilot air supply 	■	■	■	<ul style="list-style-type: none"> Ports on pneumatic multiple connector plate Pressure zone separation only permissible with separator plate (code T) Maximum three pressure zones Suitable for vacuum Only for accessories M, P, V, GQC, GQD (pneumatic multiple connector plate)

End plate combination for compressed air supply via end plates with flat plate silencer					
Code	Graphical symbol Type of pilot air supply (internal/external)	Size			Note
		10	14	18	
A	Internal pilot air supply 	■	■	■	<ul style="list-style-type: none"> Ports in right-hand end plate No pressure zone separation permissible Not suitable for vacuum
B	Internal pilot air supply 	■	■	■	<ul style="list-style-type: none"> Ports in left-hand end plate No pressure zone separation permissible Not suitable for vacuum
C	External pilot air supply 	■	■	■	<ul style="list-style-type: none"> Ports in right-hand end plate No pressure zone separation permissible Suitable for vacuum
D	External pilot air supply 	■	■	■	<ul style="list-style-type: none"> Ports in left-hand end plate No pressure zone separation permissible Suitable for vacuum

Valve terminals type 10 CPV, Compact Performance

Key features – Pneumatic components

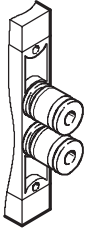
End plate combination for compressed air supply via pneumatic multiple connector plate with flat plate silencer					
Code	Graphical symbol Type of pilot air supply (internal/external)	Size			Note
		10	14	18	
E	External pilot air supply 	■	■	■	<ul style="list-style-type: none"> Ports on pneumatic multiple connector plate Exhaust air vented via flat plate silencers on the right Pressure zone separation only permissible with separator plate (code T) Maximum four pressure zones Suitable for vacuum Only for accessories M, P, V, GQC, GQD (pneumatic multiple connector plate)
F	External pilot air supply 	■	■	■	<ul style="list-style-type: none"> Ports on pneumatic multiple connector plate Exhaust air vented via flat plate silencers on the left Pressure zone separation only permissible with separator plate (code T) Maximum four pressure zones Suitable for vacuum Only for accessories M, P, V, GQC, GQD (pneumatic multiple connector plate)
G	Internal pilot air supply 	■	■	■	<ul style="list-style-type: none"> Ports on pneumatic multiple connector plate Exhaust air vented via flat plate silencers on the left Pressure zone separation only permissible with separator plate (code T) Maximum three pressure zones Not suitable for vacuum Only for accessories M, P, V, GQC, GQD (pneumatic multiple connector plate)
H	External pilot air supply 	■	■	■	<ul style="list-style-type: none"> Ports on pneumatic multiple connector plate Exhaust air vented via flat plate silencers at both ends Pressure zone separation permissible Suitable for vacuum Only for accessories M, P, V, GQC, GQD (pneumatic multiple connector plate)
J	Internal pilot air supply 	■	■	■	<ul style="list-style-type: none"> Ports on pneumatic multiple connector plate Exhaust air vented via flat plate silencers at both ends Pressure zone separation permissible Maximum three pressure zones Valves to the left of the separator plate suitable for vacuum Only for accessories M, P, V, GQC, GQD (pneumatic multiple connector plate)
K	Internal pilot air supply 	■	■	■	<ul style="list-style-type: none"> Ports on pneumatic multiple connector plate Exhaust air vented via flat plate silencers on the right Pressure zone separation permissible Maximum three pressure zones Suitable for vacuum in combination with separator plate Only for accessories M, P, V, GQC, GQD (pneumatic multiple connector plate)

Valve terminals type 10 CPV, Compact Performance

Key features – Pneumatic components



Pneumatic connection



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

multiple connector plate. Push-in fittings are available fully assembled. The following working ports can be selected:

- Large push-in fittings: Code A

- Small push-in fittings: Code B
 - Threaded connections: Code C
- Connection sizes for the threaded and QS push-in fittings can be found in the table below.

Pneumatic multiple connector plate

One-piece “connection plates” that contain both working lines and supply ports can be combined with a pneumatic multiple connector plate. These plates enable the valve terminal as a pneumatic “function” to be separated

from the valve ports. The pneumatic multiple connector plate enables different mounting options from wall mounting to direct passage through a cabinet wall.

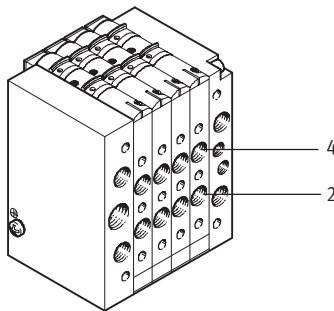
Service-friendly and flexible connection technology thanks to the following:

- Common connection via the pneumatic multiple connector plate with all connections on one side
- The valve terminal can be removed/

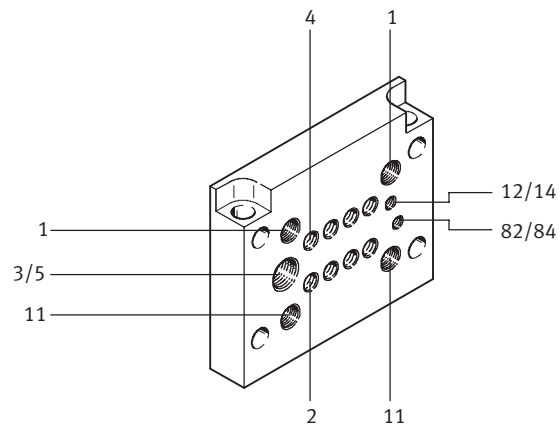
fitted using only four screws, whereby the pneumatics remain fully connected

- Quick removal/fitting
- No errors when recommissioning as a result of incorrect connection of tubing

CPV valve terminal



Pneumatic multiple connector plate

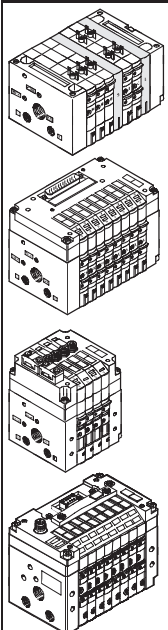


Connection sizes				
Connection to ISO 5599	CPV10	CPV14	CPV18	Comment
1/11 Working air	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{3}{8}$	Fitting in end plate or pneumatic multiple connector plate
2/4 Working port	M7 (QS6/QS4)	G $\frac{1}{8}$ (QS8/QS6)	G $\frac{1}{4}$ (QS10/QS8)	Connection in valve slice, connection for push-in fitting in brackets
3/5 Exhaust air port	G $\frac{3}{8}$	G $\frac{1}{2}$	G $\frac{1}{2}$	Via right-hand/left-hand end plate
	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	Pneumatic multiple connector plate
12/14 Pilot air supply port	M5	G $\frac{1}{8}$	G $\frac{1}{4}$	Fitting in end plate or pneumatic multiple connector plate
82/84 Pilot exhaust air port	M5	G $\frac{1}{8}$	G $\frac{1}{4}$	Via right-hand/left-hand end plate
	M7 (M5) ¹⁾	G $\frac{1}{8}$	G $\frac{1}{4}$	Pneumatic multiple connector plate

1) With flanged pneumatic multiple connector plate

Valve terminals type 10 CPV, Compact Performance

Key features – Pneumatic components

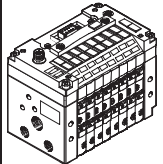
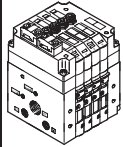
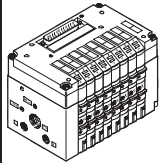
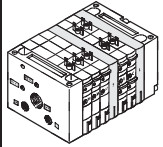
Pneumatic connection: Fitting set for compressed air supply							
	Code Compressed air supply	Port	Designation	Size 10 QS6 Type	Size 14 QS8 Type	Size 18 QS10 Type	
	Without pneumatic multiple connector plate						
	U, V	82/84	Silencer	U-M5	U-1/8-B	U-1/4-B	
		3/5	Silencer	U-3/8-B	U-1/2-B	U-1/2-B	
		1	Push-in fitting	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 fitting	QS-1/8-8-I	QS-1/4-10-I	QS-3/8-12-I	
		12/14	Push-in fitting	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 fitting	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 fitting	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 fitting	QS-1/8-8-I	QS-1/4-10-I	QS-3/8-12-I	
	With pneumatic multiple 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 fitting	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 fitting	QSM-M7-6-I	QS-1/8-8-I	QS-1/4-10-I		
1/11 on left		Push-in fitting	QS-1/8-8-I	QS-1/4-10-I	QS-3/8-12-I		
With pneumatic multiple connector plate; code P, GQC							
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 fitting	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 fitting	QSM-M5-6-I	QS-1/8-8-I	QS-1/4-10-I		
	1/11 on left	Push-in fitting	QS-1/8-8-I	QS-1/4-10-I	QS-3/8-12-I		

Valve terminals type 10 CPV, Compact Performance

FESTO

Key features – Pneumatic components

Pneumatic connection: Fitting set for compressed air supply						
Code	Port	Designation	Size 10	Size 14	Size 18	
Compressed air supply			QS6 Type	QS8 Type	QS10 Type	
Without pneumatic multiple connector plate						
A, B	82/84	Blanking plug	B-M5	B-1/8	B-1/4	
	3/5	Blanking plug	B-3/8	B-1/2	B-1/2	
	1	Push-in fitting	QS-1/8-8-l	QS-1/4-10-l	QS-3/8-12-l	
C, D	82/84	Blanking plug	B-M5	B-1/8	B-1/4	
	3/5	Blanking plug	B-3/8	B-1/2	B-1/2	
	1	Push-in fitting	QS-1/8-8-l	QS-1/4-10-l	QS-3/8-12-l	
	12/14	Push-in fitting	QSM-M5-6-l	QS-1/8-8-l	QS-1/4-10-l	
With pneumatic multiple connector plate; code M						
E, F, H	82/84	Blanking plug	B-M7	B-1/8	B-1/4	
	3/5	Blanking plug	B-1/4	B-3/8	B-1/2	
	1/11	Push-in fitting	QS-1/8-8-l	QS-1/4-10-l	QS-3/8-12-l	
	12/14	Push-in fitting	QSM-M7-6-l	QS-1/8-8-l	QS-1/4-10-l	
G, J, K	82/84	Blanking plug	B-M7	B-1/8	B-1/4	
	3/5	Blanking plug	B-1/4	B-3/8	B-1/2	
	on right in 1, left	Push-in fitting	QS-1/8-8-l	QS-1/4-10-l	QS-3/8-12-l	
	on right in 11	Blanking plug	B-1/8	B-1/4	B-3/8	
	12/14	Blanking plug	B-M7	B-1/8	B-1/4	
With pneumatic multiple connector plate; code P, QQC						
E, F, H	82/84	Blanking plug	B-M5	B-1/8	B-1/4	
	3/5	Blanking plug	B-1/4	B-3/8	B-1/2	
	1/11	Push-in fitting	QS-1/8-8-l	QS-1/4-10-l	QS-3/8-12-l	
	12/14	Push-in fitting	QSM-M5-6-l	QS-1/8-8-l	QS-1/4-10-l	
G, J, K	82/84	Blanking plug	B-M5	B-1/8	B-1/4	
	3/5	Blanking plug	B-1/4	B-3/8	B-1/2	
	on right in 1, left	Push-in fitting	QS-1/8-8-l	QS-1/4-10-l	QS-3/8-12-l	
	on right in 11	Blanking plug	B-1/8	B-1/4	B-3/8	
	12/14	Blanking plug	B-M5	B-1/8	B-1/4	

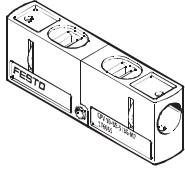


Valve terminals type 10 CPV, Compact Performance

Key features – Pneumatic components

CPV valve terminal size 10 and 14 with valve extensions

Function blocks



CPV10-BS-5/3G-M7
CPV14-BS-5/3G-1/8

Valve kit 5/3G for creating a 5/3-way function, mid-position closed, for size 10 and 14:

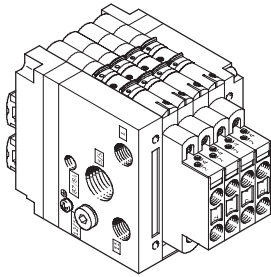
The valve function “mid-position closed” is created using a valve slice with 2x 3/2-way valve, normally closed (valve function code C).

The valve kit CPV10-BS-5/3G-M7 or CPV14-BS-5/3G-1/8 (incorporating

a double piloted non-return valve function) is used for this.

This valve kit is intended for applications with one working pressure level per valve slice, i.e. it must not be used in dual-pressure applications (where the pressure levels at port 1 and 11 are different).

Additional functions for valve positions



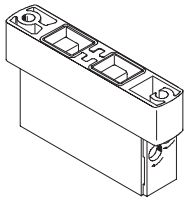
These valve extensions (vertical stacking) can be used to add further pneumatic functions to CPV valve terminals size 10 and 14:

- Two one-way flow control valves for flow regulation directly at the valve terminal for
 - supply air flow control
 - exhaust air flow control
- The vacuum flow control module must be used with the vacuum generator with or without ejector pulse and provides a non-return function and adjustable ejector pulse.



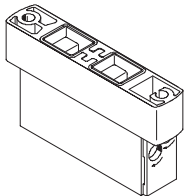
Note

The additional functions cannot be used in the first or last valve position in combination with the pneumatic connector plate M, P and cannot be used in combination with the pneumatic multiple connector plate GQC, GQD.



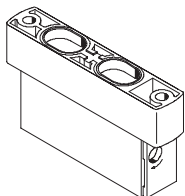
CPV10-BS-2xGRZZ-M7
CPV14-BS-2xGRZZ-1/8

- 2x one-way flow control valve for supply air flow control
- Additional function code P



CPV10-BS-2xGRAZ-M7
CPV14-BS-2xGRAZ-1/8

- 2x one-way flow control valve for exhaust air flow control
- Additional function code Q



CPV10-BS-GRZ-V-M7
CPV14-BS-GRZ-V-1/8

- Vacuum flow control module
- Additional function code V

Valve terminals type 10 CPV, Compact Performance

Key features – Assembly

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Mounting options

The valve terminals have holes for four mounting screws. In this case the mounting side is the side with the pneumatic threaded connectors. These holes are also used to mount the valve terminal on a pneumatic multiple connector plate.

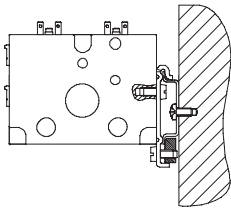
There are other mounting options in addition to this method:

- H-rail mounting
- Wall mounting
- Wall mounting via flanged multiple connector plate

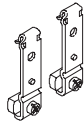
- On rear side via wall mounting
- On front side (CPV10/14 with IC connection only)
- Mounting via through-hole in wall

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

Mounting for H-rail



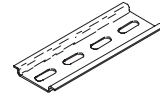
for valve terminal CPV10/14:
CPV10/14-VI-BG-NRH-35
(mounting code H)



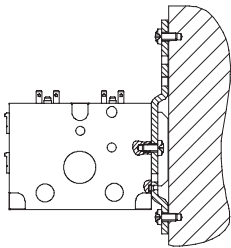
for valve terminal CPV18:
CPV18-VI-BG-NRH-35
(mounting code H)



H-rail to EN 60715, not for accessories M, P, V (pneumatic multiple connector plate)



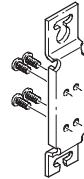
Attachment for wall mounting



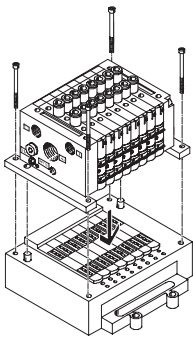
for valve terminal CPV10/14:
CPV10/14-VI-BG-RWL-B
(mounting code U)



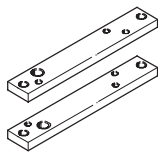
for valve terminal CPV18:
CPV18-VI-BG-RW
(mounting code W)



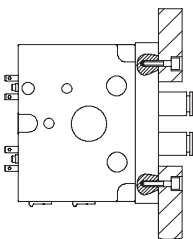
Attachment for individual connection and ET200X/ET200pro (included in the scope of delivery)



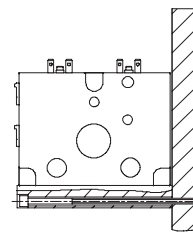
for valve terminal CPV10/14:
CPV...-VI-BG-ET200X
(mounting code X)



Through-hole in wall, for example on the machine



Wall mounting via pneumatic multiple connector plate

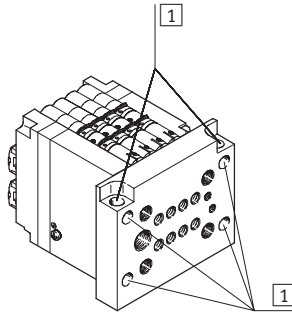


Valve terminals type 10 CPV, Compact Performance

Key features – Assembly

Pneumatic multiple connector plate for wall/machine mounting

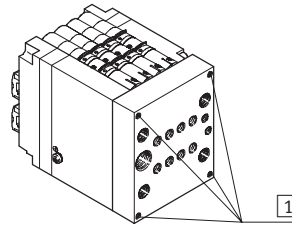
with flange, code P



1 Mounting holes

- Multiple connector plate projects past the end plates
- Through mounting holes (without thread) in the flange
- Two additional holes running laterally through the multiple connector plate also enable rear mounting of the CPV valve terminal

without flange, code M

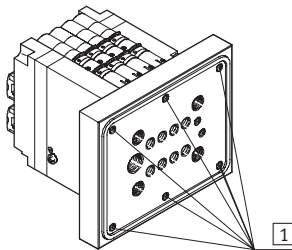


1 Mounting holes

- Multiple connector plate fits flush with the end plates
- Mounting holes (with thread) for wall or foot mounting are on the connection side of the pneumatic multiple connector plate

Pneumatic multiple connector plate for control cabinet assembly

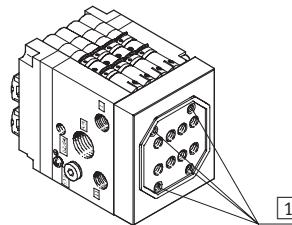
with supply connections, code GQC



1 Mounting holes

- For 10 mm and 14 mm
- Multiple connector plate projects past the end plates
- Mounting holes (with thread) in the flange
- Multiple connector plate with seal

without supply connections, code GQD



1 Mounting holes

- For 10 mm and 14 mm
- Multiple connector plate fits flush with the end plates
- The mounting holes (with thread) are on the connection side of the pneumatic multiple connector plate
- Multiple connector plate with seal

Note

The outer valve slices cannot be equipped with valve extensions (e.g. one-way flow control valve) when using the pneumatic multiple connector plate M or P.

CPV valve terminals with flat plate silencers are only suitable for wall mounting.

If the pneumatic multiple connector plate GQC or GQD is used, the following limitations apply:

- Generally no attachment of valve extensions
- Not in combination with H-rail mounting
- Not in combination with wall mounting
- Only with 10 mm and 14 mm

Valve terminals type 10 CPV, Compact Performance

Key features – Display and operation




Manual override tool

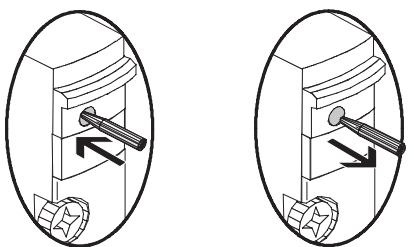
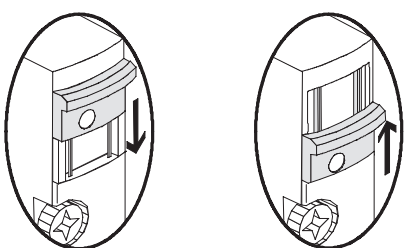
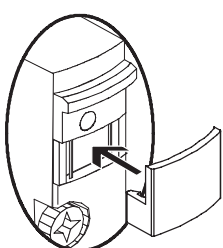
Three types of manual override are available:

- Non-detenting
- Detenting
- Blocked

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

The locking clip on the valve must be removed to this end. This is only possible after the individual valve has been removed or the tie rod of the valve terminal has been released.

 - Note
See the manual for instructions.

Code	Graphical symbol	Size			Note
		10	14	18	
N	<p>Manual override, non-detenting</p> 	■	■	■	In the “non-detenting” version, the blue slide is held via a locking clip. A pointed object (e.g. pen, etc.) can be used to activate the MO through the opening.
R	<p>Manual override, detenting</p> 	■	■	■	In the “detenting” version, the locking clip is removed and the manual override is activated by pushing the slide down. The non-detenting function can be re-established by re-installing the locking clip.
V	<p>Manual override, blocked</p> 	■	■	■	In the “blocked” version, non-detenting and detenting activation of the MO is prevented by means of a cover. Like the non-detenting locking clip, this cover can be added subsequently, but then remains on the valve.

Valve terminals type 10 CPV, Compact Performance

Key features – Display and operation

Display and operation

You will find the following LEDs for displaying the switching status on the electrical connections of the CPV valve terminal:

- Display of the switching status of the pilot solenoid coil 12 for output 2
- Display of the switching status of the pilot solenoid coil 14 for output 4

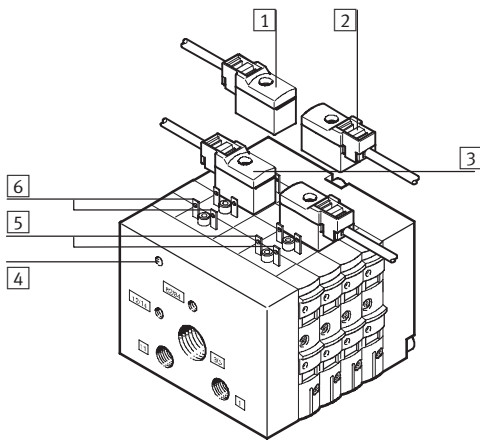
- Readable from the “top” as well as from the “front”

The individual connection has an LED in the connector plug to display the switching status.

Inscription labels

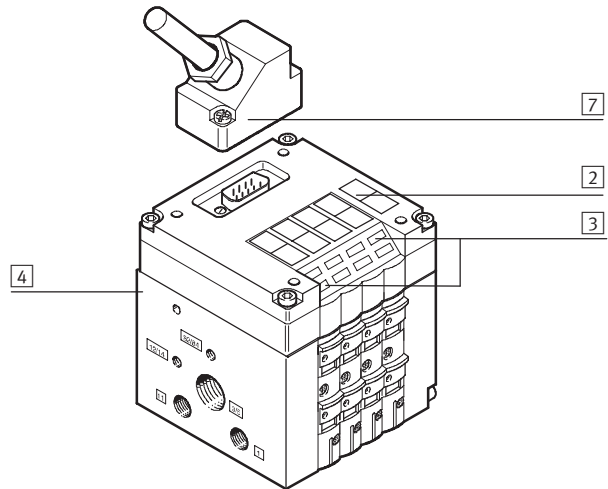
- Clip with inscription field on cable socket (with individual connection)
- Inscription clips on connection node (multi-pin plug, AS-interface, CP installation system, Fieldbus Direct)

CPV valve terminal with individual connection



- 1 Pre-assembled connection socket for each pilot solenoid coil
- 2 Slot for inscription label (for each connection socket)
- 3 Yellow LED, signal status display for pilot solenoid coils (for each connection socket)
- 4 Earth terminal

CPV valve terminal with multi-pin plug connection



- 4 Earth terminal
- 5 Terminal lug for solenoid coil 14
- 6 Terminal lug for solenoid coil 12
- 7 Sub-D multi-pin plug (9-pin for valve terminals with 4 valves, 25-pin for valve terminals with 6 or 8 valves)

Valve terminals 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 base 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.

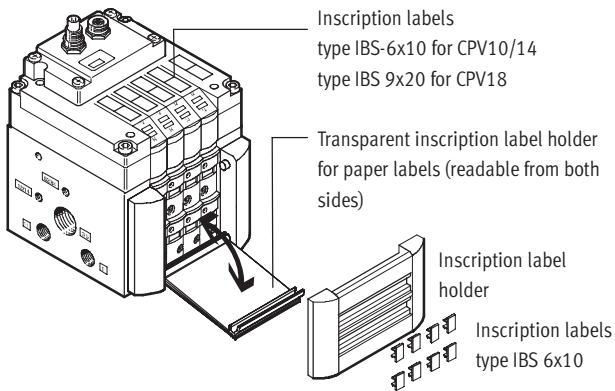
The inscription label holders can be ordered together with the valve terminal using the order code. The relevant inscription labels are supplied in a frame and are ordered separately.

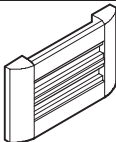
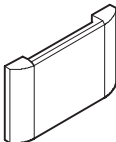

Transparent inscription label holder

The transparent inscription label holder CPV...-VI-ST-... offers a further labelling option, for example for large paper labels that can be read from both sides.

The inscription label holder cannot be used together with the relay plate.

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



Ordering data				
	Code	Designation	Type	Part No.
Inscription label holder				
	Z	Holder for inscription labels	CPV...-VI-BZ-T-...	Dependent on the number of valve positions → 64
	T	Holder for inscription labels, transparent	CPV...-VI-ST-T-...	
Inscription labels				
	-	6x10 mm, 64 pieces in frames	IBS-6x10	18576
	-	9x20 mm, 20 pieces in frames	IBS-9x20	18182

Valve terminals type 10 CPV, Compact Performance

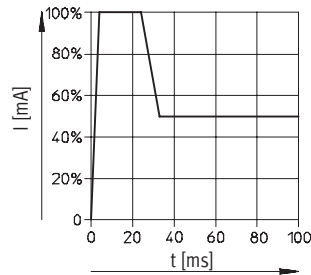
Key features – Electrical components

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 four screws.

This means that the valve terminal can be adapted to different electrical requirements or fieldbus protocols using the same pneumatic part.

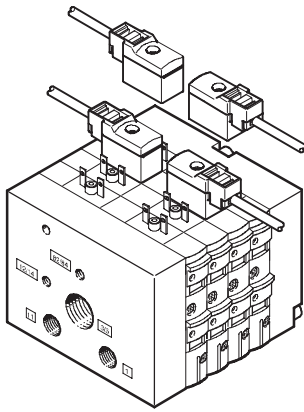
Electrical power



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 base unit (multi-pin plug or fieldbus connection) or in the individual connecting cable.

During switch-off, the voltage peaks are limited to 38 V DC.

Individual connection



With individual connections, integration is only carried out in the pneumatic part whereby the solenoid valves are connected with individual cables.

Ordering data					
	Code	Designation		Type	Part No.
Plug socket with cable for individual connection, electrical, for CPV10/14					
	D	Plug socket with cable	2.5 m	KMYZ-7-24-2,5-LED-PUR	193683
	E	Plug socket with cable	5 m	KMYZ-7-24-5-LED-PUR	193685
	F	Plug socket with cable	10 m	KMYZ-7-24-10-LED-PUR	196070
Plug socket with cable for individual connection, electrical, for CPV18					
	D	Plug socket with cable	2.5 m	KMEB-2-24-2,5-LED	174844
	E		5 m	KMEB-2-24-5-LED	174845

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

Valve terminals type 10 CPV, Compact Performance

Key features – Electrical components

Dimensions – Connecting cable for individual connection Download CAD data → www.festo.com

KMYZ-7-24-... **KMEB-2-24-...-LED**

<ul style="list-style-type: none"> 1 LED illuminated area 2 Location for inscription label 3 2-wire cable 2.5 m, 5 m or 10 m (2x 0.25 mm²) 	<ul style="list-style-type: none"> 4 Connection pattern for MZC 5 Type of mounting: self-tapping screw, captive, max. tightening torque 0.25 Nm
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<ul style="list-style-type: none"> 1 LED illuminated area 2 Inscription label IBS-9x20 Part No. 18 182 3 3-wire cable 2.5 or 5 m (3x 0.75 mm²) 	<ul style="list-style-type: none"> 4 Connection pattern to DIN 43650 type C
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Dimensions – Connecting cable for relay plate Download CAD data → www.festo.com

KRP-1-24-...

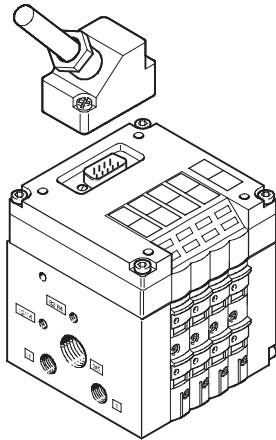
<ul style="list-style-type: none"> 1 Cable 2x 0.25 mm² 2 Location for inscription labels (order code IBS 6x10, Part No. 18 576) 	<ul style="list-style-type: none"> 3 Mounting screw (self-tapping KB 1.8x9)
--	--

Valve terminals type 10 CPV, Compact Performance

Key features – Electrical components



Multi-pin plug connection



In addition to pneumatic integration, multi-pin plug connection also provides integration of the electrical side, and facilitates connection to the control cabinet and 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.

The following sizes of plug connector are used:

- 4-valve valve terminal: 9-pin
- 6-valve valve terminal: 25-pin
- 8-valve valve terminal: 25-pin

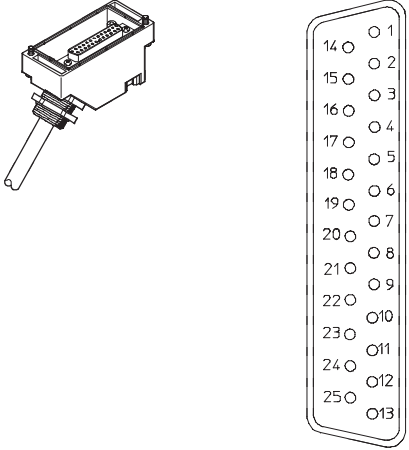
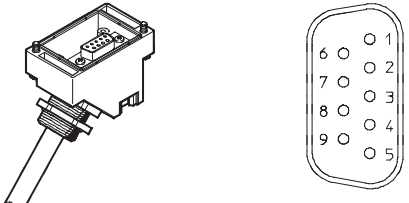
The cable KMP6-... can alternatively be used for applications with IP40 protection.

Pre-assembled connecting cables are available for easy connection. Standard lengths of 5 m and 10 m can be supplied. The pre-assembled connecting cables are also available in a design suitable for energy chains.

Ordering data							
	Code	Designation			Type	Part No.	
Multi-pin plug cable							
	Y	Plug socket (Sub-D plug can be crimped), for self-assembly	9-pin		SD-SUB-D-BU9	18708	
			25-pin		SD-SUB-D-BU25	18709	
	R	Connecting cable, IP65, polyvinyl chloride	9-pin		5 m	KMP3-9P-08-5	18698
			25-pin			KMP3-25P-16-5	18624
			9-pin		10 m	KMP3-9P-08-10	18579
			25-pin			KMP3-25P-16-10	18625
	S	Connecting cable, IP65, polyurethane (suitable for energy chains)	9-pin		5 m	KMP4-9P-5-PUR	193014
			25-pin			KMP4-25P-5-PUR	193018
			9-pin		10 m	KMP4-9P-10-PUR	193015
			25-pin			KMP4-25P-10-PUR	193019
	-	Connecting cable, IP65, polyvinyl chloride (suitable for energy chains)	9-pin		5 m	KMP4-9P-5-PVC	193012
			25-pin			KMP4-25P-5-PVC	193016
			9-pin		10 m	KMP4-9P-10-PVC	193013
			25-pin			KMP4-25P-10-PVC	193017
	-	Connecting cable, IP40, polyvinyl chloride only for CPV10/14	9-pin		2.5 m	KMP6-09P-8-2,5	531184
			25-pin			KMP6-25P-20-2,5	530046
			9-pin		5 m	KMP6-09P-8-5	531185
			25-pin			KMP6-25P-20-5	530047
			9-pin		10 m	KMP6-09P-8-10	531186
			25-pin			KMP6-25P-20-10	530048

Valve terminals type 10 CPV, Compact Performance

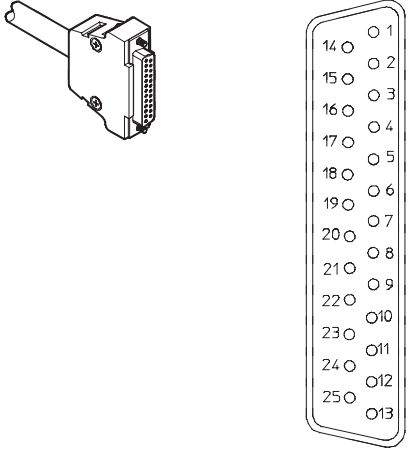
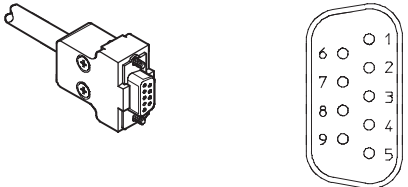
Key features – Electrical components

Pin allocation – Pre-assembled multi-pin cable (viewed from plug-in direction)				
Plug view	Pin	Wire colour	Valve 24 V DC	
Cable KMP3-25P-16... or KMP4-25P... with 25-pin Sub-D plug for 6-valve and 8-valve 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	Purple		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	White-pink (KMP4 only)		
	18	Pink-brown (KMP4 only)		
	19	White-blue (KMP4 only)		
	20	Brown-blue (KMP4 only)		
	21	White-red (KMP4 only)		
	22	Brown-red (KMP4 only)		
	23	White-black (KMP4 only)		
	24	Brown	(0 V) ¹⁾	
	25	Black	(0 V) ¹⁾	
Cable KMP3-9P... or KMP4-9P... with 9-pin Sub-D plug for 4-valve 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	Purple		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.

Valve terminals type 10 CPV, Compact Performance

Key features – Electrical components

Pin allocation – Pre-assembled multi-pin cable (viewed from plug-in direction)			
Plug view	Pin	Wire colour	Valve 24 V DC
Cable KMP6-25P-20... with 25-pin Sub-D plug for 6-valve and 8-valve valve terminals			
	1	White	1
	2	Brown	14
	3	Green	2
	4	Yellow	12
	5	Grey	3
	6	Pink	14
	7	Blue	12
	8	Red	4
	9	Black	14
	10	Purple	12
	11	Grey-pink	5
	12	Red-blue	14
	13	White-green	12
	14	Brown-green	7
	15	White-yellow	14
	16	Yellow-brown	8
	17	White-grey	12
	18	Grey-brown	
	19	White-pink	
	20	Pink-brown	
	21	White-blue ¹⁾	
	22	Brown-blue ¹⁾	
	23	White-red ¹⁾	
	24	Brown-red ¹⁾	(0 V) ²⁾
	25	White-black ¹⁾	(0 V) ²⁾
Cable KMP6-9P-20... with 9-pin Sub-D plug for 4-valve valve terminals			
	1	White	1
	2	Brown	14
	3	Green	2
	4	Yellow	12
	5	Grey	3
	6	Pink	14
	7	Blue	12
	8	Red	4
	9	Black	Common

1) Wire cross section 0.34 mm²

2) 0 V for positive switching control signals; connect 24 V for negative switching control signals; mixed operation is not permitted.

Valve terminals type 10 CPV, Compact Performance

Key features – Electrical components

Valve terminal type 10 – AS-interface valve terminal

The AS-interface facilitates the spatial distribution of individual components or small component groups.

The AS-interface connection of valve terminal type 10 can be used to control 2, 4, 8 solenoid coils.

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-valve valve terminal (8 solenoid coils).

All CPV valve terminals can be operated using additional functions, e.g. relay plates or vacuum generators.

Valve terminals CPV with inputs are also available for A/B operation to SPEC 2.1 and 3.0.

AS-interface control

- For 2, 4 or 8 valves
- Great variety thanks to the wide range of modules in the system

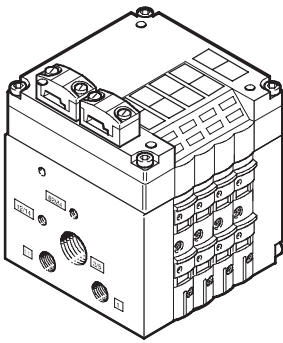
AS-interface with A/B operation

- For 3 or 4 and/or 6 or 8 valves depending on the specification
- All the benefits of the simple installation system are retained

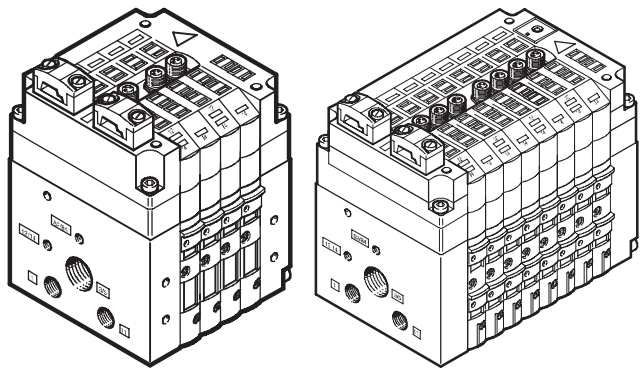
- 100% more inputs/master
- 50% more outputs/master
- Improved peripheral error diagnostics
- More AS-interface functions in Specifications 2.1 and 3.0

→ Internet: as-interface

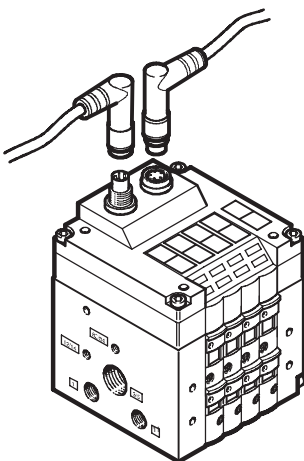
AS-interface valve terminal with auxiliary power supply



AS-interface valve terminal with auxiliary power supply and inputs



CP/CPI installation system, valve terminal



The integration of valve terminal type 10 into a fieldbus system or independent control system is accomplished by connecting the terminal to the corresponding fieldbus node or control block with simple, pre-assembled terminal connectors.

The installation system integrates the valve terminal CPV and various I/O modules, etc. into a single installation concept.

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. 8 valve slices for up to 16 CPV valves

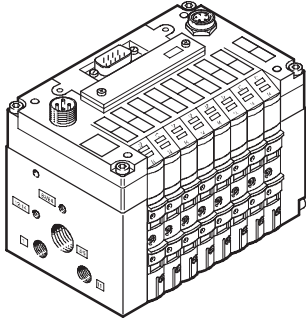
The CP string is used to exchange the input and output states of the connected modules with the CP fieldbus node.

→ Internet: ctec

Valve terminals type 10 CPV, Compact Performance

Key features – Electrical components

Fieldbus Direct valve terminal



Fieldbus Direct is a system for connecting one valve terminal to nine different fieldbus standards. The most important systems, including Profibus, Interbus, DeviceNet and CANopen, are supported.

The CP string extension option enables the functions and components

of the CPI installation system to be used.

The optional string extension permits additional valve terminals and I/O modules with CP/CPI function to be connected to the Fieldbus Direct fieldbus node.

Depending on the version, the valve terminals are available in all three sizes, 10, 14 and 18 mm, each with 8 valve slices.

ET200X/ET200pro pneumatic interface for CPV10 and CPV14

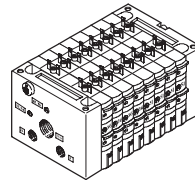
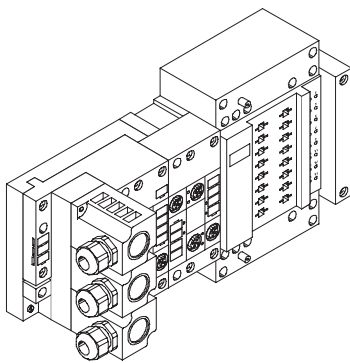
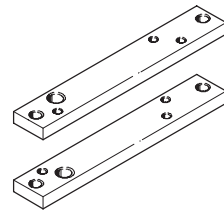
Adaptation of the CPV valve terminal to the input/output module ET200X/ET200pro from Siemens. The combination of the functional module of the ET200X/ET200pro and the pneumatic functions of the CPV valve terminal provides a highly integratable automation solution for systems using electrical and pneumatic drives

with:

- 8 valve slices for up to 16 CPV valves
- Faster and more reliable contacting
- CPV 10 and CPV 14 valve terminals
- High degree of protection IP65/IP67
- Modular design

- 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 (included in the scope of delivery)



Specific data on the ET200X/ET200pro pneumatic interface can be found in Siemens product catalogues.



Note

A moulded seal is required for the valve terminal CPV10-ET200pro in order to achieve the IP protection class.

The moulded seal CPV10-...-GE-8 or CPV14-...-GE-8 must be ordered separately.

Valve terminals type 10 CPV, Compact Performance

FESTO

Instructions for use

Equipment

Operate system equipment with unlubricated compressed air if possible.

Festo valves and cylinders are designed so that, if used as designated, they will not require additional lubrication and will still achieve a long service life.

The quality of compressed air downstream of the compressor must correspond to that of unlubricated compressed air. If possible, do not operate all your system 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 51524 HLP32; basic oil viscosity 32 CST at 40 °C).

Bio-oils

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


Mineral oils


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

A higher residual oil content irrespective of the compressor oil cannot be permitted, as the basic lubricant would be flushed out over time.

Valve terminals type 10 CPV, Compact Performance

Technical data

-  - Flow rate
 CPV10: 400 l/min
 CPV14: 800 l/min
 CPV18: 1,600 l/min

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

-  - Voltage
 24 V DC



General technical data				
		CPV10	CPV14	CPV18
Design	Electromagnetically actuated piston spool valve			
Lubrication	Lubricated for life, PWIS-free (free of paint-wetting impairment substances)			
Type of mounting	Via pneumatic multiple connector plate			
	Via backwall			
	On H-rail			
Mounting position	Any			
Manual override	Non-detenting/detenting/blocked			
Width	[mm]	10	14	18
Nominal size	[mm]	4	6	8
Nominal flow rate without fitting	[l/min]	400	800	1,600
Pneumatic connections ¹⁾				
Pneumatic connection		Via end plate or pneumatic multiple connector plate		
Supply port	1/11	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{3}{8}$
Exhaust port	3/5	G $\frac{3}{8}$ (G $\frac{1}{4}$)	G $\frac{1}{2}$ (G $\frac{3}{8}$)	G $\frac{1}{2}$
Working ports	2/4	M7	G $\frac{1}{8}$	G $\frac{1}{4}$
Pilot air supply port	12/14	M5 (M7)	G $\frac{1}{4}$	G $\frac{1}{4}$
Pilot exhaust air port	82/84	M5 (M7)	G $\frac{1}{8}$	G $\frac{1}{4}$

1) Connection dimensions in brackets for pneumatic multiple connector plate

Valve terminals type 10 CPV, Compact Performance

FESTO

Technical data

Operating and environmental conditions												
Valve function order code	M, MK	F	J, JK	N, NK	C, CK	CY	H, HK	G	D, DK	I, IK	A, E	
Operating medium	Filtered compressed air, lubricated or unlubricated, inert gases → 36											
Grade of filtration [µm]	40 (average pore size)											
Operating pressure [bar]	-0.9 ... +10					+0.1 ... +10		-0.9 ... +10				
Operating pressure for valve terminal with internal pilot air supply [bar]	3 ... 8											
Pilot pressure [bar]	3 ... 8											
Ambient temperature [°C]	-5 ... +50 (vacuum generators: 0 ... +50)											
Temperature of medium [°C]	-5 ... +50 (vacuum generators: 0 ... +50)											
Storage temperature [°C]	-20 ... +40											
Relative air humidity at 25 °C [%]	95 with no condensation											
Corrosion resistance class CRC ¹⁾	2										1	

1) Corrosion resistance class 1 according to Festo standard 940 070

Components subject to low corrosion stress. 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.

Corrosion resistance class 2 according to Festo standard 940 070

Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Certifications	
This product is approved for use in the ATEX zone in accordance with the EU ATEX directive	
ATEX category for gas	II 3G
Ex ignition protection type for gas	Ex nA II T4 X
ATEX category for dust	II 3D
Ex ignition protection type for dust	Ex tD A22 IP54 T110° C X
ATEX ambient temperature [°C]	$-5 \leq T_a \leq +50$
Certification	c UL us Recognized (OL)
CE mark (see declaration of conformity)	In accordance with EU low voltage directive
	In accordance with EU explosion protection directive (ATEX)

Valve terminals type 10 CPV, Compact Performance

Technical data

Electrical data		CPV10	CPV14	CPV18
Operating voltage	[V DC]	24 (+10/-15%)		
Edge steepness (IC and MP only)	[V/ms]	> 0.4 minimum voltage increase time to reach the high-current phase		
Limitation of the voltage peaks when switching off	[V DC]	38		
Residual ripple	[Vss]	4		
Electrical power consumption	[W]	0.6 (0.45 at 21 V); (with CPV10-M11H-... 0.65)	0.9 (0.65 at 21 V)	1.5 (0.95 at 21 V)
Duty cycle	[%]	100		
With pilot air supply	[bar]	-0.9 ... +10		
Protection against electric shock (protection against direct and indirect contact to EN 60204-1/IEC 204)		By means of PELV power supply unit		
Protection class to EN 60529	[IP]	65 (for all types of signal transmission in assembled state)		

Relay plate		CPV10	CPV14	CPV18
Operating voltage	[V DC]	20.4 ... 26.4		-
Electrical power consumption	[W]	1.2		-
No. of relays		2 with galvanically isolated outputs		-
Load current circuit		Each 1 A/24 V DC +10%		-
Relay response times	on	[ms]	5	-
	off	[ms]	2	-

Valve switching times [ms]		M	MK	F	J	JK	N	NK	C	CK	CY	H	HK	G	D	DK	I	IK	A	E
CPV10																				
Switching times	on	17	17	12	-	-	17	17	17	17	17	17	17	20	15	15	15	15	-	15
	off	27	27	17	-	-	25	25	25	25	25	25	25	30	17	17	17	17	-	17
	chan- ge- over	-	-	-	10	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CPV14																				
Switching times	on	25	25	-	-	-	24	24	24	24	-	24	24	22	13	13	13	13	-	13
	off	35	35	-	-	-	30	30	30	30	-	30	30	30	16	16	16	16	-	16
	chan- ge- over	-	-	-	12	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CPV18																				
Switching times	on	18	-	-	-	-	18	-	18	-	-	-	-	14	14	-	14	-	-	14
	off	26	-	-	-	-	24	-	24	-	-	-	-	32	20	-	20	-	-	20
	chan- ge- over	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Valve terminals type 10 CPV, Compact Performance

Technical data

Materials			
	CPV10	CPV14	CPV18
Basic electrical unit	Die-cast aluminium, polyamide, nitrile rubber		
Valve slices	Die-cast aluminium		
Valve module 5/3G	Cast aluminium, polyacetal		
Relay plate	Polyamide, brass		
Blanking plate/separator plate	Polyamide		
End plates	Die-cast aluminium		
Flat plate silencer	Die-cast aluminium, polyethylene		
Pneumatic multiple connector plate	Wrought aluminium alloy		
Inscription label holder	Polyacetal, polyvinyl chloride		
Seal	Nitrile rubber, hydrogenated nitrile rubber		

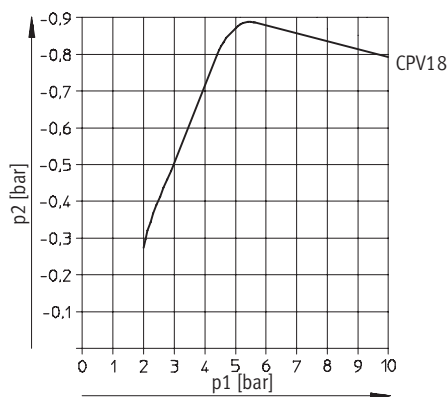
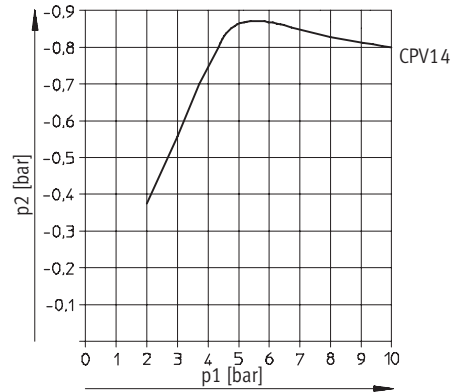
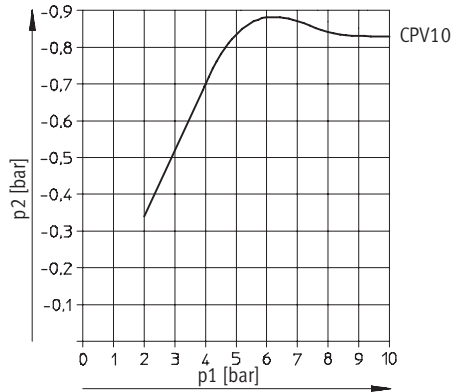
Product weight				
Approx. weight	[g]	CPV10	CPV14	CPV18
Electrical connection plates with AS-i connection				
• on CP valve terminals with 2 valve positions		85	130	275
• on CP valve terminals with 4 valve positions		110	175	355
• on CP valve terminals with 8 valve positions		400	460	–
Electrical connection 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 multiple 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	1,300
Flat plate silencer		147	234	–
Relay plate		35	55	–
Blanking plate		25	45	90
Separator plate		25	45	90
Valve sub-bases, vacuum generators		70	110	260
Function block: 5/3G function		46	105	–
Function block: One-way flow control valves		25	54	125

Valve terminals type 10 CPV, Compact Performance

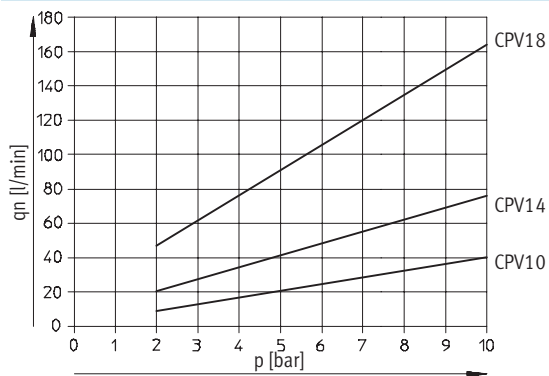
Technical data

Vacuum generators

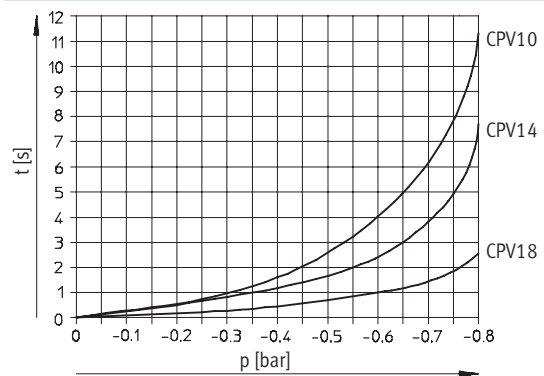
Vacuum as a function of operating pressure



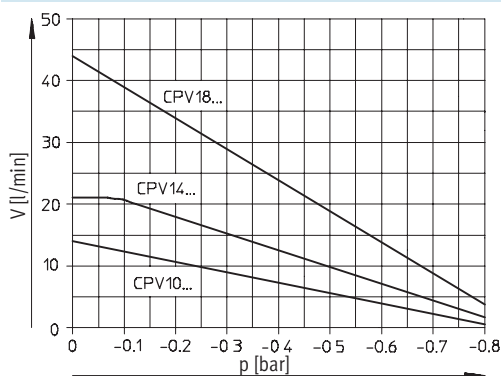
Air consumption as a function of operating pressure



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



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



Valve terminals type 10 CPV, Compact Performance

Technical data

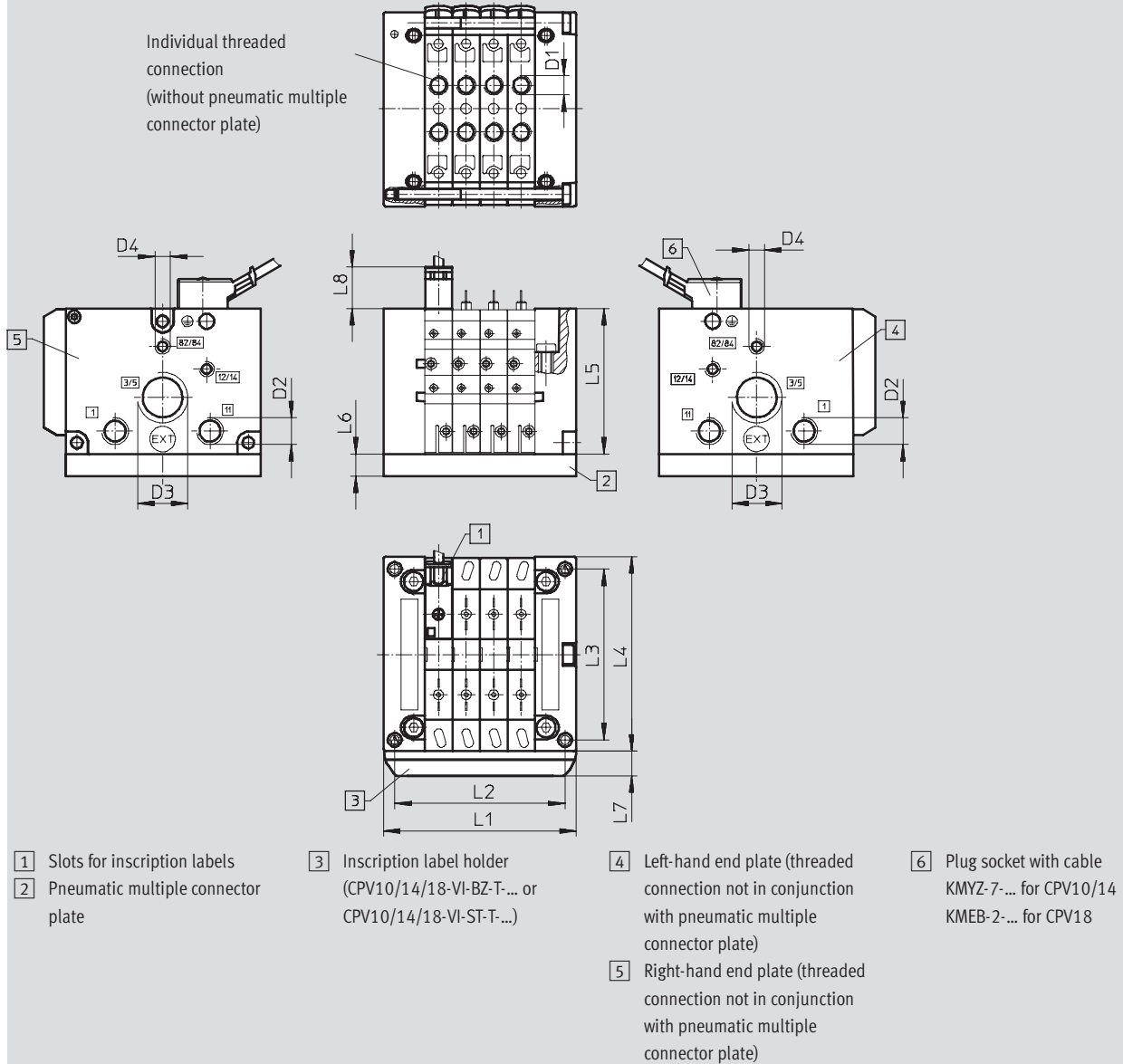
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Dimensions

Download CAD data → www.festo.com

Valve terminal with individual connections – CPV10/14/18

Individual threaded connection
(without pneumatic multiple connector plate)



Valve terminals type 10 CPV, Compact Performance

Technical data

	L1	L2	L3	L4	L5	L6	L7	L8	D1	D2	D3	D4	
CPV10	2-valve	50	41.8	62	71	52.8	15	9.5	11.8	M7	G $\frac{1}{8}$	G $\frac{3}{8}$	M5
	3-valve	60	51.8										
	4-valve	70	61.8										
	5-valve	80	71.8										
	6-valve	90	81.8										
	7-valve	100	91.8										
	8-valve	110	101.8										
CPV14	2-valve	68	58	78	89	58.8	20	9.5	11.8	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{2}$	G $\frac{1}{8}$
	3-valve	82	72										
	4-valve	96	86										
	5-valve	110	100										
	6-valve	124	114										
	7-valve	138	128										
	8-valve	152	142										
CPV18	2-valve	96	85.5	106.5	118	73	20	9.5	21.6	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	G $\frac{1}{4}$
	3-valve	114	103.5										
	4-valve	132	121.5										
	5-valve	150	139.5										
	6-valve	168	157.5										
	7-valve	186	175.5										
	8-valve	204	193.5										

Valve terminals type 10 CPV, Compact Performance

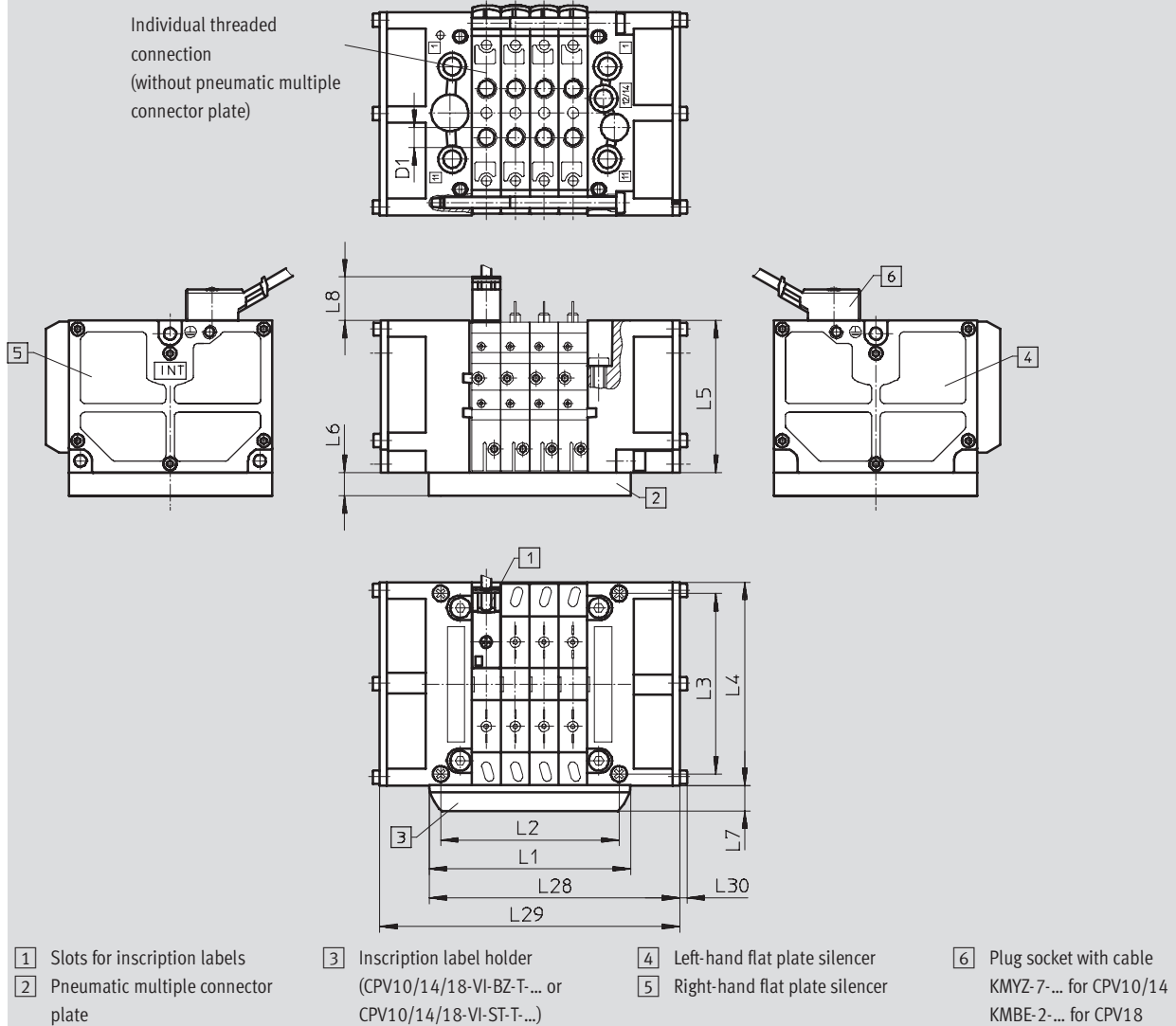
Technical data

FESTO

Dimensions

Download CAD data → www.festo.com

Valve terminal with individual connections and flat plate silencers – CPV10/14/18



Valve terminals type 10 CPV, Compact Performance

Technical data

	L1	L2	L3	L4	L5	L6	L7	L8	L28	L29	L30	D1	
CPV10	2-valve	50	41.8	62	71	52.8	15	9.5	11.8	67	84	2.5	M7
	3-valve	60	51.8							77	94		
	4-valve	70	61.8							87	104		
	5-valve	80	71.8							97	114		
	6-valve	90	81.8							107	124		
	7-valve	100	91.8							117	134		
	8-valve	110	101.8							127	144		
CPV14	2-valve	68	58	78	89	58.8	20	9.5	11.8	85	102	3	G1/8
	3-valve	82	72							99	116		
	4-valve	96	86							113	130		
	5-valve	110	100							127	144		
	6-valve	124	114							141	158		
	7-valve	138	128							155	172		
	8-valve	152	142							169	186		
CPV18	2-valve	96	85.5	106.5	118	73	20	9.5	21.6	127	158	4.55	G1/4
	3-valve	114	105.5							145	176		
	4-valve	132	121.5							163	194		
	5-valve	150	139.5							181	212		
	6-valve	168	157.5							199	230		
	7-valve	186	175.5							217	248		
	8-valve	204	193.5							235	266		

Valve terminals type 10 CPV, Compact Performance

Technical data

Dimensions Download CAD data → www.festo.com

Valve terminal with multi-pin plug connection – CPV10/14/18

1 Slots for inscription labels

2 Pneumatic multiple connector plate

3 Inscription label holder (CPV10/14/18-VI-BZ-T... or CPV10/14/18-VI-ST-T...)

	L1	L2	L3	L4	L5	L6	L7	L9	L10	L11	L12	L13	
CPV10	4-valve	70	61.8	62	71	52.8	15	9.5	39.5	10	50	23.5	58.8
	6-valve	90	81.8							10	70		
	8-valve	110	101.8							20	70		
CPV14	4-valve	96	86	78	89	58.8	20	9.5	61.8	23	50	23.5	58.8
	6-valve	124	114							27	70		
	8-valve	152	142							41	70		
CPV18	4-valve	132	121.5	106.5	118	73	20	9.5	88.4	41	50	28	63
	6-valve	168	157.5							49	70		
	8-valve	204	193.5							67	70		

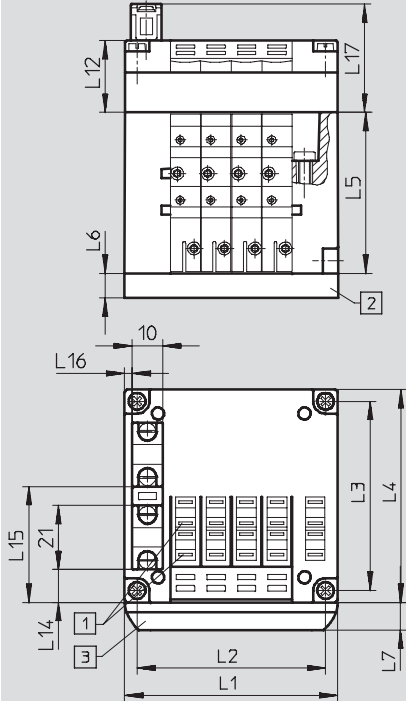
Valve terminals type 10 CPV, Compact Performance

Technical data

Dimensions

Download CAD data → www.festo.com

Valve terminal with AS-interface connection – CPV10/14/18



1 Slots for inscription labels

2 Pneumatic multiple connector plate

3 Inscription label holder
(CPV10/14/18-VI-BZ-T... or
CPV10/14/18-VI-ST-T...)

		L1	L2	L3	L4	L5	L6	L7	L12	L14	L15	L16	L17				
CPV10	2-valve	50	41.8	62	71	52.8	15	9.5	-	10.9	38.1	2.5	35.5				
	4-valve	70	61.8						23.5								
	8-valve	110	101.8						-					-	-	-	
CPV14	2-valve	68	58	78	89	58.8	20	9.5	-	14	52	5	35.5				
	4-valve	96	86						23.5					-	-	-	-
	8-valve	152	142						-					-	-	-	-
CPV18	2-valve	96	85.5	106.5	118	73	20	9.5	-	27.4	68.2	10.4	40				
	4-valve	132	121.5						28					-	-	-	-
	8-valve	204	193.5						-					-	-	-	-

Valve terminals type 10 CPV, Compact Performance

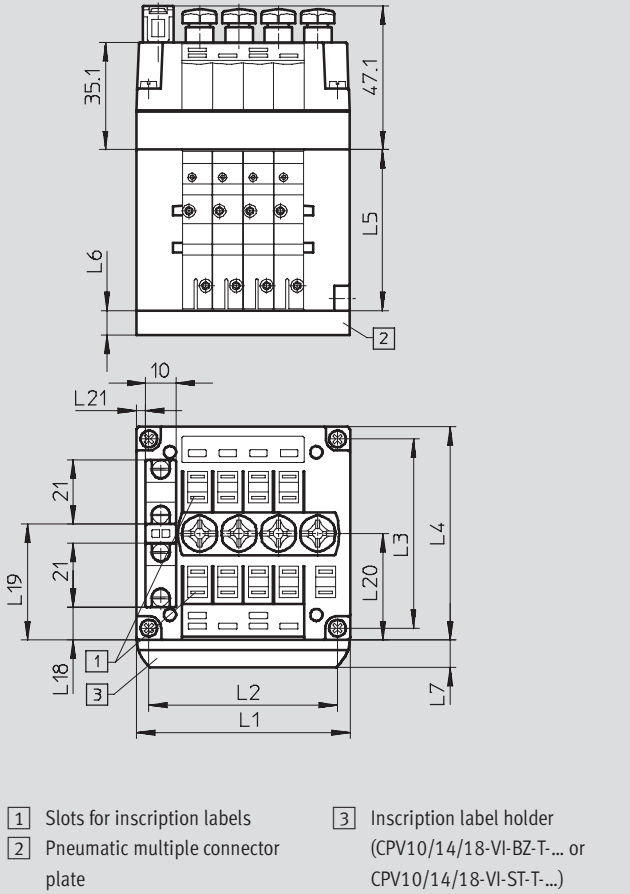
Technical data

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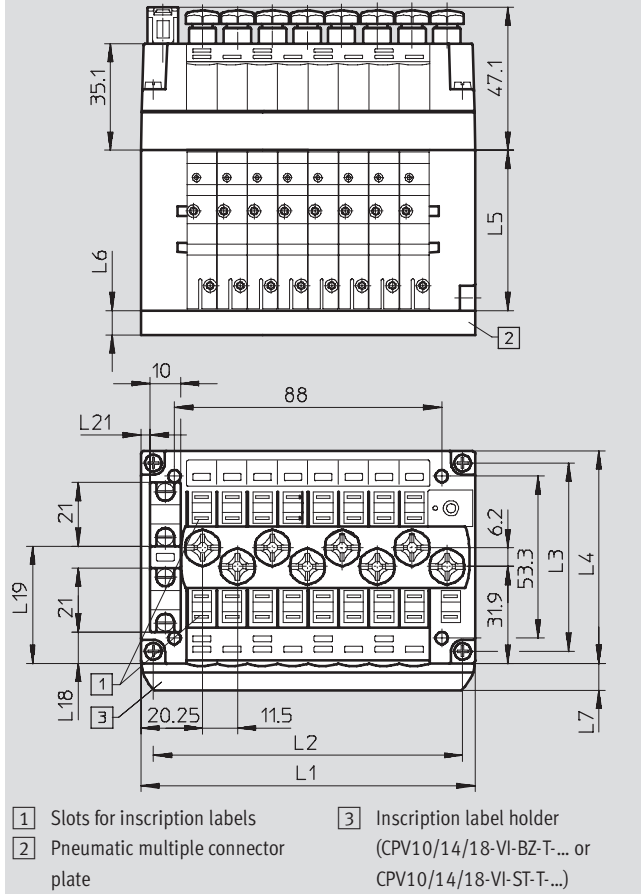
Dimensions

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Valve terminal with AS-interface connection and additional inputs – CPV10/14



Valve terminal with AS-interface connection and additional inputs – CPV10



		L1	L2	L3	L4	L5	L6	L7	L18	L19	L20	L21
CPV10	4-valve	70	61.8	62	71	52.8	15	9.5	10.9	38.1	35	3
	8-valve	110	101.8						10.4	38.6	31.9	
CPV14	4-valve	96	86	78	89	58.8	20		18.8	46.8	43.3	5

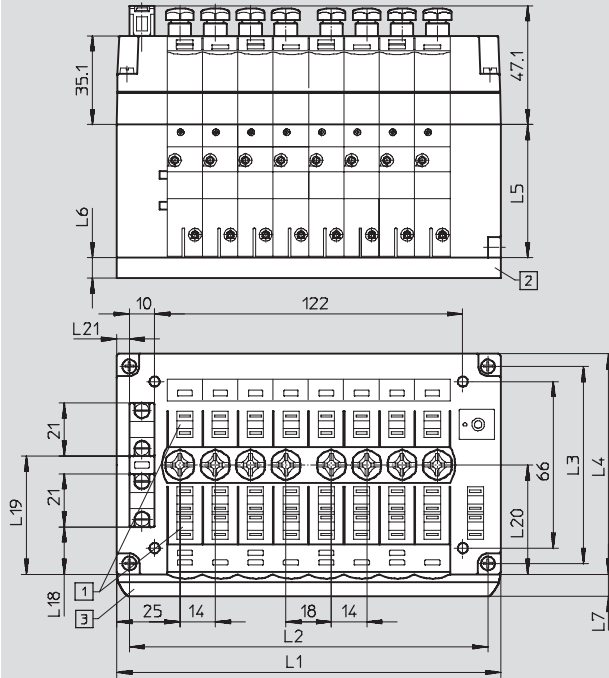
Valve terminals type 10 CPV, Compact Performance

Technical data

Dimensions

Download CAD data → www.festo.com

Valve terminal with AS-interface connection and additional inputs – CPV14



- 1 Slots for inscription labels
- 2 Pneumatic multiple connector plate
- 3 Inscription label holder (CPV10/14/18-VI-BZ-T... or CPV10/14/18-VI-ST-T...)

		L1	L2	L3	L4	L5	L6	L7	L18	L19	L20	L21
CPV14	8-valve	152	142	78	89	58.8	20	9.5	18.8	46.8	46.3	5

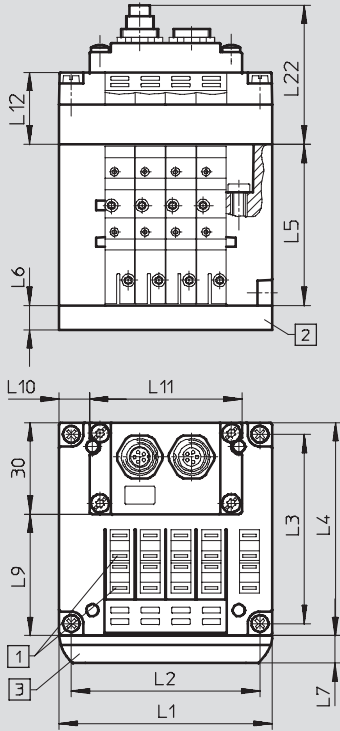
Valve terminals type 10 CPV, Compact Performance

Technical data

Dimensions

Download CAD data → www.festo.com

Valve terminal with CPI installation system – CPV10/14/18



- 1 Slots for inscription labels
- 2 Pneumatic multiple connector plate
- 3 Inscription label holder (CPV10/14/18-VI-BZ-T-... or CPV10/14/18-VI-ST-T-...)

		L1	L2	L3	L4	L5	L6	L7	L9	L10	L11	L12	L22
CPV10	4-valve	70	61.8	62	71	52.8	15	9.5	39.5	10	50	23.5	46
	6-valve	90	81.8							10	70		
	8-valve	110	101.8							20	70		
CPV14	4-valve	96	86	78	89	58.8	20	9.5	61.8	23	50	23.5	46
	6-valve	124	114							27	70		
	8-valve	152	142							41	70		
CPV18	4-valve	132	121.5	106.5	118	73	20	9.5	88.4	41	50	28	50.5
	6-valve	168	157.5							49	70		
	8-valve	204	193.5							67	70		

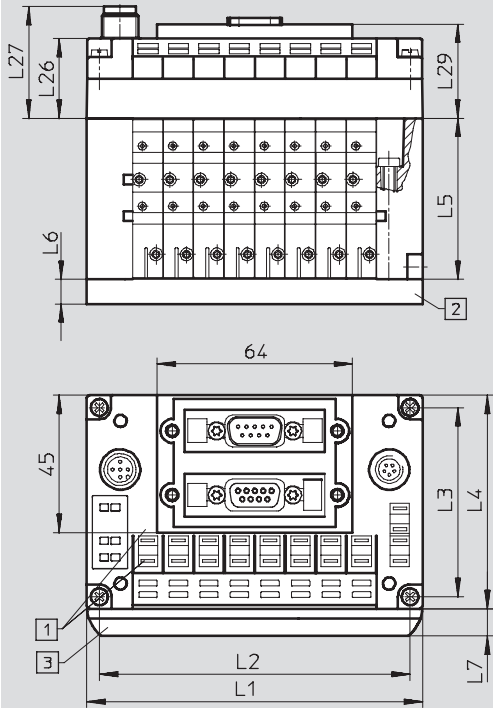
Valve terminals type 10 CPV, Compact Performance

Technical data

Dimensions

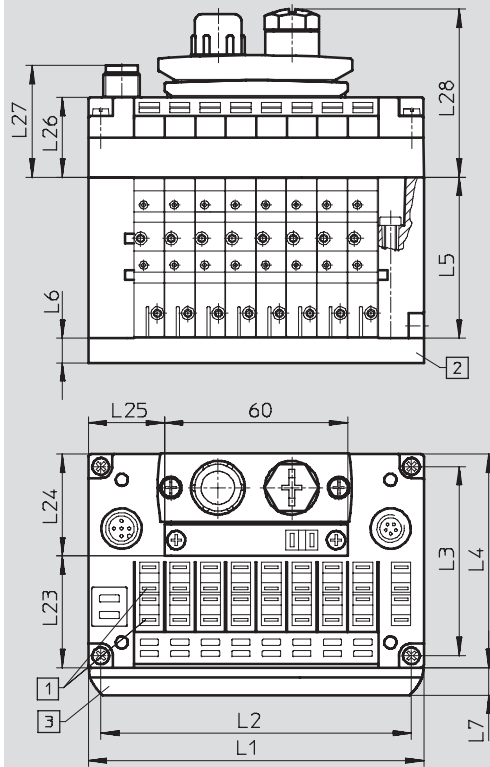
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Valve terminal with Fieldbus Direct – CPV10/14/18
Interbus



- 1 Slots for inscription labels
- 2 Pneumatic multiple connector plate
- 3 Inscription label holder (type CPV10/14/18-VI-BZ-T... or CPV10/14/18-VI-ST-T...)

Valve terminal with Fieldbus Direct – CPV10/14/18
DeviceNet, CANopen, CC-Link



- 1 Slots for inscription labels
- 2 Pneumatic multiple connector plate
- 3 Inscription label holder (type CPV10/14/18-VI-BZ-T... or CPV10/14/18-VI-ST-T...)

		L1	L2	L3	L4	L5	L6	L7	L23	L24	L25	L26	L27	L28	L29
CPV10	8-valve	110	101.8	62	71	52.8	15	9.5	35.8	34.6	25	26.2	36.7	55.1	30.9
CPV14	8-valve	152	142	78	89	58.8	20	9.5	52.8	34.6	46	26.2	36.7	55.1	30.9
CPV18	8-valve	204	193.5	106.5	118	73	20	9.5	79.8	36.6	72	31.2	41.7	59.6	35.9

Valve terminals type 10 CPV, Compact Performance

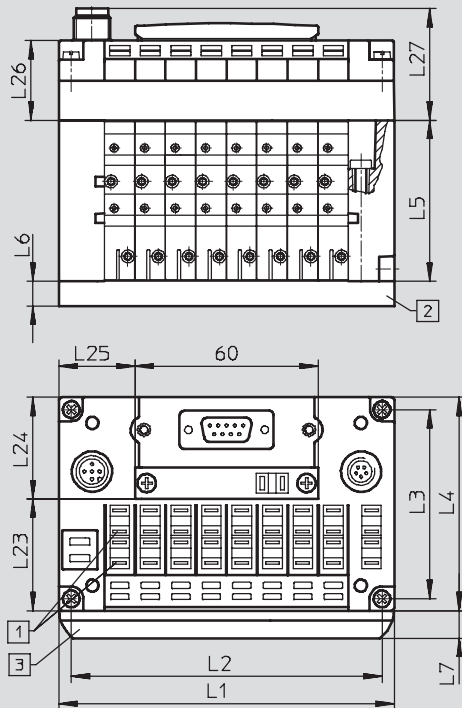
Technical data

Dimensions

Download CAD data → www.festo.com

Valve terminal with Fieldbus Direct – CPV10/14/18

Profibus DP including Festo fieldbus, ABB CS31, Moeller Suconet K



1 Slots for inscription labels

2 Pneumatic multiple connector plate

3 Inscription label holder (CPV10/14/18-VI-BZ-T... or CPV10/14/18-VI-ST-T...)

		L1	L2	L3	L4	L5	L6	L7	L23	L24	L25	L26	L27
CPV10	8-valve	110	101.8	62	71	52.8	15	9.5	35.5	34.6	25	26.2	36.7
CPV14	8-valve	152	142	78	89	58.8	20	9.5	52.8	34.6	46	26.2	36.7
CPV18	8-valve	204	193.5	106.5	118	73	20	9.5	79.8	36.6	72	31.2	41.7

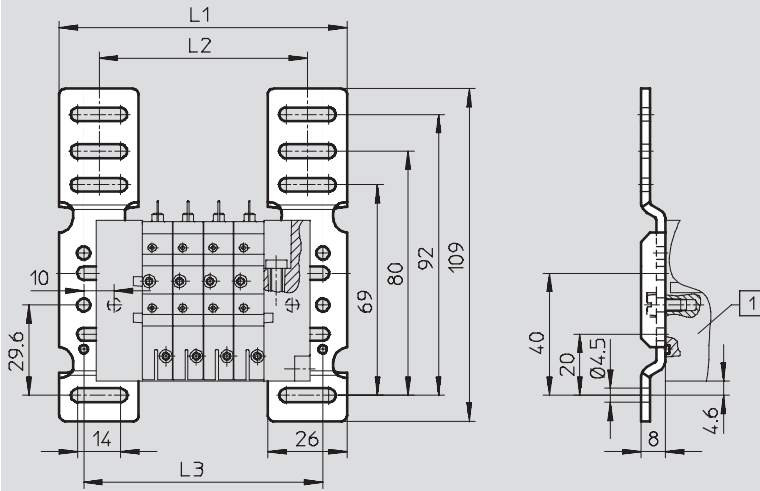
Valve terminals type 10 CPV, Compact Performance

Technical data

Dimensions

Download CAD data → www.festo.com

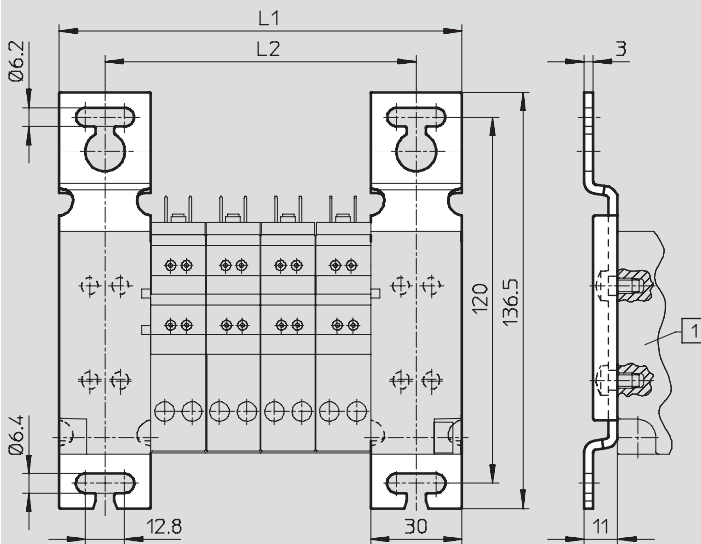
Wall mounting CPV10/14-VI-BG-RWL-B for CPV10/14



1 Valve terminal CPV-...

	CPV10							CPV14						
	2-valve	3-valve	4-valve	5-valve	6-valve	7-valve	8-valve	2-valve	3-valve	4-valve	5-valve	6-valve	7-valve	8-valve
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	58	68	78	88	98	108	118	74	88	102	116	130	144	158

Wall mounting CPV18-VI-BG-RW for CPV18



1 Valve terminal CPV-...

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

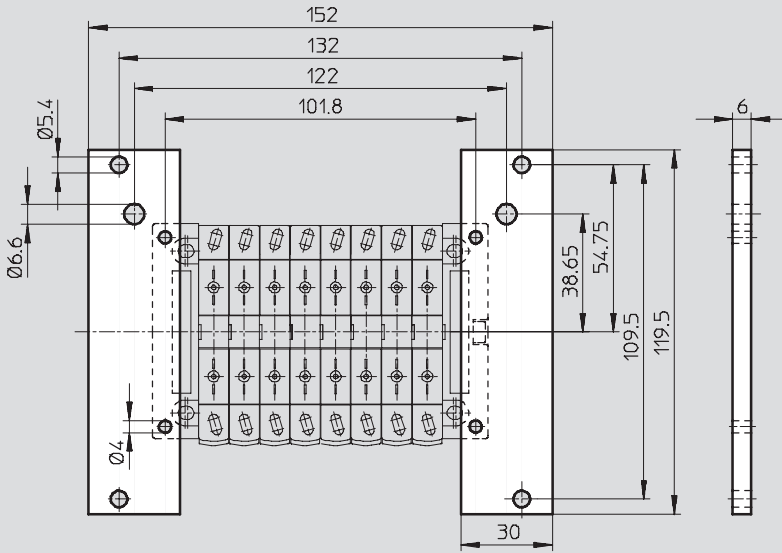
Valve terminals type 10 CPV, Compact Performance

Technical data

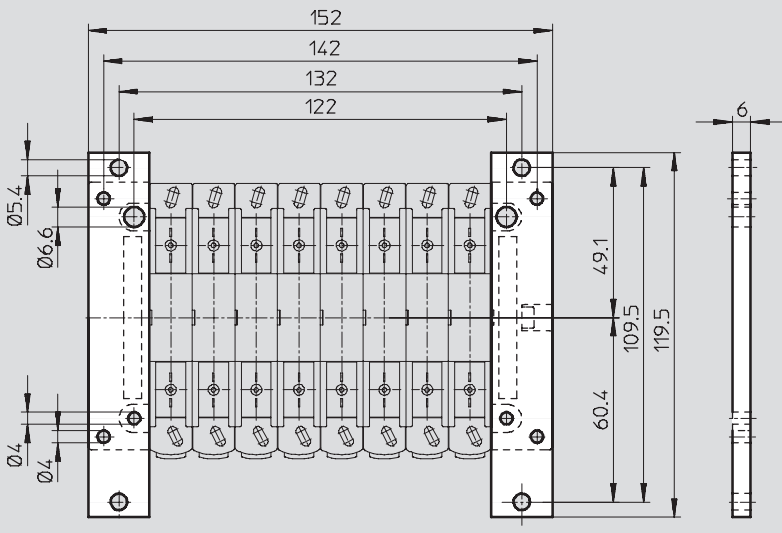
Dimensions

Download CAD data → www.festo.com

Attachment CPV10-VI-BG-ET200X for individual connection and ET200X



Attachment CPV14-VI-BG-ET200X for individual connection and ET200X



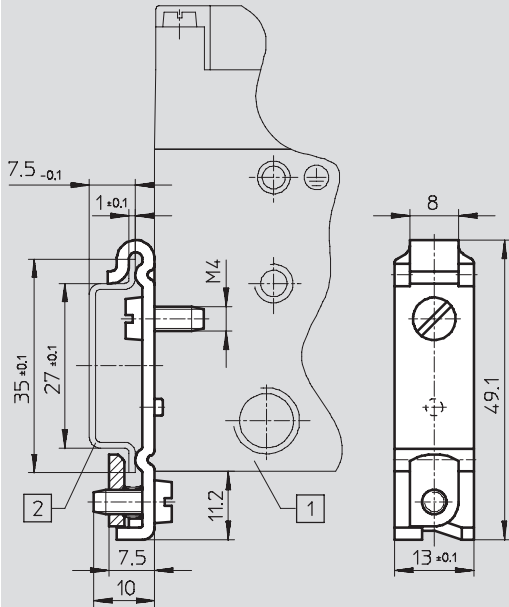
Valve terminals type 10 CPV, Compact Performance

Technical data

Dimensions

Download CAD data → www.festo.com

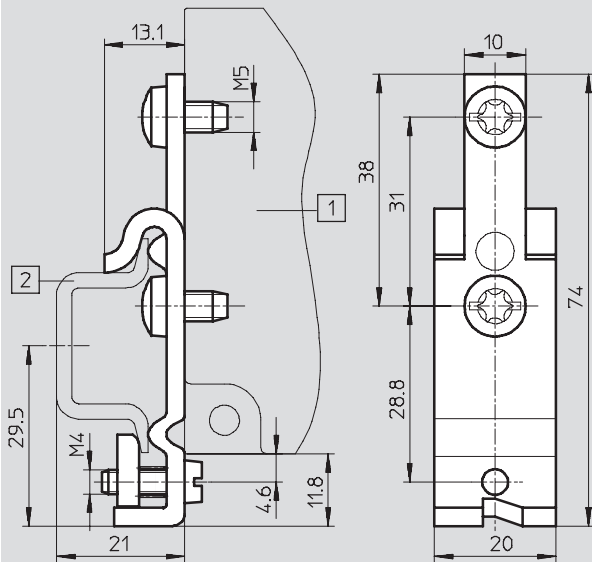
Attachment for H-rail mounting CPV10/14-VI-BG-NRH-35



1 Valve terminal CPV10/14

2 H-rail to EN 60715

Attachment for H-rail mounting CPV18-VI-BG-NRH-35



1 Valve terminal CPV18

2 H-rail to EN 60715

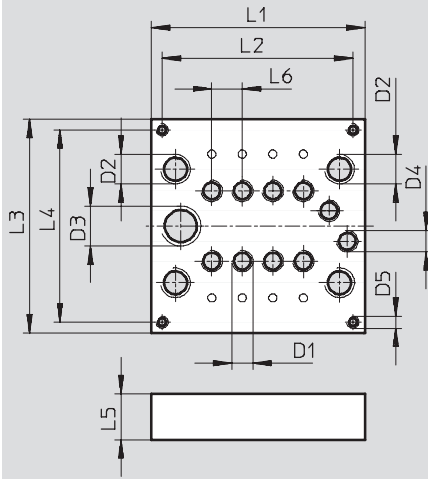
Valve terminals type 10 CPV, Compact Performance

Technical data

Dimensions

Download CAD data → www.festo.com

Pneumatic multiple connector plate – CPV10/14/18



		L1	L2	L3	L4	L5	L6	D1	D2	D3	D4	D5
CPV10	2-valve	49.5	42.5	70	63	15	10	M7	G1/8	G1/4	M7	M4
	4-valve	69.5	62.5									
	6-valve	89.5	82.5									
	8-valve	109.5	102.5									
CPV14	2-valve	67.5	53.5	86.6	76.6	20	14	G1/8	G1/4	G3/8	G1/8	M4
	4-valve	95.5	81.5									
	6-valve	123.5	109.5									
	8-valve	151.5	137.5									
CPV18	2-valve	95.5	87.5	119.6	108	20	18	G1/4	G3/8	G1/2	G1/4	M5
	4-valve	131	123									
	6-valve	167	159									
	8-valve	203	195									

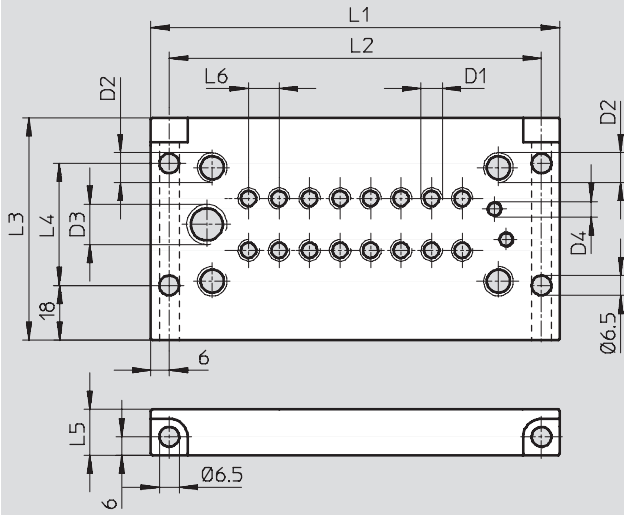
Valve terminals type 10 CPV, Compact Performance

Technical data

Dimensions

Download CAD data → www.festo.com

Pneumatic multiple connector plate with flange – CPV10/14/18



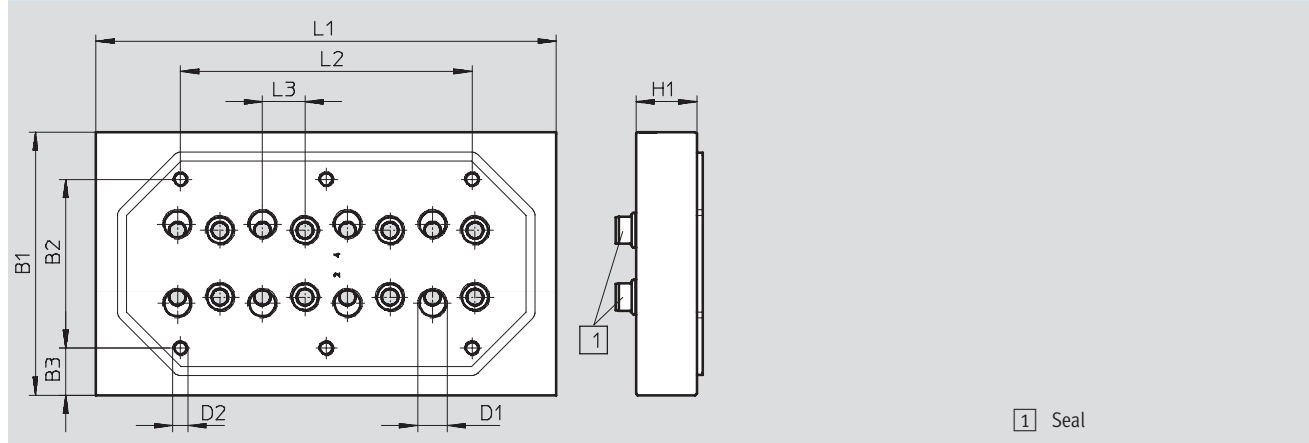
		L1	L2	L3	L4	L5	L6	D1	D2	D3	D4
CPV10	2-valve	74	62	73	40	15	10	M7	G $\frac{1}{8}$	G $\frac{1}{4}$	M5
	4-valve	94	82								
	6-valve	114	102								
	8-valve	134	122								
CPV14	2-valve	92	80	89	59	20	14	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{8}$
	4-valve	120	108								
	6-valve	148	136								
	8-valve	176	164								
CPV18	2-valve	119	107	118	88	20	18	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	G $\frac{1}{4}$
	4-valve	155	143								
	6-valve	191	179								
	8-valve	227	215								

Valve terminals type 10 CPV, Compact Performance

Technical data

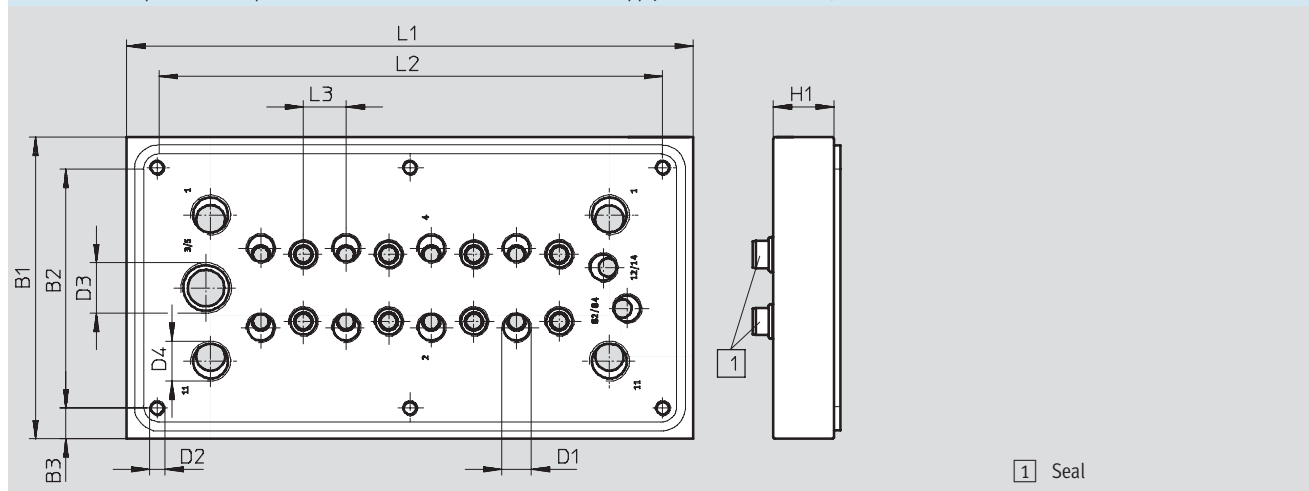
Dimensions Download CAD data → www.festo.com

Pneumatic multiple connector plate for control cabinet installation, without supply connections – CPV10/14



		L1	L2	L3	B1	B2	B3	D1	D2	H1
CPV10	2-valve	49.5	–	10	70	40	15	M7	M5	10
	4-valve	69.5	28							
	6-valve	89.5	49							
	8-valve	109.5	68							
CPV14	2-valve	67.5	13	14	86.6	55.6	15.5	G1/8	M5	14
	4-valve	95.5	40							
	6-valve	123.5	68							
	8-valve	151.5	96							

Pneumatic multiple connector plate for control cabinet installation, without supply connections – CPV10/14



		L1	L2	L3	B1	B2	B3	D1	D2	D3	D4	H1
CPV10	2-valve	82	62	10	84	64	10	M7	M5	G1/4	G1/8	15
	4-valve	102	82									
	6-valve	122	102									
	8-valve	142	122									
CPV14	2-valve	102	82	14	99	79	10	G1/8	M5	G3/8	G1/4	20
	4-valve	130	110									
	6-valve	158	138									
	8-valve	186	166									

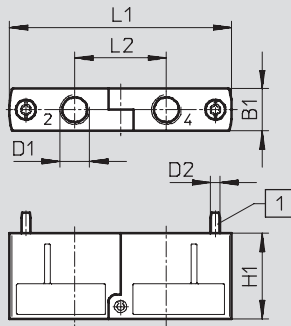
Valve terminals type 10 CPV, Compact Performance

Technical data

Dimensions

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Valve kit for 5/3 function – CPV10/14

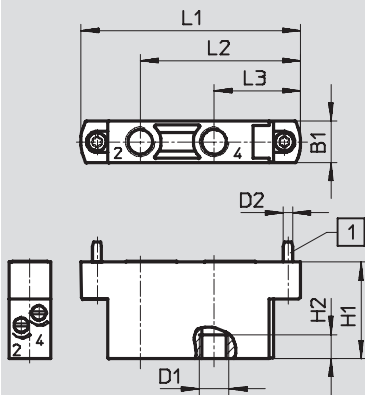


1 Mounting screw separately enclosed

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-1/8	13.8	G1/8	M3	28	72.8	30

Additional one-way flow control valve function – CPV10/14

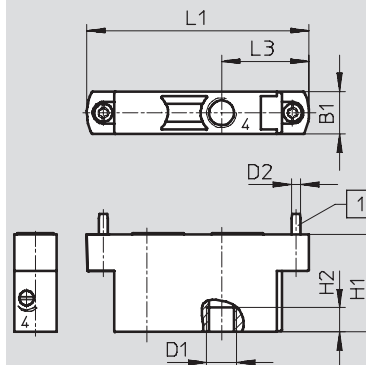
CPV10/14-...-BS-2xGR...-...



1 Mounting screw separately enclosed

Additional one-way flow control valve function for vacuum – CPV10/14

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



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...-1/8	13.8	G1/8	M3	32	8	72.8	53.15	28.65
CPV14-BS-2xGRZ-V...-1/8							-	-

Valve terminals type 10 CPV, Compact Performance

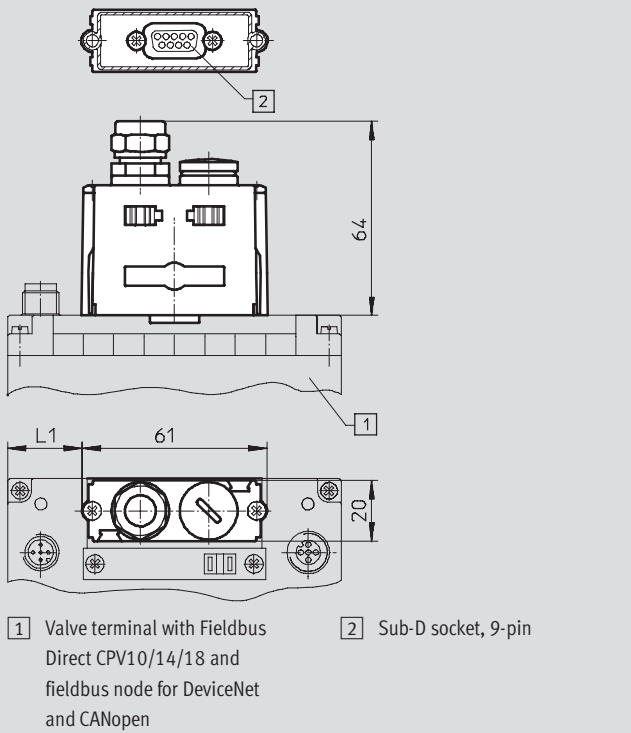
Technical data

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Dimensions

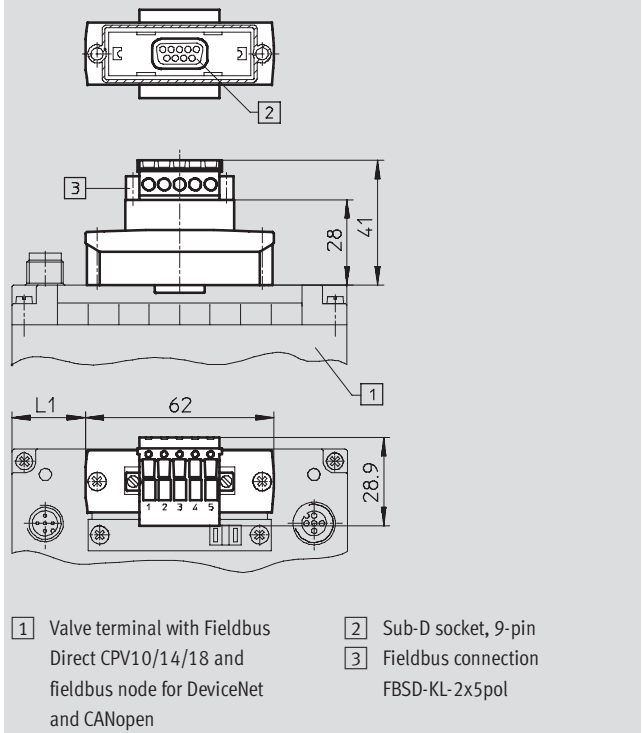
Download CAD data → www.festo.com

Fieldbus connection FBS-SUB-9-BU-2x4POL



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

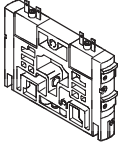
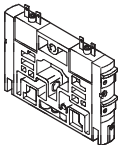
Fieldbus connection FBSD-KL-2x5POL



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

Valve terminals type 10 CPV, Compact Performance

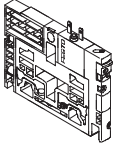
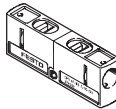
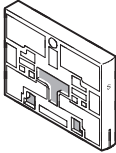
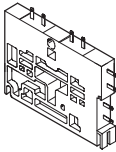
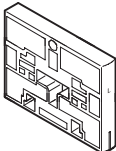
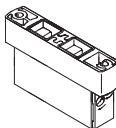
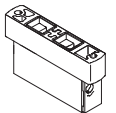
Accessories

Ordering data				
	Code	Valve function	Type	Part No.
Individual sub-base valve sizes 10/14/18				
	M	5/2-way valve, single solenoid, piston spool valve	CPV10-M1H-5LS-M7	161414
			CPV14-M1H-5LS-1/8	161360
			CPV18-M1H-5LS-1/4	163190
	F	5/2-way valve, single solenoid, fast switching, piston spool valve	CPV10-M11H-5LS-M7	187439
	J	5/2-way valve, double solenoid, piston spool valve	CPV10-M1H-5JS-M7	161415
			CPV14-M1H-5JS-1/8	161361
			CPV18-M1H-5JS-1/4	163191
	N	2x 3/2-way valve, normally open, piston spool valve	CPV10-M1H-2x3-OLS-M7	161417
			CPV14-M1H-2x3-OLS-1/8	161363
			CPV18-M1H-2x3-OLS-1/4	163188
	C	2 x 3/2-way valve, normally closed, piston spool valve	CPV10-M1H-2x3-GLS-M7	161416
			CPV14-M1H-2x3-GLS-1/8	161362
			CPV18-M1H-2x3-GLS-1/4	163189
	CY	2x 3/2-way valve, normally closed, integrated back pressure protection, piston spool valve	CPV10-M1H-2x3-GLS-Y-M7	553260
	H	2x 3/2-way valve, 1x normally open, 1x closed, piston spool valve	CPV10-M1H-30LS-3GLS-M7	176064
			CPV14-M1H-30LS-3GLS-1/8	176067
			CPV18-M1H-30LS-3GLS-1/4	176070
	G	5/3-way valve, mid-position closed, piston spool valve	CPV18-M1H-5/3GS-1/4	176061
	D	2x 2/2-way valve, normally closed, piston spool valve	CPV10-M1H-2x2-GLS-M7	185880
			CPV14-M1H-2x2-GLS-1/8	185883
			CPV18-M1H-2x2-GLS-1/4	185886
I	2x 2/2-way valve, 1x normally open, 1x closed, piston spool valve	CPV10-M1H-2OLS-2GLS-M7	187843	
		CPV14-M1H-2OLS-2GLS-1/8	187846	
		CPV18-M1H-2OLS-2GLS-1/4	187849	
Individual sub-base valve with duct separation 1, 11 sizes 10/14				
	MK	5/2-way valve (with duct separation 1, 11), single solenoid, piston spool valve	CPV10-M1H-5LS-K-M7	553256
			CPV14-M1H-5LS-K-1/8	553258
	JK	5/2-way valve (with duct separation 1, 11), double-solenoid, piston spool valve	CPV10-M1H-5JS-K-M7	559644
			CPV14-M1H-5JS-K-1/8	559651
	NK	2x 3/2-way valve (with duct separation 1, 11), normally open, piston spool valve	CPV10-M1H-2x3-OLS-K-M7	559641
			CPV14-M1H-2x3-OLS-K-1/8	559648
	CK	2 x 3/2-way valve (with duct separation 1, 11), normally closed, piston spool valve	CPV10-M1H-2x3-GLS-K-M7	553257
			CPV14-M1H-2x3-GLS-K-1/8	553259
	HK	2x 3/2-way valve (with duct separation 1, 11), 1x normally open, 1x closed, piston spool valve	CPV10-M1H-30LS-3GLS-K-M7	559642
			CPV14-M1H-30LS-3GLS-K-1/8	559649
	DK	2x 2/2-way valve (with duct separation 1, 11), normally closed, piston spool valve	CPV10-M1H-2x2-GLS-K-M7	559645
			CPV14-M1H-2x2-GLS-K-1/8	559652
	IK	2x 2/2-way valve (with duct separation 1, 11), 1x normally open, 1x closed, piston spool valve	CPV10-M1H-2OLS-2GLS-K-M7	559646
			CPV14-M1H-2OLS-2GLS-K-1/8	559653

Valve terminals type 10 CPV, Compact Performance

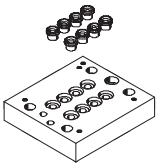
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Accessories

Ordering data				
	Code	Designation	Type	Part No.
Vacuum generator				
	A	Vacuum generator	CPV10-M1H-V70-M7	185862
			CPV14-M1H-V95-1/8	185868
			CPV18-M1H-V140-1/4	185874
	E	Vacuum generator with ejector pulse	CPV10-M1H-VI70-2GLS-M7	185865
			CPV14-M1H-VI95-2GLS-1/8	185871
			CPV18-M1H-VI140-2GLS-1/4	185877
Function block				
	G	Valve kit for 5/3-way valve function, closed (in combination with valve slice C) for size 10 and 14	CPV10-BS-5/3G-M7	176055
			CPV14-BS-5/3G-1/8	176057
Separator plate				
	T	Separator plate, duct 1/11 closed	CPV10-DZP	161369
			CPV14-DZP	162551
			CPV18-DZP	163282
	S	Separator plate, duct 1/11, 3/5 closed	CPV10-DZPR	178678
			CPV14-DZPR	178680
			CPV18-DZPR	184543
Relay plate				
	R	Relay plate	CPV10-RP2	174478
			CPV14-RP2	174480
Blanking plate				
	L	Blanking plate	CPV10-RZP	161368
			CPV14-RZP	162550
			CPV18-RZP	163283
Additional functions for valve positions				
	P	One-way flow control valve, 2x supply air	CPV-10-BS-2xGRZZ-M7	184140
			CPV-14-BS-2xGRZZ-1/8	184142
	Q	One-way flow control valve, 2x exhaust air	CPV-10-BS-2xGRAZ-M7	184141
			CPV-14-BS-2xGRAZ-1/8	184143
	V	One-way flow control valve for vacuum	CPV-10-BS-2xGRZ-V-M7	185889
			CPV-14-BS-2xGRZ-V-1/8	185891

Valve terminals type 10 CPV, Compact Performance

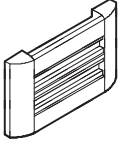
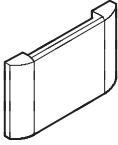

Accessories

Ordering data					
Designation				Type	Part No.
Pneumatic multiple connector plate					
	M	Pneumatic multiple connector plate, for wall/machine mounting, without side flange	2-way	CPV10-VI-P2-M7	161969
			4-way	CPV10-VI-P4-M7	161970
			6-way	CPV10-VI-P6-M7	161971
			8-way	CPV10-VI-P8-M7	163893
			2-way	CPV14-VI-P2-1/8	163894
			4-way	CPV14-VI-P4-1/8	163895
			6-way	CPV14-VI-P6-1/8	163896
			8-way	CPV14-VI-P8-1/8	163897
			2-way	CPV18-VI-P2-1/4	165292
			4-way	CPV18-VI-P4-1/4	165293
			6-way	CPV18-VI-P6-1/4	165294
			8-way	CPV18-VI-P8-1/4	165295
	P	Pneumatic multiple connector plate, for wall/machine mounting, with side flange	2-way	CPV10-VI-P2-M7-B	152420
			4-way	CPV10-VI-P4-M7-B	152421
			6-way	CPV10-VI-P6-M7-B	152422
			8-way	CPV10-VI-P8-M7-B	152423
			2-way	CPV14-VI-P2-1/8-B	152424
			4-way	CPV14-VI-P4-1/8-B	152425
			6-way	CPV14-VI-P6-1/8-B	152426
			8-way	CPV14-VI-P8-1/8-B	152427
			2-way	CPV18-VI-P2-1/4-B	175632
			4-way	CPV18-VI-P4-1/4-B	175634
			6-way	CPV18-VI-P6-1/4-B	175636
			8-way	CPV18-VI-P8-1/4-B	175638
	GQC	Pneumatic multiple connector plate with sealing ring, for control cabinet assembly, with supply connections	2-way	CPV10-VI-P2-M7-C	538807
			4-way	CPV10-VI-P4-M7-C	538808
			6-way	CPV10-VI-P6-M7-C	538809
			8-way	CPV10-VI-P8-M7-C	538810
			2-way	CPV14-VI-P2-1/8-C	539498
			4-way	CPV14-VI-P4-1/8-C	539499
			6-way	CPV14-VI-P6-1/8-C	539500
			8-way	CPV14-VI-P8-1/8-C	539501
	GQD	Pneumatic multiple connector plate with sealing ring, for control cabinet assembly, without supply connections	2-way	CPV10-VI-P2-M7-D	538811
			4-way	CPV10-VI-P4-M7-D	538812
			6-way	CPV10-VI-P6-M7-D	538813
			8-way	CPV10-VI-P8-M7-D	538814
2-way			CPV14-VI-P2-1/8-D	539502	
4-way			CPV14-VI-P4-1/8-D	539503	
6-way			CPV14-VI-P6-1/8-D	539504	
8-way			CPV14-VI-P8-1/8-D	539505	

Valve terminals type 10 CPV, Compact Performance

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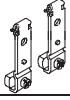
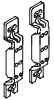
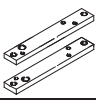



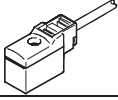
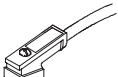
Accessories

Ordering data				
	Code	Designation	Type	Part No.
Inscription label holder				
	Z	Holder for inscription labels	CPV10-VI-BZ-T-2	162560
			CPV10-VI-BZ-T-3	162561
			CPV10-VI-BZ-T-4	162562
			CPV10-VI-BZ-T-5	162563
			CPV10-VI-BZ-T-6	162564
			CPV10-VI-BZ-T-7	162565
			CPV10-VI-BZ-T-8	162566
			CPV14-VI-BZ-T-2	162567
			CPV14-VI-BZ-T-3	162568
			CPV14-VI-BZ-T-4	162569
			CPV14-VI-BZ-T-5	162570
			CPV14-VI-BZ-T-6	162571
			CPV14-VI-BZ-T-7	162572
			CPV14-VI-BZ-T-8	162573
			CPV18-VI-BZ-T-2	163293
			CPV18-VI-BZ-T-3	163294
			CPV18-VI-BZ-T-4	163295
			CPV18-VI-BZ-T-5	163296
			CPV18-VI-BZ-T-6	163297
			CPV18-VI-BZ-T-7	163298
CPV18-VI-BZ-T-8	163299			
	T	Holder for inscription labels, transparent	CPV10-VI-ST-T-2	194066
			CPV10-VI-ST-T-3	194067
			CPV10-VI-ST-T-4	194068
			CPV10-VI-ST-T-5	194069
			CPV10-VI-ST-T-6	194070
			CPV10-VI-ST-T-7	194071
			CPV10-VI-ST-T-8	194072
			CPV14-VI-ST-T-2	194073
			CPV14-VI-ST-T-3	194074
			CPV14-VI-ST-T-4	194075
			CPV14-VI-ST-T-5	194076
			CPV14-VI-ST-T-6	194077
			CPV14-VI-ST-T-7	194078
			CPV14-VI-ST-T-8	194079
			CPV18-VI-ST-T-2	194080
			CPV18-VI-ST-T-3	194081
			CPV18-VI-ST-T-4	194082
			CPV18-VI-ST-T-5	194083
			CPV18-VI-ST-T-6	194084
			CPV18-VI-ST-T-7	194085
CPV18-VI-ST-T-8	194086			
Inscription labels				
	-	6x10 mm in frames, 64 pieces	IBS 6x10	18576
		9x20 mm in frames, 20 pieces (CPV18 only)	IBS 9x20	18182

Valve terminals type 10 CPV, Compact Performance

Accessories

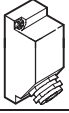
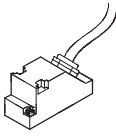

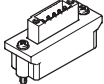
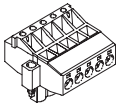
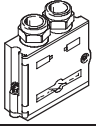

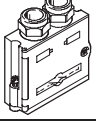
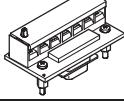
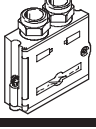
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Ordering data					
	Code	Designation	Type	Part No.	
Mounting					
	H	Mounting for H-rail	CPV10/14-VI-BG-NRH-35	162556	
			CPV18-VI-BG-NRH-35	163291	
	W	Attachment for wall mounting	CPV18-VI-BG-RW	163292	
	U		CPV10/14-VI-BG-RWL-B	189541	
	X	Attachment for individual connection and ET200X (included in the scope of delivery)	CPV10-VI-BG-ET200X	165801	
			CPV14-VI-BG-ET200X	165803	
Manual override					
	-	Locking clip (for manual override), non-detachable	CPV10/14-HS	526203	
			CPV18-HS	526204	
	V	Locking clip (cover for manual override), non-detachable	CPV10/14-HV	530055	
			CPV18-HV	530056	
Relay plate					
	K	Connecting cable for relay plate	2.5 m	KRP-1-24-2,5	165612
	L		5 m	KRP-1-24-5	165613
Cable for individual connection, electrical					
	D	Plug socket with cable for CPV10/14	2.5 m	KMYZ-7-24-2,5-LED-PUR	193683
	E		5 m	KMYZ-7-24-5-LED-PUR	193685
	F		10 m	KMYZ-7-24-10-LED-PUR	196070
	D	Plug socket with cable for CPV18	2.5 m	KMEB-2-24-2,5-LED	174844
	E		5 m	KMEB-2-24-5-LED	174845

Valve terminals type 10 CPV, Compact Performance

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



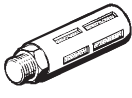
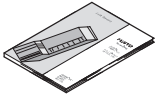
Accessories

Ordering data					
	Code	Designation	Type	Part No.	
Multi-pin plug connection, electrical					
	Y	Plug socket, 9-pin	SD-SUB-D-BU9	18708	
		Plug socket, 25-pin	SD-SUB-D-BU25	18709	
	R	Connecting cable, 9-pin, polyvinyl chloride	5 m	KMP3-9P-08-5	18698
		Connecting cable, 25-pin, polyvinyl chloride		KMP3-25P-16-5	18624
	S	Connecting cable, 9-pin, polyvinyl chloride	10 m	KMP3-9P-08-10	18579
		Connecting cable, 25-pin, polyvinyl chloride		KMP3-25P-16-10	18625
	-	Connecting cable, 9-pin, polyurethane	5 m	KMP4-9P-5-PUR	193014
		Connecting cable, 25-pin, polyurethane		KMP4-25P-5-PUR	193018
	-	Connecting cable, 9-pin, polyurethane	10 m	KMP4-9P-10-PUR	193015
		Connecting cable, 25-pin, polyurethane		KMP4-25P-10-PUR	193019
	-	Connecting cable, with 9-pin Sub-D plug, IP40, polyvinyl chloride cable	2.5 m	KMP6-09P-8-2,5	531184
			5 m	KMP6-09P-8-5	531185
			10 m	KMP6-09P-8-10	531186
	-	Connecting cable, with 25-pin Sub-D plug, IP40, polyvinyl chloride cable	2.5 m	KMP6-25P-20-2,5	530046
5 m			KMP6-25P-20-5	530047	
10 m			KMP6-25P-20-10	530048	
Fieldbus connection for Fieldbus Direct					
	GA	Straight socket, Sub-D 9-pin for DeviceNet/CANopen, plug/socket M12 5-pin, IP65	FBA-2-M12-5POL	525632	
	GB	Straight socket, Sub-D 9-pin for DeviceNet/CANopen, plug 5-pin, IP40	FBA-1-SL-5POL	525634	
		Angled socket 5-pin for DeviceNet/CANopen, screw terminal 5-pin, IP20	FBSD-KL-2x5POL	525635	
	GD	Plug 9-pin, Sub-D for DeviceNet/CANopen, IP65	FBS-SUB-9-BU-2x4POL	197960	
	GE	Plug Sub-D, IP65, 9-pin for Profibus DP	FBS-SUB-9-GS-DP-B	532216	
	GF	Bus connection 2x M12 adapter plug (B-coded, ReverseKey) for Profibus DP	FBA-2-M12-5POL-RK	533118	
	GI	Plug socket 9-pin, Sub-D for Interbus nodes CPX and CPV	FBS-SUB-9-BU-IB-B	532218	
		Plug 9-pin, Sub-D for Interbus nodes CPX and CPV	FBS-SUB-9-GS-IB-B	532217	
	GL	Straight socket, Sub-D 9-pin, screw terminal 5-pin, IP20	FBA-1-KL-5POL	197962	
	GM	Plug 9-pin, Sub-D, for CC-Link CPX and CPV, IP65	FBS-SUB-9-GS-2x4POL-B	532220	

Valve terminals type 10 CPV, Compact Performance

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Accessories

Ordering data				
Designation			Type	Part No.
Operating voltage connection for Fieldbus Direct				
	Straight socket	M12, 4-pin, PG7, IP65	FBSD-GD-7	18497
		M12, 4-pin, PG9, IP65	FBSD-GD-9	18495
	Angled socket	M12, 4-pin, PG7, IP65	FBSD-WD-7	18524
		M12, 4-pin, PG9, IP65	FBSD-WD-9	18525
Blanking plug				
	Blanking plug		B-M5	3843
			B-M7	174309
			B-1/8	3568
			B-1/4	3569
			B-3/8	3570
			B-1/2	3571
Push-in fitting				
	Push-in fitting		QS-1/8-8-I	153015
			QS-1/4-10-I	153018
			QS-3/8-12-I	153020
			QSM-M5-6-I	153317
			QSM-M7-6-I	153321
Silencer				
	Silencer		U-M5	4645
			U-1/8-B	6841
			U-1/4-B	6842
			U-3/8-B	6843
			U-1/2-B	6844
			UC-M7	161418
Manual				
	CPV Pneumatics Description	German	P.BE-CPV-DE	165100
		English	P.BE-CPV-EN	165200
		French	P.BE-CPV-FR	165130
		Italian	P.BE-CPV-IT	165160
		Spanish	P.BE-CPV-ES	165230
		Swedish	P.BE-CPV-SV	165260