



- Small, compact valve terminal for a wide range of applications
- Space-saving thanks to minimum valve dimensions
- Manual override and LED operating status display
- Flow rate of up to 170 l/min
- Wide range of pneumatic and electrical connection options

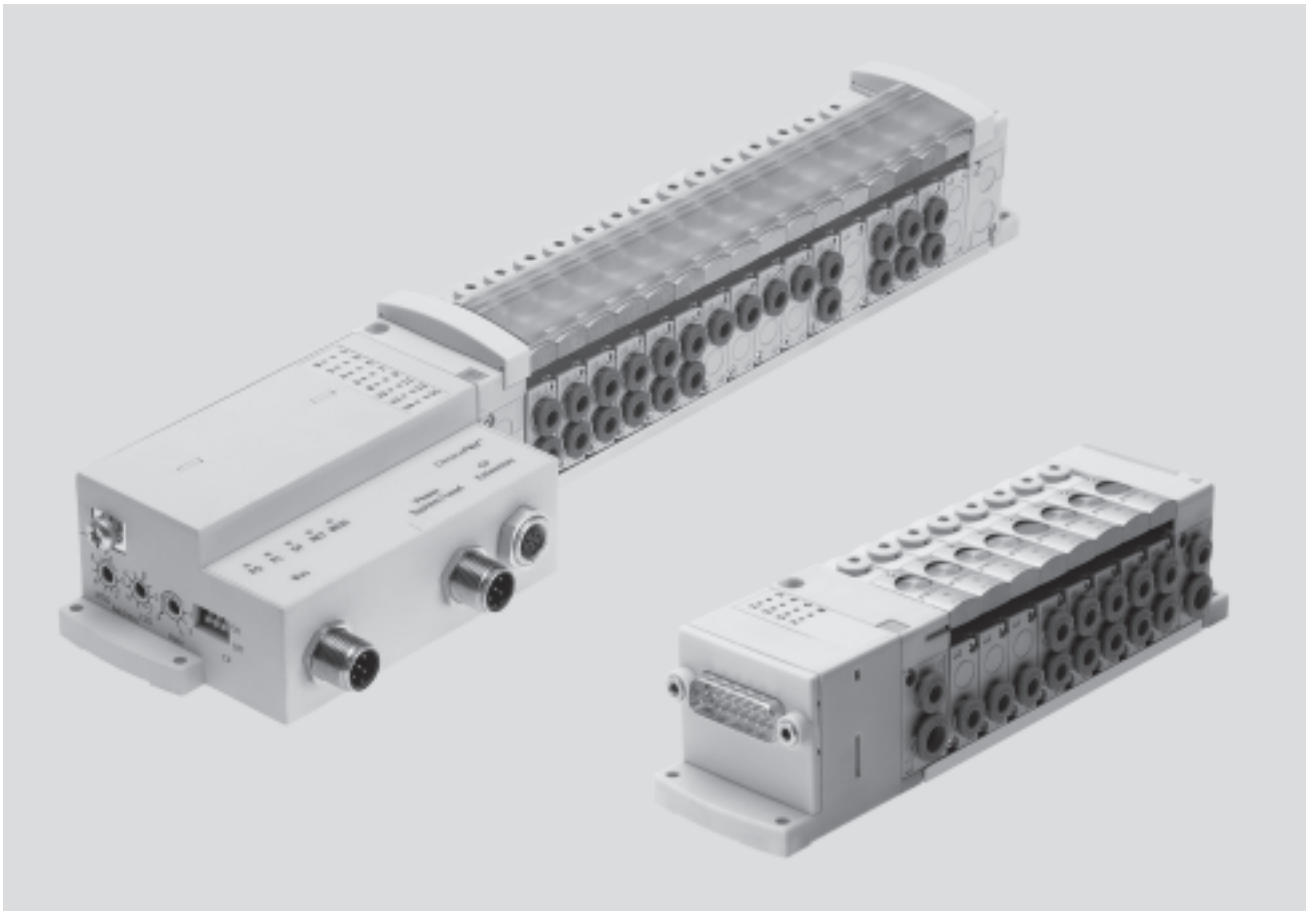
Valve terminals type 80 CPV-SC, Smart Cubic

Key features

FESTO

Application-optimised valve terminals
Smart Cubic

3.1



Innovative

- Small, compact valve terminal for a wide range of pneumatic applications
- Enormous flexibility during planning, assembly and operational use
- Multi-pin plug and fieldbus interface
- Numerous selectable valve functions; 5/2-way, 3/2-way and 2/2-way functions
- With a flow rate of 170 l/min, CPV-SC offers outstanding pneumatic performance for a wide range of applications
- Low weight

Versatile

- Provides 2 ... 16 valve positions on one terminal
- Ideally suited for operating small pneumatic drives in tight spaces
- The flexibility of the pneumatic working ports provides a practical solution to different requirements
- Round silencers, integrated flat plate silencers or ducted exhaust air
- Suitable for vacuum
- Permits multiple pressure zones on a single valve terminal

Reliable

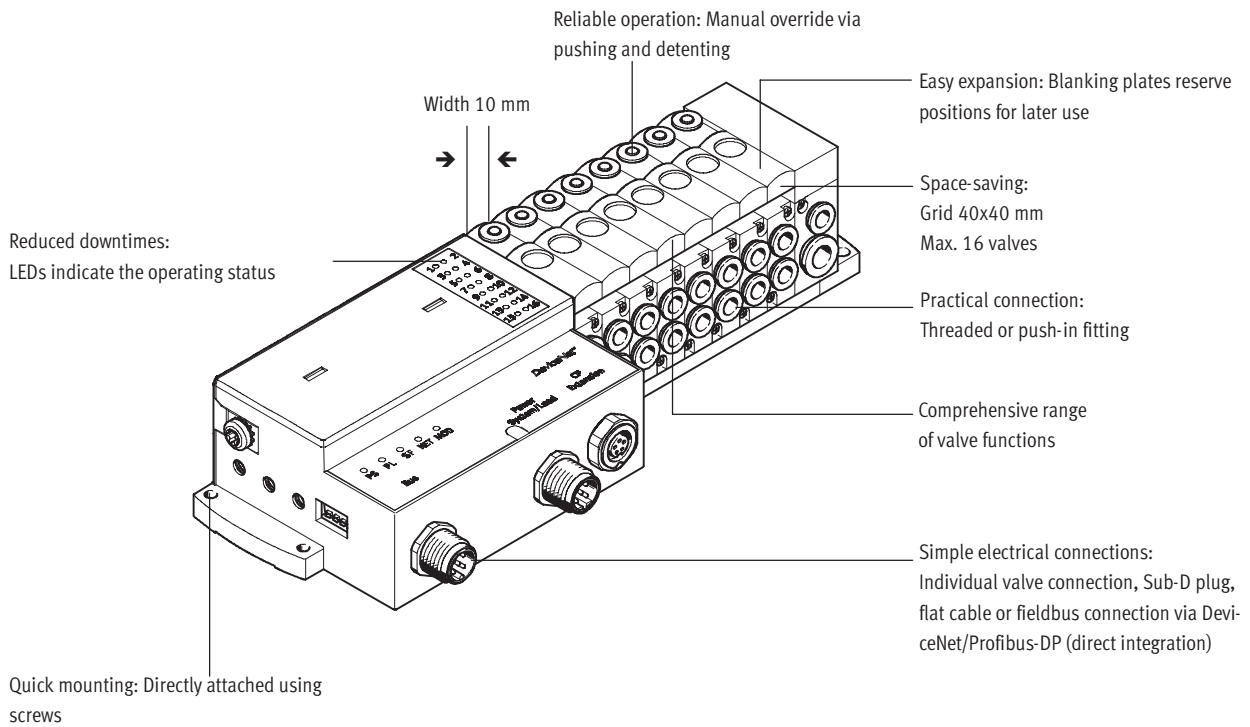
- Manual override
- Durable thanks to the use of tried-and-tested piston spool valves
- Sturdy thanks to metal housing and connecting thread
- Fast troubleshooting thanks to an LED on each valve and diagnosis via fieldbus

Easy to mount

- Fully assembled and tested valve terminal
- Minimised expenditure with regard to ordering, installation and commissioning
- Direct mounting even on moving system components

Valve terminals type 80 CPV-SC, Smart Cubic

Key features



Equipment options		
Valve functions	Separator plate with additional compressed air supply	Blanking plate

- | | | | |
|--|--|---|---|
| <ul style="list-style-type: none"> • 5/2-way valve, single solenoid • 5/2-way valve, double solenoid • 3/2-way valve, normally open | <ul style="list-style-type: none"> • 3/2-way valve, normally closed • 2/2-way valve, normally closed | <ul style="list-style-type: none"> • Compressed air duct (1) closed • Compressed air duct (1) and exhaust line (3/5) closed | <ul style="list-style-type: none"> • Plate without valve function for reserving a valve position |
|--|--|---|---|

Electrical connection options			
Individual connection	Multi-pin	Fieldbus Direct	CP string extension

- | | | | |
|--|---|---|--|
| <ul style="list-style-type: none"> • 2 ... 16 valve positions/ max. 16 solenoid coils • Individual connection, horizontal (H) • Individual connection, vertical (T) | <ul style="list-style-type: none"> • 4 ... 16 valve positions/ max. 16 solenoid coils • Sub-D • Flat cable | <ul style="list-style-type: none"> • 4 ... 16 valve positions/ max. 16 solenoid coils • DeviceNet | <ul style="list-style-type: none"> • Further valve terminals from the CPV/CPA range • Electrical I/O modules |
|--|---|---|--|

Valve terminals type 80 CPV-SC, Smart Cubic

Key features



Application-optimised valve terminals
Smart Cubic

3.1

Valve terminal configurator

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

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

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

You order a valve terminal type 80 using the order code.

Ordering system for type 80
→ 4 / 3.1-30



The illustration above provides an example of a valve terminal configuration.

The following steps explain how you arrive at the order code:

Once you have called up the Festo home page, select the online version of the digital product catalogue from the “Products” submenu: This will bring you directly to the home page for the Pneumatic Catalogue. Activate the “Direct Search” menu.

Here you can specify a “Part No.” (e.g. 525675), the “Type” (e.g. CPV-SC-MP-VI) or “Article name” (e.g. valve terminal) to find your “Search result”. Click on the blue shopping basket to complete the selected product according to your specifications (this does not initiate an order). You will then be prompted to configure the product.

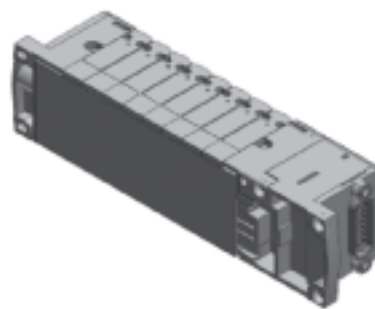
Select “Configurator”. You can then configure the valve terminal step by step (from the top down) according to your requirements. Select the “Finish” menu to continue on with the ordering process.

2D/3D CAD data

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

You can request the CAD data for a valve terminal you have configured. To do so, perform a product search for Part No. 525675 as described above. Click on this number to the right of the blue shopping basket. This brings you to the detailed view. In the menu bar

on the right-hand edge of the screen, click on “2D/3D CAD” and then on “Configurator”. Proceed with your configuration and then click on “Finish”. On the next page you can generate a 3D preview or request another data format of your choice by e-mail.

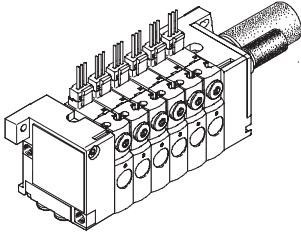


Valve terminals type 80 CPV-SC, Smart Cubic

Key features



Individual connection



Connection is independent of the control technology used. This ensures correct polarity during installation.

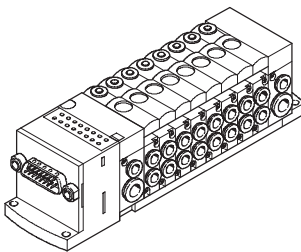
The pilot valves M1LH with integrated LED are available as an option for the switching status display.

Individual connection permits the selection of 2 to 16 solenoid coils (divided between 2 to 16 valve positions).

Variants

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

Multi-pin plug connection



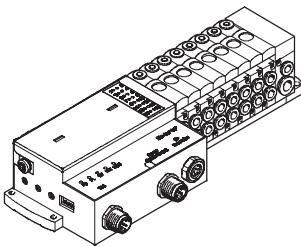
Control signals to the valve terminal are transmitted via a pre-assembled multi-core cable. This substantially reduces installation time.

The multi-pin plug connection permits the selection of 4 to 16 solenoid coils (divided between 2 to 16 valve positions).

Variants

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

Fieldbus Direct



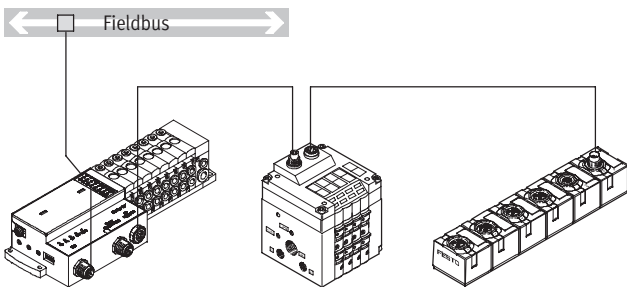
An integrated fieldbus node manages the communication connection to a higher-order PLC. This enables a space-saving pneumatic and electronic solution.

The fieldbus connection permits the selection of 4 to 16 solenoid coils (divided between 4 to 16 valve positions).

Variants

- DeviceNet connection
- Profibus connection
- 4 to 16 solenoid coils

CP string extension



The optional string extension allows additional valve terminals and I/O modules to be connected to the fieldbus node of the CPV-SC. A CP string of the CPI installation system is integrated in the fieldbus node as an extension. Different input and output modules as well as CPV-SC, CPV- and CPA valve terminals can be connected. The maximum length of the CP string extension is 10 metres, which means that the extension modules can be mounted directly on site. All of the required electrical signals are transmitted via the CP cable, which in turn means that no further installation is needed on the extension module.

The CP string interface offers:

- 32 input signals
- 32 output signals for output modules 24 V DC or solenoid coils
- Logic and sensor supply for the input modules
- Load voltage supply for the valve terminals
- Logic supply for the output modules

➔ 4 / 4.7-2

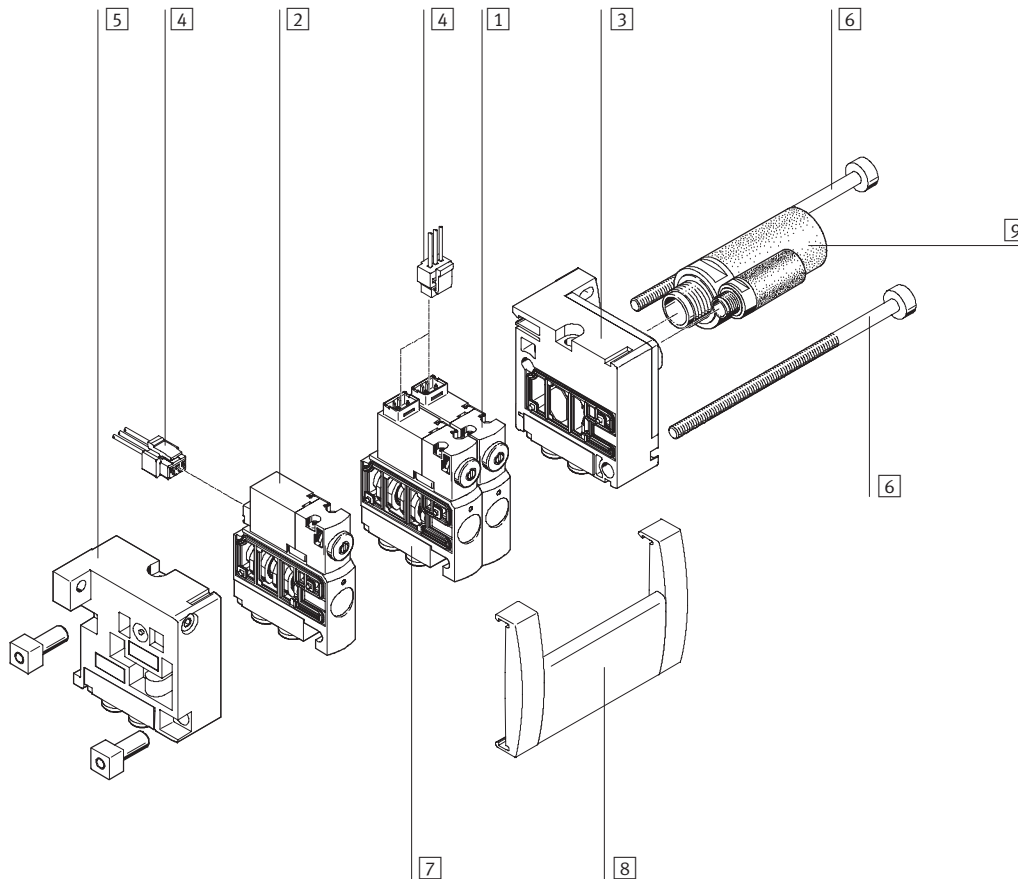
Valve terminals type 80 CPV-SC, Smart Cubic

Peripherals overview

Overview – CPV-SC valve terminal

Valve terminal with individual electrical connections

- Individual connection on top
Code: IT
 - Individual connection horizontal
Code: IH
- Valve terminals with electrical individual connection can be equipped with 2 to max. 16 valve positions.
- Each valve position can either be equipped with a valve or a blanking plate.



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

Valve terminals type 80 CPV-SC, Smart Cubic

Peripherals overview



Valve terminal with electrical multi-pin plug connection

- 15- and 26-pin Sub-D multi-pin plug connection
Code: MS, MH

or

- 20-pin multi-pin plug connection with connector for flat cable
Code: MF

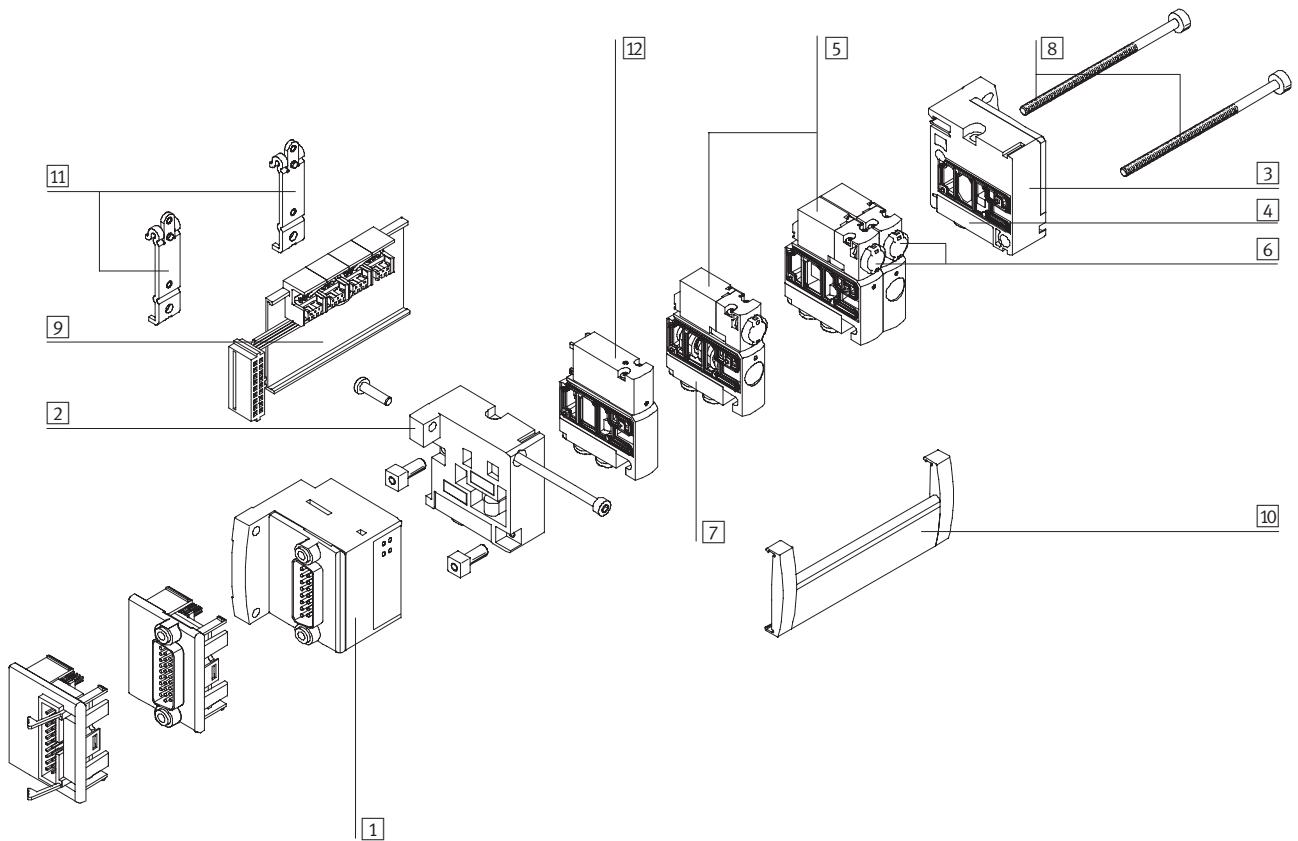
Valves and end plates are the basic pneumatic components of the valve terminal.

The valve terminals are connected to the end plates using tie rods.

Valve terminals with electrical multi-pin plug connection can be equipped with 4 to max. 16 valve positions.

Each valve position can either be equipped with a valve or a blanking plate.

The electrical connection is located on the left-hand side, thereby allowing flush mounting of the system.



1 Electrical actuating unit for Sub-D or flat cable connection with LED switching status display

2 Left-hand end plate for compressed air supply 1 or 12/14

3 Right-hand end plate for ducted exhaust air or silencer (3/5 or 82/84)

4 Sub-base for ducted exhaust air (push-in fitting or thread)

5 Valve

6 Cover for manual override (optional)

7 Sub-base for working ports (push-in fitting or thread)

8 Tie rod

9 Electrical valve linking module

10 Inscription label holder

11 H-rail mounting

12 Blanking plate for vacant position

Valve terminals type 80 CPV-SC, Smart Cubic

Peripherals overview



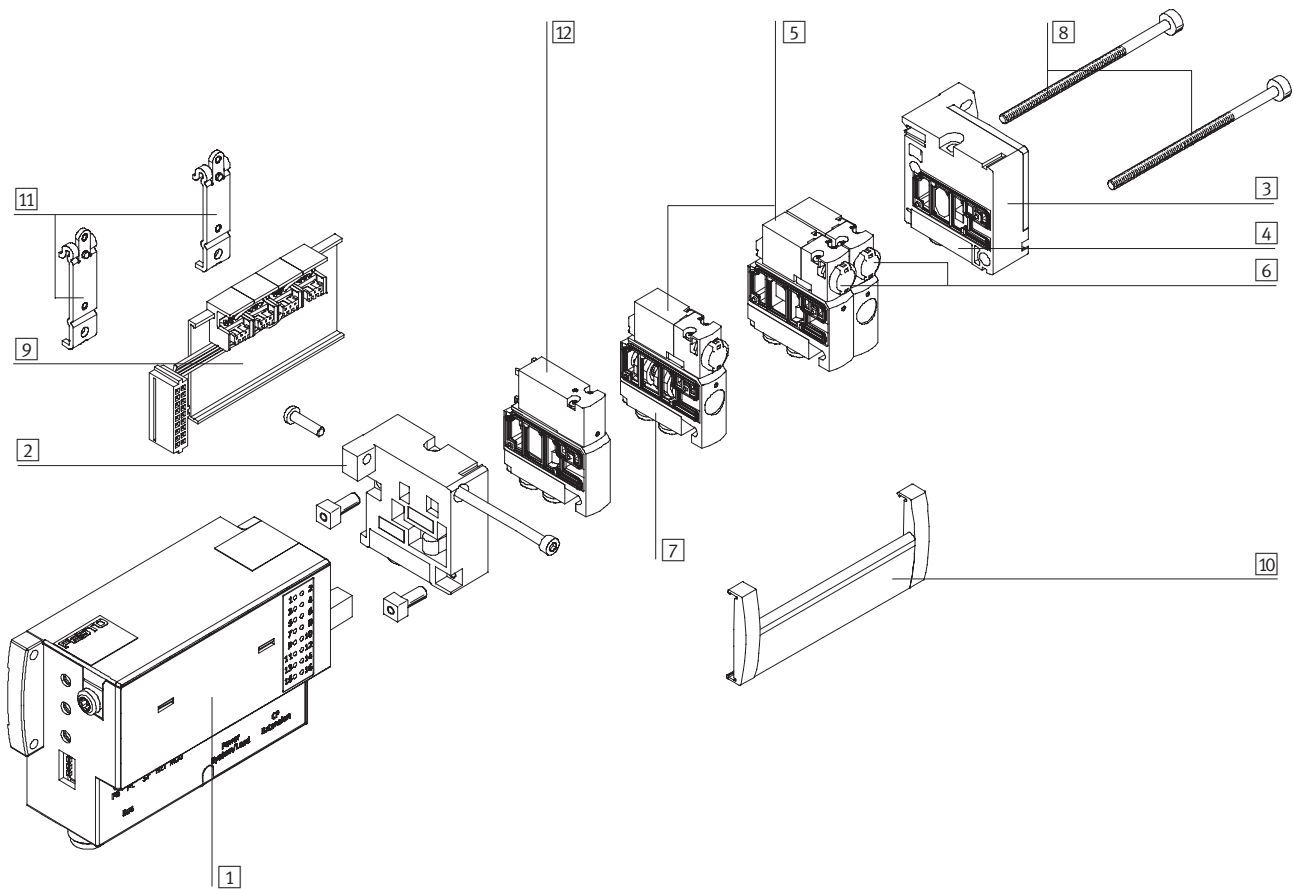
Valve terminal with Fieldbus Direct

- M12 A-coded DeviceNet connection
Code: DN
or
- 9-pin Sub-D connection for Profibus
Code: DP

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

Valve terminals with Fieldbus Direct DeviceNet/Profibus DP can be equipped with 4 to max. 16 valve positions. Each valve position can either be equipped with a valve or a blanking plate.

The space-saving electrical connection is optimised for minimum tubing.



- | | | | |
|--|---|--|---------------------------------------|
| 1 Fieldbus Direct | 4 Sub-base for ducted exhaust air (push-in fitting or thread) | 7 Sub-base for working ports (push-in fitting or thread) | 10 Inscription label holder |
| 2 Left-hand end plate for compressed air supply 1 or 12/14 | 5 Valve | 8 Tie rod | 11 H-rail mounting |
| 3 Right-hand end plate for ducted exhaust air or silencer (3/5 or 82/84) | 6 Cover for manual override (optional) | 9 Electrical valve linking module | 12 Blanking plate for vacant position |

Valve terminals type 80 CPV-SC, Smart Cubic



Key features – Pneumatic components

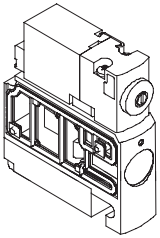
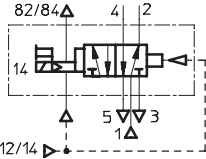
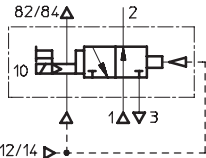
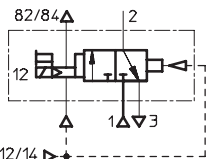
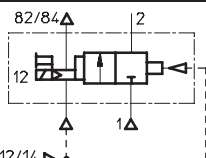
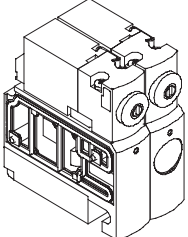
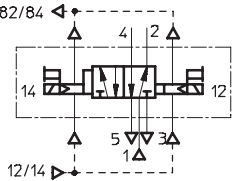
Valves

CPVSC1 valves are valve slices with integrated sub-base, i.e. in addition to the valve function they contain all of the 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. 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.

Valve functions	Code	Circuit symbol	Width 10 mm	Description
	M		■	5/2-way valve, single solenoid <ul style="list-style-type: none"> • Pneumatic spring return
	N		■	3/2-way valve, single solenoid <ul style="list-style-type: none"> • Normally open • Pneumatic spring return
	K		■	3/2-way valve, single solenoid <ul style="list-style-type: none"> • Normally closed • Pneumatic spring return
	D		■	2/2-way valve, single solenoid <ul style="list-style-type: none"> • Normally closed • Pneumatic spring return
	J		■	5/2-way valve, double solenoid This valve consists of two valve housing units and therefore occupies two valve positions. The pilot control with coil 12 is located on the left and labelled "J12". If both coils are actuated, the signal at port "14" dominates in switching position.

Valve terminals type 80 CPV-SC, Smart Cubic

Key features – Pneumatic components



Application-optimised valve terminals
Smart Cubic

3.1

Valves				
Valve functions	Code	Circuit symbol	Width 10 mm	Description
Pneumatic supply plate with duct separation				
	T		■	Compressed air duct (1) closed For separating pressure zones with a common exhaust. (Using pressure zones → 4 / 3.1-12) Pneumatic connection: QS-4, M5
	S		■	Compressed air duct (1) and exhaust line (3/5) closed For separating pressure zones with a separate exhaust. (Using pressure zones → 4 / 3.1-12) Pneumatic connection: QS-4, M5
Pneumatic supply plate without duct separation				
	U		■	Additional compressed air supply (1) and additional exhaust (3/5). Pneumatic connection: QS-4, M5
Blanking plate				
	L		■	Plate without valve function for reserving a valve position. No pneumatic connection

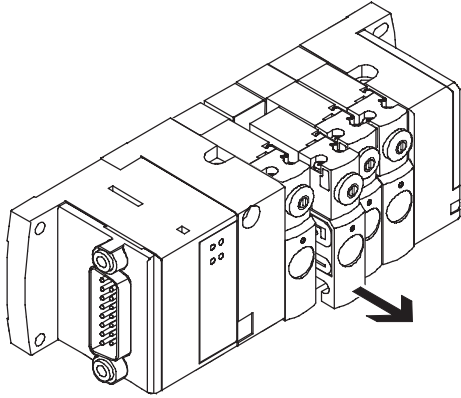
In the case of compressed air supply configuration code S or T (exhaust via flat plate silencer), a plug-in silencer UC-QS-4H is included with supply plates.

Valve terminals type 80 CPV-SC, Smart Cubic

Key features – Pneumatic components



Constructional design



Valve replacement


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

Expansion

Valves can be ordered as accessories and are available with fully assembled sub-bases with QS or threaded connections. The functionality of the valve terminal can therefore be extended by equipping vacant positions. For ordering purposes, valves have the valve code printed on the front and the product type on the rear.

Materials

The valve housing and thread in the sub-bases are metallic, while other housing sections are made from robust plastic materials.

 Note
The valve with the working sub-base has been tested by Festo for leak tightness.

Pilot air

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

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

- Internal
- External

Internal pilot air

Internal pilot air supply can be selected if the required working pressure is between 3 and 7¹⁾ bar. The pilot air supply in the left-hand end plate is then branched from the compressed air supply 1 using an internal connection. The port 12/14 is closed using a blanking plug.

External pilot air

If the supply pressure is in the range –0.9 to 3 bar, you must operate your CPV-SC valve terminal using external pilot air supply. The pilot air supply is also supplied via port 12/14 on the left-hand end plate in this case.

1) 8 bar upon request


Creation of pressure zones and separation of exhaust air

The CPV-SC valve terminal can be operated with multiple pressure zones. After two zones, a supply with duct separation is required for each subsequent pressure zone. It always

occupies one valve position. An isolating disc T separates the compressed air supply of a valve group on the left from the compressed air supply of a valve group on the right. The right-

hand pressure zone is supplied at port 4 of the supply plate. Port 2 also allows the left-hand pressure zone to be exhausted. All of the exhaust ducts of the valve are interconnected and

are exhausted through the right-hand end plate. An isolating disc S also separates exhaust lines 3 and 5 in addition to pressure duct 1.

 Note

Larger or simultaneously operating cylinders generate a back pressure in the exhaust duct of the valve terminal, the size of which depends on the exhaust capacity of the silencer.

In order to prevent interaction with adjacent valves, valves can be separated by means of duct separation using isolating disc S. The pressure zone located to the left of an isolating

disc S is exhausted using the supplied plug-in silencer. Where there are more than two valves in such a pressure zone, an additional supply with additional exhaust may be required.

It is therefore useful to meet the higher exhaust requirements in the pressure zone that is exhausted by the right-hand end plate.

Valve terminals type 80 CPV-SC, Smart Cubic

Key features – Pneumatic components



Creation of pressure zones		
	Code	Description
	S	Duct 1 and 3/5 separated
	T	Duct 1 separated

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

Valve terminals type 80 CPV-SC, Smart Cubic

Key features – Pneumatic components



Ports for supply and exhaust

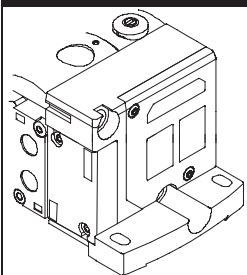
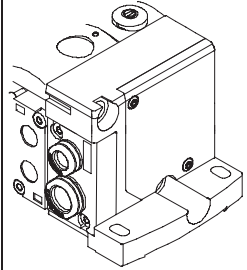
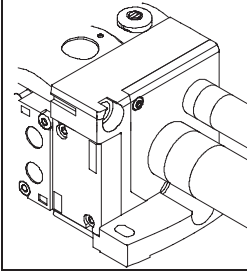
Supply and exhaust

A basic feature of a CPV-SC valve terminal are the two end plates.

The left-hand end plate is used to supply compressed air, while the right-hand end plate is used to exhaust the valve terminal.

Exhaust air escapes either via an integrated flat plate silencer, round silencer or via a push-in or threaded connection.

Ports for exhaust

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

Valve terminals type 80 CPV-SC, Smart Cubic

Key features – Pneumatic components

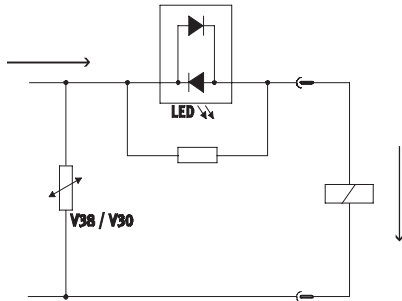


Pneumatic supply		
End plate combination	Code	Description
	S	Internal pilot air, flat plate silencer For operating pressure in the range 3 ... 7 bar
	T	External pilot air, flat plate silencer For operating pressure in the range -0.9 ... +7 bar
	V	Internal pilot air, ducted exhaust air For operating pressure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

Valve terminals type 80 CPV-SC, Smart Cubic

Key features – Electrical components

Protective circuit



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

Electrical multi-pin plug connection

The following multi-pin plug connection types are offered for the valve terminal CPV-SC:

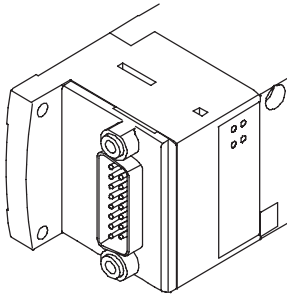
- Sub-D multi-pin plug connection (15- and 26-pin) or
- Multi-pin plug connection with connector for flat cable (20-pin)

CPV-SC is connected via a multi-pin connection with Sub-D or flat cable. A maximum of one valve position – and therefore one coil or one address – is assigned to each pin of the multi-pin plug.

Double solenoid valves “J” occupy two valve positions. The left-hand valve position with pilot control 12 is actuated by the less significant address of the two addresses.

Electrical multi-pin plug connection – Sub-D

Code MS, MH



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

Ordering data – Connecting cable Sub-D

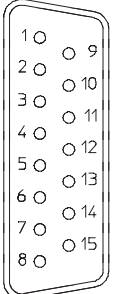

	Code	Description	Type	Part No.	
	CP	15-pin for 12 coils (code MS)	2.5 m long	KMP6-15P-12-2,5	527 543
	CQ	Material: PVC	5 m long	KMP6-15P-12-5	527 544
	CR	Suitable for chain link trunking	10 m long	KMP6-15P-12-10	527 545
	CP	26-pin for 16 coils (code MH)	2.5 m long	KMP6-26P-16-2,5	527 546
	CQ	Material: PVC	5 m long	KMP6-26P-16-5	527 547
	CR	Suitable for chain link trunking	10 m long	KMP6-26P-16-10	527 548

Valve terminals type 80 CPV-SC, Smart Cubic

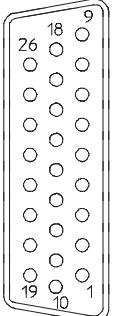

Key features – Electrical components



3.1

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

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

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

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

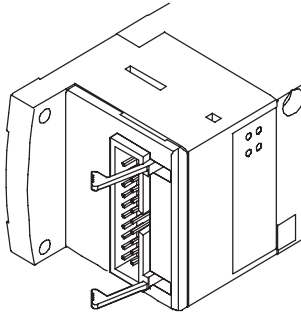
Valve terminals type 80 CPV-SC, Smart Cubic

Key features – Electrical components



Electrical multi-pin plug connection – Connector for flat cable

Code MF



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

Pin allocation – Connector for flat cable (code MF)

	Pin	Allocation
	1	Coil 0
	2	Coil 1
	3	Coil 2
	4	Coil 3
	5	Coil 4
	6	Coil 5
	7	Coil 6
	8	Coil 7
	9	Coil 8
	10	Coil 9
	11	Coil 10
	12	Coil 11
	13	Coil 12
	14	Coil 13
	15	Coil 14
	16	Coil 15
	17	0 V ¹⁾
	18	0 V ¹⁾
	19	0 V ¹⁾
	20	0 V ¹⁾

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

Valve terminals type 80 CPV-SC, Smart Cubic

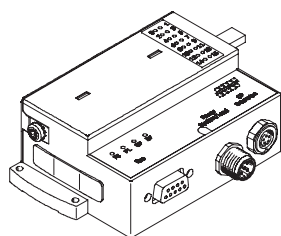
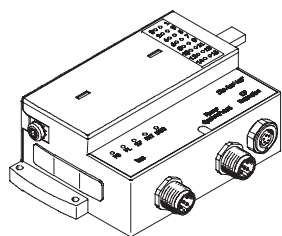
Key features – Electrical components

Fieldbus Direct

DeviceNet

Profibus DP

Properties

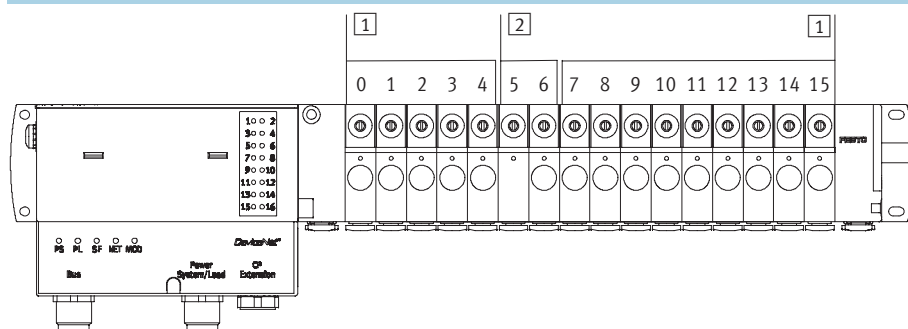


Fieldbus Direct is a system for the compact connection of a valve terminal of various sizes to different fieldbus standards.
The CP string extension option allows the functions and components of the CPI installation system to be used.

The I/O modules and cables for the CP string extension are ordered using the order code for the CPI installation system.

➔ 4 / 4.6-2

Address allocation – Solenoid coils



1 Single solenoid valves occupy one valve position

2 Double solenoid valves occupy two valve positions

Example:

Valve terminal where valve positions 5 and 6 are prepared for double solenoid valves.

The addresses of the valve positions on the CPV-SC-DN/CPV-SC-DP are assigned from left to right. Each valve position has an address, regardless of whether or not a valve is mounted there.

Double solenoid valves “J” occupy two valve positions. The left-hand valve position with pilot control 12 is actuated by the less significant address of the two addresses.

Valve terminals type 80 CPV-SC, Smart Cubic

Key features – Display and operation

Display and operation

The switching status of every solenoid coil is displayed on the actuating unit LED. Inscription labels (type MH-BZ-80x) can be applied to each valve for labelling purposes.

The manual override (MO) allows the valve to be activated without electronic control or power supply. The valve is activated by pushing the manual override. The set switching status can also be secured by turning the manual override.

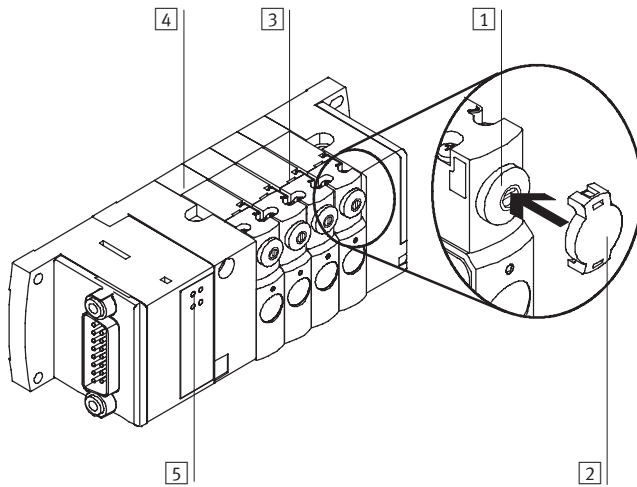
A cover can be fitted over the manual override to prevent it from being actuated accidentally (code V).



Note

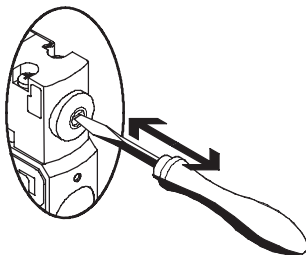
A manually activated valve (manual override) cannot be reset electrically. Conversely, an electrically activated valve cannot be reset using the manual override facility.

Manual override (MO)



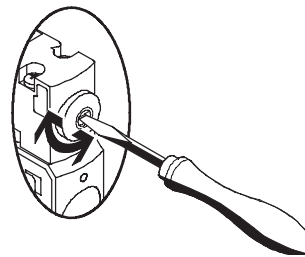
- 1 Manual override (pushing or detenting via turning using a screwdriver)
- 2 Cover for manual override (code V or accessory CPVSC1-HV)
- 3 Location for valve position inscription label (type MH-BZ-80x)
- 4 Numbering of valve positions
- 5 LED signal status display per valve position

Manual override with automatic return (non-detenting)



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

Manual override with detent (detenting)



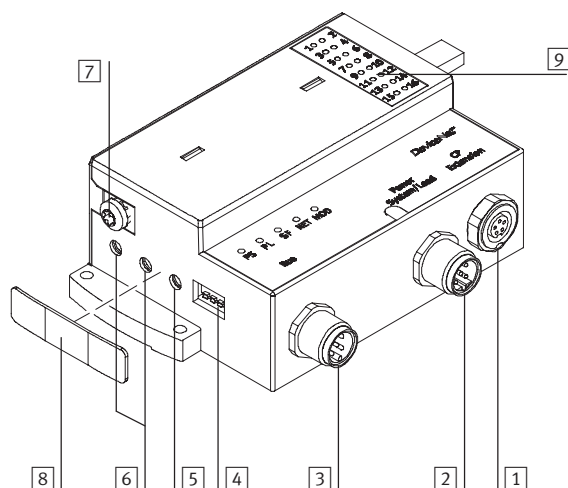
Manual override remains active until it is reset with a screwdriver.

Valve terminals type 80 CPV-SC, Smart Cubic

Key features – Display and operation

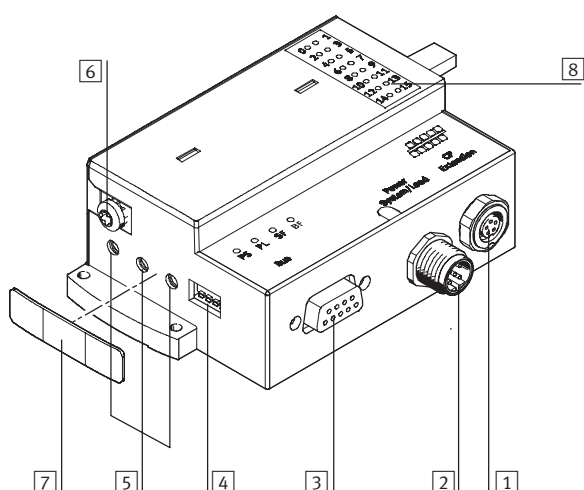
Display and operation

Fieldbus Direct – DeviceNet



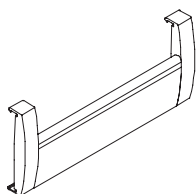
- 1 Connection for CP extension
- 2 Connection for power supply
- 3 Connection for fieldbus
- 4 DIL switch for CP extension
- 5 Rotary switch for baud rate
- 6 Rotary switch for station number
- 7 Earth terminal
- 8 Cover (for IP40 protection)
- 9 Switching status display per valve

Fieldbus Direct – Profibus DP



- 1 Connection for CP extension
- 2 Connection for power supply
- 3 Connection for fieldbus
- 4 DIL switch for CP extension
- 5 Rotary switch for station number
- 6 Earth terminal
- 7 Cover (for IP40 protection)
- 8 Switching status display per valve

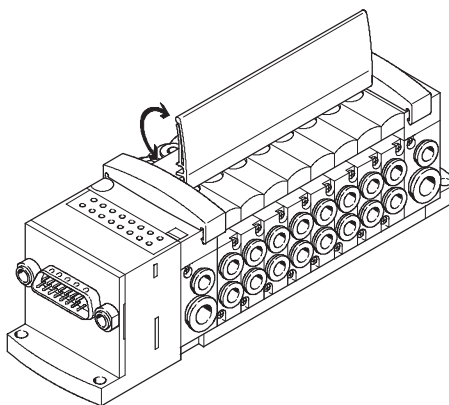
Inscription label holder



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

Labelling templates are available on the Festo home page:

→ www.festo.com
in the Download Area under
“Download Software”.



Valve terminals type 80 CPV-SC, Smart Cubic

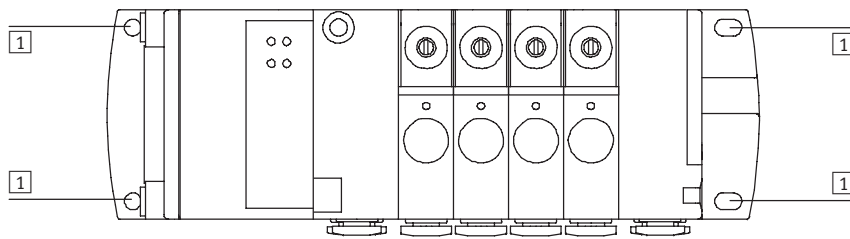
Key features – Mounting types

Mounting – Valve terminal

Sturdy terminal assembly thanks to:

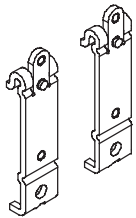
- Four through-holes for wall mounting
- H-rail mounting

Wall mounting

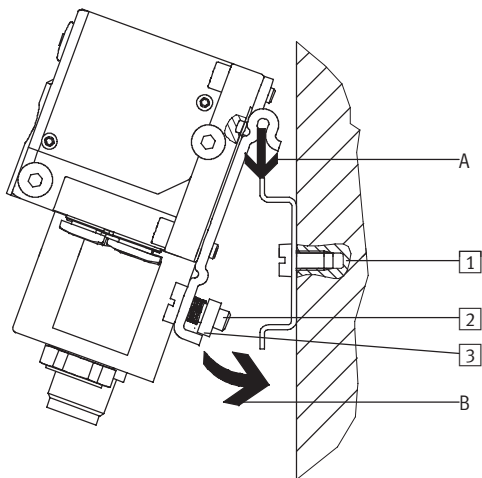


1 Mounting holes for screws M3

H-rail mounting



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



The CPV-SC valve terminal is attached to the H-rail (see arrow A).




The valve terminal is then swivelled on the H-rail and secured in place with the clamping component (see arrow B).

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

Valve terminals type 80 CPV-SC, Smart Cubic

Technical data



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



Application-optimised valve terminals
Smart Cubic

3.1

General technical data					
Valve	5/2-way valve		3/2-way valve		2/2-way valve
	Single solenoid	Double solenoid	Normally open	Normally closed	Normally closed
Valve function order code	M	J	N	K	D
Constructional design	Electromagnetically actuated piston spool valve				
Width [mm]	10		10		10
Nominal diameter [mm]	2.5		2.5		2.5
Standard nominal flow rate [l/min]	170		170		150
Lubrication	Lubricated for life				
Type of mounting	Wall mounting				
Mounting position	Any				
Manual override	Pushing/detenting/covered				
Pneumatic connections					
Supply	1	M7, QS-6			
Exhaust port	3/5	M7, QS-6, round silencer or integrated flat plate silencer			
Working ports	2/4	Depending on the connection type selected <ul style="list-style-type: none"> • M5 • QS-3 • QS-4 			
Pilot air port	12/14	M5, QS-4			
Pilot exhaust air port	82/84	M5, QS-4, round silencer or integrated flat plate silencer			

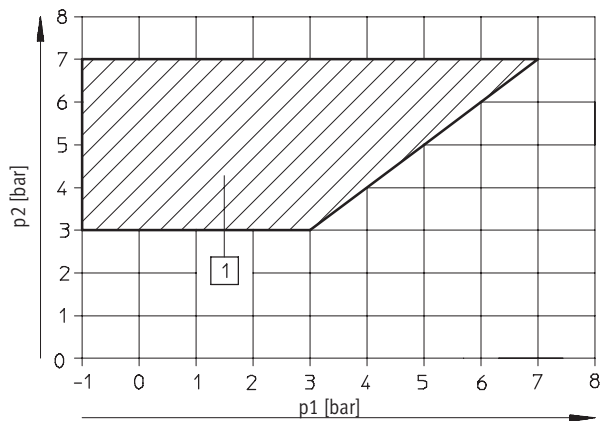
Valve terminals type 80 CPV-SC, Smart Cubic

Technical data

FESTO

Operating pressure [bar]	
Valve function order code	M J N K D
Internal pilot air supply	3 ... 7
External pilot air supply	-0.9 ... +7
Pilot pressure	3 ... 7

Pilot pressure p2 as a function of operating pressure p1



1 Operating range for valves with external pilot air supply

Valve response times [ms]						
Valve function order code	M J N K D					
Response times	On	10	10	10	10	10
	Off	10	-	10	10	10
	Change-over	-	8	-	-	-

Operating and environmental conditions	
Valve function order code	M J N K D
Operating medium	Filtered compressed air, lubricated or unlubricated, inert gases permissible → 4 / 3.1-25
Grade of filtration [µm]	40 (average pore size)
Paint-wetting impairment substances criterion	Yes (free of paint wetting impairment substances)
CE certification	Yes, with actuating unit to EMC regulations
Ambient temperature [°C]	-5 ... +50
Temperature of medium [°C]	-5 ... +50
Storage temperature [°C]	-20 ... +40
Corrosion resistance class CRC ¹⁾	1

1) Corrosion resistance class 1 according to Festo standard 940 070
Components requiring low corrosion resistance. Transport and storage protection. Parts that do not have primarily decorative surface requirements, e.g. in internal areas that are not visible or behind covers.

Valve terminals type 80 CPV-SC, Smart Cubic



Technical data

Application-optimised valve terminals
Smart Cubic

3.1

Electrical data		M	J	N	K	D
Valve function order code						
Electromagnetic compatibility of the CPV-SC valve terminal with Sub-D or flat cable connection		Interference emission tested to DIN EN 61000-6-4, industry				
		Interference immunity ¹⁾ tested to DIN EN 61000-6-2, industry				
Protection against electric shock (protection against direct and indirect contact to EN 60204-1/IEC 204)		By means of PELV power supply unit				
Nominal operating voltage [V] of valve terminal		5 DC, 12 DC, 24 DC				
Operating voltage range of valve terminal [V]		5 DC ±10%, 12 DC ±10%, 24 DC ±10%				
Coil characteristics	• Nominal voltage of solenoid [V]	5 DC, 12 DC, 22 DC				
	• Electrical power consumption of solenoid [W]	1.0				
Duty cycle		100% at 40°C ambient temperature				
Protection class to EN 60529		IP40 (in assembled state and with detenting plug)				
Relative air humidity		90% at 40°C, non-condensing				
Vibration resistance		To DIN/IEC 68/EN 60068, Parts 2-6				
Continuous shock resistance		To DIN/IEC 68/EN 60068, Parts 2-27				

1) The maximum signal line length is 10 m

Materials		M	J	N	K	D
Valve function order code						
Electrical interface		Polymer				
End plate, electrical connector plate		Polymer				
Seals		Elastomer				
Valve slice		Die-cast aluminium				
Sub-base for working ports		Polyamide				

Product weight [g]		M	J	N	K	D
Valve function order code						
5/2-way, 3/2-way valve		30.5				
5/2-way double solenoid valve		56.5				
Blanking plate		22.5				
Right-hand end plate		42.5				
Left-hand end plate		28				
Actuator housing		43				
Tie rod, 16-fold		29.6				
Electrical manifold module, 16-fold		64				
Actuating unit fieldbus		200				

Valve terminals type 80 CPV-SC, Smart Cubic

Technical data

FESTO

Equipment

Operate your equipment with unlubricated compressed air if possible. Festo valves and cylinders have been designed such that, under permitted operating conditions, additional lubrication is not required for a guaranteed long service life. The quality of compressed air downstream from the compressor must correspond to that of unlubricated compressed air. If possible, do not operate all of your equipment with lubricated compressed air. The lubricators should, where possible, always be installed directly upstream of the cylinders used.

Incorrect additional oil and too high an oil content in the compressed air reduce the service life of the valve terminal. Use Festo special oil OFSW-32 or the alternatives listed in the Festo catalogue (as specified in DIN 51524-HLP32; basic oil viscosity 32 CST at 40°C).

Bio-oils

When using bio-oils (oils which are based upon 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 80 CPV-SC, Smart Cubic

Technical data

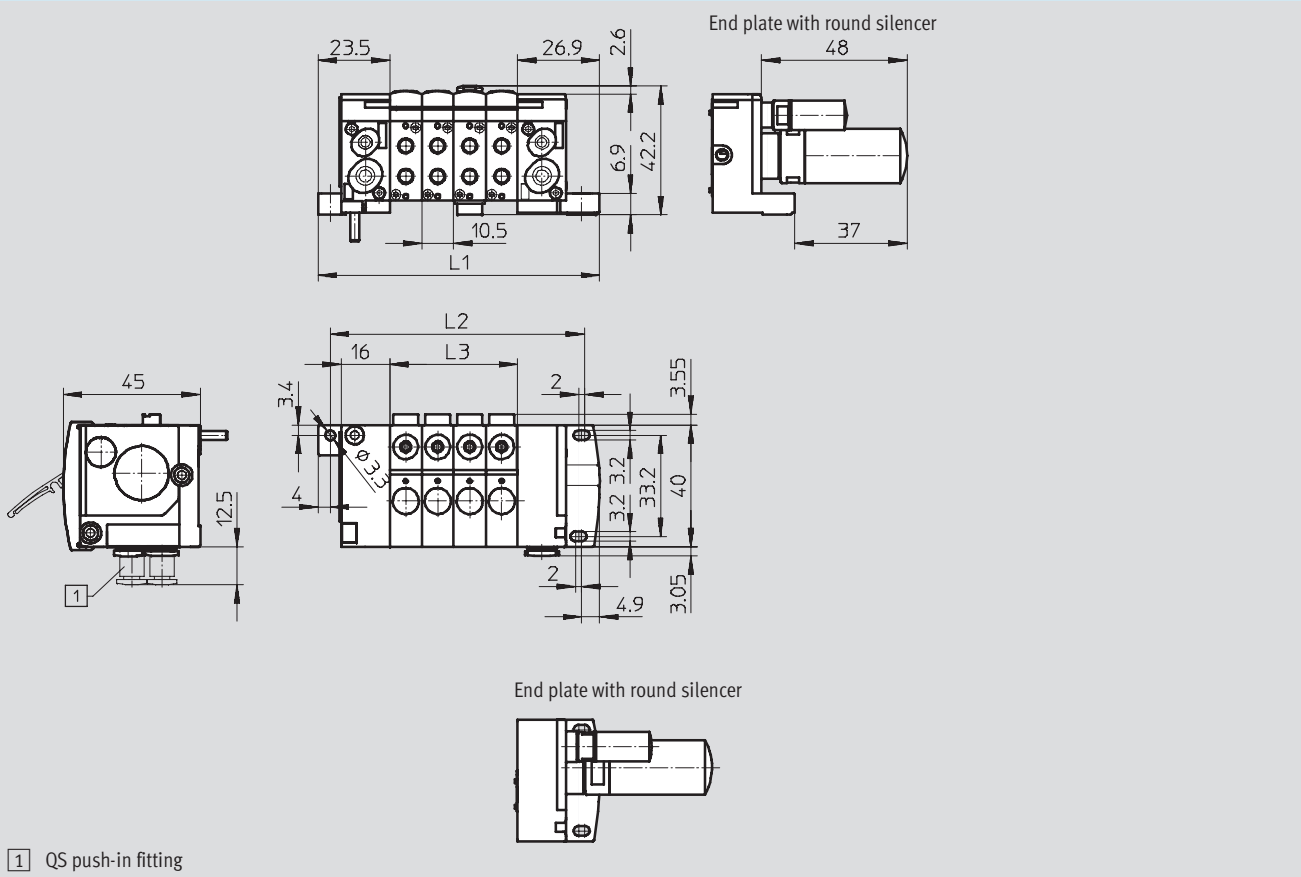


Application-optimised valve terminals
Smart Cubic

3.1

Dimensions Download CAD data → www.festo.com/en/engineering

With individual connection



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

Valve terminals type 80 CPV-SC, Smart Cubic

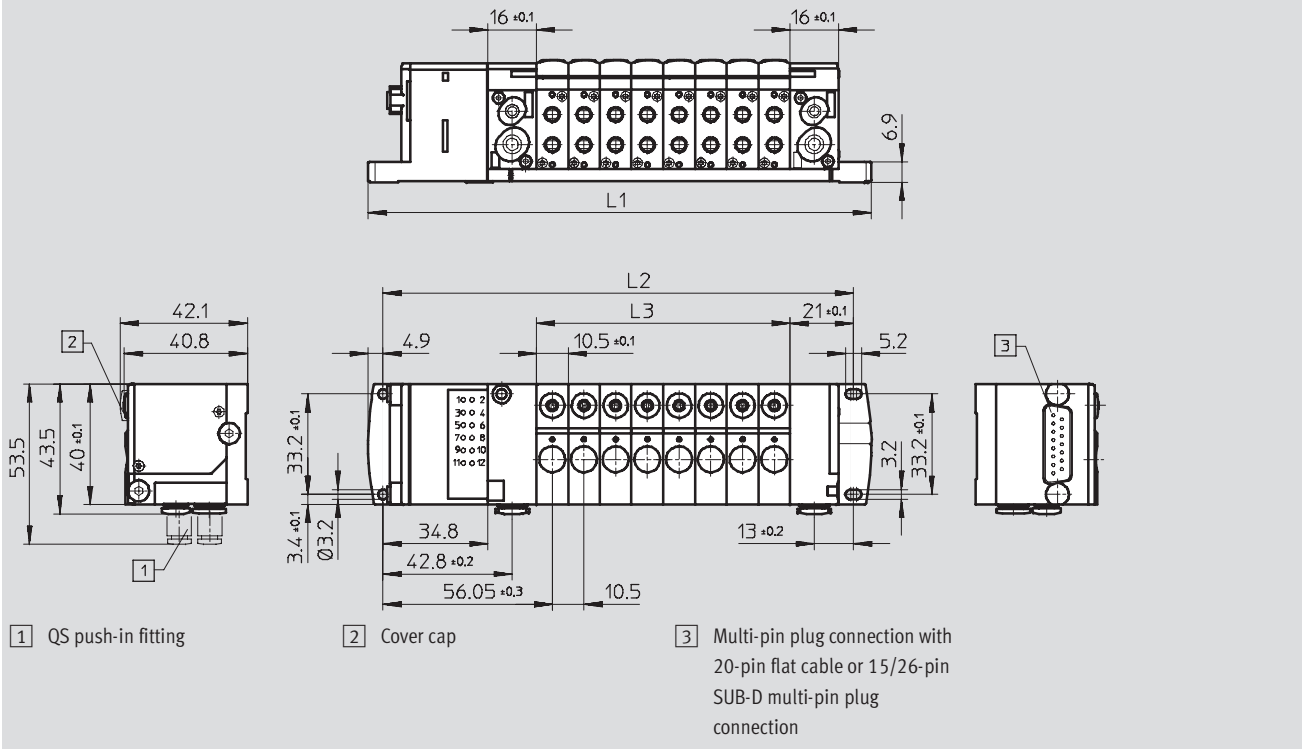
Technical data



Dimensions

Download CAD data → www.festo.com/en/engineering

With multi-pin plug connection



Valve positions n	L1	L2	L3
2	104	93	21
3	114.5	103.5	31.5
4	125	114	42
5	135.5	124.5	52.5
6	146	135	63
7	146.5	145.5	73.5
8	167	156	84
9	177.5	166.5	94.5
10	188	177	105
11	198.5	187.5	115.5
12	209	198	126
13	219.5	208.5	136.5
14	230	219	147
15	240.5	229.5	157.5
16	251	240	168

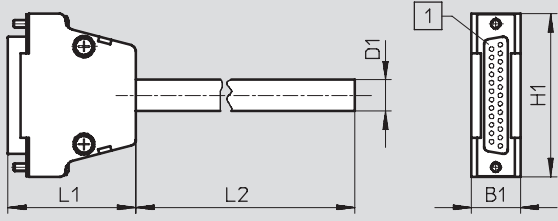
Valve terminals type 80 CPV-SC, Smart Cubic

Technical data



Dimensions – Sub-D plug with cable

Download CAD data → www.festo.com/en/engineering



1 15-/26-pin plug

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

Valve terminals type 80 CPV-SC, Smart Cubic

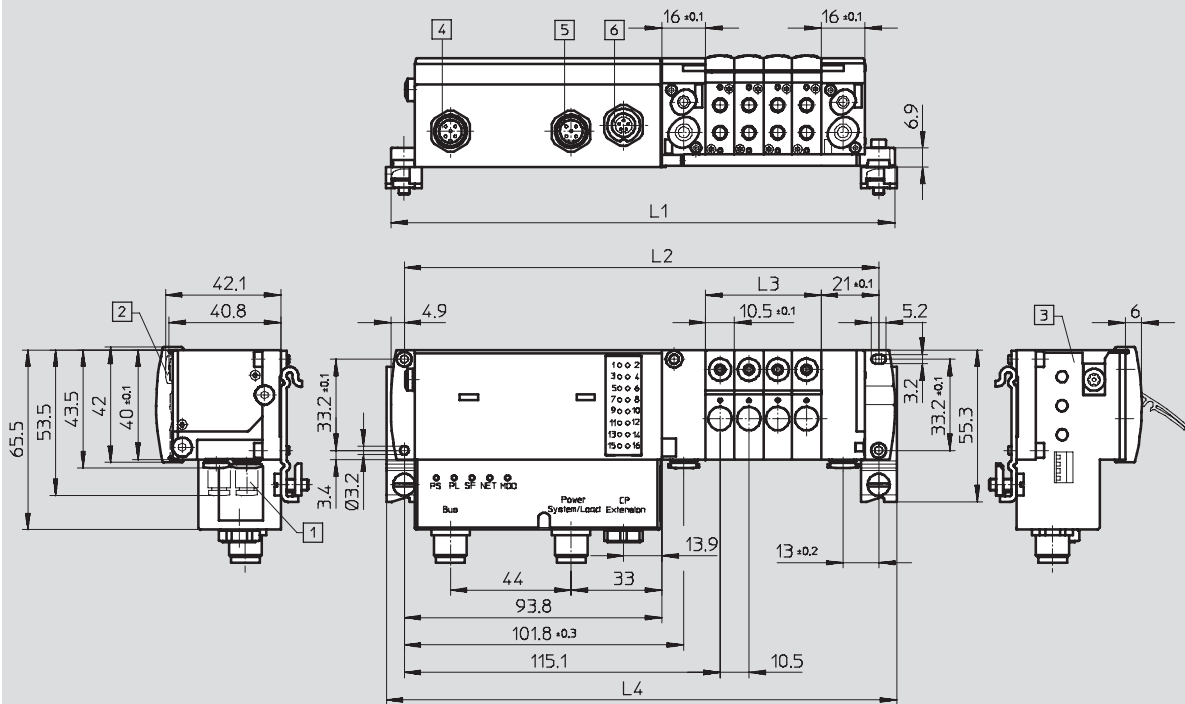
Technical data



Dimensions – Valve terminal

Download CAD data → www.festo.com/en/engineering

With fieldbus connection



- 1 QS push-in fitting
- 2 Cover cap
- 3 DeviceNet fieldbus connection (dimensions for Profibus DP are identical with the exception of the bus connection)
- 4 Bus connection M12
- 5 Voltage supply M12
- 6 CP connection M9

Valve positions n	L1	L2	L3	L4
2	162.6	151.8	21	164.4
3	173.1	162.3	31.5	174.9
4	183.6	172.8	42	185.4
5	194.1	183.3	52.5	195.9
6	204.6	193.8	63	206.4
7	215.1	204.3	73.5	216.9
8	225.6	214.8	84	227.4
9	236.1	225.3	94.5	237.9
10	246.6	235.8	105	248.4
11	257.1	246.3	115.5	258.9
12	267.6	256.8	126	269.4
13	278.1	267.3	136.5	279.9
14	288.6	277.8	147	290.4
15	299.1	288.3	157.5	300.9
16	309.6	298.8	168	311.4

Valve terminals type 80 CPV-SC, Smart Cubic – Individual connection

Ordering data – Modular products



Application-optimised valve terminals
Smart Cubic

3.1

[M] Mandatory data			[O] Options		[M] Mandatory data					
Module No.	Valve terminal	Size	Voltage	Display	Electrical connection	Electrical outgoing direction	Position of the working ports	Pneumatic working ports	Manual override	Compressed air supply
525 675	80P	10	1 4 5	- L	I	H T	P	B E F I J	N K V	S T V X Y Z
Order example										
525 675	80P	- 10	- 1	L	I	H	- P	B	- N	- S
1	2	3	4	5	6	7	8	9	10	11

Ordering table		Size	10	Condi-tions	Code	Enter code
[M] 1	Module No.	525 675				
2	Valve terminal	Valve terminal type 80, Smart Cubic, CPV-SC			80P	80P
3	Size [mm]	10			-10	-10
4	Voltage [V]	Power supply 24 DC			-1	
		Power supply 5 DC			-4	
		Power supply 12 DC			-5	
[O] 5	Display	Without LED				
		With LED		[1]	L	
[M] 6	Electrical connection	Electrical individual connection			I	I
7	Electrical outgoing direction	Individual connection, horizontal			H	
		Individual connection, top			T	
8	Position of the working ports	On the valve			-P	-P
9	Pneumatic working ports, per valve position	Threaded connections M5		[2]	B	
		Push-in connectors QS-3		[2]	E	
		Push-in connectors QS-4		[2]	F	
		Push-in connectors QS-1/8"		[2]	I	
		Push-in connectors QS-5/32"		[2]	J	
10	Manual override	Pushing/detenting			-N	
		Pushing		[3]	-K	
		Covered			-V	
11	Compressed air supply	Internal pilot air supply, flat plate silencer			-S	
		External pilot air supply, flat plate silencer			-T	
		Internal pilot air supply, ducted exhaust air			-V	
		External pilot air supply, ducted exhaust air			-X	
		Internal pilot air, silencer			-Y	
		External pilot air, silencer			-Z	

[1] L Only with voltage 1 (24 V DC)

[3] K Not with voltage 4 (5 V DC) or 5 (12 V DC)

[2] B, E, F, I, J, C, G, N

Valve terminal must be configured as either metric or imperial

Transfer order example

525 675	80P	- 10	-		I		- P		-		-	
1	2	3	4	5	6	7	8	9	10	11		

Valve terminals type 80 CPV-SC, Smart Cubic – Individual connection

Ordering data – Modular products

Mandatory data			Options	
Supply side	Pneumatic supply connection	Equipment at valve position 0 ... 15	User documentation	Accessories
L	C, G, N	14 Valves: M, N, K, J, D, L, T, S, U	D, E, F, I, S, V	H,...CH, ...CI, ...CJ, ...CK, T
L	C	Valve position 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 M N K M J J M	D	
12	13	14	15	16

Ordering table						
Size			Condi- tions	Code	Enter code	
12	Supply side	Pneumatic supply from left		L	L	
M	13	Pneumatic supply connection	Threaded connection M7	3	C	
			Push-in connectors QS-6	3	G	
			Push-in connectors QS-1/4"	3	N	
M	14	Equipment at valve position 0 ... 15		4	-	
		Valves	5/2-way valve, single solenoid			M
			3/2-way valve, normally open			N
			3/2-way valve, normally closed			K
			5/2-way valve, double solenoid	5		J
			2/2-way valve, normally closed			D
			Blanking plate for vacant valve position			L
			Pneumatic supply plate, duct 1 separated	6		T
			Pneumatic supply plate, duct 1/3/5 separated	6		S
Pneumatic supply plate				U		
M	15	User documentation	German		-D	
			English		-E	
			French		-F	
			Italian		-I	
			Spanish		-S	
			Swedish		-V	
O	16	Accessories			+	
		H-rail mounting	1		H	
		HC connecting cable, 1 coil	0.5 m	1 ... 99		...CH
			1 m	1 ... 99		...CI
			2.5 m	1 ... 99		...CJ
			5 m	1 ... 99		...CK
Inscription label holder	1			T		

3 B, E, F, I, J, C, G, N

Valve terminal must be configured as either metric or imperial

4 Equipment at valve position 0 ... 15

The valve positions must be equipped throughout from left to right without exception

5 J Double solenoid valve occupies 2 valve positions. Cannot be mounted at the last valve position

6 T, S Can be mounted in any way, however ensure adequate compressed air supply and exhausting (for more than 2 successive valves)

Transfer order code

L		0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15		
12	13	14	15	16

Valve terminals type 80 CPV-SC, Smart Cubic – Multi-pin plug connection

FESTO

Ordering data – Modular products

Application-optimised valve terminals
Smart Cubic

3.1

M Mandatory data →

Module No.	Valve terminal	Size	Voltage	Electrical connection	Position of the working ports	Pneumatic working ports	Manual override	Compressed air supply	Supply side	Pneumatic supply connection
525 675	80P	10	1	MS MF MH	P	B E F I J	N V	S T V X Y Z	L	C G N
Order example										
525 675	80P	- 10	- 1	MS	- P	E	- V	- T	L	G
1	2	3	4	5	6	7	8	9	10	11

Ordering table

Size	10	Conditions	Code	Enter code
M 1	Module No.	525 675		
2	Valve terminal	Valve terminal type 80, Smart Cubic, CPV-SC	80P	80P
3	Size [mm]	10	-10	-10
4	Voltage [V]	Power supply 24 DC	-1	-1
5	Electrical connection	Connection for multi-pin cable Sub-D, 15-pin	1 MS	
		Connection for flat cable, 20-pin	MF	
		Connection for multi-pin cable Sub-D, 26-pin	MH	
6	Position of the working ports	On the valve	-P	-P
7	Pneumatic working ports, per valve position	Threaded connections M5	2 B	
		Push-in connectors QS-3	2 E	
		Push-in connectors QS-4	2 F	
		Push-in connectors QS-1/8"	2 I	
		Push-in connectors QS-3/32"	2 J	
8	Manual override	Pushing/detenting	-N	
		Covered	-V	
9	Compressed air supply	Internal pilot air supply, flat plate silencer	-S	
		External pilot air supply, flat plate silencer	-T	
		Internal pilot air supply, ducted exhaust air	-V	
		External pilot air supply, ducted exhaust air	-X	
		Internal pilot air, silencer	-Y	
		External pilot air, silencer	-Z	
10	Supply side	Pneumatic supply from left	L	L
11	Pneumatic supply connection	Threaded connection M7	2 C	
		Push-in connectors QS-6	2 G	
		Push-in connectors QS-1/4"	2 N	

1 MS Max. 12 valve positions possible

2 B, E, F, I, J, C, G, N

Valve terminal must be configured as either metric or imperial

Transfer order code

525 675	80P	- 10	- 1		- P		-		L	
1	2	3	4	5	6	7	8	9	10	11

Valve terminals type 80 CPV-SC, Smart Cubic – Multi-pin plug connection

Ordering data – Modular products



M Mandatory data												O Options							
Equipment at valve position 0 ... 15												User documentation		Accessories					
12 Valves: M, N, K, J, D, L, T, S, U												D, E, F, I, S, V		CP, CQ, CR, H, T					
Valve position																			
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15				
- M J J D L M T N												- E		+ C P H T					
12												13		14					

Ordering table						
Size		10	Condi- tions	Code	Enter code	
M	12 Equipment at valve position 0 ... 15		[3]	-	-	
		Valves	5/2-way valve, single solenoid		M	Enter equip- ment selection for valve positions in order code
			3/2-way valve, normally open		N	
			3/2-way valve, normally closed		K	
			5/2-way valve, double solenoid	[4]	J	
			2/2-way valve, normally closed		D	
			Blanking plate for vacant valve position		L	
			Pneumatic supply plate, duct 1 separated	[5]	T	
			Pneumatic supply plate, duct 1/3/5 separated	[5]	S	
			Pneumatic supply plate		U	
O	13 User documentation	German		-D		
		English		-E		
		French		-F		
		Italian		-I		
		Spanish		-S		
		Swedish		-V		
O	14 Accessories			+	+	
		Connecting cables	Connecting cable, Sub-D, 2.5 m	[6]	CP	
			Connecting cable, Sub-D, 5 m	[6]	CQ	
			Connecting cable, Sub-D, 10 m	[6]	CR	
		H-rail mounting	1		H	
Inscription label holder	1		T			

[3] Equipment at valve position 0 ... 15

The valve positions must be equipped throughout from left to right without exception

- [4] J** Double solenoid valve occupies 2 valve positions.
Cannot be mounted at the last valve position

[5] T, S Can be mounted in any way, however ensure adequate compressed air supply and exhausting (for more than 2 successive valves)

- [6] CP, CQ, CR**
Not with electrical connection MF

Transfer order code

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

- [] - [] + []

12 13 14

Valve terminals type 80 CPV-SC, Smart Cubic – Fieldbus



Ordering data – Modular products

Application-optimised valve terminals
Smart Cubic

3.1

M Mandatory data →

Module No.	Valve terminal	Size	Electrical connection	Position of the working ports	Pneumatic working ports	Manual override	Compressed air supply	Supply side	Pneumatic connection supply and exhaust
538 510	80P	10	DN DP	P	B E F I J	N V	S T V X Y Z	L	C G N
Order example									
538 510	80P	- 10	- DN	- P	- F	- N	- X	L	G
1	2	3	4	5	6	7	8	9	10

Ordering table

Size	10	Condi- tions	Code	Enter code
M 1	Module No.	538 510		
2	Valve terminal	Valve terminal type 80, Smart Cubic, CPV-SC	80P	80P
3	Size [mm]	10	-10	-10
4	Electrical connection	DeviceNet	-DN	
		Profibus	-DP	
5	Position of the working ports	On the valve	-P	-P
6	Pneumatic working ports, per valve position	Threaded connections M5	<input type="checkbox"/> B	
		Push-in connectors QS-3	<input type="checkbox"/> E	
		Push-in connectors QS-4	<input type="checkbox"/> F	
		Push-in connectors QS-1/8"	<input type="checkbox"/> I	
		Push-in connectors QS-5/32"	<input type="checkbox"/> J	
7	Manual override	Pushing/detenting	-N	
		Blocked	-V	
8	Compressed air supply	Internal pilot air supply, flat plate silencer	-S	
		External pilot air supply, flat plate silencer	-T	
		Internal pilot air supply, ducted exhaust air	-V	
		External pilot air supply, ducted exhaust air	-X	
		Internal pilot air, silencer	-Y	
		External pilot air, silencer	-Z	
9	Supply side	Pneumatic supply from left	L	L
10	Pneumatic connection supply and exhaust	Threaded connection M7	<input type="checkbox"/> C	
		Push-in connectors QS-6	<input type="checkbox"/> G	
		Push-in connectors QS-1/4"	<input type="checkbox"/> N	

1 B, E, F, I, J, C, G, N

Valve terminal must be configured as either metric or imperial

Transfer order code

538 510	80P	- 10		P				L	
1	2	3	4	5	6	7	8	9	10

Valve terminals type 80 CPV-SC, Smart Cubic – Fieldbus

Ordering data – Modular products



Mandatory data											Options						
Equipment at valve position 0 ... 15											User documentation	Accessories					
11 Valves: M, N, K, J, D, L, T, S, U											D, E, F, I, S, V	...D, ...N, H, T					
Valve position																	
0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	- D	+ H
- M J J T M K J J											12	13					
11																	

Ordering table						
Size		10	Condi- tions	Code	Enter code	
M	11 Equipment at valve position 0 ... 15		[2]	-	-	
		Valves	5/2-way valve, single solenoid		M	Enter equip- ment selection for valve positions in order code
			3/2-way valve, normally open		N	
			3/2-way valve, normally closed		K	
			5/2-way valve, double solenoid	[3]	J	
			2/2-way valve, normally closed		D	
			Blanking plate for vacant valve position		L	
			Pneumatic supply plate, duct 1 separated	[4]	T	
			Pneumatic supply plate, duct 1/3/5 separated	[4]	S	
			Pneumatic supply plate		U	
O	12 User documentation	German		-D		
		English		-E		
		French		-F		
		Italian		-I		
		Spanish		-S		
		Swedish		-V		
	13 Accessories			+	+	
		Straight connection socket for DeviceNet	1 ... 99	[5]	...D	
		Straight power supply socket, A coded, for Profibus	1 ... 99	[6]	...N	
		H-rail mounting	1		H	
		Inscription label holder	1		T	

- [2] **Equipment at valve position 0 ... 15**
Number of valve positions: 4, 8, 12, 16.
The valve positions must be equipped throughout from left to right without exception
- [3] **J** Double solenoid valve occupies 2 valve positions.
Cannot be mounted at the last valve position
- [4] **T, S** Can be mounted in any way, however ensure adequate compressed air supply and exhausting (for more than 2 successive valves)
- [5] **D** Only with electrical connection DN
- [6] **N** Only with electrical connection DP

Transfer order code

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	-		+	
- M J J T M K J J											12	13							
11																			

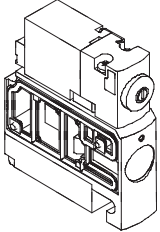
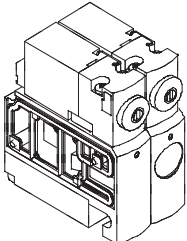
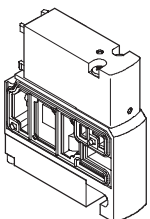
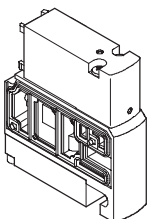
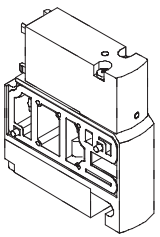

Valve terminals type 80 CPV-SC, Smart Cubic



Accessories

Application-optimised valve terminals
Smart Cubic

3.1

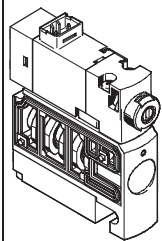
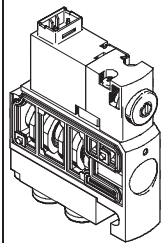
Ordering data – Valves with electrical plug-in connection (multi-pin and fieldbus)				
Designation	Type	Part No.		
	Solenoid valve with M5 connections			
	5/2-way valve, single solenoid	CPVSC1-M1H-M-P-M5	527 550	
	5/2-way valve, double solenoid	CPVSC1-M1H-J-P-M5	527 553	
	3/2-way valve, normally open	CPVSC1-M1H-N-P-M50	527 551	
	3/2-way valve, normally closed	CPVSC1-M1H-K-P-M5C	527 552	
	2/2-way valve, normally closed	CPVSC1-M1H-D-P-M5C	527 554	
		Solenoid valve with QS-3 push-in connectors		
5/2-way valve, single solenoid		CPVSC1-M1H-M-P-Q3	527 555	
5/2-way valve, double solenoid		CPVSC1-M1H-J-P-Q3	527 558	
3/2-way valve, normally open		CPVSC1-M1H-N-P-Q30	527 556	
3/2-way valve, normally closed		CPVSC1-M1H-K-P-Q3C	527 557	
2/2-way valve, normally closed		CPVSC1-M1H-D-P-Q3C	527 559	
		Solenoid valve with QS-4 push-in connectors		
	5/2-way valve, single solenoid	CPVSC1-M1H-M-P-Q4	527 560	
	5/2-way valve, double solenoid	CPVSC1-M1H-J-P-Q4	527 563	
	3/2-way valve, normally open	CPVSC1-M1H-N-P-Q40	527 561	
	3/2-way valve, normally closed	CPVSC1-M1H-K-P-Q4C	527 562	
	2/2-way valve, normally closed	CPVSC1-M1H-D-P-Q4C	527 564	
		Blanking plates with integrated connections		
Vacant position, with blanking plate		CPVSC1-RP-B	527 527	
	Supply plate M5			
	Duct 1 separated	CPVSC1-SP-P-M5	527 528	
	Duct 1/3/5 separated	CPVSC1-SP-PRS-M5	527 530	
	Without duct separation	CPVSC1-SP-M5	527 532	
	Supply plate, QS-4 push-in fitting			
	Duct 1 separated	CPVSC1-SP-P-Q4	527 529	
	Duct 1/3/5 separated	CPVSC1-SP-PRS-Q4	527 531	
	Without duct separation	CPVSC1-SP-Q4	527 533	
		Cover for manual override		
		10 pieces	CPVSC1-MO-V	527 393

Valve terminals type 80 CPV-SC, Smart Cubic

Accessories



Ordering data – Valves with individual electrical connection, detenting manual override, plug on top, 24 V DC		
Designation	Type	Part No.
Solenoid valve with M5 connections		
5/2-way valve, single solenoid	CPVSC1-M1H-M-T-M5	547 276
5/2-way valve, double solenoid	CPVSC1-M1H-J-T-M5	547 277
3/2-way valve, normally open	CPVSC1-M1H-N-T-M50	547 275
3/2-way valve, normally closed	CPVSC1-M1H-K-T-M5C	547 274
2/2-way valve, normally closed	CPVSC1-M1H-D-T-M5C	547 273
Solenoid valve with M5 connections and LED		
5/2-way valve, single solenoid	CPVSC1-M1LH-M-T-M5	547 306
5/2-way valve, double solenoid	CPVSC1-M1LH-J-T-M5	547 307
3/2-way valve, normally open	CPVSC1-M1LH-N-T-M50	547 305
3/2-way valve, normally closed	CPVSC1-M1LH-K-T-M5C	547 304
2/2-way valve, normally closed	CPVSC1-M1LH-D-T-M5C	547 303
Solenoid valve with QS-3 push-in connectors		
5/2-way valve, single solenoid	CPVSC1-M1H-M-T-Q3	547 281
5/2-way valve, double solenoid	CPVSC1-M1H-J-T-Q3	547 282
3/2-way valve, normally open	CPVSC1-M1H-N-T-Q30	547 280
3/2-way valve, normally closed	CPVSC1-M1H-K-T-Q3C	547 279
2/2-way valve, normally closed	CPVSC1-M1H-D-T-Q3C	547 278
Solenoid valve with QS-3 push-in connectors and LED		
5/2-way valve, single solenoid	CPVSC1-M1LH-M-T-Q3	547 311
5/2-way valve, double solenoid	CPVSC1-M1LH-J-T-Q3	547 312
3/2-way valve, normally open	CPVSC1-M1LH-N-T-Q30	547 310
3/2-way valve, normally closed	CPVSC1-M1LH-K-T-Q3C	547 309
2/2-way valve, normally closed	CPVSC1-M1LH-D-T-Q3C	547 308
Solenoid valve with QS-4 push-in connectors		
5/2-way valve, single solenoid	CPVSC1-M1H-M-T-Q4	547 286
5/2-way valve, double solenoid	CPVSC1-M1H-J-T-Q4	547 287
3/2-way valve, normally open	CPVSC1-M1H-N-T-Q40	547 285
3/2-way valve, normally closed	CPVSC1-M1H-K-T-Q4C	547 284
2/2-way valve, normally closed	CPVSC1-M1H-D-T-Q4C	547 283
Solenoid valve with QS-4 push-in connectors and LED		
5/2-way valve, single solenoid	CPVSC1-M1LH-M-T-Q4	547 316
5/2-way valve, double solenoid	CPVSC1-M1LH-J-T-Q4	547 317
3/2-way valve, normally open	CPVSC1-M1LH-N-T-Q40	547 315
3/2-way valve, normally closed	CPVSC1-M1LH-K-T-Q4C	547 314
2/2-way valve, normally closed	CPVSC1-M1LH-D-T-Q4C	547 313



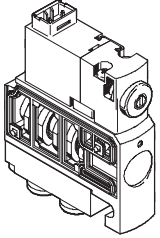
Valve terminals type 80 CPV-SC, Smart Cubic

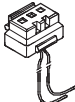
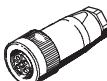






Accessories

Application-optimised valve terminals
Smart Cubic

3.1

Ordering data – Valves with individual electrical connection, pushing manual override, plug on top, 24 V DC			
Designation	Type	Part No.	
Solenoid valve with M5 connections			
 5/2-way valve, single solenoid	CPVSC1-M1HT-M-T-M5	548 037	
5/2-way valve, double solenoid	CPVSC1-M1HT-J-T-M5	548 038	
3/2-way valve, normally open	CPVSC1-M1HT-N-T-M50	548 036	
3/2-way valve, normally closed	CPVSC1-M1HT-K-T-M5C	548 035	
2/2-way valve, normally closed	CPVSC1-M1HT-D-T-M5C	548 034	
Solenoid valve with QS-3 push-in connectors			
5/2-way valve, single solenoid	CPVSC1-M1HT-M-T-Q3	548 043	
5/2-way valve, double solenoid	CPVSC1-M1HT-J-T-Q3	548 044	
3/2-way valve, normally open	CPVSC1-M1HT-N-T-Q30	548 042	
3/2-way valve, normally closed	CPVSC1-M1HT-K-T-Q3C	548 041	
2/2-way valve, normally closed	CPVSC1-M1HT-D-T-Q3C	548 040	
Solenoid valve with QS-4 push-in connectors			
5/2-way valve, single solenoid	CPVSC1-M1HT-M-T-Q4	548 048	
5/2-way valve, double solenoid	CPVSC1-M1HT-J-T-Q4	548 049	
3/2-way valve, normally open	CPVSC1-M1HT-N-T-Q40	548 047	
3/2-way valve, normally closed	CPVSC1-M1HT-K-T-Q4C	548 046	
2/2-way valve, normally closed	CPVSC1-M1HT-D-T-Q4C	548 045	

Ordering data – Accessories				
Designation	Type	Part No.		
Individual electrical connection				
 Plug socket with cable, IP40	0.5 m	KMH-0,5	197 263	
	1 m	KMH-1	197 264	
	2.5 m	KMH-2,5	527 400	
	5 m	KMH-5	527 401	
Power supply				
 Micro-Style M12, 5-pin socket (B-coded) for DeviceNet	for 0.75 mm ²	NTSD-GD-9-M12-5POL-RK	538 999	
 M12, 5-pin socket (A-coded) for Profibus DP	for 0.75 mm ²	FBSD-GD-9-5POL	18 324	
Fieldbus connection				
 Fieldbus socket for Micro-Style connection, M12, socket (A-coded)		FBSD-GD-9-5POL	18 324	
 Straight plug, 5-pin, screw terminal		FBS-M12-5GS-PG9	175 380	
 T-adapter, 5-pin, for DH-485/DeviceNet		FB-TA-M12-5POL	171 175	

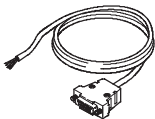



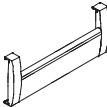
Valve terminals type 80 CPV-SC, Smart Cubic

Accessories

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Application-optimised valve terminals
Smart Cubic

3.1

Ordering data – Accessories				
Designation			Type	Part No.
Connecting cable, IP40, for multi-pin plug connection				
	Sub-D, 15-pin, up to 12 valve positions for code MS Material: PVC Suitable for chain link trunking	2.5 m	KMP6-15P-12-2,5	527 543
		5 m	KMP6-15P-12-5	527 544
		10 m	KMP6-15P-12-10	527 545
	Sub-D, 26-pin, up to 16 valve positions for code MH Material: PVC Suitable for chain link trunking	2.5 m	KMP6-26P-16-2,5	527 546
		5 m	KMP6-26P-16-5	527 547
		10 m	KMP6-26P-16-10	527 548
Valve terminal connection				
	Connecting cable WS-WD, angled plug-angled socket	0.25 m	KVI-CP-3-WS-WD-0,25	540 327
	Connecting cable WS-WD, angled plug-angled socket	0.5 m	KVI-CP-3-WS-WD-0,5	540 328
	Connecting cable WS-WD, angled plug-angled socket	2 m	KVI-CP-3-WS-WD-2	540 329
	Connecting cable WS-WD, angled plug-angled socket	5 m	KVI-CP-3-WS-WD-5	540 330
	Connecting cable WS-WD, angled plug-angled socket	8 m	KVI-CP-3-WS-WD-8	540 331
	Connecting cable GS-GD, straight plug-straight socket	2 m	KVI-CP-3-GS-GD-2	540 332
	Connecting cable GS-GD, straight plug-straight socket	5 m	KVI-CP-3-GS-GD-5	540 333
	Connecting cable GS-GD, straight plug-straight socket	8 m	KVI-CP-3-GS-GD-8	540 334
Inscription labels for valve identification				
	80 pieces, 9x4.5 mm		MH-BZ-80x	197 259
Inscription label holder				
	1 piece	for 2 valves	CPVSC1-ST-2	547 395
	1 piece	for 3 valves	CPVSC1-ST-3	547 396
	1 piece	for 4 valves	CPVSC1-ST-4	527 631
	1 piece	for 5 valves	CPVSC1-ST-5	547 397
	1 piece	for 6 valves	CPVSC1-ST-6	547 398
	1 piece	for 7 valves	CPVSC1-ST-7	547 399
	1 piece	for 8 valves	CPVSC1-ST-8	527 633
	1 piece	for 9 valves	CPVSC1-ST-9	547 400
	1 piece	for 10 valves	CPVSC1-ST-10	547 401
	1 piece	for 11 valves	CPVSC1-ST-11	547 402
	1 piece	for 12 valves	CPVSC1-ST-12	527 635
	1 piece	for 13 valves	CPVSC1-ST-13	547 403
	1 piece	for 14 valves	CPVSC1-ST-14	547 404
	1 piece	for 15 valves	CPVSC1-ST-15	547 405
	1 piece	for 16 valves	CPVSC1-ST-16	527 637



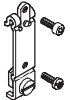

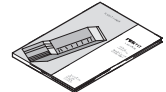
Valve terminals type 80 CPV-SC, Smart Cubic



Accessories

Application-optimised valve terminals
Smart Cubic

3.1

Ordering data – Accessories				
Designation			Type	Part No.
Tie rod				
	1 piece	for 2 valves	CPVSC1-ZA-2	547 416
	1 piece	for 3 valves	CPVSC1-ZA-3	547 417
	1 piece	for 4 valves	CPVSC1-ZA-4	532 807
	1 piece	for 5 valves	CPVSC1-ZA-5	547 418
	1 piece	for 6 valves	CPVSC1-ZA-6	547 419
	1 piece	for 7 valves	CPVSC1-ZA-7	547 420
	1 piece	for 8 valves	CPVSC1-ZA-8	532 808
	1 piece	for 9 valves	CPVSC1-ZA-9	547 421
	1 piece	for 10 valves	CPVSC1-ZA-10	547 422
	1 piece	for 11 valves	CPVSC1-ZA-11	547 423
	1 piece	for 12 valves	CPVSC1-ZA-12	532 809
	1 piece	for 13 valves	CPVSC1-ZA-13	547 424
	1 piece	for 14 valves	CPVSC1-ZA-14	547 425
	1 piece	for 15 valves	CPVSC1-ZA-15	547 426
	1 piece	for 16 valves	CPVSC1-ZA-16	532 810
	Mounting			
	Screw for additional terminal mounting		M3x45	527 643
	Mounting		CPVSC-HS35	527 639
User documentation				
	User documentation – Pneumatics, valve terminal CPV-SC	German	P.BE-CPVSC-DE	530 925
		English	P.BE-CPVSC-EN	530 926
		French	P.BE-CPVSC-FR	530 927
		Spanish	P.BE-CPVSC-ES	530 928
		Italian	P.BE-CPVSC-IT	530 929
		Swedish	P.BE-CPVSC-SV	530 930
	User documentation – DeviceNet fieldbus	German	P.BE-CPASC-CPVSC-DN-DE	539 008
		English	P.BE-CPASC-CPVSC-DN-EN	539 009
		French	P.BE-CPASC-CPVSC-DN-FR	539 010
		Spanish	P.BE-CPASC-CPVSC-DN-ES	539 011
		Italian	P.BE-CPASC-CPVSC-DN-IT	539 012
		Swedish	P.BE-CPASC-CPVSC-DN-SV	539 013
	User documentation – Profibus DP fieldbus	German	P.BE-CPASC-CPVSC-DP-DE	548 725
		English	P.BE-CPASC-CPVSC-DP-EN	548 726
		French	P.BE-CPASC-CPVSC-DP-FR	548 728
		Spanish	P.BE-CPASC-CPVSC-DP-ES	548 727
		Italian	P.BE-CPASC-CPVSC-DP-IT	548 729
		Swedish	P.BE-CPASC-CPVSC-DP-SV	548 730