



- Space-saving thanks to small valve dimensions
- Straight-forward valve replacement
- Manual override and LED operating status display
- Flow rates of up to 180 l/min
- Wide range of pneumatic and electrical connection options
- Also available as a modular valve terminal

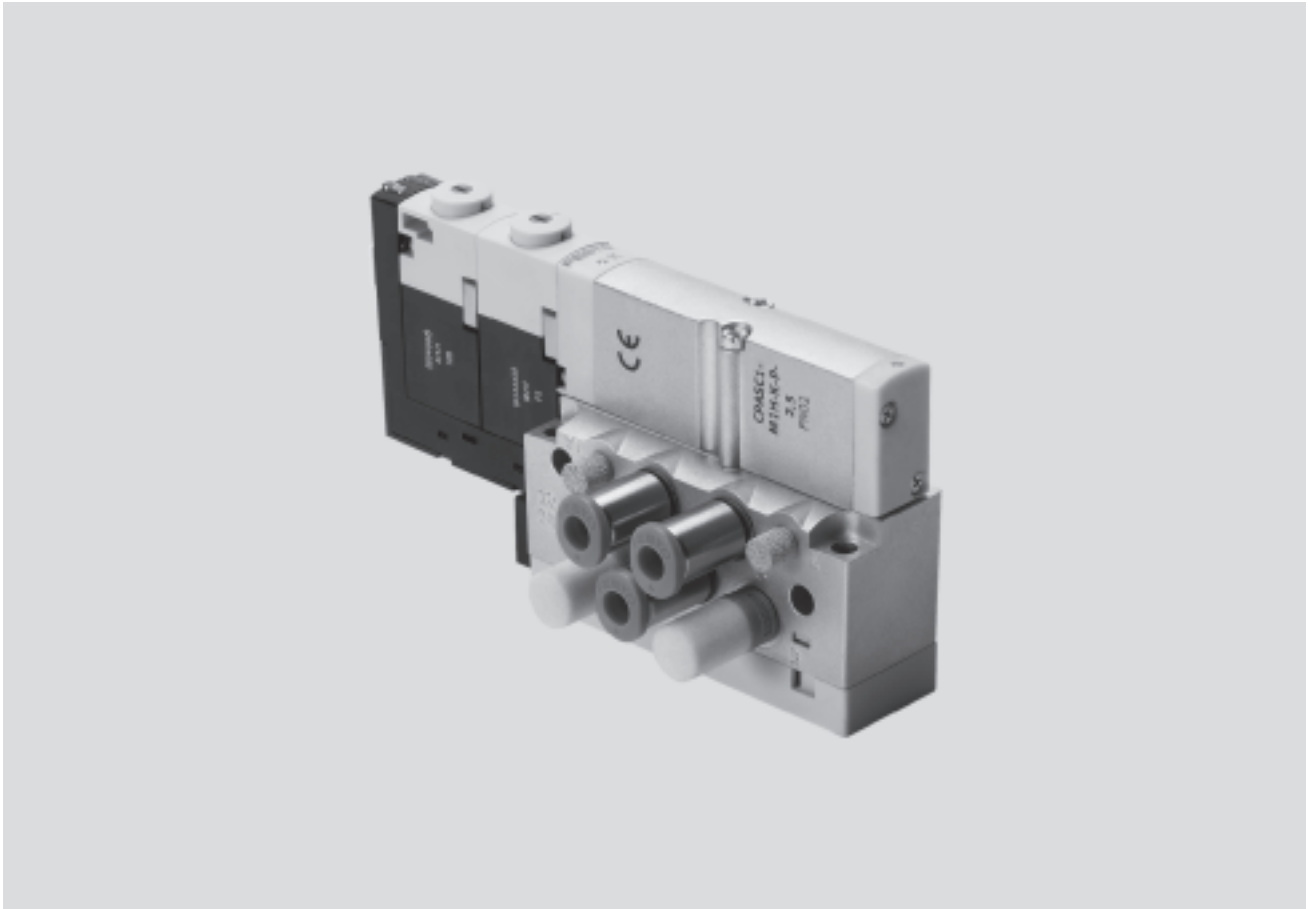
Solenoid valves CPASC1/PPSC1, Smart Cubic

Key features



Application-optimised directional control valves
Smart Cubic

3.3



Innovative

- Compact valve for a wide range of pneumatic applications
- Highly versatile during the planning and assembly stages as well as in operational use
- Numerous valve functions can be selected, including functions for vacuum applications
- Comprehensive, optimally harmonised range of accessories for flow rates of up to 180 l/min

The valves are identical with the valves in the valve terminal CPASC1. This simplifies planning, ordering and warehousing.

Flexible

- The flexibility of the pneumatic working lines facilitate a practical solution to different requirements
- Tubing lines can be connected horizontally to the valve or vertically to the sub-base
- Wide range of electrical connections for 24 V DC operating voltage

Reliable

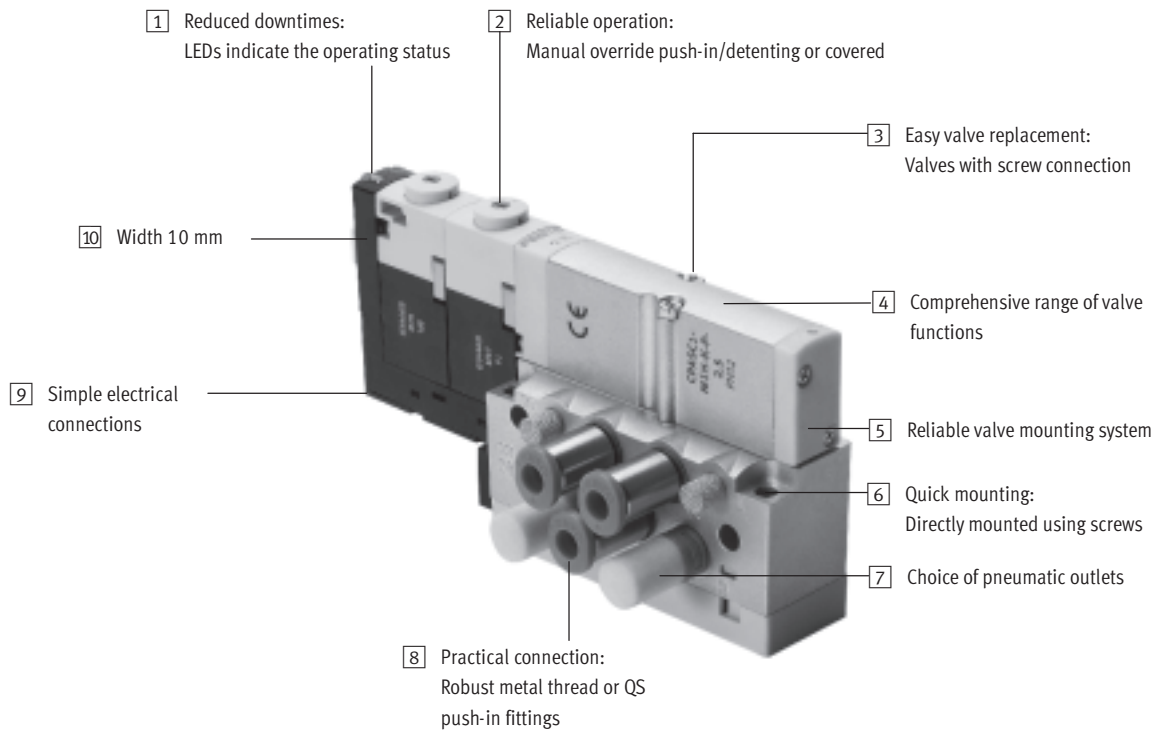
- Manual override
- Durable thanks to the use of tried-and-tested piston spool valves
- Sturdy thanks to metal housing and connecting thread
- Reduced downtimes through an LED operating status display at each valve position

Easy to assemble

- Fully assembled, tested valve
- Lower costs for ordering, installation and commissioning
- Direct mounting
- Valves are screwed onto a metal sub-base for reliable servicing

Solenoid valves CPASC1/PPSC1, Smart Cubic

Key features



Equipment options

The CPASC valve can be equipped with the following valve functions and electrical connections:

Valve functions

- 5/2-way valve, single solenoid
- 5/2-way valve, double solenoid
- 2x 3/2-way valve, normally open
- 2x 3/2-way valve, normally closed
- 5/3-way valve, mid-position pressurised
- 5/3-way valve, mid-position closed
- 5/3-way valve, mid-position exhausted

Electrical connections

- 2x 2/2-way valve, normally closed, dual compressed air supply
- Plug-in (PI)
- Horizontal connector (HC)

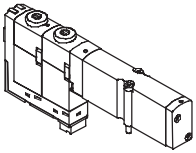
Solenoid valves CPASC1/PPSC1, Smart Cubic

Key features



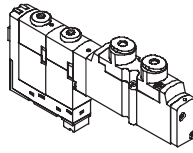
Valves

Sub-base valve



Sub-base valves can be quickly replaced since the pipe connection remains on the sub-base. This design is also particularly flat.

Semi in-line valve (with working lines on the valve)



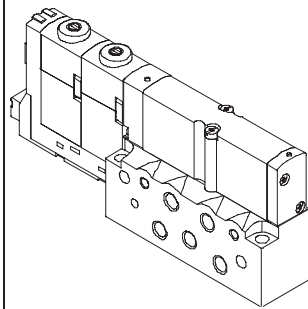
With semi in-line valves the pneumatic connection can be on the top. This means that elbow connectors are not needed.

There are sub-base valves and semi in-line valves with one solenoid coil (single solenoid) or with two solenoid coils (double solenoid) depending on the valve function.

Sub-base

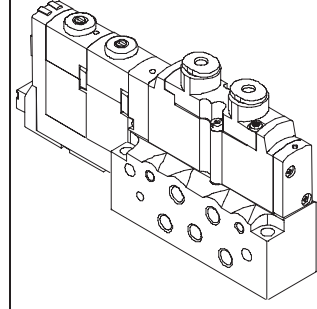
Code A – Working lines (2, 4) on the sub-base


Individual sub-base for sub-base valve



Code P – Working lines (2, 4) on the valve

Individual sub-base for semi in-line valve



-  - Note

Semi in-line valves can also be mounted on sub-bases used with sub-base valves. In this case the corresponding working ports on the sub-base must be sealed using blanking plugs.

Solenoid valves CPASC1/PPSC1, Smart Cubic

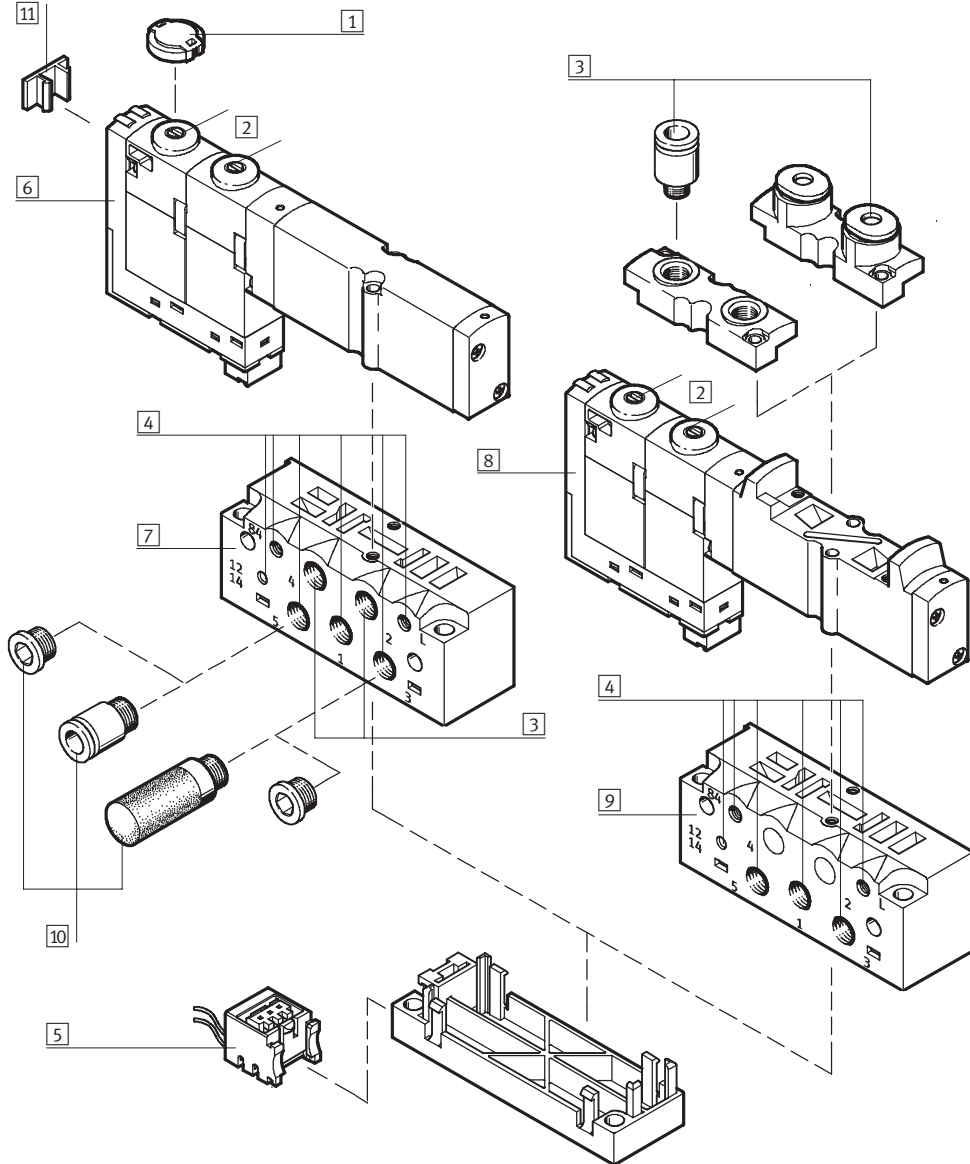
Peripherals overview

Sub-base with electrical individual plug-in (PI) connection

Code: SP, SQ

With an individual PI connection, the connector plug remains on the sub-base when the valve is being replaced.

Sub-base with sub-base valve or semi in-line valve



- | | | | |
|---|---|--|---|
| <ul style="list-style-type: none"> 1 Cover for manual override (optional) 2 Manual override (per solenoid coil, push-in/rotary-detenting) 3 Working lines (2, 4) on the sub-base or on the valve | <ul style="list-style-type: none"> 4 Supply ports (1, 12/14), exhaust ports (3, 5, 82/84) and pressure compensation port (L) on the sub-base 5 Individual plug-in (PI) connection | <ul style="list-style-type: none"> 6 Sub-base valve 7 Sub-base for sub-base valve 8 Semi in-line valve 9 Sub-base for semi in-line valve | <ul style="list-style-type: none"> 10 Connectors, silencers and blanking plugs 11 Inscription label |
|---|---|--|---|

Solenoid valves CPASC1/PPSC1, Smart Cubic

Peripherals overview

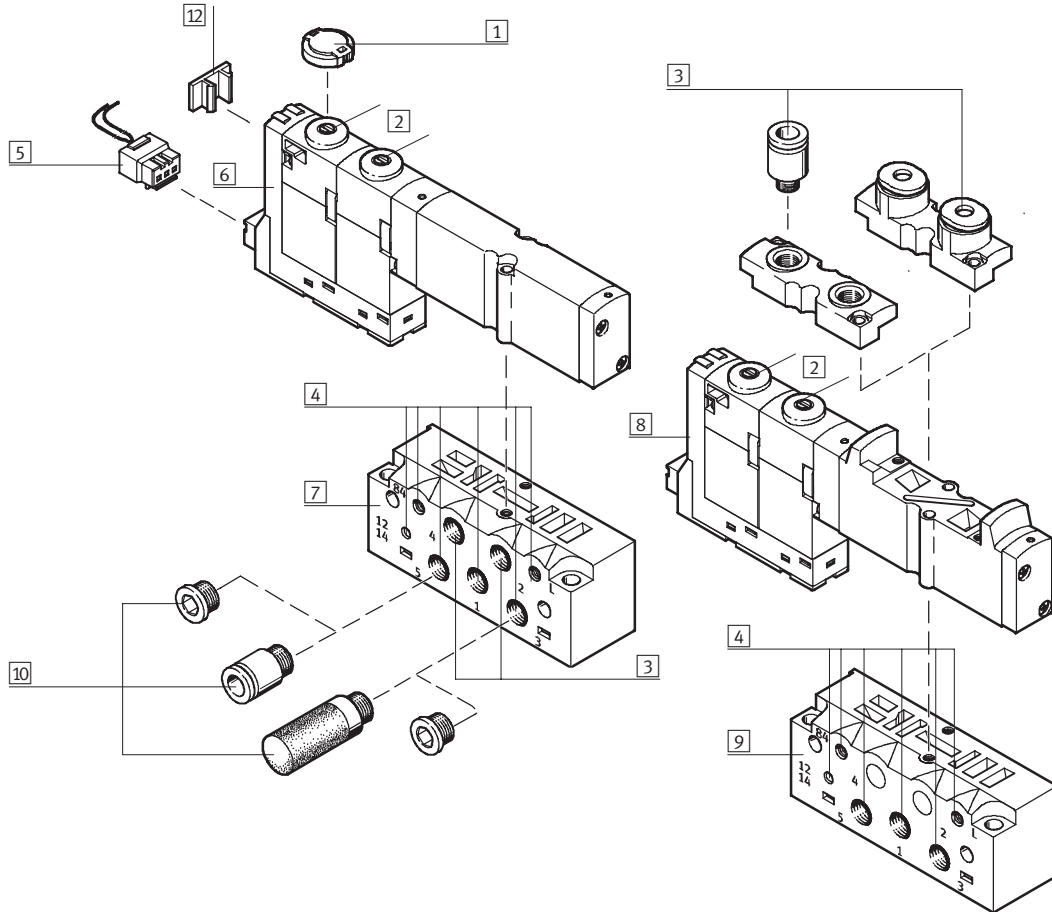


Sub-base with electrical individual horizontal (HC) connection

Code: SH

With an individual HC connection, the electrical connection for the valve must be removed when the valve is being replaced.

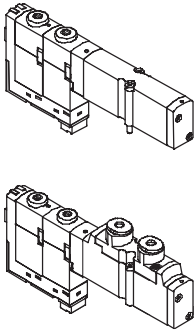
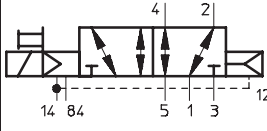
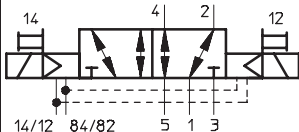
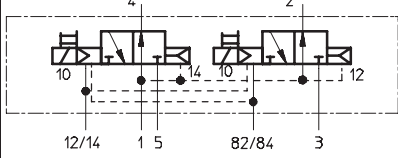
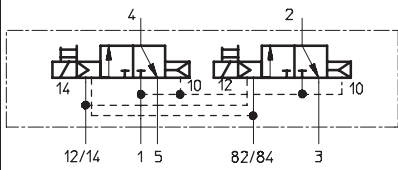
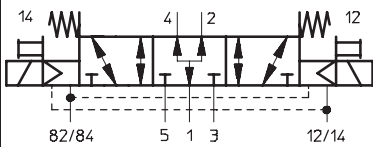
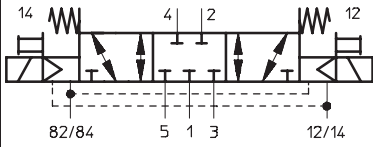
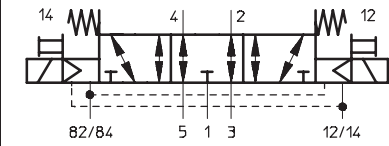
Sub-base with sub-base valve or semi in-line valve



- | | | | |
|---|--|--|---|
| <ul style="list-style-type: none"> 1 Cover for manual override (optional) 2 Manual override (per solenoid coil, push-in/rotary-detenting) 3 Working lines (2, 4) on the sub-base or on the valve | <ul style="list-style-type: none"> 4 Supply ports (1, 12/14), exhaust ports (3, 5, 82/84) and pressure compensation port (L) on the sub-base 5 Individual horizontal connection (HC) | <ul style="list-style-type: none"> 6 Sub-base valve 7 Sub-base for sub-base valve 8 Semi in-line valve 9 Sub-base for semi in-line valve | <ul style="list-style-type: none"> 10 Connectors, silencers and blanking plugs 11 Inscription label |
|---|--|--|---|

Solenoid valves CPASC1/PPSC1, Smart Cubic

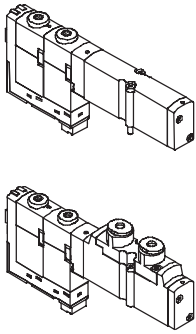
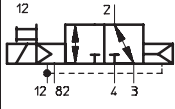
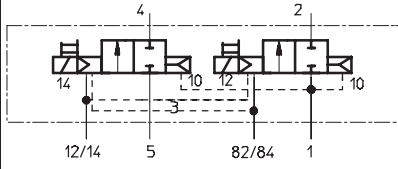
Key features – Valves


Valves		Code	Circuit symbol	Size 10	Description
	M		■	5/2-way valve, single solenoid • Pneumatic spring return	
	J		■	5/2-way valve, double solenoid valve	
	N		■	2x 3/2-way valve, single solenoid • Normally open • Pneumatic spring return	
	K		■	2x 3/2-way valve, single solenoid • Normally closed • Pneumatic spring return	
	B		■	5/3-way valve • Mid-position pressurised ¹⁾ • Mechanical spring return The piston rod of a connected cylinder advances when the valve is in the normal position due to the differential piston areas.	
	G		■	5/3-way valve • Mid-position closed ¹⁾ • Mechanical spring return The piston rod side of a connected cylinder remains held under pressure when the valve is in the normal position.	
	E		■	5/3-way valve • Mid-position exhausted ¹⁾ • Mechanical spring return The piston rod of a connected cylinder remains freely movable when the valve is in the normal position.	

1) If neither solenoid coil is being supplied with power, the valve assumes its mid-position by means of spring force.
If both coils are being supplied with power simultaneously, the valve remains in the switching position previously assumed.

Solenoid valves CPASC1/PPSC1, Smart Cubic

Key features – Valves

Valves				
	Code	Circuit symbol	Size 10	Description
	X		■	<p>1x 3/2-way valve</p> <ul style="list-style-type: none"> • Normally closed • External compressed air supply • Pneumatic spring return <p>Compressed air (-0.9 ... +10 bar) supplied at working port 4 can be switched.</p>
	I		■	<p>2x 2/2-way valve</p> <ul style="list-style-type: none"> • Normally closed • Normally closed, reversible • Pneumatic spring return <ul style="list-style-type: none"> - The vacuum is connected at port 5 - Port 14 switches the vacuum - Port 12 switches the ejector pulse - An external T-connection must be established between port 2, 4 and the vacuum generator

 - Note
 For vacuum operation valves require a filter. This is to avoid that foreign matter is drawn into the valve (e.g. when using a suction cup).

Solenoid valves CPASC1/ CPPSC1, Smart Cubic

Key features – Valves

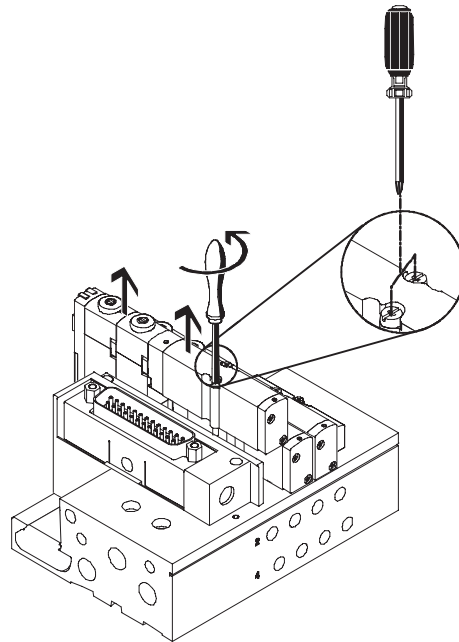
Constructional design

Valve replacement

The valves are attached to the metal manifold block using two screws. This means that they can be easily replaced. The mechanical robustness of the sub-base guarantees good long-term sealing tightness.

Expansion

The valve code (M, J, N, K, B, G, E, X, I) is located on the front of the valve beneath the manual override.



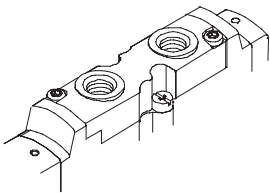
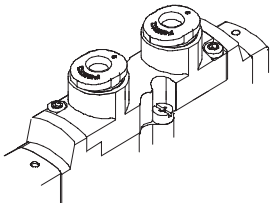
- - Note

Plug-in versions

If a vacant position is replaced by a valve, a plug-in socket must also be ordered and inserted into the slot.

When ordering a HC terminal, you must determine the number and length of connecting cable you need and specify them in the order code.

Working lines – Semi in-line valves

	Code	Description
	B	M5 threaded connection
	E	QS-3 push-in fitting
	F	QS-4 push-in fitting

Pneumatic connection

Supply and exhaust

The valve is supplied with compressed air via the sub-base.

The sub-base contains ports for the compressed air supply, exhaust and pilot exhaust and in the case of sub-base valves, working lines for the valve.

Auxiliary pilot air

The solenoid valve CPASC1 is suitable for internal and external auxiliary pilot air.

Diagrams → 15

Internal auxiliary pilot air

If supply pressure for the CPA-SC valve is within a range of 3 to 8 bar, it can be operated with internally distributed pilot air. The branch is located in the sub-base.

External auxiliary pilot air

If supply pressure for the CPA-SC valve is within a range of -0.9 ... +10 bar, it must be operated with external pilot air. The auxiliary pilot air is supplied externally via port 12/14 in this case.

Solenoid valves CPASC1/PPSC1, Smart Cubic

Key features – Pneumatic connection

FESTO

Display and operation

Each valve solenoid coil is allocated an LED which indicates its operating status. Inscription labels (type ISB-6x10) can be applied to each valve for labelling purposes.

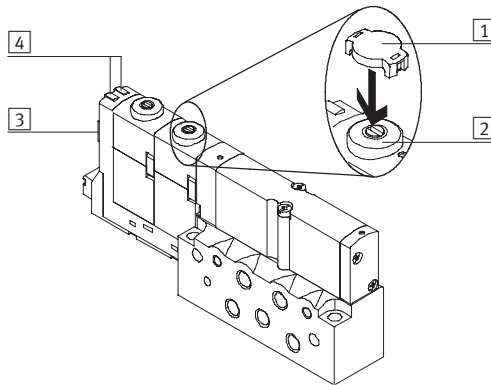
The manual override (MO) allows the valve to be switched when in the electrically non-activated or de-energised status. The valve is switched by pushing the manual override. The set switching status can also be locked by rotating the manual override.

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



Note

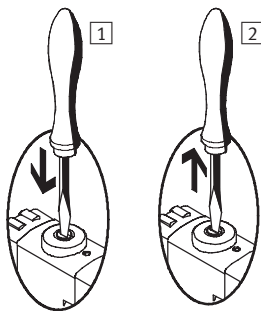
A manually actuated valve (manual override) cannot be reset electrically. Conversely, an electrically actuated valve cannot be reset using the mechanical manual override.



- 1 Cover for manual override (code V or accessory CPASC1-MO-V)
- 2 Optional manual override (pushing and rotating/detenting using a screwdriver)
- 3 Space for valve inscription label type ISB-6x10
- 4 LED signal status display per valve position

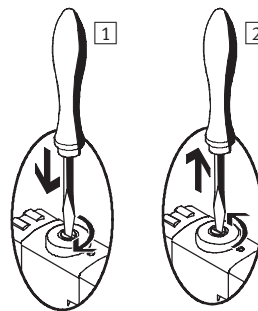
Manual override

Manual override with automatic return (push-in)



- 1 Press in the stem of the manual override with a pointed object or screwdriver.
> Valve is in switching position
- 2 Remove the pointed object or screwdriver.
Spring force pushes the stem of the manual override back.
> Valve returns to initial position (not with double solenoid valve code J)

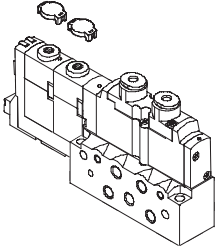
Manual override with lock (detenting)



- 1 Press in the stem of the manual override using a screwdriver until the valve switches and then turn the stem clockwise by 90° until the stop is reached.
> Valve remains in switching position
- 2 Turn the stem anti-clockwise by 90° until the stop is reached and then remove the pin or screwdriver.
Spring force pushes the stem of the manual override back.
> Valve returns to initial position (not with double solenoid valve code J)

Solenoid valves CPASC1/PPSC1, Smart Cubic

Key features – Pneumatic connection

Ports for supply and exhaust						
	Code	Port	Ports for supply and exhaust			
			Designation	Code B Threaded connection M5 Type	Code F Push-in fitting QS4 Type	
	Compressed air supplied via internal pilot air, exhausting via silencer					
	S	1	Compressed air/vacuum supply	Push-in fitting	–	QSM-M5-4-I
		3/5	Exhaust	Silencer	–	UC-M5
		12/14	pilot air	–	–	–
		82/84	Exhaust for pilot air	Silencer	–	U-M3
		L	Pressure compensation	Silencer	–	U-M3
	Compressed air supplied via external pilot air, exhausting via silencer					
	T	1	Compressed air/vacuum supply	Push-in fitting	–	QSM-M5-4-I
		3/5	Exhaust	Silencer	–	UC-M5
		12/14	Pilot air supply	Push-in fitting	–	QSM-M3-3-I
		82/84	Exhaust for pilot air	Silencer	–	U-M3
		L	Pressure compensation	Silencer	–	U-M3
	Compressed air supplied via internal pilot air, ducted exhaust					
	V	1	Compressed air/vacuum supply	Push-in fitting	–	QSM-M5-4-I
		3/5	Exhaust	Push-in fitting	–	QSM-M5-4-I
		12/14	Pilot air supply	–	–	–
		82/84	Exhaust for pilot air	Push-in fitting	–	QSM-M3-3-I
		L	Pressure compensation	Silencer	–	U-M3
	Compressed air supplied via external pilot air, ducted exhaust					
	X	1	Compressed air/vacuum supply	Push-in fitting	–	QSM-M5-4-I
3/5		Exhaust	Push-in fitting	–	QSM-M5-4-I	
12/14		Pilot air supply	Push-in fitting	–	QSM-M3-3-I	
82/84		Exhaust for pilot air	Push-in fitting	–	QSM-M3-3-I	
L		Pressure compensation	Silencer	–	U-M3	

-  - Note

The port L compensates the pressure between moving parts inside the valve and the surrounding environment.

A silencer protects against contamination.
The port L must not be sealed using blanking plugs.

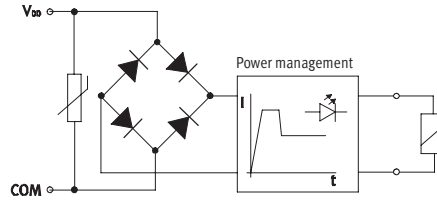
Solenoid valves CPASC1/PPSC1, Smart Cubic

Key features – Electrical connection

Electrical power as a result of current reduction

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

All valve types are additionally equipped with integrated current reduction.



Electrical individual connection

With an electrical individual connection, the plug is connected directly to the valve.

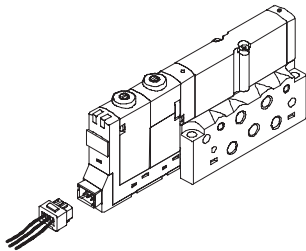
Two types of electrical connection can be selected for the sub-base:

- Horizontal connection (HC)
- Plug-in (PI)

Note
Connecting cables with 2- or 3-wires are available for single solenoid valves with one solenoid coil or double solenoid valves with two solenoid coils.

Horizontal connection (HC)

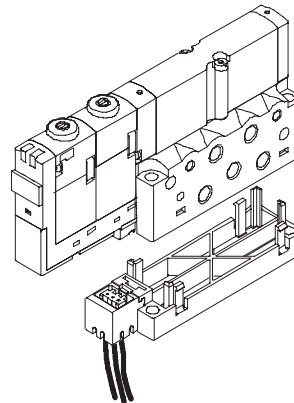
Code SH



With the sub-base, the electrical connection can be plugged in directly on the valve.
The horizontal connection (HC) must be removed when replacing the valve.

Plug-in (PI)

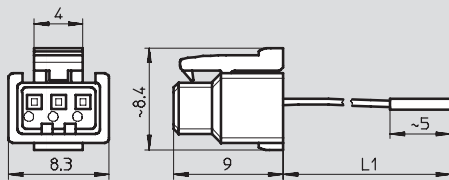
Code SP, SQ



With this electrical connection variant, the connector plug is mounted on an adapter. This adapter is then attached to the sub-base. To replace the valve, all you need do is loosen two screws; the connector plug remains secured to the adapter.

Dimensions – Horizontal connection (HC)

Download CAD data → www.festo.com



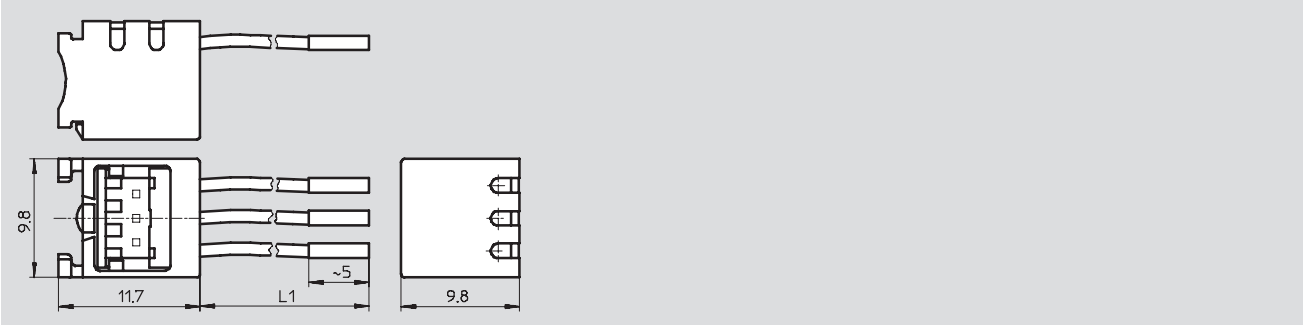
Type	Code	L1	Number of valve solenoid coils	Cable colour		
				Pin 1 Common	Pin 2 Solenoid coil 12	Pin 3 Solenoid coil 14
KMH-0,5	CH	500	1 coil	black	–	red
KMH-1	CI	1000	1 coil	black	–	red
KMH-2,5	CJ	2500	1 coil	black	–	red
KMH-5	CK	5000	1 coil	black	–	red
KMH-D-0,5	CD	500	2 coils	black	blue	red
KMH-D-1	CE	1000	2 coils	black	blue	red
KMH-D-2,5	CF	2500	2 coils	black	blue	red
KMH-D-5	CG	5000	2 coils	black	blue	red

Solenoid valves CPASC1/PPSC1, Smart Cubic

Key features – Electrical connection and mounting

Dimensions – Plug-in (PI)

Download CAD data → www.festo.com

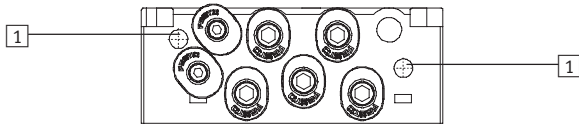


Type	Code	L1	Number of valve solenoid coils	Cable colour		
				Pin 1 Common	Pin 2 Solenoid coil 12	Pin 3 Solenoid coil 14
MHAP-PI	–	500	1 coil	black	–	red
MHAP-PI-1	–	1000	1 coil	black	–	red
MHAP-PI-D-0,5	–	500	2 coils	black	blue	red
MHAP-PI-D-1	–	1000	2 coils	black	blue	red

Mounting

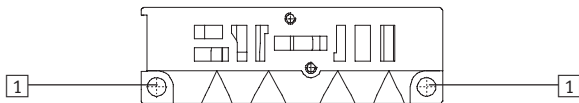
The sub-base is designed for wall mounting for integration into a system or machine.

Wall mounting – Horizontal



1 Mounting holes

Wall mounting – Vertical




1 Mounting holes

Solenoid valves CPASC1/PPSC1, Smart Cubic

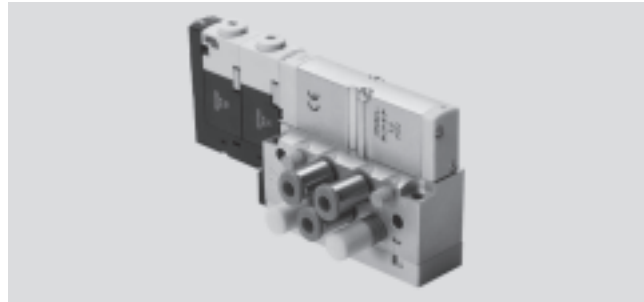
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Technical data

-  - Flow rate
150 l/min

-  - Width
10 mm

-  - Voltage
24 V DC



General technical data								
Valve	5/2-way valve		2x 3/2-way valve		5/3-way valve			2x 2/2-way valve
	single solenoid	double solenoid	normal position		mid-position			
Valve function order code	M	J	open	closed	pressurised	closed	exhausted	closed
Constructional design	Electromagnetically actuated piston spool valve							
Width [mm]	10							
Nominal size [mm]	2.5							
Lubrication	Lubrication for life, PWIS-free (free of paint-wetting impairment substances)							
Type of mounting	Wall mounting							
Mounting position	Any							
Manual override	Pushing/detenting-rotary							
Pneumatic connections								
Pneumatic connection	Via individual connections on sub-base							
Supply port	1	M5						
Exhaust port	3/5	M5						
Working lines	2/4	Depending on the connection type selected						
		<ul style="list-style-type: none"> • M5 • QS-3 • QS-4 						
Pilot air port	12/14	M3						
Pilot exhaust air port	82/84	M3						
Pressure compensation port	L	M3						

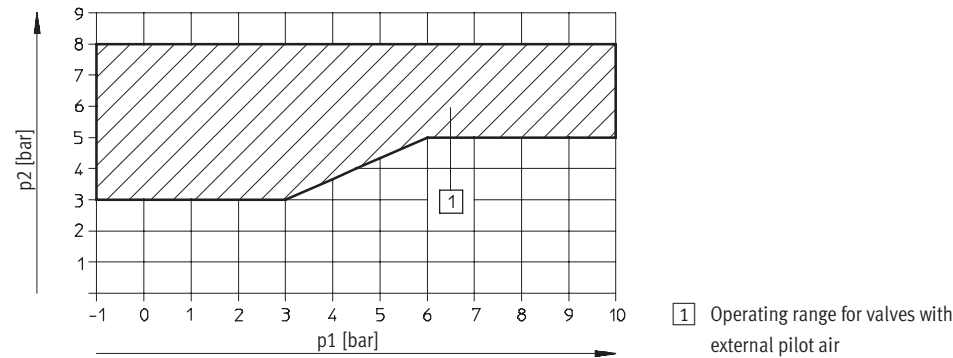
Solenoid valves CPASC1/ CPPSC1, Smart Cubic

Technical data

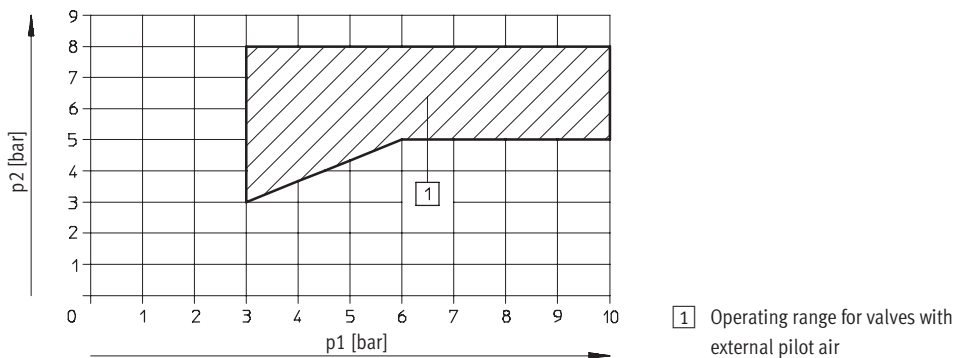
Operating pressure [bar]									
Valve function order code	M	J	N	K	B	G	E	I	
Without pilot air supply	+3 ... +8								
With pilot air supply	-0.9 ... +10		+3 ... +10		-0.9 ... +10			+3 ... +10	

Pilot pressure p2 as a function of the working pressure p1 with external pilot air

for valve sub-bases with code M, J, B, G, E



for valve sub-bases with code N, K, I



Valve response times [ms]									
Valve function order code		M	J	N	K	B	G	E	I
Response times	on	10	-	10	10	10	10	10	10
	off	20	-	20	20	25	25	25	20
	change-over	-	10	-	-	-	-	-	-

Operating and environmental conditions									
Valve function order code	M	J	N	K	B	G	E	I	
Operating medium	Filtered compressed air, lubricated or unlubricated, inert gases								
Grade of filtration [µm]	40 (average pore size)								
Ambient temperature [°C]	0 ... +40								
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.

Solenoid valves CPASC1/PPSC1, Smart Cubic

Technical data

Electrical data	
Valve function order code	M J N K B G E I
Protection against electric shock (protection against direct and indirect contact to EN 60204-1/IEC 204)	By means of PELV power supply unit
Operating voltage [V]	24 (±10%)
Electrical power consumption [W]	Pull: 1 Hold: 0.3
Duty cycle	100% at 40 °C ambient temperature
Protection class to EN 60 529	IP40 (in assembled state and with detenting plug)
Relative air humidity	90% at 40 °C, non-condensing
Vibration resistance	To DIN/IEC 68/EN 60 068, Parts 2-6, severity level 2
Continuous shock resistance	To DIN/IEC 68/EN 60 068, Parts 2-27, severity level 2

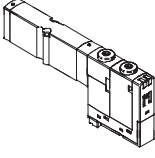
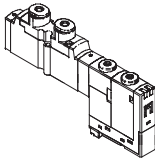
1) The maximum signal line length is 10 m

Materials	
Valve function order code	M J N K B G E I
Sub-base	Aluminium
Valve slice	Die-cast aluminium, PPS, ST, PA-GF
Seal	NBR, HNBR, flour rubber

Product weight [g]	
approx. weights	
Valve function order code	M J N K B G E I
Sub-base	45
Per valve slice	40

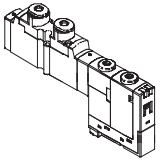
Solenoid valves CPASC1/PPSC1, Smart Cubic

Technical data

Standard nominal flow rate [l/min]			
	Code	Valve function	Individual sub-base
	Sub-base valve		
	M	5/2-way valve, single solenoid	170
	J	5/2-way valve, double solenoid	170
	N	2x 3/2-way valve, normally open	170
	K	2x 3/2-way valve, normally closed	150
	B	5/3-way valve, mid-position pressurised	150
	G	5/3-way valve, mid-position closed	150
	E	5/3-way valve, mid-position exhausted	150
I	2x 2/2-way valve	140	
	Semi in-line valve with working ports M5		
	M	5/2-way valve, single solenoid	180
	J	5/2-way valve, double solenoid	180
	N	2x 3/2-way valve, normally open	180
	K	2x 3/2-way valve, normally closed	150
	B	5/3-way valve, mid-position pressurised	180
	G	5/3-way valve, mid-position closed	150
	E	5/3-way valve, mid-position exhausted	170
I	2x 2/2-way valve	150	

Solenoid valves CPASC1/PPSC1, Smart Cubic

Technical data

Standard nominal flow rate [l/min]				
	Code	Valve function	Individual sub-base	
	Semi in-line valve with working ports QS-3			
	M	5/2-way valve, single solenoid	140	140
	J	5/2-way valve, double solenoid	140	140
	N	2x 3/2-way valve, normally open	140	140
	K	2x 3/2-way valve, normally closed	130	130
	B	5/3-way valve, mid-position pressurised	140	140
	G	5/3-way valve, mid-position closed	130	130
	E	5/3-way valve, mid-position exhausted	140	140
	I	2x 2/2-way valve	130	130
	Semi in-line valve with working ports QS-4			
	M	5/2-way valve, single solenoid	180	170
	J	5/2-way valve, double solenoid	180	170
	N	2x 3/2-way valve, normally open	180	170
	K	2x 3/2-way valve, normally closed	150	150
	B	5/3-way valve, mid-position pressurised	180	170
G	5/3-way valve, mid-position closed	150	150	
E	5/3-way valve, mid-position exhausted	170	170	
I	2x 2/2-way valve	150	140	

Solenoid valves CPASC1/PPSC1, Smart Cubic

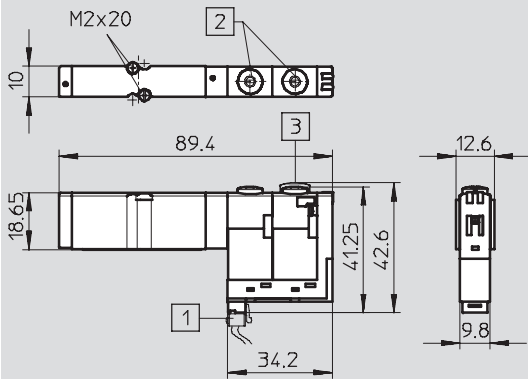
Technical data

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Dimensions – Sub-base valve

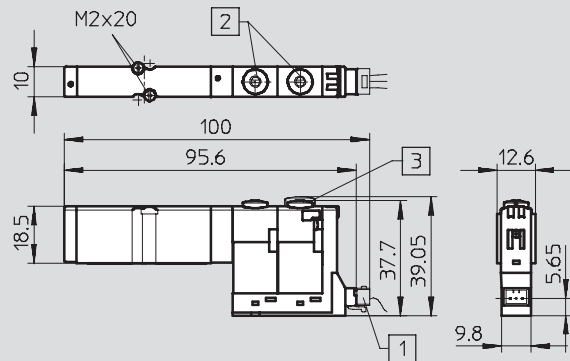
Download CAD data → www.festo.com

With individual plug-in (PI) connection



- 1 Individual PI connection
- 2 Manual override (MO)
- 3 Manual override cover

With individual horizontal connection (HC)

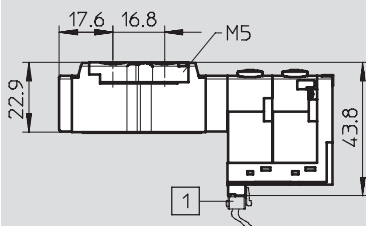


- 1 Individual HC connection
- 2 Manual override (MO)
- 3 Manual override cover

Dimensions – Semi in-line valve with working line M5

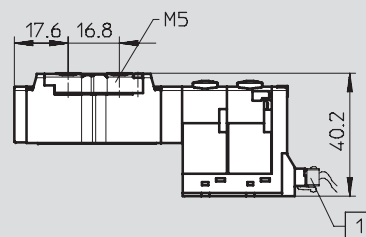
Download CAD data → www.festo.com

With individual plug-in (PI) connection



- 1 Individual PI connection

With individual horizontal connection (HC)

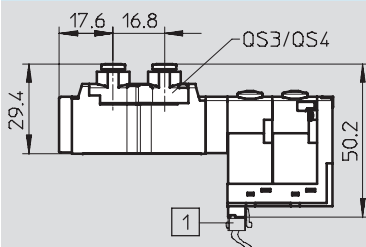


- 1 Individual HC connection

Dimensions – Semi in-line valve with working line QS-3/QS-4

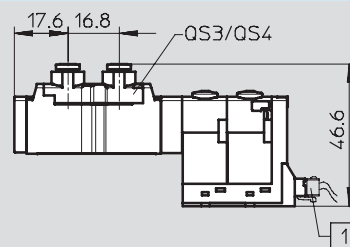
Download CAD data → www.festo.com

With individual plug-in (PI) connection



- 1 Individual PI connection

With individual horizontal connection (HC)



- 1 Individual HC connection

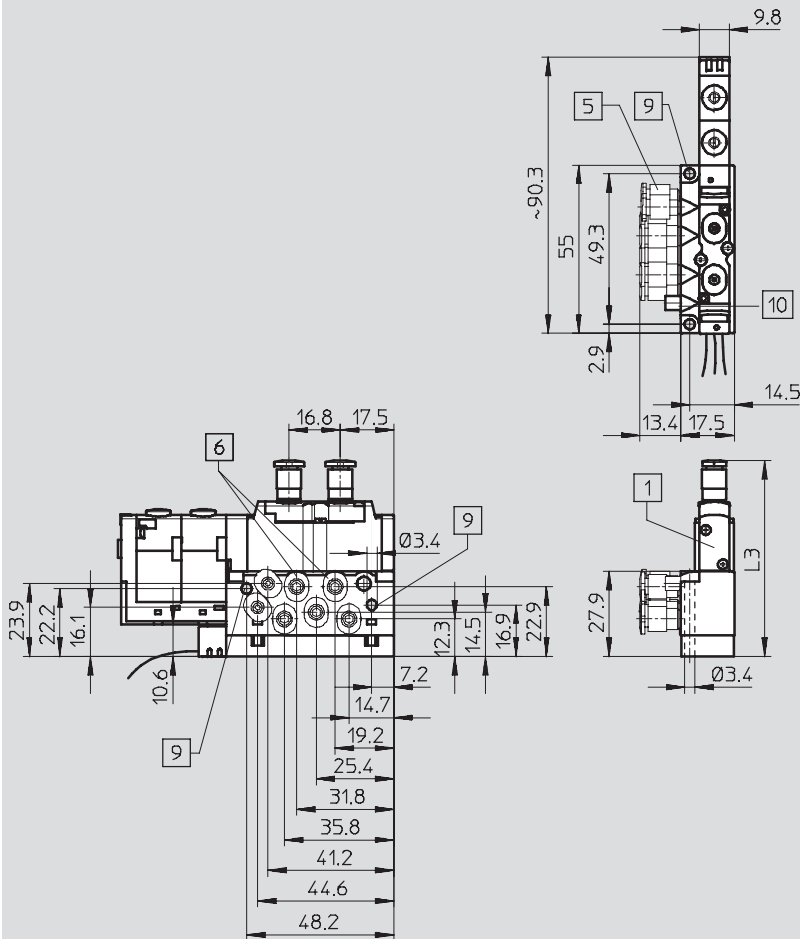
Solenoid valves CPASC1/PPSC1, Smart Cubic

Technical data

Dimensions – Sub-base

Download CAD data → www.festo.com

With individual plug-in (PI) connection



- 1 Semi in-line valve with M5 threaded connection
- 5 Push-in fitting
- 6 Working ports for sub-base valve (not required with semi in-line valve)
- 9 4x mounting holes
- 10 Silencer for exhaust air

Valve type		L3
Semi in-line valve	with working line M5	50.8
	with working line QS-3	57.2
	with working line QS-4	57.2
Sub-base valve		48.3

Solenoid valves CPASC1/PPSC1, Smart Cubic

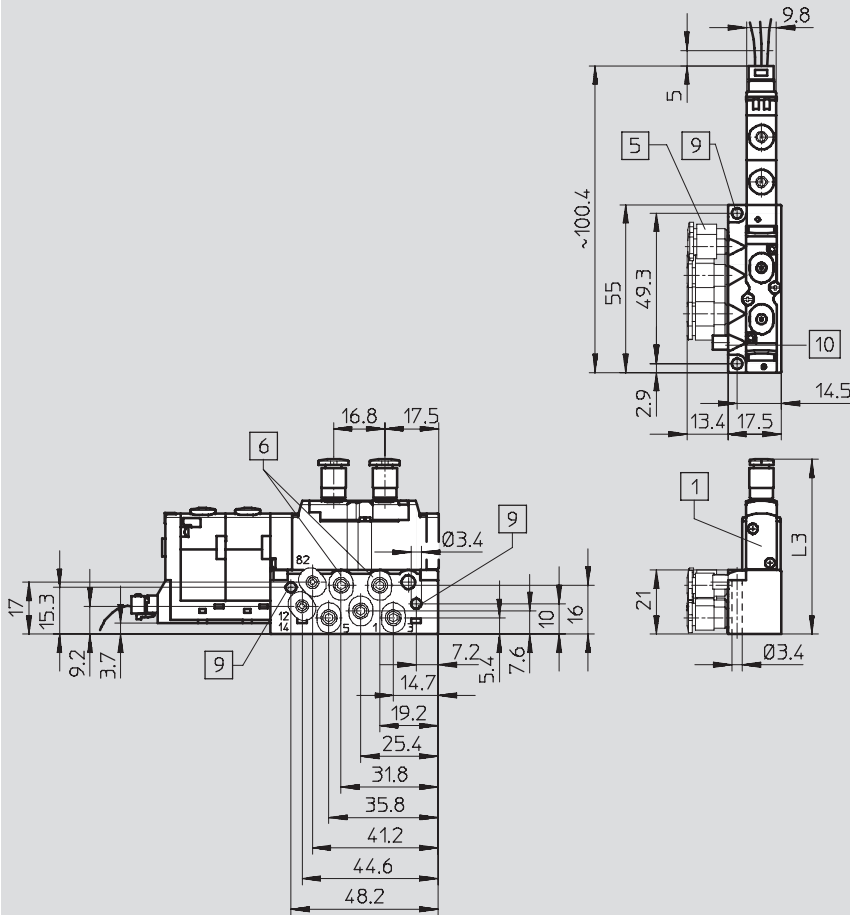
Technical data

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Dimensions – Sub-base

Download CAD data → www.festo.com

With individual horizontal connection (HC)



- 1 Semi in-line valve with M5 threaded connection
- 5 Push-in fitting
- 6 Working ports for sub-base valve (not required with semi in-line valve)
- 9 4x mounting holes
- 10 Silencer for exhaust air

Valve type		L3
Semi in-line valve	with working line M5	43.9
	with working line QS-3	50.3
	with working line QS-4	50.3
Sub-base valve		41.4

Solenoid valves CPASC1/PPSC1, Smart Cubic



Ordering data – Modular products

M Mandatory data →

Module No.	Valve terminal, pneumatic part	Size	Voltage	Electrical connection	Position of working lines	Type of working lines	Manual override	Compressed air supply	Supply side	Pneumatic connection for supply and exhaust
529 045	82P	10	1	SP SQ SH	P A	B E F	N V	S T V X	L	B F
Ordering example										
529 045	82P	- 10	- 1	SP	- P	E	- N	- S	L	B

Ordering table

Size	10	Conditions	Code	Enter code
M Module No.	529 045			
Valve terminal, pneumatic part	Compact Performance CPA type 82 Smart Cubic with individual connection		82P	82P
Size [mm]	10		-10	-10
Voltage [V DC]	24		-1	-1
Electrical connection	Individual sub-base plug-in, 0.5 m cable		SP	
	Individual sub-base plug-in, 1.0 m cable		SQ	
	Individual sub-base, horizontal connection		SH	
Position of working lines	On the valve		-P	
	On the sub-base		-A	
Type of working lines	Thread M5		B	
	Push-in fittings QS-3		E	
	Push-in fittings QS-4		F	
Manual override	Push-in or detenting		-N	
	Covered		-V	
Compressed air supply	Internal pilot air, venting via silencer		-S	
	External pilot air, venting via silencer		-T	
	Internal pilot air, ducted exhaust air		-V	
	External pilot air, ducted exhaust air		-X	
Supply side	Supply at left		L	L
Pneumatic connection for supply and exhaust	Thread M5		B	
	QS push-in fitting QS-4		F	

Transfer order code

529 045	82P	- 10	- 1		-				L		-
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Solenoid valves CPASC1/PPSC1, Smart Cubic

Ordering data – Modular products



M Mandatory data	O Options
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">Equipment for valve positions</div> <p>M, J, N, K, B, G, E, I</p> <p>Valve position 0</p>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">Accessories</div> <p>...H ...CD ...CE ...CF ...CG ...CH ...CI ...CJ ...CK</p>
- M	+ 1CD

Ordering table					
Size	10		Condi- tions	Code	Enter code
↓	Equipment for valve positions			-	-
M	Valves			M	Enter equip- ment selection for valve positions in order code
	5/2-way valve, single solenoid			J	
	5/2-way valve, double solenoid			N	
	2x 3/2-way valve, normally open			K	
	2x 3/2-way valve, normally closed			B	
	5/3-way valve, mid-position pressurised			G	
	5/3-way valve, mid-position closed			E	
	5/3-way valve, mid-position exhausted			I	
	2x 2/2-way valve, 1x normally open, 1x closed				
O	Accessories			+	+
	HC connecting cable, 2 coils	0.5 m	1 ... 99 (KMH-0,5)	1	...CD
		1 m	1 ... 99 (KMH-1)	1	...CE
		2.5 m	1 ... 99 (KMH-2,5)	1	...CF
		5 m	1 ... 99 (KMH-5)	1	...CG
	HC connecting cable, 1 coil	0.5 m	1 ... 99 (KMH-D-0,5)	1	...CH
		1 m	1 ... 99 (KMH-D-1)	1	...CI
		2.5	1 ... 99 (KMH-D-2,5)	1	...CJ
		5 m	1 ... 99 (KMH-D-5)	1	...CK

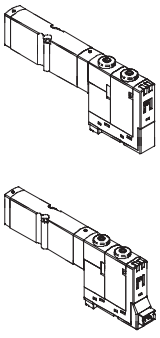
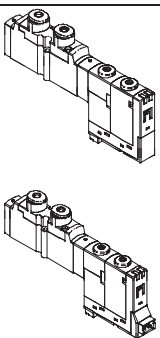
1 **CD, CE, CF, CG, CH, CI, CJ, CK**
Only with electrical connection SH

Transfer order code
0
- [] + []

Solenoid valves CPASC1/PPSC1, Smart Cubic

FESTO

Accessories

Ordering data – Valves						
	Code	Valve function	Electrical plug-in connection		Electrical HC connection	
			Part No.	Type	Part No.	Type
	Sub-base valve					
	M	5/2-way valve, single solenoid	526 990	CPASC1-M1H-M-P-2,5	527 008	CPASC1-M1H-M-H-2,5
	J	5/2-way valve, double solenoid	526 992	CPASC1-M1H-J-P-2,5	527 010	CPASC1-M1H-J-H-2,5
	N	2x 3/2-way valve, normally open	526 994	CPASC1-M1H-N-P-2,5	527 012	CPASC1-M1H-N-H-2,5
	K	2x 3/2-way valve, normally closed	526 996	CPASC1-M1H-K-P-2,5	527 014	CPASC1-M1H-K-H-2,5
	B	5/3-way valve, mid-position pressurised	526 998	CPASC1-M1H-B-P-2,5	527 016	CPASC1-M1H-B-H-2,5
	G	5/3-way valve, mid-position closed	527 000	CPASC1-M1H-G-P-2,5	527 018	CPASC1-M1H-G-H-2,5
	E	5/3-way valve, mid-position exhausted	527 002	CPASC1-M1H-E-P-2,5	527 020	CPASC1-M1H-E-H-2,5
	I	2x 2/2-way valve	527 006	CPASC1-M1H-I-P-2,5	527 024	CPASC1-M1H-I-H-2,5
	Semi in-line valve with M5 working ports					
	M	5/2-way valve, single solenoid	527 294	CPPSC1-M1H-M-P-M5	527 303	CPPSC1-M1H-M-H-M5
	J	5/2-way valve, double solenoid	527 295	CPPSC1-M1H-J-P-M5	527 304	CPPSC1-M1H-J-H-M5
	N	2x 3/2-way valve, normally open	527 296	CPPSC1-M1H-N-P-M5	527 305	CPPSC1-M1H-N-H-M5
	K	2x 3/2-way valve, normally closed	527 297	CPPSC1-M1H-K-P-M5	527 306	CPPSC1-M1H-K-H-M5
	B	5/3-way valve, mid-position pressurised	527 298	CPPSC1-M1H-B-P-M5	527 307	CPPSC1-M1H-B-H-M5
	G	5/3-way valve, mid-position closed	527 299	CPPSC1-M1H-G-P-M5	527 308	CPPSC1-M1H-G-H-M5
	E	5/3-way valve, mid-position exhausted	527 300	CPPSC1-M1H-E-P-M5	527 309	CPPSC1-M1H-E-H-M5
	I	2x 2/2-way valve	527 302	CPPSC1-M1H-I-P-M5	527 311	CPPSC1-M1H-I-H-M5
	Semi in-line valve with QS-3 working ports					
	M	5/2-way valve, single solenoid	527 330	CPPSC1-M1H-M-P-Q3	527 339	CPPSC1-M1H-M-H-Q3
	J	5/2-way valve, double solenoid	527 331	CPPSC1-M1H-J-P-Q3	527 340	CPPSC1-M1H-J-H-Q3
	N	2x 3/2-way valve, normally open	527 332	CPPSC1-M1H-N-P-Q3	527 341	CPPSC1-M1H-N-H-Q3
	K	2x 3/2-way valve, normally closed	527 333	CPPSC1-M1H-K-P-Q3	527 342	CPPSC1-M1H-K-H-Q3
	B	5/3-way valve, mid-position pressurised	527 334	CPPSC1-M1H-B-P-Q3	527 343	CPPSC1-M1H-B-H-Q3
G	5/3-way valve, mid-position closed	527 335	CPPSC1-M1H-G-P-Q3	527 344	CPPSC1-M1H-G-H-Q3	
E	5/3-way valve, mid-position exhausted	527 336	CPPSC1-M1H-E-P-Q3	527 345	CPPSC1-M1H-E-H-Q3	
I	2x 2/2-way valve	527 338	CPPSC1-M1H-I-P-Q3	527 347	CPPSC1-M1H-I-H-Q3	

Application-optimised directional control valves
Smart Cubic

3.3

Solenoid valves CPASC1/PPSC1, Smart Cubic

Accessories



Ordering data – Valves						
	Code	Valve function	Electrical plug-in connection		Electrical HC connection	
			Part No.	Type	Part No.	Type
	Semi in-line valve with QS-4 working ports					
	M	5/2-way valve, single solenoid	527 312	CPPSC1-M1H-M-P-Q4	527 321	CPPSC1-M1H-M-H-Q4
	J	5/2-way valve, double solenoid	527 313	CPPSC1-M1H-J-P-Q4	527 322	CPPSC1-M1H-J-H-Q4
	N	2x 3/2-way valve, normally open	527 314	CPPSC1-M1H-N-P-Q4	527 323	CPPSC1-M1H-N-H-Q4
	K	2x 3/2-way valve, normally closed	527 315	CPPSC1-M1H-K-P-Q4	527 324	CPPSC1-M1H-K-H-Q4
	B	5/3-way valve, mid-position pressurised	527 316	CPPSC1-M1H-B-P-Q4	527 325	CPPSC1-M1H-B-H-Q4
	G	5/3-way valve, mid-position closed	527 317	CPPSC1-M1H-G-P-Q4	527 326	CPPSC1-M1H-G-H-Q4
	E	5/3-way valve, mid-position exhausted	527 318	CPPSC1-M1H-E-P-Q4	527 327	CPPSC1-M1H-E-H-Q4
	I	2x 2/2-way valve	527 320	CPPSC1-M1H-I-P-Q4	527 329	CPPSC1-M1H-I-H-Q4



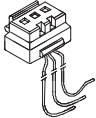
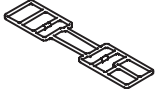
Solenoid valves CPASC1/PPSC1, Smart Cubic



Accessories

Application-optimised directional control valves
Smart Cubic



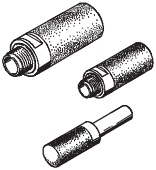


3.3

Ordering data – Accessories			
Designation		Part No.	Type
Inscription labels			
	6x10 in frames, 64 pieces for valve identification	18 576	IBS-6x10
	80 pieces for sub-base identification	197 259	MH-BZ-80x
Plug socket with cable for plug-in connection			
	For 1 coil	0.5 m	197 260 MHAP-PI
		1 m	532 182 MHAP-PI-1
	For 2 coils	0.5 m	529 116 MHAP-PI-D-0,5
		1 m	527 395 MHAP-PI-D-1
Plug socket with cable for HC connection			
	For 1 coil, 2-wire	0.5 m	197 263 KMH-0,5
		1 m	197 264 KMH-1
		2.5 m	527 400 KMH-2,5
		5 m	527 401 KMH-5
	For 2 coils, 3-wire	0.5 m	527 396 KMH-D-0,5
		1 m	527 397 KMH-D-1
		2.5 m	527 398 KMH-D-2,5
		5 m	527 399 KMH-D-5
Cover			
	Cover for manual override	527 393	CPASC1-MO-V
Valve seal			
	For sub-base	527 394	CPASC1-SEAL-A

Solenoid valves CPASC1/PPSC1, Smart Cubic

Accessories

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Ordering data – Accessories			
Designation		Part No.	Type
Push-in fitting for working ports			
	Connecting thread M5 for tubing O.D.	3 mm	153 313 QSM-M5-3-I
		4 mm	153 315 QSM-M5-4-I
Push-in fitting for sub-base			
	Connecting thread M3 for tubing O.D.	3 mm	153 312 QSM-M3-3-I
		4 mm	153 314 QSM-M3-4-I
	Connecting thread M5 for tubing O.D.	3 mm	153 313 QSM-M5-3-I
		4 mm	153 315 QSM-M5-4-I
		6 mm	153 317 QSM-M5-6-I
Silencer			
	Connecting thread	M3	163 978 U-M3
		M5	4 645 U-M5
		M5	165 003 UC-M5
	Push-in sleeve connection type	3 mm	165 005 UC-QS-3H
		4 mm	165 006 UC-QS-4H
		6 mm	165 007 UC-QS-6H
Blanking plug			
	Thread M5	174 308	B-M5-B
Plug			
	Blanking plug for tubing O.D.	3 mm	153 382 QSMC-3H
		4 mm	153 267 QSC-4H
		6 mm	153 268 QSC-6H

Application-optimised directional control valves
Smart Cubic

3.3

Product Range and Company Overview

A Complete Suite of Automation Services

Our experienced engineers provide complete support at every stage of your development process, including: conceptualization, analysis, engineering, design, assembly, documentation, validation, and production.



Custom Automation Components
Complete custom engineered solutions



Custom Control Cabinets
Comprehensive engineering support and on-site services



Complete Systems
Shipment, stocking and storage services

The Broadest Range of Automation Components

With a comprehensive line of more than 30,000 automation components, Festo is capable of solving the most complex automation requirements.



Electromechanical
Electromechanical actuators, motors, controllers & drives



Pneumatics
Pneumatic linear and rotary actuators, valves, and air supply



PLCs and I/O Devices
PLC's, operator interfaces, sensors and I/O devices

Supporting Advanced Automation... As No One Else Can!

Festo is a leading global manufacturer of pneumatic and electromechanical systems, components and controls for industrial automation, with more than 12,000 employees in 56 national headquarters serving more than 180 countries. For more than 80 years, Festo has continuously elevated the state of manufacturing with innovations and optimized motion control solutions that deliver higher performing, more profitable automated manufacturing and processing equipment. Our dedication to the advancement of automation extends beyond technology to the education and development of current and future automation and robotics designers with simulation tools, teaching programs, and on-site services.

Quality Assurance, ISO 9001 and ISO 14001 Certifications

Festo Corporation is committed to supply all Festo products and services that will meet or exceed our customers' requirements in product quality, delivery, customer service and satisfaction.

To meet this commitment, we strive to ensure a consistent, integrated, and systematic approach to management that will meet or exceed the requirements of the ISO 9001 standard for Quality Management and the ISO 14001 standard for Environmental Management.



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