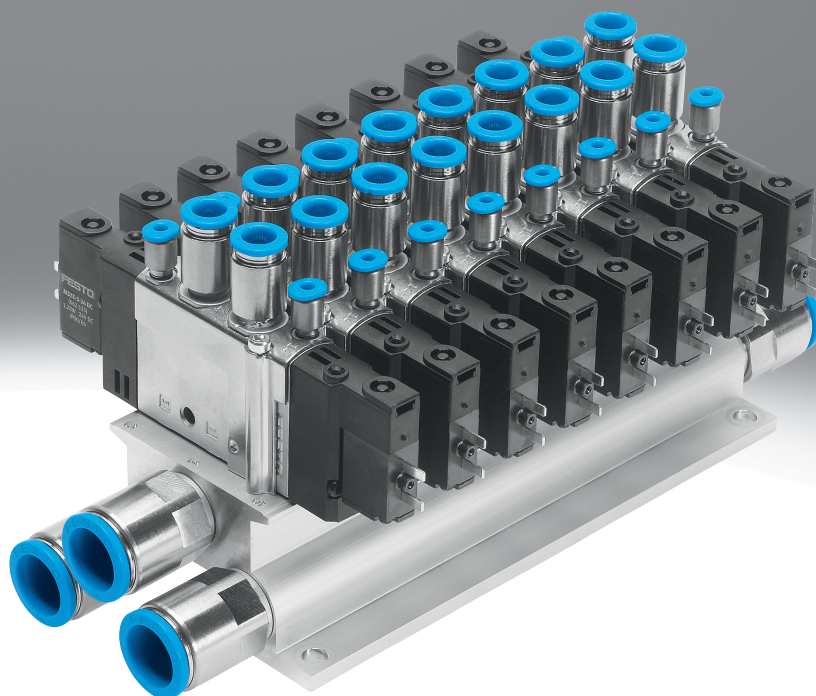
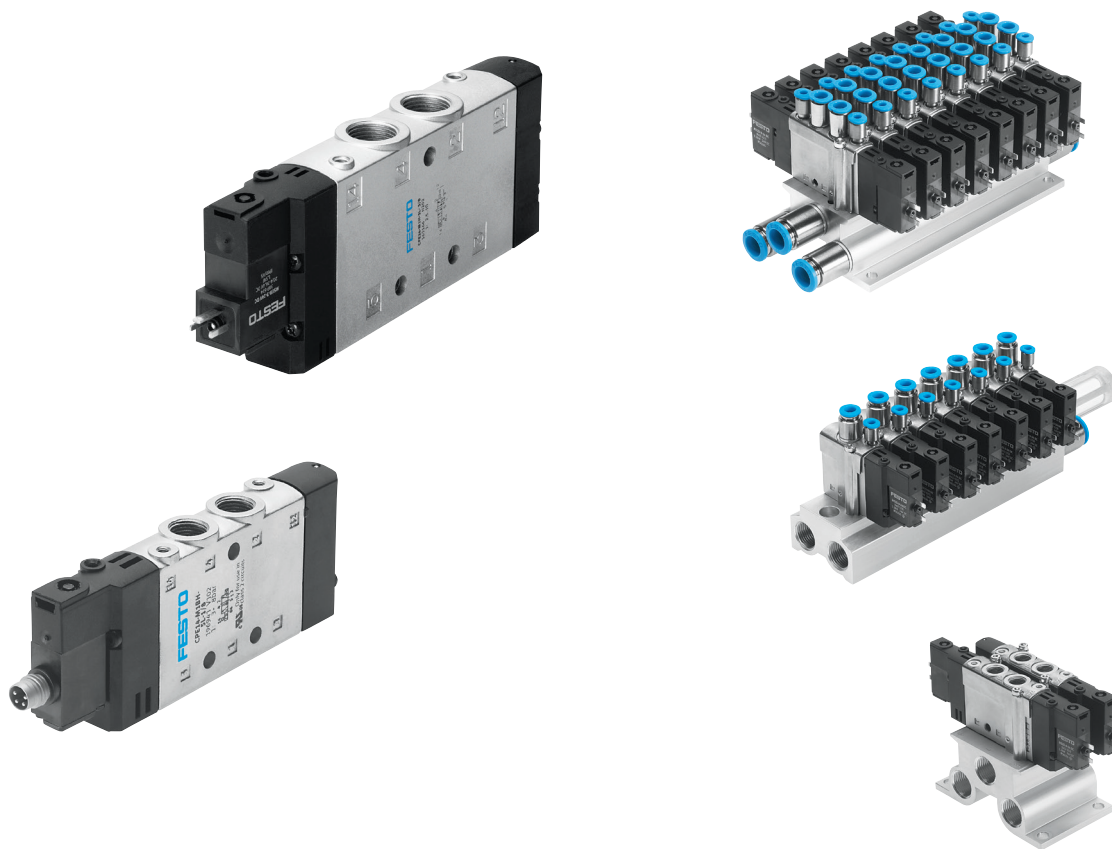


Universal valve CPE

FESTO

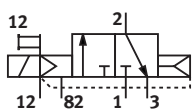


Key features

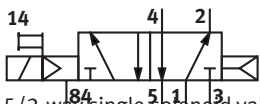


Variants

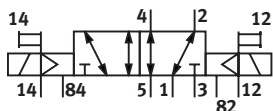
Functions (selection)



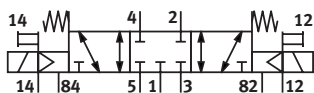
3/2-way valve with external pilot air supply, normally closed



5/2-way single solenoid valve with internal pilot air supply



5/2-way double pilot valve with external pilot air supply



5/3-way valve with external pilot air supply, normally closed

Parameters

-  - Width
10 mm
14 mm
18 mm
24 mm
-  - Flow rate
180 ... 3200 l/min

Note

The 5/3-way solenoid valve remains in the previous switching position if both solenoid coils are energised simultaneously.

If neither solenoid coil is energised, the spring force moves the valve to its mid-position.

Advantages

Performance-optimised sizes:
The solenoid valves CPE, Compact Performance, are distinguished by their minimal width and low power consumption at high flow rates.

They can be mounted directly on site:

- On the cylinder
- On moving system components
- Flexible installation thanks to individual mounting

Short tubing lengths requiring minimal air volume:

- Short switching times
 - Very short reaction times
- Optimised systems:
- Shorter machine cycles
 - Larger quantities
 - Low power consumption

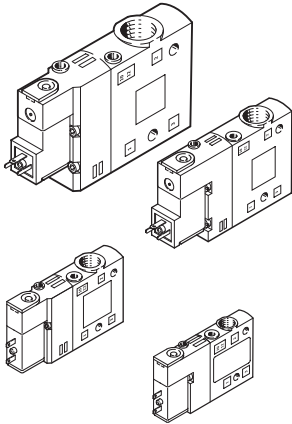
Convenient manual override.

CPE10, CPE14 and CPE18:
Simple manifold design consisting of fixed-grid manifold blocks made from stable aluminium with 2 to 10 valve positions or modular manifold blocks made from durable polymer.

The connecting cables NEBV for sizes CPE10 and CPE14 have integrated current reduction. All CPE valves therefore have a duty cycle of 100%.

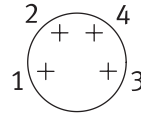
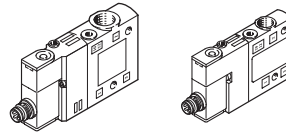
Key features

Solenoid valves with plug pins



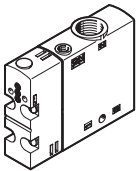
- Width 10 mm, 14 mm, 18 mm and 24 mm
- 3/2-, 5/2- and 5/3-way valves
- Choice of internal or external pilot air supply
- 24 V DC for all widths
- 110 or 220 V AC for widths 18 and 24
- Manual override, non-detenting and detenting via tool
- Width 10 mm available with M5 insert
- All widths available with QS fittings in 2 sizes

Solenoid valves with round plug



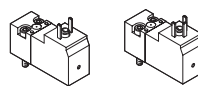
- Widths 10 mm and 14 mm
- 3/2-, 5/2- and 5/3-way valves
- Choice of internal or external pilot air supply
- 24 V DC
- Manual override, non-detenting and detenting via tool
- Round plug, M8x1, 4-pin

CPE18 basic valve with interface to ISO 15218



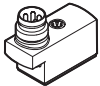
- Width 18 mm
- 3/2-, 5/2- and 5/3-way valves
- Choice of internal or external pilot air supply

Pilot valve with interface to ISO 15218



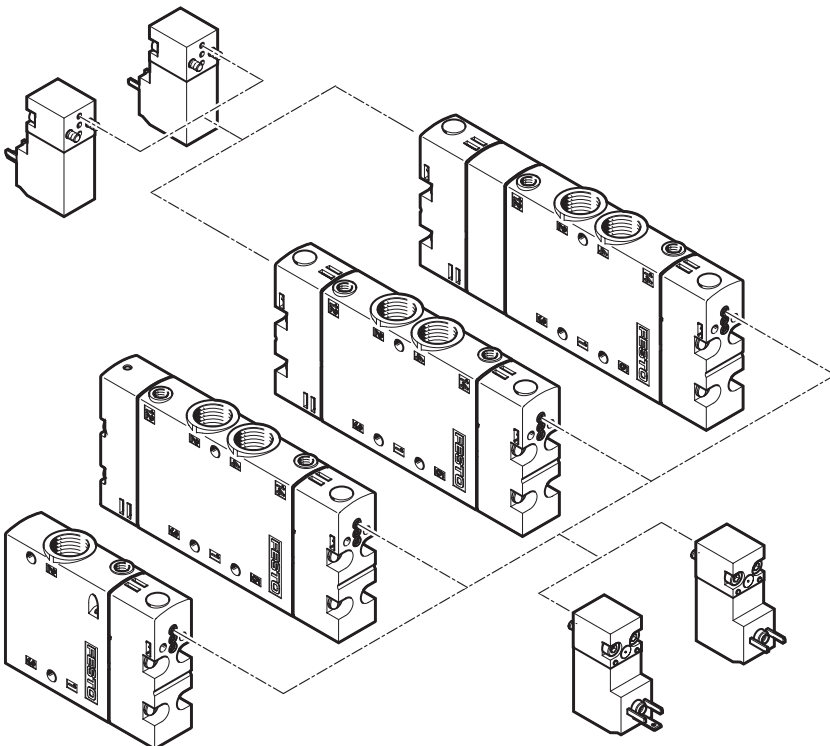
- For 12, 24 V DC and 24 V AC without PE conductor
- For 110 and 220 V AC with PE conductor
- 3/2-way valve
- Non-detenting manual override

Adapter VAVE



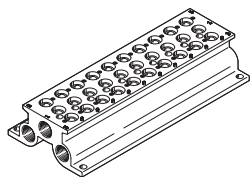
Fits plug pins with plug pattern ZC for CPE10/CPE14

Combination of basic valve CPE18 with pilot valve



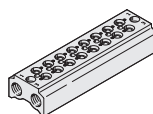
Key features

Manifold block for fixed-grid manifold



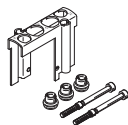
- For valve widths 10, 14 and 18 mm
- For 5/2- and 5/3-way valves
- 2 to 10 valve positions

Manifold block for fixed-grid manifold



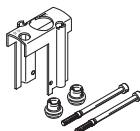
- For valve widths 10, 14 and 18 mm
- For 3/2-way valves
- 2 to 10 valve positions

Retaining bracket set



- Retaining bracket for 5/2- or 5/3-way valve

Retaining bracket set



- Retaining bracket for 3/2-way valve

Cover plate for vacant position



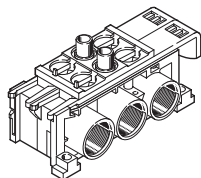
- Reserved position cover for a 5/2- or 5/3-way valve

Cover plate for vacant position



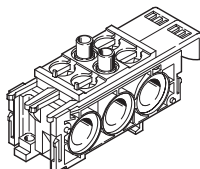
- Reserved position cover for a 3/2-way valve

Manifold block with air supply



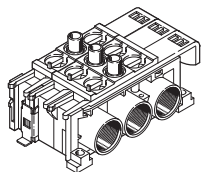
- 2 valve positions
- For CPE10, CPE14 or CPE18
- For 5/2- and 5/3-way valves
- Ducts 1, 3 and 5 can have closed or open ends
- Ducts closed when the manifold is full or when pressure zones are being used

Manifold block for expansion



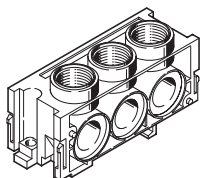
- 2 valve positions
- For CPE10, CPE14 or CPE18
- For 5/2- and 5/3-way valves
- Ducts 1, 3 and 5 can have closed or open ends

Manifold block with air supply



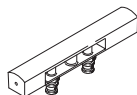
- 3 valve positions
- For CPE10, CPE14 or CPE18
- For 5/2- and 5/3-way valves
- Ducts 1, 3 and 5 can have closed or open ends
- Ducts closed when the manifold is full or when pressure zones are being used

End plate for additional air supply



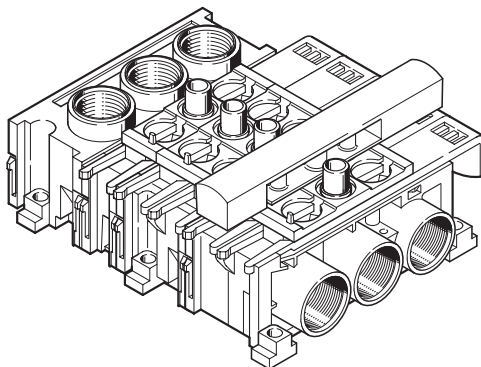
- For CPE10, CPE14 or CPE18
- Required for manifolds with more than 6 valves or separate pressure zones
- Ports 1, 3 and 5 at rear and on top

Cover plate for vacant position



- Variants
- Reserved position cover for a 5/2- or 5/3-way valve

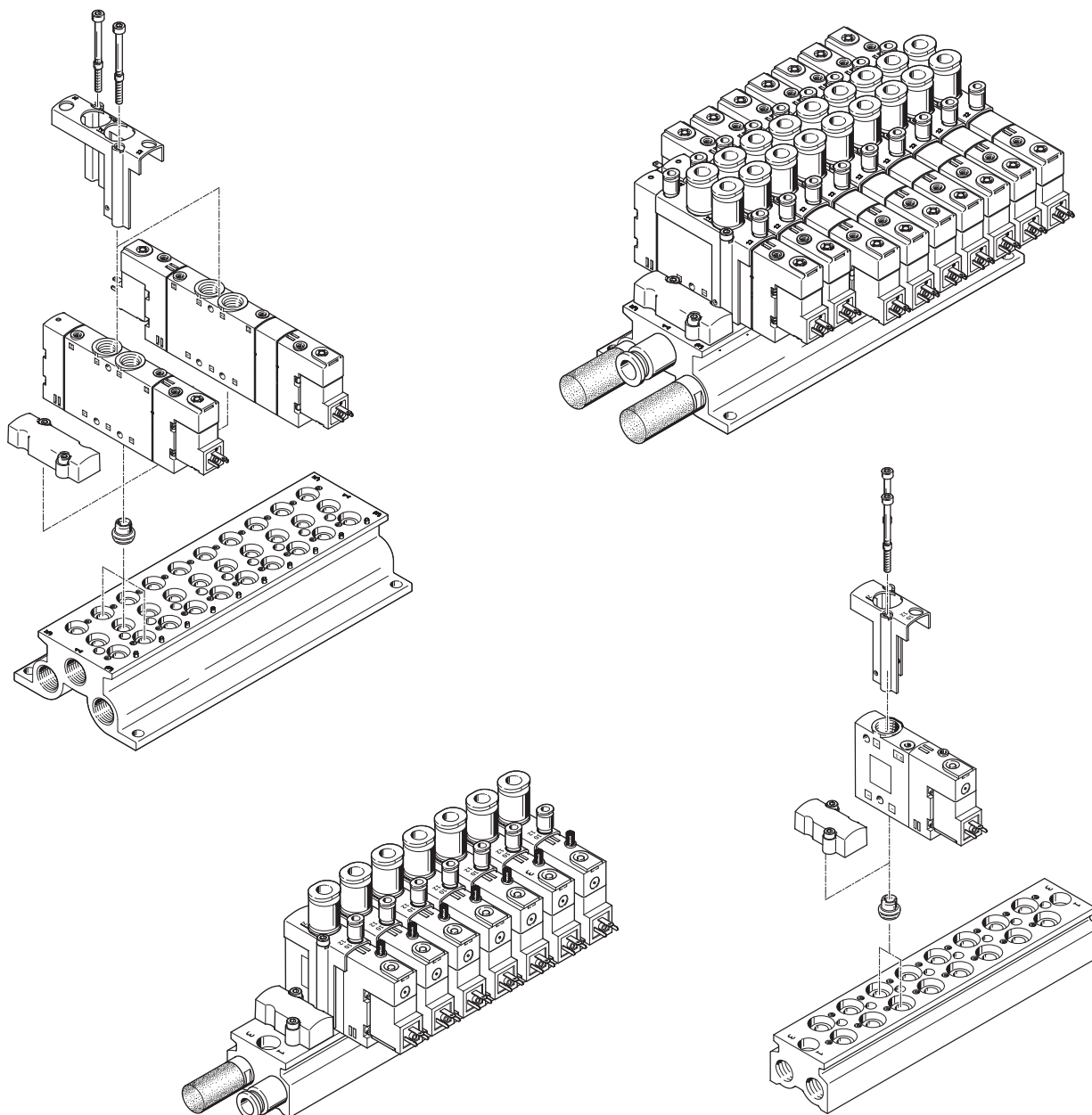
Modular manifold block with blanking plate



Key features

Mounting on fixed-grid manifold block for CPE10, CPE14 and CPE18

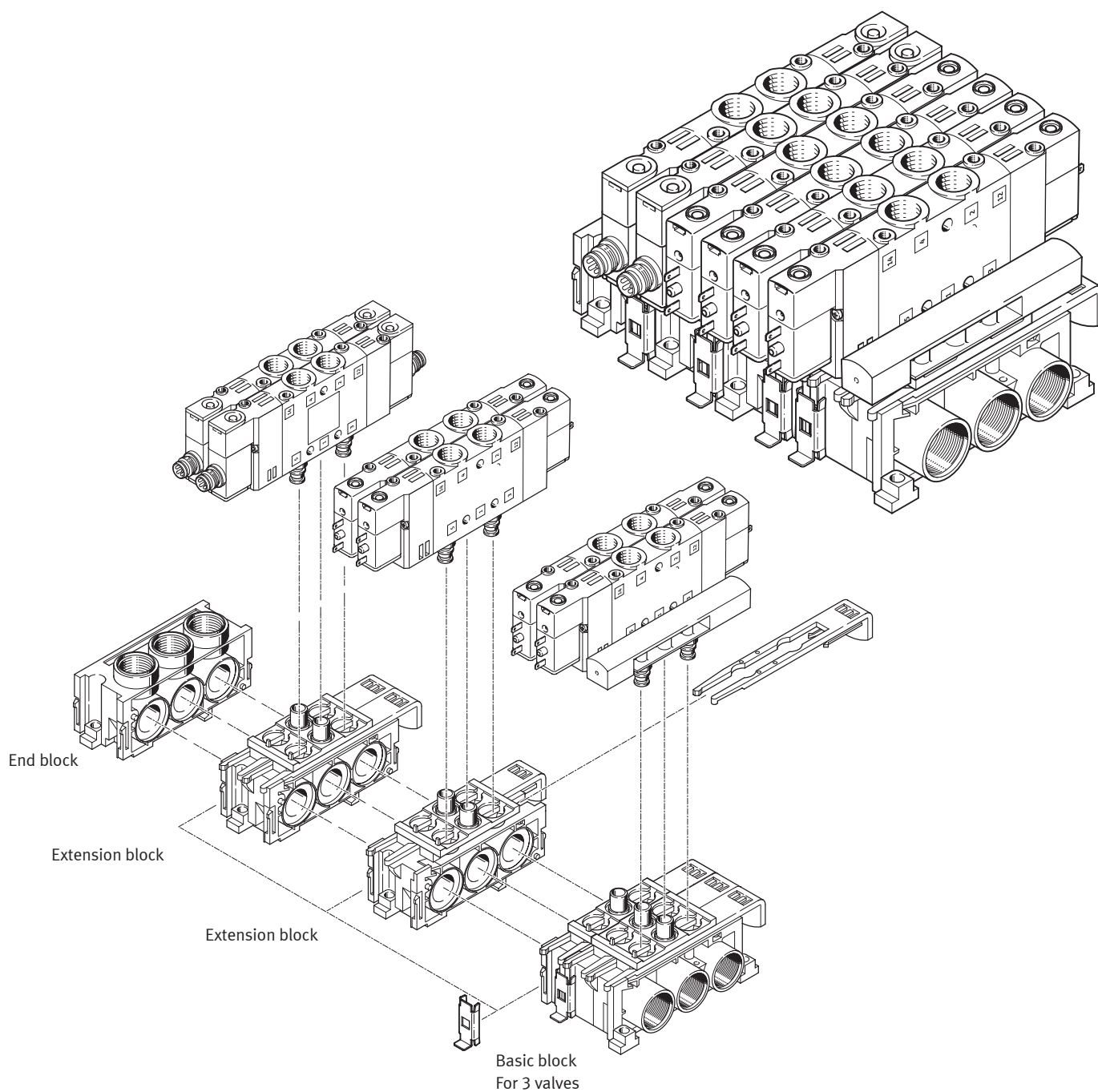
- Simple design comprising compact valve manifold assemblies with in-line valves
- Mounting with stable retaining bracket and special moulded seal guarantee leak-free assembly
- 2 to 10 valve positions
- Aluminium profile strip provides high stability
- High flow rates with air supply on both sides for duct 1
- High exhaust capacity with output on both sides for ducts 3 and 5
- Different pressure and exhaust zones can be created using separators, which are clamped at the separation points in ducts 1, 3 and 5



Key features

Mounting on fixed-grid manifold block for CPE10, CPE14 and CPE18

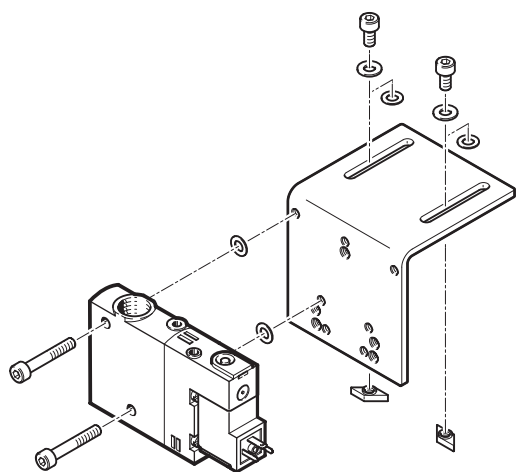
- Creating a valve manifold with modular manifold blocks made from high impact, glass fibre reinforced polyamide
- Different pressure zones can be created using basic and expansion blocks with closed supply and exhaust ducts
- Air supply and exhaust can be connected on both sides using an additional end block
- Air supply and exhaust can be connected to the end block, at the rear and at the top
- No screws required for mounting thanks to slides and clips



Key features – Mounting

Mounting – Individual valve CPE

Cylinder mounting



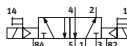
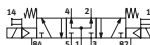
For mounting individual valves directly on a drive. The solenoid valves are provided with two through-holes for attaching to the cylinder mounting DAVM-MW-V1...-V. Mounting is only possible on the side on which the pneumatic connections are located.

The relevant screw set is included when the cylinder mounting DAVM-MW-V1...-V is ordered.

Product range overview – Widths 10 mm and 14 mm

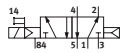
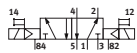
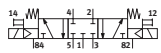
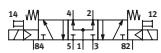
Width	Circuit symbol	Type	Electrical connection		Operating voltage [V DC]	Working port						→ Page/ Internet	
			Plug pattern ZC	M8x1		M5	M7	G1/8	QS4	QS6	QS8		
10 mm	3/2-way single solenoid valve, normally closed												
		CPE10-M1BH-3GL...	■	–	24	■	■	–	■	■	–	26	
		CPE10-M1CH-3GL...	–	■	24	–	■	–	–	–	–		
	3/2-way single solenoid valve, normally open												
		CPE10-M1BH-3OL...	■	–	24	■	■	–	■	■	–	26	
		CPE10-M1CH-3OL...	–	■	24	–	■	–	–	–	–		
	5/2-way single solenoid valve												
		CPE10-M1BH-5L...	■	–	24	■	■	–	■	■	–	26	
		CPE10-M1CH-5L...	–	■	24	–	■	–	–	–	–		
	5/2-way double solenoid valve												
		CPE10-M1BH-5J...	■	–	24	■	■	–	■	■	–	26	
		CPE10-M1CH-5J...	–	■	24	–	■	–	–	–	–		
	5/3-way solenoid valve, normally closed, mid-position valve												
		CPE10-M1BH-5/3G...	■	–	24	■	■	–	■	■	–	27	
		CPE10-M1CH-5/3G...	–	■	24	–	■	–	–	–	–		
	5/3-way solenoid valve, normally open, mid-position valve												
		CPE10-M1BH-5/3B...	■	–	24	■	■	–	■	■	–	27	
		CPE10-M1CH-5/3B...	–	■	24	–	■	–	–	–	–		
5/3-way solenoid valve, normally exhausted, mid-position valve													
	CPE10-M1BH-5/3E...	■	–	24	■	■	–	■	■	–	27		
	CPE10-M1CH-5/3E...	–	■	24	–	■	–	–	–	–			
14 mm	3/2-way single solenoid valve, normally closed												
		CPE14-M1BH-3GL...	■	–	24	–	–	■	–	■	■	43	
		CPE14-M1CH-3GL...	–	■	24	–	–	■	–	–	–		
	3/2-way single solenoid valve, normally open												
		CPE14-M1BH-3OL...	■	–	24	–	–	■	–	■	■	43	
		CPE14-M1CH-3OL...	–	■	24	–	–	■	–	–	–		
	5/2-way single solenoid valve												
		CPE14-M1BH-5L...	■	–	24	–	–	■	–	■	■	43	
		CPE14-M1CH-5L...	–	■	24	–	–	■	–	–	–		
	5/2-way double solenoid valve												
		CPE14-M1BH-5J...	■	–	24	–	–	■	–	■	■	43	
		CPE14-M1CH-5J...	–	■	24	–	–	■	–	–	–		
	5/3-way solenoid valve, normally closed, mid-position valve												
		CPE14-M1BH-5/3G...	■	–	24	–	–	■	–	■	■	44	
		CPE14-M1CH-5/3G...	–	■	24	–	–	■	–	–	–		
	5/3-way solenoid valve, normally open, mid-position valve												
		CPE14-M1BH-5/3B...	■	–	24	–	–	■	–	■	■	44	
		CPE14-M1CH-5/3B...	–	■	24	–	–	■	–	–	–		
5/3-way solenoid valve, normally exhausted, mid-position valve													
	CPE14-M1BH-5/3E...	■	–	24	–	–	■	–	■	■	44		
	CPE14-M1CH-5/3E...	–	■	24	–	–	■	–	–	–			

Product range overview – Width 18 mm

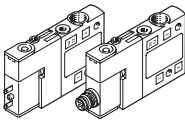
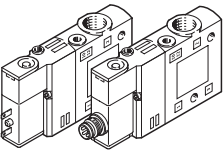
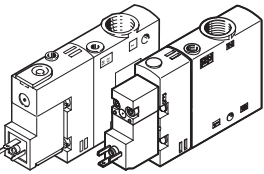
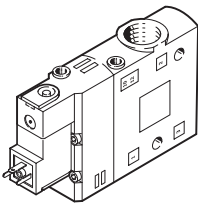
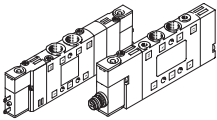
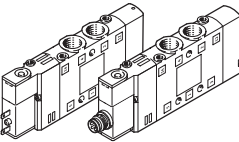
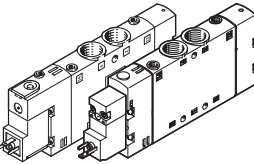
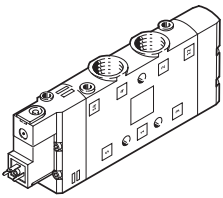
Width	Circuit symbol	Type	Operating voltage		Working port			→ Page/ Internet
			[V DC]	[V AC]	G1/4	QS8	QS10	
18 mm	3/2-way single solenoid valve, normally closed							
		CPE18-M1H-3GL...	24	–	■	■	■	59
		CPE18-M2H-3GL...	–	110	■	■	■	
		CPE18-M3H-3GL...	–	220	■	■	■	
		CPE18-P1-3GL...1/4	12 ¹⁾	110 ¹⁾	■	–	–	66
		24 ¹⁾	230 ¹⁾	■	–	–		
	3/2-way single solenoid valve, normally open							
		CPE18-M1H-3OL...	24	–	■	■	■	59
		CPE18-M2H-3OL...	–	110	■	■	■	
		CPE18-M3H-3OL...	–	220	■	■	■	
		CPE18-P1-3OL...1/4	12 ¹⁾	110 ¹⁾	■	–	–	66
			24 ¹⁾	230 ¹⁾	■	–	–	
	5/2-way single solenoid valve							
		CPE18-M1H-5L...	24	–	■	■	■	60
		CPE18-M2H-5L...	–	110	■	■	■	
		CPE18-M3H-5L...	–	220	■	■	■	
		CPE18-P1-5L...1/4	12 ¹⁾	110 ¹⁾	■	–	–	66
			24 ¹⁾	230 ¹⁾	■	–	–	
	5/2-way double solenoid valve							
		CPE18-M1H-5J...	24	–	■	■	■	60
		CPE18-M2H-5J...	–	110	■	■	■	
		CPE18-M3H-5J...	–	220	■	■	■	
		CPE18-P1-5J...1/4	12 ¹⁾	110 ¹⁾	■	–	–	66
			24 ¹⁾	230 ¹⁾	■	–	–	
	5/3-way solenoid valve, normally closed, mid-position valve							
		CPE18-M1H-5/3G...	24	–	■	■	■	61
		CPE18-M2H-5/3G...	–	110	■	■	■	
		CPE18-M3H-5/3G...	–	220	■	■	■	
		CPE18-P1-5/3G...1/4	12 ¹⁾	110 ¹⁾	■	–	–	66
			24 ¹⁾	230 ¹⁾	■	–	–	
	5/3-way solenoid valve, normally open, mid-position valve							
		CPE18-M1H-5/3B...	24	–	■	■	■	61
		CPE18-M2H-5/3B...	–	110	■	■	■	
		CPE18-M3H-5/3B...	–	220	■	■	■	
		CPE18-P1-5/3B...1/4	12 ¹⁾	110 ¹⁾	■	–	–	66
			24 ¹⁾	230 ¹⁾	■	–	–	
	5/3-way solenoid valve, normally exhausted, mid-position valve							
		CPE18-M1H-5/3E...	24	–	■	■	■	61
		CPE18-M2H-5/3E...	–	110	■	■	■	
		CPE18-M3H-5/3E...	–	220	■	■	■	
		CPE18-P1-5/3E...1/4	12 ¹⁾	110 ¹⁾	■	–	–	66
			24 ¹⁾	230 ¹⁾	■	–	–	

1) Operating voltage dependent on separately ordered pilot valve

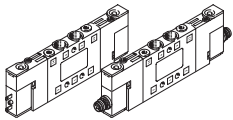
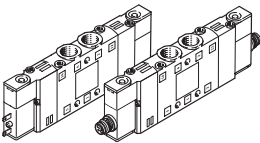
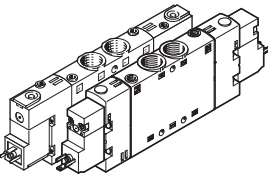
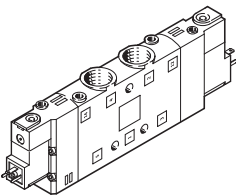
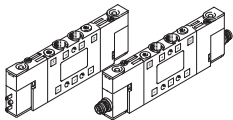
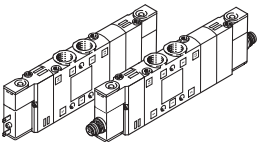
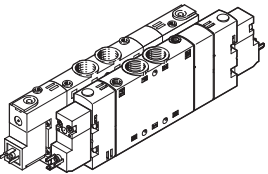
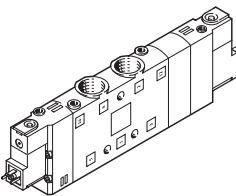
Product range overview – Width 24 mm

Width	Circuit symbol	Type	Operating voltage		Working port			→ Page/ Internet
			[V DC]	[V AC]	G3/8	QS10	QS12	
24 mm	3/2-way single solenoid valve, normally closed							
		CPE24-M1H-3GL...	24	–	■	■	■	81
		CPE24-M2H-3GL...	–	110	■	■	■	
		CPE24-M3H-3GL...	–	220	■	■	■	
	3/2-way single solenoid valve, normally open							
		CPE24-M1H-3OL...	24	–	■	■	■	81
		CPE24-M2H-3OL...	–	110	■	■	■	
		CPE24-M3H-3OL...	–	220	■	■	■	
	5/2-way single solenoid valve							
		CPE24-M1H-5L...	24	–	■	■	■	82
		CPE24-M2H-5L...	–	110	■	■	■	
		CPE24-M3H-5L...	–	220	■	■	■	
	5/2-way double solenoid valve							
		CPE24-M1H-5J...	24	–	■	■	■	82
		CPE24-M2H-5J...	–	110	■	■	■	
		CPE24-M3H-5J...	–	220	■	■	■	
	5/3-way solenoid valve, normally closed, mid-position valve							
		CPE24-M1H-5/3G...	24	–	■	■	■	83
		CPE24-M2H-5/3G...	–	110	■	■	■	
		CPE24-M3H-5/3G...	–	220	■	■	■	
	5/3-way solenoid valve, normally open, mid-position valve							
		CPE24-M1H-5/3B...	24	–	■	■	■	83
		CPE24-M2H-5/3B...	–	110	■	■	■	
		CPE24-M3H-5/3B...	–	220	■	■	■	
	5/3-way solenoid valve, normally exhausted, mid-position valve							
		CPE24-M1H-5/3E...	24	–	■	■	■	83
		CPE24-M2H-5/3E...	–	110	■	■	■	
		CPE24-M3H-5/3E...	–	220	■	■	■	

Product range overview – Functions

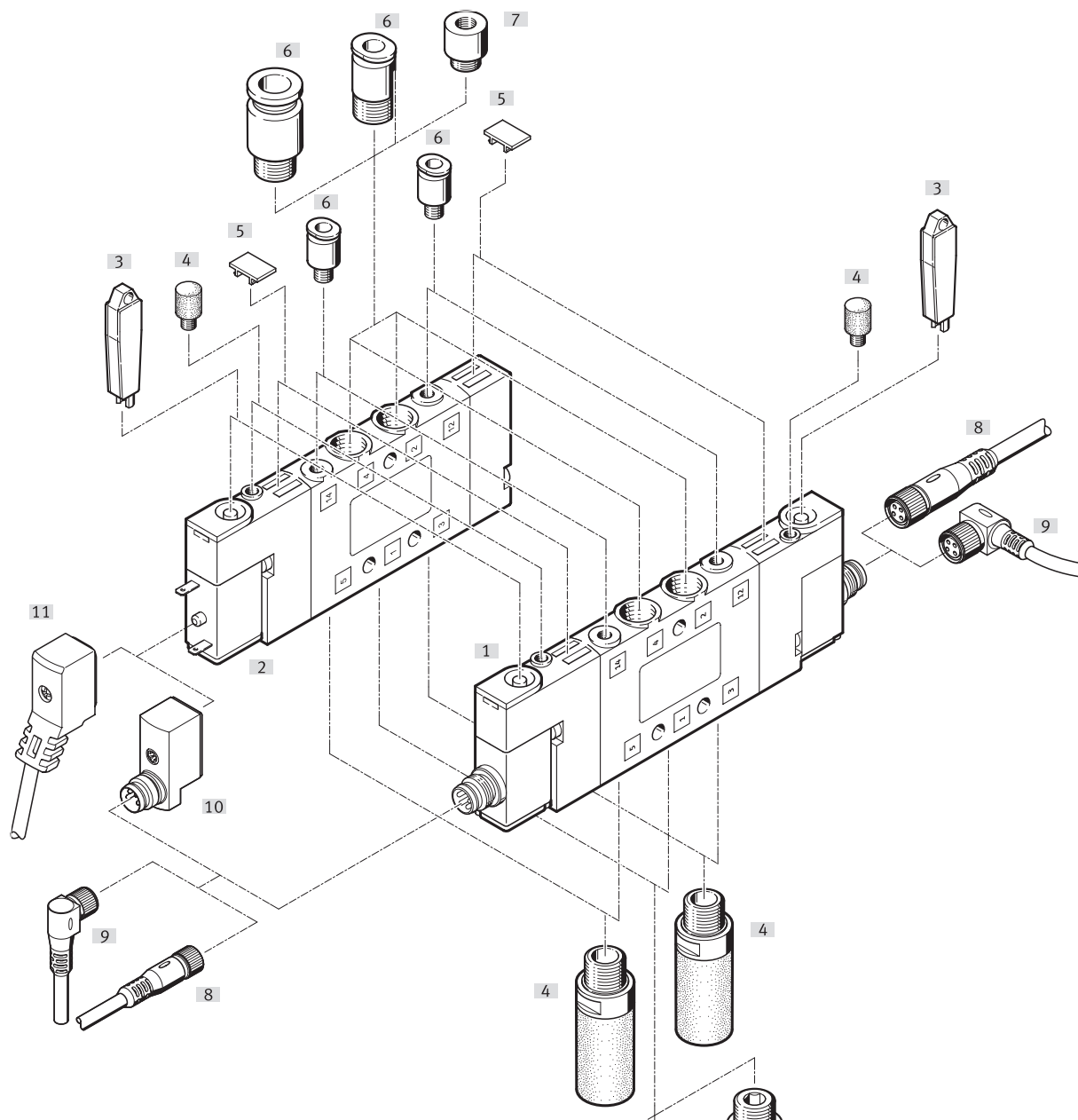
3/2-way valves					
Type		CPE10	CPE14	CPE18	CPE24
Width		10 mm	14 mm	18 mm	24 mm
Standard nominal flow rate [l/min]					
Thread	M5	190	–	–	–
	M7	400	–	–	–
	G1/8	–	900	–	–
	G1/4	–	–	1300	–
	G3/8	–	–	–	2500
Push-in connector	QS-4	190	–	–	–
	QS-6	300	510	–	–
	QS-8	–	810	850	–
	QS-10	–	–	1000	1250
	QS-12	–	–	–	1650
5/2-way valves, single solenoid					
Type		CPE10	CPE14	CPE18	CPE24
Width		10 mm	14 mm	18 mm	24 mm
Standard nominal flow rate [l/min]					
Thread	M5	180	–	–	–
	M7	350	–	–	–
	G1/8	–	800	–	–
	G1/4	–	–	1300	–
	G3/8	–	–	–	2900
Push-in connector	QS-4	180	–	–	–
	QS-6	320	400	–	–
	QS-8	–	680	850	–
	QS-10	–	–	1000	1250
	QS-12	–	–	–	1650
Operating voltage					
12 V DC		–	–	■	–
24 V DC/AC		■/–	■/–	■/■	■/–
110 V AC		–	–	■	■
230 V AC		–	–	■	■
Datasheet → page		20	35	53	75

Product range overview – Functions

5/2-way valves, double solenoid					
					
Type		CPE10	CPE14	CPE18	CPE24
Width		10 mm	14 mm	18 mm	24 mm
Standard nominal flow rate [l/min]					
Thread	M5	180	–	–	–
	M7	350	–	–	–
	G1/8	–	800	–	–
	G1/4	–	–	1300	–
	G3/8	–	–	–	3200
Push-in connector	QS-4	180	–	–	–
	QS-6	320	400	–	–
	QS-8	–	680	850	–
	QS-10	–	–	1000	1250
	QS-12	–	–	–	1650
5/3-way valves					
					
Type		CPE10	CPE14	CPE18	CPE24
Width		10 mm	14 mm	18 mm	24 mm
Standard nominal flow rate [l/min]					
Thread	M5	180	–	–	–
	M7	250 ... 350	–	–	–
	G1/8	–	700 ... 750	–	–
	G1/4	–	–	1200 ... 1450	–
	G3/8	–	–	–	2600 ... 3000
Push-in connector	QS-4	180	–	–	–
	QS-6	250 ... 300	370 ... 410	–	–
	QS-8	–	570 ... 720	780 ... 850	–
	QS-10	–	–	1000 ... 1050	1250
	QS-12	–	–	–	1600 ... 1650
Operating voltage					
12 V DC		–	–	■	–
24 V DC/AC		■/–	■/–	■/■	■/–
110 V AC		–	–	■	■
230 V AC		–	–	■	■
Datasheet → page		20	35	53	75

Peripherals overview

Individual valve – CPE10 and CPE14

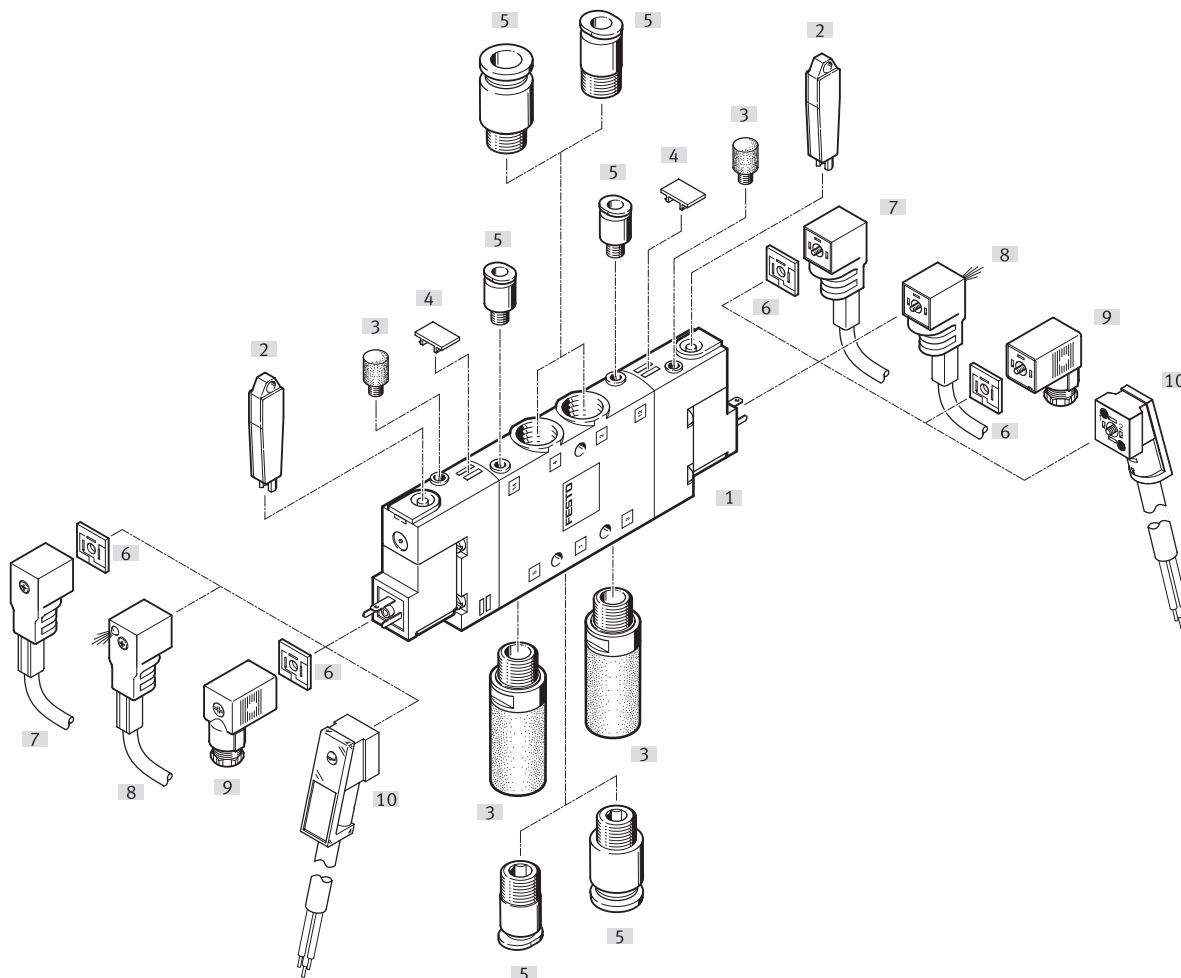


Accessories – Individual valve

	Type	Description	CPE10	CPE14	→ Page/Internet
[1]	Solenoid valve	CPE...	■	■	cpe
[2]	Solenoid valve	CPE...	■	■	cpe
[3]	Manual override tool	AHB...	■	■	86
[4]	Silencer	U... or UC...	■	■	86
[5]	Inscription labels	IBS-6x10	■	■	86
[6]	Push-in fittings	QS...	■	■	qs
[7]	Reducer M7 on M5	–	■	–	–
[8]	Connecting cable	NEBA-M8G4-...	■	■	85
[9]	Connecting cable	NEBA-M8W4-...	■	■	85
[10]	Adapter	VAVE-C8...	■	■	85
[11]	Connecting cable	NEBV-Z4...	■	■	85
–	2 to 1 distributor	NEDY...	■	■	85

Peripherals overview

Individual valve – CPE18 and CPE24

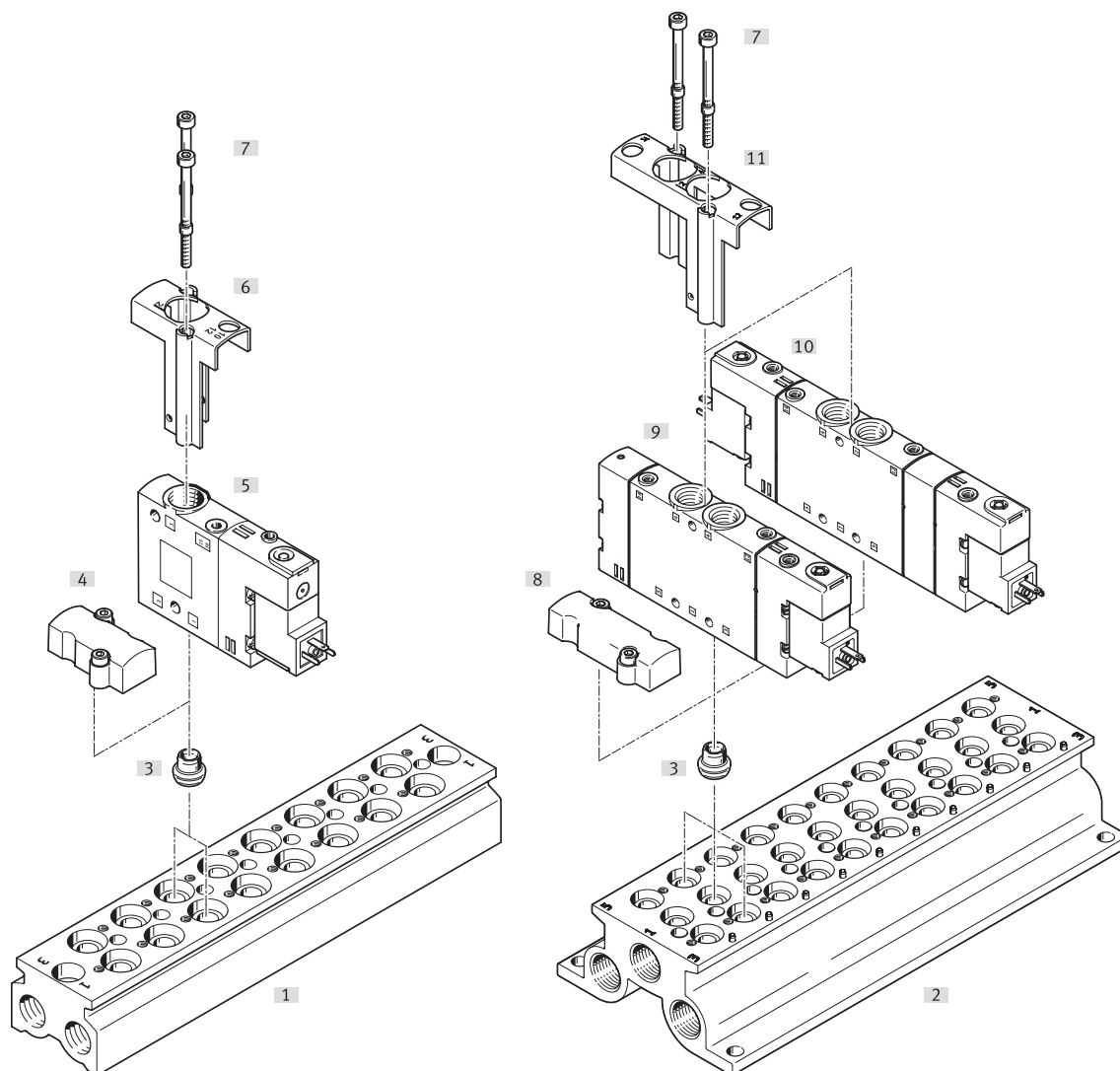


Accessories – Individual valve

	Type	Description	CPE18	CPE24	→ Page/Internet
[1]	Solenoid valve	CPE...	■	■	cpe
[2]	Manual override tool	AHB...	■	■	86
[3]	Silencer	U... or UC...	■	■	86
[4]	Inscription labels	IBS-6x10	■	■	86
[5]	Push-in fittings	QS...	■	■	qs
[6]	Illuminating seal	MEB...LD	■	■	86
[7]	Plug socket with cable	KMEB-1...	■	■	86
[8]	Plug socket with cable	KMEB-1...	■	■	86
[9]	Plug socket	MSSD-EB...	■	■	86
[10]	Plug socket with cable	KMEB-2...	■	■	86

System overview

Fixed-grid manifold assembly

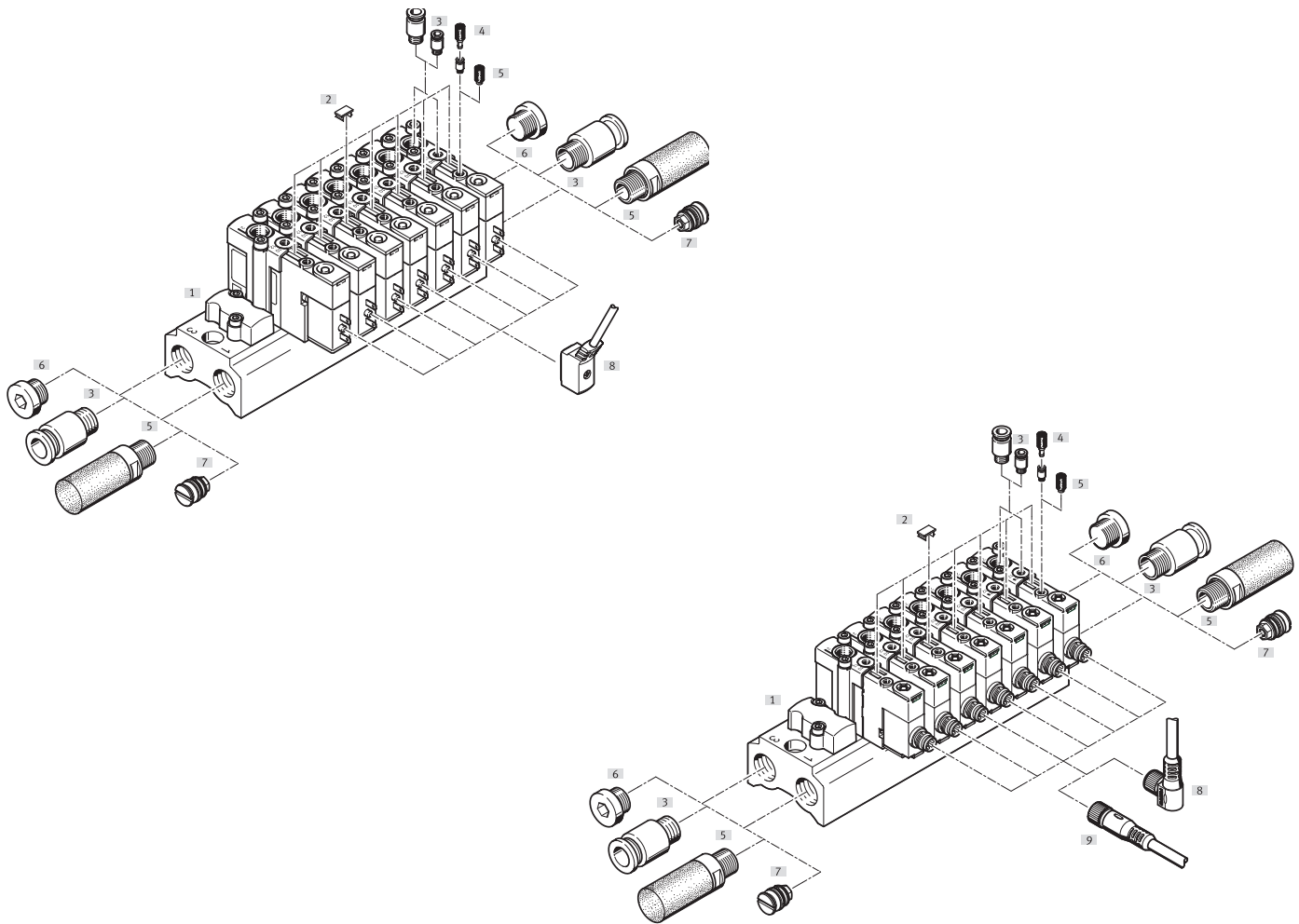


Example of manifold assembly – CPE18

	Type	Description	→ Page/Internet		
			CPE10	CPE14	CPE18
[1] Manifold block	CPE18-3/2-PRS...	For 3/2-way valves	31	48	70
[2] Manifold block	CPE18-PRS...	For 5/2-way and 5/3-way valves	29	46	68
[3] Seal	CPV18-VI-P.1/4-150	–	29	46	70
[4] Cover plate	CPE18-RP3	For mounting on vacant positions for 3/2-way valves	31	48	70
[5] 3/2-way valve	CPE18...	–	26	43	59
[6] Retaining bracket	CPE18-H3-50	Retainer for 3/2-way valve	31	48	70
[7] Screw	M4X65-8.8-VS-100	–	29	46	70
[8] Cover plate	CPE18-RP	For mounting on vacant positions for 5/2- and 5/3-way valves	29	46	68
[9] 5/2-way valve	CPE18...	–	26	43	60
[10] 5/3-way valve	CPE18...	–	27	44	61
[11] Retaining bracket	CPE18-H5-50	Retainer bracket for 5/2- and 5/3-way valve	29	46	68

Peripherals overview

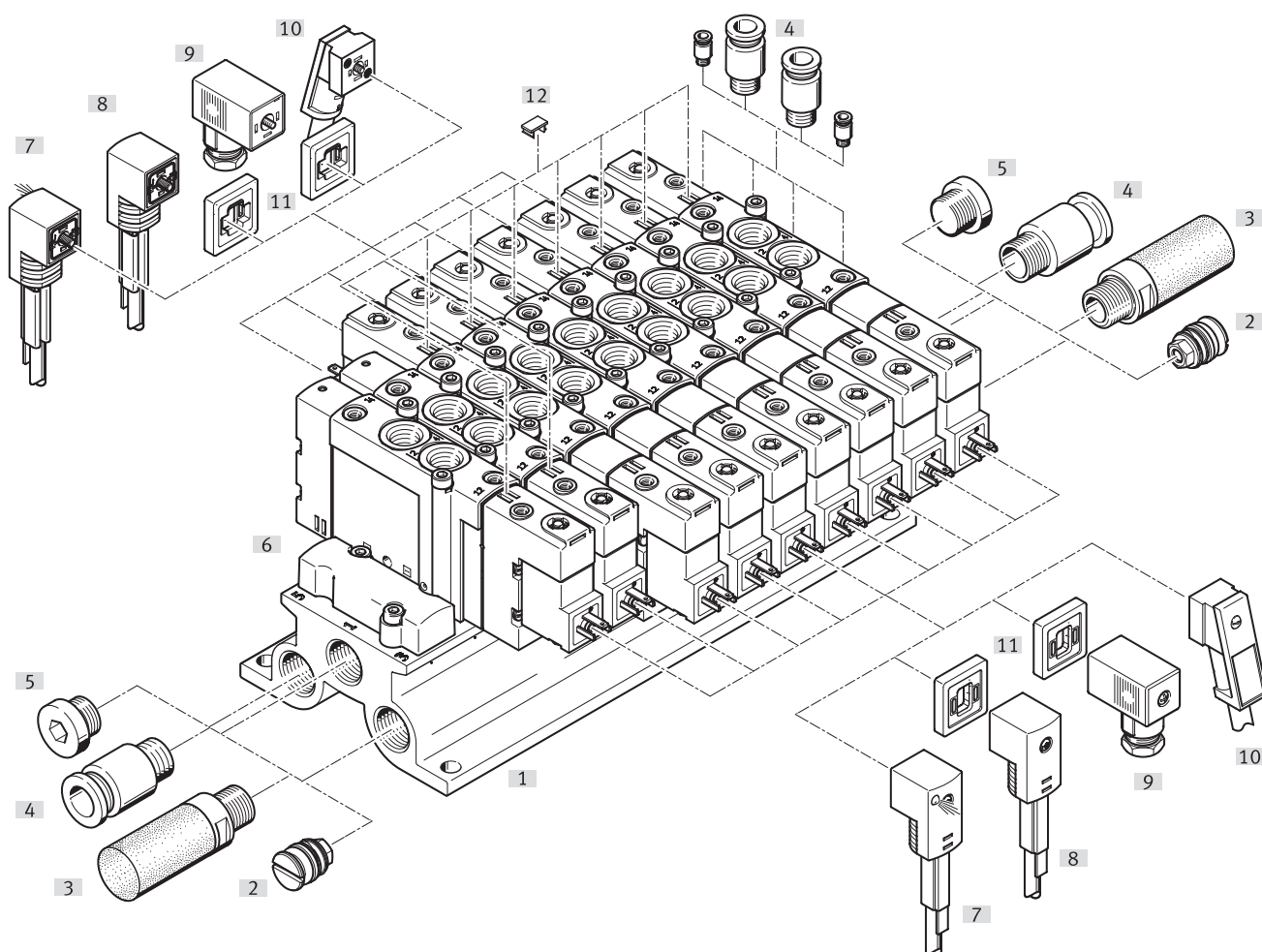
Accessories – Fixed-grid manifold assembly CPE10 and CPE14



Accessories		Type	Description	CPE10	CPE14	→ Page/Internet
[1]	Solenoid valve	CPE...	–	■	■	cpe
[2]	Inscription labels	IBS-6x10	–	■	■	86
[3]	Push-in fittings	QS...	For tubing	■	■	qs
[4]	Reducer M7 on M5	–	Included in the scope of delivery	■	–	–
[5]	Silencer	U... or UC...	For port 3, 5, 82 or 84	■	■	86
[6]	Blanking plug	B...	–	■	■	86
[7]	Separator	VABD..., PRSV...	For fitting in the manifold block	■	■	86
[8]	Connecting cable	NEBV-Z4...	Plug pattern ZC with holding current reduction, protective circuit, signal status indication	■	■	85
	Connecting cable	NEBA-M8W4-...	Socket M8x1, angled	■	■	85
[9]	Connecting cable	NEBA-M8G4-...	Socket M8x1, straight	■	■	85
–	2 to 1 distributor	NEDY...	2x socket plug pattern ZC on 1x plug, M8x1 or M12x1	■	■	85

Peripherals overview

Accessories – Fixed-grid manifold assembly CPE18

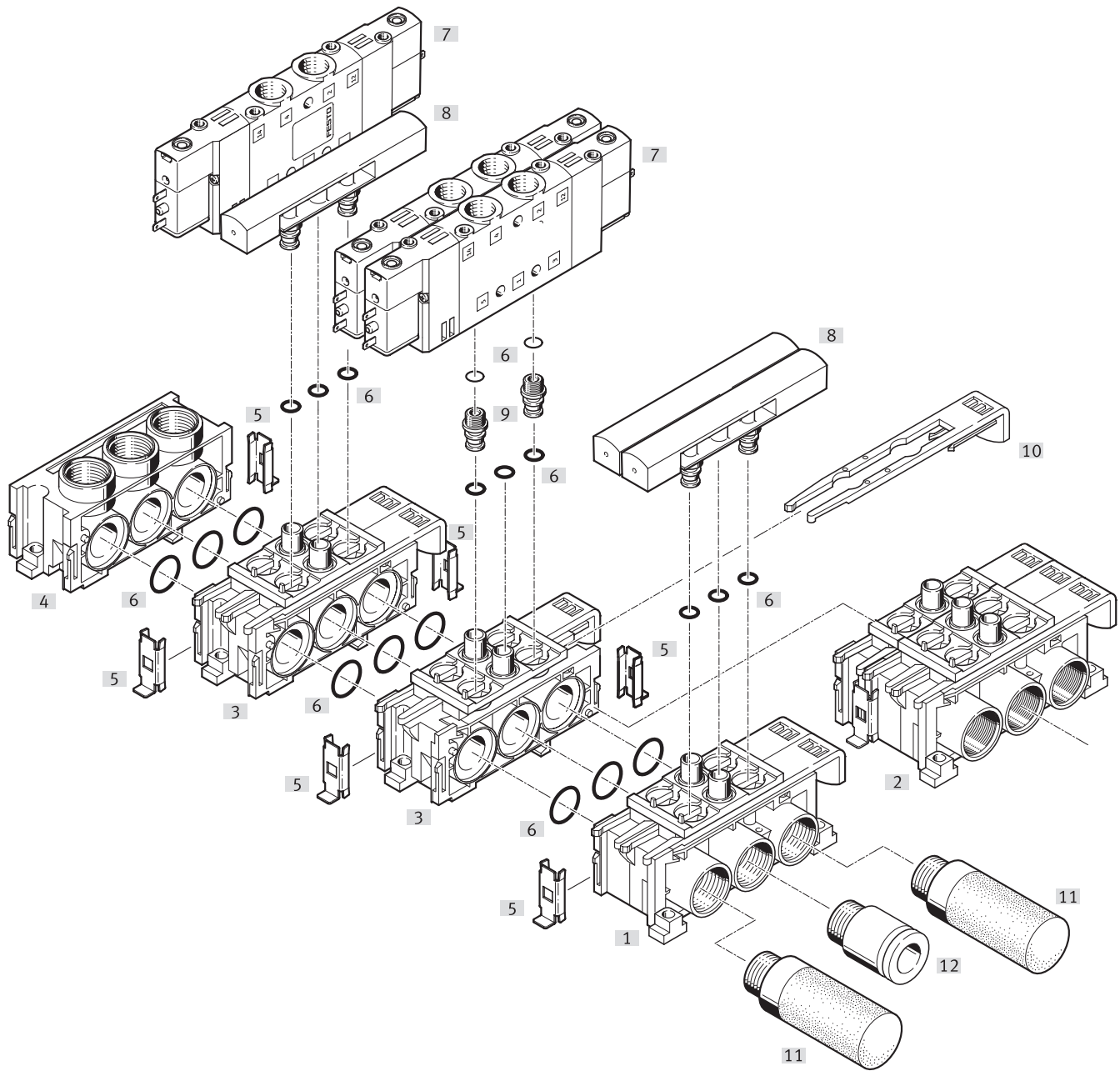


Accessories – Mounting on manifold block

	Type	Description	→ Page/Internet
[1] Manifold block	CPE18-PRS...	For 5/2-way and 5/3-way valves	68
	CPE18-3/2-PRS...	For 3/2-way valves	70
[2] Separator for pressure zones	VABD..., PRSV...	For fitting in the manifold block	86
[3] Silencer	U... or UC...	For fitting in exhaust ports	86
[4] Push-in fittings	QS...	For tubing	qs
[5] Blanking plug	B...	–	86
[6] Cover plate	CPE18-RP	For mounting on vacant positions for 5/2- and 5/3-way valves	68
	CPE18-RP3	For mounting on vacant positions for 3/2-way valves	70
[7] Plug socket with cable	KMEB-1...	Cable sheath PVC, 24 V DC, with signal status indication	86
[8] Plug socket with cable	KMEB-1...	Cable sheath PVC, to 240 V, without signal status indication	86
[9] Plug socket	MSSD-EB...	Without signal status indication	86
[10] Plug socket with cable	KMEB-2...	Cable sheath PUR	86
[11] Illuminating seal	MEB-LD...	For 12 ... 24 V DC and 0 ... 230 V AC	86
[12] Inscription labels	IBS-6x10	–	86

System overview

Manifold assembly with modular manifold blocks



Accessories – Manifold assembly

	Type	Description	→ Page/Internet
[1]	Manifold block	CPE...-PRSG-2	For 2 valves
[2]	Manifold block	CPE...-PRSG-3	For 3 valves
[3]	Extension block	CPE...-PRSE-2	For 2 valves
[4]	End plate	CPE...-PRS-EP	–
[5]	Connecting component	–	For connecting the blocks
[6]	Seal	–	Included in the scope of delivery
[7]	Solenoid valve	CPE...	–
[8]	Cover plate	CPE...-RP	For sealing vacant positions
[9]	Fitting	–	Included in the scope of delivery
[10]	Slide	–	For mounting the valve
[11]	Silencer	U or UC	–
[12]	Push-in fitting	QS...	For tubing

Type codes

001	Series	
CPE	Solenoid valve, Compact Performance	
002	Width	
10	10 mm	
003	Nominal operating voltage	
M1	24 V DC	
004	Electrical connection	
BH	Plug pattern ZC	
CH	Plug M8x1	
005	Valve function	
5L	5/2-way valve, monostable	
5J	5/2-way valve, bistable	
3GL	3/2-way valve, normally closed	
3OL	3/2-way valve, normally open	
5/3G	5/3-way valve, mid-position closed	
5/3E	5/3-way valve, mid-position exhausted	
5/3B	5/3-way valve, mid-position pressurised	

006	Pilot air	
	Internal	
S	External	
007	Pneumatic connection	
M5	M5	
M7	M7	
QS-4	Push-in connector 4 mm	
QS-6	Push-in connector 6 mm	
008	Generation	
	None	
B	Series B	

Datasheet

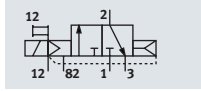
Function

3/2G, 3/2O,

5/2-way single solenoid,

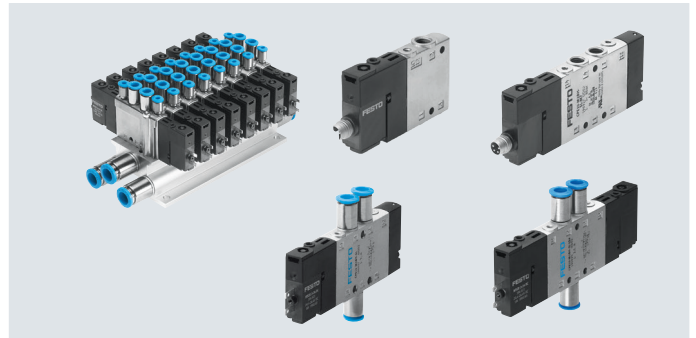
5/2-way, double solenoid valve

5/3G, 5/3B, 5/3E



e.g. 3/2-way valve with external pilot air supply,
normally closed

-  - Width 10 mm
-  - Flow rate
180 ... 400 l/min
-  - Voltage
24 V DC



General technical data									
Valve function			3/2		5/2		5/3		
Normal position			G ¹⁾	O ²⁾	–	–	G ¹⁾	B ²⁾	E ³⁾
Stable position			Monostable			Bistable		Monostable	
Pneumatic spring return			Yes			–		No	
Mechanical spring return			No			–		Yes	
Design			Piston spool						
Sealing principle			Soft						
Overlap			Positive overlap						
Actuation type			Electrical						
Type of control			Piloted						
Pilot air supply			Internal or external						
Flow direction			–		Reversible with external pilot air supply				
Exhaust air function			–		Can be throttled				
Manual override			Non-detenting, detenting via accessory						
Type of mounting			Via through-holes						
Mounting position			Any						
Pneumatic connection	1, 2, 4		Threaded connection: M5, M7 QS connection: Ø 4 or Ø 6 mm						
	3, 5		Threaded connection: M7						
	12, 14		Threaded connection: M3, QS connection: Ø 3 mm						
	82, 84		Threaded connection: M3						
Nominal width		[mm]	4						
Standard nominal flow rate	M5	[l/min]	190		180				
	M7	[l/min]	400		350		300		250
	QS4	[l/min]	190		180				
	QS6	[l/min]	300		350	320	300		250
Switching time	On/off	[ms]	1 4/14		1 6/20		–		1 6/20
	Changeover	[ms]	–		8		–		
Duty cycle		[%]	100						
Width		[mm]	10						
Corrosion resistance class CRC ⁴⁾			2						

1) G = normally closed

2) O, B = normally open

3) E = normally exhausted

4) More information www.festo.com/x/topic/crc

Datasheet

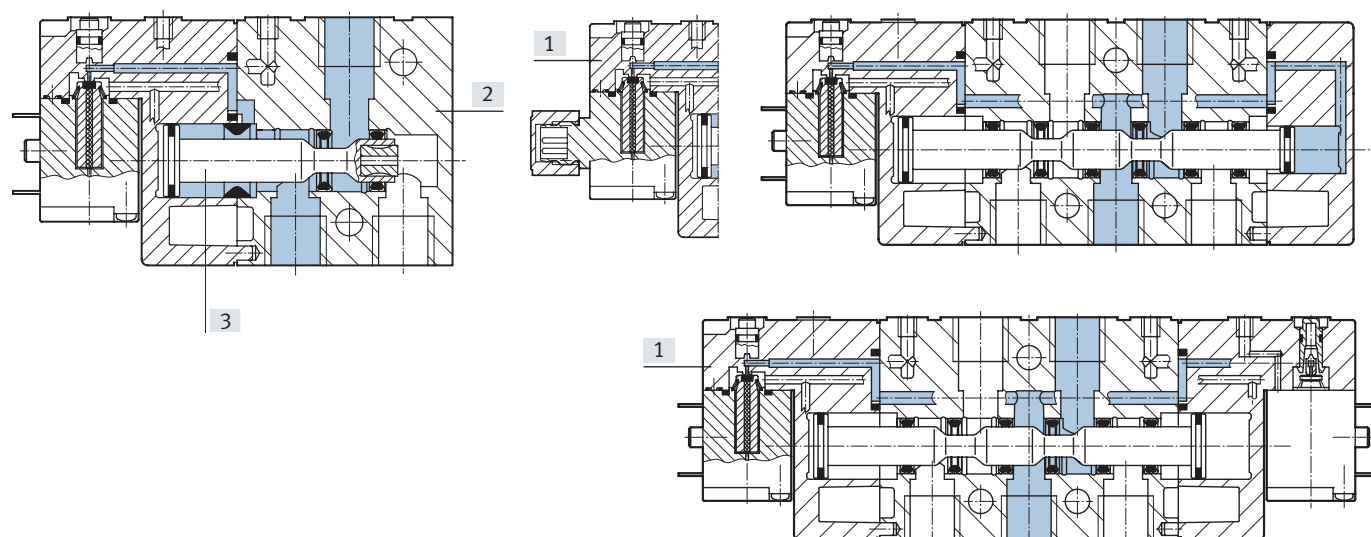
Operating and environmental conditions						
Valve function			3/2	5/2-way, single solenoid	5/2-way, double solenoid	5/3
Operating medium			Compressed air to ISO 8573-1:2010 [7:4:4]			
Pilot medium			Compressed air to ISO 8573-1:2010 [7:4:4]			
Note on the operating/pilot medium			Lubricated operation possible (in which case lubricated operation will always be required)			
Operating pressure	Internal pilot air supply	[MPa]	0.25 ... 0.8	0.3 ... 0.8		
		[bar]	2.5 ... 8	3 ... 8		
	External pilot air supply	[MPa]	−0.09 ... 1			
		[bar]	−0.9 ... 10			
Pilot pressure		[MPa]	0.25 ... 0.8	0.3 ... 0.8		
		[bar]	2.5 ... 8	3 ... 8		
Ambient temperature		[°C]	−5 ... +50			
Temperature of medium		[°C]	−5 ... +50			
Certification for solenoid valves			c UL us - Recognized (OL)			
Maritime classification ¹⁾			See certificate			
Certificate-issuing authority			DNV-TAA000032X			
			UL MH19482			

1) More information www.festo.com/sp → Certificates.

Electrical data				
Operating voltage	M1BH, M1CH	[V DC]	24 +10/−15%	
Power consumption	M1BH, M1CH	[W]	1.28	
Degree of protection with plug socket			IP65 to IEC 60529	
			M1CH: IP65/IP67 to IEC 60529	
Max. tightening torque of plug socket M8x1	M1CH	[Nm]	0.4	

Materials

Sectional view



[1] Cover	PA
[2] Housing	Die-cast aluminium
[3] Piston spool	Steel
– Seals	NBR
Note on materials	
RoHS-compliant	

Datasheet

Dimensions – 3/2-way valve Download CAD data → www.festo.com

CPE10-...-3...-M7

CPE10-...-3...-M5

CPE10-...-3...-QS-4

CPE10-...-3...-QS-6

[1] Manual override, push to reset

[3] Position for inscription labels

[4] Port 10/12 for external pilot air

[5] M7 to M5 reducer

[2] Plug pins, plug pattern ZC

[6] QS push-in fitting

Type	B1	B3	B4	D1	D2	D3 ø	D4	D5 ø	D6 ø	D7 ø	H1	H2	H3	H4	H5	H6	H7	H8
CPE10-M1BH-3...	10	1.5	2.3	M7	M3	3.5	M5	4	6	3	35	26	4	51	62.2	61.7	66.2	63.7

Type	L1	L2	L3	L4	L6	L7	L9	L10	L12	L13
CPE10-M1BH-3...	57	40.8	28.5	16.5	23	10	28.5	16.5	4.2	16.3

Datasheet

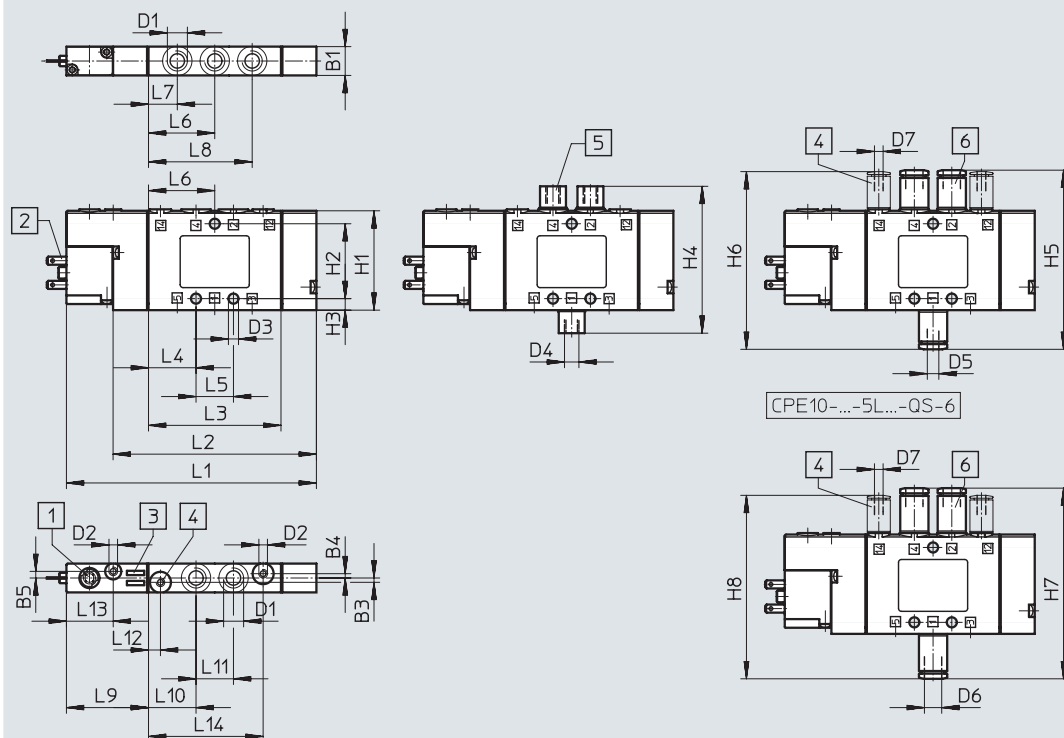
Dimensions – 5/2-way single solenoid valve

Download CAD data → www.festo.com

CPE10-...-5L...-M7

CPE10-...-5L...-M5

CPE10-...-5L...-QS-4



[1] Manual override, push to reset
[2] Plug pins, plug pattern ZC

[3] Position for inscription labels

[4] Port 12/14 for external pilot air

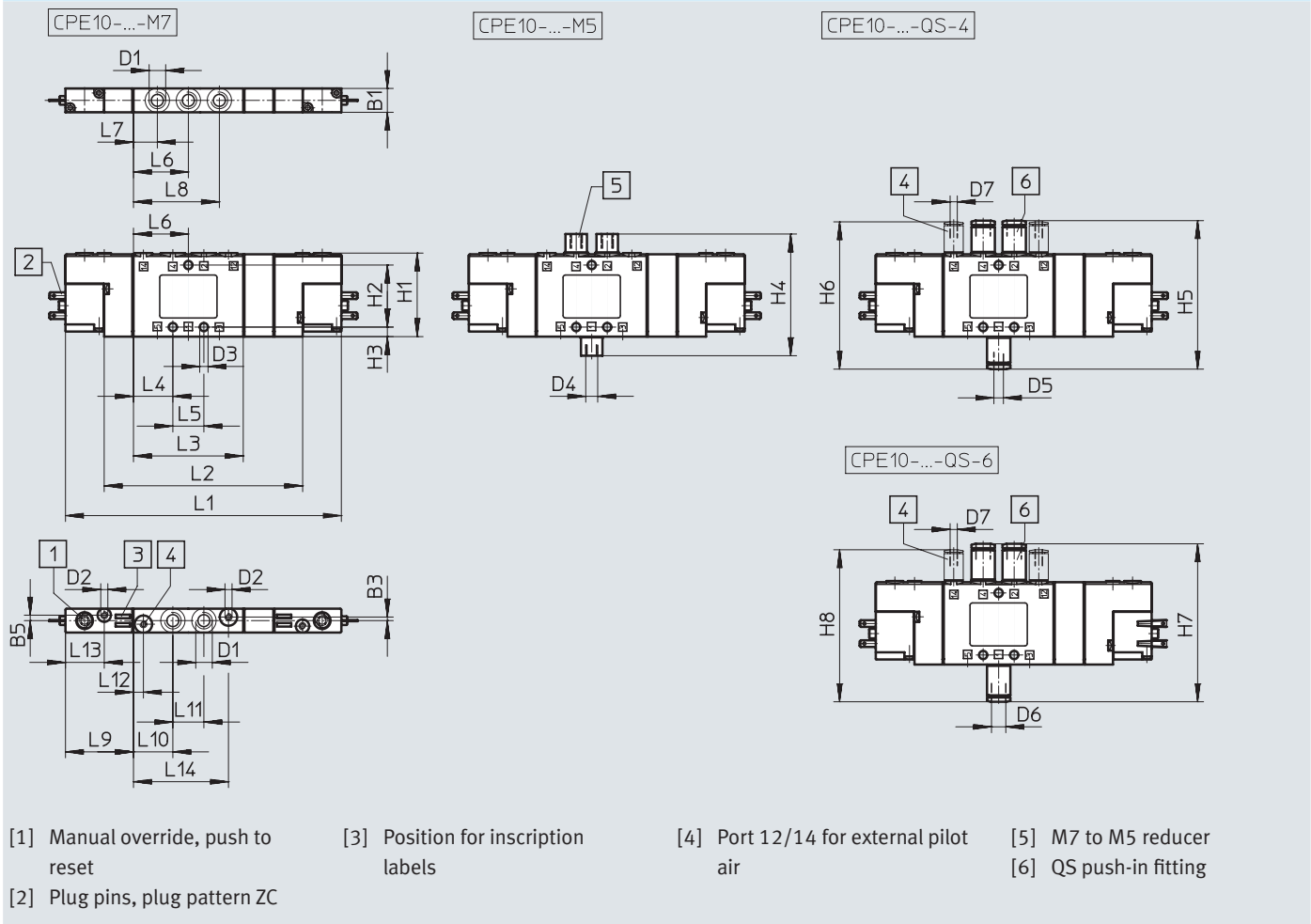
[5] M7 to M5 reducer
[6] QS push-in fitting

Type	B1	B3	B4	B5	D1	D2	D3 ø	D4	D5 ø	D6ø	D7ø	H1	H2	H3	H4	H5	H6	H7	H8
CPE10-M1BH-5L...	10	1.5	1.5	2.3	M7	M3	3.5	M5	4	6	3	35	26	4	51	62.2	61.7	66.2	63.7

Type	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14
CPE10-M1BH-5L...	86.8	70.6	46	16.5	13	23	10	36	28.5	16.5	13	4.2	16.3	39.8

Datasheet

Dimensions – 5/2-way double solenoid valve and 5/3-way valve Download CAD data → www.festo.com

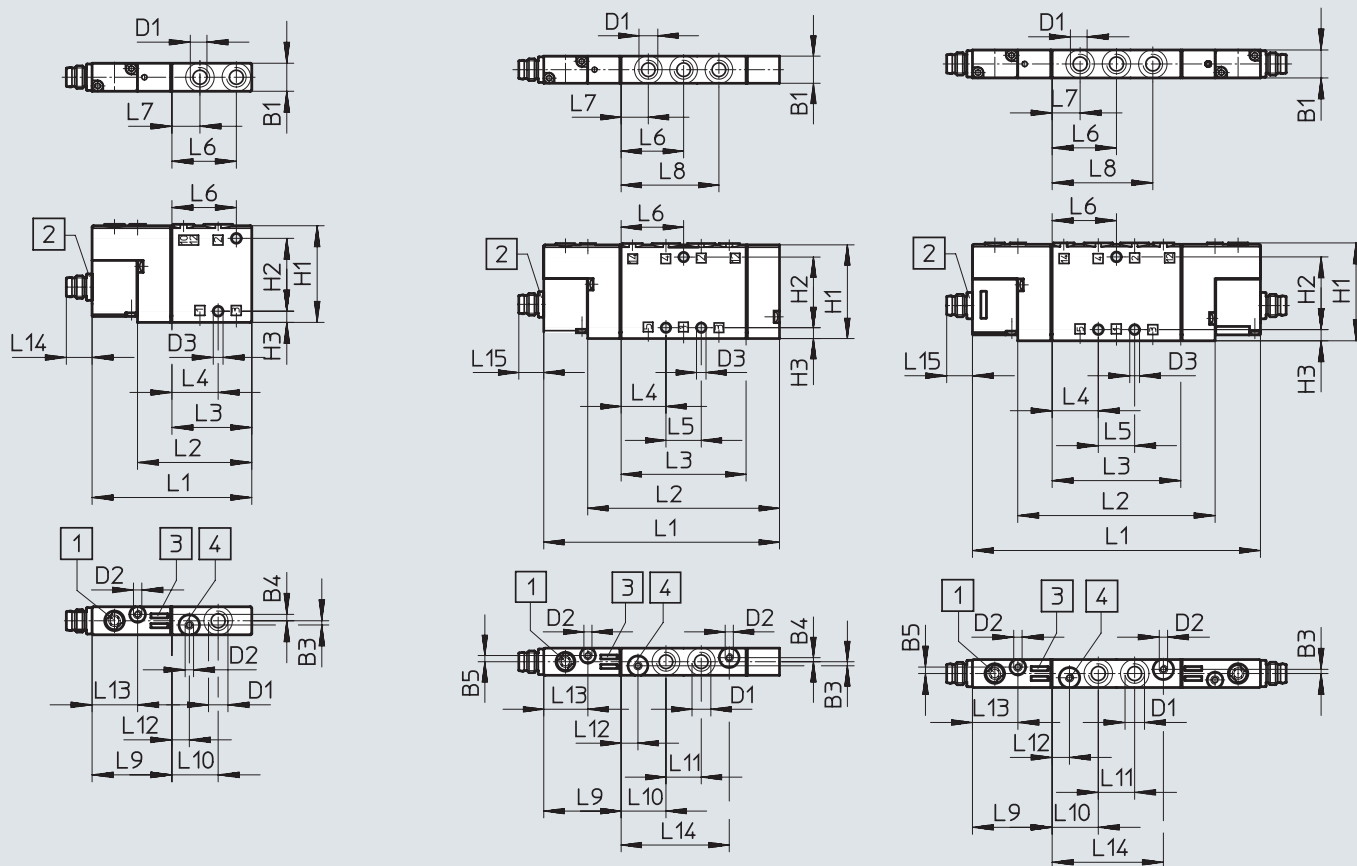


Type	B1	B3	B5	D1	D2	D3 ø	D4	D5 ø	D6 ø	D7 ø	H1	H2	H3	H4	H5	H6	H7	H8
CPE-10-...-5J	10	1.5	2.3	M7	M3	3.5	M5	4	6	3	35	26	4	51	62.2	61.7	66.2	63.7
CPE-10-...-5/3																		

Type	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14
CPE-10-...-5J	103	70.6	46	16.5	13	23	10	36	28.5	16.5	13	4.2	16.3	39.8
CPE-10-...-5/3	115.6	83.2												

Datasheet

Dimensions – Solenoid valves with round plug M8x1

Download CAD data → www.festo.com

[1] Manual override, push to reset

[2] Plug M8x1

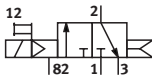
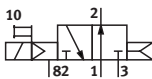
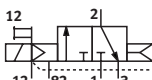
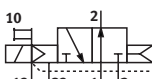
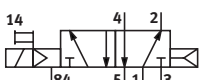
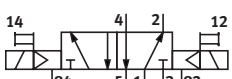
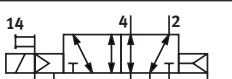
[3] Position for inscription labels

[4] Port 12/14 for external pilot air

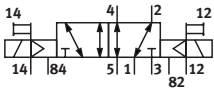
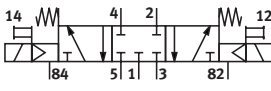
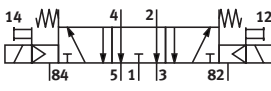
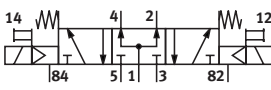
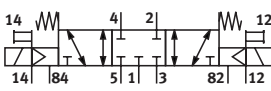
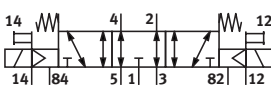
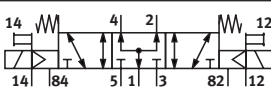
Type	B1	B3	B4	B5	D1	D2	D3 Ø	H1	H2	H3
CPE-10-M1CH-3...	10	1.5	2.3	– 2.3	M7	M3	3.5	35	26	4
CPE-10-M1CH-5L...			1.5							
CPE-10-M1CH-5J...			–							

Type	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14	L15
CPE-10-M1CH-3...	57	40.8	28.5	16.5	–	23	10	–	28.5	16.5	–	6.2	16.3	9.2	–
CPE-10-M1CH-5L...	86.8	70.6	46		13			36			13			39.82	9.2
CPE-10-M1CH-5J...	103														

Ordering data

Ordering data							
Circuit symbol	Pilot air supply	Electrical connection	Operating voltage	Pneumatic connection	Weight [g]	Part no.	Type
3/2-way valve, normally closed							
	Internal	Plug pins, plug pattern ZC	24 V DC	M5	–	196845	CPE10-M1BH-3GL-M5
				M7	40	196915	CPE10-M1BH-3GL-M7
				QS-4	–	196846	CPE10-M1BH-3GL-QS-4
				QS-6	–	196847	CPE10-M1BH-3GL-QS-6
		Plug M8x1		M7	40	550233	CPE10-M1CH-3GL-M7
3/2-way valve, normally open							
	Internal	Plug pins, plug pattern ZC	24 V DC	M5	–	196851	CPE10-M1BH-3OL-M5
				M7	40	196917	CPE10-M1BH-3OL-M7
				QS-4	–	196852	CPE10-M1BH-3OL-QS-4
				QS-6	–	196853	CPE10-M1BH-3OL-QS-6
		Plug M8x1		M7	40	550235	CPE10-M1CH-3OL-M7
3/2-way valve, normally closed							
	External	Plug pins, plug pattern ZC	24 V DC	M5	–	196848	CPE10-M1BH-3GLS-M5
				M7	40	196916	CPE10-M1BH-3GLS-M7
				QS-4	–	196849	CPE10-M1BH-3GLS-QS-4
				QS-6	–	196850	CPE10-M1BH-3GLS-QS-6
		Plug M8x1		M7	40	550234	CPE10-M1CH-3GLS-M7
3/2-way valve, normally open							
	External	Plug pins, plug pattern ZC	24 V DC	M5	–	196854	CPE10-M1BH-3OLS-M5
				M7	40	196918	CPE10-M1BH-3OLS-M7
				QS-4	–	196855	CPE10-M1BH-3OLS-QS-4
				QS-6	–	196856	CPE10-M1BH-3OLS-QS-6
		Plug M8x1		M7	40	550236	CPE10-M1CH-3OLS-M7
5/2-way valve, single solenoid							
	Internal	Plug pins, plug pattern ZC	24 V DC	M5	–	196881	CPE10-M1BH-5L-M5
				M7	56	196927	CPE10-M1BH-5L-M7
				QS-4	–	196882	CPE10-M1BH-5L-QS-4
				QS-6	–	196883	CPE10-M1BH-5L-QS-6
		Plug M8x1		M7	56	550223	CPE10-M1CH-5L-M7
5/2-way double solenoid valve							
	Internal	Plug pins, plug pattern ZC	24 V DC	M5	–	196875	CPE10-M1BH-5J-M5
				M7	68	196925	CPE10-M1BH-5J-M7
				QS-4	–	196876	CPE10-M1BH-5J-QS-4
				QS-6	–	196877	CPE10-M1BH-5J-QS-6
		Plug M8x1		M7	68	550225	CPE10-M1CH-5J-M7
5/2-way valve, single solenoid							
	External	Plug pins, plug pattern ZC	24 V DC	M5	–	196884	CPE10-M1BH-5LS-M5
				M7	56	196928	CPE10-M1BH-5LS-M7
				QS-4	–	196885	CPE10-M1BH-5LS-QS-4
				QS-6	–	196886	CPE10-M1BH-5LS-QS-6
		Plug M8x1		M7	56	550224	CPE10-M1CH-5LS-M7

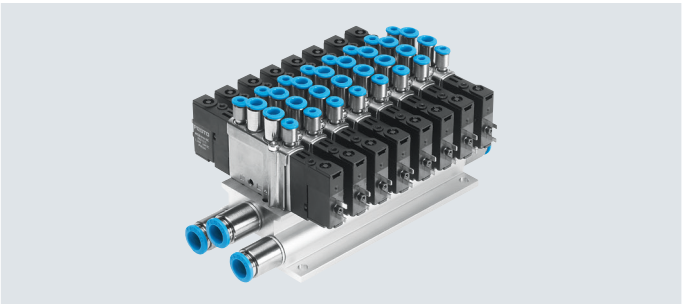
Ordering data

Ordering data							
Circuit symbol	Pilot air supply	Electrical connection	Operating voltage	Pneumatic connection	Weight [g]	Part no.	Type
5/2-way double solenoid valve							
	External	Plug pins, plug pattern ZC	24 V DC	M5	–	196878	CPE10-M1BH-5JS-M5
				M7	68	196926	CPE10-M1BH-5JS-M7
				QS-4	–	196879	CPE10-M1BH-5JS-QS-4
				QS-6	–	196880	CPE10-M1BH-5JS-QS-6
		Plug M8x1		M7	68	550226	CPE10-M1CH-5JS-M7
5/3-way mid-position valve, normally closed							
	Internal	Plug pins, plug pattern ZC	24 V DC	M5	–	533159	CPE10-M1BH-5/3G-M5-B
				M7	68	533141	CPE10-M1BH-5/3G-M7-B
				QS-4	–	533147	CPE10-M1BH-5/3G-QS-4
				QS-6	–	533153	CPE10-M1BH-5/3G-QS-6
		Plug M8x1		M7	68	550227	CPE10-M1CH-5/3G-M7
5/3-way mid-position valve, normally exhausted							
	Internal	Plug pins, plug pattern ZC	24 V DC	M5	–	533161	CPE10-M1BH-5/3E-M5-B
				M7	68	533143	CPE10-M1BH-5/3E-M7-B
				QS-4	–	533149	CPE10-M1BH-5/3E-QS-4-B
				QS-6	–	533155	CPE10-M1BH-5/3E-QS-6-B
		Plug M8x1		M7	68	550229	CPE10-M1CH-5/3E-M7
5/3-way mid-position valve, normally open							
	Internal	Plug pins, plug pattern ZC	24 V DC	M5	–	533163	CPE10-M1BH-5/3B-M5-B
				M7	68	533145	CPE10-M1BH-5/3B-M7-B
				QS-4	–	533151	CPE10-M1BH-5/3B-QS-4-B
				QS-6	–	533157	CPE10-M1BH-5/3B-QS-6-B
		Plug M8x1		M7	68	550231	CPE10-M1CH-5/3B-M7
5/3-way mid-position valve, normally closed							
	External	Plug pins, plug pattern ZC	24 V DC	M5	–	533160	CPE10-M1BH-5/3GS-M5-B
				M7	68	533142	CPE10-M1BH-5/3GS-M7-B
				QS-4	–	533148	CPE10-M1BH-5/3GS-QS-4-B
				QS-6	–	533154	CPE10-M1BH-5/3GS-QS-6-B
		Plug M8x1		M7	68	550228	CPE10-M1CH-5/3GS-M7
5/3-way mid-position valve, normally exhausted							
	External	Plug pins, plug pattern ZC	24 V DC	M5	–	533162	CPE10-M1BH-5/3ES-M5-B
				M7	68	533144	CPE10-M1BH-5/3ES-M7-B
				QS-4	–	533150	CPE10-M1BH-5/3ES-QS-4-B
				QS-6	–	533156	CPE10-M1BH-5/3ES-QS-6-B
		Plug M8x1		M7	68	550230	CPE10-M1CH-5/3ES-M7
5/3-way mid-position valve, normally open							
	External	Plug pins, plug pattern ZC	24 V DC	M5	–	533164	CPE10-M1BH-5/3BS-M5-B
				M7	68	533146	CPE10-M1BH-5/3BS-M7-B
				QS-4	–	533152	CPE10-M1BH-5/3BS-QS-4-B
				QS-6	–	533158	CPE10-M1BH-5/3BS-QS-6-B
		Plug M8x1		M7	68	550232	CPE10-M1CH-5/3BS-M7

Datasheet – Manifold block

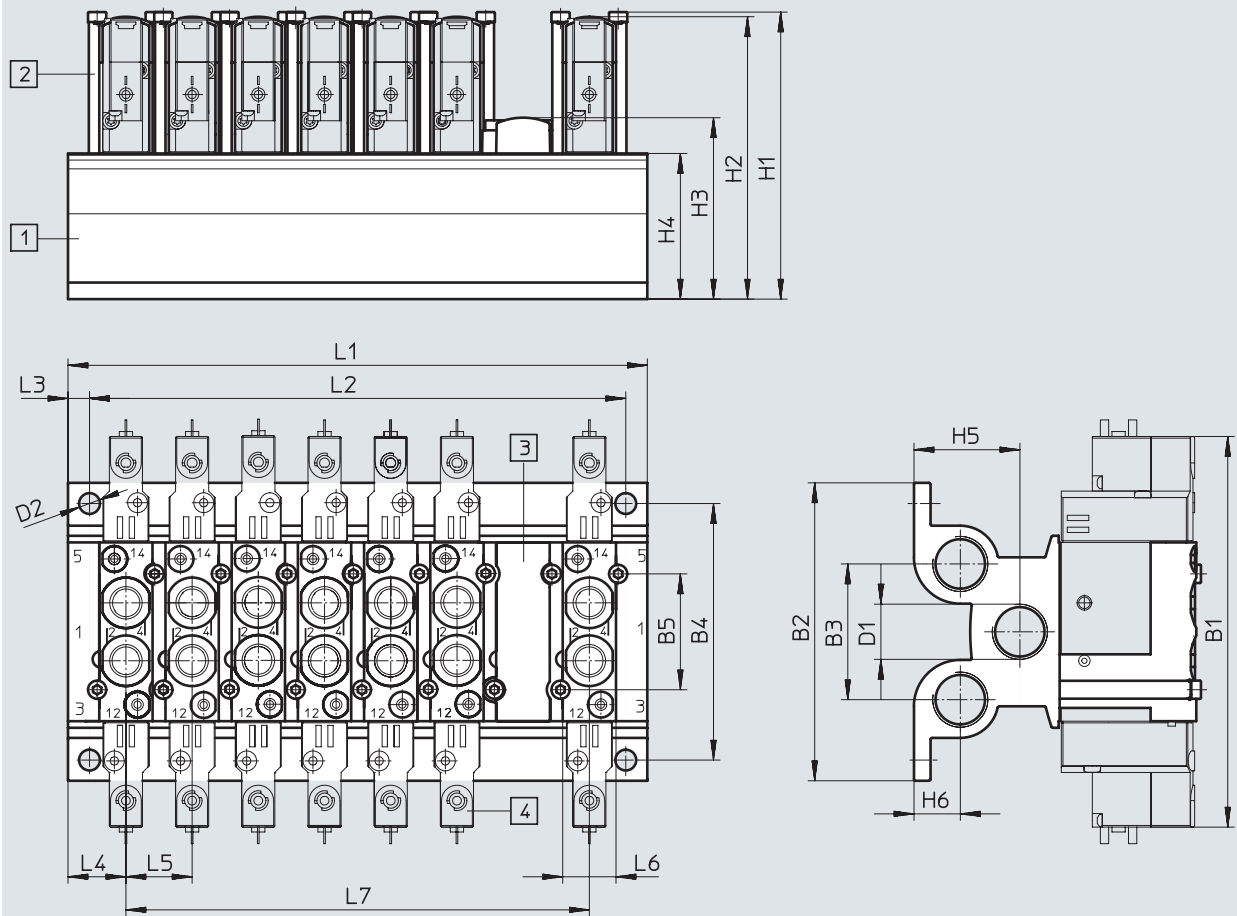
Manifold block CPE...-PRS

Material:
Wrought aluminium alloy



Dimensions – Fixed-grid manifold 5/2 and 5/3

Download CAD data → www.festo.com

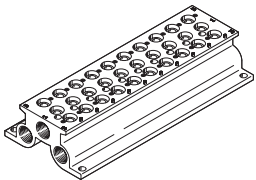


[1] Connection block [2] Retaining bracket [3] Blanking plate [4] Valves

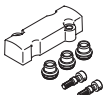
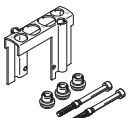
Type	B1	B2	B3	B4	B5	D1	D2 ø	H1	H2	H3	H4	H5	H6
CPE10-PRS...	103	79	35	67.5	26	G1/4	5.3	72	69.5	44.8	34	23.5	11

Type	L1		L2		L3	L4	L5	L6	L7	
CPE10-PRS...	28 + (n-1) x 16		L1 - 11 ± 0.1		5.5	14	16	13.4	(n-1) x 16	

Ordering data – Fixed-grid manifold block

Ordering data	Valve positions	CRC ¹⁾	Max. tightening torque [Nm]	Weight [g]	Part no.	Type
Manifold block for 5/2- and 5/3-way valves						
	2	2	1.2	131	543821	CPE10-PRS-1/4-2
	3			179	543822	CPE10-PRS-1/4-3
	4			227	543823	CPE10-PRS-1/4-4
	5			275	543824	CPE10-PRS-1/4-5
	6			323	543825	CPE10-PRS-1/4-6
	7			371	543826	CPE10-PRS-1/4-7
	8			419	543827	CPE10-PRS-1/4-8
	9			467	543828	CPE10-PRS-1/4-9
	10			515	543829	CPE10-PRS-1/4-10

1) More information www.festo.com/x/topic/crc

Ordering data	Material	Part no.	Type
Blanking plate for vacant position			
	PA	544479	CPE10-RP
Retaining bracket set			
	Retaining bracket: high-alloy stainless steel Screws: Galvanised steel Seals: NBR	544394	CPE10-H5-SET

Ordering data	Material	Part no.	Type
Retaining bracket			
	Retaining bracket: high-alloy stainless steel (packaging unit 50 pieces)	547045	CPE10-H5-50
Screws			
	Galvanised steel (packaging unit 100 pieces)	547048	M3X40-8.8-VS-100
Seals			
	NBR (packaging unit 150 pieces)	547051	CPV10-VI-P.M7-150

Technical data – Fixed-grid manifold block

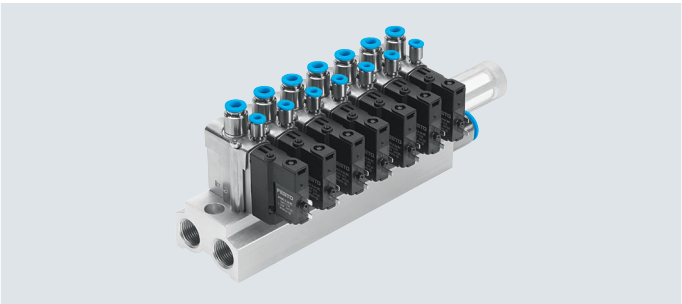
Manifold block

For CPE10 3/2

Material:

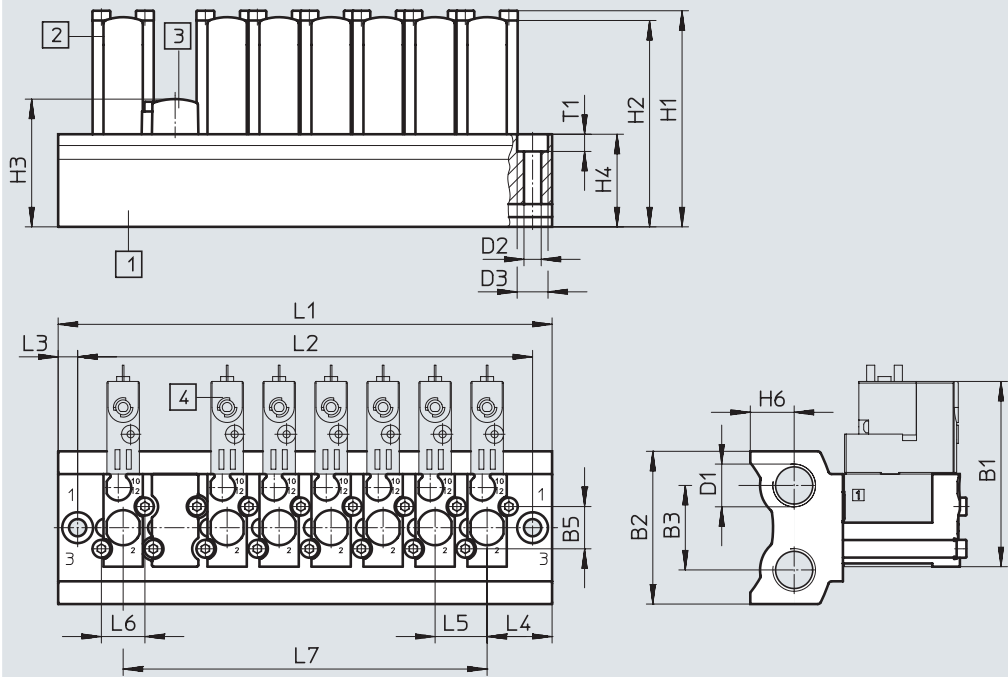
Wrought aluminium alloy

RoHS-compliant



Dimensions – Fixed-grid manifold block 3/2

Download CAD data → www.festo.com



[1] Connection block

[2] Retaining bracket

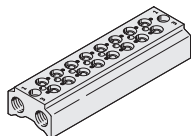
[3] Blanking plate

[4] Valves

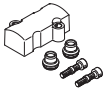
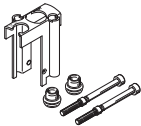
Type	B1	B2	B3	B5	D1	D2 Ø	D3 Ø	H1	H2	H3	H4	H6
CPE10-3/2-PRS...	57	47	26	13	G1/4	5.3	9.5	66.5	63.5	39.3	28.5	13.5

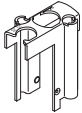
Type	L1	L2	L3	L4	L5	L6	L7	T1
CPE10-3/2-PRS...	40 + (n-1) x 16	28 + (n-1) x 16	6	20	16	13.4	(n-1) x 16	5.3

Ordering data – Fixed-grid manifold block

Ordering data						
	Valve positions	CRC ¹⁾	Max. tightening torque for valve mounting [Nm]	Weight [g]	Part no.	Type
Manifold block for 3/2-way valves						
	2	2	1.2	128	550550	CPE10-3/2-PRS-1/4-2
	3			164	550551	CPE10-3/2-PRS-1/4-3
	4			201	550552	CPE10-3/2-PRS-1/4-4
	5			237	550553	CPE10-3/2-PRS-1/4-5
	6			274	550554	CPE10-3/2-PRS-1/4-6
	7			310	550555	CPE10-3/2-PRS-1/4-7
	8			347	550556	CPE10-3/2-PRS-1/4-8
	9			383	550557	CPE10-3/2-PRS-1/4-9
	10			420	550558	CPE10-3/2-PRS-1/4-10

1) More information www.festo.com/x/topic/crc

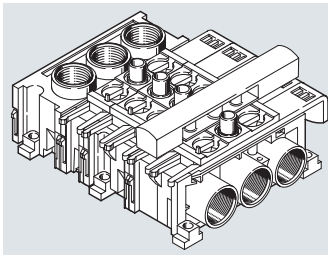
Ordering data		Material	Part no.	Type
Cover plate				
	PA RoHS-compliant		550580	CPE10-RP3
Retaining bracket set				
	Retaining bracket: high-alloy stainless steel Screws: Galvanised steel Seals: NBR RoHS-compliant		550577	CPE10-H3-SET

Ordering data		Material	Part no.	Type
Retaining bracket				
	Retaining bracket: high-alloy stainless steel (packaging unit 50 pieces)		551490	CPE10-H3-50
Screws				
	Galvanised steel (packaging unit 100 pieces)		547048	M3X40-8.8-VS-100
Seals				
	NBR (packaging unit 150 pieces)		547051	CPV10-VI-P.M7-150

Datasheet – Modular manifold

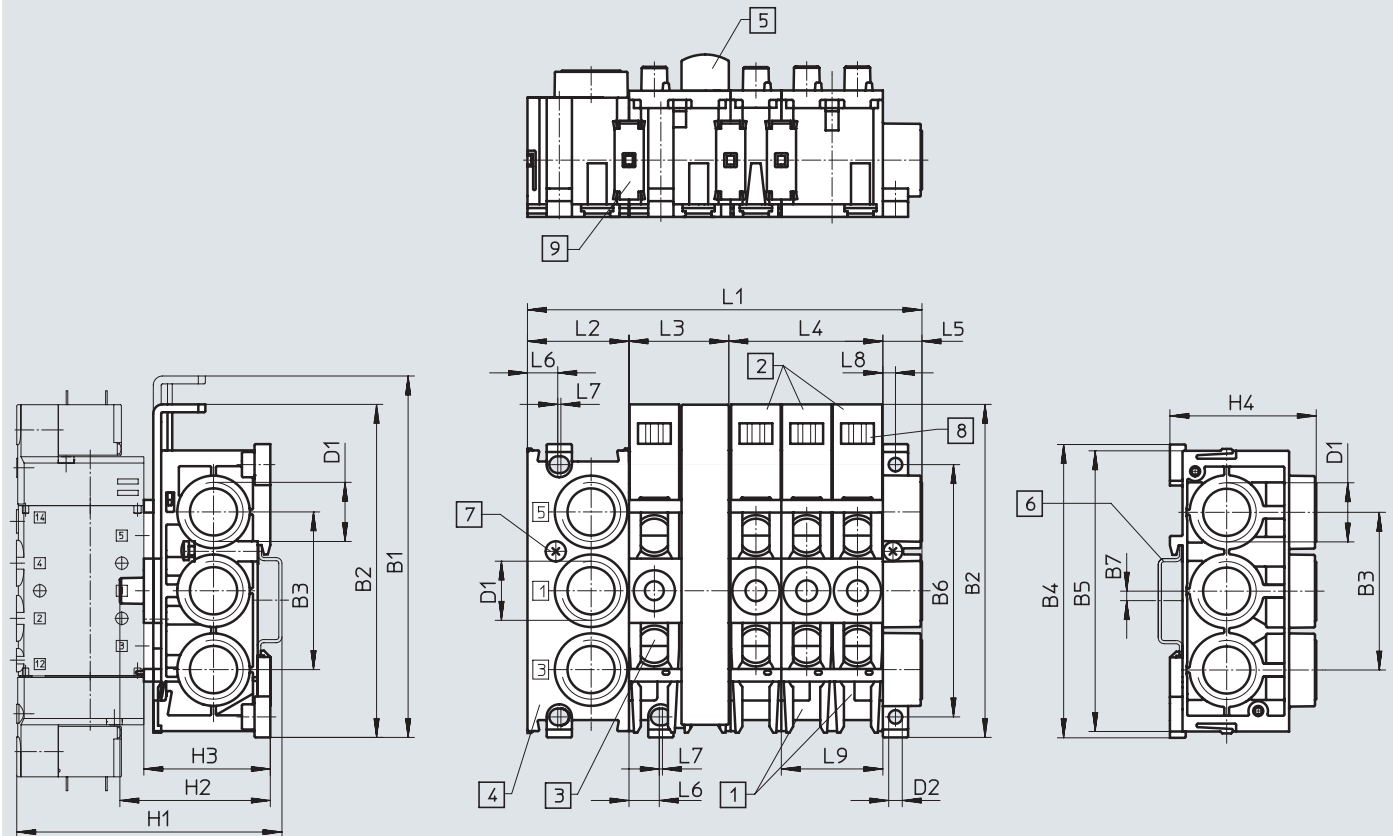
Modular manifold block
For CPE18 5/2 and 5/3

Material:
Reinforced PA



Dimensions – Modular manifold block

Download CAD data → www.festo.com



- [1] Manifold block
CPE...-PRSG...-2 for
2 valves
- [2] Manifold block
CPE...-PRSG...-3 for
3 valves
- [3] Expansion block
CPE...-PRSE...-2 for 2 valves
- [4] End block CPE...-PRS-EP
- [5] Blanking plate CPE...-PRSB
- [6] DIN rail to EN 50002 for
mounting
- [7] Clamping screw for DIN rail
- [8] Position for inscription label
type IBS 6 x 10
- [9] Connecting component

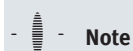
Size	B1	B2	B3	B4	B5	B6	B7	D1	D2 ø	H1	H2	H3	H4
CPE10	93.5	87	37	73	71	60	7	G1/4	3.3	~72	~40	~34	37

Size	L1 ¹⁾			L2	L3	L4	L5	L6	L7	L8	L9
CPE10	24+(nx12)+11.4			24	24	36	11.4	9.6	—	3.2	24

1) n = number of valve positions

Datasheet – Modular manifold

Combination options			
Number of valve positions	One pressure zone	Two pressure zones	
		Variant 1	Variant 2
2	1x CPE...-PRSG-2	–	–
3	1x CPE...-PRSG-3	–	–
4	1x CPE...-PRSGO-2 1x CPE...-PRSE-2	1x CPE...-PRSG-2 1x CPE...-PRSEO-2 1x CPE...-PRS-EP	–
5	1x CPE...-PRSGO-3 1x CPE...-PRSE-2	1x CPE...-PRSG-3 1x CPE...-PRSEO-2 1x CPE...-PRS-EP	–
6	1x CPE...-PRSGO-2 1x CPE...-PRSEO-2 1x CPE...-PRSE-2	1x CPE...-PRSG-2 2x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSGO-2 1x CPE...-PRSE-2 1x CPE...-PRSEO-2 1x CPE...-PRS-EP
7	1x CPE...-PRSGO-3 2x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSG-3 2x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSGO-3 1x CPE...-PRSE-2 1x CPE...-PRSEO-2 1x CPE...-PRS-EP
8	1x CPE...-PRSGO-2 3x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSG-2 3x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSGO-2 1x CPE...-PRSE-2 2x CPE...-PRSEO-2 1x CPE...-PRS-EP
9	1x CPE...-PRSGO-3 3x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSG-3 3x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSGO-3 1x CPE...-PRSE-2 2x CPE...-PRSEO-2 1x CPE...-PRS-EP
10	1x CPE...-PRSGO-2 4x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSG-2 4x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSGO-2 1x CPE...-PRSE-2 3x CPE...-PRSEO-2 1x CPE...-PRS-EP
11	1x CPE...-PRSGO-3 4x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSG-3 4x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSGO-3 1x CPE...-PRSE-2 3x CPE...-PRSEO-2 1x CPE...-PRS-EP
12	1x CPE...-PRSGO-2 5x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSG-2 5x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSGO-2 1x CPE...-PRSE-2 4x CPE...-PRSEO-2 1x CPE...-PRS-EP

**Note**

Each air supply can support a maximum of 6 valve positions.
Use valve manifold blocks only in combination with 5/2- and 5/3-way valves.

Type codes

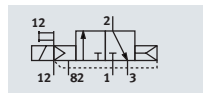
001	Series	
CPE	Solenoid valve, Compact Performance	
002	Width	
14	14 mm	
003	Nominal operating voltage	
M1	24 V DC	
004	Electrical connection	
BH	Plug pattern ZC	
CH	Plug M8x1	

005	Valve function	
5L	5/2-way valve, monostable	
5J	5/2-way valve, bistable	
3GL	3/2-way valve, normally closed	
3OL	3/2-way valve, normally open	
5/3G	5/3-way valve, mid-position closed	
5/3E	5/3-way valve, mid-position exhausted	
5/3B	5/3-way valve, mid-position pressurised	
006	Pilot air	
	Internal	
S	External	
007	Pneumatic connection	
1/8	G1/8	
QS-6	Push-in connector 6 mm	
QS-8	Push-in connector 8 mm	

Datasheet

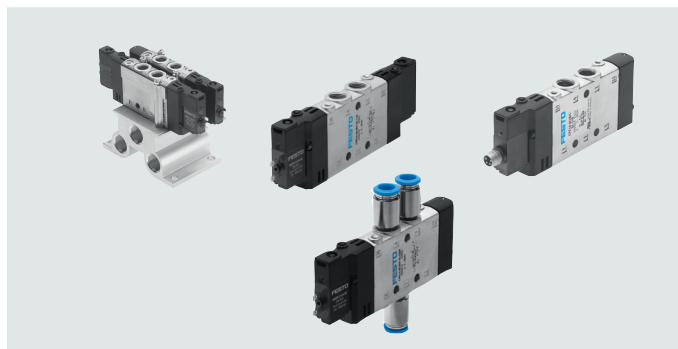
Function

3/2G, 3/2O,
5/2-way single solenoid,
5/2-way, double solenoid valve
5/3G, 5/3B, 5/3E



e.g. 3/2-way valve with external pilot air supply,
normally closed

-  - Width 14 mm
-  - Flow rate
370 ... 900 l/min
-  - Voltage
24 V DC



General technical data										
Valve function			3/2		5/2		5/3			
Normal position			G ¹⁾	O ²⁾	–	–	G ¹⁾	B ²⁾	E ³⁾	
Stable position			Monostable			Bistable		Monostable		
Pneumatic spring return			Yes			–		No		
Mechanical spring return			No			–		Yes		
Design			Piston spool							
Sealing principle			Soft							
Overlap			Positive overlap							
Actuation type			Electrical							
Type of control			Piloted							
Pilot air supply			Internal or external							
Flow direction			–		Reversible with external pilot air supply					
Exhaust air function			–		Can be throttled					
Manual override			Non-detenting, detenting via accessory							
Type of mounting			Via through-holes							
Mounting position			Any							
Pneumatic connection	1, 2, 4		Threaded connection: G1/8 QS connection: Ø 6 or Ø 8 mm							
	3, 5		Threaded connection: G1/8							
	12, 14		Threaded connection: M3, QS connection: Ø 3 mm							
	82, 84		Threaded connection: M3							
Nominal width		[mm]	6							
Standard nominal flow rate	G1/8	[l/min]	900		800		750		700	
Standard nominal flow rate	QS6	[l/min]	510		400		410		370	
Standard nominal flow rate	QS8	[l/min]	810		680		720		650	570
Switching time on/off		[ms]	1 6/27		2 4/32		–		2 0/42	
Switching time changeover		[ms]	–				12		–	
Duty cycle		[%]	100							
Width		[mm]	14							
Corrosion resistance class CRC ⁴⁾			2							

1) G = normally closed

2) O, B = normally open

3) E = normally exhausted

4) More information www.festo.com/x/topic/crc

Datasheet

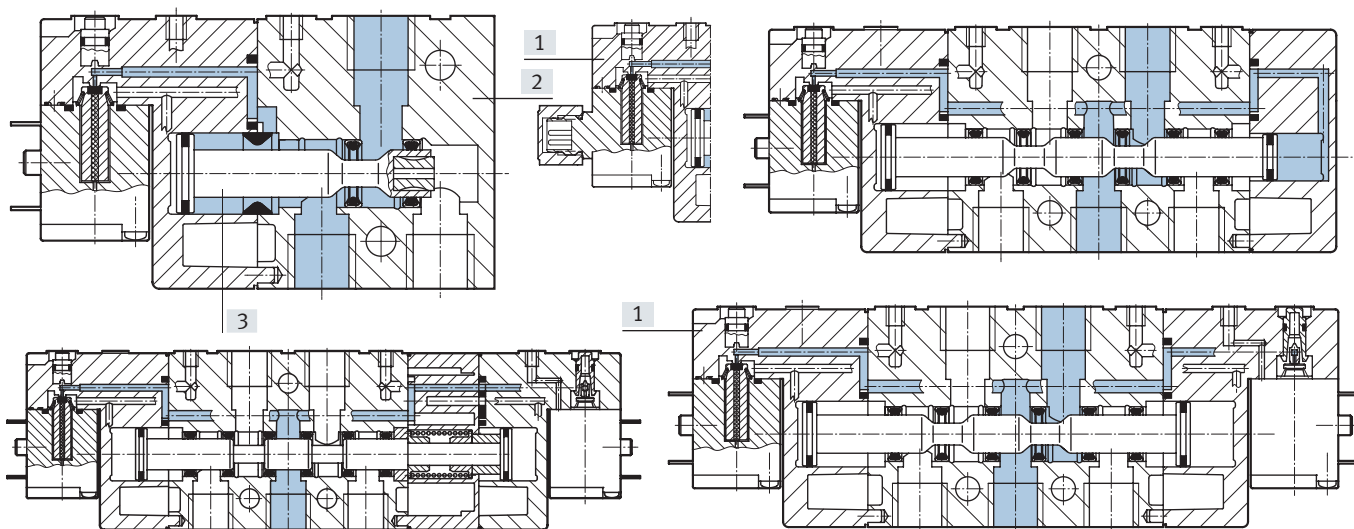
Operating and environmental conditions						
Valve function			3/2	5/2-way, single solenoid	5/2-way, double solenoid	5/3
Operating medium			Compressed air to ISO 8573-1:2010 [7:4:4]			
Pilot medium			Compressed air to ISO 8573-1:2010 [7:4:4]			
Note on the operating/pilot medium			Lubricated operation possible (in which case lubricated operation will always be required)			
Operating pressure	Internal pilot air supply	[MPa]	0.25 ... 0.8	0.3 ... 0.8	0.2 ... 0.8	0.3 ... 0.8
		[bar]	2.5 ... 8	3 ... 8	2 ... 8	3 ... 8
	External pilot air supply	[MPa]	−0.09 ... 1			
		[bar]	−0.9 ... 10			
Pilot pressure		[MPa]	0.25 ... 0.8	0.3 ... 0.8	0.2 ... 0.8	0.3 ... 0.8
		[bar]	2.5 ... 8	3 ... 8	2 ... 8	3 ... 8
Ambient temperature		[°C]	−5 ... +50			
Temperature of medium		[°C]	−5 ... +50			
Certification for solenoid valves			c UL us - Recognized (OL)			
Maritime classification1)			See certificate			
Certificate-issuing authority			DNV-TAA000032X			
			UL MH19482			

1) More information www.festo.com/sp → Certificates.

Electrical data			
Operating voltage	M1BH, M1CH	[V DC]	24 +10/–15%
Power consumption	M1BH, M1CH	[W]	1.28
Degree of protection with plug socket			IP65 to IEC 60529 M1CH: IP65/IP67 to IEC 60529
Max. tightening torque of plug socket M8x1	M1CH	[Nm]	0.4

Materials

Sectional view



[1] Cover	PA
[2] Housing	Die-cast aluminium
[3] Piston spool	Steel
– Seals	NBR
Note on materials	RoHS-compliant

Datasheet

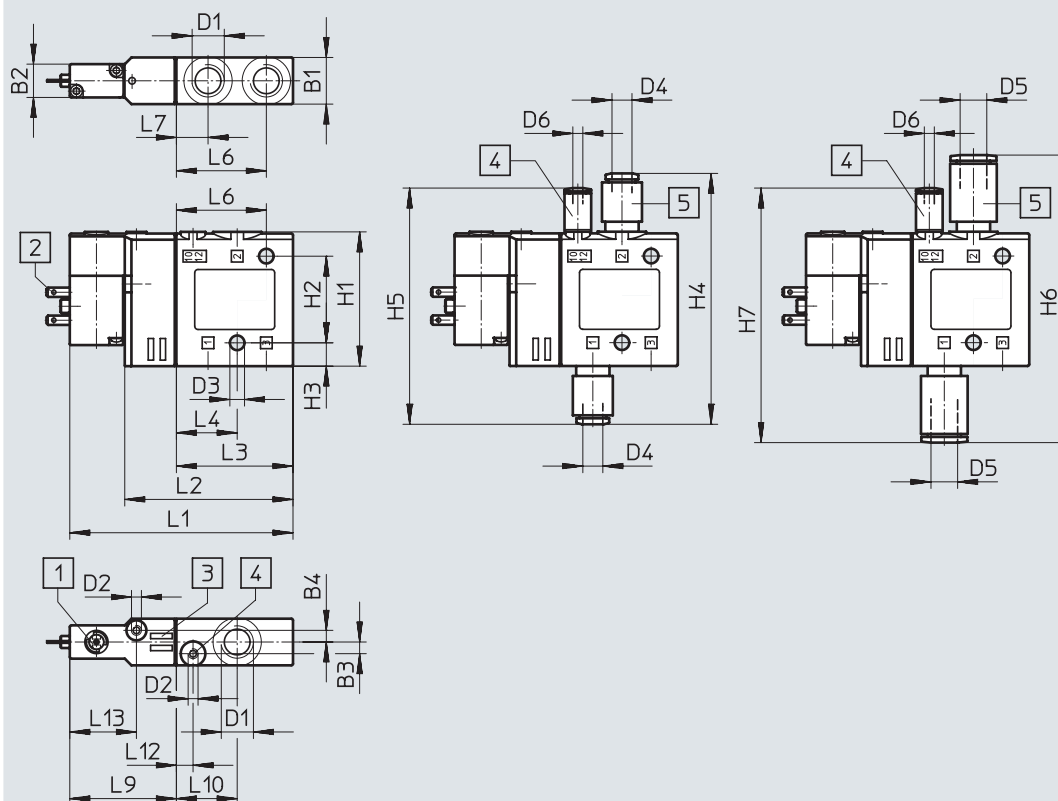
Dimensions – 3/2-way valve

Download CAD data → www.festo.com

CPE14-...-1/8

CPE14-...-QS-6

CPE14-...-QS-8



[1] Manual override
[2] Plug pins, plug pattern ZC

[3] Position for inscription
labels

[4] Port 10/12 for external pilot
air supply

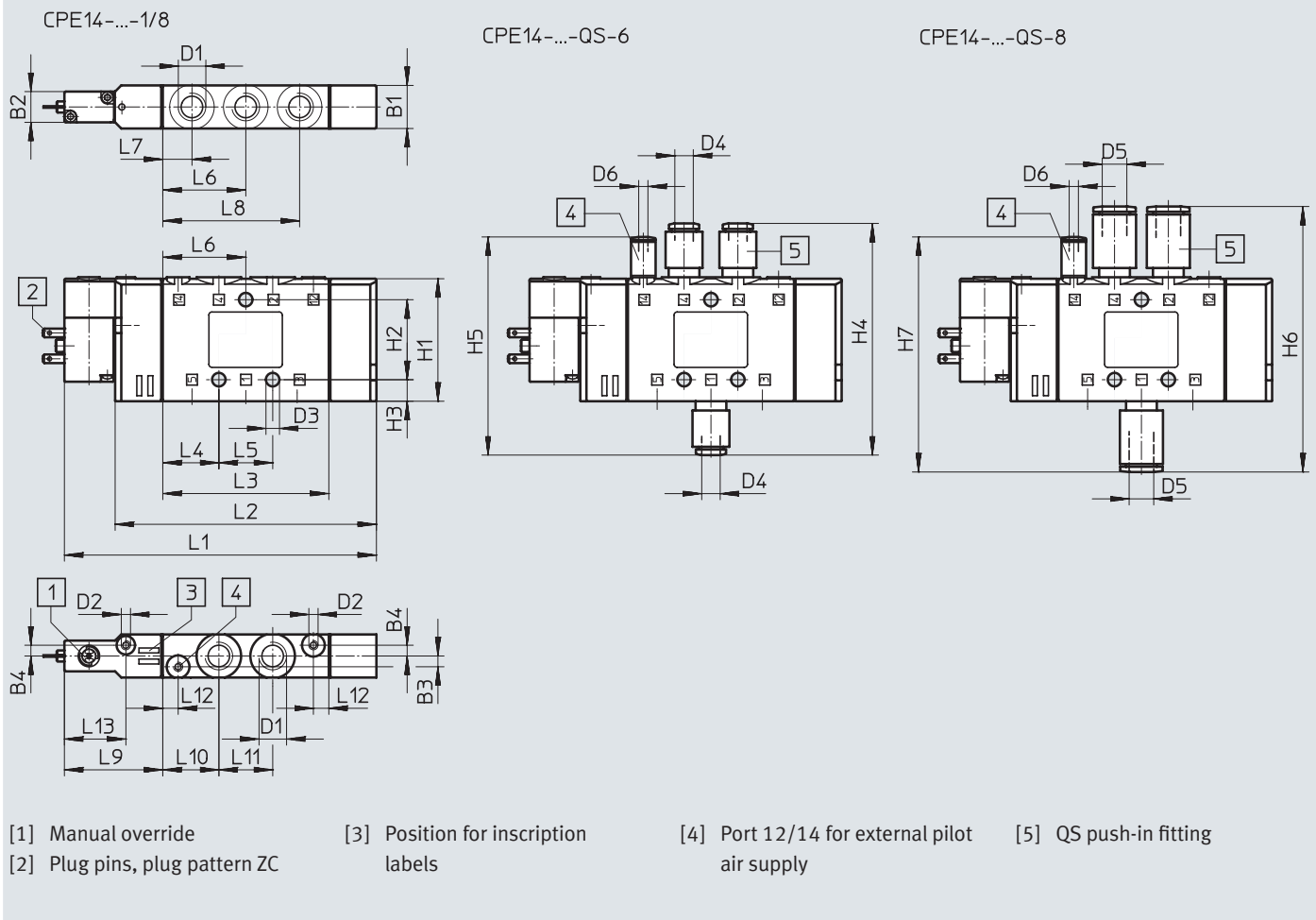
[5] QS push-in fitting

Type	B1	B2	B3	B4	D1	D2	D3 ø	D4 ø	D5 ø	D6 ø	H1	H2	H3	H4	H5	H6	H7
CPE14-M1BH-3...	14	10	3.5	3.5	G1/8	M3	4.4	6	8	3	40.3	26	7	75.3	70.9	86.3	76.4

Type	L1	L2	L3	L4	L6	L7	L9	L10	L12	L13
CPE14-M1BH-3...	67	50.5	35	18.3	27	9.5	32	18	5	20

Datasheet

Dimensions – 5/2-way single solenoid valve Download CAD data → www.festo.com



Type	B1	B2	B3	B4	D1	D2	D3 ø	D4 ø	D5 ø	D6 ø	H1	H2	H3	H4	H5	H6	H7
CPE14-M1BH-5L...	14	10	3.5	3.5	G1/8	M3	4.4	6	8	3	40.3	26	7	75.3	70.9	86.3	76.4

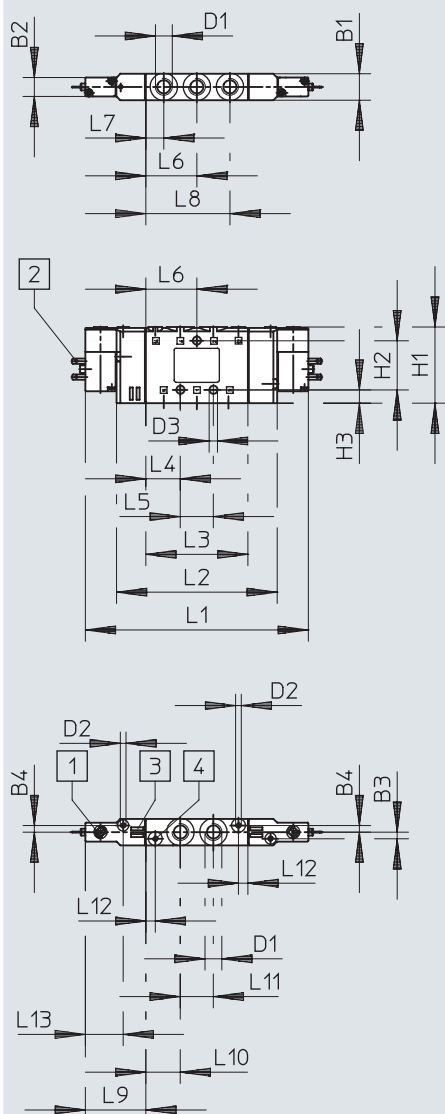
Type	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13
CPE14-M1BH-5L...	101.5	85	54	18.3	17.5	27	9.5	44.5	32	18.3	17.5	5	20

Datasheet

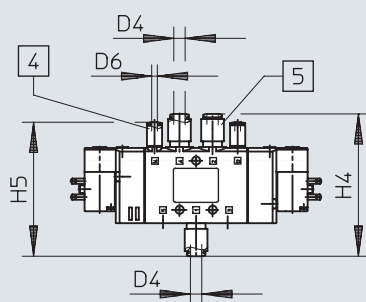
Dimensions – 5/2-way double solenoid valve

Download CAD data → www.festo.com

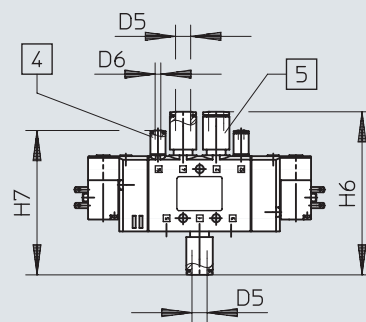
CPE14-...-5J-1/8



CPE14-...-QS-6



CPE14-...-QS-8



[1] Manual override, non-detenting, resetting
[2] Plug pins, plug pattern ZC

[3] Position for inscription labels

[4] Port 12/14 for external pilot air supply

[5] QS push-in fitting

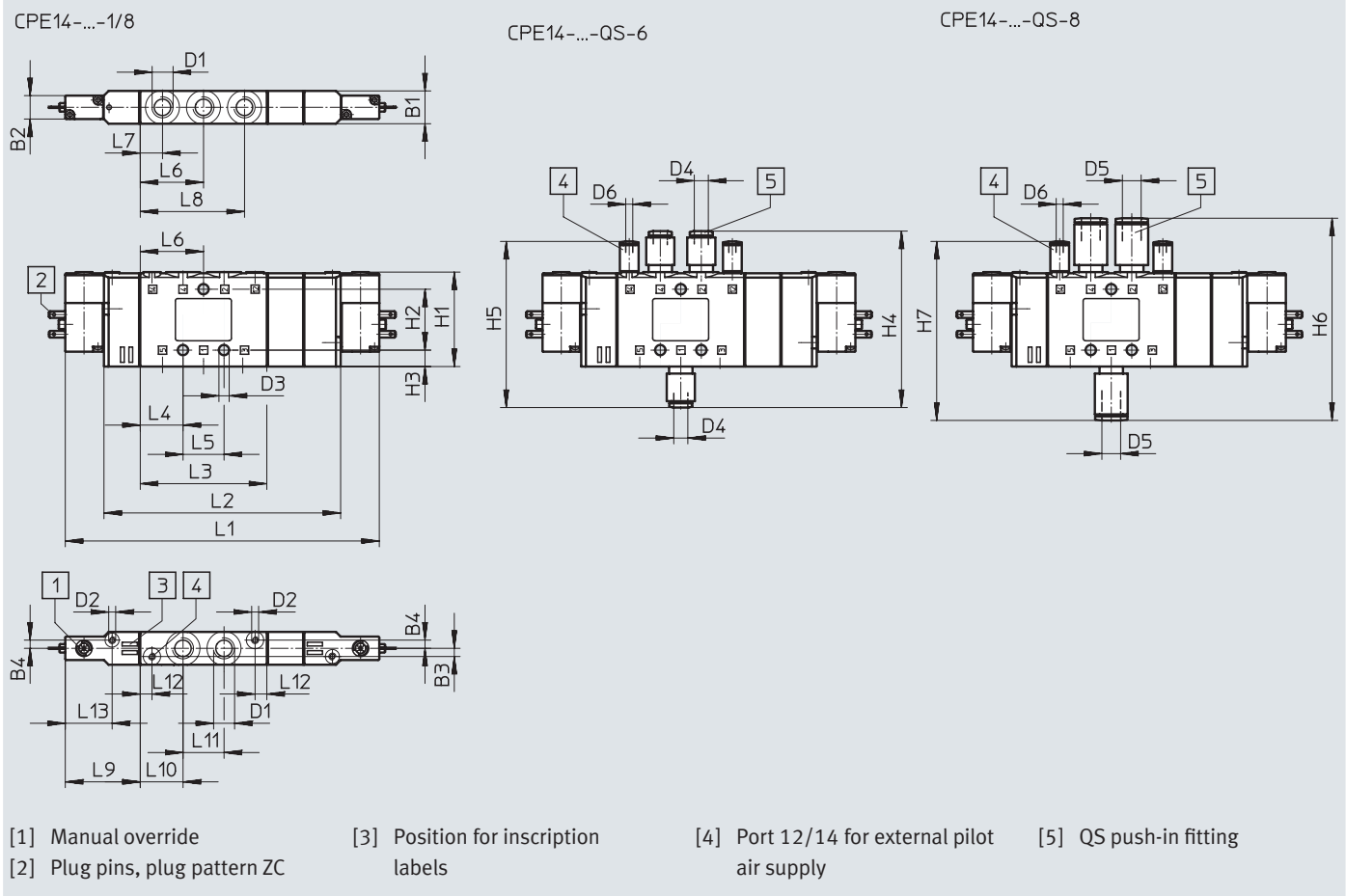


Type	B1	B2	B3	B4	D1	D2	D3 Ø	D4 Ø	D5 Ø	D6 Ø	H1	H2	H3	H4	H5	H6	H7
CPE14-...-5J-1/8	14	10	3.5	3.5	G1/8	M3	4.4	6	8	3	40.3	26	7	75.3	70.9	86.3	76.4

Type	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13
CPE14-...-5J-1/8	118	85	54	18.3	17.5	27	9.5	44.5	32	18.3	17.5	5	20

Datasheet

Dimensions – 5/3-way valve Download CAD data → www.festo.com

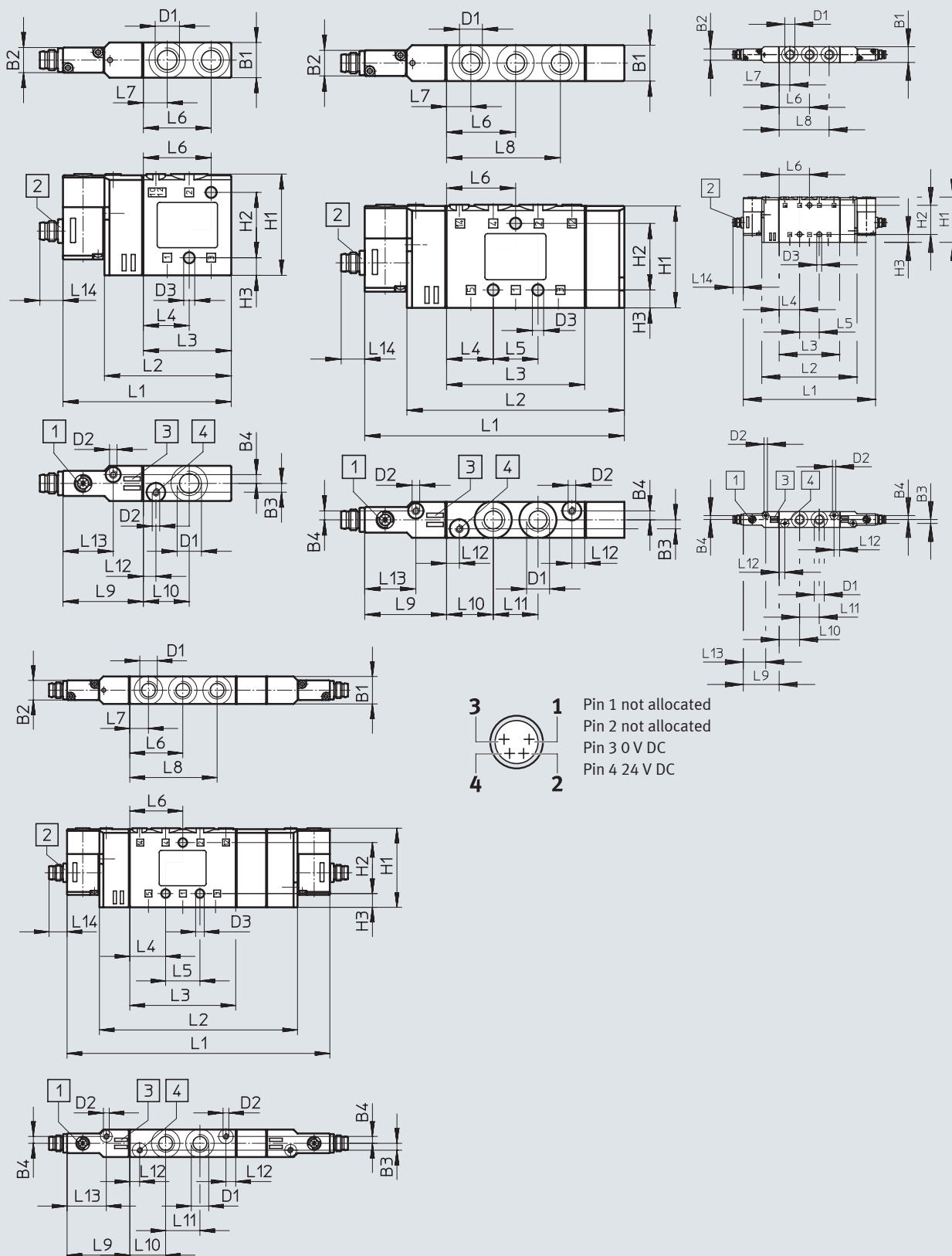


Type	B1	B2	B3	B4	D1	D2	D3 ø	D4 ø	D5 ø	D6 ø	H1	H2	H3	H4	H5	H6	H7
CPE14-M1BH...-5J	14	10	3.5	3.5	G1/8	M3	4.4	6	8	3	40.3	26	7	75.3	70.9	86.3	76.4
CPE14-M1BH...-5/3																	

Type	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13
CPE14-M1BH...-5J	118	85	46	18.3	17.5	27	9.5	44.5	32	18.3	17.5	5	20
CPE14-M1BH...-5/3	134	101											

Datasheet

Dimensions – Solenoid valves with round plug M8x1

Download CAD data → www.festo.com

[1] Manual override

[2] Plug M8x1

[3] Position for inscription labels

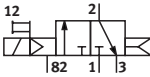
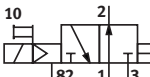
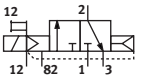
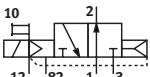
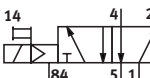
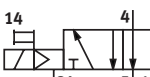
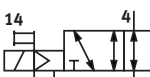
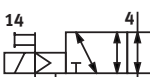
[4] Port 12/14 for external pilot air

Datasheet

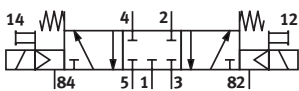
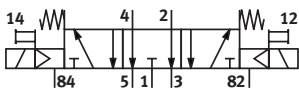
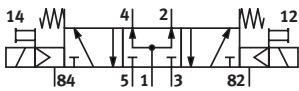
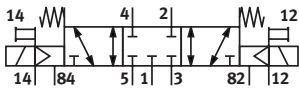
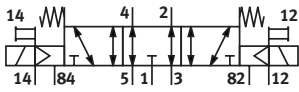
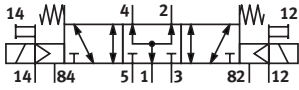
Type	B1	B2	B3	B4	D1	D2	D3 Ø	H1	H2	H3
CPE14-M1CH-3...	14	10	3.5	3.5	G1/8	M3	4.4	40.3	26	7
CPE14-M1CH-5L...								40.4		
CPE14-M1CH-5J...								40.3		
CPE14-M1BH-5J										
CPE14-M1BH-5/3										

Type	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13	L14
CPE14-M1CH-3...	67	50.5	35	18.3	–	27	9.5	–	32	18.3	–	5	20	9.2
CPE14-M1CH-5L...	101.5	85	54		17.5			44.5			17.5			
CPE14-M1CH-5J...	118													
CPE14-M1BH-5J...														
CPE14-M1BH-5/3...	134	101												

Ordering data

Ordering data							
Circuit symbol	Pilot air supply	Electrical connection	Operating voltage	Pneumatic connection	Weight [g]	Part no.	Type
3/2-way valve, normally closed							
	Internal	Plug pins, plug pattern ZC	24 V DC	G1/8	60	196929	CPE14-M1BH-3GL-1/8
				QS-6	–	196887	CPE14-M1BH-3GL-QS-6
				QS-8	–	196888	CPE14-M1BH-3GL-QS-8
		Plug M8x1		G1/8	60	550247	CPE14-M1CH-3GL-1/8
3/2-way valve, normally open							
	Internal	Plug pins, plug pattern ZC	24 V DC	G1/8	60	196931	CPE14-M1BH-3OL-1/8
				QS-6	–	196891	CPE14-M1BH-3OL-QS-6
				QS-8	–	196892	CPE14-M1BH-3OL-QS-8
		Plug M8x1		G1/8	60	550249	CPE14-M1CH-3OL-1/8
3/2-way valve, normally closed							
	External	Plug pins, plug pattern ZC	24 V DC	G1/8	60	196930	CPE14-M1BH-3GLS-1/8
				QS-6	–	196889	CPE14-M1BH-3GLS-QS-6
				QS-8	–	196890	CPE14-M1BH-3GLS-QS-8
		Plug M8x1		G1/8	60	550248	CPE14-M1CH-3GLS-1/8
3/2-way valve, normally open							
	External	Plug pins, plug pattern ZC	24 V DC	G1/8	60	196932	CPE14-M1BH-3OLS-1/8
				QS-6	–	196893	CPE14-M1BH-3OLS-QS-6
				QS-8	–	196894	CPE14-M1BH-3OLS-QS-8
		Plug M8x1		G1/8	60	550250	CPE14-M1CH-3OLS-1/8
5/2-way valve, single solenoid							
	Internal	Plug pins, plug pattern ZC	24 V DC	G1/8	95	196941	CPE14-M1BH-5L-1/8
				QS-6	–	196911	CPE14-M1BH-5L-QS-6
				QS-8	–	196912	CPE14-M1BH-5L-QS-8
		Plug M8x1		G1/8	95	550237	CPE14-M1CH-5L-1/8
5/2-way double solenoid valve							
	Internal	Plug pins, plug pattern ZC	24 V DC	G1/8	115	196939	CPE14-M1BH-5J-1/8
				QS-6	–	196907	CPE14-M1BH-5J-QS-6
				QS-8	–	196908	CPE14-M1BH-5J-QS-8
		Plug M8x1		G1/8	115	550239	CPE14-M1CH-5J-1/8
5/2-way valve, single solenoid							
	External	Plug pins, plug pattern ZC	24 V DC	G1/8	95	196942	CPE14-M1BH-5LS-1/8
				QS-6	–	196913	CPE14-M1BH-5LS-QS-6
				QS-8	–	196914	CPE14-M1BH-5LS-QS-8
		Plug M8x1		G1/8	95	550238	CPE14-M1CH-5LS-1/8
5/2-way double solenoid valve							
	External	Plug pins, plug pattern ZC	24 V DC	G1/8	115	196940	CPE14-M1BH-5JS-1/8
				QS-6	–	196909	CPE14-M1BH-5JS-QS-6
				QS-8	–	196910	CPE14-M1BH-5JS-QS-8
		Plug M8x1		G1/8	115	550240	CPE14-M1CH-5JS-1/8

Ordering data

Ordering data								
Circuit symbol	Pilot air supply	Electrical connection	Operating voltage	Pneumatic connection	Weight	Part no.	Type	
					[g]			
5/3-way mid-position valve, normally closed								
	Internal	Plug pins, plug pattern ZC	24 V DC	G1/8	120	196937	CPE14-M1BH-5/3G-1/8	
		Plug M8x1		QS-6	–	196903	CPE14-M1BH-5/3G-QS-6	
				QS-8	–	196904	CPE14-M1BH-5/3G-QS-8	
				G1/8	120	550241	CPE14-M1CH-5/3G-1/8	
5/3-way mid-position valve, normally exhausted								
	Internal	Plug pins, plug pattern ZC	24 V DC	G1/8	120	196935	CPE14-M1BH-5/3E-1/8	
		Plug M8x1		QS-6	–	196899	CPE14-M1BH-5/3E-QS-6	
				QS-8	–	196900	CPE14-M1BH-5/3E-QS-8	
				G1/8	120	550243	CPE14-M1CH-5/3E-1/8	
5/3-way mid-position valve, normally open								
	Internal	Plug pins, plug pattern ZC	24 V DC	G1/8	120	196933	CPE14-M1BH-5/3B-1/8	
		Plug M8x1		QS-6	–	196895	CPE14-M1BH-5/3B-QS-6	
				QS-8	–	196896	CPE14-M1BH-5/3B-QS-8	
				G1/8	120	550245	CPE14-M1CH-5/3B-1/8	
5/3-way mid-position valve, normally closed								
	External	Plug pins, plug pattern ZC	24 V DC	G1/8	120	196938	CPE14-M1BH-5/3GS-1/8	
		Plug M8x1		QS-6	–	196905	CPE14-M1BH-5/3GS-QS-6	
				QS-8	–	196906	CPE14-M1BH-5/3GS-QS-8	
				G1/8	120	550242	CPE14-M1CH-5/3GS-1/8	
5/3-way mid-position valve, normally exhausted								
	External	Plug pins, plug pattern ZC	24 V DC	G1/8	120	196936	CPE14-M1BH-5/3ES-1/8	
		Plug M8x1		QS-6	–	196901	CPE14-M1BH-5/3ES-QS-6	
				QS-8	–	196902	CPE14-M1BH-5/3ES-QS-8	
				G1/8	120	550244	CPE14-M1CH-5/3ES-1/8	
5/3-way mid-position valve, normally open								
	External	Plug pins, plug pattern ZC	24 V DC	G1/8	120	196934	CPE14-M1BH-5/3BS-1/8	
		Plug M8x1		QS-6	–	196897	CPE14-M1BH-5/3BS-QS-6	
				QS-8	–	196898	CPE14-M1BH-5/3BS-QS-8	
				G1/8	120	550246	CPE14-M1CH-5/3BS-1/8	

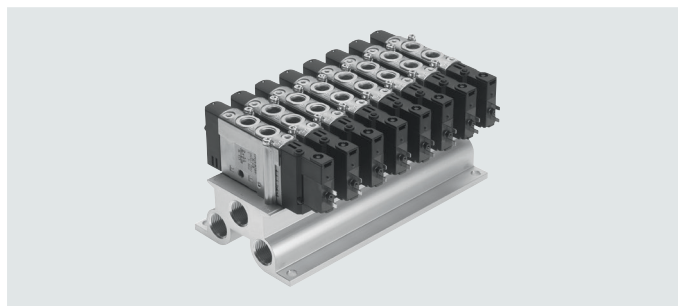
Datasheet – Manifold block

Manifold block CPE...-PRS

Material:

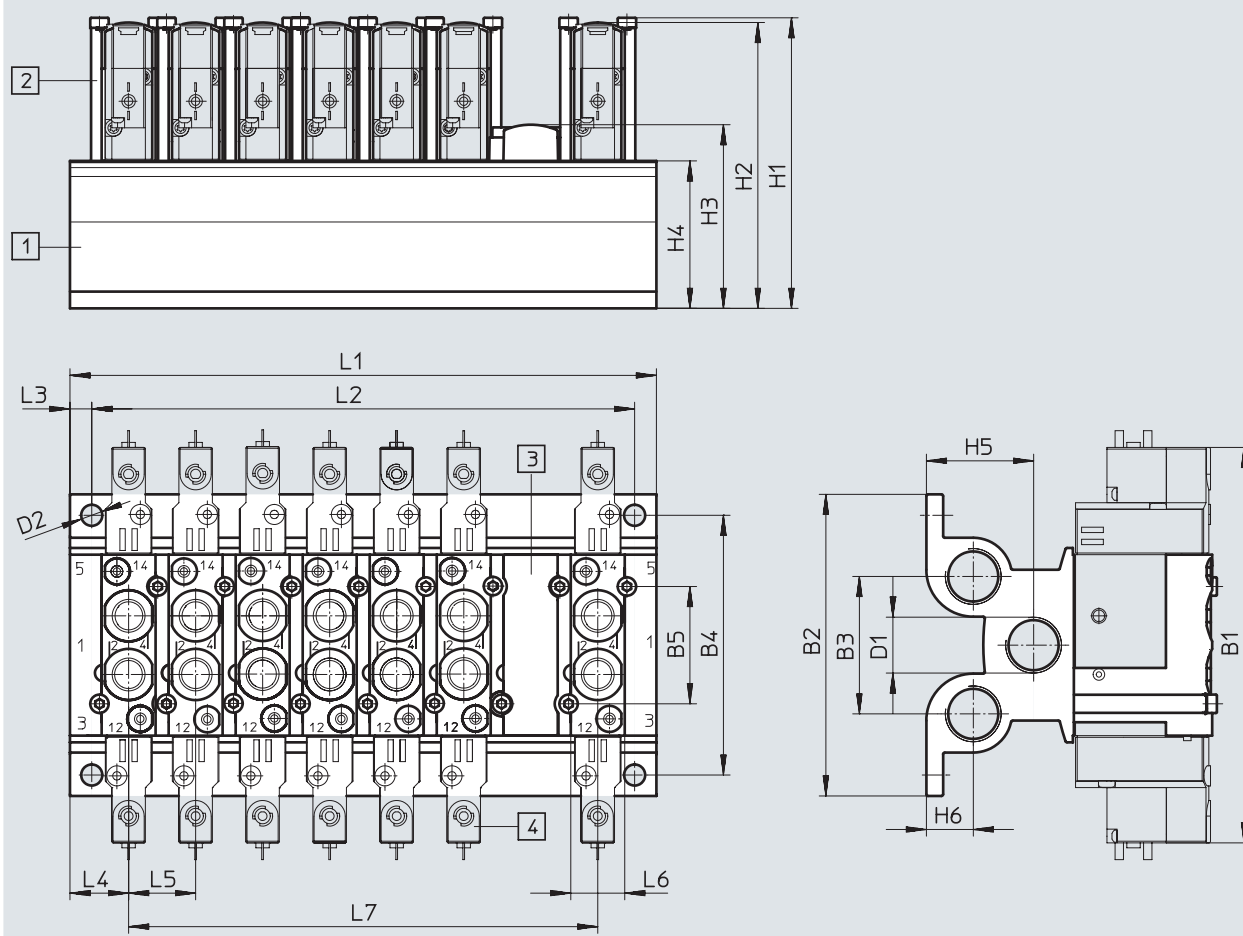
Wrought aluminium alloy

RoHS-compliant



Dimensions – Fixed-grid manifold 5/2 and 5/3

Download CAD data → www.festo.com



[1] Connection block
Grid dimension 16 mm

[2] Retaining bracket

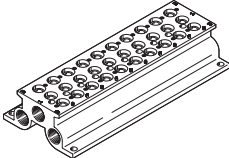
[3] Blanking plate

[4] Valves

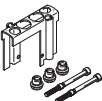
Type	B1	B2	B3	B4	B5	D1	D2	H1	H2	H3	H4	H5	H6
CPE14-PRS...	118	90	41	77.5	35	G3/8	6.3	86.7	84.8	54.8	44	32	14

Type	L1	L2	L3	L4	L5	L6	L7
CPE14-PRS...	35 + (n-1) x 20	L1 - 13 ± 0.1	6.5	17.5	20	17.4	(n-1) x 20

Ordering data – Fixed-grid manifold block

Ordering data						
	Valve positions	CRC ¹⁾	Max. tightening torque [Nm]	Weight [g]	Part no.	Type
Manifold block for 5/2- and 5/3-way valves						
	2	2	1.2	239	543830	CPE14-PRS-3/8-2
	3			326	543831	CPE14-PRS-3/8-3
	4			412	543832	CPE14-PRS-3/8-4
	5			498	543833	CPE14-PRS-3/8-5
	6			584	543834	CPE14-PRS-3/8-6
	7			671	543835	CPE14-PRS-3/8-7
	8			757	543836	CPE14-PRS-3/8-8
	9			843	543837	CPE14-PRS-3/8-9
	10			930	543838	CPE14-PRS-3/8-10

1) More information www.festo.com/x/topic/crc

Ordering data		Material	Part no.	Type
Blanking plate for vacant position				
	PA		544480	CPE14-RP
Retaining bracket set				
	Retaining bracket: high-alloy stainless steel Screws: Galvanised steel Seals: NBR		544395	CPE14-H5-SET

Ordering data		Material	Part no.	Type
Retaining bracket				
	Retaining bracket: high-alloy stainless steel (packaging unit 50 pieces)		547046	CPE14-H5-50
Screws				
	Galvanised steel (packaging unit 100 pieces)		547049	M3X45-8.8-VS-100
Seals				
	NBR (packaging unit 150 pieces)		547052	CPV14-VI-P.1/8-150

Technical data – Fixed-grid manifold block

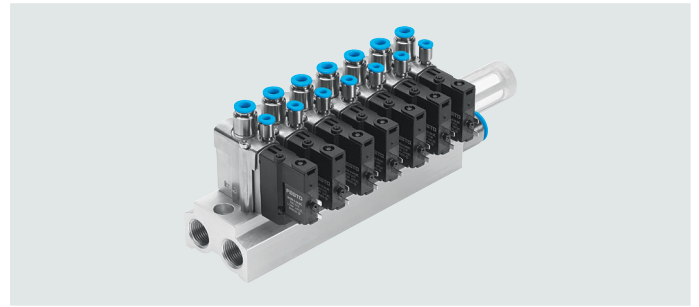
Manifold block

For CPE14 3/2

Material:

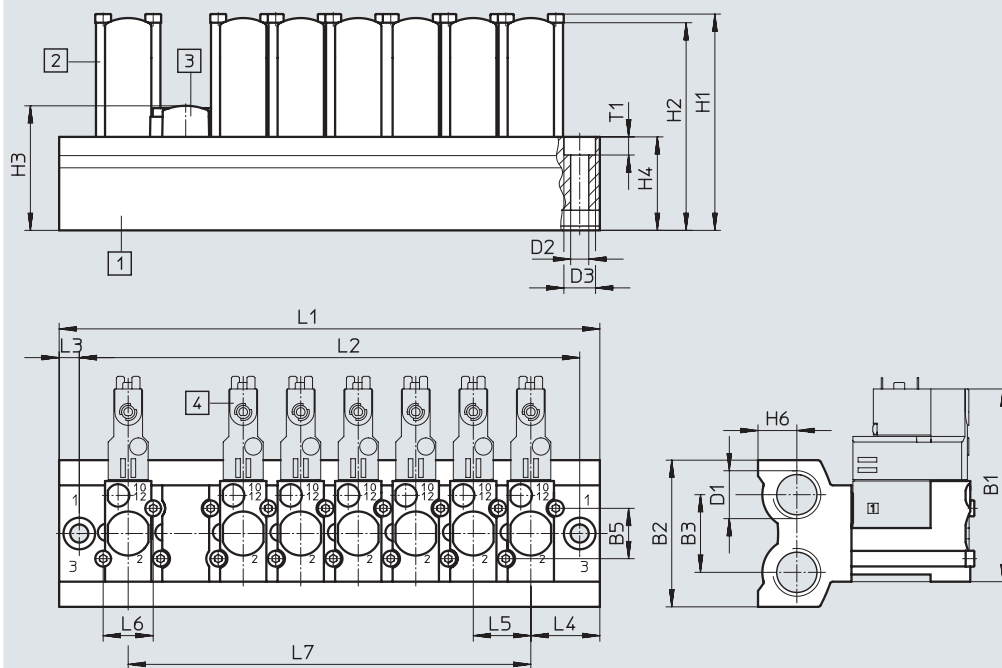
Wrought aluminium alloy

RoHS-compliant



Dimensions for fixed-grid manifold 3/2

Download CAD data → www.festo.com



[1] Connection block
– Grid dimension 20 mm

[2] Retaining bracket

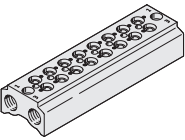
[3] Blanking plate

[4] Valves

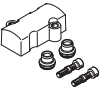
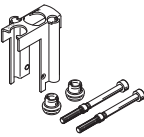
Type	B1	B2	B3	B5	D1	D2	D3	H1	H2	H3	H4	H6
CPE14-3/2-PRS...	67	51	27	17.5	G3/8	6.3	11	75.2	72.2	43.3	32.5	13.5

Type	L1	L2	L3	L4	L5	L6	L7	T1
CPE14-3/2-PRS...	48 + (n-1) x 20	34 + (n-1) x 20	7	24	20	17.4	(n-1) x 20	6.3

Ordering data – Fixed-grid manifold block

Ordering data						
	Valve positions	CRC ¹⁾	Max. tightening torque for valve mounting [Nm]	Weight [g]	Part no.	Type
Manifold block for 3/2-way valves						
	2	2	1.2	176	550559	CPE14-3/2-PRS-3/8-2
	3			228	550560	CPE14-3/2-PRS-3/8-3
	4			280	550561	CPE14-3/2-PRS-3/8-4
	5			332	550562	CPE14-3/2-PRS-3/8-5
	6			384	550563	CPE14-3/2-PRS-3/8-6
	7			436	550564	CPE14-3/2-PRS-3/8-7
	8			488	550565	CPE14-3/2-PRS-3/8-8
	9			540	550566	CPE14-3/2-PRS-3/8-9
	10			592	550567	CPE14-3/2-PRS-3/8-10

1) More information www.festo.com/x/topic/crc

Ordering data			
	Material	Part no.	Type
Cover plate			
	PA	550581	CPE14-RP3
Retaining bracket set			
	Retaining bracket: high-alloy stainless steel Screws: Galvanised steel Seals: NBR	550578	CPE14-H3-SET

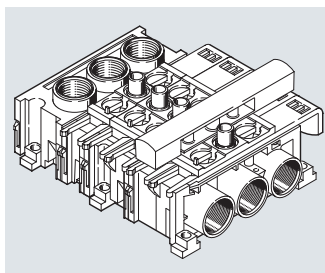
Ordering data			
	Material	Part no.	Type
Retaining bracket			
	Retaining bracket: high-alloy stainless steel (packaging unit 50 pieces)	551491	CPE14-H3-50
Screws			
	Galvanised steel (packaging unit 100 pieces)	547049	M3X45-8.8-VS-100
Seals			
	NBR (packaging unit 150 pieces)	547052	CPV14-VI-P.1/8-150

Datasheet – Modular manifold

Modular manifold block

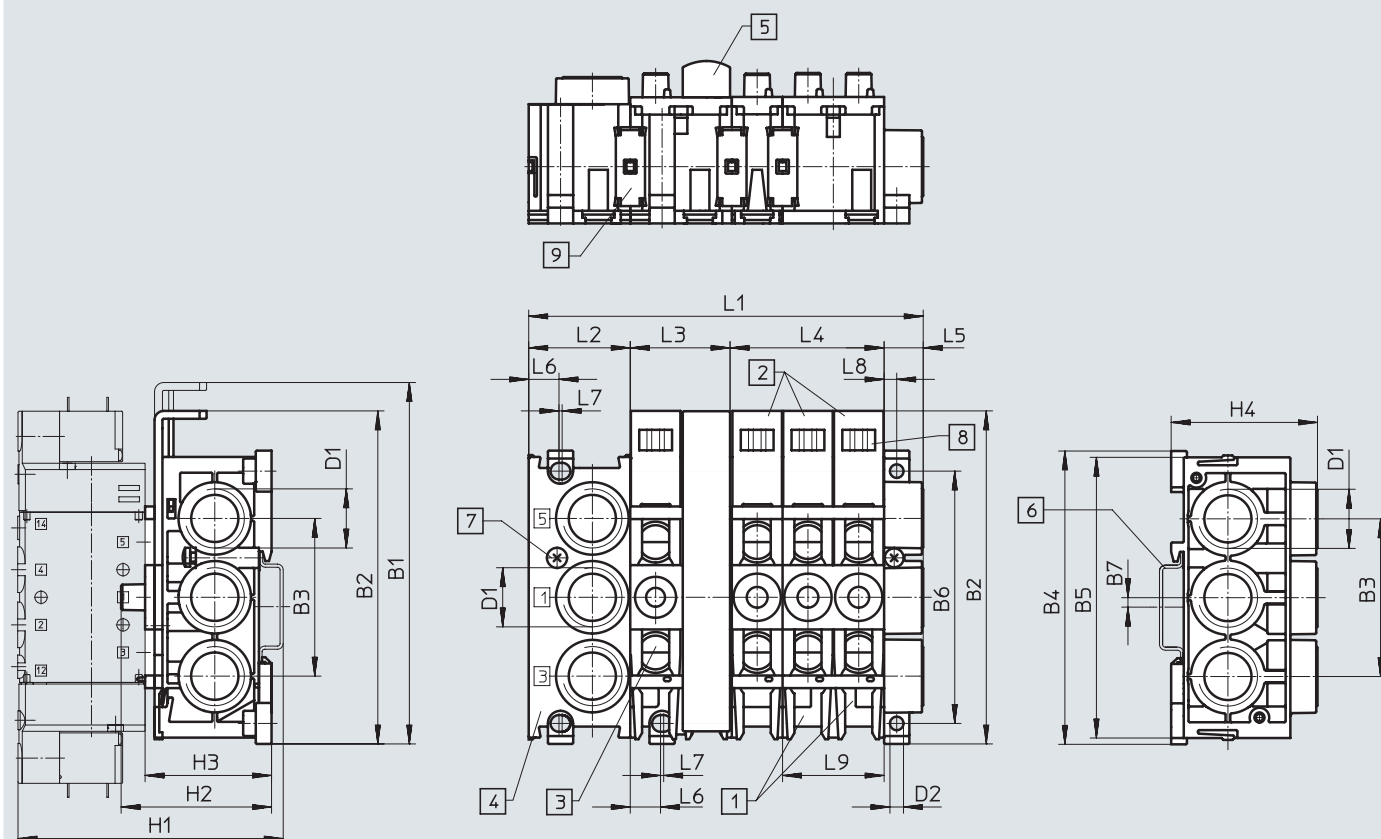
For CPE14 5/2 and 5/3

Material:
Reinforced PA



Dimensions – Modular manifold block

Download CAD data → www.festo.com



[1] Manifold block
CPE...-PRSG...-2 for
2 valves

[2] Manifold block
CPE...-PRSG...-3 for
3 valves

[3] Expansion block
CPE...-PRSE...-2 for 2 valves

[4] End block CPE...-PRS-EP

[5] Blanking plate CPE...-PRSB

[6] DIN rail to EN 50002 for
mounting

[7] Clamping screw for DIN rail

[8] Position for inscription label
type IBS 6 x 10

[9] Connecting component

Size	B1	B2	B3	B4	B5	B6	B7	D1	D2 Ø	H1	H2	H3	H4
CPE14	114.6	105.6	50	93	89	80	3	G3/8	4.3	~84	~48	~40	46.4

Size	L1 ¹⁾			L2	L3	L4	L5	L6	L7	L8	L9
CPE14	32+(nx16)+12.4			32	32	48	12.4	10.1	–	4	32

1) n = number of valve positions

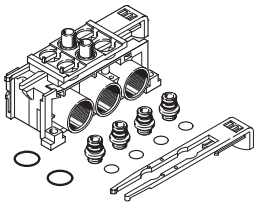
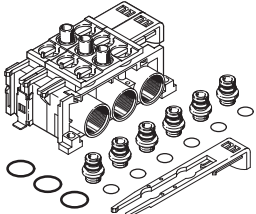
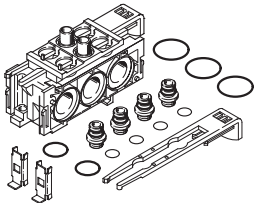
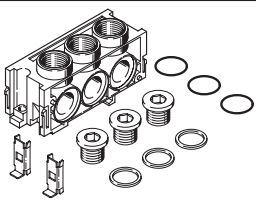
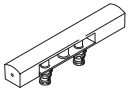
Datasheet – Modular manifold

Combination options			
Number of valve positions	One pressure zone	Two pressure zones	
		Variant 1	Variant 2
2	1x CPE...-PRSG-2	–	–
3	1x CPE...-PRSG-3	–	–
4	1x CPE...-PRSGO-2 1x CPE...-PRSE-2	1x CPE...-PRSG-2 1x CPE...-PRSEO-2 1x CPE...-PRS-EP	–
5	1x CPE...-PRSGO-3 1x CPE...-PRSE-2	1x CPE...-PRSG-3 1x CPE...-PRSEO-2 1x CPE...-PRS-EP	–
6	1x CPE...-PRSGO-2 1x CPE...-PRSEO-2 1x CPE...-PRSE-2	1x CPE...-PRSG-2 2x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSGO-2 1x CPE...-PRSE-2 1x CPE...-PRSEO-2 1x CPE...-PRS-EP
7	1x CPE...-PRSGO-3 2x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSG-3 2x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSGO-3 1x CPE...-PRSE-2 1x CPE...-PRSEO-2 1x CPE...-PRS-EP
8	1x CPE...-PRSGO-2 3x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSG-2 3x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSGO-2 1x CPE...-PRSE-2 2x CPE...-PRSEO-2 1x CPE...-PRS-EP
9	1x CPE...-PRSGO-3 3x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSG-3 3x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSGO-3 1x CPE...-PRSE-2 2x CPE...-PRSEO-2 1x CPE...-PRS-EP
10	1x CPE...-PRSGO-2 4x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSG-2 4x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSGO-2 1x CPE...-PRSE-2 3x CPE...-PRSEO-2 1x CPE...-PRS-EP
11	1x CPE...-PRSGO-3 4x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSG-3 4x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSGO-3 1x CPE...-PRSE-2 3x CPE...-PRSEO-2 1x CPE...-PRS-EP
12	1x CPE...-PRSGO-2 5x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSG-2 5x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSGO-2 1x CPE...-PRSE-2 4x CPE...-PRSEO-2 1x CPE...-PRS-EP

 Note

Each air supply can support a maximum of 6 valve positions. Use valve manifold blocks only in combination with 5/2- and 5/3-way valves.

Ordering data – Modular manifold

Ordering data					
	Port 1, 3, 5	PRS ducts	Weight [g]	Part no.	Type
Manifold block PRSG for 2 valves					
	G3/8	Closed	95	164965	CPE14-PRSG-2
	G3/8	Open	95	187829	CPE14-PRSGO-2
Manifold block PRSG for 3 valves					
	G3/8	Closed	130	187824	CPE14-PRSG-3
	G3/8	Open	130	187820	CPE14-PRSGO-3
Manifold block PRSE for 2 valves					
	–	Closed	85	164967	CPE14-PRSE-2
	–	Open	85	187830	CPE14-PRSEO-2
End plate for manifold					
	G3/8	–	80	164969	CPE14-PRS-EP
Cover plate for vacant position					
	–	–	15	164968	CPE14-PRSB

Type codes

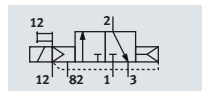
001	Series	
CPE	Solenoid valve, Compact Performance	
002	Width	
18	18 mm	
003	Nominal operating voltage	
	None	
M1	24 V DC	
M2	110 V AC	
M3	230 V AC	
004	Electrical connection	
H	Plug pattern ZC	
P1	Interface for pilot valve size 15 mm to ISO 15218 (CNO-MO)	

005	Valve function	
5L	5/2-way valve, monostable	
5J	5/2-way valve, bistable	
3GL	3/2-way valve, normally closed	
3OL	3/2-way valve, normally open	
5/3G	5/3-way valve, mid-position closed	
5/3E	5/3-way valve, mid-position exhausted	
5/3B	5/3-way valve, mid-position pressurised	
006	Pilot air	
	Internal	
S	External	
007	Pneumatic connection	
1/4	G1/4	
QS-8	Push-in connector 8 mm	
QS-10	Push-in connector 10 mm	

Datasheet

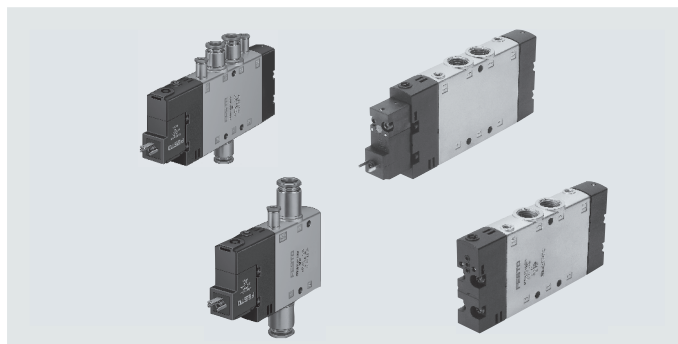
Functions:

3/2G, 3/2O,
5/2-way single solenoid,
5/2-way, double solenoid valve
5/3G, 5/3B, 5/3E



3/2G with external pilot air supply,
Normally closed

-  - Width 18 mm
-  - Flow rate
850 ... 1500 l/min
-  - Voltage for
complete valves
24 V DC, 110, 230 V AC
Basic valves
12, 24 V DC, 24, 110,
230 V AC



General technical data								
Valve function			3/2		5/2		5/3	
Normal position			G ¹⁾	O ²⁾	–	–	G ¹⁾	B ²⁾ E ³⁾
Stable position			Monostable			Bistable	Monostable	
Pneumatic spring return			Yes			–	No	
Mechanical spring return			No			–	Yes	
Design			Piston spool					
Sealing principle			Soft					
Overlap			Positive overlap					
Actuation type			Electrical					
Type of control			Piloted					
Pilot interface			To ISO 15218 or none with integrated pilot valve					
Pilot air supply			Internal or external					
Flow direction			–		Reversible with external pilot air supply			
Exhaust air function			–		Can be throttled			
Manual override			Non-detenting, detenting via accessory					
Type of mounting			Via through-holes					
Mounting position			Any					
Pneumatic connection	1, 2, 4		Threaded connection: G1/4, QS connection: Ø 8 or Ø 10 mm					
	3, 5		Threaded connection: G1/4					
	12, 14		Threaded connection: M5, QS connection: Ø 4 mm					
	82, 84		Threaded connection: M5					
Nominal width		[mm]	8					
Standard nominal flow rate	G1/4	[l/min]	1300		1300		1450	1200 1300
	QS8	[l/min]	850					780
	QS10	[l/min]	1000					1050 1000
Switching time	On/off	[ms]	2 8/18, 3 6/30 ⁵⁾		2 6/20, 3 2/30 ⁵⁾	–	2 0/38, 2 0/34 ⁵⁾	
	Changeover	[ms]	–			13, 15 ⁵⁾		–
Duty cycle		[%]	100					
Width		[mm]	18					
Conforms to standard			ISO 15218 in the case of interface with pilot valve					
Corrosion resistance class CRC ⁴⁾			2					
CE marking (see declaration of conformity) ⁶⁾			To EU Low Voltage Directive ⁷⁾					
UKCA marking (see declaration of conformity) ⁶⁾			To UK regulations for electrical equipment ⁷⁾					

1) G = normally closed

2) O,B = normally open

3) E = normally exhausted

4) More information www.festo.com/x/topic/crc

5) Switching time for basic valve

6) For information about the area of use, see the declaration of conformity at: www.festo.com/catalogue/...d/Support/Downloads.

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

7) Only valid for CPE18-M2H-... and CPE18-M3H-...

Datasheet

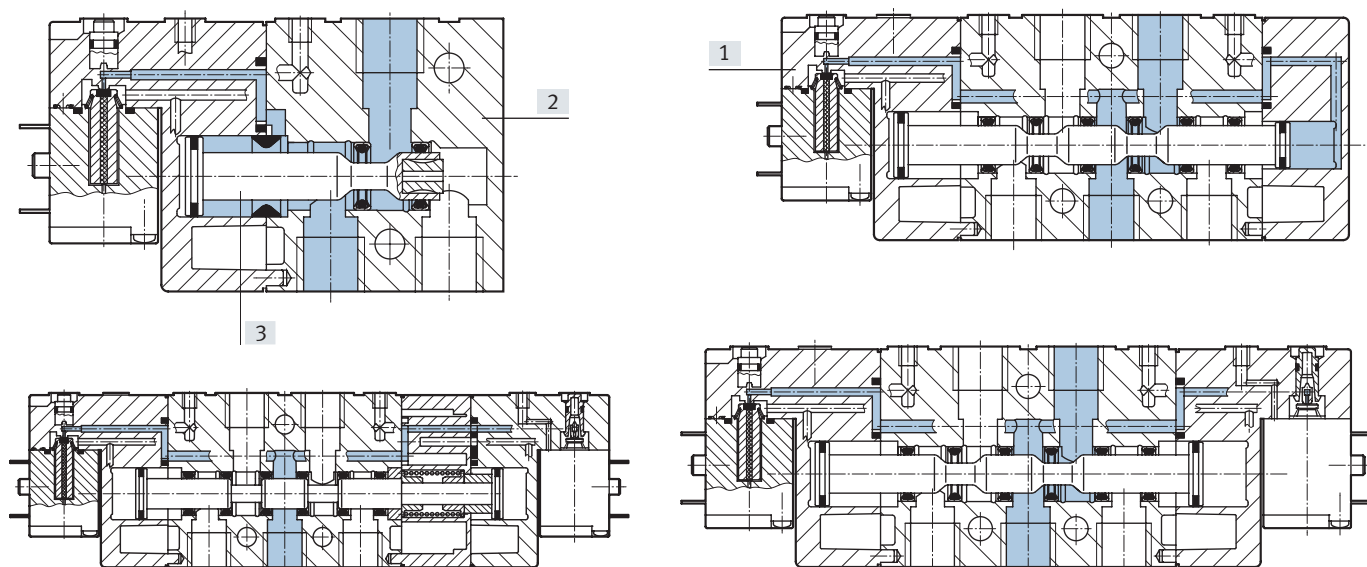
Operating and environmental conditions			
Valve function	3/2	5/2-way, single solenoid	5/2-way, double solenoid
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]		
Pilot medium	Compressed air to ISO 8573-1:2010 [7:4:4]		
Note on the operating/pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)		
Operating pressure	Internal pilot air supply	[bar]	2.5 ... 10
	External pilot air supply	[MPa]	-0.09 ... 1
		[bar]	-0.9 ... 10
Pilot pressure		[MPa]	0.25 ... 1
		[bar]	2.5 ... 10
Ambient temperature		[°C]	-5 ... +50
Temperature of medium		[°C]	-5 ... +50
Certification for solenoid valves	c UL us - Recognized (OL)		
Maritime classification ¹⁾	See certificate		
Certificate-issuing authority	DNV-TAA000032X		
	UL MH19482		

1) More information www.festo.com/sp → Certificates.

Electrical data			
Operating voltage	M1H	[V DC]	24 +10/-15%
	M2H	[V AC]	110 ±10% with 50 ... 60 Hz
	M3H	[V AC]	230 ±10% with 50 ... 60 Hz
Power consumption	M1H	[W]	1.5
	M2H, M3H	[VA]	Pull: 3, hold: 2.4
Degree of protection with plug socket	IP65 to IEC 60529		

Materials

Sectional view



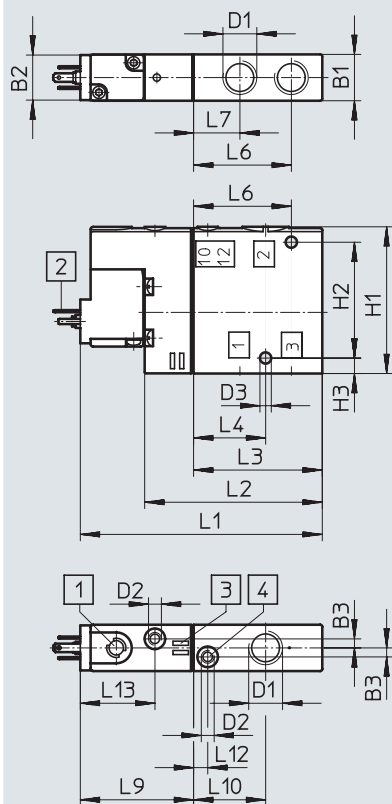
[1] Cover	PA
[2] Housing	Die-cast aluminium
[3] Piston spool	Steel
- Seals	NBR
Note on materials	RoHS-compliant

Datasheet

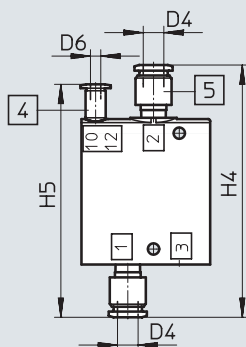
Dimensions – 3/2-way valve

Download CAD data → www.festo.com

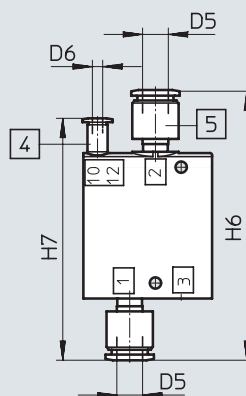
CPE18-...-1/4



CPE18-...-QS-8



CPE18-...-QS-10



[1] Manual override
[2] Plug type C, to
EN 175301-803

[3] Position for inscription
labels

[4] Port 10/12 for external pilot
air supply

[5] QS push-in fitting

Type	B1	B2	B3	D1	D2	D3 Ø	D4 Ø	D5 Ø	D6 Ø	H1	H2	H3	H4	H5	H6	H7
CPE18-M1H-3...	18	17.5	3.5	G1/4	M5	4.4	8	10	4	57	45	6	98	90.5	105	94

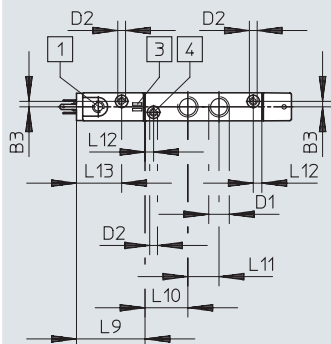
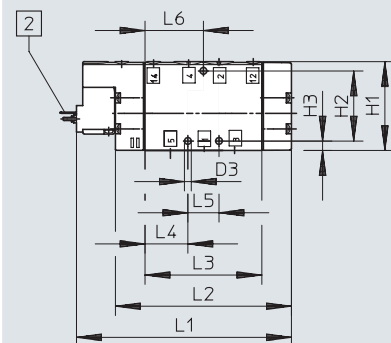
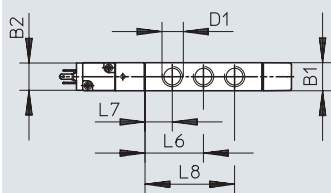
Type	L1	L2	L3	L4	L6	L7	L9	L10	L12	L13
CPE18-M1H-3...	94	69	50	28	38	18	44	28	5.5	29

Datasheet

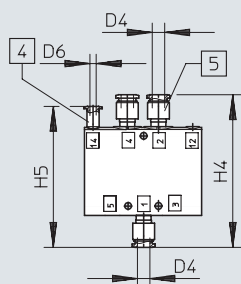
Dimensions – 5/2-way single solenoid valve

Download CAD data → www.festo.com

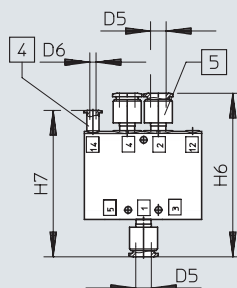
CPE18-...-1/4



CPE18-...-QS-8



CPE18-...-QS-10



- [1] Manual override
- [2] Plug type C, to EN 175301-803

- [3] Position for inscription labels

- [4] Port 12/14 for external pilot air supply

- [5] QS push-in fitting

Type	B1	B2	B3	D1	D2	D3 Ø	D4 Ø	D5 Ø	D6 Ø	H1	H2	H3	H4	H5	H6	H7
CPE18-M1H-5...	18	17.5	3.5	G1/4	M5	4.4	8	10	4	57	45	6	98	90.5	105	94

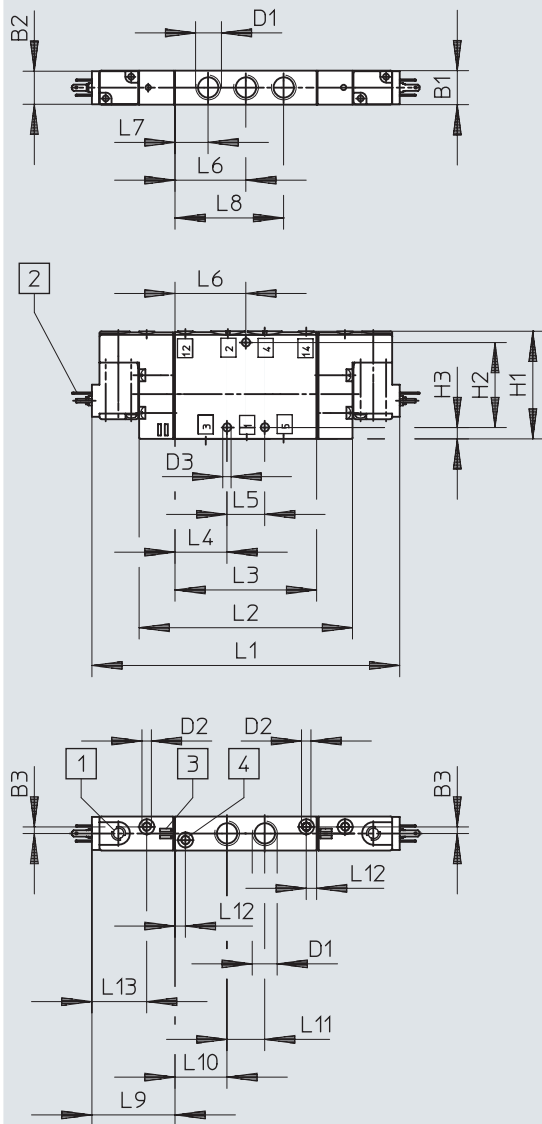
Type	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13
CPE18-M1H-5...	138	113	75	27.5	20	37.5	17.5	57.5	44	27.5	20	5.5	29

Datasheet

Dimensions – 5/2-way double solenoid valve

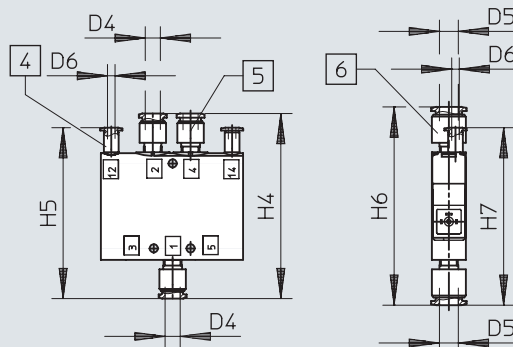
Download CAD data → www.festo.com

CPE18-...-1/4



CPE18-...-QS-8

CPE18-...-QS-10



[1] Manual override
[2] Plug type C, to
EN 175301-803

[3] Position for inscription
labels

[4] Port 12/14 for external pilot
air supply

[5]/[6] QS push-in fitting

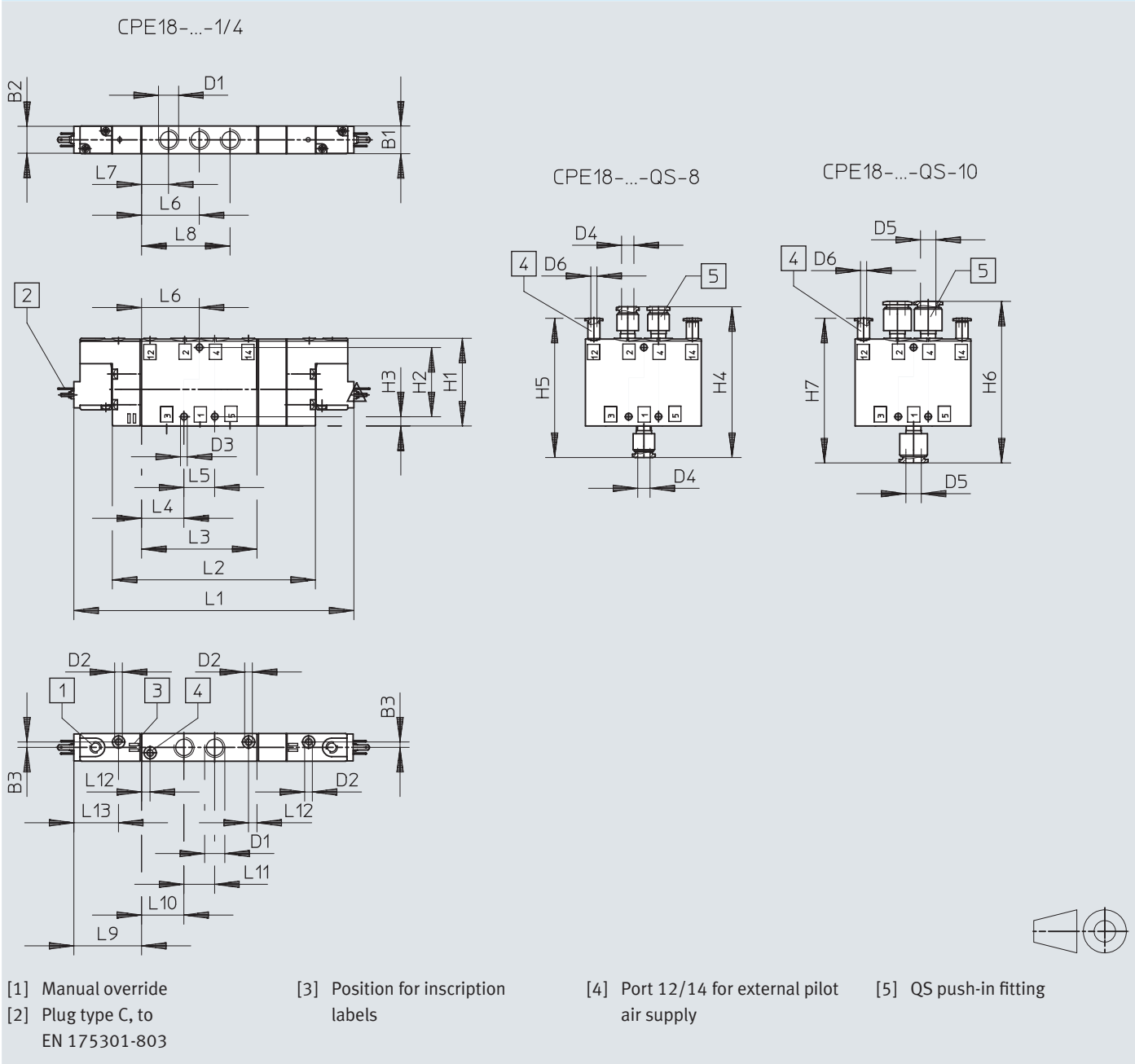


Type	B1	B2	B3	D1	D2	D3 ø	D4 ø	D5 ø	D6 ø	H1	H2	H3	H4	H5	H6	H7
CPE18-...-5]-1/4	18	17.5	3.5	G1/4	M5	4.4	8	10	4	57	45	6	98	90.5	105	94

Type	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13
CPE18-...-5]-1/4	163	113	75	27.5	20	37.5	17.5	57.5	44	27.5	20	5.5	29

Datasheet

Dimensions – 5/3-way valve Download CAD data → www.festo.com



Type	B1	B2	B3	D1	D2	D3 ø	D4 ø	D5 ø	D6 ø	H1	H2	H3	H4	H5	H6	H7
CPE18-M1H...-5L	18	17.5	3.5	G1/4	M5	4.4	8	10	4	57	45	6	98	90.5	105	94
CPE18-M1H...-5/3																

Type	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13
CPE18-M1H...-5J	163	113	75	27.5	20	37.5	17.5	57.5	44	27.5	20	5.5	29
CPE18-M1H...-5/3	182	132											

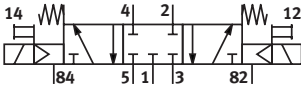
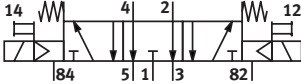
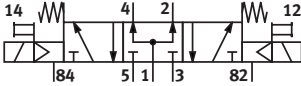
Ordering data

Ordering data – 3/2-way valve						
Circuit symbol	Pilot air supply	Voltage	Pneumatic connection	Weight [g]	Part no.	Type
Normally closed						
	Internal	24 V DC	G1/4	150	163141	CPE18-M1H-3GL-1/4
			QS-8	–	163149	CPE18-M1H-3GL-QS-8
			QS-10	–	163157	CPE18-M1H-3GL-QS-10
		110 V AC	G1/4	150	163761	CPE18-M2H-3GL-1/4
			QS-8	–	163769	CPE18-M2H-3GL-QS-8
			QS-10	–	163777	CPE18-M2H-3GL-QS-10
		230 V AC	G1/4	150	163785	CPE18-M3H-3GL-1/4
			QS-8	–	163793	CPE18-M3H-3GL-QS-8
			QS-10	–	163801	CPE18-M3H-3GL-QS-10
Normally open						
	Internal	24 V DC	G1/4	150	163140	CPE18-M1H-3OL-1/4
			QS-8	–	163148	CPE18-M1H-3OL-QS-8
			QS-10	–	163156	CPE18-M1H-3OL-QS-10
		110 V AC	G1/4	150	163760	CPE18-M2H-3OL-1/4
			QS-8	–	163768	CPE18-M2H-3OL-QS-8
			QS-10	–	163776	CPE18-M2H-3OL-QS-10
		230 V AC	G1/4	150	163784	CPE18-M3H-3OL-1/4
			QS-8	–	163792	CPE18-M3H-3OL-QS-8
			QS-10	–	163800	CPE18-M3H-3OL-QS-10
Normally closed						
	External	24 V DC	G1/4	150	163145	CPE18-M1H-3GLS-1/4
			QS-8	–	163153	CPE18-M1H-3GLS-QS-8
			QS-10	–	163161	CPE18-M1H-3GLS-QS-10
		110 V AC	G1/4	150	163765	CPE18-M2H-3GLS-1/4
			QS-8	–	163773	CPE18-M2H-3GLS-QS-8
			QS-10	–	163781	CPE18-M2H-3GLS-QS-10
		230 V AC	G1/4	150	163789	CPE18-M3H-3GLS-1/4
			QS-8	–	163797	CPE18-M3H-3GLS-QS-8
			QS-10	–	163805	CPE18-M3H-3GLS-QS-10
Normally open						
	External	24 V DC	G1/4	150	163144	CPE18-M1H-3OLS-1/4
			QS-8	–	163152	CPE18-M1H-3OLS-QS-8
			QS-10	–	163160	CPE18-M1H-3OLS-QS-10
		110 V AC	G1/4	150	163764	CPE18-M2H-3OLS-1/4
			QS-8	–	163772	CPE18-M2H-3OLS-QS-8
			QS-10	–	163780	CPE18-M2H-3OLS-QS-10
		230 V AC	G1/4	150	163788	CPE18-M3H-3OLS-1/4
			QS-8	–	163796	CPE18-M3H-3OLS-QS-8
			QS-10	–	163804	CPE18-M3H-3OLS-QS-10

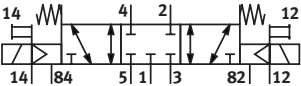
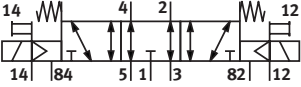
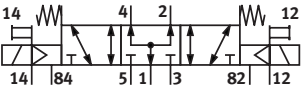
Ordering data

Ordering data – 5/2-way valve						
Circuit symbol	Pilot air supply	Voltage	Pneumatic connection	Weight [g]	Part no.	Type
5/2-way valve, single solenoid						
	Internal	24 V DC	G1/4	220	163142	CPE18-M1H-5L-1/4
			QS-8	–	163150	CPE18-M1H-5L-QS-8
			QS-10	–	163158	CPE18-M1H-5L-QS-10
		110 V AC	G1/4	220	163762	CPE18-M2H-5L-1/4
			QS-8	–	163770	CPE18-M2H-5L-QS-8
			QS-10	–	163778	CPE18-M2H-5L-QS-10
		230 V AC	G1/4	220	163786	CPE18-M3H-5L-1/4
			QS-8	–	163794	CPE18-M3H-5L-QS-8
			QS-10	–	163802	CPE18-M3H-5L-QS-10
5/2-way double solenoid valve						
	Internal	24 V DC	G1/4	270	163143	CPE18-M1H-5J-1/4
			QS-8	–	163151	CPE18-M1H-5J-QS-8
			QS-10	–	163159	CPE18-M1H-5J-QS-10
		110 V AC	G1/4	270	163763	CPE18-M2H-5J-1/4
			QS-8	–	163771	CPE18-M2H-5J-QS-8
			QS-10	–	163779	CPE18-M2H-5J-QS-10
		230 V AC	G1/4	270	163787	CPE18-M3H-5J-1/4
			QS-8	–	163795	CPE18-M3H-5J-QS-8
			QS-10	–	163803	CPE18-M3H-5J-QS-10
5/2-way valve, single solenoid						
	External	24 V DC	G1/4	220	163146	CPE18-M1H-5LS-1/4
			QS-8	–	163154	CPE18-M1H-5LS-QS-8
			QS-10	–	163162	CPE18-M1H-5LS-QS-10
		110 V AC	G1/4	220	163766	CPE18-M2H-5LS-1/4
			QS-8	–	163774	CPE18-M2H-5LS-QS-8
			QS-10	–	163782	CPE18-M2H-5LS-QS-10
		230 V AC	G1/4	220	163790	CPE18-M3H-5LS-1/4
			QS-8	–	163798	CPE18-M3H-5LS-QS-8
			QS-10	–	163806	CPE18-M3H-5LS-QS-10
5/2-way double solenoid valve						
	External	24 V DC	G1/4	270	163147	CPE18-M1H-5JS-1/4
			QS-8	–	163155	CPE18-M1H-5JS-QS-8
			QS-10	–	163163	CPE18-M1H-5JS-QS-10
		110 V AC	G1/4	270	163767	CPE18-M2H-5JS-1/4
			QS-8	–	163775	CPE18-M2H-5JS-QS-8
			QS-10	–	163783	CPE18-M2H-5JS-QS-10
		230 V AC	G1/4	270	163791	CPE18-M3H-5JS-1/4
			QS-8	–	163799	CPE18-M3H-5JS-QS-8
			QS-10	–	163807	CPE18-M3H-5JS-QS-10

Ordering data

Ordering data – 5/3-way valve						
Circuit symbol	Pilot air supply	Voltage	Pneumatic connection	Weight [g]	Part no.	Type
5/3-way mid-position valve, normally closed						
	Internal	24 V DC	G1/4	280	170247	CPE18-M1H-5/3G-1/4
			QS-8	–	170253	CPE18-M1H-5/3G-QS-8
			QS-10	–	170259	CPE18-M1H-5/3G-QS-10
		110 V AC	G1/4	280	170283	CPE18-M2H-5/3G-1/4
			QS-8	–	170289	CPE18-M2H-5/3G-QS-8
			QS-10	–	170295	CPE18-M2H-5/3G-QS-10
		230 V AC	G1/4	280	170319	CPE18-M3H-5/3G-1/4
			QS-8	–	170325	CPE18-M3H-5/3G-QS-8
			QS-10	–	170331	CPE18-M3H-5/3G-QS-10
5/3-way mid-position valve, normally exhausted						
	Internal	24 V DC	G1/4	280	170249	CPE18-M1H-5/3E-1/4
			QS-8	–	170255	CPE18-M1H-5/3E-QS-8
			QS-10	–	170261	CPE18-M1H-5/3E-QS-10
		110 V AC	G1/4	280	170285	CPE18-M2H-5/3E-1/4
			QS-8	–	170291	CPE18-M2H-5/3E-QS-8
			QS-10	–	170297	CPE18-M2H-5/3E-QS-10
		230 V AC	G1/4	280	170321	CPE18-M3H-5/3E-1/4
			QS-8	–	170327	CPE18-M3H-5/3E-QS-8
			QS-10	–	170333	CPE18-M3H-5/3E-QS-10
5/3-way mid-position valve, normally open						
	Internal	24 V DC	G1/4	280	170251	CPE18-M1H-5/3B-1/4
			QS-8	–	170257	CPE18-M1H-5/3B-QS8
			QS-10	–	170263	CPE18-M1H-5/3B-QS10
		110 V AC	G1/4	280	170287	CPE18-M2H-5/3B-1/4
			QS-8	–	170293	CPE18-M2H-5/3B-QS-8
			QS-10	–	170299	CPE18-M2H-5/3B-QS-10
		230 V AC	G1/4	280	170323	CPE18-M3H-5/3B-1/4
			QS-8	–	170329	CPE18-M3H-5/3B-QS-8
			QS-10	–	170335	CPE18-M3H-5/3B-QS-10

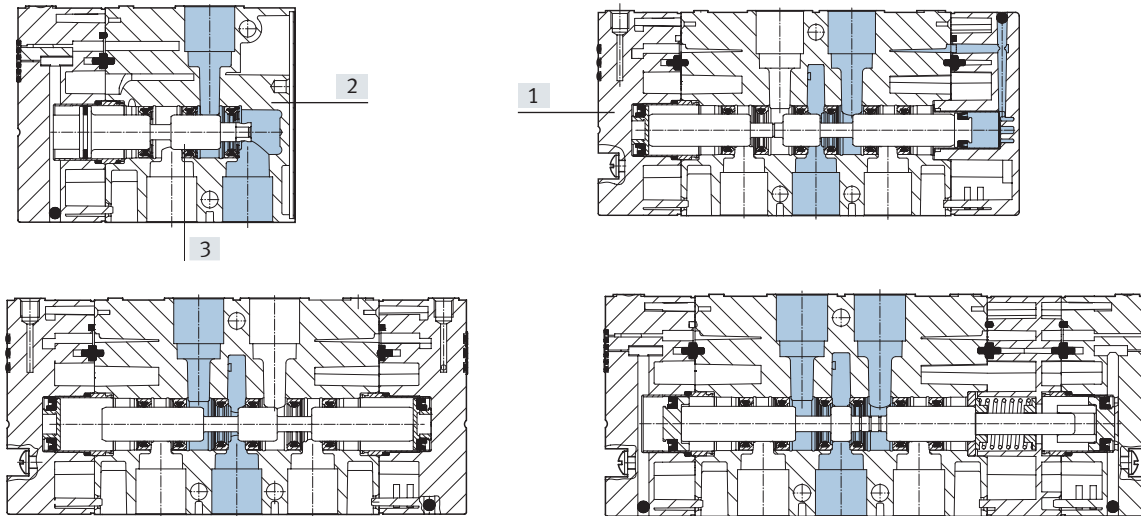
Ordering data

Ordering data – 5/3-way valve						
Circuit symbol	Pilot air supply	Voltage	Pneumatic connection	Weight [g]	Part no.	Type
5/3-way mid-position valve, normally closed						
	External	24 V DC	G1/4	280	170248	CPE18-M1H-5/3GS-1/4
			QS-8	–	170254	CPE18-M1H-5/3GS-QS-8
			QS-10	–	170260	CPE18-M1H-5/3GS-QS-10
		110 V AC	G1/4	280	170284	CPE18-M2H-5/3GS-1/4
			QS-8	–	170290	CPE18-M2H-5/3GS-QS-8
			QS-10	–	170296	CPE18-M2H-5/3GS-QS10
		230 V AC	G1/4	280	170320	CPE18-M3H-5/3GS-1/4
			QS-8	–	170326	CPE18-M3H-5/3GS-QS-8
			QS-10	–	170332	CPE18-M3H-5/3GS-QS10
5/3-way mid-position valve, normally exhausted						
	External	24 V DC	G1/4	280	170250	CPE18-M1H-5/3ES-1/4
			QS-8	–	170256	CPE18-M1H-5/3ES-QS-8
			QS-10	–	170262	CPE18-M1H-5/3ES-QS-10
		110 V AC	G1/4	280	170286	CPE18-M2H-5/3ES-1/4
			QS-8	–	170292	CPE18-M2H-5/3ES-QS-8
			QS-10	–	170298	CPE18-M2H-5/3ES-QS10
		230 V AC	G1/4	280	170322	CPE18-M3H-5/3ES-1/4
			QS-8	–	170328	CPE18-M3H-5/3ES-QS-8
			QS-10	–	170334	CPE18-M3H-5/3ES-QS10
5/3-way mid-position valve, normally open						
	External	24 V DC	G1/4	280	170252	CPE18-M1H-5/3BS-1/4
			QS-8	–	170258	CPE18-M1H-5/3BS-QS-8
			QS-10	–	170264	CPE18-M1H-5/3BS-QS-10
		110 V AC	G1/4	280	170288	CPE18-M2H-5/3BS-1/4
			QS-8	–	170294	CPE18-M2H-5/3BS-QS-8
			QS-10	–	170300	CPE18-M2H-5/3BS-QS-10
		230 V AC	G1/4	280	170324	CPE18-M3H-5/3BS-1/4
			QS-8	–	170330	CPE18-M3H-5/3BS-QS-8
			QS-10	–	170336	CPE18-M3H-5/3BS-QS-10

Datasheet – Directional control valves without pilot valve

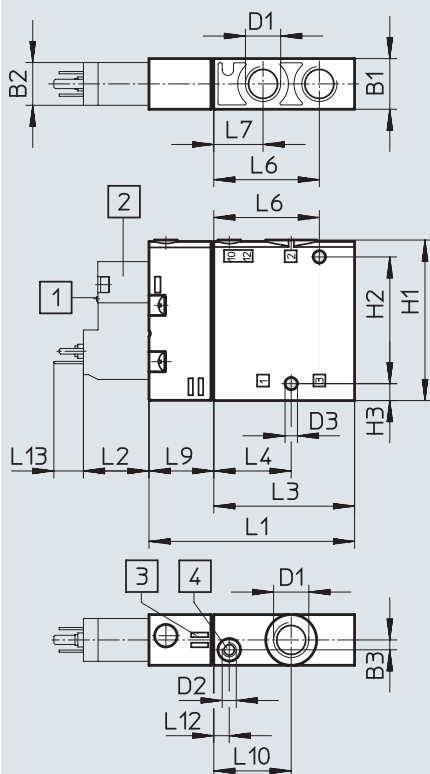
Materials

Sectional view



[1] Cover	PA
[2] Housing	Die-cast aluminium
[3] Piston spool	Steel
– Seals	NBR
Note on materials	RoHS-compliant

Dimensions – 3/2-way valve

Download CAD data → www.festo.com

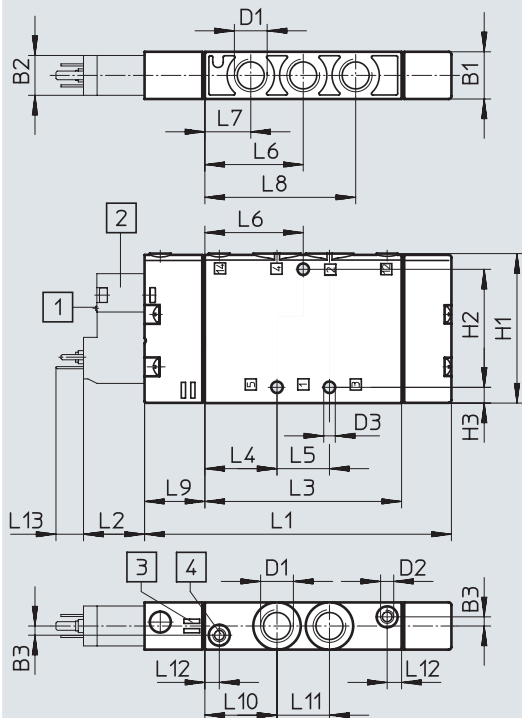
- [1] Manual override
- [2] Pilot valve, plug type C to EN 175301-803
- [3] Space for inscription label
- [4] Port 10/12 for external pilot air supply

Type	B1	B2	B3	D1	D2	D3 Ø	H1	H2	H3	L1	L2	L3	L4	L6	L7	L9	L10	L12	L13
CPE18-P1-3	18	15.2	3.5	G1/4	M5	4.4	57	45	6	73	23.3	50	27.5	37.5	17.5	23	27.5	5.5	10.5

Datasheet – Directional control valves without pilot valve

Dimensions – 5/2-way valve

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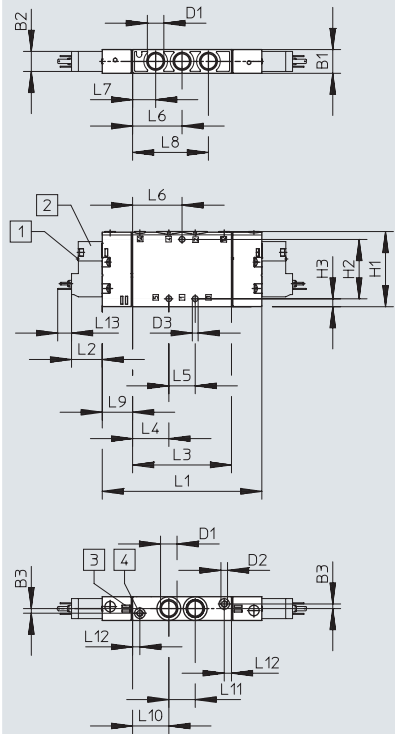


- [1] Manual override
- [2] Pilot valve, plug type C to EN 175301-803
- [3] Space for inscription label
- [4] Port 12/14 for external pilot air supply

Type	B1	B2	B3	D1	D2	D3 ∅	H1	H2	H3	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13
CPE18-P1-5L	18	15.2	3.5	G1/4	M5	4.4	57	45	6	117	23.3	75	27.5	20	37.5	17.5	57.5	23	27.5	20	5.5	10.5

Dimensions – 5/2-way double solenoid valve

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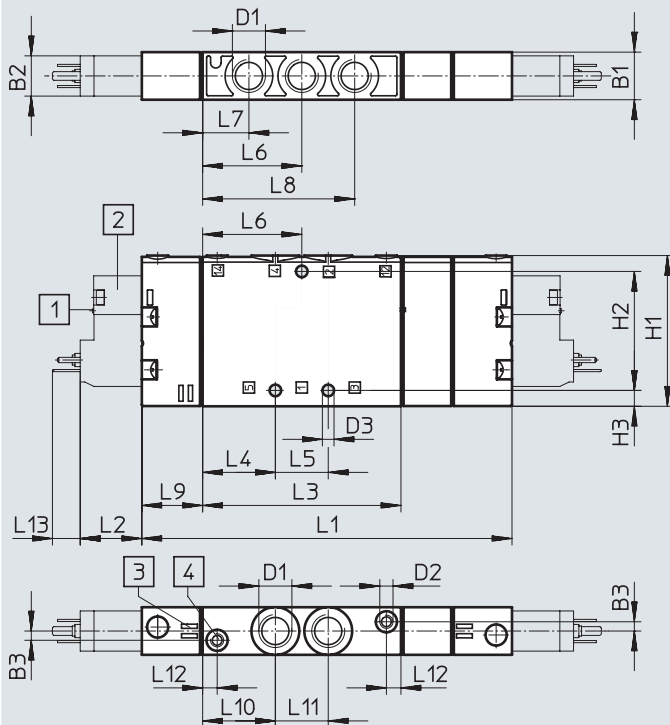
- [1] Manual override
- [2] Pilot valve, plug type C to EN 175301-803
- [3] Space for inscription label
- [4] Port 12/14 for external pilot air supply



Type	B1	B2	B3	D1	D2	D3 ∅	H1	H2	H3	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13
CPE18-P1-5J	18	15.2	3.5	G1/4	M5	4.4	57	45	6	121	23.3	75	27.5	20	37.5	17.5	57.5	23	27.5	20	5.5	10.5

Datasheet – Directional control valves without pilot valve

Dimensions – 5/3-way valve

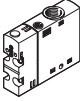
Download CAD data → www.festo.com

- [1] Manual override
- [2] Pilot valve,
plug type C to
EN 175301-803
- [3] Space for inscription label
- [4] Port 12/14 for external
pilot air supply

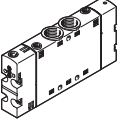
Type	B1	B2	B3	D1	D2	D3 ø	H1	H2	H3	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13
CPE18-P1-5J	18	15.2	3.5	G1/4	M5	4.4	57	45	6	121	23.3	75	27.5	20	37.5	17.5	57.5	23	27.5	20	5.5	10.5
CPE18-P1-5/3										140												

Ordering data

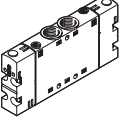
Ordering data – 3/2-way valve without pilot valve

Design	Normal position	Pilot air supply	Weight [g]	Part no.	Type
	Closed	Internal	110	550163	CPE18-P1-3GL-1/4
	Open			550165	CPE18-P1-3OL-1/4
	Closed	External		550164	CPE18-P1-3GLS-1/4
	Open			550166	CPE18-P1-3OLS-1/4

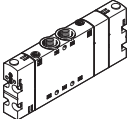
Ordering data – 5/2-way single solenoid valve without pilot valve

Design		Pilot air supply	Weight [g]	Part no.	Type
	–	Internal	180	550153	CPE18-P1-5L-1/4
		External		550154	CPE18-P1-5LS-1/4

Ordering data – 5/2-way double solenoid valve without pilot valve

Design		Pilot air supply	Weight [g]	Part no.	Type
	–	Internal	190	550155	CPE18-P1-5J-1/4
		External		550156	CPE18-P1-5JS-1/4

Ordering data – 5/3-way mid-position valve without pilot valve

Design	Normal position	Pilot air supply	Weight [g]	Part no.	Type
	Closed	Internal	200	550157	CPE18-P1-5/3G-1/4
	Open			550159	CPE18-P1-5/3E-1/4
	Exhausted			550161	CPE18-P1-5/3B-1/4
	Closed	External		550158	CPE18-P1-5/3GS-1/4
	Open			550160	CPE18-P1-5/3ES-1/4
	Exhausted			550162	CPE18-P1-5/3BS-1/4

Ordering data – Pilot valve to ISO 15218

Design	Plug, square design	PE conductor	Power		Voltage		Part no.	Type
			[W]	[VA]	[V DC]	[V AC]		
	Type C to EN 175301-803	No	1.8	–	24	–	546256	VSCS-B-M32-MH-WA-1C1
					12	–	546257	VSCS-B-M32-MH-WA-5C1
	Type C to EN 175301-803	Yes	–	2.1	–	230	546260	VSCS-B-M32-MH-WA-3AC1
		Yes	–	2.1	–	110	546259	VSCS-B-M32-MH-WA-2AC1
	Type C to EN 175301-803	No	–	2.3	–	24	546258	VSCS-B-M32-MH-WA-1AC1

Technical data – Fixed-grid manifold block

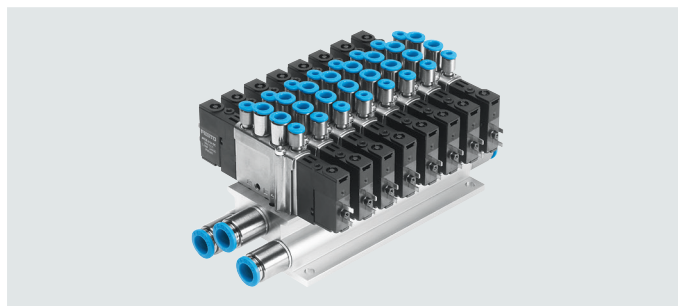
Manifold block

For CPE18 5/2 and 5/3

Material:

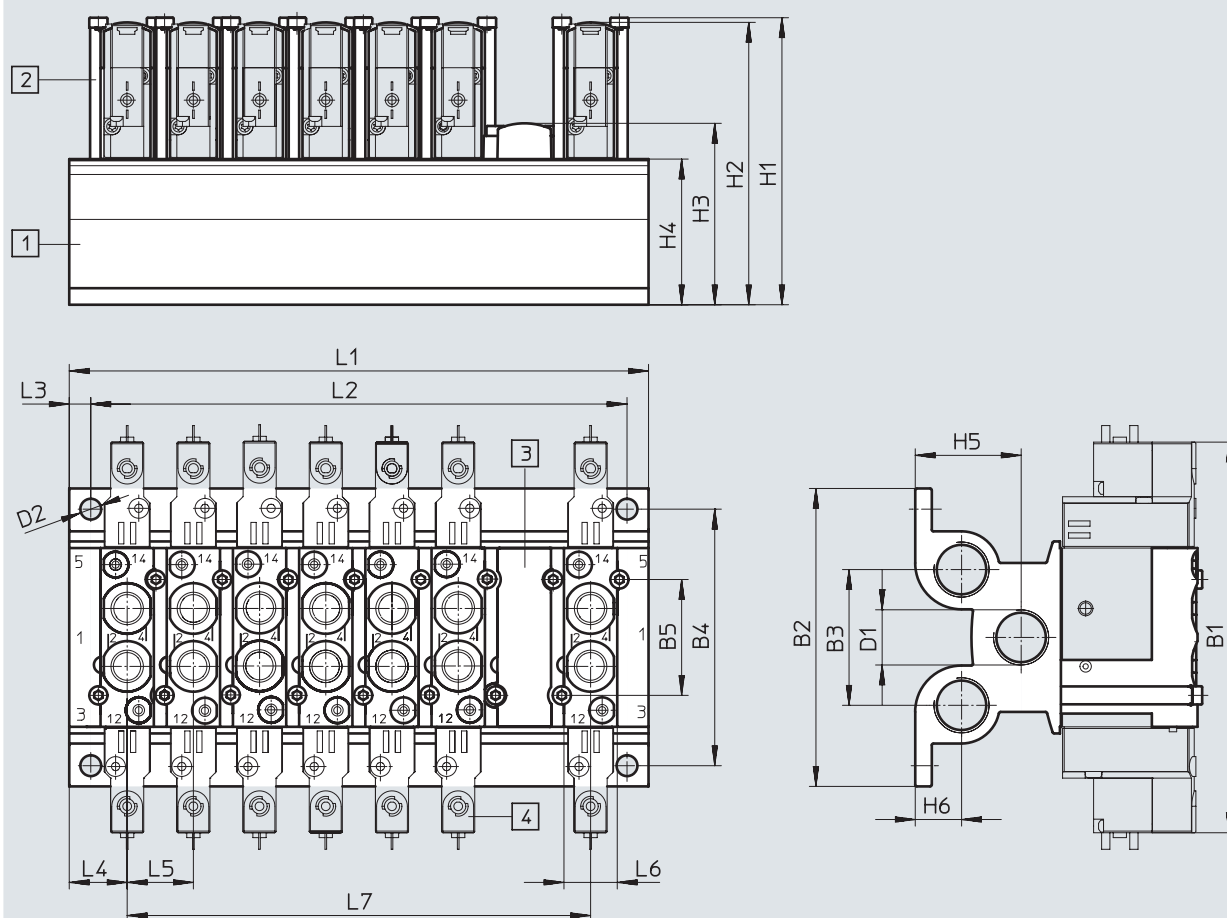
Wrought aluminium alloy

RoHS-compliant



Dimensions – Fixed-grid manifold 5/2 and 5/3

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[1] Connection block
Grid dimension 26 mm

[2] Retaining bracket

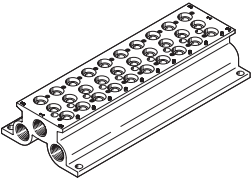
[3] Blanking plate

[4] Valves

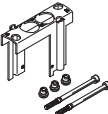
Type	B1	B2	B3	B4	B5	D1	D2	H1	H2	H3	H4	H5	H6
CPE18-PRS...	155	102	46	86.5	40	G3/8	8.3	105	101.45	59.8	44	30.5	14

Type	L1	L2	L3	L4	L5	L6	L7
CPE18-PRS...	$45 + (n-1) \times 26$	$L1 - 17 \pm 0.1$	8.5	22.5	26	22.4	$(n-1) \times 26$

Ordering data – Fixed-grid manifold block

Ordering data						
	Valve positions	CRC ¹⁾	Max. tightening torque for valve mounting [Nm]	Weight [g]	Part no.	Type
Manifold block for 5/2- and 5/3-way valves						
	2	2	2	353	543839	CPE18-PRS-3/8-2
	3			482	543840	CPE18-PRS-3/8-3
	4			611	543841	CPE18-PRS-3/8-4
	5			740	543842	CPE18-PRS-3/8-5
	6			870	543843	CPE18-PRS-3/8-6
	7			999	543844	CPE18-PRS-3/8-7
	8			1128	543845	CPE18-PRS-3/8-8
	9			1257	543846	CPE18-PRS-3/8-9
	10			1386	543847	CPE18-PRS-3/8-10

1) More information www.festo.com/x/topic/crc

Ordering data			
	Material	Part no.	Type
Blanking plate for vacant position			
	PA	544481	CPE18-RP
Retaining bracket set			
	Retaining bracket: high-alloy stainless steel Screws: Galvanised steel Seals: NBR	544396	CPE18-H5-SET

Ordering data			
	Material	Part no.	Type
Retaining bracket			
	Retaining bracket: high-alloy stainless steel (packaging unit 50 pieces)	547047	CPE18-H5-50
Screws			
	Galvanised steel (packaging unit 100 pieces)	547050	M4X65-8.8-VS-100
Seals			
	NBR (packaging unit 150 pieces)	547053	CPV18-VI-P.1/4-150

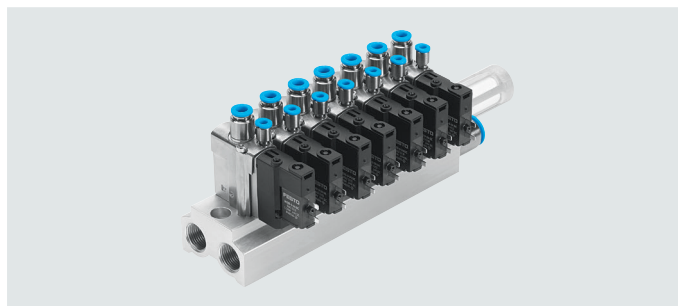
Technical data – Fixed-grid manifold block

Manifold block

For CPE18 3/2

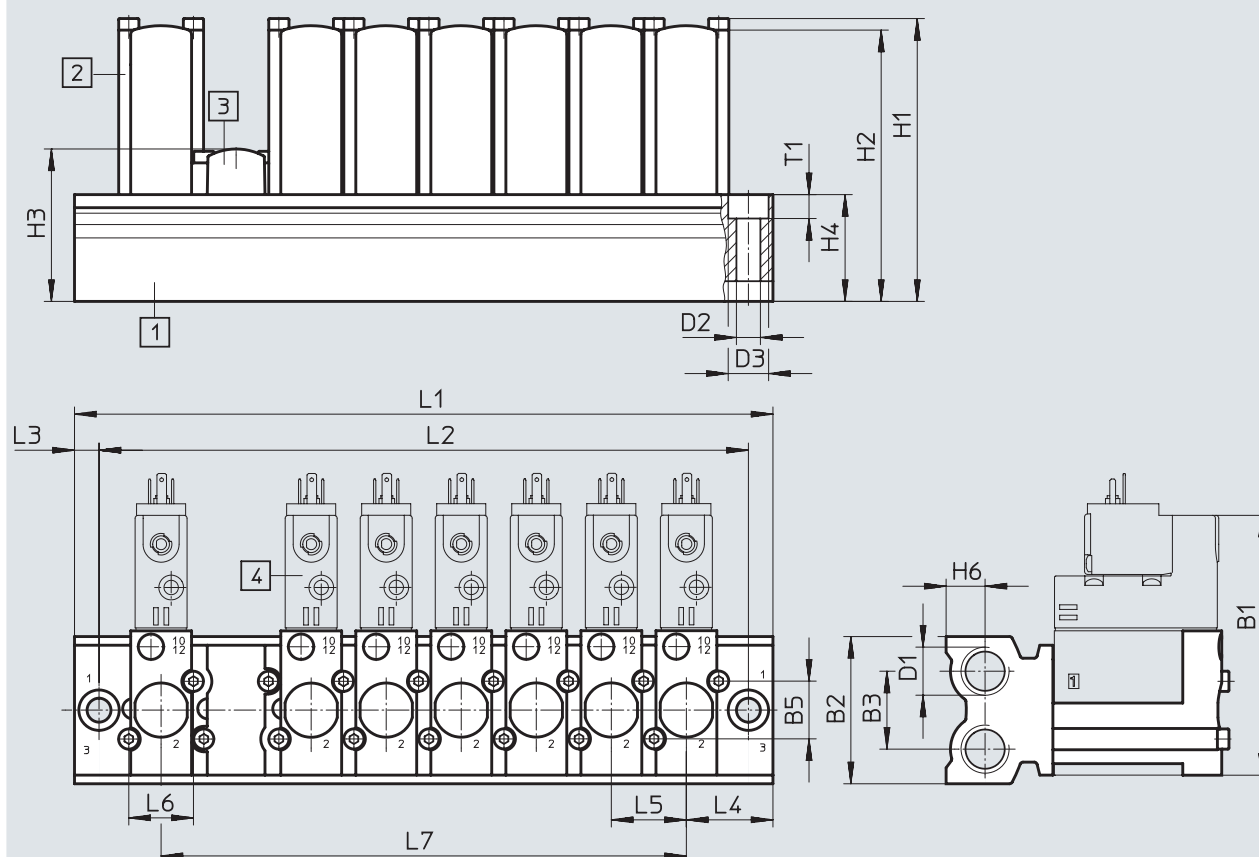
Material:

Wrought aluminium alloy



Dimensions – Fixed-grid manifold block 3/2

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[1] Connection block
Grid dimension 26 mm

[2] Retaining bracket

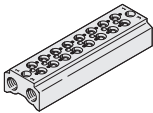
[3] Blanking plate

[4] Valves

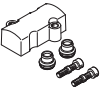
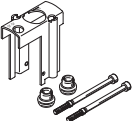
Type	B1	B2	B3	B5	D1	D2	H1	H2	H3	H4	H6
CPE18-3/2-PRS...	90	51	27	200	G3/8	8.3	98	94	52.8	37	13.5

Type	L1	L2	L3	L4	L5	L6	L7	T1
CPE18-3/2-PRS...	$60 + (n-1) \times 26$	$43 + (n-1) \times 26$	8.5	24	26	22.4	$(n-1) \times 26$	8.3

Ordering data – Fixed-grid manifold block

Ordering data						
	Valve positions	CRC ¹⁾	Max. tightening torque for valve mounting [Nm]	Weight [g]	Part no.	Type
Manifold block for 3/2-way valves						
	2	2	2	266	550568	CPE18-3/2-PRS-3/8-2
	3			346	550569	CPE18-3/2-PRS-3/8-3
	4			426	550570	CPE18-3/2-PRS-3/8-4
	5			507	550571	CPE18-3/2-PRS-3/8-5
	6			587	550572	CPE18-3/2-PRS-3/8-6
	7			667	550573	CPE18-3/2-PRS-3/8-7
	8			748	550574	CPE18-3/2-PRS-3/8-8
	9			828	550575	CPE18-3/2-PRS-3/8-9
	10			908	550576	CPE18-3/2-PRS-3/8-10

1) More information www.festo.com/x/topic/crc

Ordering data			
	Material	Part no.	Type
Cover plate			
	PA	550582	CPE18-RP3
Retaining bracket set			
	Retaining bracket: high-alloy stainless steel Screws: Galvanised steel Seals: NBR	550579	CPE18-H3-SET

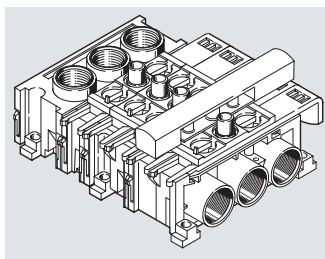
Ordering data			
	Material	Part no.	Type
Retaining bracket			
	Retaining bracket: high-alloy stainless steel (packaging unit 50 pieces)	551492	CPE18-H3-50
Screws			
	Galvanised steel (packaging unit 100 pieces)	547050	M4X65-8.8-VS-100
Seals			
	NBR (packaging unit 150 pieces)	547053	CPV18-VI-P.1/4-150

Datasheet – Modular manifold

Modular manifold block

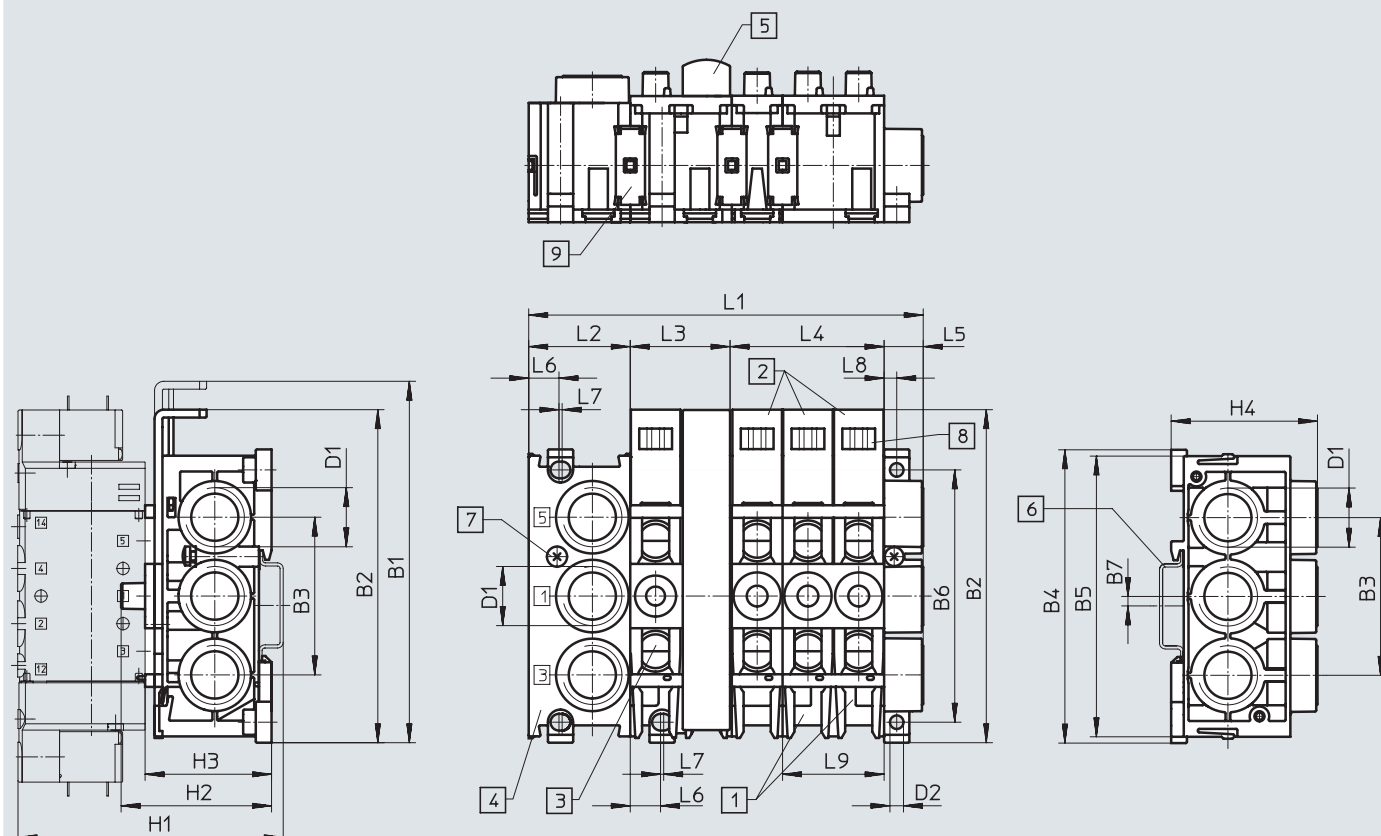
For CPE18 5/2 and 5/3

Material:
Reinforced PA



Dimensions – Modular manifold block

Download CAD data → www.festo.com



[1] Manifold block
CPE...-PRSG...-2 for
2 valves

[2] Manifold block
CPE...-PRSG...-3 for
3 valves

[3] Expansion block
CPE...-PRSE...-2 for 2 valves

[4] End block CPE...-PRSE-EP

[5] Blanking plate CPE...-PRSB

[6] DIN rail to EN 50002 for
mounting

[7] Clamping screw for DIN rail

[8] Position for inscription label
type IBS 6 x 10

[9] Connecting component

Size	B1	B2	B3	B4	B5	B6	B7	D1	D2 Ø	H1	H2	H3	H4
CPE18	151.6	136.5	59	113	–	100	2.75	G1/2	5.3	~106	~58	~46	51.4

Size	L1 ¹⁾	L2	L3	L4	L5	L6	L7	L8	L9
CPE18	40+(nx20)+16.4	40	40	60	16.4	12.6	1	5.2	40

1) n = number of valve positions

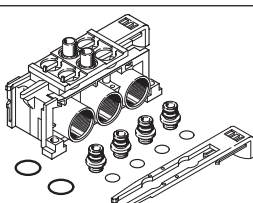
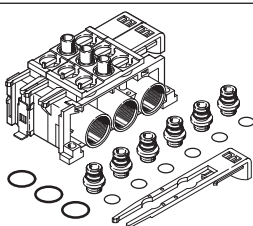
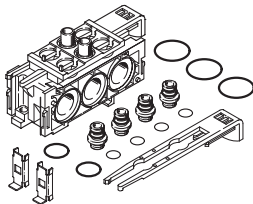
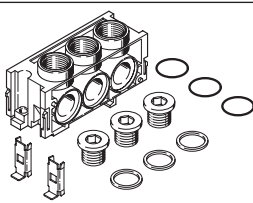
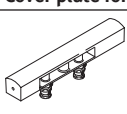
Datasheet – Modular manifold

Combination options			
Number of valve positions	One pressure zone	Two pressure zones Variant 1	Variant 2
2	1x CPE...-PRSG-2	–	–
3	1x CPE...-PRSG-3	–	–
4	1x CPE...-PRSGO-2 1x CPE...-PRSE-2	1x CPE...-PRSG-2 1x CPE...-PRSEO-2 1x CPE...-PRS-EP	–
5	1x CPE...-PRSGO-3 1x CPE...-PRSE-2	1x CPE...-PRSG-3 1x CPE...-PRSEO-2 1x CPE...-PRS-EP	–
6	1x CPE...-PRSGO-2 1x CPE...-PRSEO-2 1x CPE...-PRSE-2	1x CPE...-PRSG-2 2x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSGO-2 1x CPE...-PRSE-2 1x CPE...-PRSEO-2 1x CPE...-PRS-EP
7	1x CPE...-PRSGO-3 2x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSG-3 2x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSGO-3 1x CPE...-PRSE-2 1x CPE...-PRSEO-2 1x CPE...-PRS-EP
8	1x CPE...-PRSGO-2 3x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSG-2 3x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSGO-2 1x CPE...-PRSE-2 2x CPE...-PRSEO-2 1x CPE...-PRS-EP
9	1x CPE...-PRSGO-3 3x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSG-3 3x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSGO-3 1x CPE...-PRSE-2 2x CPE...-PRSEO-2 1x CPE...-PRS-EP
10	1x CPE...-PRSGO-2 4x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSG-2 4x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSGO-2 1x CPE...-PRSE-2 3x CPE...-PRSEO-2 1x CPE...-PRS-EP
11	1x CPE...-PRSGO-3 4x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSG-3 4x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSGO-3 1x CPE...-PRSE-2 3x CPE...-PRSEO-2 1x CPE...-PRS-EP
12	1x CPE...-PRSGO-2 5x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSG-2 5x CPE...-PRSEO-2 1x CPE...-PRS-EP	1x CPE...-PRSGO-2 1x CPE...-PRSE-2 4x CPE...-PRSEO-2 1x CPE...-PRS-EP

Note

Each air supply can support a maximum of 6 valve positions. Use valve manifold blocks only in combination with 5/2- and 5/3-way valves.

Ordering data – Modular manifold

Ordering data		Port 1, 3, 5	PRS ducts	Weight [g]	Part no.	Type
Manifold block PRSG for 2 valves						
	G1/2	Closed	170	164970	CPE18-PRSG-2	
	G1/2	Open	170	187831	CPE18-PRSGO-2	
Manifold block PRSG for 3 valves						
	G1/2	Closed	225	187825	CPE18-PRSG-3	
	G1/2	Open	225	187821	CPE18-PRSGO-3	
Manifold block PRSE for 2 valves						
	–	Closed	145	164972	CPE18-PRSE-2	
	–	Open	145	187832	CPE18-PRSEO-2	
End plate for manifold						
	G1/2	–	125	164973	CPE18-PRS-EP	
Cover plate for vacant position						
	–	–	28	164974	CPE18-PRSB	

Type codes

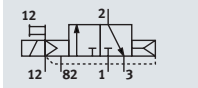
001	Series	
CPE	Solenoid valve, Compact Performance	
002	Width	
24	24 mm	
003	Nominal operating voltage	
M1	24 V DC	
M2	110 V AC	
M3	230 V AC	
004	Electrical connection	
H	Plug pattern ZC	

005	Valve function	
5L	5/2-way valve, monostable	
5J	5/2-way valve, bistable	
3GL	3/2-way valve, normally closed	
3OL	3/2-way valve, normally open	
5/3G	5/3-way valve, mid-position closed	
5/3E	5/3-way valve, mid-position exhausted	
5/3B	5/3-way valve, mid-position pressurised	
006	Pilot air	
	Internal	
S	External	
007	Pneumatic connection	
3/8	G3/8	
QS-10	Push-in connector 10 mm	
QS-12	Push-in connector 12 mm	

Datasheet

Functions:

3/2G, 3/2O,
5/2-way single solenoid,
5/2-way, double solenoid valve
5/3G, 5/3B, 5/3E



3/2G with external pilot air supply, normally closed

-  - Width 24 mm
-  - Flow rate
1250 ... 3200 l/min
-  - Voltage
24 V DC, 110, 230 V AC
basic valve
12, 24 V DC,
24, 110, 230 V AC



General technical data								
Valve function			3/2		5/2		5/3	
Normal position			G ¹⁾	O ²⁾	–	–	G ¹⁾	B ²⁾ E ³⁾
Stable position			Monostable			Bistable	Monostable	
Pneumatic spring return			Yes			–	No	
Mechanical spring return			No			–	Yes	
Design			Piston spool					
Sealing principle			Soft					
Overlap			Positive overlap					
Actuation type			Electrical					
Type of control			Piloted					
Pilot air supply			Internal or external					
Flow direction			–		Reversible with external pilot air supply			
Exhaust air function					Can be throttled			
Manual override			Non-detenting, detenting via accessory					
Type of mounting			Via through-holes					
Mounting position			Any					
Pneumatic connection	1, 2, 4	Threaded connection: G3/8, QS connection: Ø 10 or Ø 12 mm						
	3, 5	Threaded connection: G3/8						
	12, 14	Threaded connection: M5, QS connection: Ø 6 mm						
	82, 84	Threaded connection: M5						
Nominal width		[mm]	11					
Standard nominal flow rate	G3/8	[l/min]	2500	2900	3200	3000	2600	2650
	QS10	[l/min]	1250					
	QS12	[l/min]	1650					1600
Switching time	On/off	[ms]	5 0/33	4 0/50	–	2 5/55		
	Changeover	[ms]	–	–	25	–		
Duty cycle		[%]	100					
Width		[mm]	24					
Corrosion resistance class CRC ⁴⁾			2					
CE marking (see declaration of conformity) ⁵⁾			To EU Low Voltage Directive ⁶⁾					
UKCA marking (see declaration of conformity) ⁵⁾			To UK regulations for electrical equipment ⁶⁾					

1) G = normally closed

2) O, B = normally open

3) E = normally exhausted

4) More information www.festo.com/x/topic/crc

5) For information about the area of use, see the declaration of conformity at: www.festo.com/catalogue/...dSupport/Downloads.

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

6) Only valid for CPE24-M2H-... and CPE24-M3H-...

Datasheet

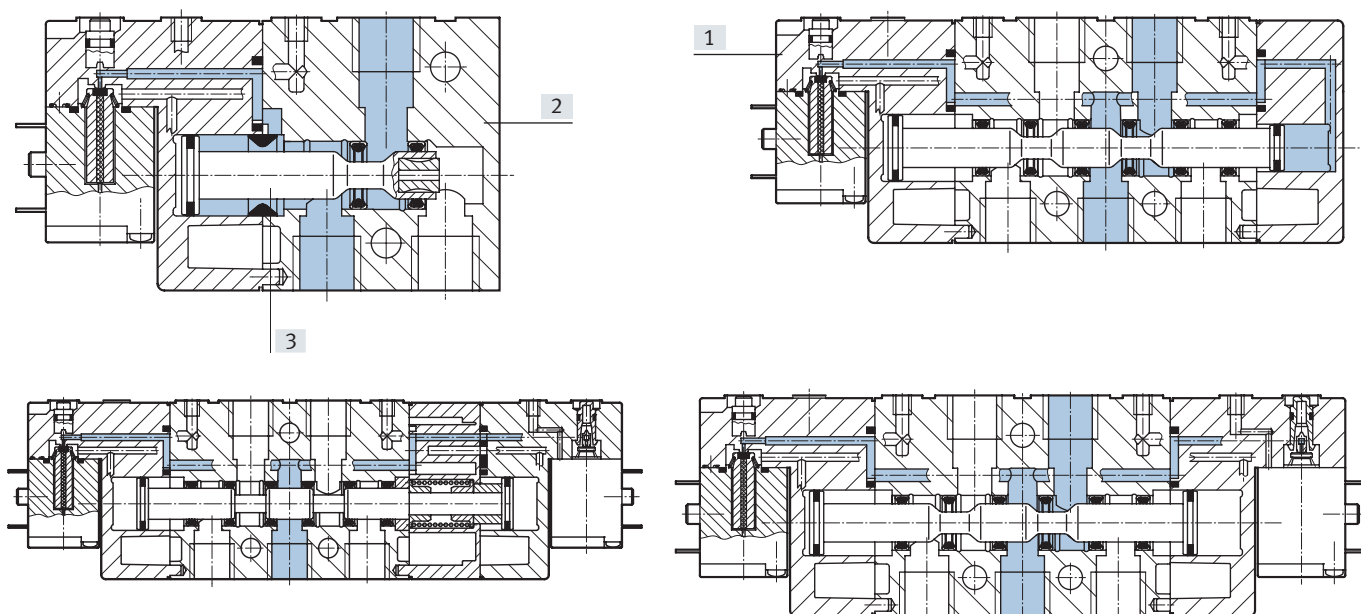
Operating and environmental conditions						
Valve function			3/2	5/2-way, single solenoid	5/2-way, double solenoid	5/3
Operating medium			Compressed air to ISO 8573-1:2010 [7:4:4]			
Pilot medium			Compressed air to ISO 8573-1:2010 [7:4:4]			
Note on the operating/pilot medium			Lubricated operation possible (in which case lubricated operation will always be required)			
Operating pressure	Internal pilot air supply	[MPa]	0.25 ... 1	0.2 ... 1	0.25 ... 1	
		[bar]	2.5 ... 10	2 ... 10	2.5 ... 10	
	External pilot air supply	[MPa]	−0.09 ... 1			
		[bar]	−0.9 ... 10			
Pilot pressure		[MPa]	0.25 ... 1	0.2 ... 1	0.25 ... 1	
		[bar]	2.5 ... 10	2 ... 10	2.5 ... 10	
Ambient temperature		[°C]	−5 ... +50			
Temperature of medium		[°C]	−5 ... +50			
Certification			c UL us - Recognized (OL)			
Maritime classification1)			See certificate			
Certificate-issuing authority			DNV-TAA000032X			
			UL MH19482			

1) More information www.festo.com/sp → Certificates.

Electrical data			
Operating voltage	M1H	[V DC]	24 +10/−15%
	M2H	[V AC]	110 ±10% with 50 ... 60 Hz
	M3H	[V AC]	230 ±10% with 50 ... 60 Hz
Power consumption	M1H	[W]	1.5
	M2H, M3H	[VA]	Pull: 3, hold: 2.4
Degree of protection with plug socket			IP65 to IEC 60529

Materials

Sectional view



[1]	Cover	PA
[2]	Housing	Die-cast aluminium
[3]	Piston spool	Steel
–	Seals	NBR
Note on materials		RoHS-compliant

Datasheet

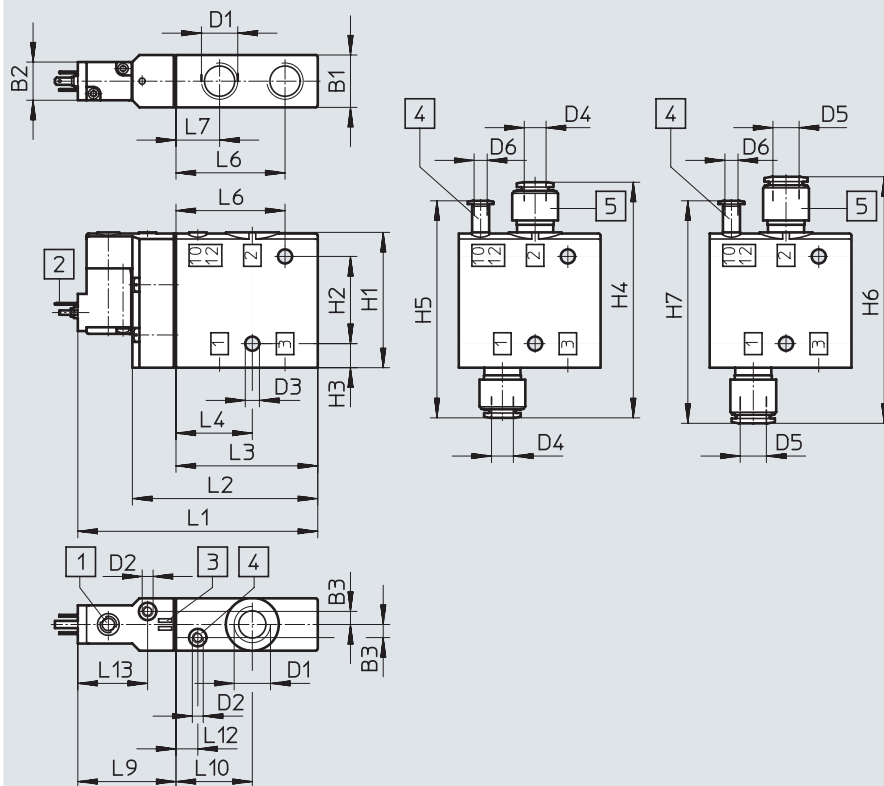
Dimensions – 3/2-way valve

Download CAD data → www.festo.com

CPE24-...-3/8

CPE24-...-QS-10

CPE24-...-QS-12



[1] Manual override
[2] Plug type C, to
EN 175301-803

[3] Position for inscription
labels

[4] Port 10/12 for external
pilot air supply

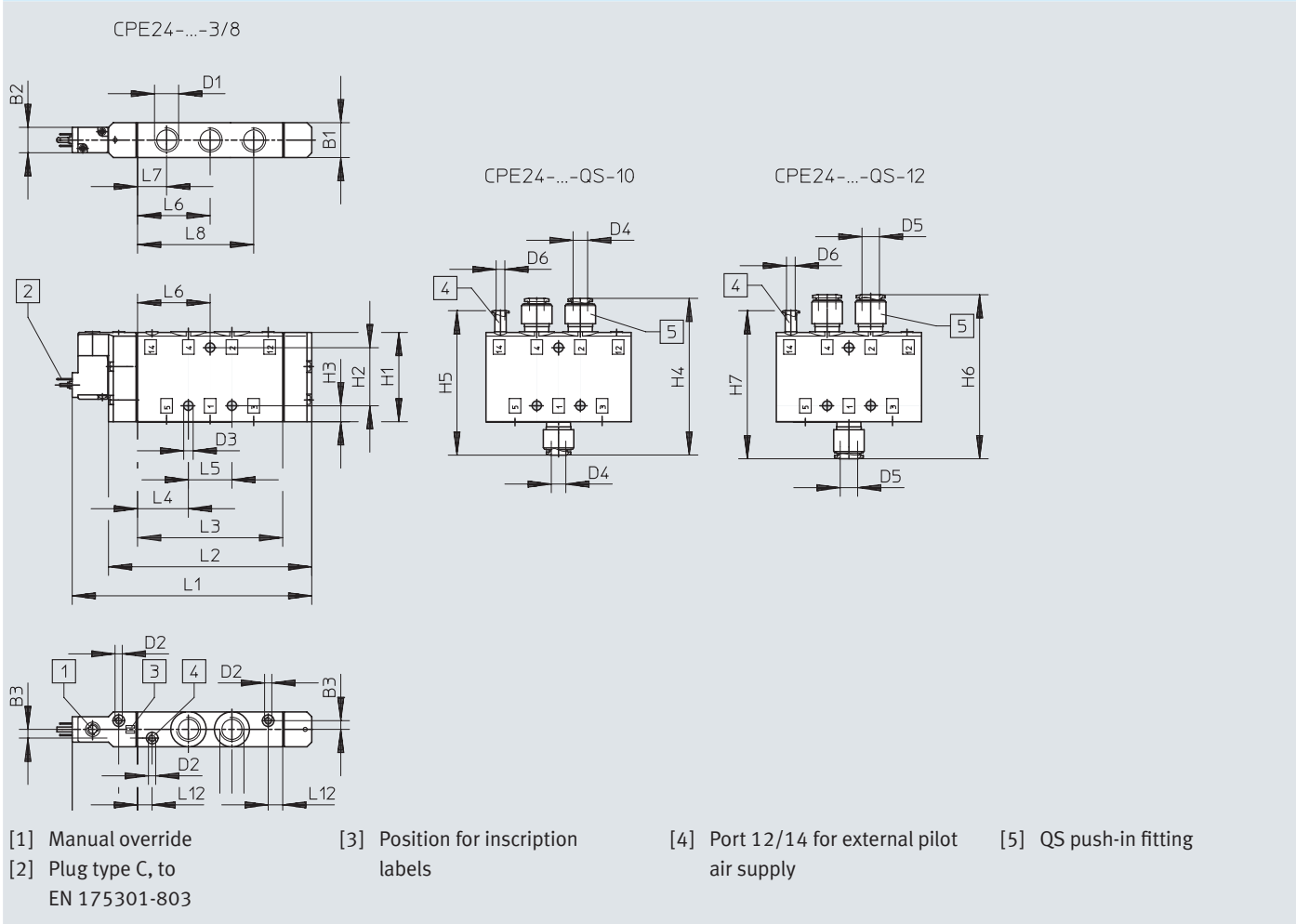
[5] QS push-in fitting

Type	B1 ±0.1	B2 -0.5	B3	D1	D2	D3 ø	D4 ø	D5 ø	D6 ø	H1 ±0.25	H2	H3 ±0.1	H4	H5	H6	H7
CPE24-M1H-3...	24	17.5	6	G3/8	M5	6.5	10	12	6	62	40	11	108	99.5	113	102

Type	L1	L2	L3 ±0.2	L4 ±0.12	L6 ±0.15	L7 ±0.12	L9	L10	L12 ±0.12	L13
CPE124-M1H-3...	110	85	65	35	50	20	45	35	10	32

Datasheet

Dimensions – 5/2-way single solenoid valve Download CAD data → www.festo.com



Type	B1	B2	B3	D1	D2	D3 Ø	D4 Ø	D5 Ø	D6 Ø	H1	H2	H3	H4	H5	H6	H7
CPE24-M1H-5L...	24	17.5	6	G3/8	M5	6.5	10	12	6	62	40	11	108	99.5	113	102

Type	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13
CPE24-M1H-5L...	165	140	100	35	30	50	20	80	45	35	30	10	32

Datasheet

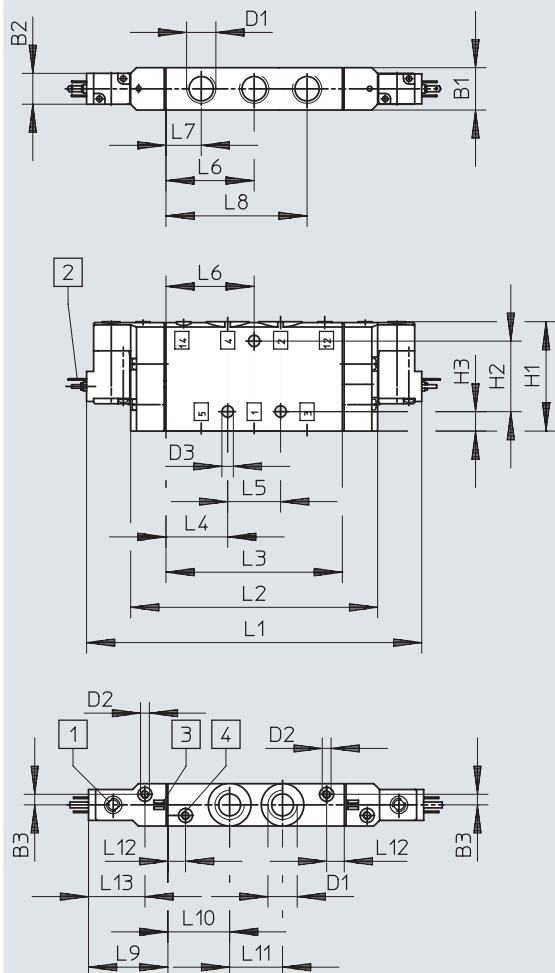
Dimensions – 5/2-way double solenoid valve

Download CAD data → www.festo.com

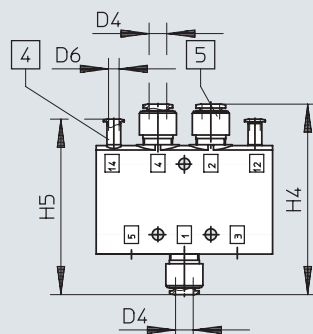
Threaded connection

Push-in connector

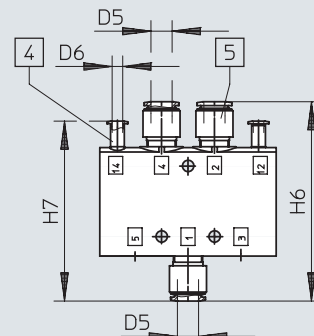
CPE24-...-5J-3/8



CPE24-...-QS-10



CPE24-...-QS-12



[1] Manual override
[2] Plug type C, to
EN 175301-803

[3] Position for inscription
labels

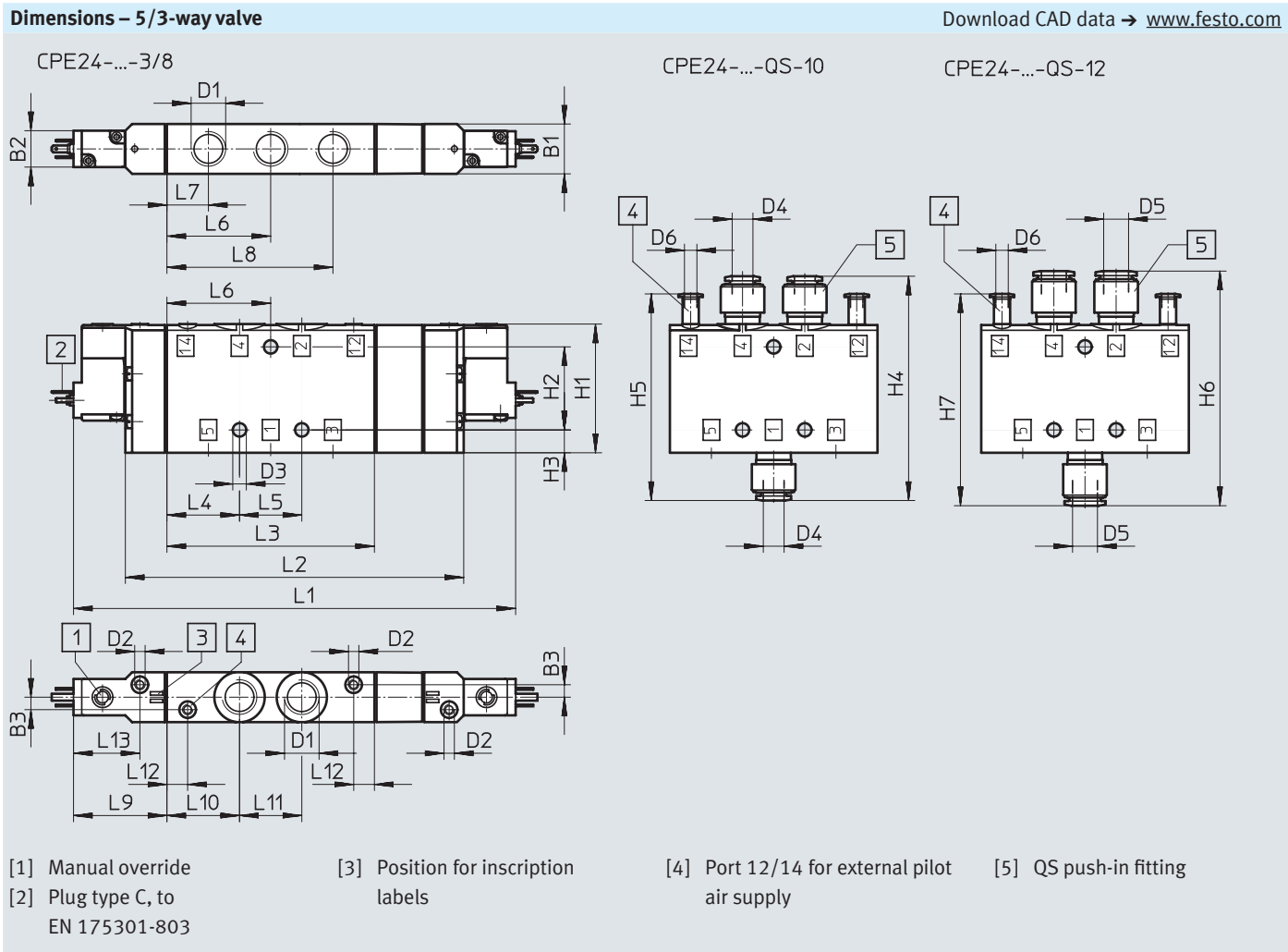
[4] Port 12/14 for external pilot
air supply

[5] QS push-in fitting

Type	B1	B2	B3	D1	D2	D3 ø	D4 ø	D5 ø	D6 ø	H1	H2	H3	H4	H5	H6	H7
CPE24-...-5J-3/8	24	17.5	6	G3/8	M5	6.5	10	12	6	62	40	11	108	99.5	113	102

Type	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	L13
CPE24-...-5J-3/8	190	140	100	35	30	50	20	80	45	35	30	10	32

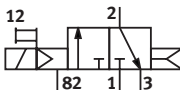
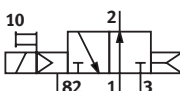
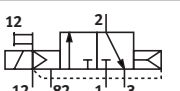
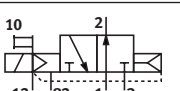
Datasheet



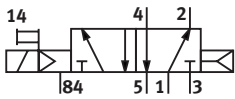
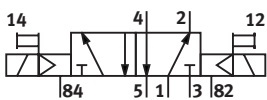
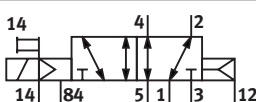
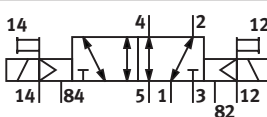
Type	B1 ±0.1	B2 - 0.5	B3	D1	D2	D3 Ø	D4 Ø	D5 Ø	D6 Ø	H1 ±0.25	H2	H3 ±0.1	H4	H5	H6	H7
CPE24-M1H...-5	24	17.5	6	G3/8	M5	6.5	10	12	6	62	40	11	108	99.5	113	102
CPE24-M1H...-5/3																

Type	L1	L2	L3 ±0.2	L4 ±0.2	L5	L6	L7 ±0.12	L8 ±0.2	L9	L10 ±0.12	L11	L12 ±0.12	L13
CPE24-M1H...-5J	190	140	100	35	30	50	20	80	45	35	30	10	32
CPE24-M1H...-5/3	213	163											

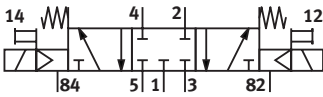
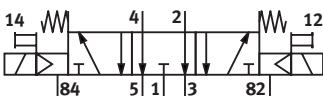
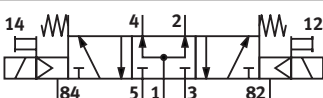
Ordering data – 3/2-way valve

Ordering data						
Circuit symbol	Pilot air supply	Voltage	Pneumatic connection	Weight [g]	Part no.	Type
Normally closed						
	Internal	24 V DC	G3/8	220	163165	CPE24-M1H-3GL-3/8
			QS-10	–	163173	CPE24-M1H-3GL-QS-10
			QS-12	–	163181	CPE24-M1H-3GL-QS-12
		110 V AC	G3/8	220	163809	CPE24-M2H-3GL-3/8
			QS-10	–	163817	CPE24-M2H-3GL-QS-10
			QS-12	–	163825	CPE24-M2H-3GL-QS-12
		230 V AC	G3/8	220	163833	CPE24-M3H-3GL-3/8
			QS-10	–	163841	CPE24-M3H-3GL-QS-10
			QS-12	–	163849	CPE24-M3H-3GL-QS-12
Normally open						
	Internal	24 V DC	G3/8	220	163164	CPE24-M1H-3OL-3/8
			QS-10	–	163172	CPE24-M1H-3OL-QS-10
			QS-12	–	163180	CPE24-M1H-3OL-QS-12
		110 V AC	G3/8	220	163808	CPE24-M2H-3OL-3/8
			QS-10	–	163816	CPE24-M2H-3OL-QS-10
			QS-12	–	163824	CPE24-M2H-3OL-QS-12
		230 V AC	G3/8	220	163832	CPE24-M3H-3OL-3/8
			QS-10	–	163840	CPE24-M3H-3OL-QS-10
			QS-12	–	163848	CPE24-M3H-3OL-QS-12
Normally closed						
	External	24 V DC	G3/8	220	163169	CPE24-M1H-3GLS-3/8
			QS-10	–	163177	CPE24-M1H-3GLS-QS-10
			QS-12	–	163185	CPE24-M1H-3GLS-QS-12
		110 V AC	G3/8	220	163813	CPE24-M2H-3GLS-3/8
			QS-10	–	163821	CPE24-M2H-3GLS-QS-10
			QS-12	–	163829	CPE24-M2H-3GLS-QS-12
		230 V AC	G3/8	220	163837	CPE24-M3H-3GLS-3/8
			QS-10	–	163845	CPE24-M3H-3GLS-QS-10
			QS-12	–	163853	CPE24-M3H-3GLS-QS-12
Normally open						
	External	24 V DC	G3/8	220	163168	CPE24-M1H-3OLS-3/8
			QS-10	–	163176	CPE24-M1H-3OLS-QS-10
			QS-12	–	163184	CPE24-M1H-3OLS-QS-12
		110 V AC	G3/8	220	163812	CPE24-M2H-3OLS-3/8
			QS-10	–	163820	CPE24-M2H-3OLS-QS-10
			QS-12	–	163828	CPE24-M2H-3OLS-QS-12
		230 V AC	G3/8	220	163836	CPE24-M3H-3OLS-3/8
			QS-10	–	163844	CPE24-M3H-3OLS-QS-10
			QS-12	–	163852	CPE24-M3H-3OLS-QS-12

Ordering data – 5/2-way valve

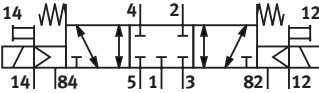
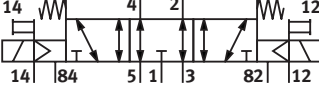
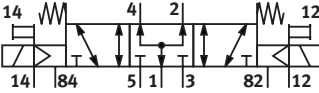
Ordering data						
Circuit symbol	Pilot air supply	Voltage	Pneumatic connection	Weight [g]	Part no.	Type
5/2-way valve, single solenoid						
	Internal	24 V DC	G3/8	360	163166	CPE24-M1H-5L-3/8
			QS-10	–	163174	CPE24-M1H-5L-QS-10
			QS-12	–	163182	CPE24-M1H-5L-QS-12
		110 V AC	G3/8	360	163810	CPE24-M2H-5L-3/8
			QS-10	–	163818	CPE24-M2H-5L-QS-10
			QS-12	–	163826	CPE24-M2H-5L-QS-12
		230 V AC	G3/8	360	163834	CPE24-M3H-5L-3/8
			QS-10	–	163842	CPE24-M3H-5L-QS-10
			QS-12	–	163850	CPE24-M3H-5L-QS-12
5/2-way double solenoid valve						
	Internal	24 V DC	G3/8	390	163167	CPE24-M1H-5J-3/8
			QS-10	–	163175	CPE24-M1H-5J-QS-10
			QS-12	–	163183	CPE24-M1H-5J-QS-12
		110 V AC	G3/8	390	163811	CPE24-M2H-5J-3/8
			QS-10	–	163819	CPE24-M2H-5J-QS-10
			QS-12	–	163827	CPE24-M2H-5J-QS-12
		230 V AC	G3/8	390	163835	CPE24-M3H-5J-3/8
			QS-10	–	163843	CPE24-M3H-5J-QS-10
			QS-12	–	163851	CPE24-M3H-5J-QS-12
5/2-way valve, single solenoid						
	External	24 V DC	G3/8	360	163170	CPE24-M1H-5LS-3/8
			QS-10	–	163178	CPE24-M1H-5LS-QS-10
			QS-12	–	163186	CPE24-M1H-5LS-QS-12
		110 V AC	G3/8	360	163814	CPE24-M2H-5LS-3/8
			QS-10	–	163822	CPE24-M2H-5LS-QS-10
			QS-12	–	163830	CPE24-M2H-5LS-QS-12
		230 V AC	G3/8	360	163838	CPE24-M3H-5LS-3/8
			QS-10	–	163846	CPE24-M3H-5LS-QS-10
			QS-12	–	163854	CPE24-M3H-5LS-QS-12
5/2-way double solenoid valve						
	External	24 V DC	G3/8	390	163171	CPE24-M1H-5JS-3/8
			QS-10	–	163179	CPE24-M1H-5JS-QS-10
			QS-12	–	163187	CPE24-M1H-5JS-QS-12
		110 V AC	G3/8	390	163815	CPE24-M2H-5JS-3/8
			QS-10	–	163823	CPE24-M2H-5JS-QS-10
			QS-12	–	163831	CPE24-M2H-5JS-QS-12
		230 V AC	G3/8	390	163839	CPE24-M3H-5JS-3/8
			QS-10	–	163847	CPE24-M3H-5JS-QS-10
			QS-12	–	163855	CPE24-M3H-5JS-QS-12

Ordering data – 5/3-way valve

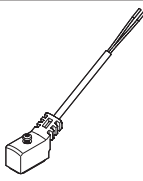
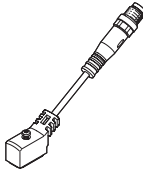
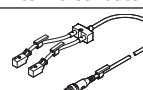
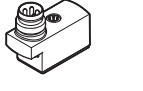
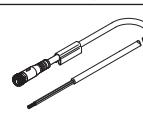
Ordering data						
Circuit symbol	Pilot air supply	Voltage	Pneumatic connection	Weight [g]	Part no.	Type
5/3-way mid-position valve, normally closed						
	Internal	24 V DC	G3/8	430	170265	CPE24-M1H-5/3G-3/8
			QS-10	–	170271	CPE24-M1H-5/3G-QS-10
			QS-12	–	170277	CPE24-M1H-5/3G-QS-12
		110 V AC	G3/8	430	170301	CPE24-M2H-5/3G-3/8
			QS-10	–	170307	CPE24-M2H-5/3G-QS-10
			QS-12	–	170313	CPE24-M2H-5/3G-QS-12
		230 V AC	G3/8	430	170337	CPE24-M3H-5/3G-3/8
			QS-10	–	170343	CPE24-M3H-5/3G-QS-10
			QS-12	–	170349	CPE24-M3H-5/3G-QS-12
5/3-way mid-position valve, normally exhausted						
	Internal	24 V DC	G3/8	430	170267	CPE24-M1H-5/3E-3/8
			QS-10	–	170273	CPE24-M1H-5/3E-QS-10
			QS-12	–	170279	CPE24-M1H-5/3E-QS-12
		110 V AC	G3/8	430	170303	CPE24-M2H-5/3E-3/8
			QS-10	–	170309	CPE24-M2H-5/3E-QS-10
			QS-12	–	170315	CPE24-M2H-5/3E-QS-12
		230 V AC	G3/8	430	170339	CPE24-M3H-5/3E-3/8
			QS-10	–	170345	CPE24-M3H-5/3E-QS-10
			QS-12	–	170351	CPE24-M3H-5/3E-QS-12
5/3-way mid-position valve, normally open						
	Internal	24 V DC	G3/8	430	170269	CPE24-M1H-5/3B-3/8
			QS-10	–	170275	CPE24-M1H-5/3B-QS-10
			QS-12	–	170281	CPE24-M1H-5/3B-QS-12
		110 V AC	G3/8	430	170305	CPE24-M2H-5/3B-3/8
			QS-10	–	170311	CPE24-M2H-5/3B-QS-10
			QS-12	–	170317	CPE24-M2H-5/3B-QS-12
		230 V AC	G3/8	430	170341	CPE24-M3H-5/3B-3/8
			QS-10	–	170347	CPE24-M3H-5/3B-QS-10
			QS-12	–	170353	CPE24-M3H-5/3B-QS-12

Solenoid valves CPE24

Ordering data – 5/3-way valves

Ordering data – 5/3-way valve						
Circuit symbol	Pilot air supply	Voltage	Pneumatic connection	Weight [g]	Part no.	Type
5/3-way mid-position valve, normally closed						
	External	24 V DC	G3/8	430	170266	CPE24-M1H-5/3GS-3/8
			QS-10	–	170272	CPE24-M1H-5/3GS-QS-10
			QS-12	–	170278	CPE24-M1H-5/3GS-QS-12
		110 V AC	G3/8	430	170302	CPE24-M2H-5/3GS-3/8
			QS-10	–	170308	CPE24-M2H-5/3GS-QS-10
			QS-12	–	170314	CPE24-M2H-5/3GS-QS-12
		230 V AC	G3/8	430	170338	CPE24-M3H-5/3GS-3/8
			QS-10	–	170344	CPE24-M3H-5/3GS-QS-10
			QS-12	–	170350	CPE24-M3H-5/3GS-QS-12
5/3-way mid-position valve, normally exhausted						
	External	24 V DC	G3/8	430	170268	CPE24-M1H-5/3ES-3/8
			QS-10	–	170274	CPE24-M1H-5/3ES-QS-10
			QS-12	–	170280	CPE24-M1H-5/3ES-QS-12
		110 V AC	G3/8	430	170304	CPE24-M2H-5/3ES-3/8
			QS-10	–	170310	CPE24-M2H-5/3ES-QS-10
			QS-12	–	170316	CPE24-M2H-5/3ES-QS-12
		230 V AC	G3/8	430	170340	CPE24-M3H-5/3ES-3/8
			QS-10	–	170346	CPE24-M3H-5/3ES-QS-10
			QS-12	–	170352	CPE24-M3H-5/3ES-QS-12
5/3-way mid-position valve, normally open						
	External	24 V DC	G3/8	430	170270	CPE24-M1H-5/3BS-3/8
			QS-10	–	170276	CPE24-M1H-5/3BS-QS-10
			QS-12	–	170282	CPE24-M1H-5/3BS-QS-12
		110 V AC	G3/8	430	170306	CPE24-M2H-5/3BS-3/8
			QS-10	–	170312	CPE24-M2H-5/3BS-QS-10
			QS-12	–	170318	CPE24-M2H-5/3BS-QS-12
		230 V AC	G3/8	430	170342	CPE24-M3H-5/3BS-3/8
			QS-10	–	170348	CPE24-M3H-5/3BS-QS-10
			QS-12	–	170354	CPE24-M3H-5/3BS-QS-12

Accessories

Ordering data – Accessories for CPE10 and CPE14					Part no.	Type
Connecting cable, socket plug pattern ZC					Datasheets → Internet: nebv	
	Open cable end 2-core	PUR cable, degree of protection IP65	Holding current reduction, protective circuit, signal status indication with LED	Length 2.5 m	8047679	NEBV-Z4WA2L-R-E-2.5-N-LE2-S1
				Length: 5 m	8047680	NEBV-Z4WA2L-R-E-5-N-LE2-S1
				Length: 10 m	8047678	NEBV-Z4WA2L-R-E-10-N-LE2-S1
		PVC cable, degree of protection IP40	Without signal status indication	Length 0.5 m	193690	KMYZ-4-24-0.5-B
				Length 2.5 m	193691	KMYZ-4-24-2.5-B
	Plug M8x1, 3-pin	PUR cable, degree of protection IP65	Holding current reduction, protective circuit, signal status indication with LED	Length 0.5 m	8047683	NEBV-Z4WA2L-R-E-0.5-N-M8G3-S1
				Length 2.5 m	8047684	NEBV-Z4WA2L-R-E-2.5-N-M8G3-S1
2 to 1 distributor						
	2x plug socket plug pattern ZC	Holding current reduction, protective circuit, signal status indication with LED	1x plug, straight, M12x1	Length 2.8 m	8035787	NEDY-L2R1-V1-Z4W2Z-U-0.3L-M12G4-2.5R
	Modular system for any 2 to 1 distributor			Length 0.3 ... 30 m	8032867	NEDY-... → Internet: nedy
Adapter						
	Plug socket, plug pattern ZC	Signal status indication with LED	Plug M8, 3-pin	571686	VAVE-C8-1R8	
			Plug M8, 4-pin	573194	VAVE-C8-1R1	
Connecting cable, socket M8x1					Datasheets → Internet: neba	
	Socket M8x1, 4-pin	Straight	Open cable end 4-core	Length 2.5 m	8078227	NEBA-M8G4-U-2.5-N-LE4
		Angled		Length 2.5 m	8078233	NEBA-M8W4-U-2.5-N-LE4
	Socket M8x1, 3-pin	Straight	Open cable end 3-core	Length 2.5 m	8078223	NEBA-M8G3-U-2.5-N-LE3
				Length: 5 m	8078224	NEBA-M8G3-U-5-N-LE3
				Length 2.5 m	8078286	NEBA-M8G3-U-2.5-N-LE3
		Angled	Open cable end 3-core	Length: 5 m	8078287	NEBA-M8G3-U-5-N-M8G3
				Length: 10 m	8078288	NEBA-M8G3-U-10-N-M8G3
				Length 2.5 m	8078230	NEBA-M8W3-U-2.5-N-LE3
		Straight	Open cable end 4-core	Length: 5 m	8078231	NEBA-M8W3-U-5-N-LE3
				Length: 5 m	8078228	NEBA-M8G4-U-5-N-LE4
	Socket M8x1, 4-pin	Angled	Open cable end 4-core	Length: 5 m	8078228	NEBA-M8G4-U-5-N-LE4
				Length: 5 m	8078234	NEBA-M8W4-U-5-N-LE4

Accessories

Ordering data – Accessories for CPE18 and CPE24					Part no.	Type
Plug socket with cable, socket type C to EN 175301-803					Datasheets → Internet: kmeb	
	Cable sheath PVC	Signal status indication with LED	24 V DC	Length 2.5 m	151688	KMEB-1-24-2.5-LED
			24 V DC	Length 5 m	151689	KMEB-1-24-5-LED
			24 V DC	Length 10 m	193457	KMEB-1-24-10-LED
		Without indication	Up to 240 V	Length 2.5 m	151690	KMEB-1-230-2.5
			Up to 240 V	Length: 5 m	151691	KMEB-1-230-5
	Cable sheath PUR	Signal status indication with LED	24 V DC	Length 2.5 m	174844	KMEB-2-24-2.5-LED
			24 V DC	Length: 5 m	174845	KMEB-2-24-5-LED
		Without indication	Up to 240 V	Length 2.5 m	174846	KMEB-2-230-2.5
			Up to 240 V	Length 5 m	174847	KMEB-2-230-5
Plug socket					Datasheets → Internet: mssd	
	Socket 3-pin, type C to EN 175301-803	Screw terminal	Up to 240 V		151687	MSSD-EB
			Up to 240 V		539712	MSSD-EB-M12
		Insulation displacement connector	Up to 240 V		192745	MSSD-EB-S-M14
Illuminating seal					Datasheets → Internet: meb-ld	
	Type C to EN 175301-803		12 ... 24 V DC		151717	MEB-LD-12-24DC
			230 V AC		151718	MEB-LD-230AC
Ordering data – General accessories					Part no.	Type
						PU ¹⁾
Blanking plug					Datasheets → Internet: b	
	For manifold block CPE10	G1/4 thread		3569	B-1/4	10
	For manifold block CPE14, CPE18	G3/8 thread		3570	B-3/8	10
Separator for pressure zones					Datasheets → Internet: vabd	
	For manifold block CPE14, CPE18			160997	PRSV-1/8	1
Silencer					Datasheets → Internet: uc	
	Thread	M3		1231120	AMTE-M-LH-M3	20
		M5		165003	UC-M5	1
		M7		161418	UC-M7	1
		G1/8		161419	UC-1/8	1
		G1/4		165004	UC-1/4	1
Manual override					Datasheets → Internet: ahh	
	For CPE10 and CPE14 with plug pattern ZC			157600	AHB-MZB	1
	For CPE18 and CPE24 with plug type C			157601	AHB-MEB	1
Inscription labels					Datasheets → Internet: ibs	
	Inscription label, 6x10 mm			18576	IBS-6x10	64
Mounting kit					Datasheets → Internet: davm	
	With mounting bracket for lateral valve mounting	For standards-based cylinder DSBC-32...40	For CPE14	2568514	DAVM-MW-V1-32-V	1
		For standards-based cylinder DSBC-50...125	For CPE18, CPE24	2612128	DAVM-MW-V1-50-V	1

1) Packaging unit.