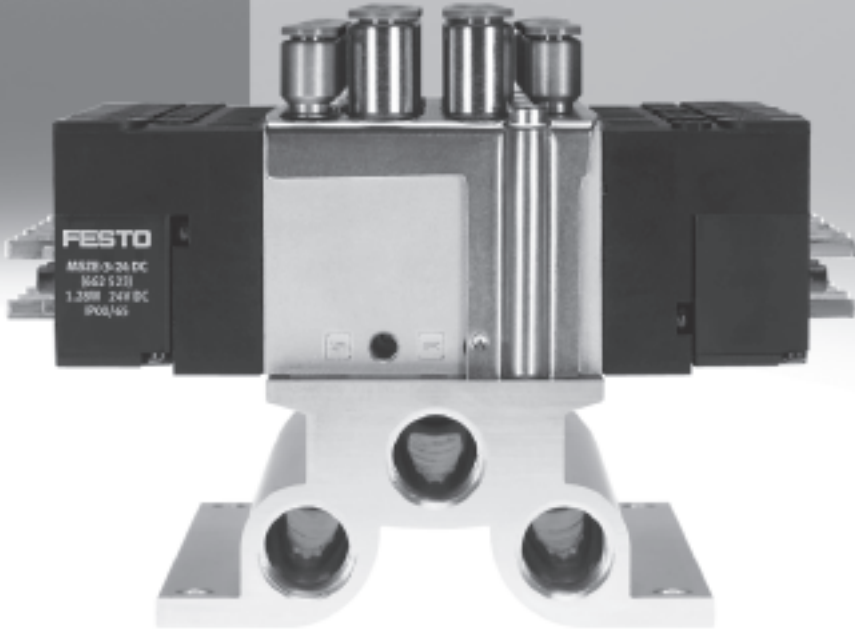
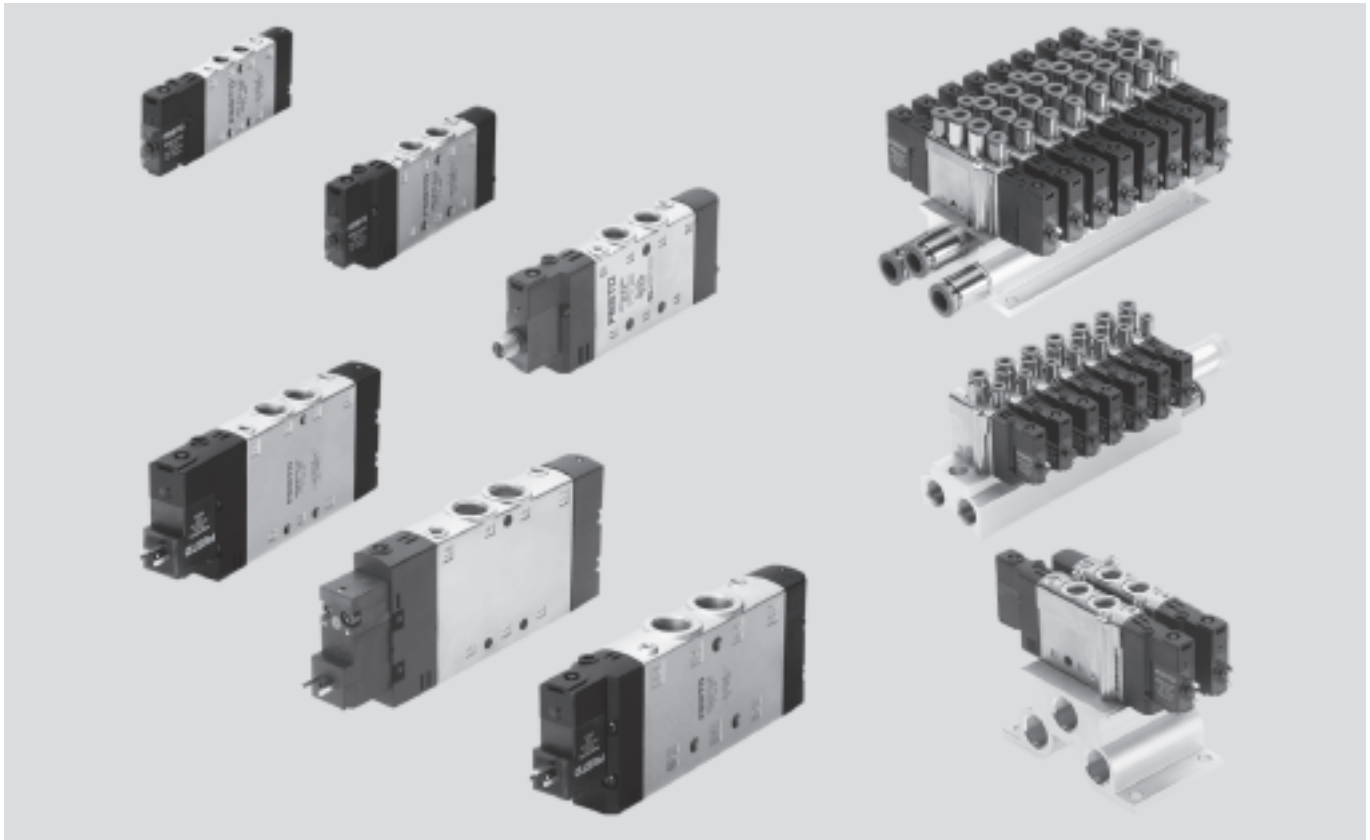


Solenoid Valves CPE, Compact Performance



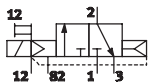
Solenoid Valves CPE

Key features



Variants

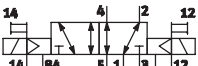
Functions (selection)



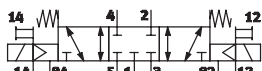
3/2-way valve with external pilot air supply, normally closed



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



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



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

Parameters

Width: 10, 14, 18, 24 mm

Flow rate: 180 ... 3,200 l/min

Advantages

Performance optimised sizes:

The Solenoid Valves CPE are distinguished by their minimal width and low power consumption at high flow rates.

Can be mounted right in the "front line":

- On cylinders
- On moving system components
- Flexible installation through individual mounting

CPE10, CPE14 and CPE18:

Simple manifold structure consisting of fixed-grid manifold blocks made from stable aluminum with 2 to 10 valve positions or modular manifold blocks made from durable plastic.

Short tubing lengths requiring minimal air volume:

- Short switching times
- Short response times

Optimised installations:

- Shorter machine cycles
- Larger quantities
- Lower power consumption

Convenient manual override.

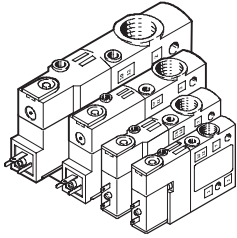
The sockets KMYZ-9 for sizes CPE10 and CPE14 feature integrated current reduction.

All CPE valves therefore have a duty cycle of 100%.

Solenoid Valves CPE

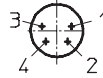
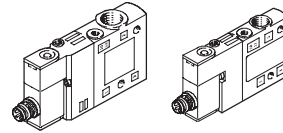
Key features

Solenoid Valves with square plug



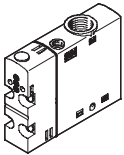
- Widths 10 mm, 14 mm, 18 mm and 24 mm
- 3/2, 5/2 and 5/3-way valves
- Internal or external pilot air supply available
- 24 V DC for all widths
- 110 or 220 V AC for widths 18 and 24
- Manual override, non-detenting and detenting using tool
- Width 10 mm available with M5 insert
- All widths available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

Solenoid Valves with round plug



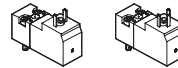
- Widths 10 mm and 14 mm
- 3/2, 5/2 and 5/3-way valves
- Internal or external pilot air supply available
- 24 V DC
- Manual override, non-detenting and detenting via tool
- Round plug, M8x1, 4-pin

CPE18 basic valves with interface to ISO 15218



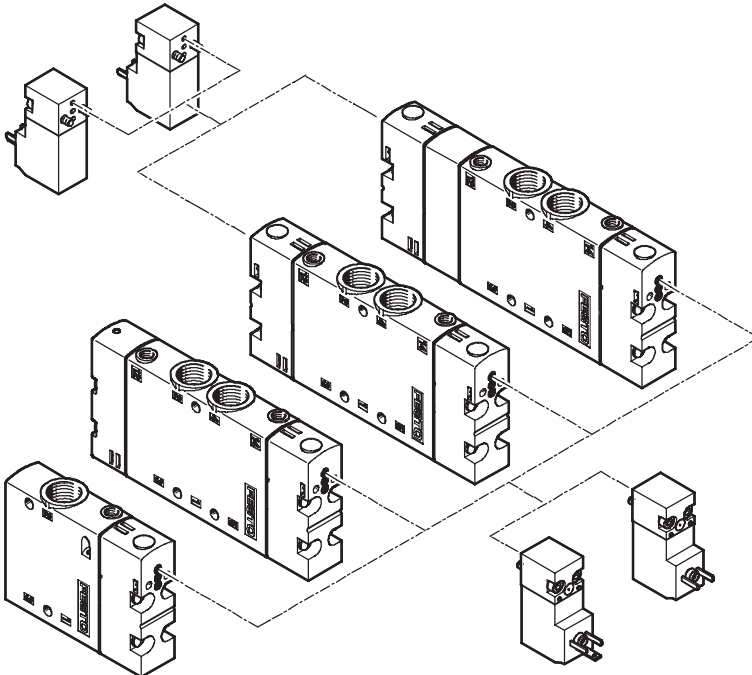
- Width 18 mm
- 3/2, 5/2 and 5/3-way valves
- Internal or external pilot air supply available

Pilot valve with interface to ISO 15218



- For 12, 24 V DC and 24 V AC without protective earth conductor
- For 110 and 220 V AC with protective earth conductor
- 3/2-way valve
- Manual override, non-detenting

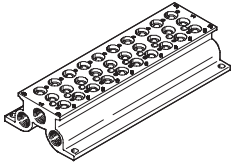
Combination of basic valve CPE18 with pilot valve



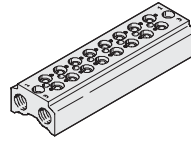
Solenoid Valves CPE

Key features

Manifold block for fixed-grid manifold

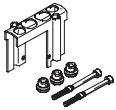


- For 5/2 and 5/3-way valves
- For valve widths 10, 14 and 18 mm
- 2 to 10 valve positions

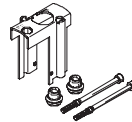


- For 3/2-way valves
- For valve widths 10, 14 and 18 mm
- 2 to 10 valve positions

Retainer set



- Retainer for 5/2 or 5/3-way valve



- Retainer for 3/2-way valve

Blanking plate for vacant positions



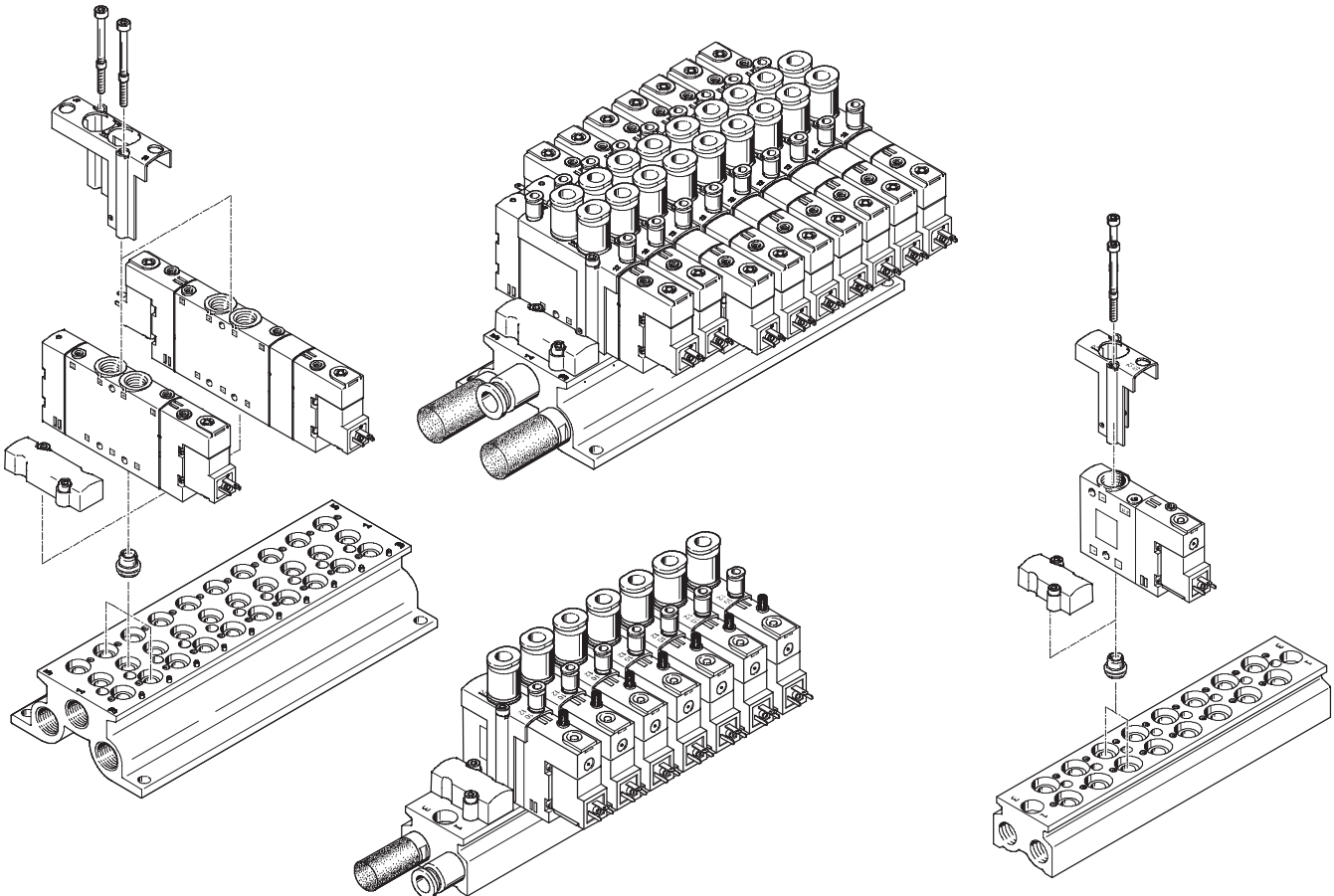
- Vacant position cover for 5/2 or 5/3-way valve



- Vacant position cover for 3/2-way valve

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

- Simple structure comprising compact valve manifolds with in-line valves
- Mounting with stable retainer and special moulded seal guarantee leak-free assembly
- 2 to 10 valve positions
- Aluminum mounting rail 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



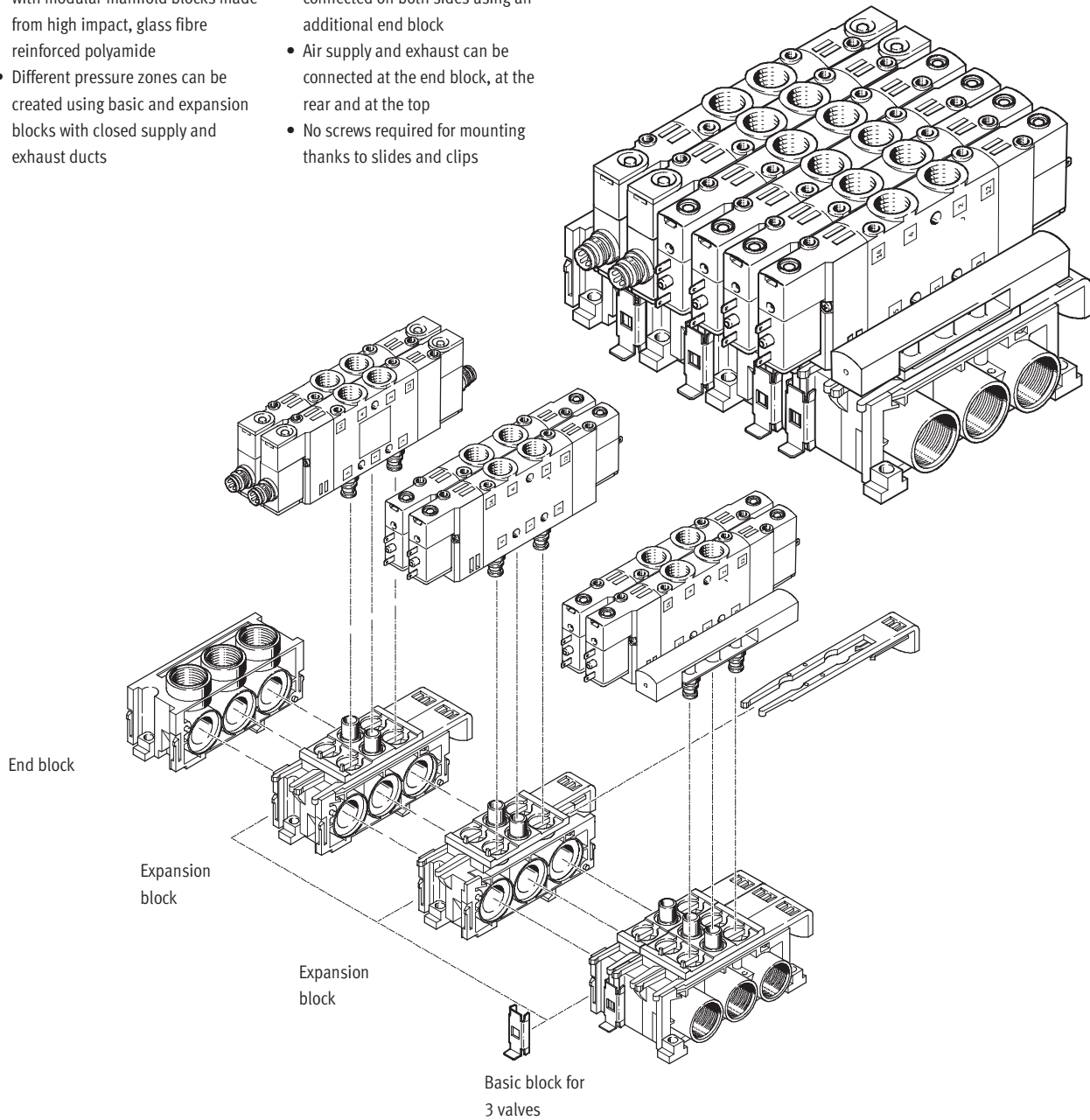
Solenoid Valves CPE

Key features

Manifold assembly for CPE10, CPE14 and CPE18 with modular connector blocks

Technical data → Internet: connector block

- Construction of 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 at the end block, at the rear and at the top
- No screws required for mounting thanks to slides and clips



Solenoid Valves CPE

Product range overview – Widths 10 mm and 14 mm



Width	Circuit symbol	Type	Connector plug		Operating voltage		Working port						→ Page/ Internet				
			Square	Round	[V DC]	[V AC]	M			G				QS			
							5	7	1/8	1/4	3/8	4		6	8	10	12
10 mm	3/2-way single solenoid valve, normally closed																
		CPE10-M1BH-3GL...	■	-	24	-	■	■	-	-	-	■	■	-	-	-	17
		CPE10-M1CH-3GL...	-	■	24	-	■	■	-	-	-	■	■	-	-	-	
	3/2-way single solenoid valve, normally open																
		CPE10-M1BH-3OL...	■	-	24	-	■	■	-	-	-	■	■	-	-	-	17
		CPE10-M1CH-3OL...	-	■	24	-	■	■	-	-	-	■	■	-	-	-	
	5/2-way single solenoid valve																
		CPE10-M1BH-5L...	■	-	24	-	■	■	-	-	-	■	■	-	-	-	17
		CPE10-M1CH-5L...	-	■	24	-	■	■	-	-	-	■	■	-	-	-	
	5/2-way double solenoid valve																
		CPE10-M1BH-5J...	■	-	24	-	■	■	-	-	-	■	■	-	-	-	17
		CPE10-M1CH-5J...	-	■	24	-	■	■	-	-	-	■	■	-	-	-	
	5/3-way single solenoid valve, normally closed, mid-position valve																
		CPE10-M1BH-5/3G...	■	-	24	-	■	■	-	-	-	■	■	-	-	-	18
	CPE10-M1CH-5/3G...	-	■	24	-	■	■	-	-	-	■	■	-	-	-		
5/3-way single solenoid valve, normally open, mid-position valve																	
	CPE10-M1BH-5/3B...	■	-	24	-	■	■	-	-	-	■	■	-	-	-	18	
	CPE10-M1CH-5/3B...	-	■	24	-	■	■	-	-	-	■	■	-	-	-		
5/3-way single solenoid valve, normally exhausted, mid-position valve																	
	CPE10-M1BH-5/3E...	■	-	24	-	■	■	-	-	-	■	■	-	-	-	18	
	CPE10-M1CH-5/3E...	-	■	24	-	■	■	-	-	-	■	■	-	-	-		
14 mm	3/2-way single solenoid valve, normally closed																
		CPE14-M1BH-3GL...	■	-	24	-	-	-	■	-	-	■	■	-	-	24	
		CPE14-M1CH-3GL...	-	■	24	-	-	-	■	-	-	■	■	-	-		
	3/2-way single solenoid valve, normally open																
		CPE14-M1BH-3OL...	■	-	24	-	-	-	■	-	-	■	■	-	-	24	
		CPE14-M1CH-3OL...	-	■	24	-	-	-	■	-	-	■	■	-	-		
	5/2-way single solenoid valve																
		CPE14-M1BH-5L...	■	-	24	-	-	-	■	-	-	■	■	-	-	24	
		CPE14-M1CH-5L...	-	■	24	-	-	-	■	-	-	■	■	-	-		
	5/2-way double solenoid valve																
		CPE14-M1BH-5J...	■	-	24	-	-	-	■	-	-	■	■	-	-	24	
		CPE14-M1CH-5J...	-	■	24	-	-	-	■	-	-	■	■	-	-		
	5/3-way single solenoid valve, normally closed, mid-position valve																
		CPE14-M1BH-5/3G...	■	-	24	-	-	-	■	-	-	■	■	-	-	25	
	CPE14-M1CH-5/3G...	-	■	24	-	-	-	■	-	-	■	■	-	-			
5/3-way single solenoid valve, normally open, mid-position valve																	
	CPE14-M1BH-5/3B...	■	-	24	-	-	-	■	-	-	■	■	-	-	25		
	CPE14-M1CH-5/3B...	-	■	24	-	-	-	■	-	-	■	■	-	-			
5/3-way single solenoid valve, normally exhausted, mid-position valve																	
	CPE14-M1BH-5/3E...	■	-	24	-	-	-	■	-	-	■	■	-	-	25		
	CPE14-M1CH-5/3E...	-	■	24	-	-	-	■	-	-	■	■	-	-			

Note: All metric products can be used within inch tubing systems via hybrid fittings (→ Overview on page 63)

Solenoid Valves CPE

Product range overview – Width 18 mm



Width	Circuit symbol	Type	Operating voltage		Working port										→ Page/ Internet	
			[V DC]	[V AC]	M		G			QS						
					5	7	1/8	1/4	3/8	4	6	8	10	12		
18 mm		3/2-way single solenoid valve, normally closed														
		CPE18-M1H-3GL...	24	-	-	-	-	■	-	-	-	-	■	■	-	30
		CPE18-M2H-3GL...	-	110	-	-	-	■	-	-	-	-	■	■	-	
		CPE18-M3H-3GL...	-	220	-	-	-	■	-	-	-	-	■	■	-	
		CPE18-P1-3GL... 1/4	χ ¹⁾	Υ ²⁾	-	-	-	■	-	-	-	-	-	-	-	37
		3/2-way single solenoid valve, normally open														
		CPE18-M1H-3OL...	24	-	-	-	-	■	-	-	-	-	■	■	-	30
		CPE18-M2H-3OL...	-	110	-	-	-	■	-	-	-	-	■	■	-	
		CPE18-M3H-3OL...	-	220	-	-	-	■	-	-	-	-	■	■	-	
		CPE18-P1-3OL... 1/4	χ ¹⁾	Υ ²⁾	-	-	-	■	-	-	-	-	-	-	-	37
		5/2-way single solenoid valve														
		CPE18-M1H-5L...	24	-	-	-	-	■	-	-	-	-	■	■	-	31
		CPE18-M2H-5L...	-	110	-	-	-	■	-	-	-	-	■	■	-	
		CPE18-M3H-5L...	-	220	-	-	-	■	-	-	-	-	■	■	-	
		CPE18-P1-5L... 1/4	χ ¹⁾	Υ ²⁾	-	-	-	■	-	-	-	-	-	-	-	37
		5/2-way double solenoid valve														
		CPE18-M1H-5J...	24	-	-	-	-	■	-	-	-	-	■	■	-	31
		CPE18-M2H-5J...	-	110	-	-	-	■	-	-	-	-	■	■	-	
		CPE18-M3H-5J...	-	220	-	-	-	■	-	-	-	-	■	■	-	
		CPE18-P1-5J... 1/4	χ ¹⁾	Υ ²⁾	-	-	-	■	-	-	-	-	-	-	-	37
		5/3-way single solenoid valve, normally closed, mid-position valve														
		CPE18-M1H-5/3G...	24	-	-	-	-	■	-	-	-	-	■	■	-	32
		CPE18-M2H-5/3G...	-	110	-	-	-	■	-	-	-	-	■	■	-	
		CPE18-M3H-5/3G...	-	220	-	-	-	■	-	-	-	-	■	■	-	
		CPE18-P1-5/3G... 1/4	χ ¹⁾	Υ ²⁾	-	-	-	■	-	-	-	-	-	-	-	37
		5/3-way single solenoid valve, normally open, mid-position valve														
		CPE18-M1H-5/3B...	24	-	-	-	-	■	-	-	-	-	■	■	-	32
		CPE18-M2H-5/3B...	-	110	-	-	-	■	-	-	-	-	■	■	-	
		CPE18-M3H-5/3B...	-	220	-	-	-	■	-	-	-	-	■	■	-	
		CPE18-P1-5/3B... 1/4	χ ¹⁾	Υ ²⁾	-	-	-	■	-	-	-	-	-	-	-	37
	5/3-way single solenoid valve, normally exhausted, mid-position valve															
	CPE18-M1H-5/3E...	24	-	-	-	-	■	-	-	-	-	■	■	-	32	
	CPE18-M2H-5/3E...	-	110	-	-	-	■	-	-	-	-	■	■	-		
	CPE18-M3H-5/3E...	-	220	-	-	-	■	-	-	-	-	■	■	-		
	CPE18-P1-5/3E... 1/4	χ ¹⁾	Υ ²⁾	-	-	-	■	-	-	-	-	-	-	-	37	

1) X = 12 V DC or 24 V DC pilot valve can be ordered

2) Y = 24 V AC, 110 V AC or 230 V AC pilot valve can be ordered

Note: All metric products can be used within inch tubing systems via hybrid fittings (→ Overview on page 63)

Solenoid Valves CPE

Product range overview – Width 24 mm



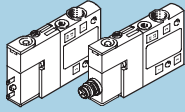
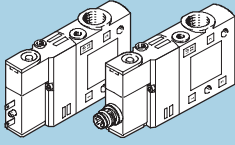
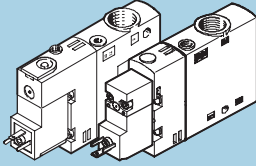
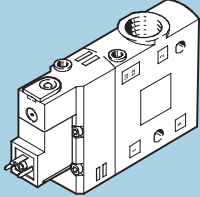
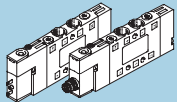
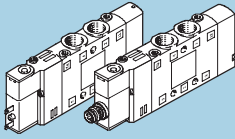
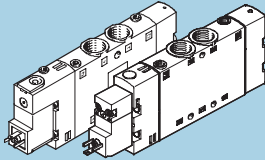
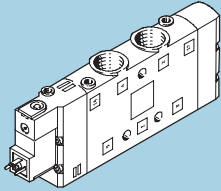
Width	Circuit symbol	Type	Operating voltage		Working port										→ Page/ Internet
			[V DC]	[V AC]	M		G			QS					
					5	7	1/8	1/4	3/8	4	6	8	10	12	
24 mm	3/2-way single solenoid valve, normally closed														42
		CPE24-M1H-3GL...	24	-	-	-	-	-	■	-	-	-	■	■	
		CPE24-M2H-3GL...	-	110	-	-	-	-	■	-	-	-	■	■	
		CPE24-M3H-3GL...	-	220	-	-	-	-	■	-	-	-	■	■	
	3/2-way single solenoid valve, normally open														42
		CPE24-M1H-3OL...	24	-	-	-	-	-	■	-	-	-	■	■	
		CPE24-M2H-3OL...	-	110	-	-	-	-	■	-	-	-	■	■	
		CPE24-M3H-3OL...	-	220	-	-	-	-	■	-	-	-	■	■	
	5/2-way single solenoid valve														43
		CPE24-M1H-5L...	24	-	-	-	-	-	■	-	-	-	■	■	
		CPE24-M2H-5L...	-	110	-	-	-	-	■	-	-	-	■	■	
		CPE24-M3H-5L...	-	220	-	-	-	-	■	-	-	-	■	■	
	5/2-way double solenoid valve														43
		CPE24-M1H-5J...	24	-	-	-	-	-	■	-	-	-	■	■	
		CPE24-M2H-5J...	-	110	-	-	-	-	■	-	-	-	■	■	
		CPE24-M3H-5J...	-	220	-	-	-	-	■	-	-	-	■	■	
	5/3-way single solenoid valve, normally closed, mid-position valve														44
		CPE24-M1H-5/3G...	24	-	-	-	-	-	■	-	-	-	■	■	
		CPE24-M2H-5/3G...	-	110	-	-	-	-	■	-	-	-	■	■	
		CPE24-M3H-5/3G...	-	220	-	-	-	-	■	-	-	-	■	■	
	5/3-way single solenoid valve, normally open, mid-position valve														44
		CPE24-M1H-5/3B...	24	-	-	-	-	-	■	-	-	-	■	■	
		CPE24-M2H-5/3B...	-	110	-	-	-	-	■	-	-	-	■	■	
		CPE24-M3H-5/3B...	-	220	-	-	-	-	■	-	-	-	■	■	
5/3-way single solenoid valve, normally exhausted, mid-position valve														44	
	CPE24-M1H-5/3E...	24	-	-	-	-	-	■	-	-	-	■	■		
	CPE24-M2H-5/3E...	-	110	-	-	-	-	■	-	-	-	■	■		
	CPE24-M3H-5/3E...	-	220	-	-	-	-	■	-	-	-	■	■		

Note: All metric products can be used within inch tubing systems via hybrid fittings (→ Overview on page 63)

Solenoid Valves CPE

Product range overview – Functions



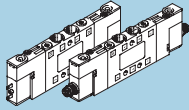
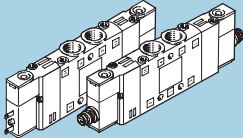
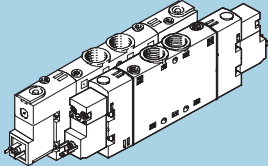
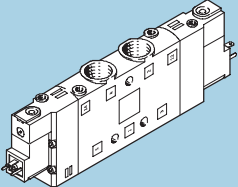
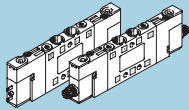
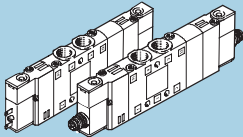
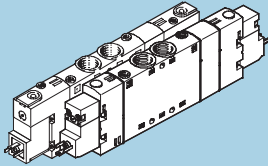
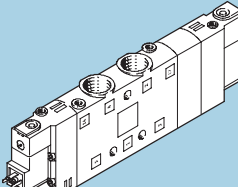
3/2-way valves					
Type		CPE10	CPE14	CPE18	CPE24
Width		10 mm	14 mm	18 mm	24 mm
Standard nominal flow rate [l/min]					
Thread	M5	190	-	-	-
	M7	400	-	-	-
	G $\frac{1}{8}$	-	900	-	-
	G $\frac{1}{4}$	-	-	1,300	-
	G $\frac{3}{8}$	-	-	-	2,500
Plug connector	QS-4	190	-	-	-
	QS-6	300	510	-	-
	QS-8	-	810	850	-
	QS-10	-	-	1,000	1,250
	QS-12	-	-	-	1,650
5/2-way single Solenoid 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	350	-	-	-
	G $\frac{1}{8}$	-	800	-	-
	G $\frac{1}{4}$	-	-	1,300	-
	G $\frac{3}{8}$	-	-	-	2,900
Plug connector	QS-4	180	-	-	-
	QS-6	320	400	-	-
	QS-8	-	680	850	-
	QS-10	-	-	1,000	1,250
	QS-12	-	-	-	1,650
Operating voltage					
12 V DC		-	-	■	-
24 V DC/AC		■/-	■/-	■/■	■/-
110 V AC		-	-	■	■
230 V AC		-	-	■	■
Technical data →		12	19	26	38

Note: All metric products can be used within inch tubing systems via hybrid fittings (→ Overview on page 63)

Solenoid Valves CPE

Product range overview – Functions



5/2-way double Solenoid 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	350	–	–	–
	G $\frac{1}{8}$	–	800	–	–
	G $\frac{1}{4}$	–	–	1,300	–
	G $\frac{3}{8}$	–	–	–	3,200
Plug connector	QS-4	180	–	–	–
	QS-6	320	400	–	–
	QS-8	–	680	850	–
	QS-10	–	–	1,000	1,250
	QS-12	–	–	–	1,650
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	–	–	–
	G $\frac{1}{8}$	–	700 ... 750	–	–
	G $\frac{1}{4}$	–	–	1,200 ... 1,450	–
	G $\frac{3}{8}$	–	–	–	2,600 ... 3,000
Plug connector	QS-4	180	–	–	–
	QS-6	250 ... 300	370 ... 410	–	–
	QS-8	–	570 ... 720	780 ... 850	–
	QS-10	–	–	1,000 ... 1,050	1,250
	QS-12	–	–	–	1,600 ... 1,650
Operating voltage					
12 V DC		–	–	■	–
24 V DC/AC		■/–	■/–	■/■	■/–
110 V AC		–	–	■	■
230 V AC		–	–	■	■
Technical data →		12	19	26	38

Note: All metric products can be used within inch tubing systems via hybrid fittings (→ Overview on page 63)

Solenoid Valves CPE

Order codes

FESTO

		CPE	-	M	-		-		-		-	
Type												
CPE	Solenoid valve, Compact Performance											
Width												
10	10 mm											
14	14 mm											
18	18 mm											
24	24 mm											
Operating voltage												
Square plug												
M1BH	24 V DC for CPE10 and CPE14											
M1H	24 V DC for CPE18 and CPE24											
M2H	110 V AC for CPE18 and CPE24											
M3H	230 V AC for CPE18 and CPE24											
Round plug												
M1CH	24 V DC for CPE10 and CPE14											
Valve function												
3	3/2-way											
5L	5/2-way, single solenoid, pneumatic spring return											
5J	5/2-way, double solenoid											
5/3	5/3-way, single solenoid											
Normal position												
GL	Closed, pneumatic reset for 3/2											
OL	Open, pneumatic reset											
B	Open											
E	Exhausted											
G	Closed											
Pilot air supply												
	Internal											
S	External											
Pneumatic connection												
Female thread												
M5	M5 for CPE10, not with round plug											
M7	M7 for CPE10											
1/8	G1/8 for CPE14											
1/4	G1/4 for CPE18											
3/8	G3/8 for CPE24											
Plug connector for standard O.D. tubing, not with round plug CPE10 and CPE14												
QS-4	Tubing O.D. 4 mm for CPE10											
QS-6	Tubing O.D. 6 mm for CPE10 and CPE14											
QS-8	Tubing O.D. 8 mm for CPE14 and CPE18											
QS-10	Tubing O.D. 10 mm for CPE18 and CPE24											
QS-12	Tubing O.D. 12 mm for CPE24											
Generation												
B	B series for CPE10 5/3 way valve											

Note: All metric products can be used within inch tubing systems via hybrid fittings (→ Overview on page 63)

Solenoid Valves CPE10

Technical data

Function

3/2G, 3/2O

5/2-way single solenoid

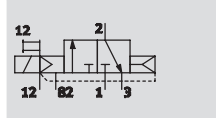
5/2-way double solenoid

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

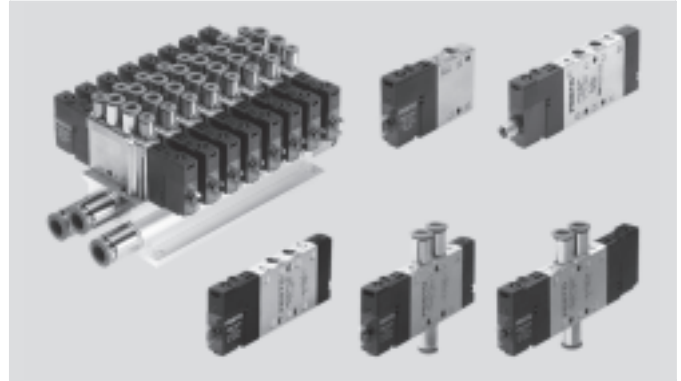
Width: 10 mm

Flow rate: 180 ... 400 l/min

Voltage: 24 V DC



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



General technical data							
Valve function	3/2		5/2			5/3	
Normal position	G ¹⁾	O ²⁾	–	–	G ¹⁾	B ²⁾	E ³⁾
Memory stability	Single			Double		Single	
Pneumatic spring reset method	Yes			–		No	
Mechanical spring reset method	No			–		Yes	
Design	Piston spool						
Sealing principle	Soft						
Actuation type	Electric						
Control type	Piloted						
Pilot air supply	Internal or external						
Direction of flow	Reversible for external pilot air supply						
Exhaust function	Flow control						
Manual override	Non-detenting, detenting with accessory						
Type of mounting	Using 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					
	82, 84	Threaded connection: M3					
Nominal diameter	[mm]	4					
Standard nominal flow rate	M5	[l/min]	190	180			
Standard nominal flow rate	M7	[l/min]	400	350			300 250
Standard nominal flow rate	QS4	[l/min]	190	180			
Standard nominal flow rate	QS6	[l/min]	300	350	320	300	250
Switching time on/off	[ms]	14/14	20/16	–		20/16	
Changeover time	[ms]	–	8		–		
Duty cycle	[%]	100					
Width	[mm]	10					
Corrosion resistance class	CRC	2 ⁴⁾					

1) G = Normally closed

2) O, B = Normally open

3) E = Normally exhausted

4) Corrosion resistance class 2 as per Festo standard 940 070

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

Note: All metric products can be used within inch tubing systems via hybrid fittings (→ Overview on page 63)

Solenoid Valves CPE10

Technical data

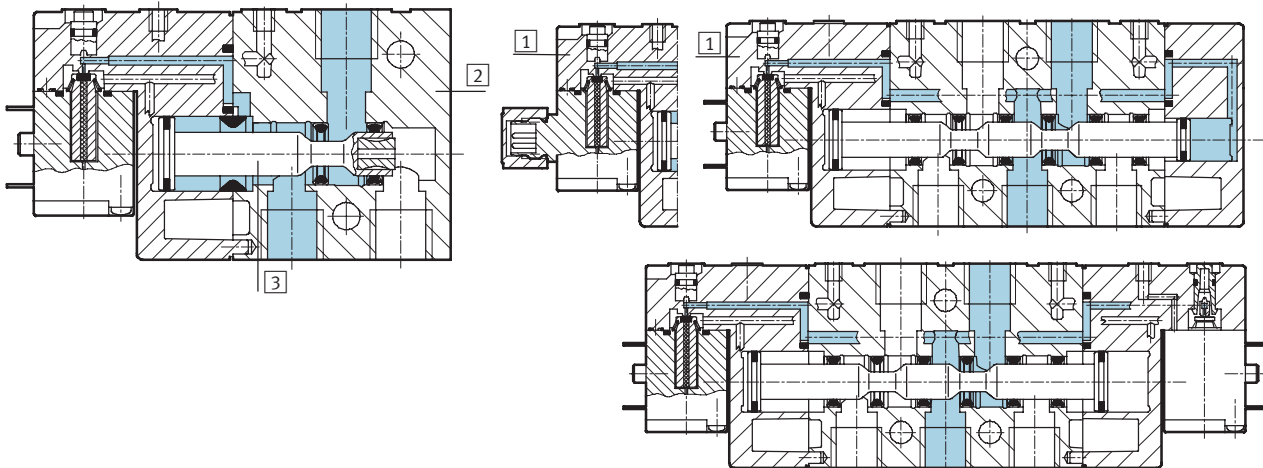
FESTO

Operating and environmental conditions					
Valve function		3/2	5/2 single	5/2 double	5/3
Operating medium		Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm, vacuum			
Operating pressure	Internal pilot air supply	[bar]	2.5 ... 8	3 ... 8	
	External pilot air supply	[bar]	-0.9 ... +10		
Pilot pressure		[bar]	2.5 ... 8	3 ... 8	
Ambient temperature		[°C]	-5 ... +50		
Temperature of medium		[°C]	-5 ... +50		
Certification for Solenoid Valves		c UL us - Recognised (OL), Germanischer Lloyd			

Electrical data			
Operating voltage	M1BH, M1CH	[V DC]	24 +10/-15%
Power consumption	M1BH, M1CH	[W]	1.28
Protection class with plug socket			IP65 (EN 60529)
Max. tightening torque of plug socket M8x1	M1CH	[Nm]	0.4

Materials

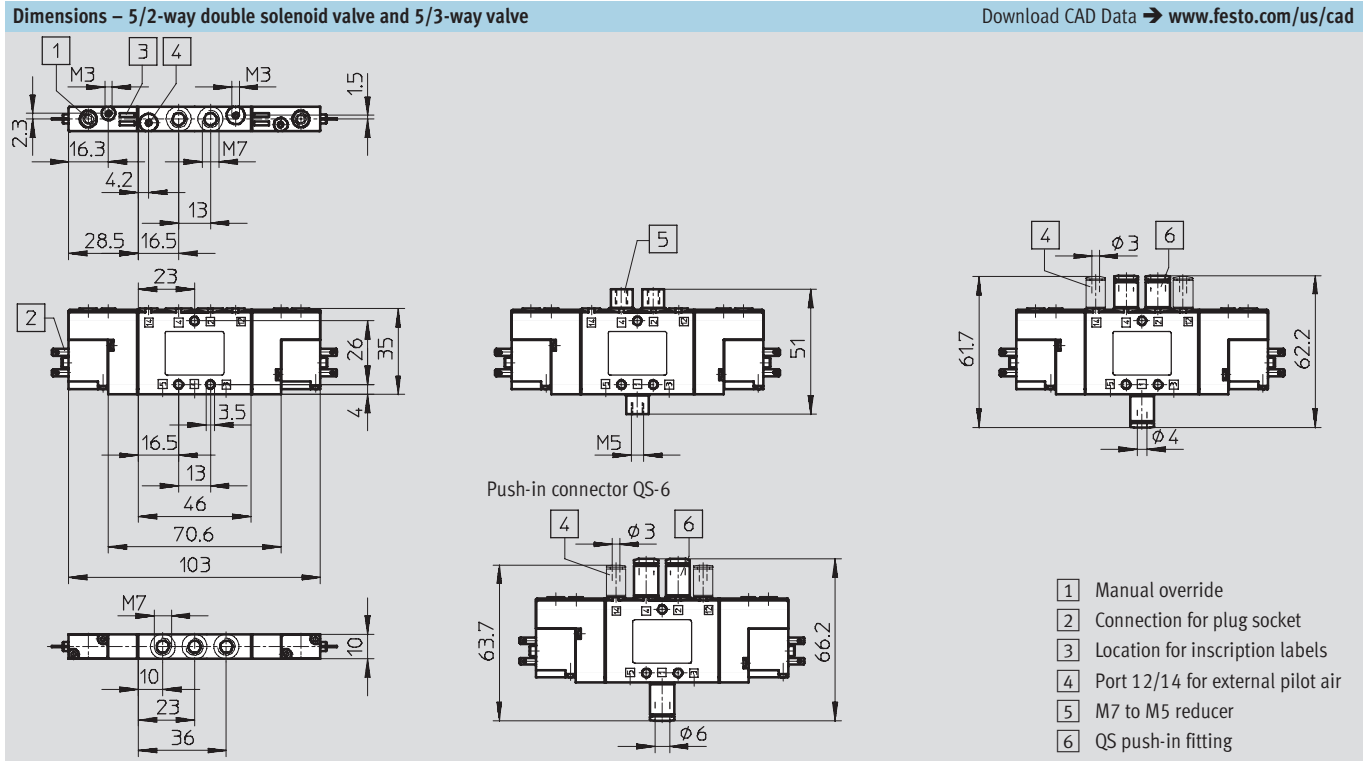
Sectional view



1	Cover	Polyamide	3	Piston spool	Steel
2	Housing	Die-cast aluminum	-	Seals	Nitrile rubber

Solenoid Valves CPE10

Technical data



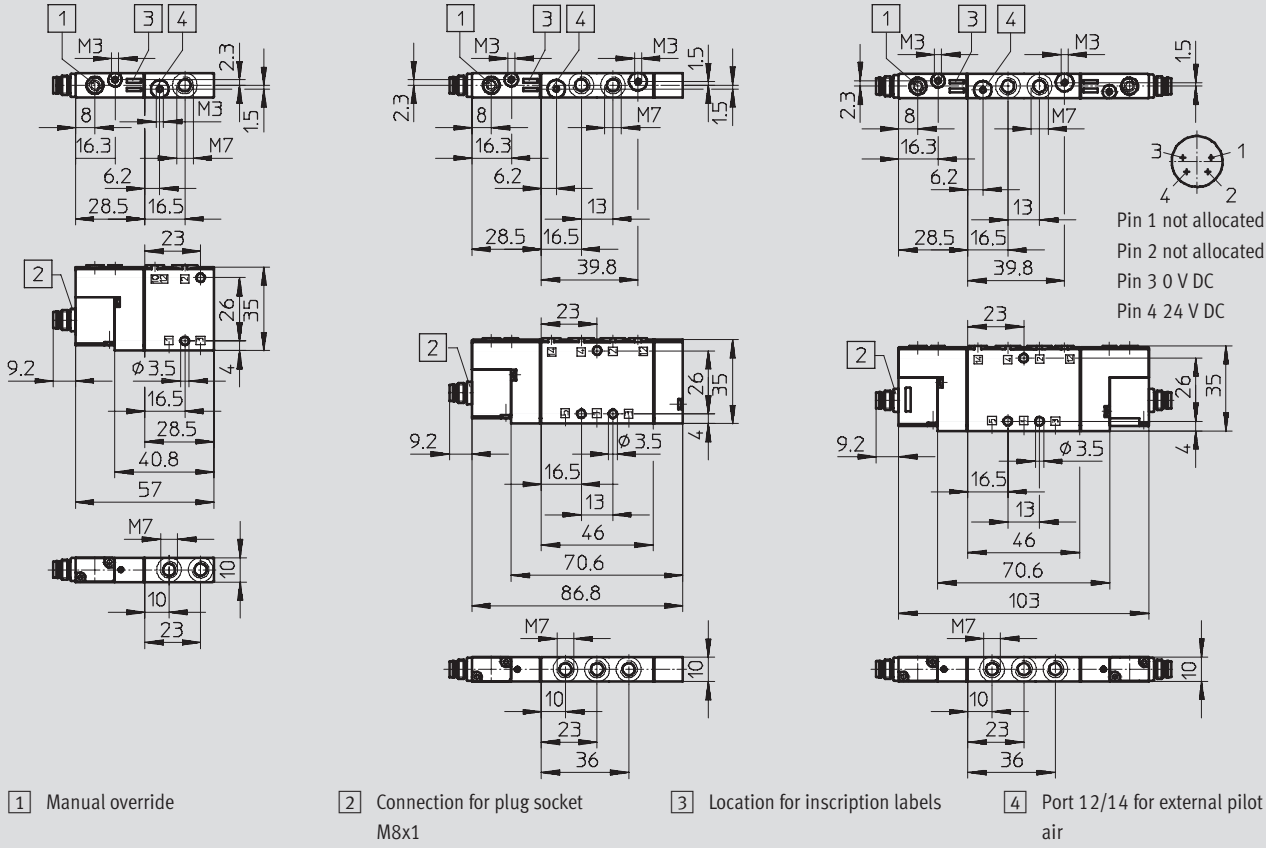
Solenoid Valves CPE10

Technical data



Dimensions – Solenoid Valves with round plug M8x1

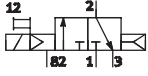
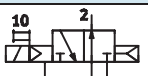
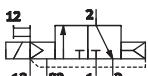
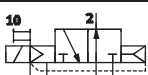
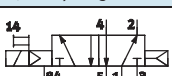
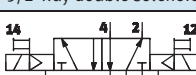
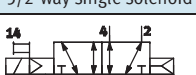
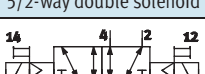
Download CAD Data → www.festo.com/us/cad



Solenoid Valves CPE10

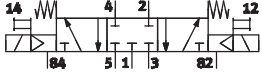
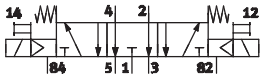
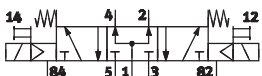
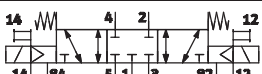

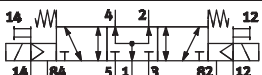
Ordering data

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Ordering data							
Circuit symbol	Pilot air supply	Plug socket	Voltage	Connection	Weight [g]	Part No.	Type
3/2-way valve, normally closed							
	Internal	Square	24 V DC	M5	–	196 845	CPE10-M1BH-3GL-M5
				M7	40	196 915	CPE10-M1BH-3GL-M7
				QS-4	–	196 846	CPE10-M1BH-3GL-QS-4
				QS-6	–	196 847	CPE10-M1BH-3GL-QS-6
		M8x1	M7	40	550 233	CPE10-M1CH-3GL-M7	
3/2-way valve, normally open							
	Internal	Square	24 V DC	M5	–	196 851	CPE10-M1BH-30L-M5
				M7	40	196 917	CPE10-M1BH-30L-M7
				QS-4	–	196 852	CPE10-M1BH-30L-QS-4
				QS-6	–	196 853	CPE10-M1BH-30L-QS-6
		M8x1	M7	40	550 235	CPE10-M1CH-30L-M7	
3/2-way valve, normally closed							
	External	Square	24 V DC	M5	–	196 848	CPE10-M1BH-3GLS-M5
				M7	40	196 916	CPE10-M1BH-3GLS-M7
				QS-4	–	196 849	CPE10-M1BH-3GLS-QS-4
				QS-6	–	196 850	CPE10-M1BH-3GLS-QS-6
		M8x1	M7	40	550 234	CPE10-M1CH-3GLS-M7	
3/2-way valve, normally open							
	External	Square	24 V DC	M5	–	196 854	CPE10-M1BH-30LS-M5
				M7	40	196 918	CPE10-M1BH-30LS-M7
				QS-4	–	196 855	CPE10-M1BH-30LS-QS-4
				QS-6	–	196 856	CPE10-M1BH-30LS-QS-6
		M8x1	M7	40	550 236	CPE10-M1CH-30LS-M7	
5/2-way single solenoid valve							
	Internal	Square	24 V DC	M5	–	196 881	CPE10-M1BH-5L-M5
				M7	56	196 927	CPE10-M1BH-5L-M7
				QS-4	–	196 882	CPE10-M1BH-5L-QS-4
				QS-6	–	196 883	CPE10-M1BH-5L-QS-6
		M8x1	M7	56	550 223	CPE10-M1CH-5L-M7	
5/2-way double solenoid valve							
	Internal	Square	24 V DC	M5	–	196 875	CPE10-M1BH-5J-M5
				M7	68	196 925	CPE10-M1BH-5J-M7
				QS-4	–	196 876	CPE10-M1BH-5J-QS-4
				QS-6	–	196 877	CPE10-M1BH-5J-QS-6
		M8x1	M7	68	550 225	CPE10-M1CH-5J-M7	
5/2-way single solenoid valve							
	External	Square	24 V DC	M5	–	196 884	CPE10-M1BH-5LS-M5
				M7	56	196 928	CPE10-M1BH-5LS-M7
				QS-4	–	196 885	CPE10-M1BH-5LS-QS-4
				QS-6	–	196 886	CPE10-M1BH-5LS-QS-6
		M8x1	M7	56	550 224	CPE10-M1BH-5LS-M7	
5/2-way double solenoid valve							
	External	Square	24 V DC	M5	–	196 878	CPE10-M1BH-5JS-M5
				M7	68	196 926	CPE10-M1BH-5JS-M7
				QS-4	–	196 879	CPE10-M1BH-5JS-QS-4
				QS-6	–	196 880	CPE10-M1BH-5JS-QS-6
		M8x1	M7	68	550 226	CPE10-M1CH-5JS-M7	

Solenoid Valves CPE10

Ordering data

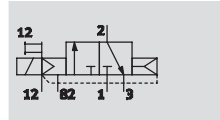
Ordering data							
Circuit symbol	Pilot air supply	Plug socket	Voltage	Connection	Weight [g]	Part No.	Type
5/3-way mid-position valve, normally closed							
	Internal	Square	24 V DC	M5	–	533 159	CPE10-M1BH-5/3G-M5-B
				M7	68	533 141	CPE10-M1BH-5/3G-M7-B
				QS-4	–	533 147	CPE10-M1BH-5/3G-QS-4-B
				QS-6	–	533 153	CPE10-M1BH-5/3G-QS-6-B
		M8x1		M7	68	550 227	CPE10-M1CH-5/3G-M7
5/3-way mid-position valve, normally exhausted							
	Internal	Square	24 V DC	M5	–	533 161	CPE10-M1BH-5/3E-M5-B
				M7	68	533 143	CPE10-M1BH-5/3E-M7-B
				QS-4	–	533 149	CPE10-M1BH-5/3E-QS-4-B
				QS-6	–	533 155	CPE10-M1BH-5/3E-QS-6-B
		M8x1		M7	68	550 229	CPE10-M1CH-5/3E-M7
5/3-way mid-position valve, normally open							
	Internal	Square	24 V DC	M5	–	533 163	CPE10-M1BH-5/3B-M5-B
				M7	68	533 145	CPE10-M1BH-5/3B-M7-B
				QS-4	–	533 151	CPE10-M1BH-5/3B-QS-4-B
				QS-6	–	533 157	CPE10-M1BH-5/3B-QS-6-B
		M8x1		M7	68	550 231	CPE10-M1CH-5/3B-M7
5/3-way mid-position valve, normally closed							
	External	Square	24 V DC	M5	–	533 160	CPE10-M1BH-5/3GS-M5-B
				M7	68	533 142	CPE10-M1BH-5/3GS-M7-B
				QS-4	–	533 148	CPE10-M1BH-5/3GS-QS-4-B
				QS-6	–	533 154	CPE10-M1BH-5/3GS-QS-6-B
		M8x1		M7	68	550 228	CPE10-M1CH-5/3GS-M7
5/3-way mid-position valve, normally exhausted							
	External	Square	24 V DC	M5	–	533 162	CPE10-M1BH-5/3ES-M5-B
				M7	68	533 144	CPE10-M1BH-5/3ES-M7-B
				QS-4	–	533 150	CPE10-M1BH-5/3ES-QS-4-B
				QS-6	–	533 156	CPE10-M1BH-5/3ES-QS-6-B
		M8x1		M7	68	550 230	CPE10-M1CH-5/3ES-M7
5/3-way mid-position valve, normally open							
	External	Square	24 V DC	M5	–	533 164	CPE10-M1BH-5/3BS-M5-B
				M7	68	533 146	CPE10-M1BH-5/3BS-M7-B
				QS-4	–	533 152	CPE10-M1BH-5/3BS-QS-4-B
				QS-6	–	533 158	CPE10-M1BH-5/3BS-QS-6-B
		M8x1		M7	68	550 232	CPE10-M1CH-5/3BS-M7

Solenoid Valves CPE14

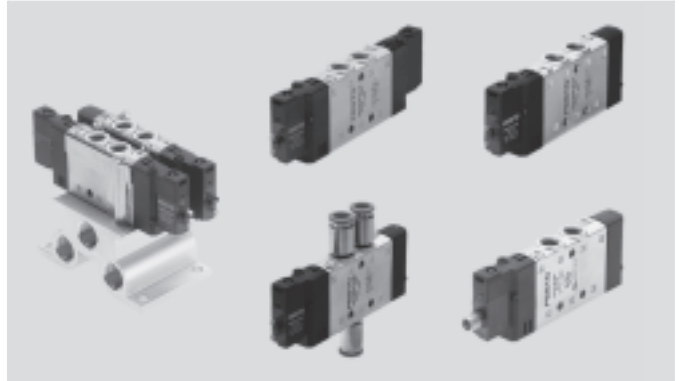
Technical data

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

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



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



General technical data									
Valve function		3/2			5/2			5/3	
Normal position		G ¹⁾	O ²⁾	–	–	–	G ¹⁾	B ²⁾	E ³⁾
Memory stability		Single			Double			Single	
Pneumatic spring reset method		Yes			–			No	
Mechanical spring reset method		No			–			Yes	
Design		Piston spool							
Sealing principle		Soft							
Actuation type		Electric							
Control type		Piloted							
Pilot air supply		Internal or external							
Direction of flow		Reversible for external pilot air supply							
Exhaust function		Flow control							
Manual override		Non-detenting, detenting via accessory							
Type of mounting		Using through holes							
Mounting position		Any							
Pneumatic connection		1, 2, 4	Threaded connection: G ^{1/8} ; QS connection: Ø 6 or Ø 8 mm						
		3, 5	Threaded connection: G ^{1/8}						
		12, 14	Threaded connection: M3; QS connection: Ø 3						
		82, 84	Threaded connection: M3						
Nominal diameter		[mm]	6						
Standard nominal flow rate		G ^{1/8}	[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]	16/27	24/32	–	20/42			
Changeover time		[ms]	–	–	12	–			
Duty cycle		[%]	100						
Width		[mm]	14						
Corrosion resistance class		CRC	2 ⁴⁾						

1) G = Normally closed
 2) O, B = Normally open
 3) E = Normally exhausted
 4) Corrosion resistance class 2 as per Festo standard 940 070
 Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Note: All metric products can be used within inch tubing systems via hybrid fittings (→ Overview on page 63)

Solenoid Valves CPE14

Technical data

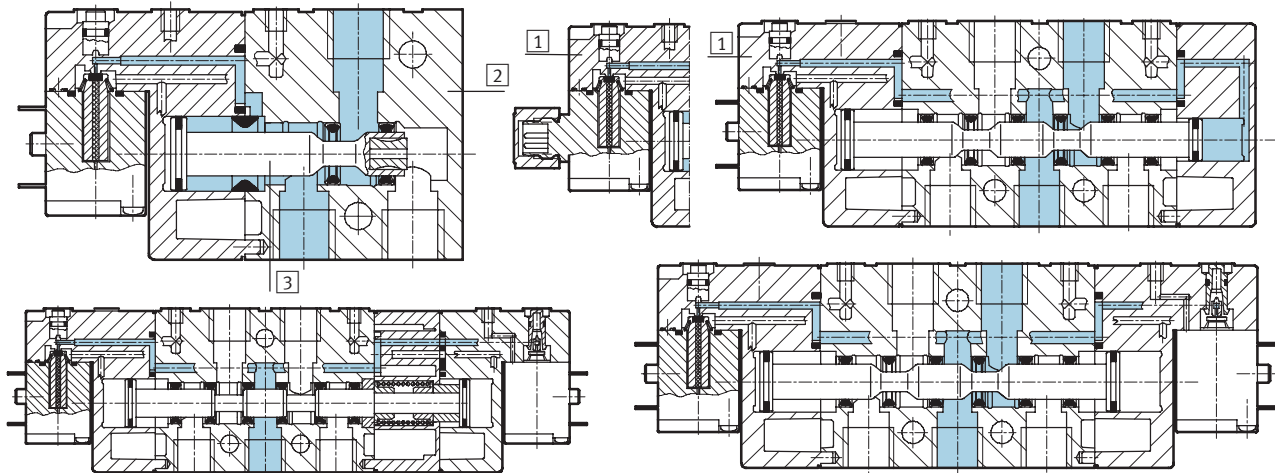
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Operating and environmental conditions					
Valve function		3/2	5/2 single	5/2 double	5/3
Operating medium		Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm, vacuum			
Operating pressure	Internal pilot air supply [bar]	2.5 ... 8	3 ... 8	2 ... 8	3 ... 8
	External pilot air supply [bar]	-0.9 ... +10			
Pilot pressure [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 - Recognised (OL), Germanischer Lloyd			

Electrical data				
Operating voltage	M1BH, M1CH	[V DC]	24 +10/-15%	
Power consumption	M1BH, M1CH	[W]	1.28	
Protection class with plug socket			IP65 (EN 60529)	
Max. tightening torque of plug socket M8x1	M1CH	[Nm]	0.4	

Materials

Sectional view



1	Cover	Polyamide	3	Piston spool	Steel
2	Housing	Die-cast aluminum	-	Seals	Nitrile rubber

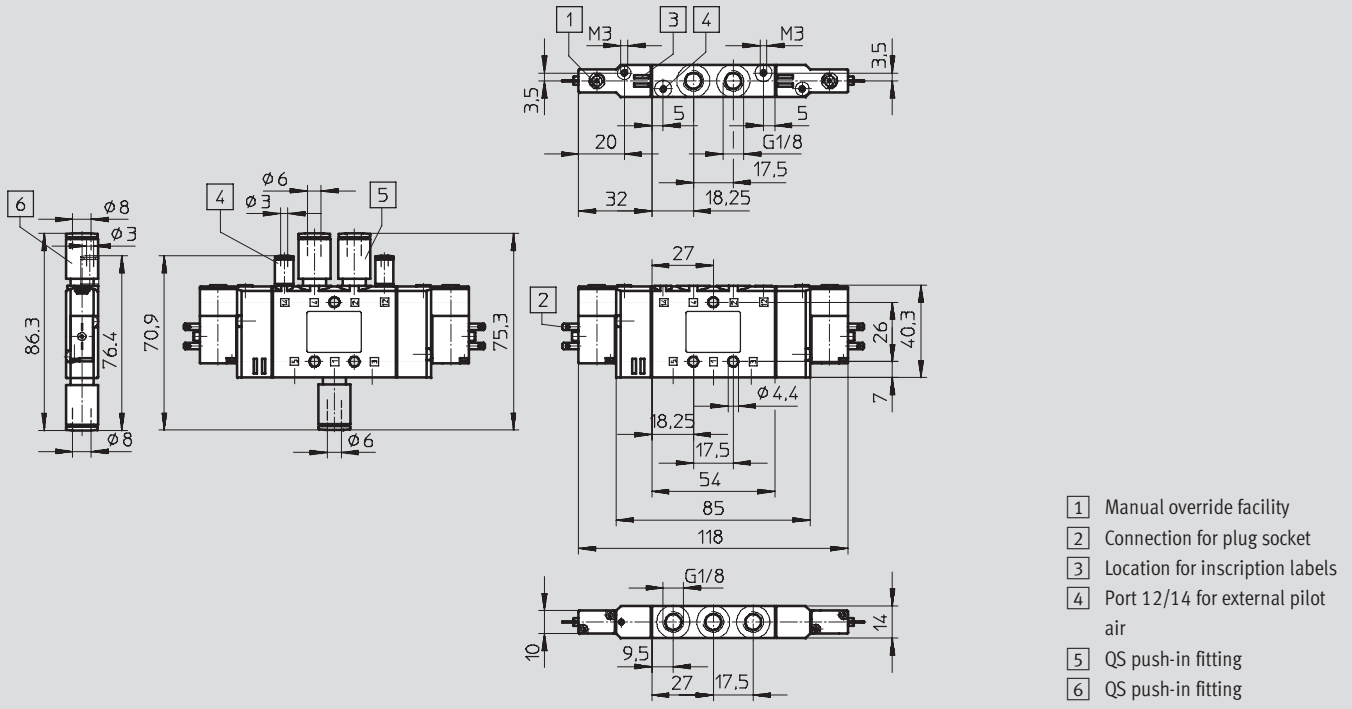
Solenoid Valves CPE14

Technical data

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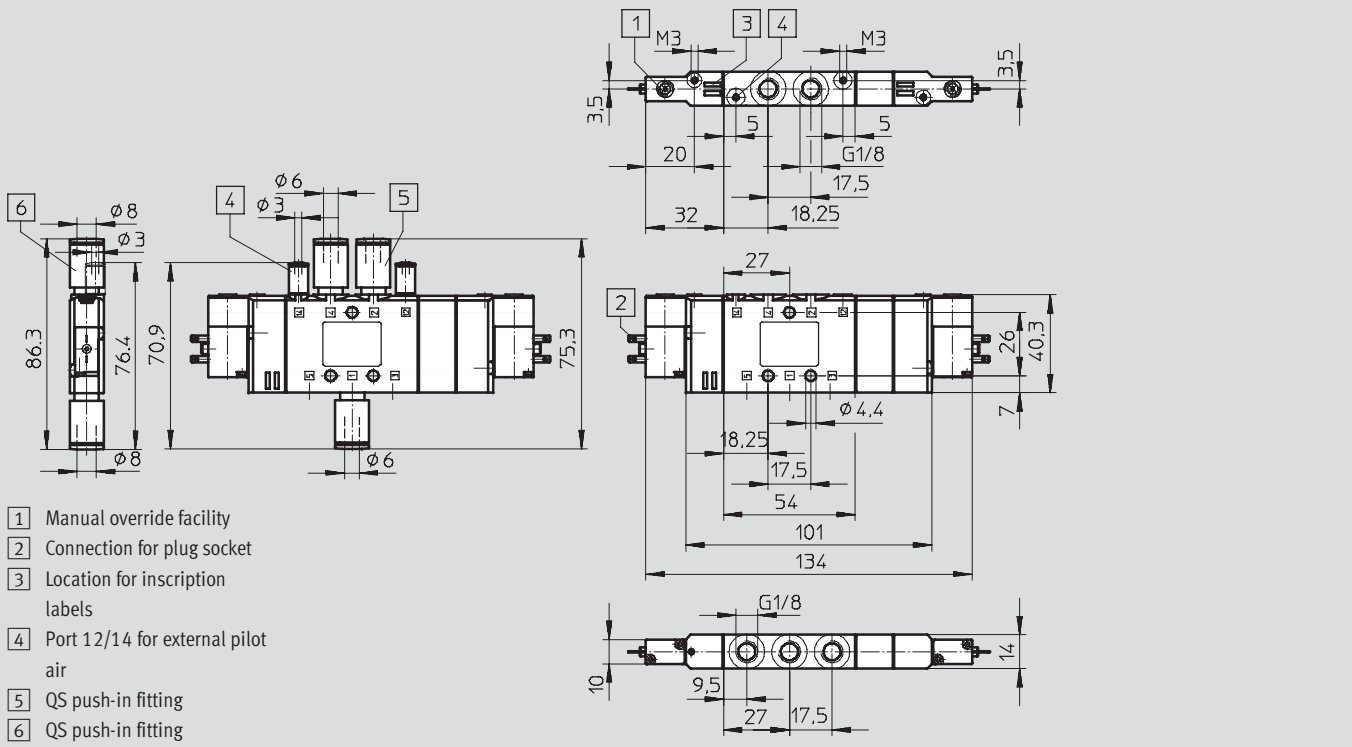
Dimensions – 5/2-way double solenoid valve

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Dimensions – 5/3-way valve

Download CAD Data → www.festo.com/us/cad



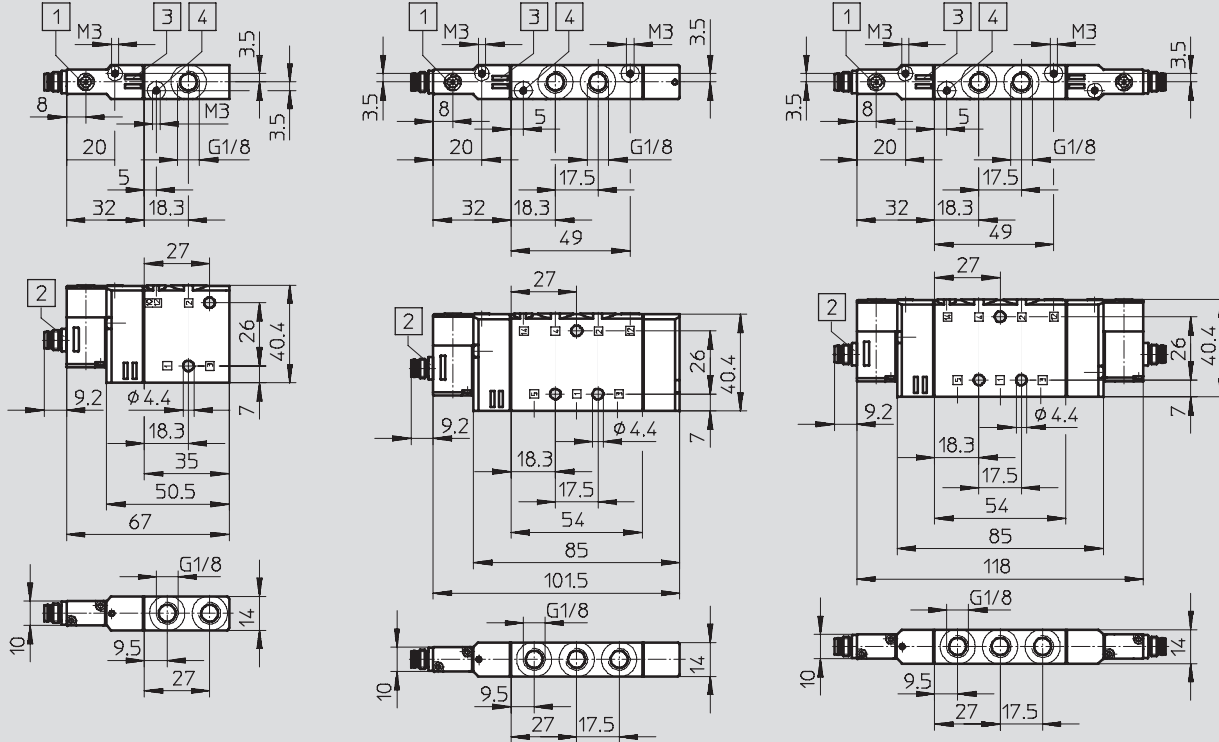
Solenoid Valves CPE14

Technical data

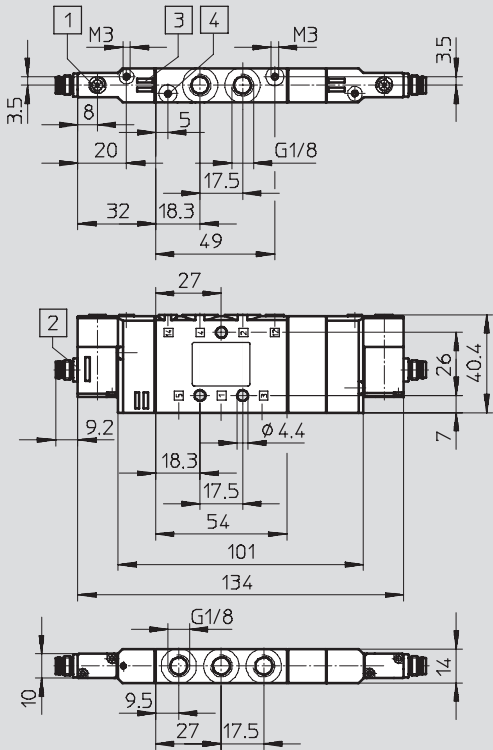


Dimensions – Solenoid Valves with round plug M8x1

Download CAD Data → www.festo.com/us/cad



Pin 1 not allocated
 Pin 2 not allocated
 Pin 3 0 V DC
 Pin 4 24 V DC



- 1 Manual override facility
- 2 Connection for plug socket M8x1
- 3 Location for inscription labels
- 4 Port 12/14 for external pilot air

Solenoid Valves CPE14



Ordering data

Ordering data							
Circuit symbol	Pilot air supply	Plug socket	Voltage	Connection	Weight [g]	Part No.	Type
3/2-way valve, normally closed							
	Internal	Square	24 V DC	G $\frac{1}{8}$	60	196 929	CPE14-M1BH-3GL- $\frac{1}{8}$
				QS-6	–	196 887	CPE14-M1BH-3GL-QS-6
				QS-8	–	196 888	CPE14-M1BH-3GL-QS-8
		M8x1		G $\frac{1}{8}$	60	550 247	CPE14-M1CH-3GL- $\frac{1}{8}$
3/2-way valve, normally open							
	Internal	Square	24 V DC	G $\frac{1}{8}$	60	196 931	CPE14-M1BH-30L- $\frac{1}{8}$
				QS-6	–	196 891	CPE14-M1BH-30L-QS-6
				QS-8	–	196 892	CPE14-M1BH-30L-QS-8
		M8x1		G $\frac{1}{8}$	60	550 249	CPE14-M1CH-30L- $\frac{1}{8}$
3/2-way valve, normally closed							
	External	Square	24 V DC	G $\frac{1}{8}$	60	196 930	CPE14-M1BH-3GLS- $\frac{1}{8}$
				QS-6	–	196 889	CPE14-M1BH-3GLS-QS-6
				QS-8	–	196 890	CPE14-M1BH-3GLS-QS-8
		M8x1		G $\frac{1}{8}$	60	550 248	CPE14-M1CH-3GLS- $\frac{1}{8}$
3/2-way valve, normally open							
	External	Square	24 V DC	G $\frac{1}{8}$	60	196 932	CPE14-M1BH-30LS- $\frac{1}{8}$
				QS-6	–	196 893	CPE14-M1BH-30LS-QS-6
				QS-8	–	196 894	CPE14-M1BH-30LS-QS-8
		M8x1		G $\frac{1}{8}$	60	550 250	CPE14-M1CH-30LS- $\frac{1}{8}$
5/2-way single solenoid valve							
	Internal	Square	24 V DC	G $\frac{1}{8}$	95	196 941	CPE14-M1BH-5L- $\frac{1}{8}$
				QS-6	–	196 911	CPE14-M1BH-5L-QS-6
				QS-8	–	196 912	CPE14-M1BH-5L-QS-8
		M8x1		G $\frac{1}{8}$	95	550 237	CPE14-M1CH-5L- $\frac{1}{8}$
5/2-way double solenoid valve							
	Internal	Square	24 V DC	G $\frac{1}{8}$	115	196 939	CPE14-M1BH-5J- $\frac{1}{8}$
				QS-6	–	196 907	CPE14-M1BH-5J-QS-6
				QS-8	–	196 908	CPE14-M1BH-5J-QS-8
		M8x1		G $\frac{1}{8}$	115	550 239	CPE14-M1CH-5J- $\frac{1}{8}$
5/2-way single solenoid valve							
	External	Square	24 V DC	G $\frac{1}{8}$	95	196 942	CPE14-M1BH-5LS- $\frac{1}{8}$
				QS-6	–	196 913	CPE14-M1BH-5LS-QS-6
				QS-8	–	196 914	CPE14-M1BH-5LS-QS-8
		M8x1		G $\frac{1}{8}$	95	550 238	CPE14-M1CH-5LS- $\frac{1}{8}$
5/2-way double solenoid valve							
	External	Square	24 V DC	G $\frac{1}{8}$	115	196 940	CPE14-M1BH-5JS- $\frac{1}{8}$
				QS-6	–	196 909	CPE14-M1BH-5JS-QS-6
				QS-8	–	196 910	CPE14-M1BH-5JS-QS-8
		M8x1		G $\frac{1}{8}$	115	550 240	CPE14-M1CH-5JS- $\frac{1}{8}$

Solenoid Valves CPE14

Ordering data

Ordering data							
Circuit symbol	Pilot air supply	Plug socket	Voltage	Connection	Weight [g]	Part No.	Type
5/3-way mid-position valve, normally closed							
	Internal	Square	24 V DC	G $\frac{1}{8}$	120	196 937	CPE14-M1BH-5/3G- $\frac{1}{8}$
				QS-6	–	196 903	CPE14-M1BH-5/3G-QS-6
				QS-8	–	196 904	CPE14-M1BH-5/3G-QS-8
		M8x1		G $\frac{1}{8}$	120	550 241	CPE14-M1BH-5/3G- $\frac{1}{8}$
5/3-way mid-position valve, normally exhausted							
	Internal	Square	24 V DC	G $\frac{1}{8}$	120	196 935	CPE14-M1BH-5/3E- $\frac{1}{8}$
				QS-6	–	196 899	CPE14-M1BH-5/3E-QS-6
				QS-8	–	196 900	CPE14-M1BH-5/3E-QS-8
		M8x1		G $\frac{1}{8}$	120	550 243	CPE14-M1CH-5/3E- $\frac{1}{8}$
5/3-way mid-position valve, normally open							
	Internal	Square	24 V DC	G $\frac{1}{8}$	120	196 933	CPE14-M1BH-5/3B- $\frac{1}{8}$
				QS-6	–	196 895	CPE14-M1BH-5/3B-QS-6
				QS-8	–	196 896	CPE14-M1BH-5/3B-QS-8
		M8x1		G $\frac{1}{8}$	120	550 245	CPE14-M1CH-5/3B- $\frac{1}{8}$
5/3-way mid-position valve, normally closed							
	External	Square	24 V DC	G $\frac{1}{8}$	120	196 938	CPE14-M1BH-5/3GS- $\frac{1}{8}$
				QS-6	–	196 905	CPE14-M1BH-5/3GS-QS-6
				QS-8	–	196 906	CPE14-M1BH-5/3GS-QS-8
		M8x1		G $\frac{1}{8}$	120	550 242	CPE14-M1BH-5/3GS- $\frac{1}{8}$
5/3-way mid-position valve, normally exhausted							
	External	Square	24 V DC	G $\frac{1}{8}$	120	196 936	CPE14-M1BH-5/3ES- $\frac{1}{8}$
				QS-6	–	196 901	CPE14-M1BH-5/3ES-QS-6
				QS-8	–	196 902	CPE14-M1BH-5/3ES-QS-8
		M8x1		G $\frac{1}{8}$	120	550 244	CPE14-M1CH-5/3ES- $\frac{1}{8}$
5/3-way mid-position valve, normally open							
	External	Square	24 V DC	G $\frac{1}{8}$	120	196 934	CPE14-M1BH-5/3BS- $\frac{1}{8}$
				QS-6	–	196 897	CPE14-M1BH-5/3BS-QS-6
				QS-8	–	196 898	CPE14-M1BH-5/3BS-QS-8
		M8x1		G $\frac{1}{8}$	120	550 246	CPE14-M1CH-5/3BS- $\frac{1}{8}$

Solenoid Valves CPE18

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Technical data

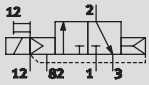
Functions:

3/2G, 3/2O

5/2-way single solenoid

5/2-way double solenoid

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



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

Width: 18 mm

Flow rate: 850 ... 1,500 l/min

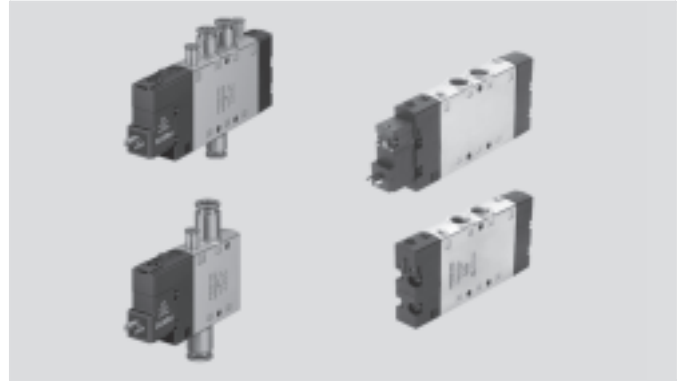
Voltage for

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⁾
Memory stability		Single			Double		Single
Pneumatic spring reset method		Yes			–		No
Mechanical spring reset method		No			–		Yes
Design		Piston spool					
Sealing principle		Soft					
Actuation type		Electric					
Control type		Piloted					
Pilot interface		To ISO 15218 or none in the case of integrated pilot valve					
Pilot air supply		Internal or external					
Direction of flow		Reversible for external pilot air supply					
Exhaust function		Flow control					
Manual override		Non-detenting, detenting via accessory					
Type of mounting		Using through holes					
Mounting position		Any					
Pneumatic connection		1, 2, 4	Threaded connection: G ^{1/4} ; QS connection: Ø 8 or Ø 10 mm				
		3, 5	Threaded connection: G ^{1/4}				
		12, 14	Threaded connection: M5; QS connection: Ø 4				
		82, 84	Threaded connection: M5				
Nominal diameter		[mm]	8				
Standard nominal flow rate		G ^{1/4}	[l/min]	1,300	1,300	1,450	1,200 1,300
Standard nominal flow rate		QS8	[l/min]	850			780
Standard nominal flow rate		QS10	[l/min]	1,000		1,050	1,000
Switching time on/off		[ms]	28/18, 36/30 ⁵⁾	26/20, 32/30 ⁵⁾	–	20/38, 20/34 ⁵⁾	
Changeover time		[ms]	–	13, 15 ⁵⁾		–	
Duty cycle		[%]	100				
Width		[mm]	18				
Conforms to		ISO 15218 in the case of interface with pilot valve					
Corrosion resistance class		CRC	2 ⁴⁾				

1) G = Normally closed

2) O, B = Normally open

3) E = Normally exhausted

4) Corrosion resistance class 2 as per Festo standard 940 070

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

5) Switching time for basic valve

Note: All metric products can be used within inch tubing systems via hybrid fittings (→ Overview on page 63)

Solenoid Valves CPE18

Technical data

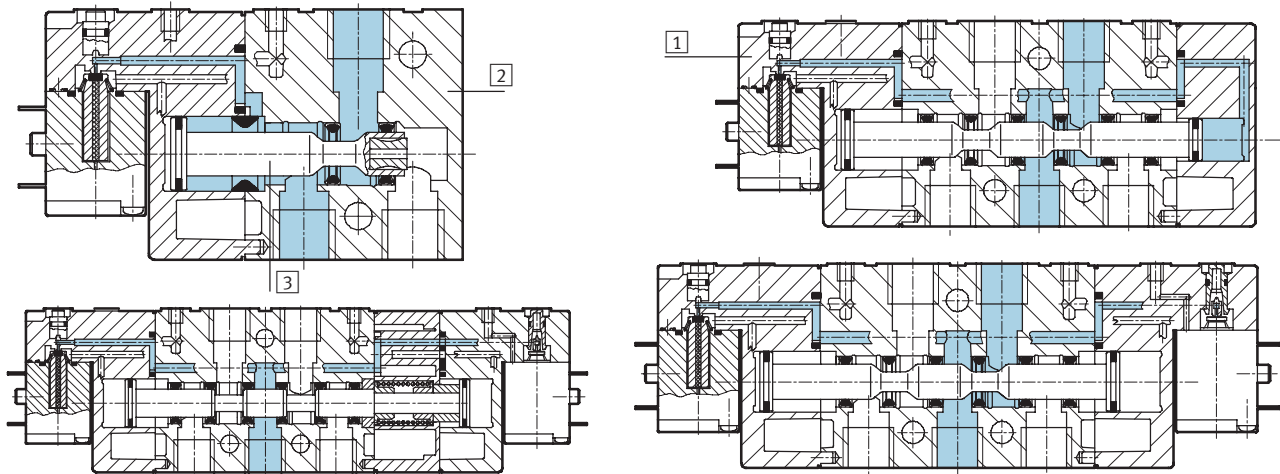


Operating and environmental conditions					
Valve function		3/2	5/2 single	5/2 double	5/3
Operating medium		Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm, vacuum			
Operating pressure	Internal pilot air supply [bar]	2.5 ... 10		2 ... 10	2.5 ... 10
	External pilot air supply [bar]	-0.9 ... +10			
Pilot pressure [bar]		2.5 ... 10		2 ... 10	2.5 ... 10
Ambient temperature [°C]		-5 ... +50			
Temperature of medium [°C]		-5 ... +50			
Certification for Solenoid Valves		c UL us - Recognised (OL), Germanischer Lloyd			

Electrical data			
Operating voltage	M1H	[V DC]	24 +10/-15%
	M2H	[V AC]	110 ±10% at 50 ... 60 Hz
	M3H	[V AC]	230 ±10% at 50 ... 60 Hz
Power consumption	M1H	[W]	1.5
	M2H, M3H	[VA]	Pull: 3, hold: 2.4
Protection class with plug socket		IP65 (EN 60529)	

Materials

Sectional view



1	Cover	Polyamide	3	Piston spool	Steel
2	Housing	Die-cast aluminum	-	Seals	Nitrile rubber

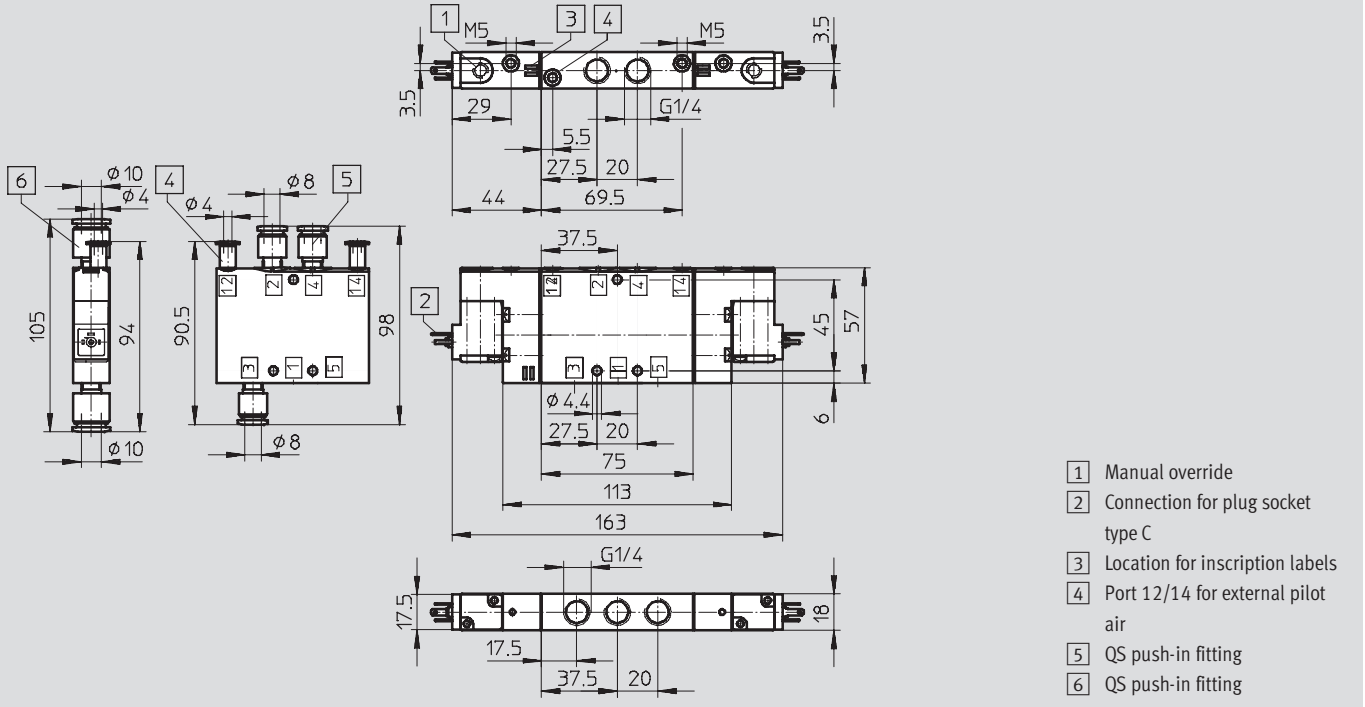
Solenoid Valves CPE18

Technical data



Dimensions – 5/2-way double solenoid valve

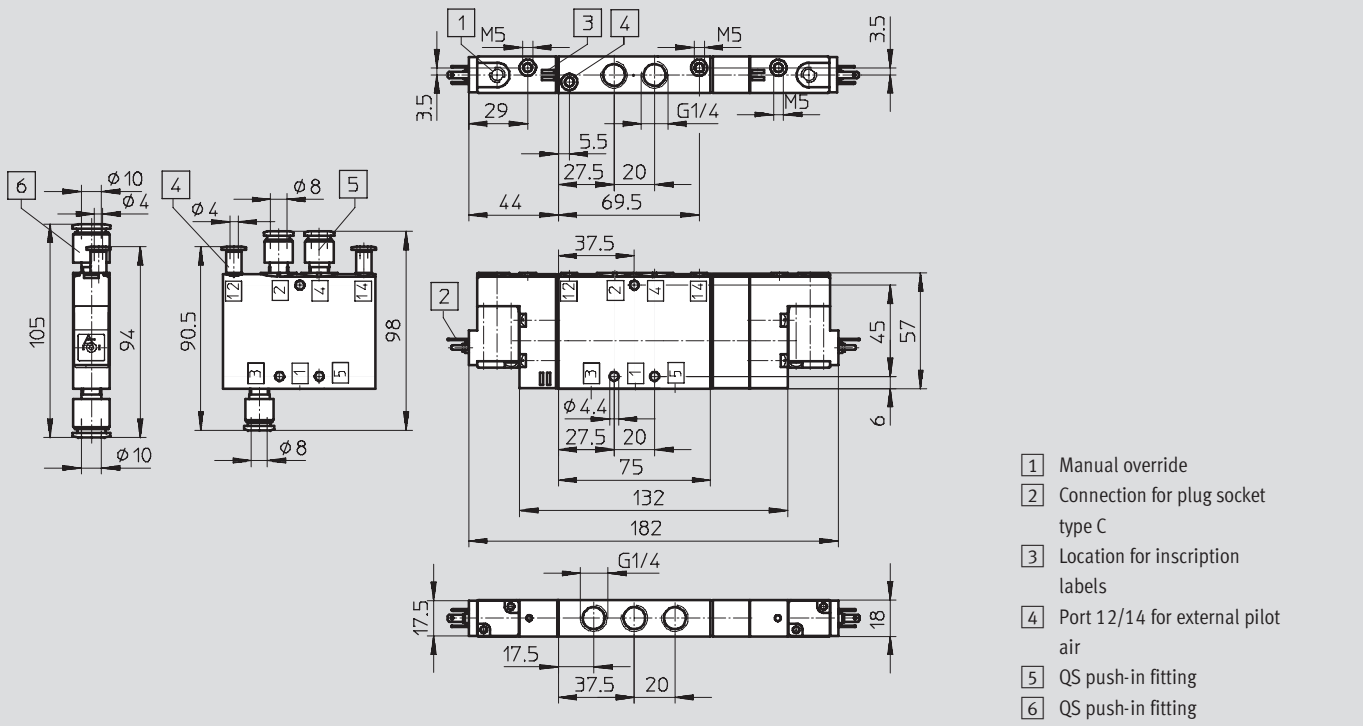
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- 1 Manual override
- 2 Connection for plug socket type C
- 3 Location for inscription labels
- 4 Port 12/14 for external pilot air
- 5 QS push-in fitting
- 6 QS push-in fitting

Dimensions – 5/3-way valve

Download CAD Data → www.festo.com/us/cad



- 1 Manual override
- 2 Connection for plug socket type C
- 3 Location for inscription labels
- 4 Port 12/14 for external pilot air
- 5 QS push-in fitting
- 6 QS push-in fitting

Solenoid Valves CPE18

Ordering data

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Ordering data – 3/2-way valve							
Circuit symbol	Pilot air supply	Voltage	Connection	Weight [g]	Part No.	Type	
Normally closed							
	Internal	24 V DC	G $\frac{1}{4}$	150	163 141	CPE18-M1H-3GL- $\frac{1}{4}$	
			QS-8	–	163 149	CPE18-M1H-3GL-QS-8	
			QS-10	–	163 157	CPE18-M1H-3GL-QS-10	
		110 V AC	230 V AC	G $\frac{1}{4}$	150	163 761	CPE18-M2H-3GL- $\frac{1}{4}$
				QS-8	–	163 769	CPE18-M2H-3GL-QS-8
				QS-10	–	163 777	CPE18-M2H-3GL-QS-10
		G $\frac{1}{4}$	150	163 785	CPE18-M3H-3GL- $\frac{1}{4}$		
			–	163 793	CPE18-M3H-3GL-QS-8		
			–	163 801	CPE18-M3H-3GL-QS-10		
Normally open							
	Internal	24 V DC	G $\frac{1}{4}$	150	163 140	CPE18-M1H-3OL- $\frac{1}{4}$	
			QS-8	–	163 148	CPE18-M1H-3OL-QS-8	
			QS-10	–	163 156	CPE18-M1H-3OL-QS-10	
		110 V AC	230 V AC	G $\frac{1}{4}$	150	163 760	CPE18-M2H-3OL- $\frac{1}{4}$
				QS-8	–	163 768	CPE18-M2H-3OL-QS-8
				QS-10	–	163 776	CPE18-M2H-3OL-QS-10
		G $\frac{1}{4}$	150	163 784	CPE18-M3H-3OL- $\frac{1}{4}$		
			–	163 792	CPE18-M3H-3OL-QS-8		
			–	163 800	CPE18-M3H-3OL-QS-10		
Normally closed							
	External	24 V DC	G $\frac{1}{4}$	150	163 145	CPE18-M1H-3GLS- $\frac{1}{4}$	
			QS-8	–	163 153	CPE18-M1H-3GLS-QS-8	
			QS-10	–	163 161	CPE18-M1H-3GLS-QS-10	
		110 V AC	230 V AC	G $\frac{1}{4}$	150	163 765	CPE18-M2H-3GLS- $\frac{1}{4}$
				QS-8	–	163 773	CPE18-M2H-3GLS-QS-8
				QS-10	–	163 781	CPE18-M2H-3GLS-QS-10
		G $\frac{1}{4}$	150	163 789	CPE18-M3H-3GLS- $\frac{1}{4}$		
			–	163 797	CPE18-M3H-3GLS-QS-8		
			–	163 805	CPE18-M3H-3GLS-QS-10		
Normally open							
	External	24 V DC	G $\frac{1}{4}$	150	163 144	CPE18-M1H-3OLS- $\frac{1}{4}$	
			QS-8	–	163 152	CPE18-M1H-3OLS-QS-8	
			QS-10	–	163 160	CPE18-M1H-3OLS-QS-10	
		110 V AC	230 V AC	G $\frac{1}{4}$	150	163 764	CPE18-M2H-3OLS- $\frac{1}{4}$
				QS-8	–	163 772	CPE18-M2H-3OLS-QS-8
				QS-10	–	163 780	CPE18-M2H-3OLS-QS-10
		G $\frac{1}{4}$	150	163 788	CPE18-M3H-3OLS- $\frac{1}{4}$		
			–	163 796	CPE18-M3H-3OLS-QS-8		
			–	163 804	CPE18-M3H-3OLS-QS-10		

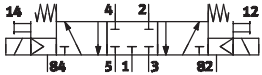
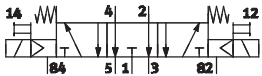
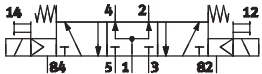
Solenoid Valves CPE18

Ordering data

Ordering data – 5/2-way valve							
Circuit symbol	Pilot air supply	Voltage	Connection	Weight [g]	Part No.	Type	
5/2-way single solenoid valve							
	Internal	24 V DC	G $\frac{1}{4}$	220	163 142	CPE18-M1H-5L- $\frac{1}{4}$	
			QS-8	–	163 150	CPE18-M1H-5L-QS-8	
			QS-10	–	163 158	CPE18-M1H-5L-QS-10	
		110 V AC	230 V AC	G $\frac{1}{4}$	220	163 762	CPE18-M2H-5L- $\frac{1}{4}$
				QS-8	–	163 770	CPE18-M2H-5L-QS-8
				QS-10	–	163 778	CPE18-M2H-5L-QS-10
		230 V AC	G $\frac{1}{4}$	220	163 786	CPE18-M3H-5L- $\frac{1}{4}$	
			QS-8	–	163 794	CPE18-M3H-5L-QS-8	
			QS-10	–	163 802	CPE18-M3H-5L-QS-10	
5/2-way double solenoid valve							
	Internal	24 V DC	G $\frac{1}{4}$	270	163 143	CPE18-M1H-5J- $\frac{1}{4}$	
			QS-8	–	163 151	CPE18-M1H-5J-QS-8	
			QS-10	–	163 159	CPE18-M1H-5J-QS-10	
		110 V AC	230 V AC	G $\frac{1}{4}$	270	163 763	CPE18-M2H-5J- $\frac{1}{4}$
				QS-8	–	163 771	CPE18-M2H-5J-QS-8
				QS-10	–	163 779	CPE18-M2H-5J-QS-10
		230 V AC	G $\frac{1}{4}$	270	163 787	CPE18-M3H-5J- $\frac{1}{4}$	
			QS-8	–	163 795	CPE18-M3H-5J-QS-8	
			QS-10	–	163 803	CPE18-M3H-5J-QS-10	
5/2-way single solenoid valve							
	External	24 V DC	G $\frac{1}{4}$	220	163 146	CPE18-M1H-5LS- $\frac{1}{4}$	
			QS-8	–	163 154	CPE18-M1H-5LS-QS-8	
			QS-10	–	163 162	CPE18-M1H-5LS-QS-10	
		110 V AC	230 V AC	G $\frac{1}{4}$	220	163 766	CPE18-M2H-5LS- $\frac{1}{4}$
				QS-8	–	163 774	CPE18-M2H-5LS-QS-8
				QS-10	–	163 782	CPE18-M2H-5LS-QS-10
		230 V AC	G $\frac{1}{4}$	220	163 790	CPE18-M3H-5LS- $\frac{1}{4}$	
			QS-8	–	163 798	CPE18-M3H-5LS-QS-8	
			QS-10	–	163 806	CPE18-M3H-5LS-QS-10	
5/2-way double solenoid valve							
	External	24 V DC	G $\frac{1}{4}$	270	163 147	CPE18-M1H-5JS- $\frac{1}{4}$	
			QS-8	–	163 155	CPE18-M1H-5JS-QS-8	
			QS-10	–	163 163	CPE18-M1H-5JS-QS-10	
		110 V AC	230 V AC	G $\frac{1}{4}$	270	163 767	CPE18-M2H-5JS- $\frac{1}{4}$
				QS-8	–	163 775	CPE18-M2H-5JS-QS-8
				QS-10	–	163 783	CPE18-M2H-5JS-QS-10
		230 V AC	G $\frac{1}{4}$	270	163 791	CPE18-M3H-5JS- $\frac{1}{4}$	
			QS-8	–	163 799	CPE18-M3H-5JS-QS-8	
			QS-10	–	163 807	CPE18-M3H-5JS-QS-10	

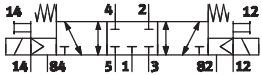
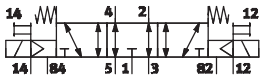
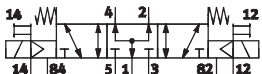
Solenoid Valves CPE18

Ordering data

Ordering data – 5/3-way valve							
Circuit symbol	Pilot air supply	Voltage	Connection	Weight [g]	Part No.	Type	
5/3-way mid-position valve, normally closed							
	Internal	24 V DC	G¼	280	170 247	CPE18-M1H-5/3G-¼	
			QS-8	–	170 253	CPE18-M1H-5/3G-QS-8	
			QS-10	–	170 259	CPE18-M1H-5/3G-QS-10	
		110 V AC		G¼	280	170 283	CPE18-M2H-5/3G-¼
				QS-8	–	170 289	CPE18-M2H-5/3G-QS-8
				QS-10	–	170 295	CPE18-M2H-5/3G-QS-10
		230 V AC		G¼	280	170 319	CPE18-M3H-5/3G-¼
				QS-8	–	170 325	CPE18-M3H-5/3G-QS-8
				QS-10	–	170 331	CPE18-M3H-5/3G-QS-10
5/3-way mid-position valve, normally exhausted							
	Internal	24 V DC	G¼	280	170 249	CPE18-M1H-5/3E-¼	
			QS-8	–	170 255	CPE18-M1H-5/3E-QS-8	
			QS-10	–	170 261	CPE18-M1H-5/3E-QS-10	
		110 V AC		G¼	280	170 285	CPE18-M2H-5/3E-¼
				QS-8	–	170 291	CPE18-M2H-5/3E-QS-8
				QS-10	–	170 297	CPE18-M2H-5/3E-QS-10
		230 V AC		G¼	280	170 321	CPE18-M3H-5/3E-¼
				QS-8	–	170 327	CPE18-M3H-5/3E-QS-8
				QS-10	–	170 333	CPE18-M3H-5/3E-QS-10
5/3-way mid-position valve, normally open							
	Internal	24 V DC	G¼	280	170 251	CPE18-M1H-5/3B-¼	
			QS-8	–	170 257	CPE18-M1H-5/3B-QS-8	
			QS-10	–	170 263	CPE18-M1H-5/3B-QS-10	
		110 V AC		G¼	280	170 287	CPE18-M2H-5/3B-¼
				QS-8	–	170 293	CPE18-M2H-5/3B-QS-8
				QS-10	–	170 299	CPE18-M2H-5/3B-QS-10
		230 V AC		G¼	280	170 323	CPE18-M3H-5/3B-¼
				QS-8	–	170 329	CPE18-M3H-5/3B-QS-8
				QS-10	–	170 335	CPE18-M3H-5/3B-QS-10

Solenoid Valves CPE18

Ordering data

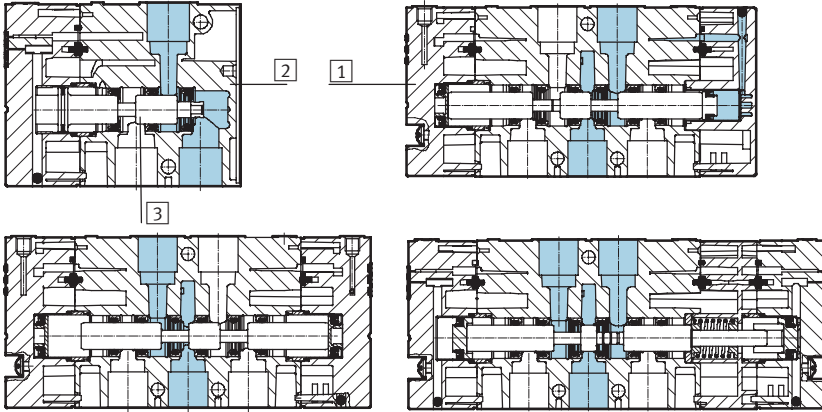
Ordering data – 5/3-way valve								
Circuit symbol	Pilot air supply	Voltage	Connection	Weight [g]	Part No.	Type		
5/3-way mid-position valve, normally closed								
	External	24 V DC	G¼	280	170 248	CPE18-M1H-5/3GS-¼		
			QS-8	–	170 254	CPE18-M1H-5/3GS-QS-8		
			QS-10	–	170 260	CPE18-M1H-5/3GS-QS-10		
		110 V AC	External	24 V DC	G¼	280	170 284	CPE18-M2H-5/3GS-¼
					QS-8	–	170 290	CPE18-M2H-5/3GS-QS-8
					QS-10	–	170 296	CPE18-M2H-5/3GS-QS10
		230 V AC	External	24 V DC	G¼	280	170 320	CPE18-M3H-5/3GS-¼
					QS-8	–	170 326	CPE18-M3H-5/3GS-QS-8
					QS-10	–	170 332	CPE18-M3H-5/3GS-QS10
5/3-way mid-position valve, normally exhausted								
	External	24 V DC	G¼	280	170 250	CPE18-M1H-5/3ES-¼		
			QS-8	–	170 256	CPE18-M1H-5/3ES-QS-8		
			QS-10	–	170 262	CPE18-M1H-5/3ES-QS-10		
		110 V AC	External	24 V DC	G¼	280	170 286	CPE18-M2H-5/3ES-¼
					QS-8	–	170 292	CPE18-M2H-5/3ES-QS-8
					QS-10	–	170 298	CPE18-M2H-5/3ES-QS10
		230 V AC	External	24 V DC	G¼	280	170 322	CPE18-M3H-5/3ES-¼
					QS-8	–	170 328	CPE18-M3H-5/3ES-QS-8
					QS-10	–	170 334	CPE18-M3H-5/3ES-QS10
5/3-way mid-position valve, normally open								
	External	24 V DC	G¼	280	170 252	CPE18-M1H-5/3BS-¼		
			QS-8	–	170 258	CPE18-M1H-5/3BS-QS-8		
			QS-10	–	170 264	CPE18-M1H-5/3BS-QS-10		
		110 V AC	External	24 V DC	G¼	280	170 288	CPE18-M2H-5/3BS-¼
					QS-8	–	170 294	CPE18-M2H-5/3BS-QS-8
					QS-10	–	170 300	CPE18-M2H-5/3BS-QS-10
		230 V AC	External	24 V DC	G¼	280	170 324	CPE18-M3H-5/3BS-¼
					QS-8	–	170 330	CPE18-M3H-5/3BS-QS-8
					QS-10	–	170 336	CPE18-M3H-5/3BS-QS-10

Basic Valves CPE18

Technical data – Directional control valves without pilot valve

Materials

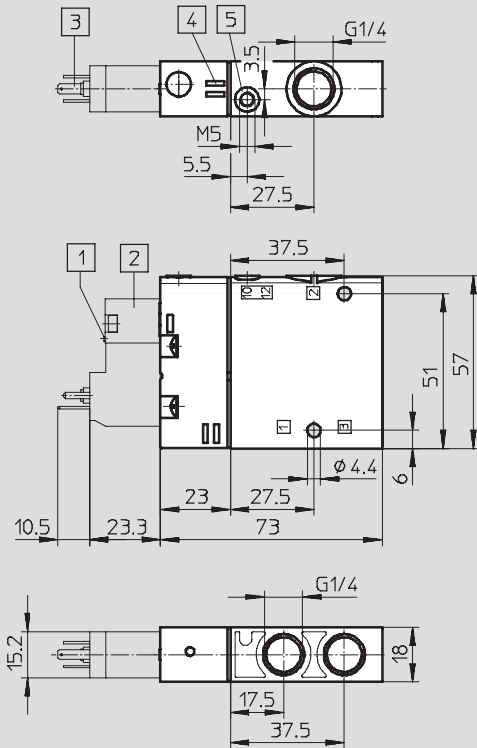
Sectional view



1	Cover	Polyamide	3	Piston spool	Steel
2	Housing	Die-cast aluminum	-	Seals	Nitrile rubber

Dimensions – 3/2-way valve

Download CAD Data → www.festo.com/us/cad



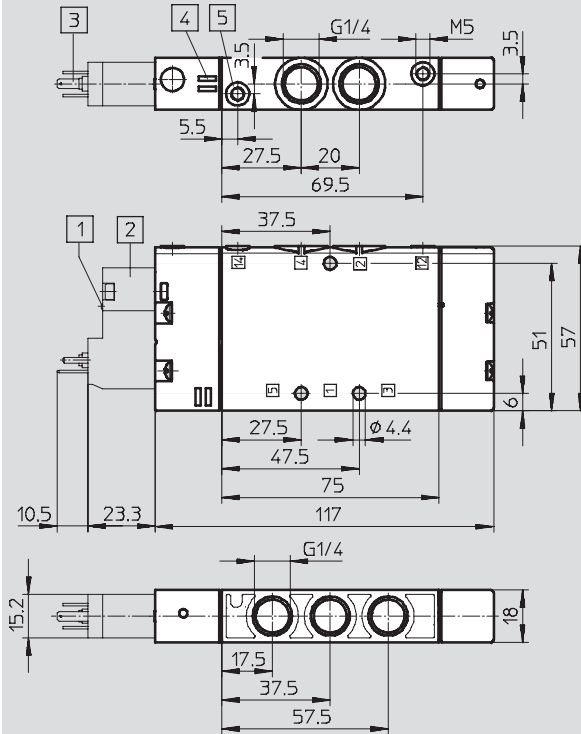
- 1 Manual override, non-detenting
- 2 Pilot valve with plug pattern to DIN EN 175301-803 type C
- 3 Pin only available for solenoid valve with 110 and 230 V (protective earth conductor)
- 4 Location for inscription label
- 5 Port 10/12 for external pilot air

Basic Valves CPE18

Technical data – Directional control valves without pilot valve

Dimensions – 5/2-way valve

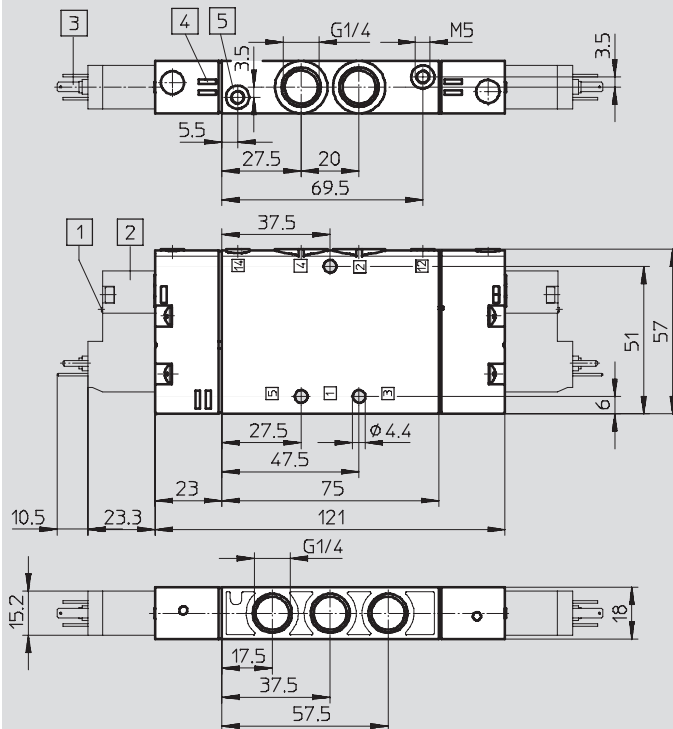
Download CAD Data → www.festo.com/us/cad



- 1 Manual override, non-detenting
- 2 Pilot valve with plug pattern to DIN EN 175301-803 type C
- 3 Pin only available for solenoid valve with 110 and 230 V (protective earth conductor)
- 4 Location for inscription label
- 5 Port 10/12 for external pilot air

Dimensions – 5/2-way double solenoid valve

Download CAD Data → www.festo.com/us/cad



- 1 Manual override, non-detenting
- 2 Pilot valve with plug pattern to DIN EN 175301-803 type C
- 3 Pin only available for solenoid valve with 110 and 230 V (protective earth conductor)
- 4 Location for inscription label
- 5 Port 10/12 for external pilot air

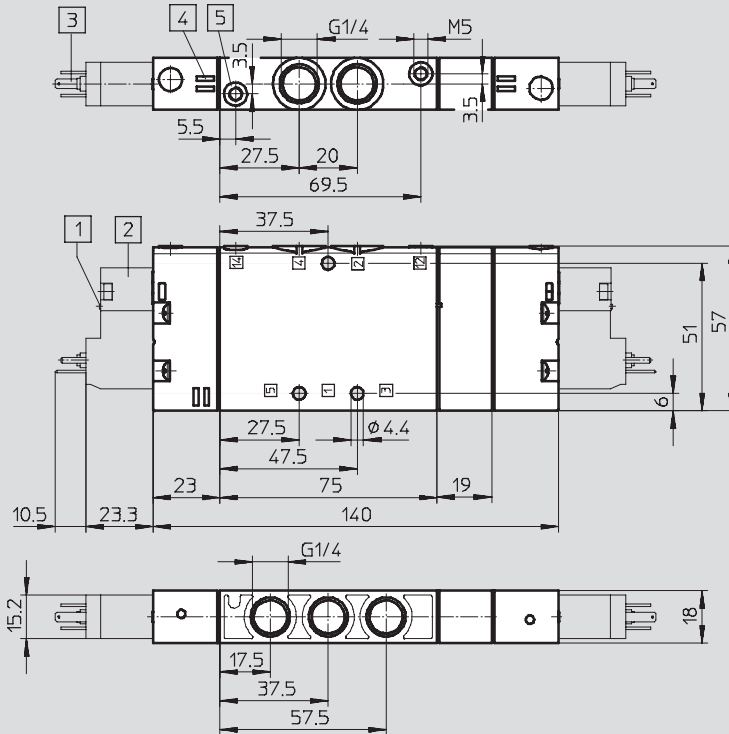
Basic Valves CPE18

Technical data – Directional control valves without pilot valve



Dimensions – 5/3-way valve

Download CAD Data → www.festo.com/us/cad

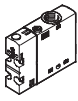


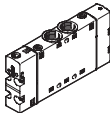
- 1 Manual override, non-detenting
- 2 Pilot valve with plug pattern to DIN EN 175301-803 type C
- 3 Pin only available for solenoid valve with 110 and 230 V (protective earth conductor)
- 4 Location for inscription label
- 5 Port 10/12 for external pilot air

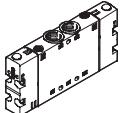
Basic Valves CPE18

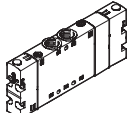
Ordering data






Ordering data – 3/2-way valve without pilot valve					
Design	Normal position	Pilot air supply	Weight [g]	Part No.	Type
	Closed	Internal	110	550 163	CPE18-P1-3GL-1/4
	Open			550 165	CPE18-P1-3OL-1/4
	Closed	External		550 164	CPE18-P1-3GLS-1/4
	Open			550 166	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	550 153	CPE18-P1-5L-1/4
		External		550 154	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	550 155	CPE18-P1-5J-1/4
		External		550 156	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	550 157	CPE18-P1-5/3G-1/4
	Open			550 158	CPE18-P1-5/3E-1/4
	Exhausted			550 159	CPE18-P1-5/3B-1/4
	Closed	External		550 160	CPE18-P1-5/3GS-1/4
	Open			550 161	CPE18-P1-5/3ES-1/4
	Exhausted			550 162	CPE18-P1-5/3BS-1/4

Ordering data – Pilot valve to ISO 15218								
Design	Plug, square design	Protective earth conductor	Output		Voltage		Part No.	Type
			[W]	[VA]	[V DC]	[V AC]		
	DIN EN 175301-803, type C	No	1.8	–	24	–	546 256	VSCS-B-M32-MH-WA-1C1
		No	1.8	–	12	–	546 257	VSCS-B-M32-MH-WA-5C1
	DIN EN 175301-803, type C	Yes	–	2.1	–	230	546 260	VSCS-B-M32-MH-WA-3AC1
		Yes	–	2.1	–	110	546 259	VSCS-B-M32-MH-WA-2AC1
		No	–	2.3	–	24	546 258	VSCS-B-M32-MH-WA-1AC1

Solenoid Valves CPE24

Technical data

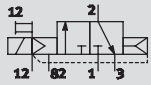
Functions:

3/2G, 3/2O

5/2-way single solenoid

5/2-way double solenoid

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



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

Width: 24 mm

Flow rate: 1,250 ... 3,200 l/min

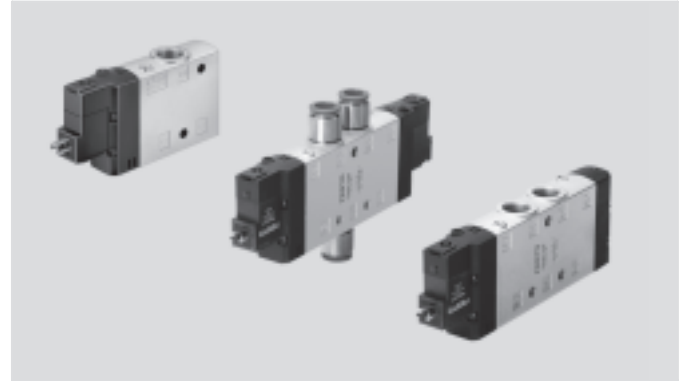
Voltage for

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⁾		
Memory stability		Single			Double		Single		
Pneumatic spring reset method		Yes			–		No		
Mechanical spring reset method		No			–		Yes		
Design		Piston spool							
Sealing principle		Soft							
Actuation type		Electric							
Control type		Piloted							
Pilot air supply		Internal or external							
Direction of flow		Reversible for external pilot air supply							
Exhaust function		Flow control							
Manual override		Non-detenting, detenting via accessory							
Type of mounting		Using through holes							
Mounting position		Any							
Pneumatic connection		1, 2, 4	Threaded connection: G ^{3/8} ; QS connection: Ø 10 or Ø 12 mm						
		3, 5	Threaded connection: G ^{3/8}						
		12, 14	Threaded connection: M5; QS connection: Ø 6						
		82, 84	Threaded connection: M5						
Nominal diameter		[mm]	11						
Standard nominal flow rate		G ^{1/4}	[l/min]	2,500	2,900	3,200	3,000	2,600	2,650
Standard nominal flow rate		QS8	[l/min]	1,250			1,600		
Standard nominal flow rate		QS10	[l/min]	1,650					
Switching time on/off		[ms]	50/33	40/50	–	25/55			
Changeover time		[ms]	–	25		–			
Duty cycle		[%]	100						
Width		[mm]	24						
Corrosion resistance class		CRC	2 ⁴⁾						

1) G = Normally closed

2) O, B = Normally open

3) E = Normally exhausted

4) Corrosion resistance class 2 as per Festo standard 940 070

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

Solenoid Valves CPE24

Technical data

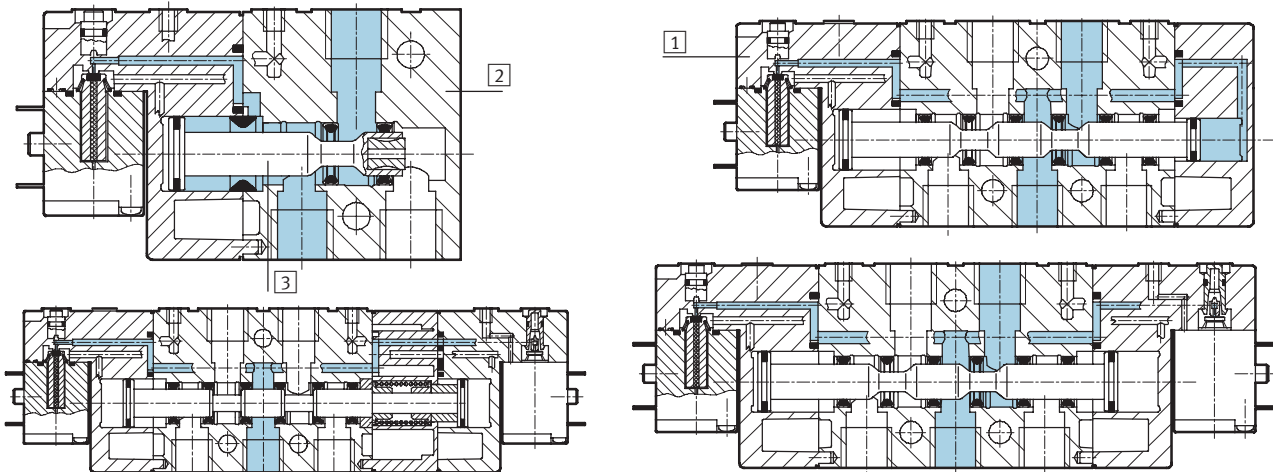
FESTO

Operating and environmental conditions					
Valve function		3/2	5/2 single	5/2 double	5/3
Operating medium		Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm, vacuum			
Operating pressure	Internal pilot air supply [bar]	2.5 ... 10		2 ... 10	2.5 ... 10
	External pilot air supply [bar]	-0.9 ... +10			
Pilot pressure [bar]		2.5 ... 10		2 ... 10	2.5 ... 10
Ambient temperature [°C]		-5 ... +50			
Temperature of medium [°C]		-5 ... +50			
Certification		c UL us - Recognised (OL), Germanischer Lloyd			

Electrical data			
Operating voltage	M1H	[V DC]	24 +10/-15%
	M2H	[V AC]	110 ±10% at 50 ... 60 Hz
	M3H	[V AC]	230 ±10% at 50 ... 60 Hz
Power consumption	M1H	[W]	1.5
	M2H, M3H	[VA]	Pull: 3, hold: 2,4
Protection class with plug socket		IP65 (EN 60529)	

Materials

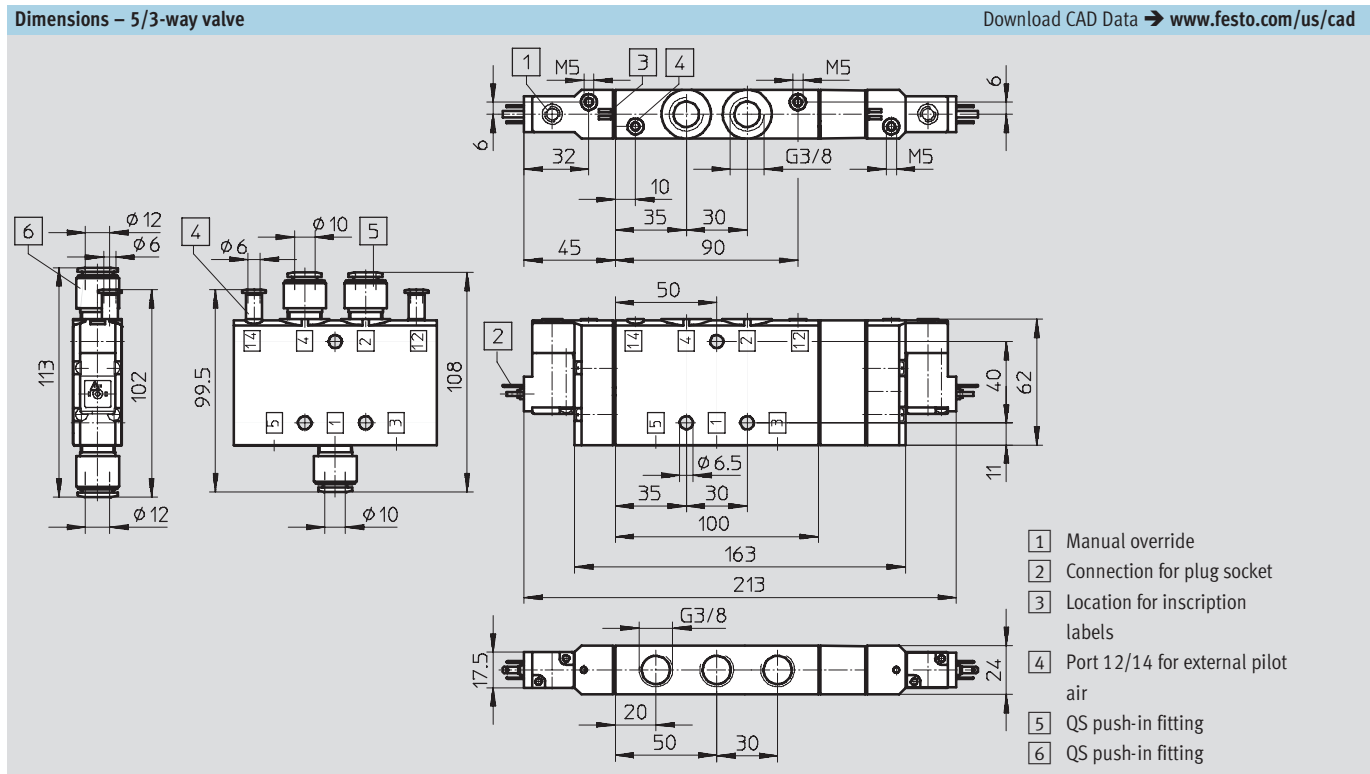
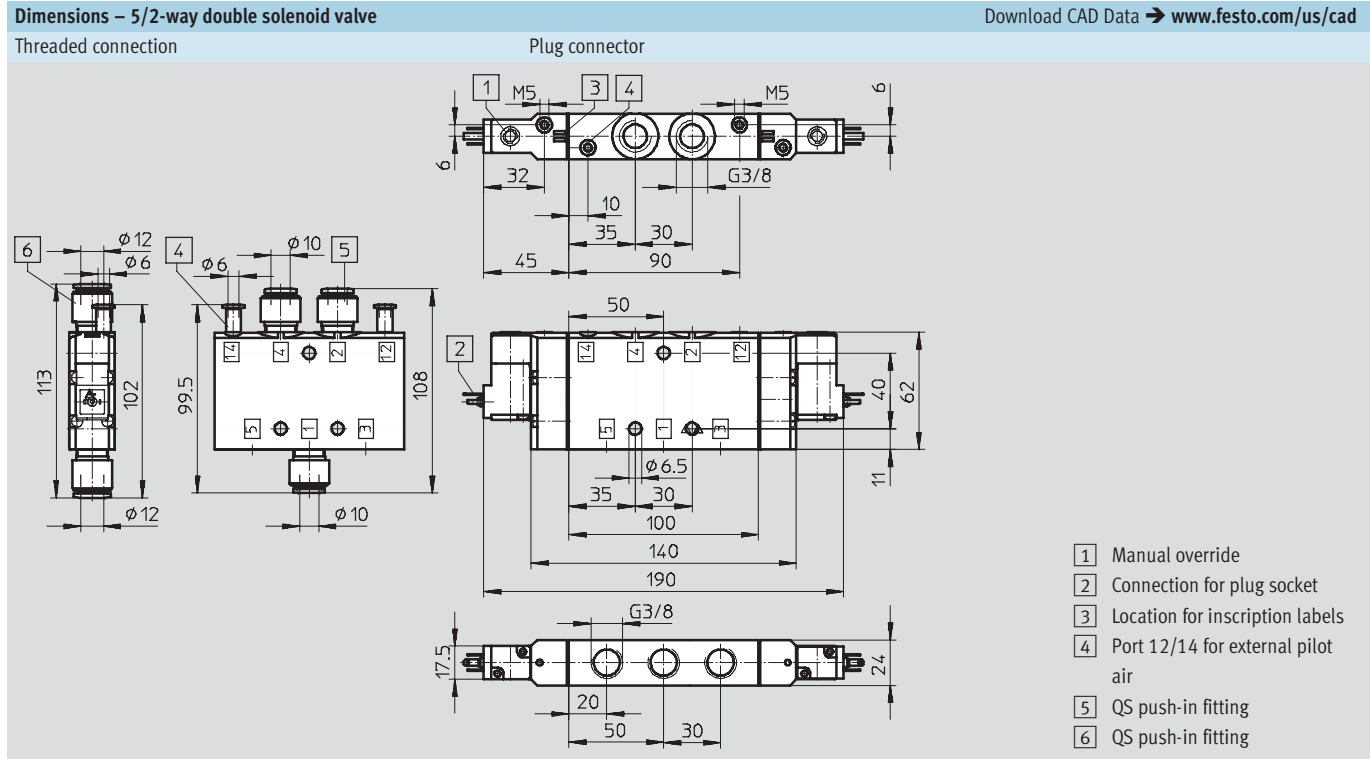
Sectional view



1	Cover	Polyamide	3	Piston spool	Steel
2	Housing	Die-cast aluminum	-	Seals	Nitrile rubber

Solenoid Valves CPE24

Technical data



Solenoid Valves CPE24

Ordering data – 3/2-way valve

FESTO

Ordering data						
Circuit symbol	Pilot air supply	Voltage	Connection	Weight [g]	Part No.	Type
Normally closed						
	Internal	24 V DC	G $\frac{3}{8}$	220	163 165	CPE24-M1H-3GL- $\frac{3}{8}$
			QS-10	–	163 173	CPE24-M1H-3GL-QS-10
			QS-12	–	163 181	CPE24-M1H-3GL-QS-12
		110 V AC	G $\frac{3}{8}$	220	163 809	CPE24-M2H-3GL- $\frac{3}{8}$
				–	163 817	CPE24-M2H-3GL-QS-10
				–	163 825	CPE24-M2H-3GL-QS-12
		230 V AC	G $\frac{3}{8}$	220	163 833	CPE24-M3H-3GL- $\frac{3}{8}$
				–	163 841	CPE24-M3H-3GL-QS-10
				–	163 849	CPE24-M3H-3GL-QS-12
Normally open						
	Internal	24 V DC	G $\frac{3}{8}$	220	163 164	CPE24-M1H-3OL- $\frac{3}{8}$
			QS-10	–	163 172	CPE24-M1H-3OL-QS-10
			QS-12	–	163 180	CPE24-M1H-3OL-QS-12
		110 V AC	G $\frac{3}{8}$	220	163 808	CPE24-M2H-3OL- $\frac{3}{8}$
				–	163 816	CPE24-M2H-3OL-QS-10
				–	163 824	CPE24-M2H-3OL-QS-12
		230 V AC	G $\frac{3}{8}$	220	163 832	CPE24-M3H-3OL- $\frac{3}{8}$
				–	163 840	CPE24-M3H-3OL-QS-10
				–	163 848	CPE24-M3H-3OL-QS-12
Normally closed						
	External	24 V DC	G $\frac{3}{8}$	220	163 169	CPE24-M1H-3GLS- $\frac{3}{8}$
			QS-10	–	163 177	CPE24-M1H-3GLS-QS-10
			QS-12	–	163 185	CPE24-M1H-3GLS-QS-12
		110 V AC	G $\frac{3}{8}$	220	163 813	CPE24-M2H-3GLS- $\frac{3}{8}$
				–	163 821	CPE24-M2H-3GLS-QS-10
				–	163 829	CPE24-M2H-3GLS-QS-12
		230 V AC	G $\frac{3}{8}$	220	163 837	CPE24-M3H-3GLS- $\frac{3}{8}$
				–	163 845	CPE24-M3H-3GLS-QS-10
				–	163 853	CPE24-M3H-3GLS-QS-12
Normally open						
	External	24 V DC	G $\frac{3}{8}$	220	163 168	CPE24-M1H-3OLS- $\frac{3}{8}$
			QS-10	–	163 176	CPE24-M1H-3OLS-QS-10
			QS-12	–	163 184	CPE24-M1H-3OLS-QS-12
		110 V AC	G $\frac{3}{8}$	220	163 812	CPE24-M2H-3OLS- $\frac{3}{8}$
				–	163 820	CPE24-M2H-3OLS-QS-10
				–	163 828	CPE24-M2H-3OLS-QS-12
		230 V AC	G $\frac{3}{8}$	220	163 836	CPE24-M3H-3OLS- $\frac{3}{8}$
				–	163 844	CPE24-M3H-3OLS-QS-10
				–	163 852	CPE24-M3H-3OLS-QS-12

Solenoid Valves CPE24

Ordering data – 5/2-way valve

FESTO

Ordering data						
Circuit symbol	Pilot air supply	Voltage	Connection	Weight [g]	Part No.	Type
5/2-way single solenoid valve						
	Internal	24 V DC	G $\frac{3}{8}$	360	163 166	CPE24-M1H-5L- $\frac{3}{8}$
			QS-10	–	163 174	CPE24-M1H-5L-QS-10
			QS-12	–	163 182	CPE24-M1H-5L-QS-12
		110 V AC	G $\frac{3}{8}$	360	163 810	CPE24-M2H-5L- $\frac{3}{8}$
			QS-10	–	163 818	CPE24-M2H-5L-QS-10
			QS-12	–	163 826	CPE24-M2H-5L-QS-12
		230 V AC	G $\frac{3}{8}$	360	163 834	CPE24-M3H-5L- $\frac{3}{8}$
			QS-10	–	163 842	CPE24-M3H-5L-QS-10
			QS-12	–	163 850	CPE24-M3H-5L-QS-12
5/2-way double solenoid valve						
	Internal	24 V DC	G $\frac{3}{8}$	390	163 167	CPE24-M1H-5J- $\frac{3}{8}$
			QS-10	–	163 175	CPE24-M1H-5J-QS-10
			QS-12	–	163 183	CPE24-M1H-5J-QS-12
		110 V AC	G $\frac{3}{8}$	390	163 811	CPE24-M2H-5J- $\frac{3}{8}$
			QS-10	–	163 819	CPE24-M2H-5J-QS-10
			QS-12	–	163 827	CPE24-M2H-5J-QS-12
		230 V AC	G $\frac{3}{8}$	390	163 835	CPE24-M3H-5J- $\frac{3}{8}$
			QS-10	–	163 843	CPE24-M3H-5J-QS-10
			QS-12	–	163 851	CPE24-M3H-5J-QS-12
5/2-way single solenoid valve						
	External	24 V DC	G $\frac{3}{8}$	360	163 170	CPE24-M1H-5LS- $\frac{3}{8}$
			QS-10	–	163 178	CPE24-M1H-5LS-QS-10
			QS-12	–	163 186	CPE24-M1H-5LS-QS-12
		110 V AC	G $\frac{3}{8}$	360	163 814	CPE24-M2H-5LS- $\frac{3}{8}$
			QS-10	–	163 822	CPE24-M2H-5LS-QS-10
			QS-12	–	163 830	CPE24-M2H-5LS-QS-12
		230 V AC	G $\frac{3}{8}$	360	163 838	CPE24-M3H-5LS- $\frac{3}{8}$
			QS-10	–	163 846	CPE24-M3H-5LS-QS-10
			QS-12	–	163 854	CPE24-M3H-5LS-QS-12
5/2-way double solenoid valve						
	External	24 V DC	G $\frac{3}{8}$	390	163 171	CPE24-M1H-5JS- $\frac{3}{8}$
			QS-10	–	163 179	CPE24-M1H-5JS-QS-10
			QS-12	–	163 187	CPE24-M1H-5JS-QS-12
		110 V AC	G $\frac{3}{8}$	390	163 815	CPE24-M2H-5JS- $\frac{3}{8}$
			QS-10	–	163 823	CPE24-M2H-5JS-QS-10
			QS-12	–	163 831	CPE24-M2H-5JS-QS-12
		230 V AC	G $\frac{3}{8}$	390	163 839	CPE24-M3H-5JS- $\frac{3}{8}$
			QS-10	–	163 847	CPE24-M3H-5JS-QS-10
			QS-12	–	163 855	CPE24-M3H-5JS-QS-12

Solenoid Valves CPE24

Ordering data – 5/3-way valve



Ordering data							
Circuit symbol	Pilot air supply	Voltage	Connection	Weight [g]	Part No.	Type	
5/3-way mid-position valve, normally closed							
	Internal	24 V DC	G $\frac{3}{8}$	430	170 265	CPE24-M1H-5/3G- $\frac{3}{8}$	
			QS-10	–	170 271	CPE24-M1H-5/3G-QS-10	
			QS-12	–	170 277	CPE24-M1H-5/3G-QS-12	
		110 V AC	Internal	G $\frac{3}{8}$	430	170 301	CPE24-M2H-5/3G- $\frac{3}{8}$
				QS-10	–	170 307	CPE24-M2H-5/3G-QS-10
				QS-12	–	170 313	CPE24-M2H-5/3G-QS-12
		230 V AC	Internal	G $\frac{3}{8}$	430	170 337	CPE24-M3H-5/3G- $\frac{3}{8}$
				QS-10	–	170 343	CPE24-M3H-5/3G-QS-10
				QS-12	–	170 349	CPE24-M3H-5/3G-QS-12
5/3-way mid-position valve, normally exhausted							
	Internal	24 V DC	G $\frac{3}{8}$	430	170 267	CPE24-M1H-5/3E- $\frac{3}{8}$	
			QS-10	–	170 273	CPE24-M1H-5/3E-QS-10	
			QS-12	–	170 279	CPE24-M1H-5/3E-QS-12	
		110 V AC	Internal	G $\frac{3}{8}$	430	170 303	CPE24-M2H-5/3E- $\frac{3}{8}$
				QS-10	–	170 309	CPE24-M2H-5/3E-QS-10
				QS-12	–	170 315	CPE24-M2H-5/3E-QS-12
		230 V AC	Internal	G $\frac{3}{8}$	430	170 339	CPE24-M3H-5/3E- $\frac{3}{8}$
				QS-10	–	170 345	CPE24-M3H-5/3E-QS-10
				QS-12	–	170 351	CPE24-M3H-5/3E-QS-12
5/3-way mid-position valve, normally open							
	Internal	24 V DC	G $\frac{3}{8}$	430	170 269	CPE24-M1H-5/3B- $\frac{3}{8}$	
			QS-10	–	170 275	CPE24-M1H-5/3B-QS-10	
			QS-12	–	170 281	CPE24-M1H-5/3B-QS-12	
		110 V AC	Internal	G $\frac{3}{8}$	430	170 305	CPE24-M2H-5/3B- $\frac{3}{8}$
				QS-10	–	170 311	CPE24-M2H-5/3B-QS-10
				QS-12	–	170 317	CPE24-M2H-5/3B-QS-12
		230 V AC	Internal	G $\frac{3}{8}$	430	170 341	CPE24-M3H-5/3B- $\frac{3}{8}$
				QS-10	–	170 347	CPE24-M3H-5/3B-QS-10
				QS-12	–	170 353	CPE24-M3H-5/3B-QS-12

Solenoid Valves CPE24

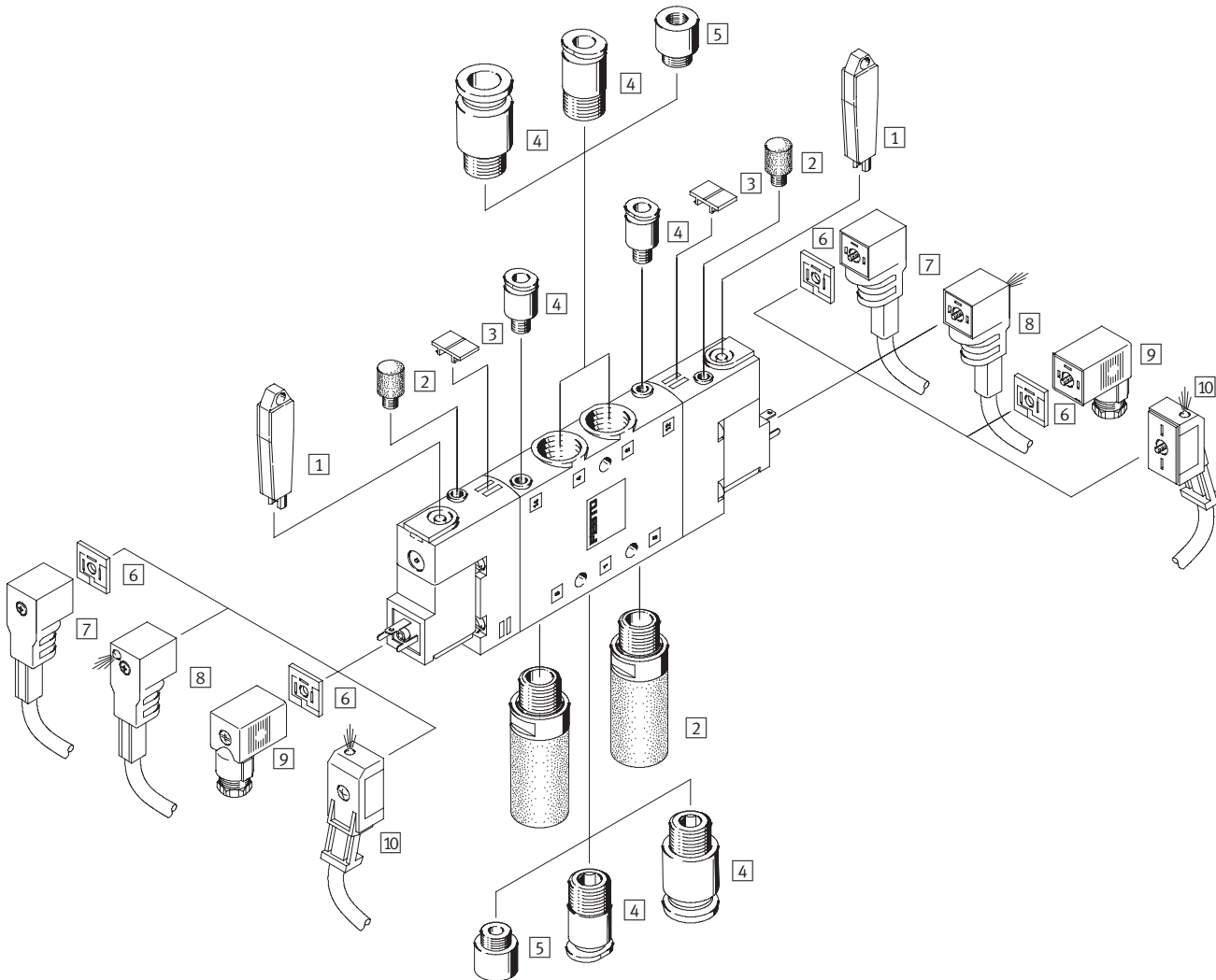
Ordering data – 5/3-way valve

Ordering data – 5/3-way valve						
Circuit symbol	Pilot air supply	Voltage	Connection	Weight [g]	Part No.	Type
5/3-way mid-position valve, normally closed						
	External	24 V DC	G $\frac{3}{8}$	430	170 266	CPE24-M1H-5/3GS- $\frac{3}{8}$
			QS-10	–	170 272	CPE24-M1H-5/3GS-QS-10
			QS-12	–	170 278	CPE24-M1H-5/3GS-QS-12
		110 V AC	G $\frac{3}{8}$	430	170 302	CPE24-M2H-5/3GS- $\frac{3}{8}$
				–	170 308	CPE24-M2H-5/3GS-QS-10
				–	170 314	CPE24-M2H-5/3GS-QS-12
		230 V AC	G $\frac{3}{8}$	430	170 338	CPE24-M3H-5/3GS- $\frac{3}{8}$
				–	170 344	CPE24-M3H-5/3GS-QS-10
				–	170 350	CPE24-M3H-5/3GS-QS-12
5/3-way mid-position valve, normally exhausted						
	External	24 V DC	G $\frac{3}{8}$	430	170 268	CPE24-M1H-5/3ES- $\frac{3}{8}$
			QS-10	–	170 274	CPE24-M1H-5/3ES-QS-10
			QS-12	–	170 280	CPE24-M1H-5/3ES-QS-12
		110 V AC	G $\frac{3}{8}$	430	170 304	CPE24-M2H-5/3ES- $\frac{3}{8}$
				–	170 310	CPE24-M2H-5/3ES-QS-10
				–	170 316	CPE24-M2H-5/3ES-QS-12
		230 V AC	G $\frac{3}{8}$	430	170 340	CPE24-M3H-5/3ES- $\frac{3}{8}$
				–	170 346	CPE24-M3H-5/3ES-QS-10
				–	170 352	CPE24-M3H-5/3ES-QS-12
5/3-way mid-position valve, normally open						
	External	24 V DC	G $\frac{3}{8}$	430	170 270	CPE24-M1H-5/3BS- $\frac{3}{8}$
			QS-10	–	170 276	CPE24-M1H-5/3BS-QS-10
			QS-12	–	170 282	CPE24-M1H-5/3BS-QS-12
		110 V AC	G $\frac{3}{8}$	430	170 306	CPE24-M2H-5/3BS- $\frac{3}{8}$
				–	170 312	CPE24-M2H-5/3BS-QS-10
				–	170 318	CPE24-M2H-5/3BS-QS-12
		230 V AC	G $\frac{3}{8}$	430	170 342	CPE24-M3H-5/3BS- $\frac{3}{8}$
				–	170 348	CPE24-M3H-5/3BS-QS-10
				–	170 354	CPE24-M3H-5/3BS-QS-12

Solenoid Valves CPE

Peripherals overview

Individual valve



Accessories – Individual valve

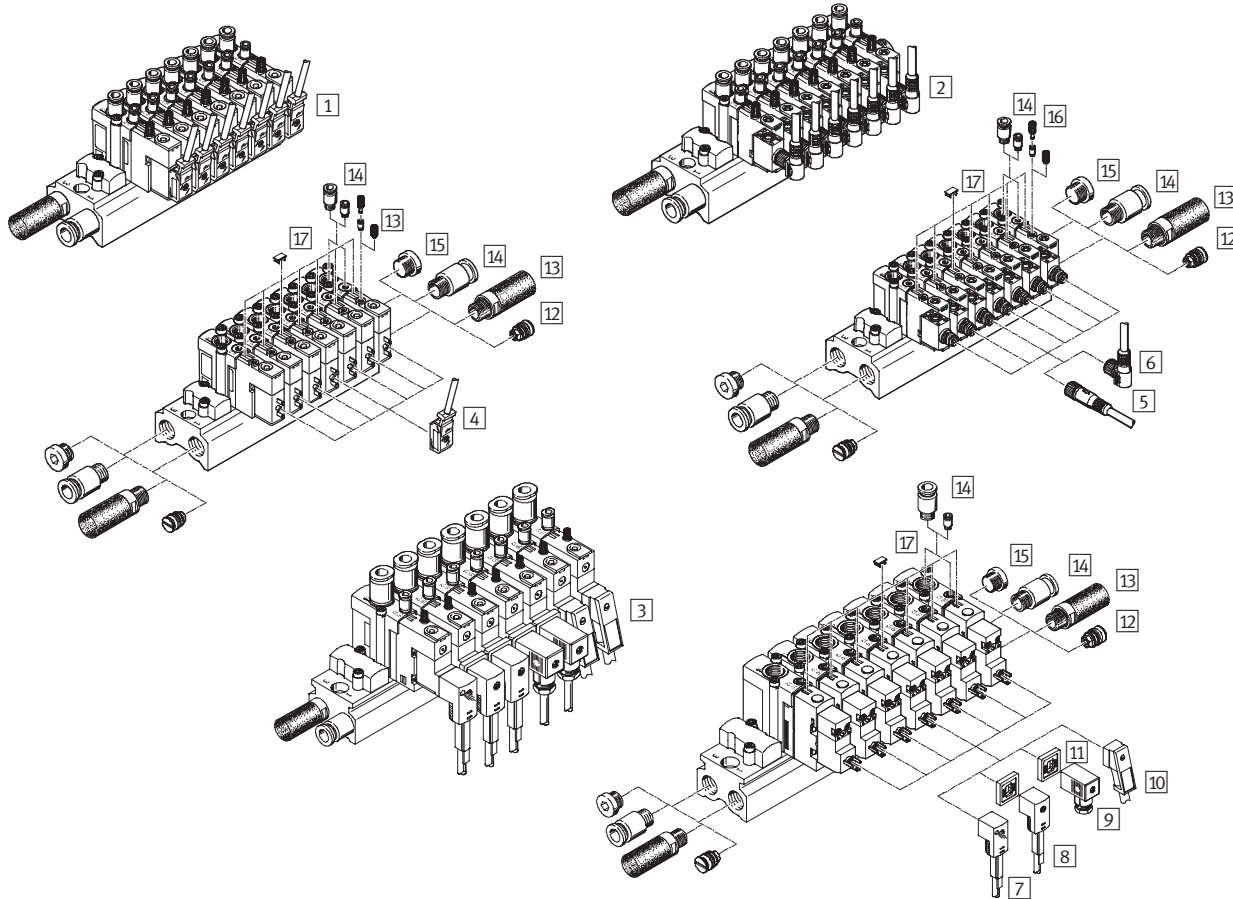
	Type	Brief description	CPE10	CPE14	CPE18	CPE24	→ Page/Internet
1	Manual override tool	AHB...	■	■	■	■	65
2	Silencer	U... or UC...	■	■	■	■	65
3	Inscription labels	IBS-6x10	■	■	■	■	65
4	Push-in fittings	For inch-sized tubing	■	■	■	■	56, 63
		For metric tubing	■	■	■	■	62
5	M7 to M5 reducer	–	■	–	–	–	–
6	Illuminating seal	MEB...LD	–	–	■	■	64
7	Plug socket with cable	KMEB...	–	–	■	■	64
8	Plug socket with cable	KMEB...	–	–	■	■	64
9	Standard plug socket	MSSD-EB...	–	–	■	■	64
10	Plug socket with cable	KMYZ-9...	■	■	–	–	64

Solenoid Valves CPE

Peripherals overview

FESTO

Fixed-grid manifold assembly – CPE10, CPE14, CPE18



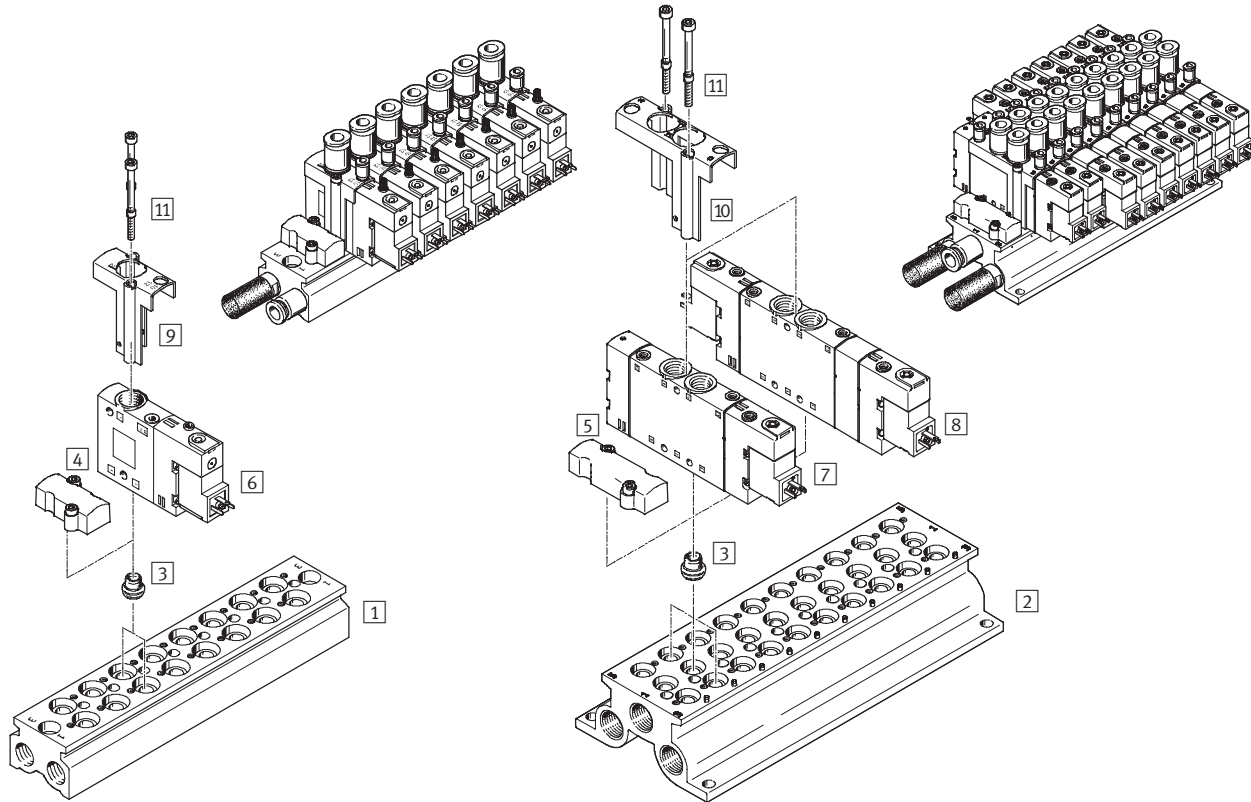
Accessories				
	Type	Brief description	→ Page/Internet	
1	Valve manifold CPE10	CPE10	Equipped with 3/2-way valves with square plug	12
	Valve manifold CPE14	CPE14	Equipped with 3/2-way valves with square plug	19
2	Valve manifold CPE10	CPE10	Equipped with 3/2-way valves with round plug	12
	Valve manifold CPE14	CPE14	Equipped with 3/2-way valves with round plug	19
3	Valve manifold CPE18	CPE18	Equipped with 3/2-way basic valves plus pilot valve with square plug as required	26
4	Plug socket with cable	KMYZ-9...-LED	For CPE10 and CPE14, integrated current reduction and LED	64
5	Plug socket with cable	SIM..., NEBU...	For CPE10 and CPE14 with round plug M8x1, straight	64
6	Plug socket with cable	SIM..., NEBU...	For CPE10 and CPE14 with round plug M8x1, straight	64
7	Plug socket with cable	KMEB-1...-LED	With PVC cable and integrated LED	64
8	Plug socket with cable	KMEB-1...	With PVC cable	64
9	Plug socket	MSSD-EB...	–	64
10	Plug socket with cable	KMEB-2...-LED	With PUR cable and integrated LED	64
11	Illuminating seal	MEB-LD...	For signal display with LED	64
12	Separator	VABD..., PRSV...	For pressure zones in aluminum manifold blocks	65
13	Silencer	U..., UC...	With thread	65
14	Push-in fittings	QS...	For inch-sized tubing	56, 63
			For metric tubing (included in scope of delivery for CPE-...-QS types)	62
15	Blanking plug	B...	–	65
16	Silencer	UC...-H	With push-in sleeve	65
17	Inscription label	IBS...	–	65

Solenoid Valves CPE

System overview

FESTO

Fixed-grid manifold assembly – CPE18



Example of manifold assembly – CPE18

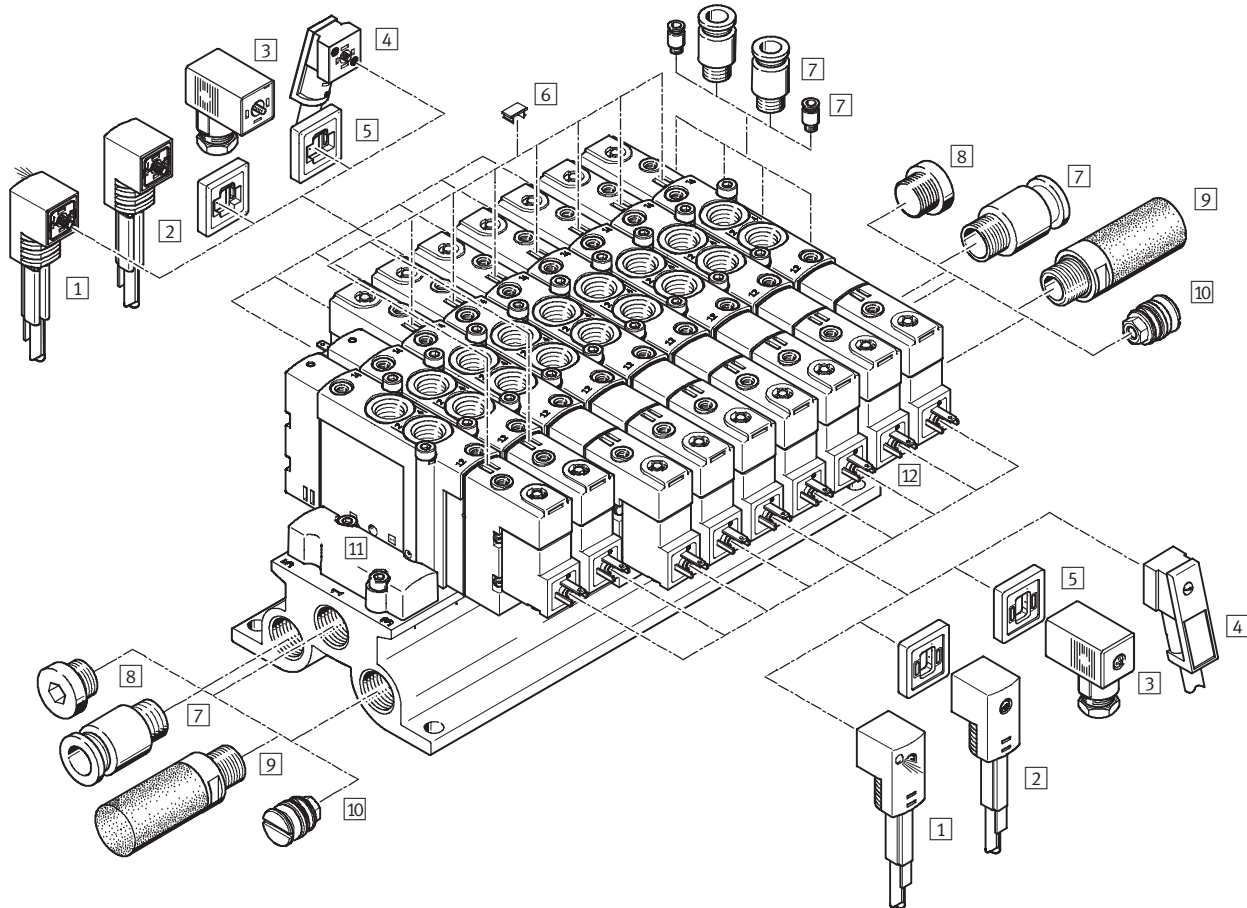
	Type	Brief description	→ Page/Internet
1	Manifold block, inch series	CPE18-3/2-PRS-...-NPT	Manifold block for 3/2-way valves
	Manifold block, metric series	CPE18-3/2-PRS	Manifold block for 3/2-way valves
2	Manifold block, inch series	CPE18-PRS-...-NPT	Manifold block for 5/2 and 5/3-way valves
	Manifold block, metric series	CPE18-PRS	Manifold block for 5/2 and 5/3-way valves
3	Seal ¹⁾	CPV18-VI-P.¼-150	–
4	Blanking plate ¹⁾	CPE18-RP3	Blanking plate for unused/vacant position
5	Blanking plate ¹⁾	CPE18-RP	Blanking plate for unused/vacant position
6	3/2-way valve	CPE18...	–
7	5/2-way valve	CPE18...	–
8	5/3-way valve	CPE18...	–
9	Retainer ¹⁾	CPE18-H3-50	Retainer for 3/2-way valve
10	Retainer ¹⁾	CPE18-H5-50	Retainer for 5/2 and 5/3-way valve
11	Screw ¹⁾	M4X65-8.8-VS-100	–

1) Identical parts for inch and metric series

Solenoid Valves CPE

Peripherals overview

Fixed-grid manifold assembly – CPE10, CPE14, CPE18



Accessories – Mounting on manifold block				
	Type	Brief description	→ Page/Internet	
1	Plug socket with cable	KMEB-1...	With LED for 24 V DC	64
2	Plug socket with cable	KMEB-1...	For 0 ... 230 V AC	64
3	Standard plug socket	MSSD-EB...	–	64
4	Plug socket with cable	KMEB-2...	For 0 ... 230 V AC	64
5	Illuminating seal	MEB-LD...	–	64
6	Inscription label	IBS-6x10	–	65
7	Push-in fittings, inch series	QS...	For inch-sized tubing	56
	Push-in fittings, metric series	QS...	For metric tubing	62
		QS-H...	For inch-sized tubing	63
8	Blanking plug	B...	–	65
9	Silencer	U... or UC...	For fitting on exhaust ports	65
10	Separator for pressure zones	VABD..., PRSV...	For fitting on the manifold block	65
11	Blanking plate ¹⁾	CPE...-RP	For fitting on unused valve positions	55, 61
12	Manifold block	CPE...-PRS-NPT	Inch series	51
		CPE...-PRS	Metric series	57

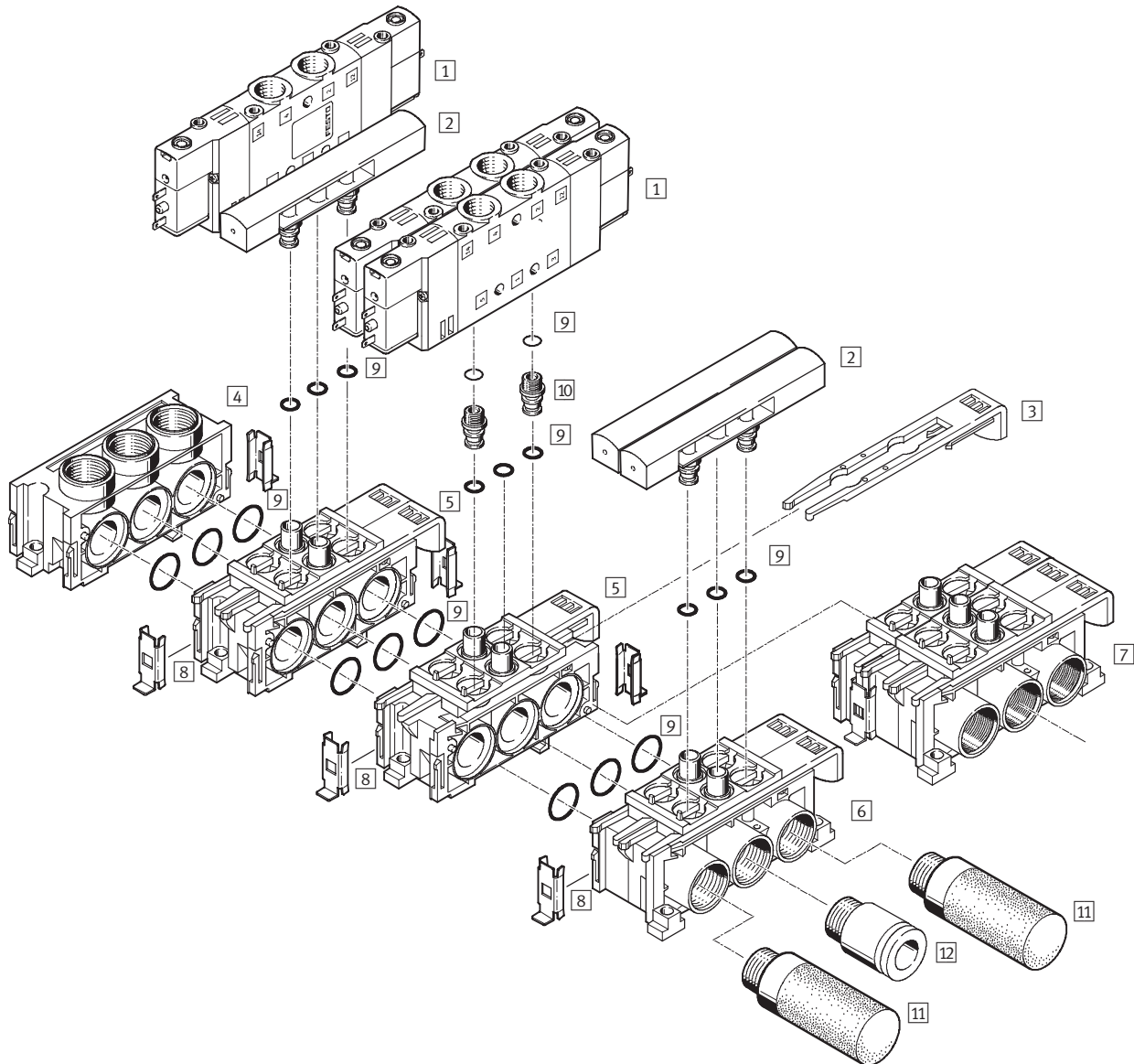
1) Identical parts for inch and metric series

Solenoid Valves CPE

System overview

FESTO

Manifold assembly with modular manifold blocks



Accessories – Manifold assembly				
	Type	Brief description	→ Page/Internet	
1	Solenoid valve	CPE...	–	connector block
2	Blanking plate	CPE...-RP	For sealing vacant positions	
3	Slide	–	For attaching the valve	
4	End plate	CPE...-PRS-EP	–	
5	Expansion block	CPE...-PRSE-2	For 2 valves	
6	Manifold block	CPE...-PRSG-2	For 2 valves	
7	Manifold block	CPE...-PRSG-3	For 3 valves	
8	Connecting piece	–	For connecting the blocks	
9	Seal	–	Included in scope of delivery	
10	Fitting	–	Included in scope of delivery	
11	Silencer	U or UC	–	65
12	Push-in fitting	QS...	For inch-sized and metric tubing	inch: 56, 63 ; metric: 62

Solenoid Valves CPE, Accessories – Inch Series

Technical data – Fixed-grid manifold blocks for 3/2 way valves

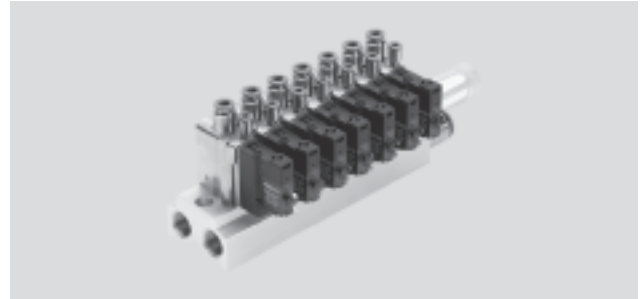
Manifold block CPE...-3/2-PRS-NPT

for 3/2 way valves

Material:

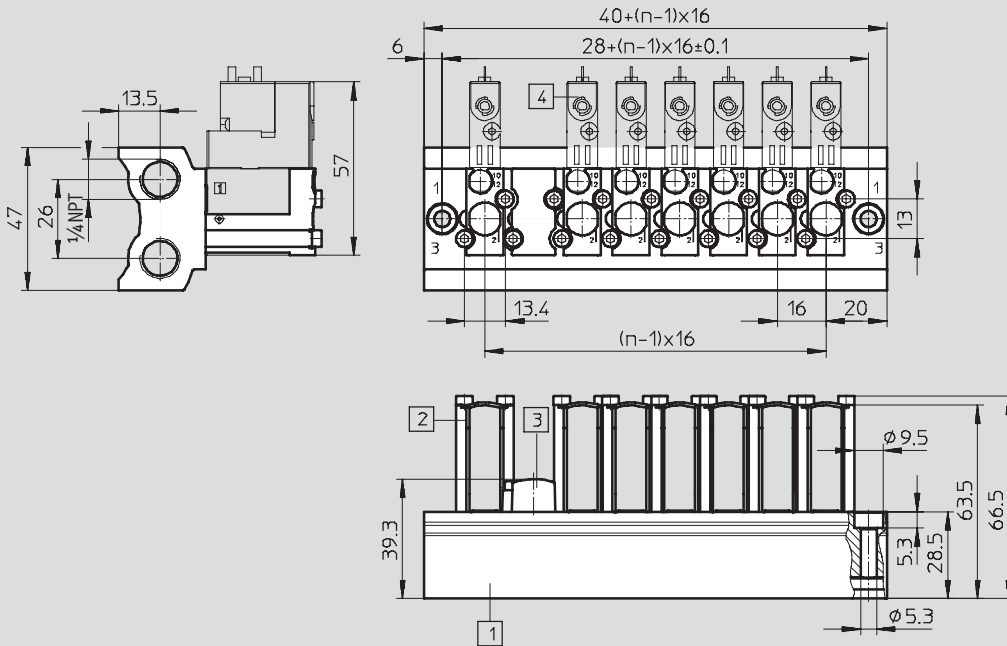
Wrought aluminum alloy

RoHS-compliant



Dimensions¹⁾ – Fixed-grid manifold CPE10

Download CAD Data → www.festo.com/us/cad



1) Manifold block
– Grid dimension 16 mm

2) Retainer

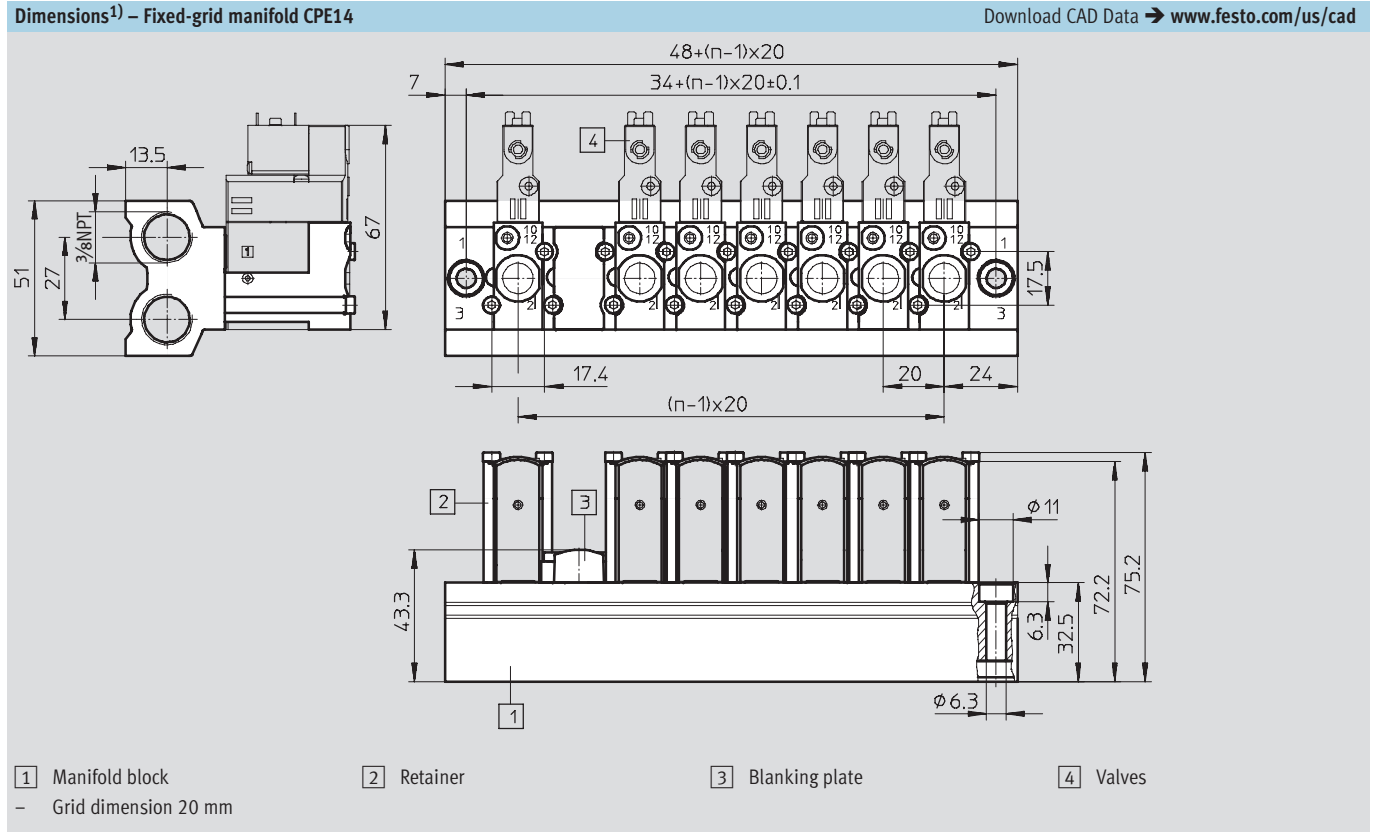
3) Blanking plate

4) Valves

1) Dimensions are in millimeters, unless otherwise noted.

Solenoid Valves CPE, Accessories – Inch Series

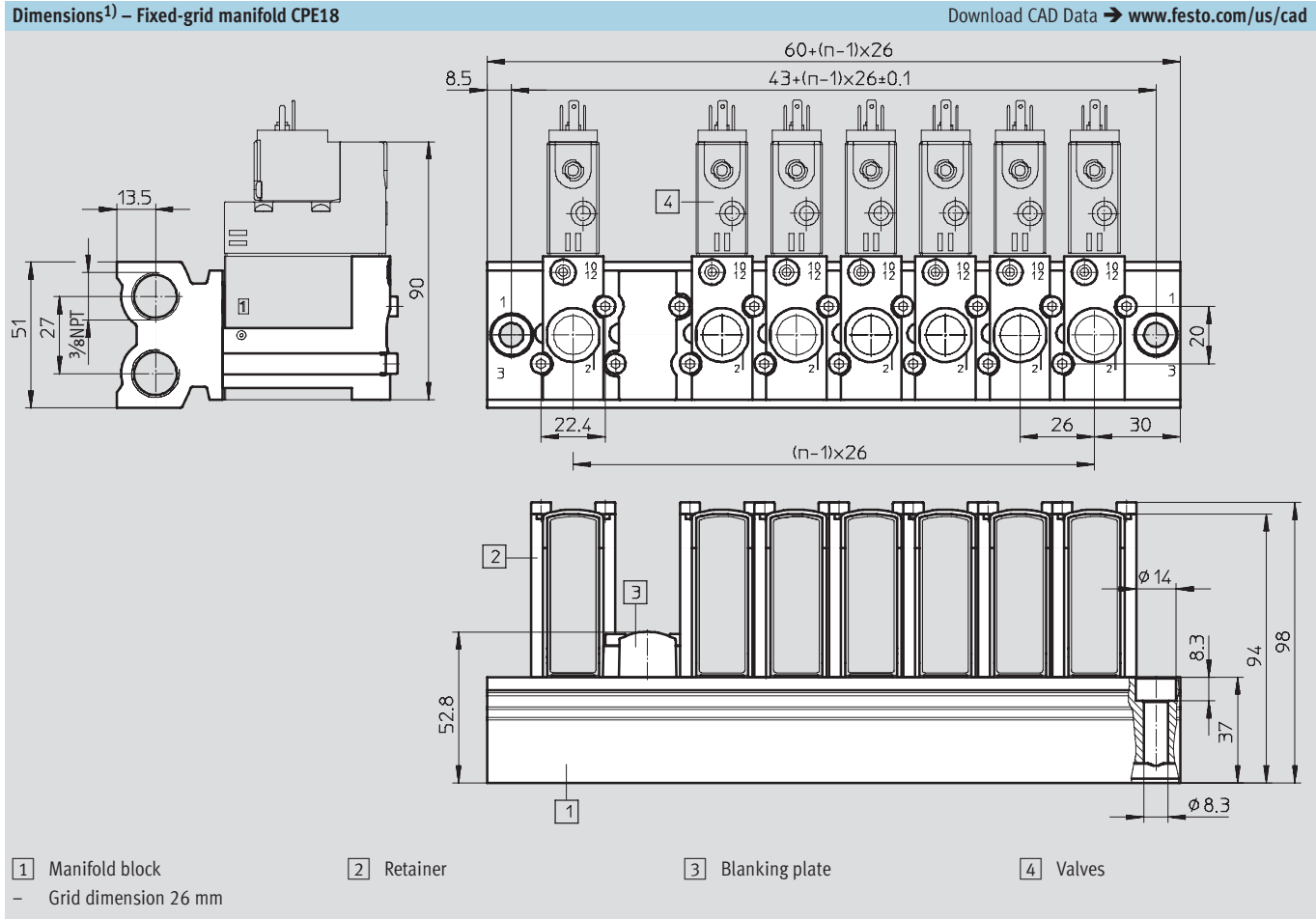
Technical data – Fixed-grid manifold blocks for 3/2 way valves



1) Dimensions are in millimeters, unless otherwise noted.

Solenoid Valves CPE, Accessories – Inch Series

Technical data – Fixed-grid manifold blocks for 3/2 way valves



1) Dimensions are in millimeters, unless otherwise noted.

Solenoid Valves CPE, Accessories – Inch Series

Technical data – Fixed-grid manifold blocks for 5/2 and 5/3 way valves

Manifold block CPE...-PRS-NPT

for 5/2 and 5/3 way valves

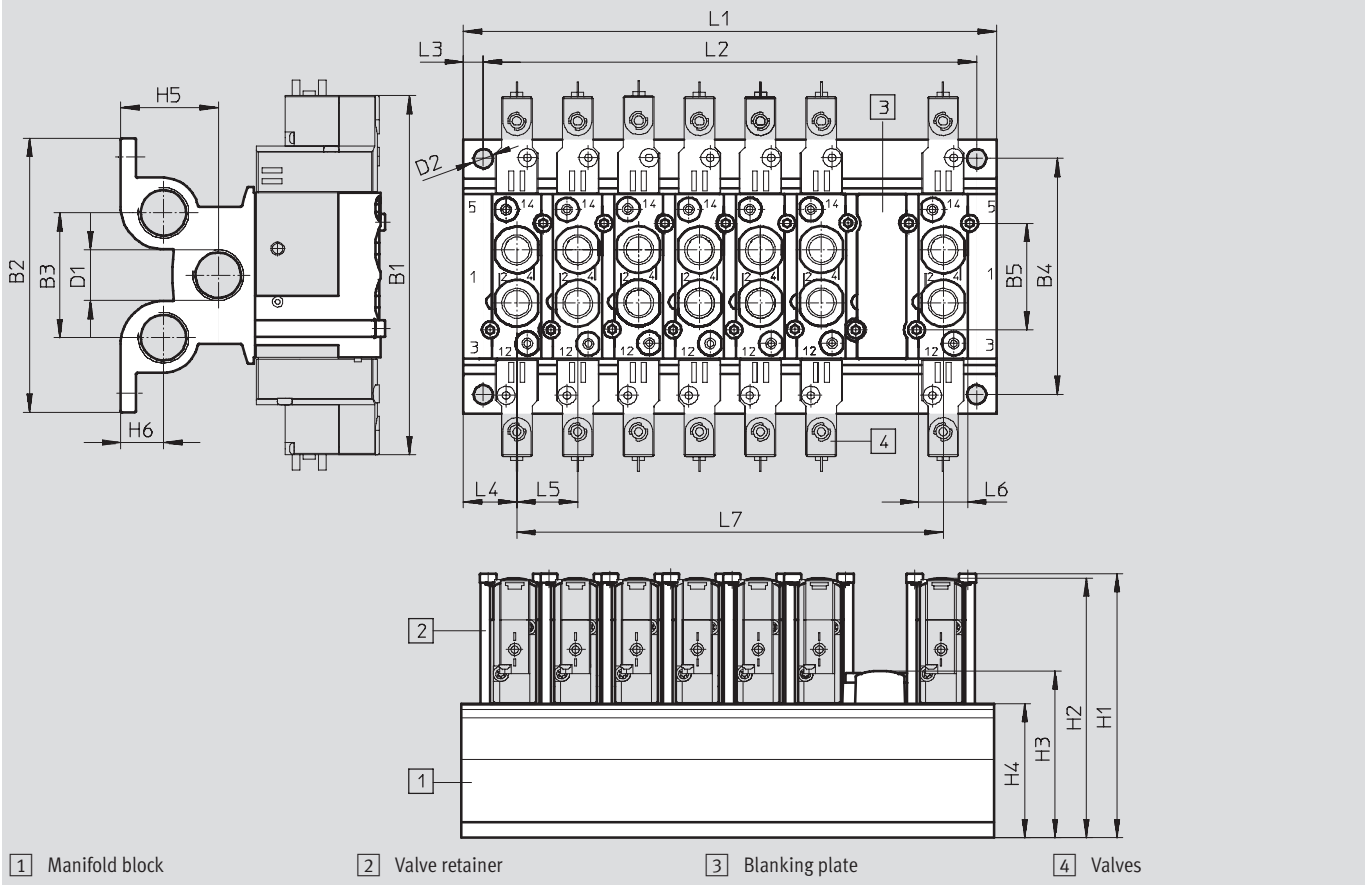
Material:

Wrought aluminum alloy



Dimensions¹⁾

Download CAD Data → www.festo.com/us/cad



Type	B1	B2	B3	B4	B5	D1	D2	H1	H2	H3	H4	H5
CPE10-PRS...	103	79	35	67.5	26	1/4 NPT	5.3	72	69.5	44.8	34	23.5
CPE14-PRS...	108	90	41	77.5	35	3/8 NPT	6.3	86.7	84.8	54.8	44	32
CPE18-PRS...	155	102	46	85.6	40	3/8 NPT	8.3	105	101.5	59.8	44	30.5

Type	H6	L1	L2	L3	L4	L5	L6	L7
CPE10-PRS...	11	28 + (n-1) x 16	L1 - 11 ± 0.1	5.5	14	16	13.4	(n-1) x 16
CPE14-PRS...	14	35 + (n-1) x 20	L1 - 13 ± 0.1	6.5	17.5	20	17.4	(n-1) x 20
CPE18-PRS...	14	45 + (n-1) x 26	L1 - 17 ± 0.1	8.5	22.5	26	22.4	(n-1) x 26

1) Dimensions are in millimeters, unless otherwise noted.

Solenoid Valves CPE, Accessories – Inch Series

Ordering Data – Fixed-grid Manifold Blocks


Ordering Data – Manifold Blocks							
Pneumatic connection	Valve positions		Part No.	Type		Part No. Type	
Micro CPE10		For 3/2-way valves			For 5/2- and 5/3-way valves		
1/4 NPT	2		550601	CPE10-3/2-PRS-1/4-2-NPT		550070	CPE10-PRS-1/4-2-NPT
	3		550602	CPE10-3/2-PRS-1/4-3-NPT		550071	CPE10-PRS-1/4-3-NPT
	4		550603	CPE10-3/2-PRS-1/4-4-NPT		550072	CPE10-PRS-1/4-4-NPT
	5		550604	CPE10-3/2-PRS-1/4-5-NPT		550073	CPE10-PRS-1/4-5-NPT
	6		550605	CPE10-3/2-PRS-1/4-6-NPT		550074	CPE10-PRS-1/4-6-NPT
	7		550606	CPE10-3/2-PRS-1/4-7-NPT		550075	CPE10-PRS-1/4-7-NPT
	8		550607	CPE10-3/2-PRS-1/4-8-NPT		550076	CPE10-PRS-1/4-8-NPT
	9		550608	CPE10-3/2-PRS-1/4-9-NPT		550077	CPE10-PRS-1/4-9-NPT
	10		550609	CPE10-3/2-PRS-1/4-10-NPT		550078	CPE10-PRS-1/4-10-NPT
	Micro CPE14		For 3/2-way valves			For 5/2- and 5/3-way valves	
3/8 NPT	2		550610	CPE14-3/2-PRS-3/8-2-NPT		550079	CPE14-PRS-3/8-2-NPT
	3		550611	CPE14-3/2-PRS-3/8-3-NPT		550080	CPE14-PRS-3/8-3-NPT
	4		550612	CPE14-3/2-PRS-3/8-4-NPT		550081	CPE14-PRS-3/8-4-NPT
	5		550613	CPE14-3/2-PRS-3/8-5-NPT		550082	CPE14-PRS-3/8-5-NPT
	6		550614	CPE14-3/2-PRS-3/8-6-NPT		550083	CPE14-PRS-3/8-6-NPT
	7		550615	CPE14-3/2-PRS-3/8-7-NPT		550084	CPE14-PRS-3/8-7-NPT
	8		550616	CPE14-3/2-PRS-3/8-8-NPT		550085	CPE14-PRS-3/8-8-NPT
	9		550617	CPE14-3/2-PRS-3/8-9-NPT		550086	CPE14-PRS-3/8-9-NPT
	10		550618	CPE14-3/2-PRS-3/8-10-NPT		550087	CPE14-PRS-3/8-10-NPT
	Micro CPE18		For 3/2-way valves			For 5/2- and 5/3-way valves	
3/8 NPT	2		550619	CPE18-3/2-PRS-3/8-2-NPT		550088	CPE18-PRS-3/8-2-NPT
	3		550620	CPE18-3/2-PRS-3/8-3-NPT		550089	CPE18-PRS-3/8-3-NPT
	4		550621	CPE18-3/2-PRS-3/8-4-NPT		550090	CPE18-PRS-3/8-4-NPT
	5		550622	CPE18-3/2-PRS-3/8-5-NPT		550091	CPE18-PRS-3/8-5-NPT
	6		550623	CPE18-3/2-PRS-3/8-6-NPT		550092	CPE18-PRS-3/8-6-NPT
	7		550624	CPE18-3/2-PRS-3/8-7-NPT		550093	CPE18-PRS-3/8-7-NPT
	8		550625	CPE18-3/2-PRS-3/8-8-NPT		550094	CPE18-PRS-3/8-8-NPT
	9		550626	CPE18-3/2-PRS-3/8-9-NPT		550095	CPE18-PRS-3/8-9-NPT
	10		550627	CPE18-3/2-PRS-3/8-10-NPT		550096	CPE18-PRS-3/8-10-NPT



Ordering Data – Mounting Accessories							
	For Type		Part No.	Type		Part No. Type	
		For 3/2-way valves			For 5/2- and 5/3-way valves		
Blanking plate	CPE10		550580	CPE10-RP3		544479	CPE10-RP
	CPE14		550581	CPE14-RP3		544480	CPE14-RP
	CPE18		550582	CPE18-RP3		544481	CPE18-RP
Retainer set	CPE10		550577	CPE10-H3-SET		544394	CPE10-H5-SET
	CPE14		550578	CPE14-H3-SET		544395	CPE14-H5-SET
	CPE18		550579	CPE18-H3-SET		544396	CPE18-H5-SET
Retainer (Packaging unit 50 pieces)	CPE10		551490	CPE10-H3-50		547045	CPE10-H5-50
	CPE14		551491	CPE14-H3-50		547046	CPE14-H5-50
	CPE18		551492	CPE18-H3-50		547047	CPE18-H5-50
Screws (Packaging unit 100 pieces)	CPE10		547048	M3X40-8.8-VS-100		547048	M3X40-8.8-VS-100
	CPE14		547049	M3X45-8.8-VS-100		547049	M3X45-8.8-VS-100
	CPE18		547050	M4X65-8.8-VS-100		547050	M4X65-8.8-VS-100
Seals (Packaging unit 150 pieces)	CPE10		547051	CPV10-VI-PM7-150		547051	CPV10-VI-PM7-150
	CPE14		547052	CPV14-VI-P.1/8-150		547052	CPV14-VI-P.1/8-150
	CPE18		547053	CPV18-VI-P.1/4-150		547053	CPV18-VI-P.1/4-150

Solenoid Valves CPE, Accessories – Inch Series



Ordering Data – Push-in Fittings for Inch-sized Tubing

Ordering Data – Push-in Fittings QB				Technical Data → www.festo.com/catalog/QB	
For tubing O.D. [in]	1/4 NPT		3/8 NPT		
	Part No.	Type	Part No.	Type	
With external hex					
	1/8	–	–		
	5/32	–	–		
	3/16	533275	QB-1/4-3/16-U	–	
	1/4	533276	QB-1/4-1/4-U	533279	QB-3/8-1/4-U
	5/16	533277	QB-1/4-5/16-U	533280	QB-3/8-5/16-U
	3/8	533278	QB-1/4-3/8-U	533281	QB-3/8-3/8-U
	1/2	–	–		533282 QB-3/8-1/2-U

Ordering Data – Push-in Fittings QS						Technical Data → www.festo.com/catalog/QS	
For tubing O.D. [in]	M3		M5		M7		
	Part No.	Type	Part No.	Type	Part No.	Type	
With external hex							
	1/8	–	533209	QS-H-M5-1/8-U-M ¹⁾	–		
	5/32	–	533210	QS-H-M5-5/32-U-M	–		
	3/16	–	533211	QS-H-M5-3/16-U-M	–		
	1/4	–	533212	QS-H-M5-1/4-U-M	–		
With internal hex							
	1/8	183751	QSM-M3-1/8-I-U-M	183749	QSM-M5-1/8-I-U-M	183738	QSM-M7-1/8-I-U-M
	5/32	130592	QSM-M3-5/32-I-U-M	130593	QSM-M5-5/32-I-U-M	–	
	3/16	183752	QSM-M3-3/16-I-U-M	183750	QSM-M5-3/16-I-U-M	183739	QSM-M7-3/16-I-U-M
	1/4	–	–		130591	QSM-M5-1/4-I-U-M	183740

Solenoid Valves CPE, Accessories – Metric Series

Technical data – Fixed-grid manifold blocks for 3/2 way valves

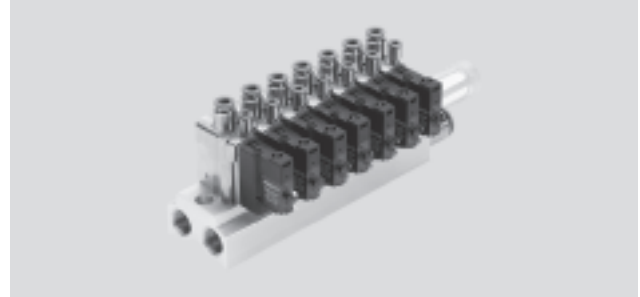
Manifold block CPE...-3/2-PRS

for 3/2 way valves

Material:

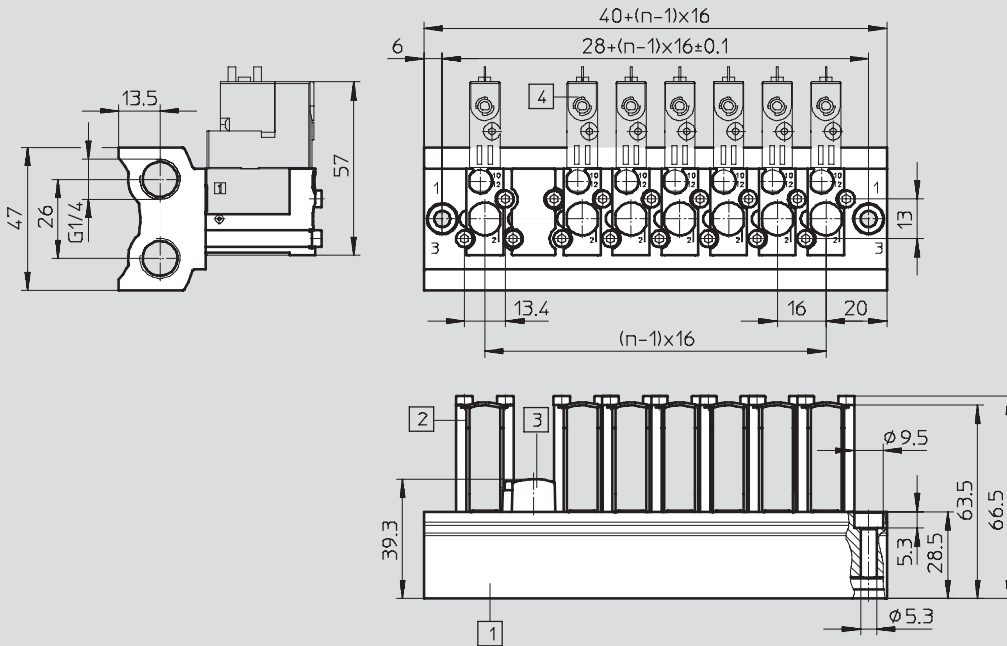
Wrought aluminum alloy

RoHS-compliant



Dimensions¹⁾ – Fixed-grid manifold CPE10

Download CAD Data → www.festo.com/us/cad



- 1 Manifold block
– Grid dimension 16 mm
- 2 Retainer
- 3 Blanking plate
- 4 Valves

1) Dimensions are in millimeters, unless otherwise noted.

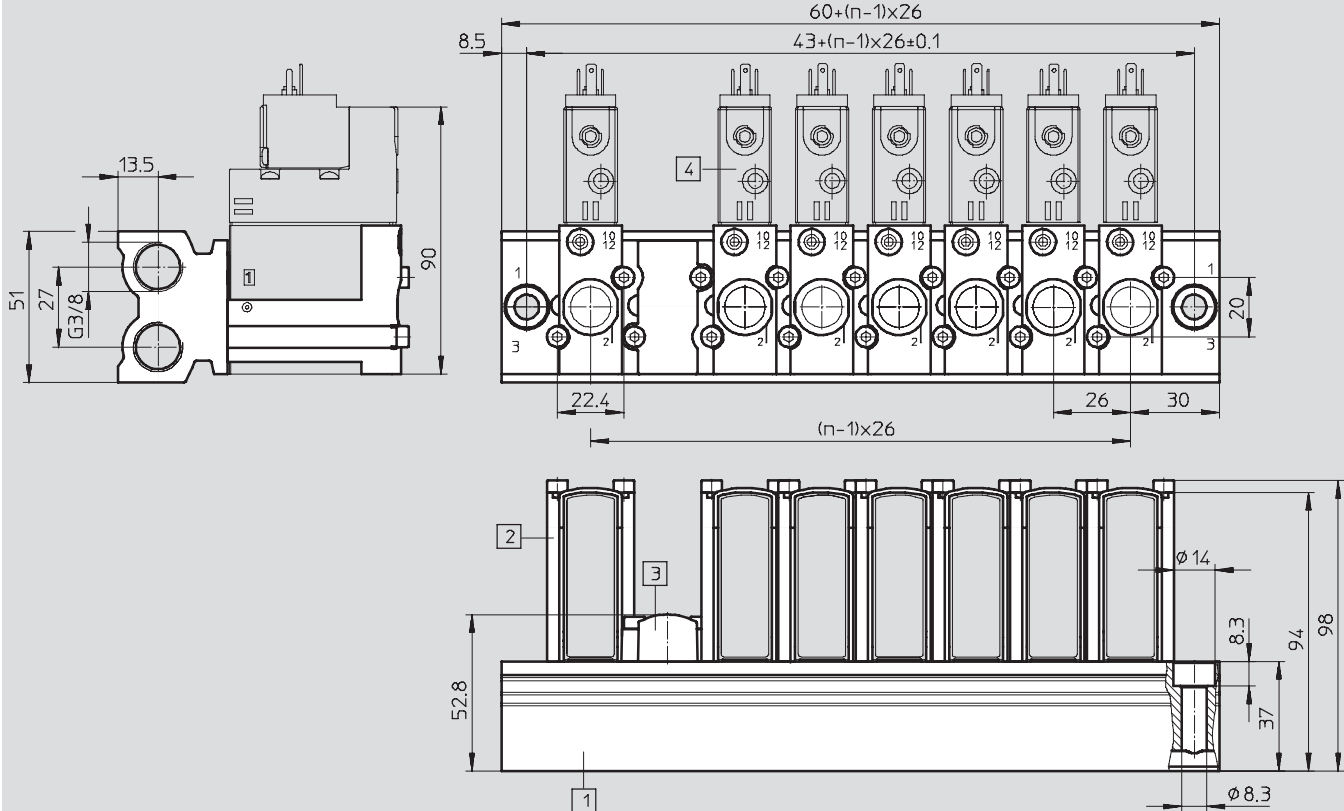
Note: All metric products can be used within inch tubing systems via hybrid fittings (→ Overview on page 63)

Solenoid Valves CPE, Accessories – Metric Series

Technical data – Fixed-grid manifold blocks for 3/2 way valves

Dimensions¹⁾ – Fixed-grid manifold CPE18

Download CAD Data → www.festo.com/us/cad



- 1) Manifold block
– Grid dimension 26 mm
- 2) Retainer
- 3) Blanking plate
- 4) Valves

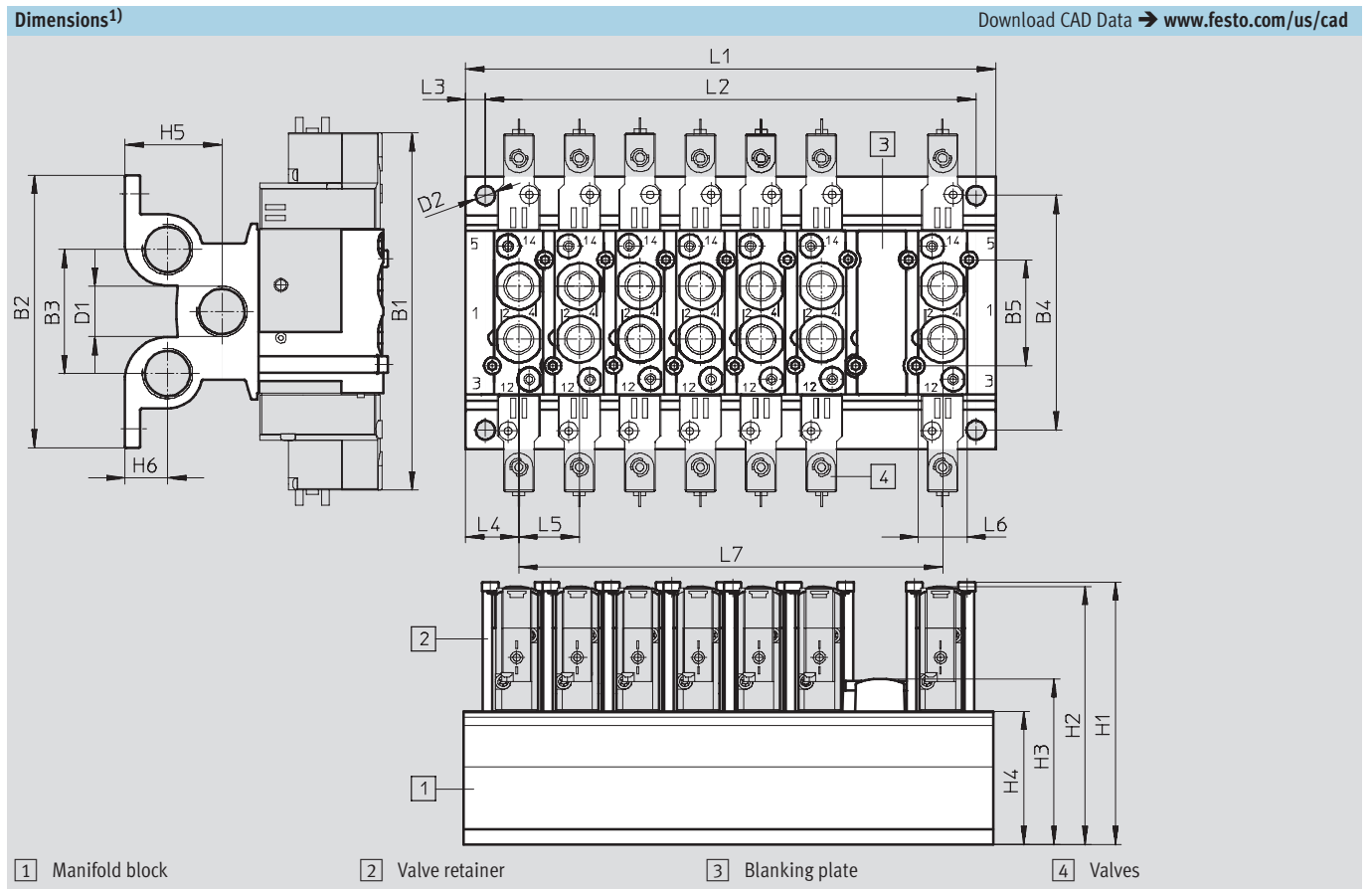
1) Dimensions are in millimeters, unless otherwise noted.

Solenoid Valves CPE, Accessories – Metric Series

Technical data – Fixed-grid manifold blocks for 5/2 and 5/3 way valves

Manifold block CPE...-PRS

Material:
Wrought aluminum alloy



Type	B1	B2	B3	B4	B5	D1	D2	H1	H2	H3	H4	H5
CPE10-PRS...	103	79	35	67.5	26	G $\frac{1}{4}$	5.3	72	69.5	44.8	34	23.5
CPE14-PRS...	108	90	41	77.5	35	G $\frac{3}{8}$	6.3	86.7	84.8	54.8	44	32
CPE18-PRS...	155	102	46	85.6	40	G $\frac{3}{8}$	8.3	105	101.5	59.8	44	30.5

Type	H6	L1	L2	L3	L4	L5	L6	L7
CPE10-PRS...	11	28 + (n-1) x 16	L1 - 11 ± 0.1	5.5	14	16	13.4	(n-1) x 16
CPE14-PRS...	14	35 + (n-1) x 20	L1 - 13 ± 0.1	6.5	17.5	20	17.4	(n-1) x 20
CPE18-PRS...	14	45 + (n-1) x 26	L1 - 17 ± 0.1	8.5	22.5	26	22.4	(n-1) x 26

1) Dimensions are in millimeters, unless otherwise noted.

Note: All metric products can be used within inch tubing systems via hybrid fittings (→ Overview on page 63)

Solenoid Valves CPE, Accessories – Metric Series

Ordering Data – Fixed-grid Manifold Blocks

Ordering Data – Manifold Blocks							
Pneumatic connection	Valve positions		Part No.	Type		Part No.	Type
Micro CPE10		For 3/2-way valves			For 5/2- and 5/3-way valves		
G $\frac{1}{4}$	2		550550	CPE10-3/2-PRS- $\frac{1}{4}$ -2		543821	CPE10-PRS- $\frac{1}{4}$ -2
	3		550551	CPE10-3/2-PRS- $\frac{1}{4}$ -3		543822	CPE10-PRS- $\frac{1}{4}$ -3
	4		550552	CPE10-3/2-PRS- $\frac{1}{4}$ -4		543823	CPE10-PRS- $\frac{1}{4}$ -4
	5		550553	CPE10-3/2-PRS- $\frac{1}{4}$ -5		543824	CPE10-PRS- $\frac{1}{4}$ -5
	6		550554	CPE10-3/2-PRS- $\frac{1}{4}$ -6		543825	CPE10-PRS- $\frac{1}{4}$ -6
	7		550555	CPE10-3/2-PRS- $\frac{1}{4}$ -7		543826	CPE10-PRS- $\frac{1}{4}$ -7
	8		550556	CPE10-3/2-PRS- $\frac{1}{4}$ -8		543827	CPE10-PRS- $\frac{1}{4}$ -8
	9		550557	CPE10-3/2-PRS- $\frac{1}{4}$ -9		543828	CPE10-PRS- $\frac{1}{4}$ -9
	10		550558	CPE10-3/2-PRS- $\frac{1}{4}$ -10		543829	CPE10-PRS- $\frac{1}{4}$ -10
	Micro CPE14		For 3/2-way valves			For 5/2- and 5/3-way valves	
G $\frac{3}{8}$	2		550559	CPE14-3/2-PRS- $\frac{3}{8}$ -2		543830	CPE14-PRS- $\frac{3}{8}$ -2
	3		550560	CPE14-3/2-PRS- $\frac{3}{8}$ -3		543831	CPE14-PRS- $\frac{3}{8}$ -3
	4		550561	CPE14-3/2-PRS- $\frac{3}{8}$ -4		543832	CPE14-PRS- $\frac{3}{8}$ -4
	5		550562	CPE14-3/2-PRS- $\frac{3}{8}$ -5		543833	CPE14-PRS- $\frac{3}{8}$ -5
	6		550563	CPE14-3/2-PRS- $\frac{3}{8}$ -6		543834	CPE14-PRS- $\frac{3}{8}$ -6
	7		550564	CPE14-3/2-PRS- $\frac{3}{8}$ -7		543835	CPE14-PRS- $\frac{3}{8}$ -7
	8		550565	CPE14-3/2-PRS- $\frac{3}{8}$ -8		543836	CPE14-PRS- $\frac{3}{8}$ -8
	9		550566	CPE14-3/2-PRS- $\frac{3}{8}$ -9		543837	CPE14-PRS- $\frac{3}{8}$ -9
	10		550567	CPE14-3/2-PRS- $\frac{3}{8}$ -10		543838	CPE14-PRS- $\frac{3}{8}$ -10
	Micro CPE18		For 3/2-way valves			For 5/2- and 5/3-way valves	
G $\frac{3}{8}$	2		550568	CPE18-3/2-PRS- $\frac{3}{8}$ -2		543839	CPE18-PRS- $\frac{3}{8}$ -2
	3		550569	CPE18-3/2-PRS- $\frac{3}{8}$ -3		543840	CPE18-PRS- $\frac{3}{8}$ -3
	4		550570	CPE18-3/2-PRS- $\frac{3}{8}$ -4		543841	CPE18-PRS- $\frac{3}{8}$ -4
	5		550571	CPE18-3/2-PRS- $\frac{3}{8}$ -5		543842	CPE18-PRS- $\frac{3}{8}$ -5
	6		550572	CPE18-3/2-PRS- $\frac{3}{8}$ -6		543843	CPE18-PRS- $\frac{3}{8}$ -6
	7		550573	CPE18-3/2-PRS- $\frac{3}{8}$ -7		543844	CPE18-PRS- $\frac{3}{8}$ -7
	8		550574	CPE18-3/2-PRS- $\frac{3}{8}$ -8		543845	CPE18-PRS- $\frac{3}{8}$ -8
	9		550575	CPE18-3/2-PRS- $\frac{3}{8}$ -9		543846	CPE18-PRS- $\frac{3}{8}$ -9
	10		550576	CPE18-3/2-PRS- $\frac{3}{8}$ -10		543847	CPE18-PRS- $\frac{3}{8}$ -10



Ordering Data – Mounting Accessories							
	For Type		Part No.	Type		Part No.	Type
		For 3/2-way valves			For 5/2- and 5/3-way valves		
Blanking plate	CPE10		550580	CPE10-RP3		544479	CPE10-RP
	CPE14		550581	CPE14-RP3		544480	CPE14-RP
	CPE18		550582	CPE18-RP3		544481	CPE18-RP
Retainer set	CPE10		550577	CPE10-H3-SET		544394	CPE10-H5-SET
	CPE14		550578	CPE14-H3-SET		544395	CPE14-H5-SET
	CPE18		550579	CPE18-H3-SET		544396	CPE18-H5-SET
Retainer (Packaging unit 50 pieces)	CPE10		551490	CPE10-H3-50		547045	CPE10-H5-50
	CPE14		551491	CPE14-H3-50		547046	CPE14-H5-50
	CPE18		551492	CPE18-H3-50		547047	CPE18-H5-50
Screws (Packaging unit 100 pieces)	CPE10		547048	M3X40-8.8-VS-100		547048	M3X40-8.8-VS-100
	CPE14		547049	M3X45-8.8-VS-100		547049	M3X45-8.8-VS-100
	CPE18		547050	M4X65-8.8-VS-100		547050	M4X65-8.8-VS-100
Seals (Packaging unit 150 pieces)	CPE10		547051	CPV10-VI-PM7-150		547051	CPV10-VI-PM7-150
	CPE14		547052	CPV14-VI-P $\frac{1}{8}$ -150		547052	CPV14-VI-P $\frac{1}{8}$ -150
	CPE18		547053	CPV18-VI-P $\frac{1}{4}$ -150		547053	CPV18-VI-P $\frac{1}{4}$ -150



Note: All metric products can be used within inch tubing systems via hybrid fittings (→ Overview on page 63)

Solenoid Valves CPE, Accessories – Metric Series



Ordering Data – Push-in Fittings for Metric Tubing

Ordering Data – Push-in Fittings QSM					Technical Data → www.festo.com/catalog/QSM	
	For tubing	M3 ¹⁾		M5 ¹⁾		M7 ¹⁾
	O.D. [mm]	Part No.	Type	Part No.	Type	Part No. Type
With external hex						
	3	153301	QSM-M3-3	153302	QSM-M5-3	–
	4	153303	QSM-M3-4	153304	QSM-M5-4	–
	6	–	–	153306	QSM-M5-6	–
With internal hex						
	3	153312	QSM-M3-3-l	153313	QSM-M5-3-l	–
	4	153314	QSM-M3-4-l	153315	QSM-M5-4-l	153319 QSM-M7-4-l
	6	–	–	153317	QSM-M5-6-l	153321 QSM-M7-6-l



Ordering Data – Push-in Fittings QS					Technical Data → www.festo.com/catalog/QS	
	For tubing	R ^{1/8} ¹⁾		R ^{1/4} ¹⁾	R ^{3/8} ¹⁾	R ^{1/2}
	O.D. [mm]	Part No.	Type	Part No. Type	Part No. Type	Part No. Type
With external hex						
	4	153001	QS-1/8-4	190644 QS-1/4-4	–	–
	6	153002	QS-1/8-6	153303 QS-1/4-6	190645 QS-3/8-6	–
	8	153004	QS-1/8-8	153305 QS-1/4-8	153006 QS-3/8-8	–
	10	190643	QS-1/8-10	153307 QS-1/4-10	153008 QS-3/8-10	190646 QS-1/2-10
	12	–	–	164980 QS-1/4-12	153009 QS-3/8-12	153010 QS-1/2-12
With internal hex						
	4	153012	QS-1/8-4-l	–	–	–
	6	153013	QS-1/8-6-l	153014 QS-1/4-6-l	–	–
	8	153015	QS-1/8-8-l	153016 QS-1/4-8-l	153017 QS-3/8-8-l	–
	10	190647	QS-1/8-10-l	153018 QS-1/4-10-l	153019 QS-3/8-10-l	190648 QS-1/2-10-l
	12	–	–	190649 QS-1/4-12-l	153020 QS-3/8-12-l	153021 QS-1/2-12-l



1) Scope of delivery 10 pieces

Solenoid Valves CPE, Accessories – Metric Series



Ordering Data – Push-in Fittings for Inch-sized Tubing







Ordering Data – Push-in Fittings QS						Technical Data → www.festo.com/catalog/QS			
For tubing O.D. [in]	R $\frac{3}{8}$		R $\frac{1}{4}$		R $\frac{3}{8}$		R $\frac{1}{2}$		
	Part No.	Type	Part No.	Type	Part No.	Type	Part No. Type		
With external hex									
	1/8	533213	QS-H-1/8-1/8-U-M	–	–	–	–		
	5/32	533214	QS-H-1/8-5/32-U-M	–	–	–	–		
	3/16	533215	QS-H-1/8-3/16-U-M	533218	QS-H-1/4-3/16-U-M	–	–		
	1/4	533216	QS-H-1/8-1/4-U-M	533219	QS-H-1/4-1/4-U-M	533222	QS-H-3/8-1/4-U-M	–	
	5/16	533217	QS-H-1/8-5/16-U-M	533220	QS-H-1/4-5/16-U-M	533223	QS-H-3/8-5/16-U-M	–	
	3/8	–	–	533221	QS-H-1/4-3/8-U-M	533224	QS-H-3/8-3/8-U-M	533226	QS-H-1/2-3/8-U-M
	1/2	–	–	–	–	533225	QS-H-3/8-1/2-U-M	533227	QS-H-1/2-1/2-U-M
With internal hex									
	1/4	183741	QS-1/8-1/4-I-U-M	192809	QS-1/4-1/4-I-U-M	–	–		
	5/16	183742	QS-1/8-5/16-I-U-M	183743	QS-1/4-5/16-I-U-M	183745	QS-3/8-5/16-I-U-M	–	
	3/8	–	–	183744	QS-1/4-3/8-I-U-M	183746	QS-3/8-3/8-I-U-M	183747	QS-1/2-3/8-I-U-M
	1/2	–	–	–	–	–	–	183748	QS-1/2-1/2-I-U-M





Ordering Data – Push-in Fittings QS						Technical Data → www.festo.com/catalog/QS	
For tubing O.D. [in]	M3		M5		M7		
	Part No.	Type	Part No.	Type	Part No.	Type	
With external hex							
	1/8	–	–	533209	QS-H-M5-1/8-U-M ¹⁾	–	–
	5/32	–	–	533210	QS-H-M5-5/32-U-M	–	–
	3/16	–	–	533211	QS-H-M5-3/16-U-M	–	–
	1/4	–	–	533212	QS-H-M5-1/4-U-M	–	–
With internal hex							
	1/8	183751	QSM-M3-1/8-I-U-M	183749	QSM-M5-1/8-I-U-M	183738	QSM-M7-1/8-I-U-M
	5/32	130592	QSM-M3-5/32-I-U-M	130593	QSM-M5-5/32-I-U-M	–	–
	3/16	183752	QSM-M3-3/16-I-U-M	183750	QSM-M5-3/16-I-U-M	183739	QSM-M7-3/16-I-U-M
	1/4	–	–	130591	QSM-M5-1/4-I-U-M	183740	QSM-M7-1/4-I-U-M


Solenoid Valves CPE, Accessories

General Accessories

FESTO

Ordering data – Connecting cables and plug sockets with cable for CPE10 and CPE14 with KMYZ solenoid coils					
	Voltage	Cable length [m]	Switching status display with LED	Part No.	Type
Plug socket with PUR cable					Technical data → Internet: kmyz
	24 V DC	2.5	■	193 687	KMYZ-9-24-2,5-LED-PUR-B
		5	■	193 689	KMYZ-9-24-5-LED-PUR-B
		10	■	196 063	KMYZ-9-24-10-LED-PUR-B
Plug socket with PVC cable and plug M8x1					
	24 V DC	0.5	■	196 064	KMYZ-9-24-M8-0,5-LED-B
		2.5	■	196 065	KMYZ-9-24-M8-2,5-LED-B
Connecting cable M8x1, 4-pin, straight socket/open end					Technical data → Internet: nebu
	24 V DC	2.5	–	541 342	NEBU-M8G4-K-2,5-LE4
		5	–	541 343	NEBU-M8G4-K-5-LE4
Connecting cable M8x1, 4-pin, straight angled socket/open end					
	24 V DC	2.5	–	541 344	NEBU-M8W4-K-2,5-LE4
		5	–	541 345	NEBU-M8W4-K-5-LE4
Plug socket with cable M8x1, 4-pin, straight socket/open end					Technical data → Internet: sim
	24 V DC	2.5	–	164 250	SIM-K-4GD-2,5-PU
		5	–	164 251	SIM-K-4GD-5-PU
Plug socket with cable M8x1, 4-pin, straight angled socket/open end					
	24 V DC	2.5	–	164 252	SIM-K-4WD-2,5-PU
		5	–	164 253	SIM-K-4WD-5-PU






Ordering data – Plug sockets and plug sockets with cable for CPE18 and CPE24 with EB solenoid coils					
	Voltage	Cable length [m]	Switching status display with LED	Part No.	Type
Plug socket without cable					Technical data → Internet: mssd
	–	–	–	151 687	MSSD-EB
	–	–	–	539 712	MSSD-EB-M12
Plug socket without cable with insulation displacement technology					
	–	–	–	192 745	MSSD-EB-S-M14
Plug socket with PVC cable					Technical data → Internet: kmeb
	24 V DC	2.5	■	151 688	KMEB-1-24-2,5-LED
	24 V DC	5	■	151 689	KMEB-1-24-5-LED
	24 V DC	10	■	193 457	KMEB-1-24-10-LED
	Up to 240 V	2.5	–	151 690	KMEB-1-230-2,5
	Up to 240 V	5	–	151 691	KMEB-1-230-5
Plug socket with PUR cable					
	24 V DC	2.5	■	174 844	KMEB-2-24-2,5-LED
	24 V DC	5	■	174 845	KMEB-2-24-5-LED
	Up to 240 V	2.5	–	174 846	KMEB-2-230-2,5
	Up to 240 V	5	–	174 847	KMEB-2-230-5

Ordering data – Illuminating seal for EB solenoid coils					Technical data → Internet: meb-ld
	Voltage [V DC]	[V AC]	Part No.	Type	
	12 ... 24	–	151 717	MEB-LD-12-24DC	
	–	230	151 718	MEB-LD-230AC	

Solenoid Valves CPE, Accessories

General Accessories



Ordering data – General accessories		Part No.	Type
Blanking plugs		Technical data → Internet: b	
	For manifold block CPE10	3 569	B-1/4
	For manifold block CPE14, CPE18	3 570	B-3/8
	For manifold block CPE10, for thread 1/4NPT	174165	B-1/4-NPT
	For manifold block CPE14, CPE18, for thread 3/8NPT	174169	B-3/8-NPT
Separator for pressure zones		Technical data → Internet: vabd	
	For manifold block CPE10	537 515	VABD-B6-14-P-C
	For manifold block CPE14, CPE18	160 997	PRSV-1/8
Silencer		Technical data → Internet: u	
	For M3 thread	163 978	U-M3
	For M5 thread	165 003	UC-M5
	For M7 thread	161 418	UC-M7
	For G1/8 thread	161 419	UC-1/8
	For G1/4 thread	165 004	UC-1/4
	For thread 1/4NPT	12639	U-1/4-B-NPT
	For thread 3/8NPT	12740	U-3/8-B-NPT
Manual override		Technical data → Internet: ahb	
	For KMYZ coils	157 600	AHB-MZB
	For EB coils	157 601	AHB-MEB
Inscription labels		Technical data → Internet: ibs	
	-	18 576	IBS-6x10

Product Range and Company Overview

A Complete Suite of Automation Services

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



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

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

Quality Assurance, ISO 9001 and ISO 14001 Certifications

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

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



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