

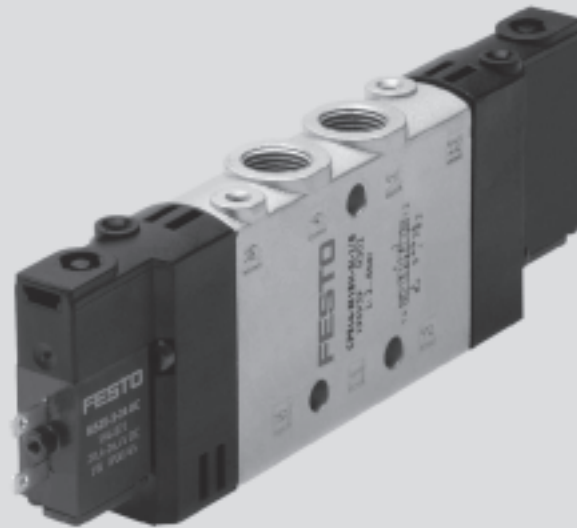


- Electrically actuated valves
- Performance optimised sizes
- Minimal width
- High flow rates
- Low power consumption

Solenoid valves CPE, Compact Performance

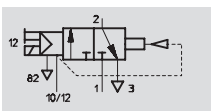
Key features

FESTO

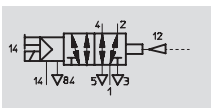


Variants

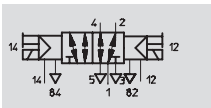
Function



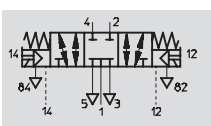
3/2-way, e.g. with external pilot air, normally closed



5/2-way, single solenoid, e.g. with external pilot air



5/2-way, double solenoid, e.g. with external pilot air



5/3-way, e.g. with external pilot air, normally closed

Parameters

-  Width
10 ... 24 mm
-  Flow rate
180 ... 3,200 l/min
-  Voltage
24 V DC
110 V AC
230 V AC

Advantages

Performance optimised sizes:

The solenoid valves CPE, Compact Performance 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.
- Choice of installation either individual, H-rail or wall mounted.

Micro CPE10, Mini CPE14 and Midi CPE18 and CPE24:

Simple structure comprising compact valve manifolds via modular manifold system or manifold blocks. Possible combinations → 2 / 2.1-65

Shorter tubing lengths with minimal air volumes:

- fast switching times,
 - short response times.
- Optimised installations:
- shorter machine cycles,
 - larger quantities,
 - low power consumption.

Convenient manual override.

A current reduction function has been integrated in the KMYZ-9 plug socket for sizes Micro CPE10 and Mini CPE14.

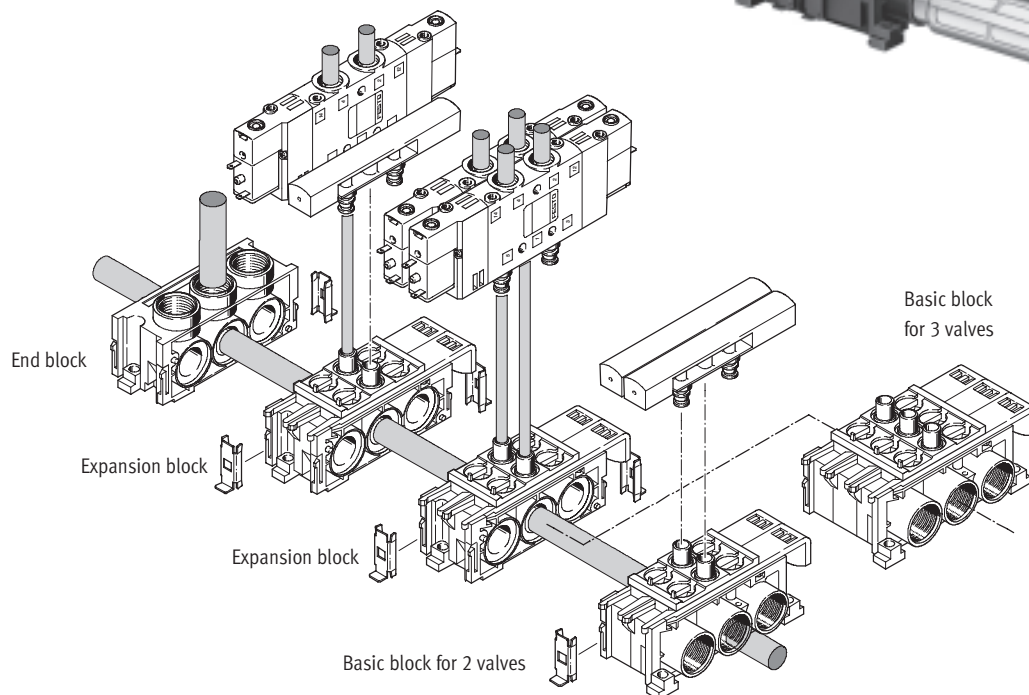
Solenoid valves CPE, Compact Performance

Key features

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Modular manifold assembly of Micro CPE10, Mini CPE14 and Midi CPE18

- From individual valves through to compact valve manifolds thanks to modular sub-base systems made from high impact, fibre glass reinforced polyamide.
- Different pressure zones can be implemented with closed PRS air ducts in basic and expansion blocks.
- Supply and exhaust air can be connected at both ends via connections at basic and end blocks.
- Supply and exhaust air can be connected at the end block, both from the side and from the top.
- No screws required for mounting thanks to quick connecting clips.
- Possible combinations
→ 2 / 2.1-65



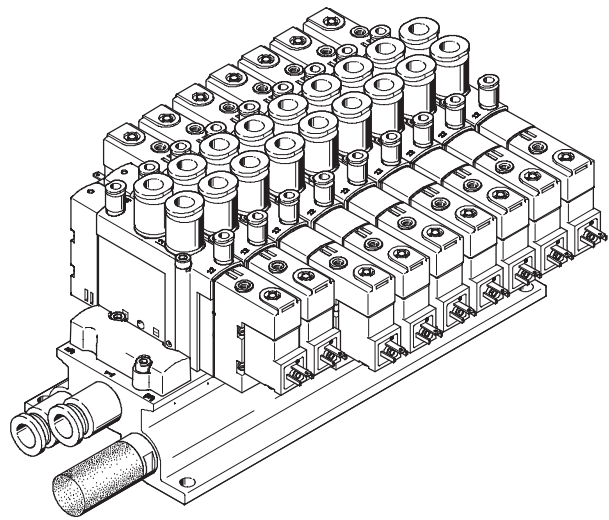
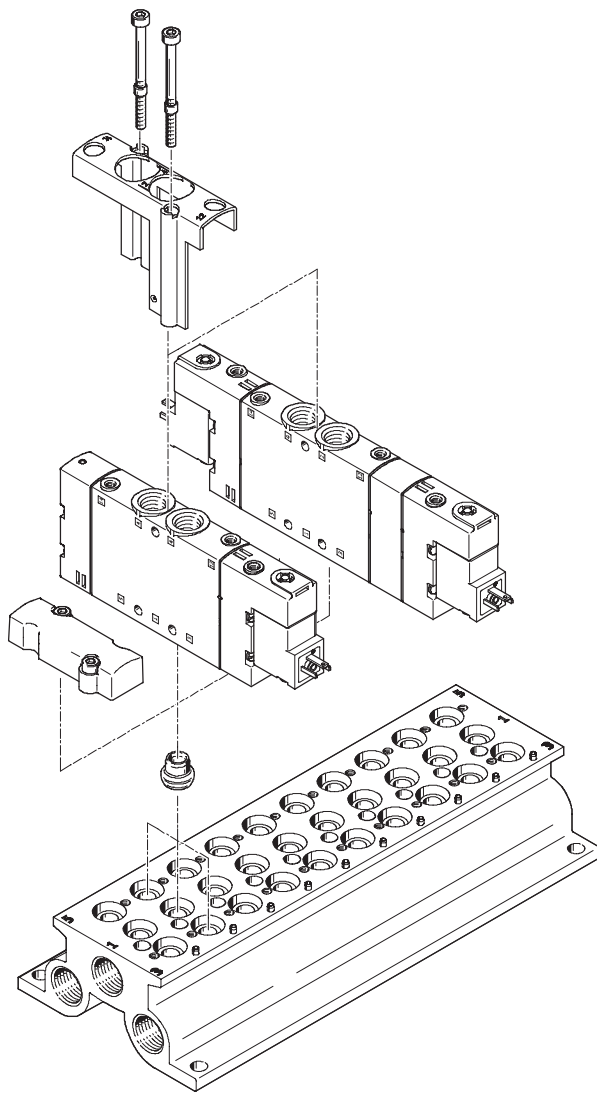
Solenoid valves CPE, Compact Performance

Key features

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Manifold block mounting of Micro CPE10, Mini CPE14 and Midi CPE18

- Simple structure comprising compact valve manifolds
- 2 to 10 valve positions
- Sturdy
- High flow rates thanks to supply and exhaust ports at both ends
- Different pressure zones can be implemented by means of separators



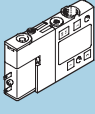
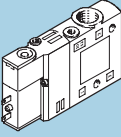
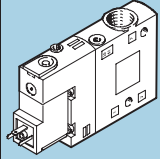
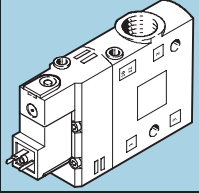
Solenoid valves CPE, Compact Performance

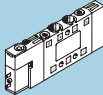
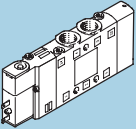
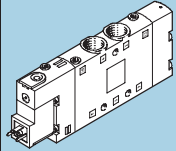
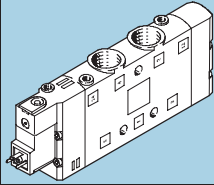
Product range overview

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Directional control valves for standard applications
Compact Performance

2.1

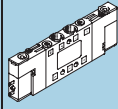
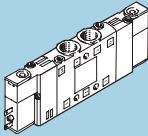
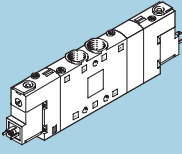
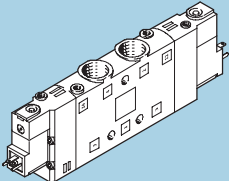
3/2-way valves					
					
					
Type		Micro CPE10	Mini CPE14	Midi CPE18	Maxi CPE24
Grid dimension		10 mm	14 mm	18 mm	24 mm
Nominal flow rate [l/min]					
Thread	M5	190	–	–	–
	M7	400	–	–	–
	G1/8	–	900	–	–
	G1/4	–	–	1,300	–
	G3/8	–	–	–	2,500
Push-in connector	QS-4	190	–	–	–
	QS-6	300	510	–	–
	QS-8	–	810	850	–
	QS-10	–	–	1,000	1,250
	QS-12	–	–	–	1,650
Operating voltage					
24 V DC		■	■	■	■
110 V AC		–	–	■	■
230 V AC		–	–	■	■
Technical data →		2 / 2.1-15	2 / 2.1-16	2 / 2.1-17	2 / 2.1-18

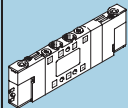
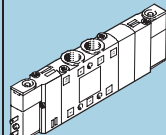
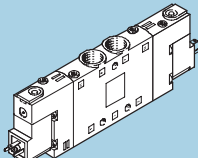
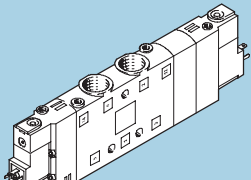
5/2-way valves					
					
					
Type		Micro CPE10	Mini CPE14	Midi CPE18	Maxi CPE24
Grid dimension		10 mm	14 mm	18 mm	24 mm
Nominal flow rate [l/min]					
Thread	M5	180	–	–	–
	M7	350	–	–	–
	G1/8	–	800	–	–
	G1/4	–	–	1,500	–
	G3/8	–	–	–	2,900
Push-in connector	QS-4	180	–	–	–
	QS-6	320	400	–	–
	QS-8	–	680	850	–
	QS-10	–	–	1,000	1,250
	QS-12	–	–	–	1,650
Operating voltage					
24 V DC		■	■	■	■
110 V AC		–	–	■	■
230 V AC		–	–	■	■
Technical data →		2 / 2.1-25	2 / 2.1-26	2 / 2.1-27	2 / 2.1-28

Solenoid valves CPE, Compact Performance

Product range overview

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5/2-way valves, double solenoid valves					
Type		Micro CPE10	Mini CPE14	Midi CPE18	Maxi CPE24
Grid dimension		10 mm	14 mm	18 mm	24 mm
Nominal flow rate [l/min]					
Thread	M5	180	–	–	–
	M7	350	–	–	–
	G1/8	–	800	–	–
	G1/4	–	–	1,500	–
	G3/8	–	–	–	3,200
Push-in connector	QS-4	180	–	–	–
	QS-6	320	400	–	–
	QS-8	–	680	850	–
	QS-10	–	–	1,000	1,250
	QS-12	–	–	–	1,650
Operating voltage					
24 V DC		■	■	■	■
110 V AC		–	–	■	■
230 V AC		–	–	■	■
Technical data →		2 / 2.1-35	2 / 2.1-36	2 / 2.1-37	2 / 2.1-38

5/3-way valves					
Type		Micro CPE10	Mini CPE14	Midi CPE18	Maxi CPE24
Grid dimension		10 mm	14 mm	18 mm	24 mm
Nominal flow rate [l/min]					
Thread	M5	180	–	–	–
	M7	250 ... 350	–	–	–
	G1/8	–	700 ... 750	–	–
	G1/4	–	–	1,200 ... 1,450	–
	G3/8	–	–	–	2,600 ... 3,000
Push-in 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					
24 V DC		■	■	■	■
110 V AC		–	–	■	■
230 V AC		–	–	■	■
Technical data →		2 / 2.1-44	2 / 2.1-45	2 / 2.1-46	2 / 2.1-47

Solenoid valves CPE, Compact Performance

Product range overview

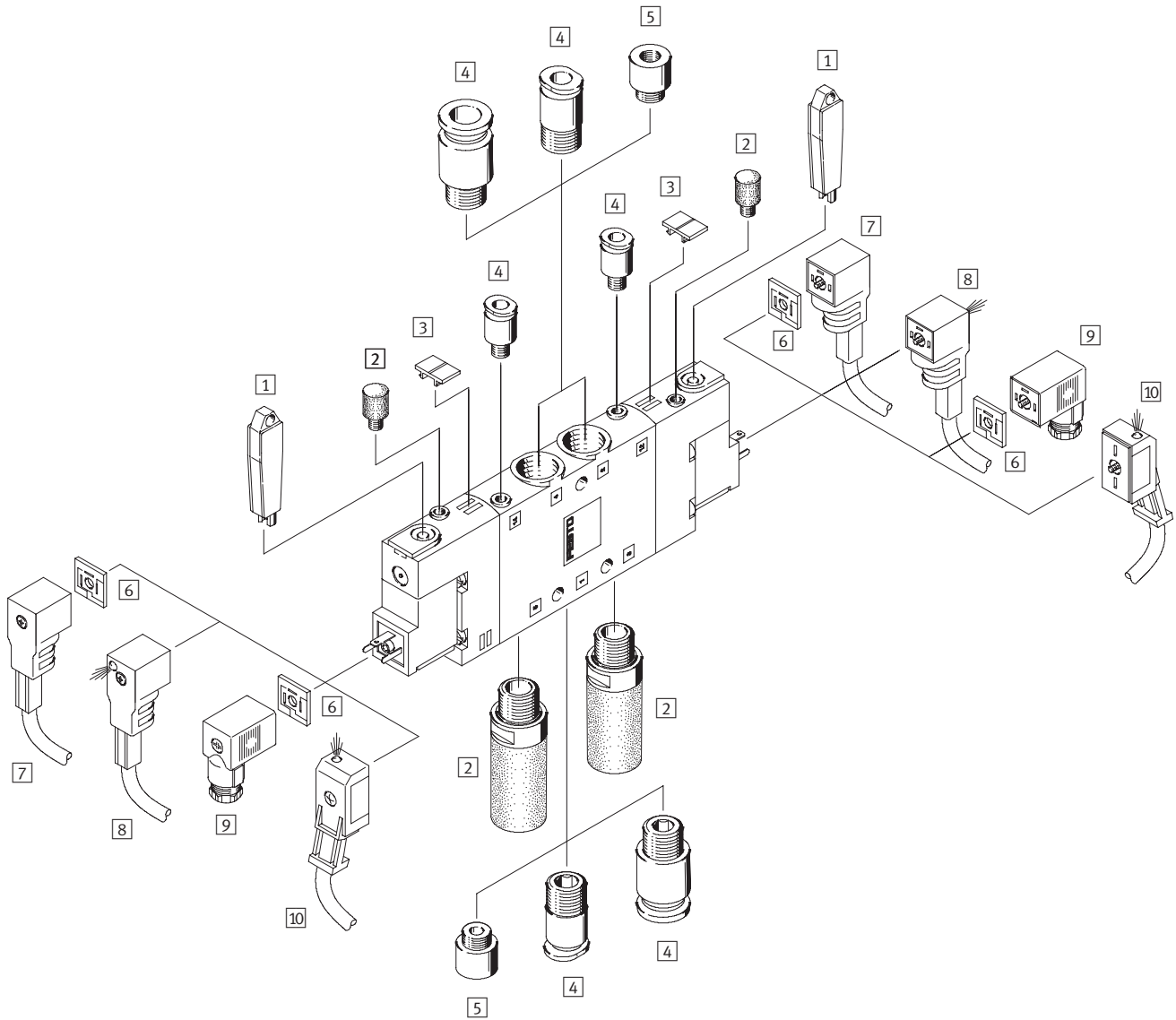
Accessories				
Type	Micro CPE10	Mini CPE14	Midi CPE18	Maxi CPE24
Grid dimension	10 mm	14 mm	18 mm	24 mm
Aluminium manifold block				
for 2 valves	■	■	■	—
for 3 valves	■	■	■	—
for 4 valves	■	■	■	—
for 5 valves	■	■	■	—
for 6 valves	■	■	■	—
for 7 valves	■	■	■	—
for 8 valves	■	■	■	—
for 9 valves	■	■	■	—
for 10 valves	■	■	■	—
Basic block for 2 valves with PRS ducts				
closed	■	■	■	—
open	■	■	■	—
Basic block for 3 valves with PRS ducts				
closed	■	■	■	—
open	■	■	■	—
Expansion block for 2 valves with PRS ducts				
closed	■	■	■	—
open	■	■	■	—
End block	■	■	■	—
Blanking plate	■	■	■	—
Silencer for port				
3 or 5	■	■	■	—
82 or 84	■	■	■	—
Blanking plug	■	■	■	—
Manual override	■	■	■	■
Inscription labels	■	■	■	■
Plug sockets				
with PUR cable	■	■	■	■
without cable	—	—	■	■
Illuminating seal	—	—	■	■
Technical data starting on ➔ 2 / 2.1-61				

Solenoid valves CPE, Compact Performance

Peripherals overview

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Individual valve



Solenoid valves CPE, Compact Performance

Peripherals overview

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Accessories – Individual valve						
	Brief description	CPE10	CPE14	CPE18	CPE24	→ Page
1	Manual override tool AHB	■	■	■	■	2 / 2.1-67
2	Silencer U or UC	■	■	■	■	2 / 2.1-67
3	Inscription labels IBS-6x10	■	■	■	■	2 / 2.1-67
4	Quick Star push-in fitting QS	■	■	■	■	Volume 3
5	M7 to M5 reducer	■	–	–	–	–
6	Illuminating seal MEB-LD	–	–	■	■	2 / 2.1-66
7	Plug socket with cable KMEB	–	–	■	■	2 / 2.1-66
8	Plug socket with cable KMEB	–	–	■	■	2 / 2.1-66
9	Standard plug socket MSSD-EB	–	–	■	■	2 / 2.1-66
10	Plug socket with cable KMYZ-9	■	■	–	–	2 / 2.1-66

Directional control valves for standard applications
Compact Performance

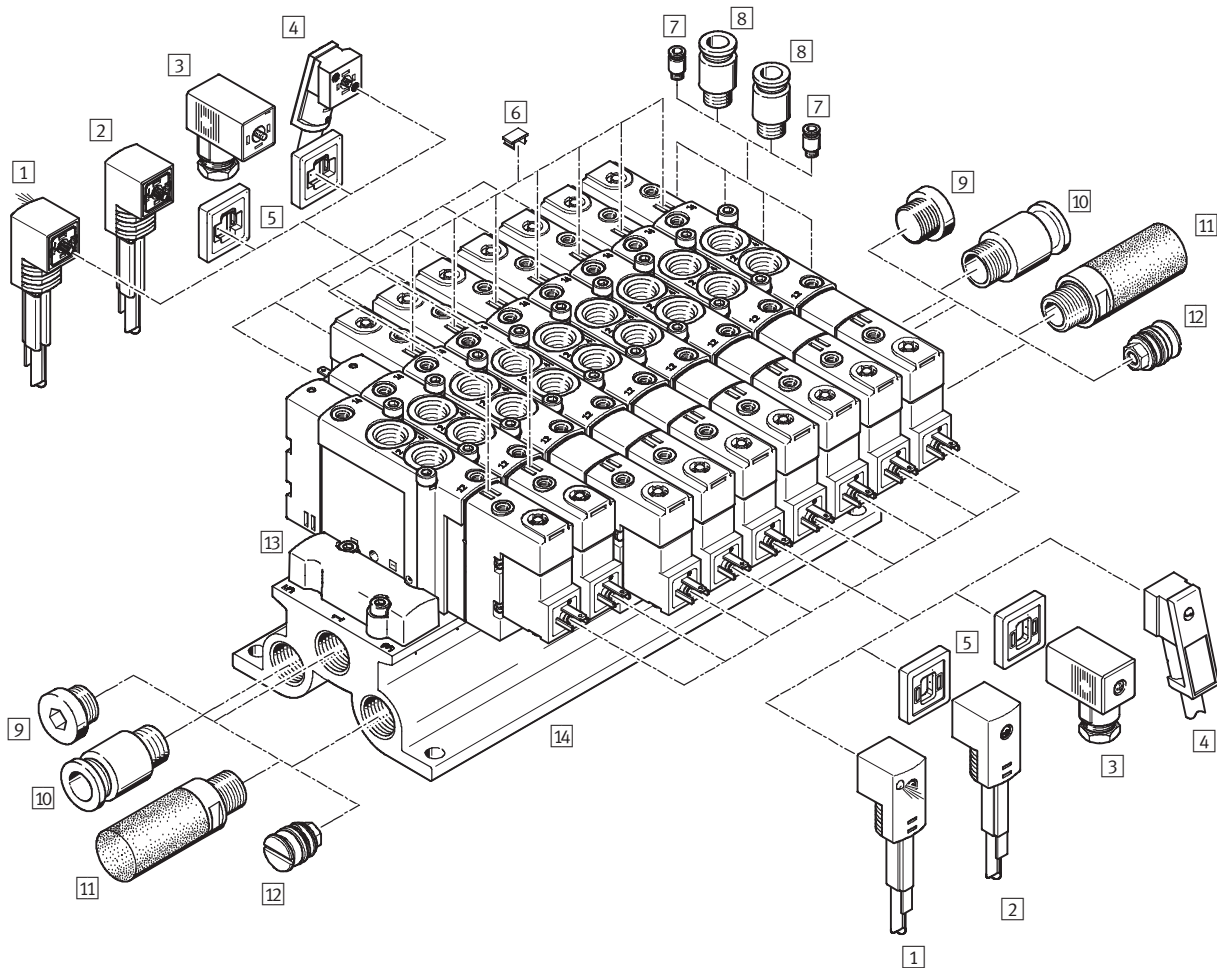
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Solenoid valves CPE, Compact Performance

Peripherals overview

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Mounting on manifold block



Solenoid valves CPE, Compact Performance

Peripherals overview

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Accessories – Mounting on manifold block		
	Brief description	→ Page
1 Plug socket with cable KMEB-1	With LED for 24 V DC	2 / 2.1-66
2 Plug socket with cable KMEB-1	For 0 ... 230 V AC	2 / 2.1-66
3 Standard plug socket MSSD-EB	–	2 / 2.1-66
4 Plug socket with cable KMEB-2	For 0 ... 230 V AC	2 / 2.1-66
5 Illuminating seal MEB-LD	–	2 / 2.1-66
6 Inscription label IBS-6x10	–	2 / 2.1-67
7 Quick Star push-in fitting QS	For connection 12, 14, for standard O.D. tubing	Volume 3
8 Quick Star push-in fitting QS	For connection 2, 4, for standard O.D. tubing	Volume 3
9 Blanking plug B	–	2 / 2.1-67
10 Quick Star push-in fitting QS	For connection 5, for standard O.D. tubing	Volume 3
11 Silencer U or UC	For fitting in exhaust ports	Volume 3
12 Separator for pressure zones VABD, PRSV	For fitting in the manifold block	2 / 2.1-67
13 Blanking plate CPE...-RP	For fitting on unused valve positions	2 / 2.1-59
14 Manifold block CPE...-PRS	–	2 / 2.1-57

Directional control valves for standard applications
Compact Performance

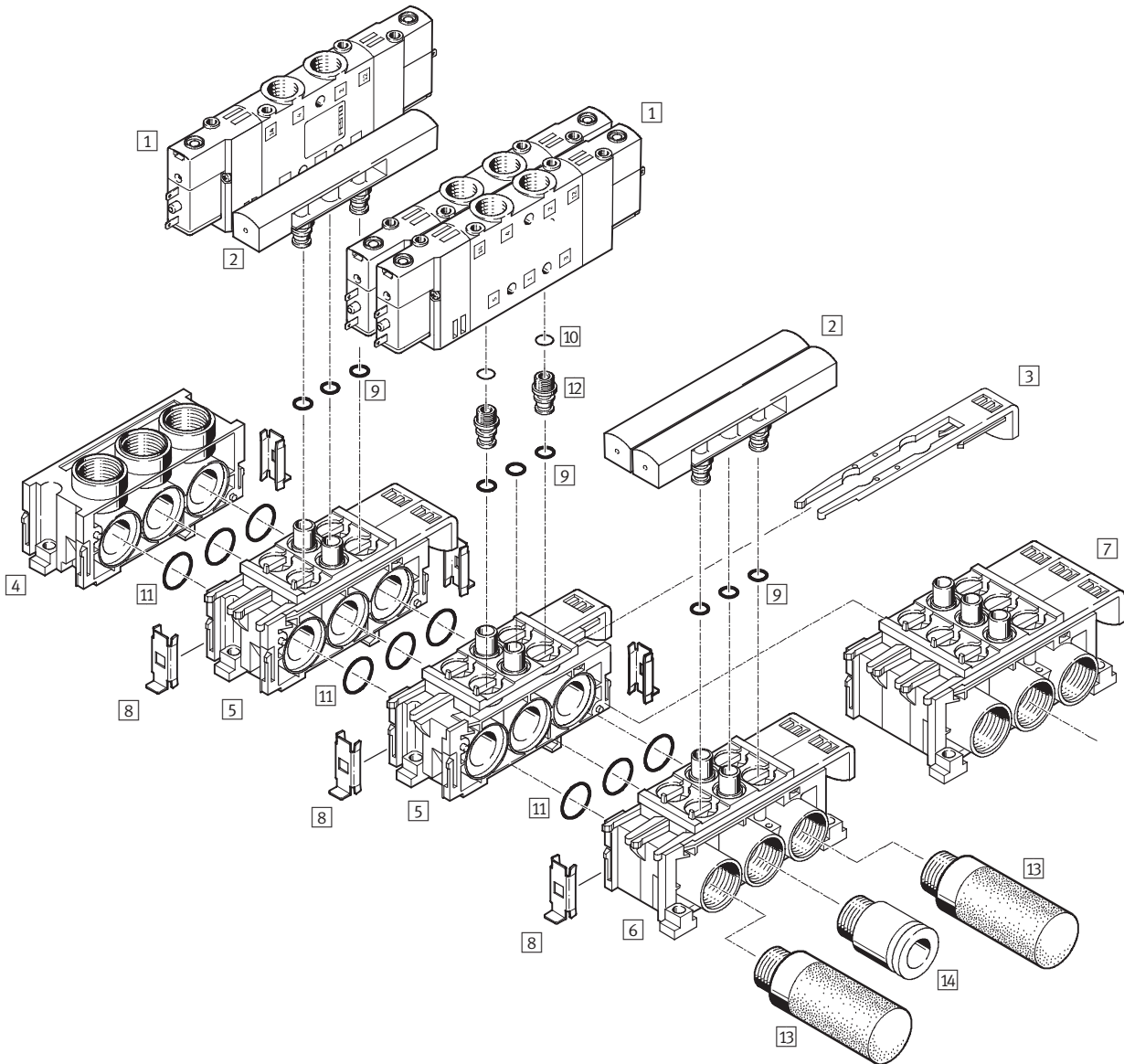
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Solenoid valves CPE, Compact Performance

Peripherals overview

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Manifold mounting



Solenoid valves CPE, Compact Performance

Peripherals overview

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Accessories – Manifold mounting		
	Brief description	→ Page
1 Solenoid valve CPE	–	2 / 2.1-5
2 Blanking plate	For sealing vacant positions	2 / 2.1-63
3 Slide	For attaching the valve	–
4 End plate ¹⁾	–	2 / 2.1-62
5 Expansion block ¹⁾	For 2 valves	2 / 2.1-62
6 Manifold block ¹⁾	For 2 valves	2 / 2.1-61
7 Manifold block ¹⁾	For 3 valves	2 / 2.1-61
8 Connecting clip	For connecting the blocks	–
9 Seal	Included in scope of delivery	–
10 Seal	Included in scope of delivery	–
11 Seal	Included in scope of delivery	–
12 Fitting	Included in scope of delivery	–
13 Silencer U or UC	For connection 3, 5, 82 or 84	2 / 2.1-67
14 Push-in fitting QS	For connection 1, 2, 4, 12 or 14, for standard O.D. tubing	Volume 3
– Manual override tool AHB	–	2 / 2.1-67
– Inscription labels IBS-6x10	–	2 / 2.1-67

1) Possible combinations → 2 / 2.1-65

Solenoid valves CPE, Compact Performance

Type codes

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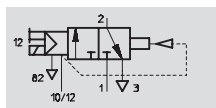
CPE	10	-	M1BH	-	5/3	B	S	-	QS-6	-	B

Solenoid valves CPE, Compact Performance

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Technical data – 3/2-way valves

Function



e.g. with external pilot air,
normally closed

-  - Flow rate
190 ... 2,500 l/min

-  - Voltage
24 V DC
110, 230 V AC



General technical data – Micro CPE10			
		Threaded connection	Push-in connector
Valve function		3/2-way, single solenoid	
Constructional design		Piston spool valve	
Sealing principle		Soft	
Type of actuation		Electrical	
Type of reset		Pneumatic	
Type of pilot control		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	
Mounting position		Any	
Width		10 mm	
Grid dimension		12 mm	
Nominal diameter		4 mm	4 mm
Standard nominal flow rate		M5: 190 l/min	QS-4: 190 l/min
		M7: 400 l/min	QS-6: 300 l/min
Type of mounting		Via through-holes	
Pneumatic connection	1, 2	M5 or M7	Ø 4 or Ø 6 mm
	3	M7	M7
	10, 12	M3	Ø 3 mm
	82	M3	M3
Switching time on/off		14/14 ms	
Product weight		45 g	
Materials		➔ 2 / 2.1-19	

Operating and environmental conditions			
		Threaded connection	Push-in connector
Operating medium		Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm Vacuum	
Operating pressure	Internal pilot air	2.5 ... 8 bar	
	External pilot air	-0.9 ... +10 bar	
Pilot pressure		2.5 ... 8 bar	
Ambient temperature		-5 ... +50 °C	
Temperature of medium		-5 ... +50 °C	

Electrical data			
		Threaded connection	Push-in connector
Operating voltage		24 V DC +10/-15%	
Power consumption		1.28 W	
Protection class with plug socket		IP65 (EN 60529)	

Solenoid valves CPE, Compact Performance

Technical data – 3/2-way valves

FESTO

General technical data – Mini CPE14			
		Threaded connection	Push-in connector
Valve function		3/2-way, single solenoid	
Constructional design		Piston spool valve	
Sealing principle		Soft	
Type of actuation		Electrical	
Type of reset		Pneumatic	
Type of pilot control		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	
Mounting position		Any	
Width		14 mm	
Grid dimension		16 mm	
Nominal diameter		6 mm	6 mm
Standard nominal flow rate		G $\frac{1}{8}$: 900 l/min	QS-6: 510 l/min
			QS-8: 810 l/min
Type of mounting		Via through-holes	
Pneumatic connection	1, 2	G $\frac{1}{8}$	Ø 6 or Ø 8 mm
	3	G $\frac{1}{8}$	G $\frac{1}{8}$
	10, 12	M3	Ø 3 mm
	82	M3	M3
Switching time on/off		16/27 ms	
Product weight		60 g	95 g
Materials		➔ 2 / 2.1-19	

Operating and environmental conditions			
		Threaded connection	Push-in connector
Operating medium		Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm Vacuum	
Operating pressure	Internal pilot air	2.5 ... 8 bar	
	External pilot air	−0.9 ... +10 bar	
Pilot pressure		2.5 ... 8 bar	
Ambient temperature		−5 ... +50 °C	
Temperature of medium		−5 ... +50 °C	

Electrical data		
	Threaded connection	Push-in connector
Operating voltage	24 V DC +10/−15%	
Power consumption	1.28 W	
Protection class with plug socket	IP65 (EN 60529)	

Solenoid valves CPE, Compact Performance

Technical data – 3/2-way valves

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Directional control valves for standard applications
Compact Performance

2.1

General technical data – Midi CPE18			
		Threaded connection	Push-in connector
Valve function		3/2-way, single solenoid	
Constructional design		Piston spool valve	
Sealing principle		Soft	
Type of actuation		Electrical	
Type of reset		Pneumatic	
Type of pilot control		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	
Mounting position		Any	
Width		18 mm	
Grid dimension		20 mm	
Nominal diameter		8 mm	8 mm
Standard nominal flow rate		G $\frac{1}{4}$: 1,300 l/min	QS-8: 850 l/min
			QS-10: 1,000 l/min
Type of mounting		Via through-holes	
Pneumatic connection	1, 2	G $\frac{1}{4}$	Ø 8 or Ø 10 mm
	3	G $\frac{1}{4}$	G $\frac{1}{4}$
	10, 12	M5	Ø 4 mm
	82	M5	M5
Switching time on/off		14/18 ms	
Product weight		150 g	
Materials		➔ 2 / 2.1-19	

Operating and environmental conditions			
		Threaded connection	Push-in connector
Operating medium		Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm Vacuum	
Operating pressure	Internal pilot air	2.5 ... 10 bar	
	External pilot air	−0.9 ... +10 bar	
Pilot pressure		2.5 ... 10 bar	
Ambient temperature		−5 ... +50 °C	
Temperature of medium		−5 ... +50 °C	

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

Solenoid valves CPE, Compact Performance

Technical data – 3/2-way valves

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General technical data – Maxi CPE24			
		Threaded connection	Push-in connector
Valve function		3/2-way, single solenoid	
Constructional design		Piston spool valve	
Sealing principle		Soft	
Type of actuation		Electrical	
Type of reset		Pneumatic	
Type of pilot control		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	
Mounting position		Any	
Width		24 mm	
Nominal diameter		11 mm	11 mm
Standard nominal flow rate		G $\frac{3}{8}$: 2,500 l/min	QS-10 1,250 l/min
			QS-12: 1,650 l/min
Type of mounting		Via through-holes	
Pneumatic connection	1, 2	G $\frac{3}{8}$	Ø 10 or Ø 12 mm
	3	G $\frac{3}{8}$	G $\frac{3}{8}$
	10, 12	M5	Ø 6 mm
	82	M5	M5
Switching time on/off		50/33 ms	
Product weight		220 g	
Materials		➔ 2 / 2.1-19	

Operating and environmental conditions			
		Threaded connection	Push-in connector
Operating medium		Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm Vacuum	
Operating pressure	Internal pilot air	2.5 ... 10 bar	
	External pilot air	–0.9 ... +10 bar	
Pilot pressure		2.5 ... 10 bar	
Ambient temperature		–5 ... +50 °C	
Temperature of medium		–5 ... +50 °C	

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

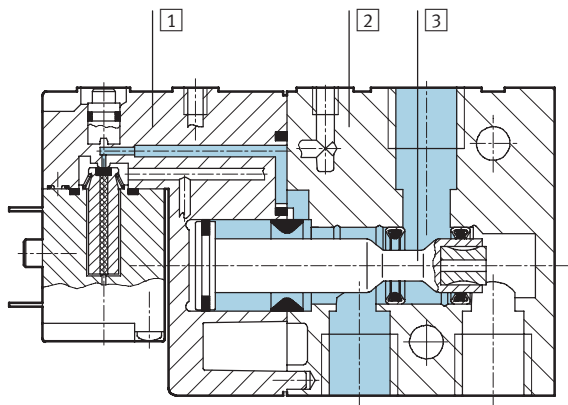
Solenoid valves CPE, Compact Performance

Technical data – 3/2-way valves



Materials

Sectional view



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

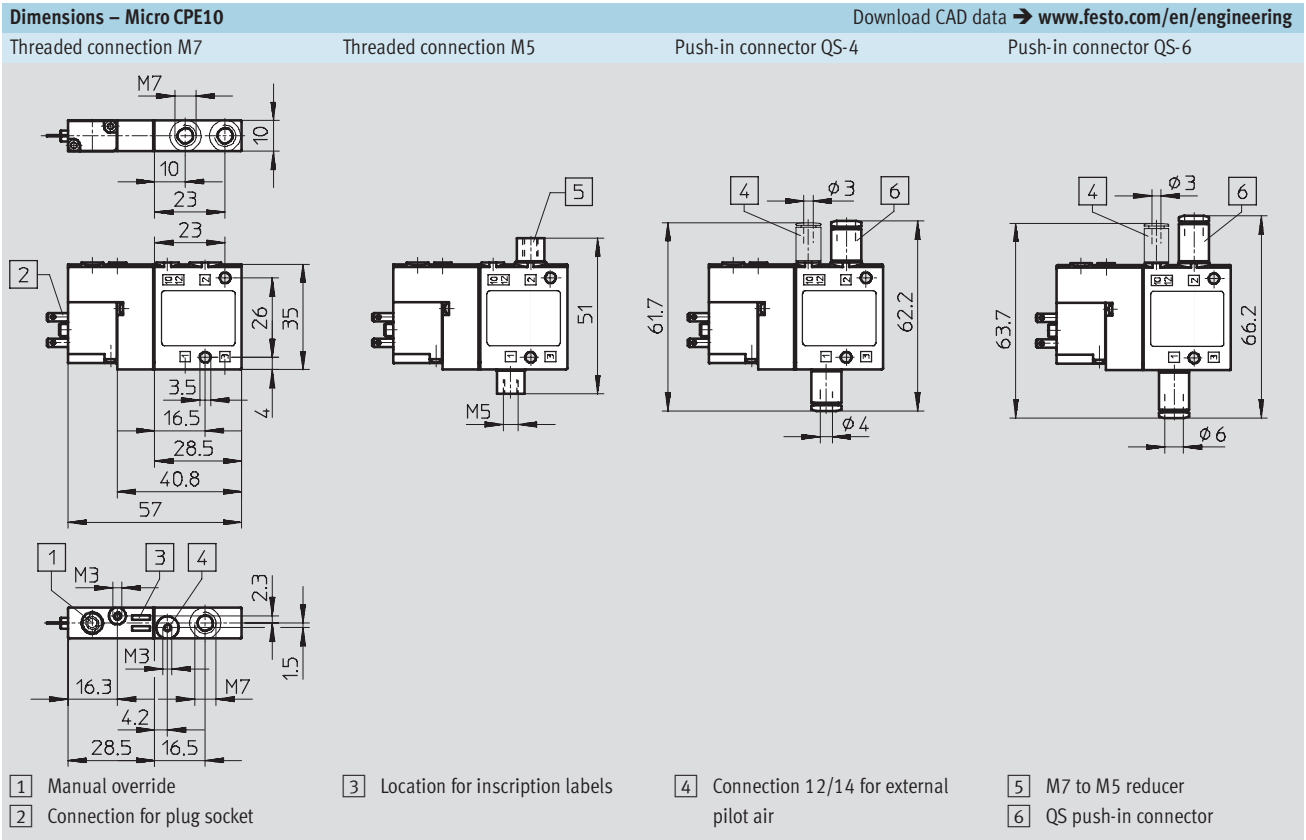
Directional control valves for standard applications
Compact Performance

2.1

Solenoid valves CPE, Compact Performance

Technical data – 3/2-way valves

FESTO



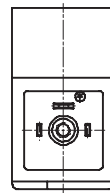
Connection diagrams

Micro CPE10, Mini CPE14



Suitable for plug socket
KMYZ-9-...

Midi CPE18, Maxi CPE24



Suitable for plug sockets to
DIN 43650, type C
KMEB-1-...
KMEB-2-...
MSSD-EB

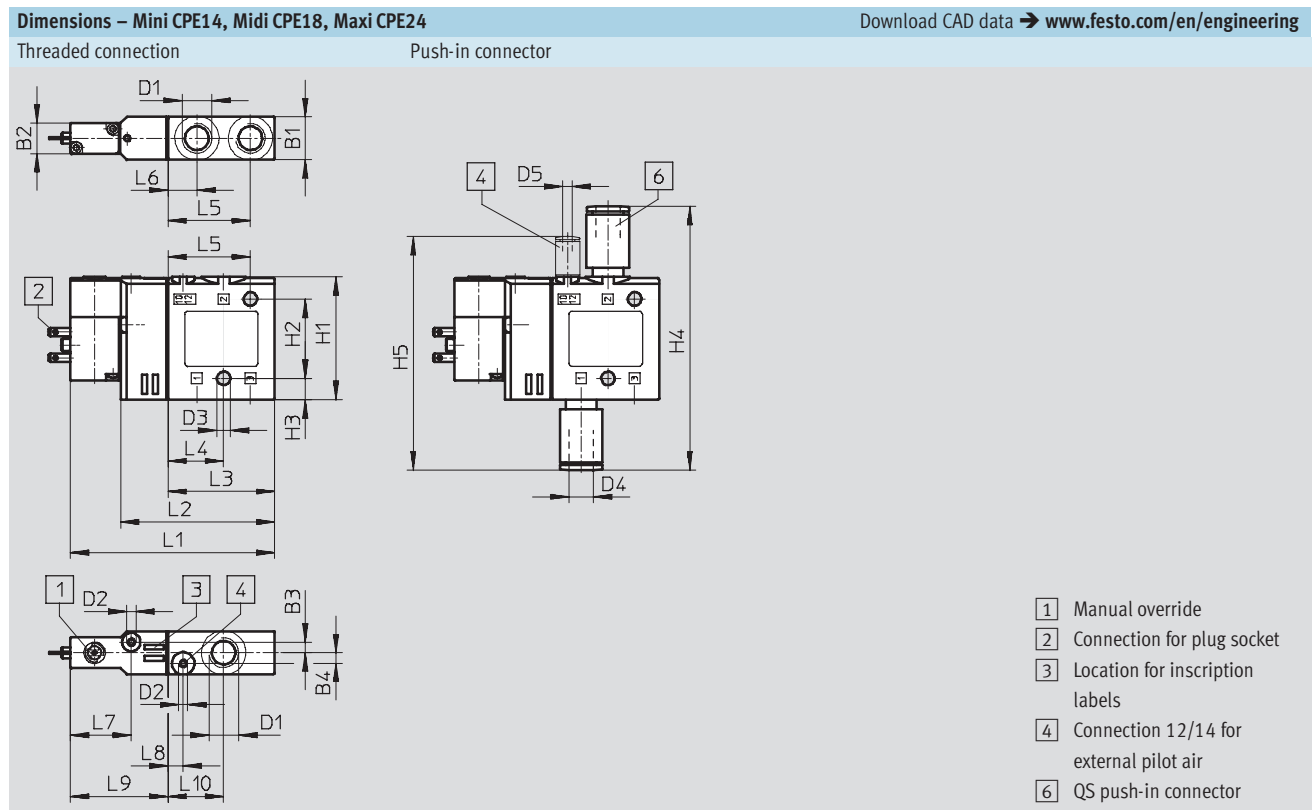
Solenoid valves CPE, Compact Performance

Technical data – 3/2-way valves

FESTO

Directional control valves for standard applications
Compact Performance

2.1



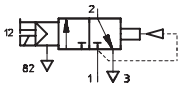
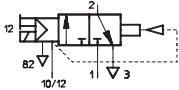
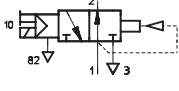
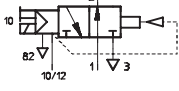
Pneumatic connection	B1	B2	B3	B4	D1	D2	D3 Ø	D4 Ø	D5 Ø	H1	H2	H3
Mini CPE14												
G1/8	14	10	3.5	3.5	G1/8	M3	4.4	–	–	40.3	26	7
QS-6								6	3			
QS-8								8				
Midi CPE18												
G1/4	18	17.5	3.5	3.5	G1/4	M5	4.4	–	–	57	45	6
QS-8								8	6			
QS-10								10				
Maxi CPE24												
G3/8	24	17.5	6	6	G3/8	M5	6.5	–	–	62	40	11
QS-10								10	6			
QS-12								12				

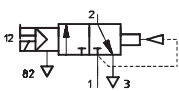
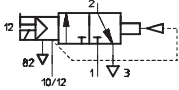
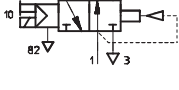
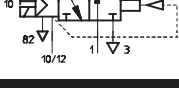
Pneumatic connection	H4	H5	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10
Mini CPE14												
G¼	–	–	67	50.5	35	18.3	27	9.5	20	5	32	18.3
QS-6	75.3	70.9										
QS-8	86.3	76.4										
Midi CPE18												
G¼	–	–	94	69	50	28	38	17.5	29	5.5	44	27.5
QS-8	98	90.5										
QS-10	105	94										
Maxi CPE24												
G¾	–	–	110	85	65	35	50	20	33	10	45	35
QS-10	108	99.5										
QS-12	113	102										

Solenoid valves CPE, Compact Performance

Technical data – 3/2-way valves

FESTO

Ordering data – Micro CPE10				
Circuit symbol	Description	Pneumatic connection	Part No.	Type
Operating voltage 24 V DC				
	- Normally closed - Internal pilot air	M5	196 845	CPE10-M1BH-3GL-M5
		M7	196 915	CPE10-M1BH-3GL-M7
		QS-4	196 846	CPE10-M1BH-3GL-QS-4
		QS-6	196 847	CPE10-M1BH-3GL-QS-6
	- Normally closed - External pilot air	M5	196 848	CPE10-M1BH-3GLS-M5
		M7	196 916	CPE10-M1BH-3GLS-M7
		QS-4	196 849	CPE10-M1BH-3GLS-QS-4
		QS-6	196 850	CPE10-M1BH-3GLS-QS-6
	- Normally open - Internal pilot air	M5	196 851	CPE10-M1BH-3OL-M5
		M7	196 917	CPE10-M1BH-3OL-M7
		QS-4	196 852	CPE10-M1BH-3OL-QS-4
		QS-6	196 853	CPE10-M1BH-3OL-QS-6
	- Normally open - External pilot air	M5	196 854	CPE10-M1BH-3OLS-M5
		M7	196 918	CPE10-M1BH-3OLS-M7
		QS-4	196 855	CPE10-M1BH-3OLS-QS-4
		QS-6	196 856	CPE10-M1BH-3OLS-QS-6

Ordering data – Mini CPE14				
Circuit symbol	Description	Pneumatic connection	Part No.	Type
Operating voltage 24 V DC				
	- Normally closed - Internal pilot air	G1/8	196 929	CPE14-M1BH-3GL-1/8
		QS-6	196 887	CPE14-M1BH-3GL-QS-6
		QS-8	196 888	CPE14-M1BH-3GL-QS-8
	- Normally closed - External pilot air	G1/8	196 930	CPE14-M1BH-3GLS-1/8
		QS-6	196 889	CPE14-M1BH-3GLS-QS-6
		QS-8	196 890	CPE14-M1BH-3GLS-QS-8
	- Normally open - Internal pilot air	G1/8	196 931	CPE14-M1BH-3OL-1/8
		QS-6	196 891	CPE14-M1BH-3OL-QS-6
		QS-8	196 892	CPE14-M1BH-3OL-QS-8
	- Normally open - External pilot air	G1/8	196 932	CPE14-M1BH-3OLS-1/8
		QS-6	196 893	CPE14-M1BH-3OLS-QS-6
		QS-8	196 894	CPE14-M1BH-3OLS-QS-8

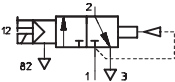
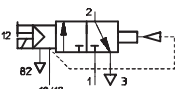
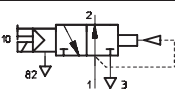
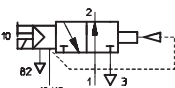
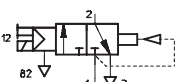
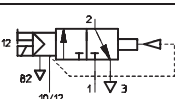
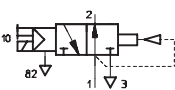
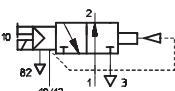
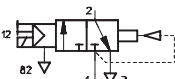
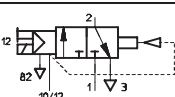
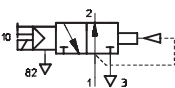
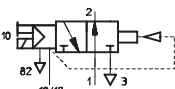
Solenoid valves CPE, Compact Performance

Technical data – 3/2-way valves

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Directional control valves for standard applications
Compact Performance

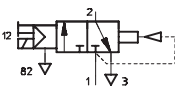
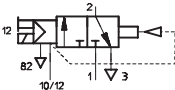
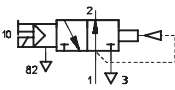
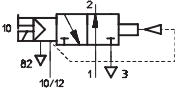
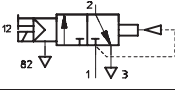
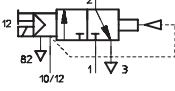
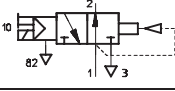
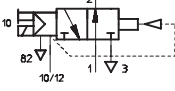
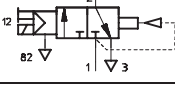
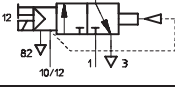
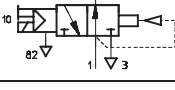
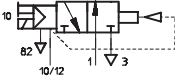
2.1

Ordering data – Midi CPE18				
Circuit symbol	Description	Pneumatic connection	Part No.	Type
Operating voltage 24 V DC				
	• Normally closed • Internal pilot air	G $\frac{1}{4}$	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
	• Normally closed • External pilot air	G $\frac{1}{4}$	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
	• Normally open • Internal pilot air	G $\frac{1}{4}$	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
	• Normally open • External pilot air	G $\frac{1}{4}$	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
Operating voltage 110 V AC				
	• Normally closed • Internal pilot air	G $\frac{1}{4}$	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
	• Normally closed • External pilot air	G $\frac{1}{4}$	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
	• Normally open • Internal pilot air	G $\frac{1}{4}$	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
	• Normally open • External pilot air	G $\frac{1}{4}$	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
Operating voltage 230 V AC				
	• Normally closed • Internal pilot air	G $\frac{1}{4}$	163 785	CPE18-M3H-3GL- $\frac{1}{4}$
		QS-8	163 793	CPE18-M3H-3GL-QS-8
		QS-10	163 801	CPE18-M3H-3GL-QS-10
	• Normally closed • External pilot air	G $\frac{1}{4}$	163 789	CPE18-M3H-3GLS- $\frac{1}{4}$
		QS-8	163 797	CPE18-M3H-3GLS-QS-8
		QS-10	163 805	CPE18-M3H-3GLS-QS-10
	• Normally open • Internal pilot air	G $\frac{1}{4}$	163 784	CPE18-M3H-3OL- $\frac{1}{4}$
		QS-8	163 792	CPE18-M3H-3OL-QS-8
		QS-10	163 800	CPE18-M3H-3OL-QS-10
	• Normally open • External pilot air	G $\frac{1}{4}$	163 788	CPE18-M3H-3OLS- $\frac{1}{4}$
		QS-8	163 796	CPE18-M3H-3OLS-QS-8
		QS-10	163 804	CPE18-M3H-3OLS-QS-10

Solenoid valves CPE, Compact Performance

Technical data – 3/2-way valves

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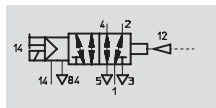
Ordering data – Maxi CPE24				
Circuit symbol	Description	Pneumatic connection	Part No.	Type
Operating voltage 24 V DC				
	• Normally closed • Internal pilot air	G $\frac{3}{8}$	163 165	CPE24-M1H-3GL- $\frac{3}{8}$
		QS-10	163 173	CPE24-M1H-3GL-QS-10
		QS-12	163 181	CPE24-M1H-3GL-QS-12
	• Normally closed • External pilot air	G $\frac{3}{8}$	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
	• Normally open • Internal pilot air	G $\frac{3}{8}$	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
	• Normally open • External pilot air	G $\frac{3}{8}$	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
Operating voltage 110 V AC				
	• Normally closed • Internal pilot air	G $\frac{3}{8}$	163 809	CPE24-M2H-3GL- $\frac{3}{8}$
		QS-10	163 817	CPE24-M2H-3GL-QS-10
		QS-12	163 825	CPE24-M2H-3GL-QS-12
	• Normally closed • External pilot air	G $\frac{3}{8}$	163 813	CPE24-M2H-3GLS- $\frac{3}{8}$
		QS-10	163 821	CPE24-M2H-3GLS-QS-10
		QS-12	163 829	CPE24-M2H-3GLS-QS-12
	• Normally open • Internal pilot air	G $\frac{3}{8}$	163 808	CPE24-M2H-3OL- $\frac{3}{8}$
		QS-10	163 816	CPE24-M2H-3OL-QS-10
		QS-12	163 824	CPE24-M2H-3OL-QS-12
	• Normally open • External pilot air	G $\frac{3}{8}$	163 812	CPE24-M2H-3OLS- $\frac{3}{8}$
		QS-10	163 820	CPE24-M2H-3OLS-QS-10
		QS-12	163 828	CPE24-M2H-3OLS-QS-12
Operating voltage 230 V AC				
	• Normally closed • Internal pilot air	G $\frac{3}{8}$	163 833	CPE24-M3H-3GL- $\frac{3}{8}$
		QS-10	163 841	CPE24-M3H-3GL-QS-10
		QS-12	163 849	CPE24-M3H-3GL-QS-12
	• Normally closed • External pilot air	G $\frac{3}{8}$	163 837	CPE24-M3H-3GLS- $\frac{3}{8}$
		QS-10	163 845	CPE24-M3H-3GLS-QS-10
		QS-12	163 853	CPE24-M3H-3GLS-QS-12
	• Normally open • Internal pilot air	G $\frac{3}{8}$	163 832	CPE24-M3H-3OL- $\frac{3}{8}$
		QS-10	163 840	CPE24-M3H-3OL-QS-10
		QS-12	163 848	CPE24-M3H-3OL-QS-12
	• Normally open • External pilot air	G $\frac{3}{8}$	163 836	CPE24-M3H-3OLS- $\frac{3}{8}$
		QS-10	163 844	CPE24-M3H-3OLS-QS-10
		QS-12	163 852	CPE24-M3H-3OLS-QS-12

Solenoid valves CPE, Compact Performance

FESTO

Technical data – 5/2-way valves

Function



e.g. with external pilot air

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

-  - Voltage
24 V DC
110, 230 V AC



General technical data – Micro CPE10			
		Threaded connection	Push-in connector
Valve function		5/2-way, single solenoid	
Constructional design		Piston spool valve	
Sealing principle		Soft	
Type of actuation		Electrical	
Type of reset		Pneumatic	
Type of pilot control		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	
Mounting position		Any	
Width		10 mm	
Grid dimension		12 mm	
Nominal diameter		4 mm	4 mm
Standard nominal flow rate		M5: 180 l/min	QS-4: 180 l/min
		M7: 350 l/min	QS-6: 320 l/min
Type of mounting		Via through-holes	
Pneumatic connection	1, 2, 4	M5 or M7	Ø 4 or Ø 6 mm
	3, 5	M7	M7
	12, 14	M3	Ø 3 mm
	84	M3	M3
Switching time on/off		16/16 ms	
Product weight		56 g	100 g
Materials		→ 2 / 2.1-29	

Operating and environmental conditions			
		Threaded connection	Push-in connector
Operating medium		Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm Vacuum	
Operating pressure	Internal pilot air	3 ... 8 bar	
	External pilot air	-0.9 ... +10 bar	
Pilot pressure		3 ... 8 bar	
Ambient temperature		-5 ... +50 °C	
Temperature of medium		-5 ... +50 °C	

Electrical data			
		Threaded connection	Push-in connector
Operating voltage		24 V DC +10/-15%	
Power consumption		1.28 W	
Protection class with plug socket		IP65 (EN 60529)	

Solenoid valves CPE, Compact Performance

Technical data – 5/2-way valves

FESTO

General technical data – Mini CPE14			
		Threaded connection	Push-in connector
Valve function		5/2-way, single solenoid	
Constructional design		Piston spool valve	
Sealing principle		Soft	
Type of actuation		Electrical	
Type of reset		Pneumatic	
Type of pilot control		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	
Mounting position		Any	
Width		14 mm	
Grid dimension		16 mm	
Nominal diameter		6 mm	6 mm
Standard nominal flow rate		G $\frac{1}{8}$: 800 l/min	QS-6: 400 l/min
			QS-8: 680 l/min
Type of mounting		Via through-holes	
Pneumatic connection	1, 2, 4	G $\frac{1}{8}$	Ø 6 or Ø 8 mm
	3, 5	G $\frac{1}{8}$	G $\frac{1}{8}$
	12, 14	M3	Ø 3 mm
	84	M3	M3
Switching time on/off		24/32 ms	
Product weight		95 g	143 g
Materials		➔ 2 / 2.1-29	

Operating and environmental conditions			
		Threaded connection	Push-in connector
Operating medium		Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm Vacuum	
Operating pressure	Internal pilot air	3 ... 8 bar	
	External pilot air	-0.9 ... +10 bar	
Pilot pressure		3 ... 8 bar	
Ambient temperature		-5 ... +50 °C	
Temperature of medium		-5 ... +50 °C	

Electrical data		
	Threaded connection	Push-in connector
Operating voltage	24 V DC +10/-15%	
Power consumption	1.28 W	
Protection class with plug socket	IP65 (EN 60529)	

Solenoid valves CPE, Compact Performance

Technical data – 5/2-way valves

FESTO

Directional control valves for standard applications
Compact Performance

2.1

General technical data – Midi CPE18			
		Threaded connection	Push-in connector
Valve function		5/2-way, single solenoid	
Constructional design		Piston spool valve	
Sealing principle		Soft	
Type of actuation		Electrical	
Type of reset		Pneumatic	
Type of pilot control		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	
Mounting position		Any	
Width		18 mm	
Grid dimension		20 mm	
Nominal diameter		8 mm	8 mm
Standard nominal flow rate		G $\frac{1}{4}$: 1,500 l/min	QS-8: 850 l/min
			QS-10: 1,000 l/min
Type of mounting		Via through-holes	
Pneumatic connection	1, 2, 4	G $\frac{1}{4}$	Ø 8 or Ø 10 mm
	3, 5	G $\frac{1}{4}$	G $\frac{1}{4}$
	12, 14	M5	Ø 4 mm
	84	M5	M5
Switching time on/off		26/20 ms	
Product weight		220 g	
Materials		➔ 2 / 2.1-29	

Operating and environmental conditions			
		Threaded connection	Push-in connector
Operating medium		Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm Vacuum	
Operating pressure	Internal pilot air	2.5 ... 10 bar	
	External pilot air	−0.9 ... +10 bar	
Pilot pressure		2.5 ... 10 bar	
Ambient temperature		−5 ... +50 °C	
Temperature of medium		−5 ... +50 °C	

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

Solenoid valves CPE, Compact Performance

Technical data – 5/2-way valves

FESTO

General technical data – Maxi CPE24			
		Threaded connection	Push-in connector
Valve function		5/2-way, single solenoid	
Constructional design		Piston spool valve	
Sealing principle		Soft	
Type of actuation		Electrical	
Type of reset		Pneumatic	
Type of pilot control		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	
Mounting position		Any	
Width		24 mm	
Nominal diameter		11 mm	11 mm
Standard nominal flow rate		G $\frac{3}{8}$: 2,900 l/min	QS-10: 1,250 l/min
			QS-12: 1,650 l/min
Type of mounting		Via through-holes	
Pneumatic connection	1, 2, 4	G $\frac{3}{8}$	Ø 10 or Ø 12 mm
	3, 5	G $\frac{3}{8}$	G $\frac{3}{8}$
	12, 14	M5	Ø 6 mm
	84	M5	M5
Switching time on/off		40/50 ms	
Product weight		360 g	
Materials		➔ 2 / 2.1-29	

Operating and environmental conditions			
		Threaded connection	Push-in connector
Operating medium		Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm Vacuum	
Operating pressure	Internal pilot air	2.5 ... 10 bar	
	External pilot air	−0.9 ... +10 bar	
Pilot pressure		2.5 ... 10 bar	
Ambient temperature		−5 ... +50 °C	
Temperature of medium		−5 ... +50 °C	

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

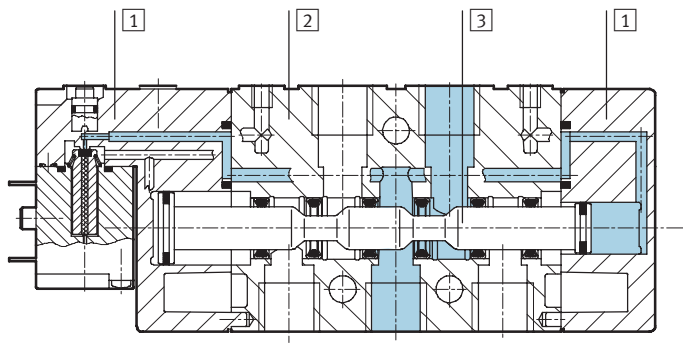
Solenoid valves CPE, Compact Performance

Technical data – 5/2-way valves



Materials

Sectional view



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

Directional control valves for standard applications
Compact Performance

2.1

Solenoid valves CPE, Compact Performance

Technical data – 5/2-way valves

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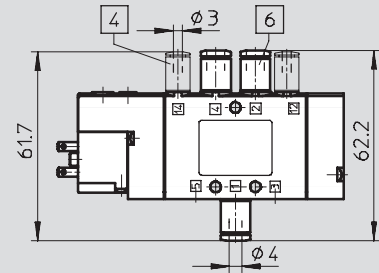
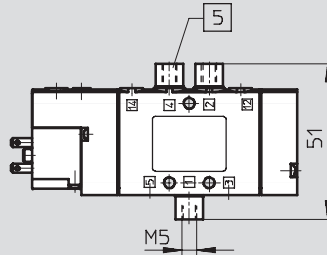
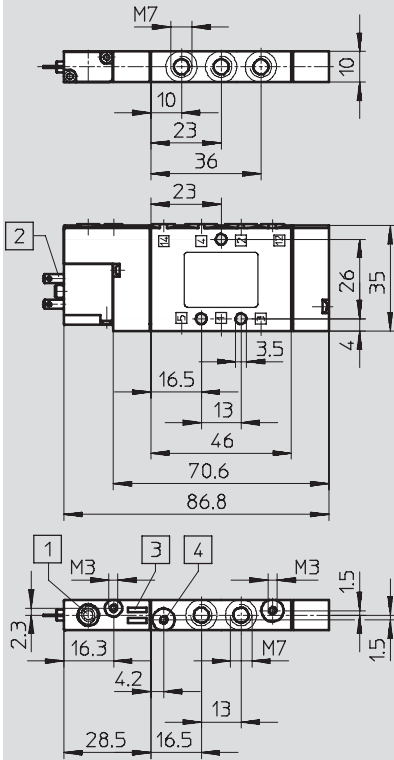
Dimensions – Micro CPE10

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

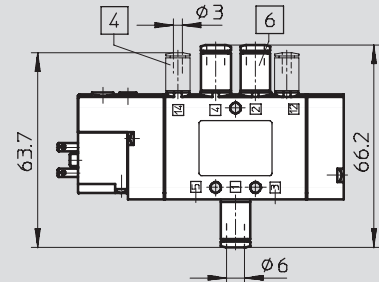
Threaded connection M7

Threaded connection M5

Push-in connector QS-4



Push-in connector QS-6



- 1 Manual override
- 2 Connection for plug socket

- 3 Location for inscription labels

- 4 Connection 12/14 for external pilot air

- 5 M7 to M5 reducer
- 6 QS push-in connector

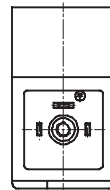
Connection diagrams

Micro CPE10, Mini CPE14



Suitable for plug socket
KMYZ-9-...

Midi CPE18, Maxi CPE24



Suitable for plug sockets to
DIN 43650, type C
KMEB-1-...
KMEB-2-...
MSSD-EB

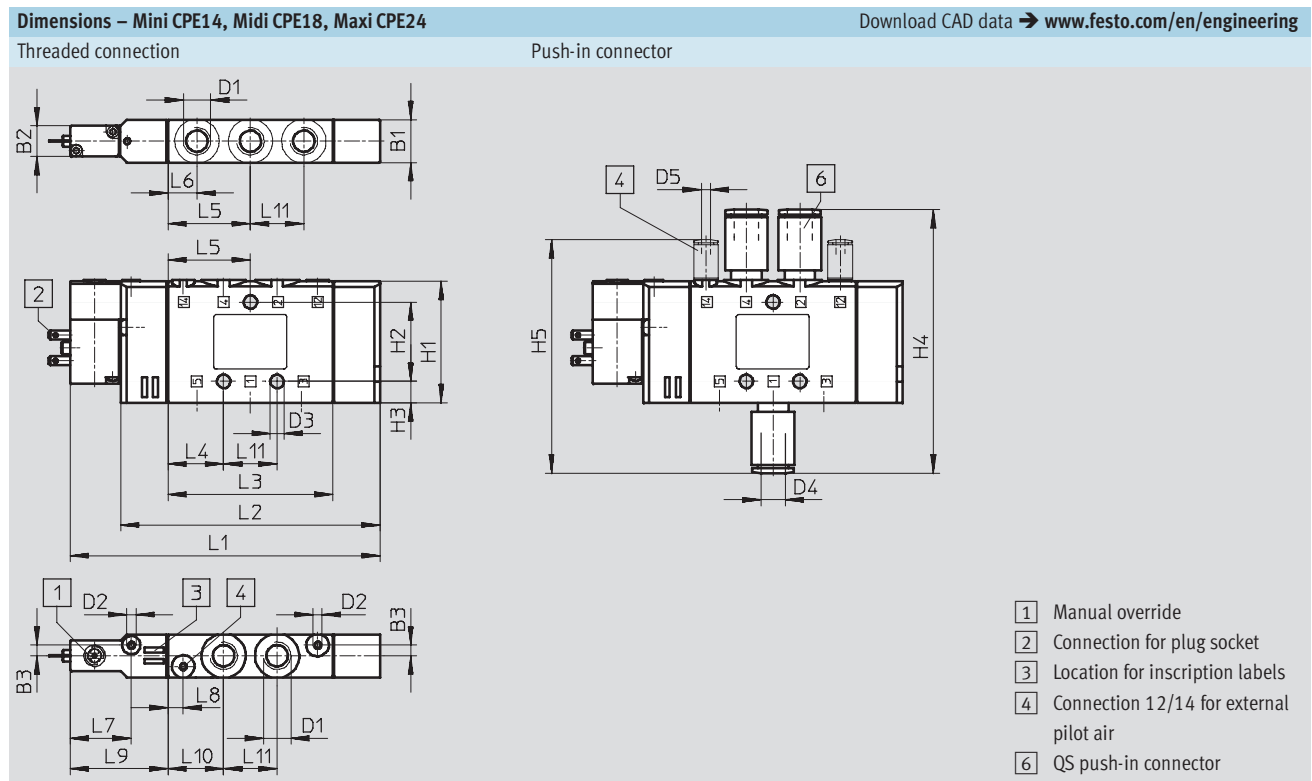
Solenoid valves CPE, Compact Performance

Technical data – 5/2-way valves

FESTO

Directional control valves for standard applications
Compact Performance

2.1



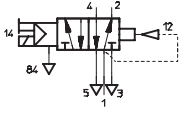
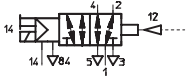
Pneumatic connection	B1	B2	B3	D1	D2	D3 Ø	D4 Ø	D5 Ø	H1	H2	H3	H4
Mini CPE14												
G1/8	14	10	3.5	G1/8	M3	4.4	–	–	40.3	26	7	–
QS-6							6	3				75.3
QS-8							8					86.3
Midi CPE18												
G1/4	18	17.5	3.5	G1/4	M5	4.4	–	–	57	45	6	–
QS-8							8	6				98
QS-10							10					105
Maxi CPE24												
G3/8	24	17.5	6	G3/8	M5	6.5	–	–	62	40	11	–
QS-10							10	6				108
QS-12							12					113

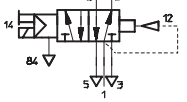
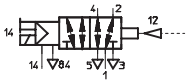
Pneumatic connection	H5	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11
Mini CPE14												
G $\frac{1}{8}$	–	101.5	85	54	18.3	27	9.5	20	5	32	18.3	17.5
QS-6	70.9											
QS-8	76.4											
Midi CPE18												
G $\frac{1}{4}$	–	138	113	75	28	38	17.5	29	5.5	44	27.5	20
QS-8	90.5											
QS-10	94											
Maxi CPE24												
G $\frac{3}{8}$	–	165	140	100	35	50	20	33	10	45	35	30
QS-10	99.5											
QS-12	102											

Solenoid valves CPE, Compact Performance

Technical data – 5/2-way valves

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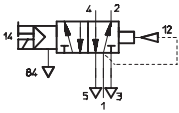
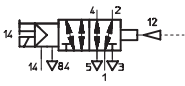
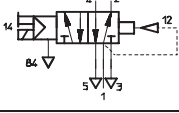
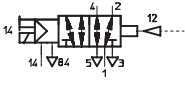
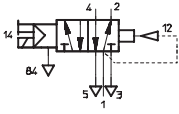
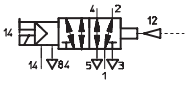
Ordering data – Micro CPE10				
Circuit symbol	Pilot air supply	Pneumatic connection	Part No.	Type
Operating voltage 24 V DC				
	Internal	M5	196 881	CPE10-M1BH-5L-M5
		M7	196 927	CPE10-M1BH-5L-M7
		QS-4	196 882	CPE10-M1BH-5L-QS-4
		QS-6	196 883	CPE10-M1BH-5L-QS-6
	External	M5	196 884	CPE10-M1BH-5LS-M5
		M7	196 928	CPE10-M1BH-5LS-M7
		QS-4	196 885	CPE10-M1BH-5LS-QS-4
		QS-6	196 886	CPE10-M1BH-5LS-QS-6

Ordering data – Mini CPE14				
Circuit symbol	Pilot air supply	Pneumatic connection	Part No.	Type
Operating voltage 24 V DC				
	Internal	G1/8	196 941	CPE14-M1BH-5L-1/8
		QS-6	196 911	CPE14-M1BH-5L-QS-6
		QS-8	196 912	CPE14-M1BH-5L-QS-8
	External	G1/8	196 942	CPE14-M1BH-5LS-1/8
		QS-6	196 913	CPE14-M1BH-5LS-QS-6
		QS-8	196 914	CPE14-M1BH-5LS-QS-8

Solenoid valves CPE, Compact Performance

Technical data – 5/2-way valves

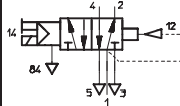
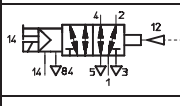
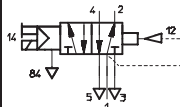
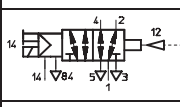
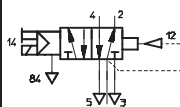
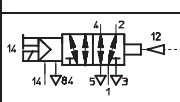
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Ordering data – Midi CPE18				
Circuit symbol	Pilot air supply	Pneumatic connection	Part No.	Type
Operating voltage 24 V DC				
	Internal	G1/4	163 142	CPE18-M1H-5L-1/4
		QS-8	163 150	CPE18-M1H-5L-QS-8
		QS-10	163 158	CPE18-M1H-5L-QS-10
	External	G1/4	163 146	CPE18-M1H-5LS-1/4
		QS-8	163 154	CPE18-M1H-5LS-QS-8
		QS-10	163 162	CPE18-M1H-5LS-QS-10
Operating voltage 110 V AC				
	Internal	G1/4	163 762	CPE18-M2H-5L-1/4
		QS-8	163 770	CPE18-M2H-5L-QS-8
		QS-10	163 778	CPE18-M2H-5L-QS-10
	External	G1/4	163 766	CPE18-M2H-5LS-1/4
		QS-8	163 774	CPE18-M2H-5LS-QS-8
		QS-10	163 782	CPE18-M2H-5LS-QS-10
Operating voltage 230 V AC				
	Internal	G1/4	163 786	CPE18-M3H-5L-1/4
		QS-8	163 794	CPE18-M3H-5L-QS-8
		QS-10	163 802	CPE18-M3H-5L-QS-10
	External	G1/4	163 790	CPE18-M3H-5LS-1/4
		QS-8	163 798	CPE18-M3H-5LS-QS-8
		QS-10	163 806	CPE18-M3H-5LS-QS-10

Solenoid valves CPE, Compact Performance

Technical data – 5/2-way valves

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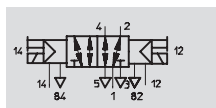
Ordering data – Maxi CPE24				
Circuit symbol	Pilot air supply	Pneumatic connection	Part No.	Type
Operating voltage 24 V DC				
	Internal	G $\frac{3}{8}$	163 166	CPE24-M1H-5L- $\frac{3}{8}$
		QS-10	163 174	CPE24-M1H-5L-QS-10
		QS-12	163 182	CPE24-M1H-5L-QS-12
	External	G $\frac{3}{8}$	163 170	CPE24-M1H-5LS- $\frac{3}{8}$
		QS-10	163 178	CPE24-M1H-5LS-QS-10
		QS-12	163 186	CPE24-M1H-5LS-QS-12
Operating voltage 110 V AC				
	Internal	G $\frac{3}{8}$	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
	External	G $\frac{3}{8}$	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
Operating voltage 230 V AC				
	Internal	G $\frac{3}{8}$	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
	External	G $\frac{3}{8}$	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

Solenoid valves CPE, Compact Performance

FESTO

Technical data – 5/2-way valves, double solenoid valves

Function



e.g. with external pilot air

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

-  - Voltage
24 V DC
110, 230 V AC



General technical data – Micro CPE10			
		Threaded connection	Push-in connector
Valve function		5/2-way, double solenoid	
Constructional design		Piston spool valve	
Sealing principle		Soft	
Type of actuation		Electrical	
Type of pilot control		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	
Mounting position		Any	
Width		10 mm	
Grid dimension		12 mm	
Nominal diameter		4 mm	4 mm
Standard nominal flow rate		M5: 180 l/min	QS-4: 180 l/min
		M7: 350 l/min	QS-6: 320 l/min
Type of mounting		Via through-holes	
Pneumatic connection	1, 2, 4	M5 or M7	Ø 4 or Ø 6 mm
	3, 5	M7	M7
	12, 14	M3	Ø 3 mm
	84	M3	M3
Changeover time		8 ms	
Product weight		68 g	95 g
Materials		➔ 2 / 2.1-39	

Operating and environmental conditions			
		Threaded connection	Push-in connector
Operating medium		Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm Vacuum	
Operating pressure	Internal pilot air	2.5 ... 8 bar	
	External pilot air	-0.9 ... +10 bar	
Pilot pressure		2.5 ... 8 bar	
Ambient temperature		-5 ... +50 °C	
Temperature of medium		-5 ... +50 °C	

Electrical data			
		Threaded connection	Push-in connector
Operating voltage		24 V DC +10/-15%	
Power consumption		1.28 W	
Protection class with plug socket		IP65 (EN 60529)	

Solenoid valves CPE, Compact Performance

Technical data – 5/2-way valves, double solenoid valves

FESTO

General technical data – Mini CPE14			
		Threaded connection	Push-in connector
Valve function		5/2-way, double solenoid	
Constructional design		Piston spool valve	
Sealing principle		Soft	
Type of actuation		Electrical	
Type of pilot control		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	
Mounting position		Any	
Width		14 mm	
Grid dimension		16 mm	
Nominal diameter		6 mm	6 mm
Standard nominal flow rate		G $\frac{1}{8}$: 800 l/min	QS-6: 400 l/min
			QS-8: 680 l/min
Type of mounting		Via through-holes	
Pneumatic connection	1, 2, 4	G $\frac{1}{8}$	Ø 6 or Ø 8 mm
	3, 5	G $\frac{1}{8}$	G $\frac{1}{8}$
	12, 14	M3	Ø 3 mm
	84	M3	M3
Changeover time		12 ms	
Product weight		115 g	144 g
Materials		➔ 2 / 2.1-39	

Operating and environmental conditions			
		Threaded connection	Push-in connector
Operating medium		Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm Vacuum	
Operating pressure	Internal pilot air	2 ... 8 bar	
	External pilot air	−0.9 ... +10 bar	
Pilot pressure		2 ... 8 bar	
Ambient temperature		−5 ... +50 °C	
Temperature of medium		−5 ... +50 °C	

Electrical data		
	Threaded connection	Push-in connector
Operating voltage	24 V DC +10/−15%	
Power consumption	1.28 W	
Protection class with plug socket	IP65 (EN 60529)	

Solenoid valves CPE, Compact Performance

FESTO

Technical data – 5/2-way valves, double solenoid valves

General technical data – Midi CPE18			
		Threaded connection	Push-in connector
Valve function		5/2-way, double solenoid	
Constructional design		Piston spool valve	
Sealing principle		Soft	
Type of actuation		Electrical	
Type of pilot control		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	
Mounting position		Any	
Width		18 mm	
Grid dimension		20 mm	
Nominal diameter		8 mm	8 mm
Standard nominal flow rate		G $\frac{1}{4}$: 1,500 l/min	QS-8: 850 l/min
			QS-10: 1,000 l/min
Type of mounting		Via through-holes	
Pneumatic connection	1, 2, 4	G $\frac{1}{4}$	Ø 8 or Ø 10 mm
	3, 5	G $\frac{1}{4}$	G $\frac{1}{4}$
	12, 14	M5	Ø 4 mm
	84	M5	M5
Changeover time		13 ms	
Product weight		270 g	
Materials		➔ 2 / 2.1-39	

Operating and environmental conditions			
		Threaded connection	Push-in connector
Operating medium		Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm Vacuum	
Operating pressure	Internal pilot air	2 ... 10 bar	
	External pilot air	−0.9 ... +10 bar	
Pilot pressure		2 ... 10 bar	
Ambient temperature		−5 ... +50 °C	
Temperature of medium		−5 ... +50 °C	

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

Solenoid valves CPE, Compact Performance

Technical data – 5/2-way valves, double solenoid valves

FESTO

General technical data – Maxi CPE24			
		Threaded connection	Push-in connector
Valve function		5/2-way, double solenoid	
Constructional design		Piston spool valve	
Sealing principle		Soft	
Type of actuation		Electrical	
Type of pilot control		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	
Mounting position		Any	
Width		24 mm	
Nominal diameter		11 mm	11 mm
Standard nominal flow rate		G $\frac{3}{8}$: 3,200 l/min	QS-10: 1,250 l/min
			QS-12: 1,650 l/min
Type of mounting		Via through-holes	
Pneumatic connection	1, 2, 4	G $\frac{3}{8}$	Ø 10 or Ø 12 mm
	3, 5	G $\frac{3}{8}$	G $\frac{3}{8}$
	12, 14	M5	Ø 6 mm
	84	M5	M5
Changeover time		25 ms	
Product weight		390 g	
Materials		➔ 2 / 2.1-39	

Operating and environmental conditions			
		Threaded connection	Push-in connector
Operating medium		Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm Vacuum	
Operating pressure	Internal pilot air	2 ... 10 bar	
	External pilot air	–0.9 ... +10 bar	
Pilot pressure		2 ... 10 bar	
Ambient temperature		–5 ... +50 °C	
Temperature of medium		–5 ... +50 °C	

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

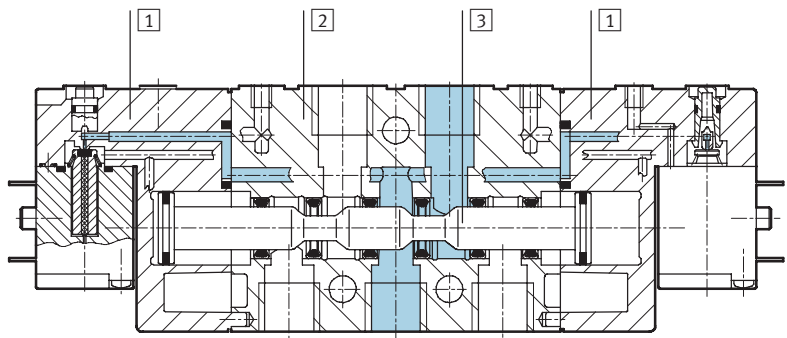
Solenoid valves CPE, Compact Performance

Technical data – 5/2-way valves, double solenoid valves



Materials

Sectional view



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

Directional control valves for standard applications
Compact Performance

2.1

Solenoid valves CPE, Compact Performance

Technical data – 5/2-way valves, double solenoid valves

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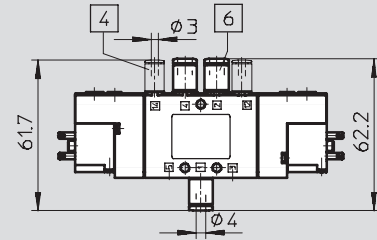
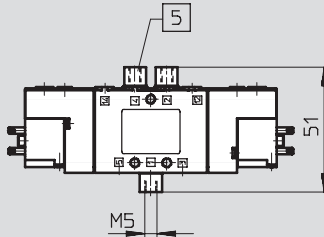
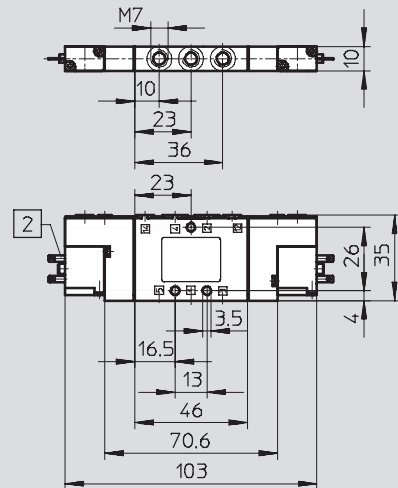
Dimensions – Micro CPE10

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

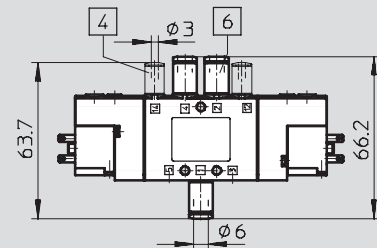
Threaded connection M7

Threaded connection M5

Push-in connector QS-4



Push-in connector QS-6



- 1 Manual override
- 2 Connection for plug socket

- 3 Location for inscription labels

- 4 Connection 12/14 for external pilot air

- 5 M7 to M5 reducer
- 6 QS push-in connector

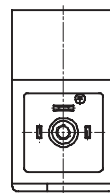
Connection diagrams

Micro CPE10, Mini CPE14

Midi CPE18, Maxi CPE24



Suitable for plug socket
KMYZ-9-...



Suitable for plug sockets to
DIN 43650, type C
KMEB-1-...
KMEB-2-...
MSSD-EB

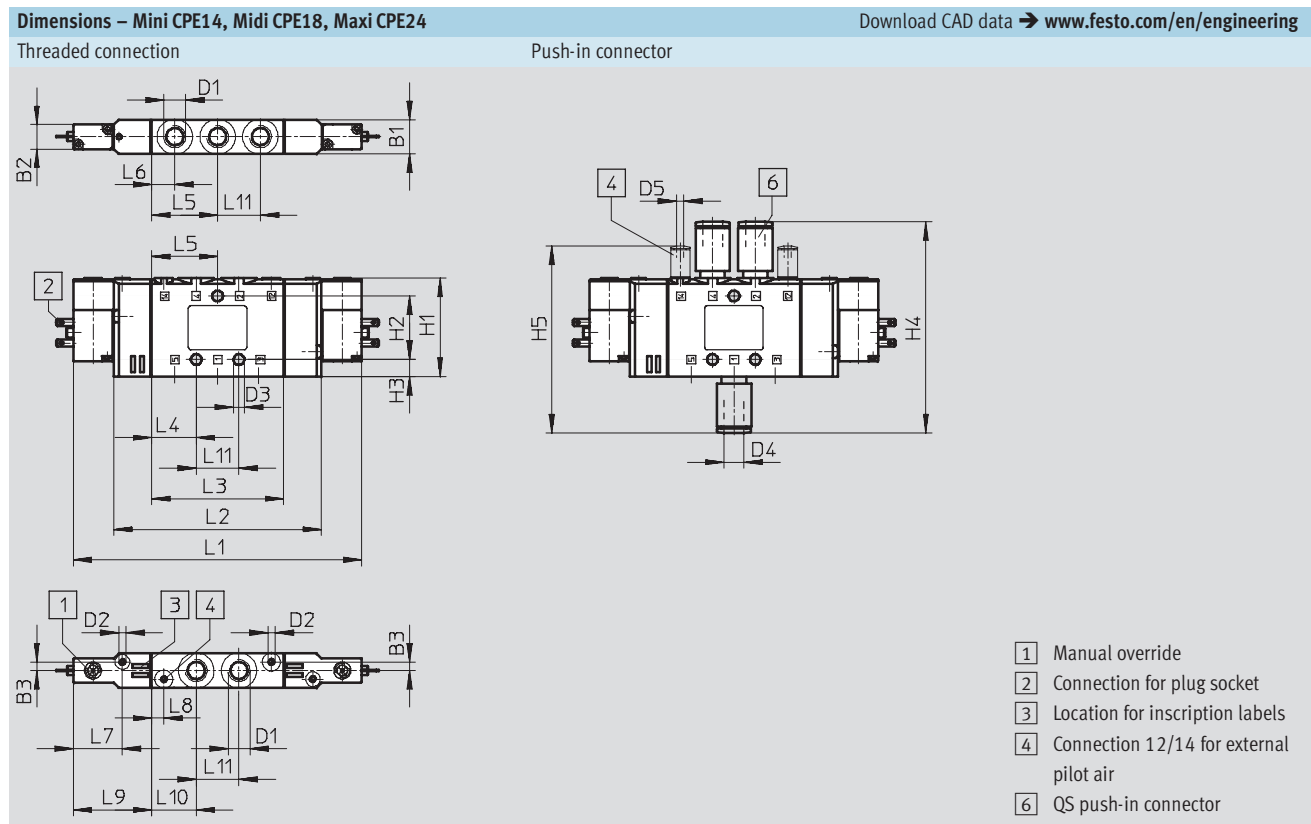
Solenoid valves CPE, Compact Performance

Technical data – 5/2-way valves, double solenoid valves

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Directional control valves for standard applications
Compact Performance

2.1



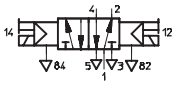
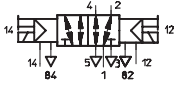
Pneumatic connection	B1	B2	B3	D1	D2	D3 Ø	D4 Ø	D5 Ø	H1	H2	H3	H4
Mini CPE14												
G1/8	14	10	3.5	G1/8	M3	4.4	–	–	40.3	26	7	–
QS-6							6	3				75.3
QS-8							8					86.3
Midi CPE18												
G1/4	18	17.5	3.5	G1/4	M5	4.4	–	–	57	45	6	–
QS-8							8	6				98
QS-10							10					105
Maxi CPE24												
G3/8	24	17.5	6	G3/8	M5	6.5	–	–	62	40	11	–
QS-10							10	6				108
QS-12							12					113

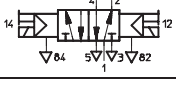
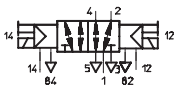
Pneumatic connection	H5	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11
Mini CPE14												
G $\frac{1}{8}$	–	118	85	54	18.3	27	9.5	20	5	32	18.3	17.5
QS-6	70.9											
QS-8	76.4											
Midi CPE18												
G $\frac{1}{4}$	–	163	113	75	28	38	17.5	29	5.5	44	27.5	20
QS-8	90.5											
QS-10	94											
Maxi CPE24												
G $\frac{3}{8}$	–	190	140	100	35	50	20	33	10	45	35	30
QS-10	99.5											
QS-12	102											

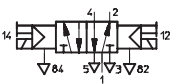
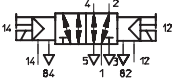
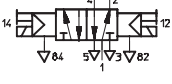
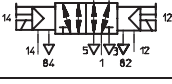
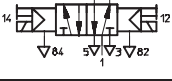
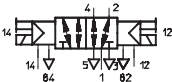
Solenoid valves CPE, Compact Performance

Technical data – 5/2-way valves, double solenoid valves

FESTO

Ordering data – Micro CPE10				
Circuit symbol	Pilot air supply	Pneumatic connection	Part No.	Type
Operating voltage 24 V DC				
	Internal	M5	196 875	CPE10-M1BH-5J-M5
		M7	196 925	CPE10-M1BH-5J-M7
		QS-4	196 876	CPE10-M1BH-5J-QS-4
		QS-6	196 877	CPE10-M1BH-5J-QS-6
	External	M5	196 878	CPE10-M1BH-5JS-M5
		M7	196 926	CPE10-M1BH-5JS-M7
		QS-4	196 879	CPE10-M1BH-5JS-QS-4
		QS-6	196 880	CPE10-M1BH-5JS-QS-6

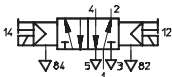
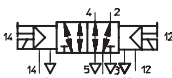
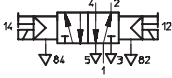
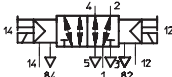
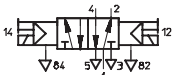
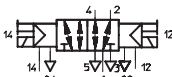
Ordering data – Mini CPE14				
Circuit symbol	Pilot air supply	Pneumatic connection	Part No.	Type
Operating voltage 24 V DC				
	Internal	G1/8	196 939	CPE14-M1BH-5J-1/8
		QS-6	196 907	CPE14-M1BH-5J-QS-6
		QS-8	196 908	CPE14-M1BH-5J-QS-8
	External	G1/8	196 940	CPE14-M1BH-5JS-1/8
		QS-6	196 909	CPE14-M1BH-5JS-QS-6
		QS-8	196 910	CPE14-M1BH-5JS-QS-8

Ordering data – Midi CPE18				
Circuit symbol	Pilot air supply	Pneumatic connection	Part No.	Type
Operating voltage 24 V DC				
	Internal	G1/4	163 143	CPE18-M1H-5J-1/4
		QS-8	163 151	CPE18-M1H-5J-QS-8
		QS-10	163 159	CPE18-M1H-5J-QS-10
	External	G1/4	163 147	CPE18-M1H-5JS-1/4
		QS-8	163 155	CPE18-M1H-5JS-QS-8
		QS-10	163 163	CPE18-M1H-5JS-QS-10
Operating voltage 110 V AC				
	Internal	G1/4	163 763	CPE18-M2H-5J-1/4
		QS-8	163 771	CPE18-M2H-5J-QS-8
		QS-10	163 779	CPE18-M2H-5J-QS-10
	External	G1/4	163 767	CPE18-M2H-5JS-1/4
		QS-8	163 775	CPE18-M2H-5JS-QS-8
		QS-10	163 783	CPE18-M2H-5JS-QS-10
Operating voltage 230 V AC				
	Internal	G1/4	163 787	CPE18-M3H-5J-1/4
		QS-8	163 795	CPE18-M3H-5J-QS-8
		QS-10	163 803	CPE18-M3H-5J-QS-10
	External	G1/4	163 791	CPE18-M3H-5JS-1/4
		QS-8	163 799	CPE18-M3H-5JS-QS-8
		QS-10	163 807	CPE18-M3H-5JS-QS-10

Solenoid valves CPE, Compact Performance

FESTO

Technical data – 5/2-way valves, double solenoid valves

Ordering data – Maxi CPE24				
Circuit symbol	Pilot air supply	Pneumatic connection	Part No.	Type
Operating voltage 24 V DC				
	Internal	G3/8	163 167	CPE24-M1H-5J-3/8
		QS-10	163 175	CPE24-M1H-5J-QS-10
		QS-12	163 183	CPE24-M1H-5J-QS-12
	External	G3/8	163 171	CPE24-M1H-5JS-3/8
		QS-10	163 179	CPE24-M1H-5JS-QS-10
		QS-12	163 187	CPE24-M1H-5JS-QS-12
Operating voltage 110 V AC				
	Internal	G3/8	163 811	CPE24-M2H-5J-3/8
		QS-10	163 819	CPE24-M2H-5J-QS-10
		QS-12	163 827	CPE24-M2H-5J-QS-12
	External	G3/8	163 815	CPE24-M2H-5JS-3/8
		QS-10	163 823	CPE24-M2H-5JS-QS-10
		QS-12	163 831	CPE24-M2H-5JS-QS-12
Operating voltage 230 V AC				
	Internal	G3/8	163 835	CPE24-M3H-5J-3/8
		QS-10	163 843	CPE24-M3H-5J-QS-10
		QS-12	163 851	CPE24-M3H-5J-QS-12
	External	G3/8	163 839	CPE24-M3H-5JS-3/8
		QS-10	163 847	CPE24-M3H-5JS-QS-10
		QS-12	163 855	CPE24-M3H-5JS-QS-12

Directional control valves for standard applications
Compact Performance

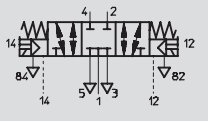
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Solenoid valves CPE, Compact Performance

Technical data – 5/3-way valves

FESTO

Function



e.g. with external pilot air

-  - Flow rate
180 ... 3,000 l/min
-  - Voltage
24 V DC
110, 230 V AC



General technical data – Micro CPE10			
		Threaded connection	Push-in connector
Valve function		5/3-way, single solenoid	
Constructional design		Piston spool valve	
Sealing principle		Soft	
Type of actuation		Electrical	
Type of reset		Mechanical spring	
Type of pilot control		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	
Mounting position		Any	
Width		10 mm	
Grid dimension		12 mm	
Nominal diameter		4 mm	4 mm
Standard nominal flow rate	closed	M5: 180 l/min	QS-4: 180 l/min
		M7: 350 l/min	QS-6: 300 l/min
	exhausted	M5: 180 l/min	QS-4: 180 l/min
		M7: 250 l/min	QS-6: 250 l/min
	pressurised	M5: 180 l/min	QS-4: 180 l/min
		M7: 300 l/min	QS-6: 300 l/min
Type of mounting		Via through-holes	
Pneumatic connection	1, 2, 4	M5 or M7	Ø 4 or Ø 6 mm
	3, 5	M7	M7
	12, 14	M3	Ø 3 mm
	82, 84	M3	M3
Switching time on/off		16/20 ms	
Product weight		73 g	
Materials		➔ 2 / 2.1-48	

Operating and environmental conditions			
		Threaded connection	Push-in connector
Operating medium		Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm Vacuum	
Operating pressure	Internal pilot air	3 ... 8 bar	
	External pilot air	-0.9 ... +10 bar	
Pilot pressure		3 ... 8 bar	
Ambient temperature		-5 ... +50 °C	
Temperature of medium		-5 ... +50 °C	

Electrical data			
		Threaded connection	Push-in connector
Operating voltage		24 V DC +10/-15%	
Power consumption		1.28 W	
Protection class with plug socket		IP65 (EN 60529)	

Solenoid valves CPE, Compact Performance

Technical data – 5/3-way valves

FESTO

General technical data – Mini CPE14			
		Threaded connection	Push-in connector
Valve function		5/3-way, single solenoid	
Constructional design		Piston spool valve	
Sealing principle		Soft	
Type of actuation		Electrical	
Type of reset		Mechanical spring	
Type of pilot control		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	
Mounting position		Any	
Width		14 mm	
Grid dimension		16 mm	
Nominal diameter		6 mm	6 mm
Standard nominal flow rate	closed	G $\frac{1}{8}$: 750 l/min	QS-6: 410 l/min
			QS-8: 720 l/min
	exhausted	G $\frac{1}{8}$: 700 l/min	QS-6: 370 l/min
			QS-8: 570 l/min
	pressurised	G $\frac{1}{8}$: 750 l/min	QS-6: 370 l/min
			QS-8: 650 l/min
Type of mounting		Via through-holes	
Pneumatic connection	1, 2, 4	G $\frac{1}{8}$	Ø 6 or Ø 8 mm
	3, 5	G $\frac{1}{8}$	G $\frac{1}{8}$
	12, 14	M3	Ø 3 mm
	82, 84	M3	M3
Switching time on/off		20/42 ms	
Product weight		120 g	170 g
Materials		➔ 2 / 2.1-48	

Operating and environmental conditions			
		Threaded connection	Push-in connector
Operating medium		Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm Vacuum	
Operating pressure	Internal pilot air	3 ... 8 bar	
	External pilot air	−0.9 ... +10 bar	
Pilot pressure		3 ... 8 bar	
Ambient temperature		−5 ... +50 °C	
Temperature of medium		−5 ... +50 °C	

Electrical data		
	Threaded connection	Push-in connector
Operating voltage	24 V DC +10/−15%	
Power consumption	1.28 W	
Protection class with plug socket	IP65 (EN 60529)	

Solenoid valves CPE, Compact Performance

Technical data – 5/3-way valves

FESTO

General technical data – Midi CPE18			
		Threaded connection	Push-in connector
Valve function		5/3-way, single solenoid	
Constructional design		Piston spool valve	
Sealing principle		Soft	
Type of actuation		Electrical	
Type of reset		Mechanical spring	
Type of pilot control		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	
Mounting position		Any	
Width		18 mm	
Grid dimension		20 mm	
Nominal diameter		8 mm	8 mm
Standard nominal flow rate	closed	G¼: 1,450 l/min	QS-8: 850 l/min
			QS-10: 1,050 l/min
	exhausted	G¼: 1,200 l/min	QS-8: 780 l/min
			QS-10: 1,000 l/min
	pressurised	G¼: 1,300 l/min	QS-8: 780 l/min
QS-10: 1,000 l/min			
Type of mounting		Via through-holes	
Pneumatic connection	1, 2, 4	G¼	Ø 8 or Ø 10 mm
	3, 5	G¼	G¼
	12, 14	M5	Ø 4 mm
	82, 84	M5	M5
Switching time on/off		20/38 ms	
Product weight		280 g	300 g
Materials		➔ 2 / 2.1-48	

Operating and environmental conditions			
		Threaded connection	Push-in connector
Operating medium		Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm Vacuum	
Operating pressure	Internal pilot air	2.5 ... 10 bar	
	External pilot air	–0.9 ... +10 bar	
Pilot pressure		2.5 ... 10 bar	
Ambient temperature		–5 ... +50 °C	
Temperature of medium		–5 ... +50 °C	

Electrical data			
		Threaded connection	Push-in connector
Operating voltage	M1H	24 V DC +10/–15%	
	M2H	110 V AC ±10% at 50 ... 60 Hz	
	M3H	230 V AC ±10% at 50 ... 60 Hz	
Power consumption	M1H	1 W	
	M2H, M3H	Pull: 3 VA Hold: 2.4 VA	
Protection class with plug socket		IP65 (EN 60529)	

Solenoid valves CPE, Compact Performance

Technical data – 5/3-way valves

FESTO

Directional control valves for standard applications
Compact Performance

2.1

General technical data – Maxi CPE24			
		Threaded connection	Push-in connector
Valve function		5/3-way, single solenoid	
Constructional design		Piston spool valve	
Sealing principle		Soft	
Type of actuation		Electrical	
Type of reset		Mechanical spring	
Type of pilot control		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	
Mounting position		Any	
Width		24 mm	
Nominal diameter		11 mm	11 mm
Standard nominal flow rate	closed	G $\frac{3}{8}$: 3,000 l/min	QS-10: 1,250 l/min
			QS-12: 1,650 l/min
	exhausted	G $\frac{3}{8}$: 2,650 l/min	QS-10: 1,250 l/min
			QS-12: 1,600 l/min
	pressurised	G $\frac{3}{8}$: 2,600 l/min	QS-10: 1,250 l/min
			QS-12: 1,600 l/min
Type of mounting		Via through-holes	
Pneumatic connection	1, 2, 4	G $\frac{3}{8}$	Ø 10 or Ø 12 mm
	3, 5	G $\frac{3}{8}$	G $\frac{3}{8}$
	12, 14	M5	Ø 6 mm
	82, 84	M5	M5
Switching time on/off		25/55 ms	
Product weight		430 g	450 g
Materials		➔ 2 / 2.1-48	

Operating and environmental conditions				
		Threaded connection		Push-in connector
Operating medium		Filtered compressed air, lubricated or unlubricated, grade of filtration 40 µm Vacuum		
Operating pressure	Internal pilot air	2.5 ... 10 bar		
	External pilot air	–0.9 ... +10 bar		
Pilot pressure		2.5 ... 10 bar		
Ambient temperature		–5 ... +50 °C		
Temperature of medium		–5 ... +50 °C		

Electrical data				
		Threaded connection		Push-in connector
Operating voltage	M1H	24 V DC +10/–15%		
	M2H	110 V AC ±10% at 50 ... 60 Hz		
	M3H	230 V AC ±10% at 50 ... 60 Hz		
Power consumption	M1H	1 W		
	M2H, M3H	Pull: 3 VA Hold: 2.4 VA		
Protection class with plug socket		IP65 (EN 60529)		

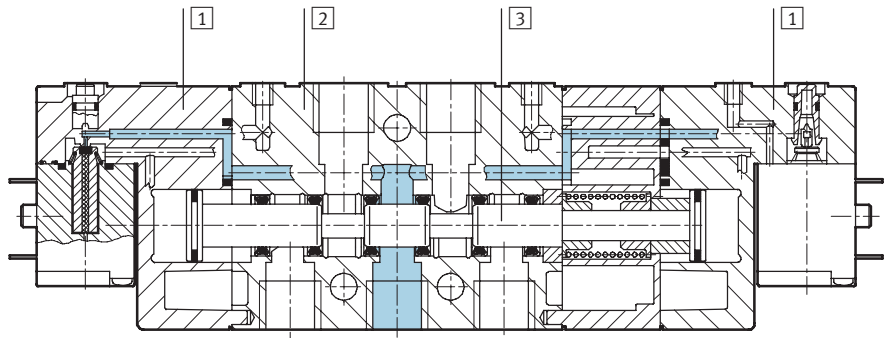
Solenoid valves CPE, Compact Performance

Technical data – 5/3-way valves



Materials

Sectional view

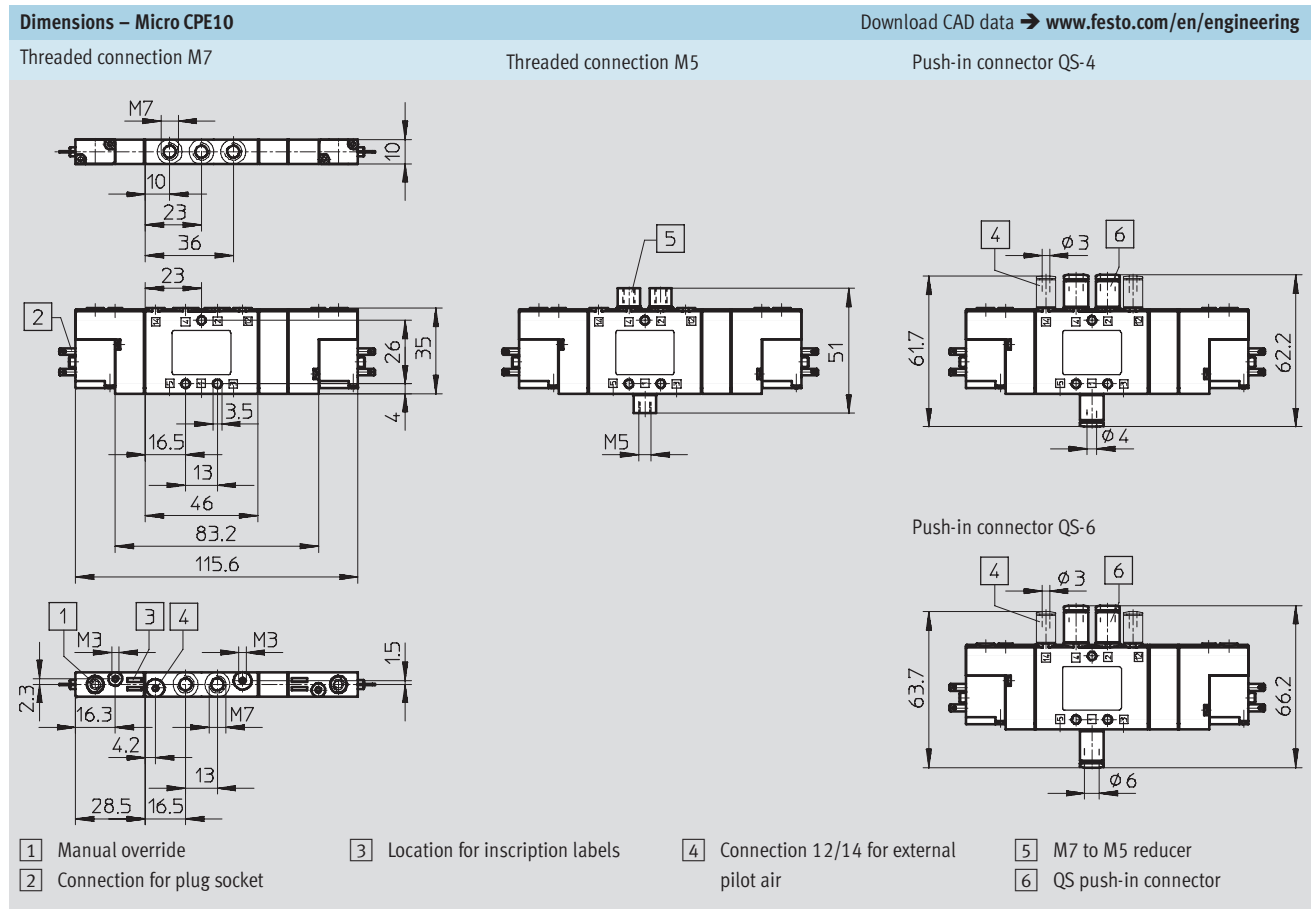


1	Cover	Polyamide
2	Housing	Die-cast aluminium
3	Piston spool	Steel
–	Seals	Nitrile rubber

Solenoid valves CPE, Compact Performance

Technical data – 5/3-way valves

FESTO



Directional control valves for standard applications
Compact Performance

2.1

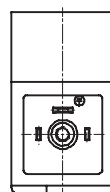
Connection diagrams

Micro CPE10, Mini CPE14



Suitable for plug socket
KMYZ-9-...

Midi CPE18, Maxi CPE24



Suitable for plug sockets to
DIN 43650, type C
KMEB-1-...
KMEB-2-...
MSSD-EB

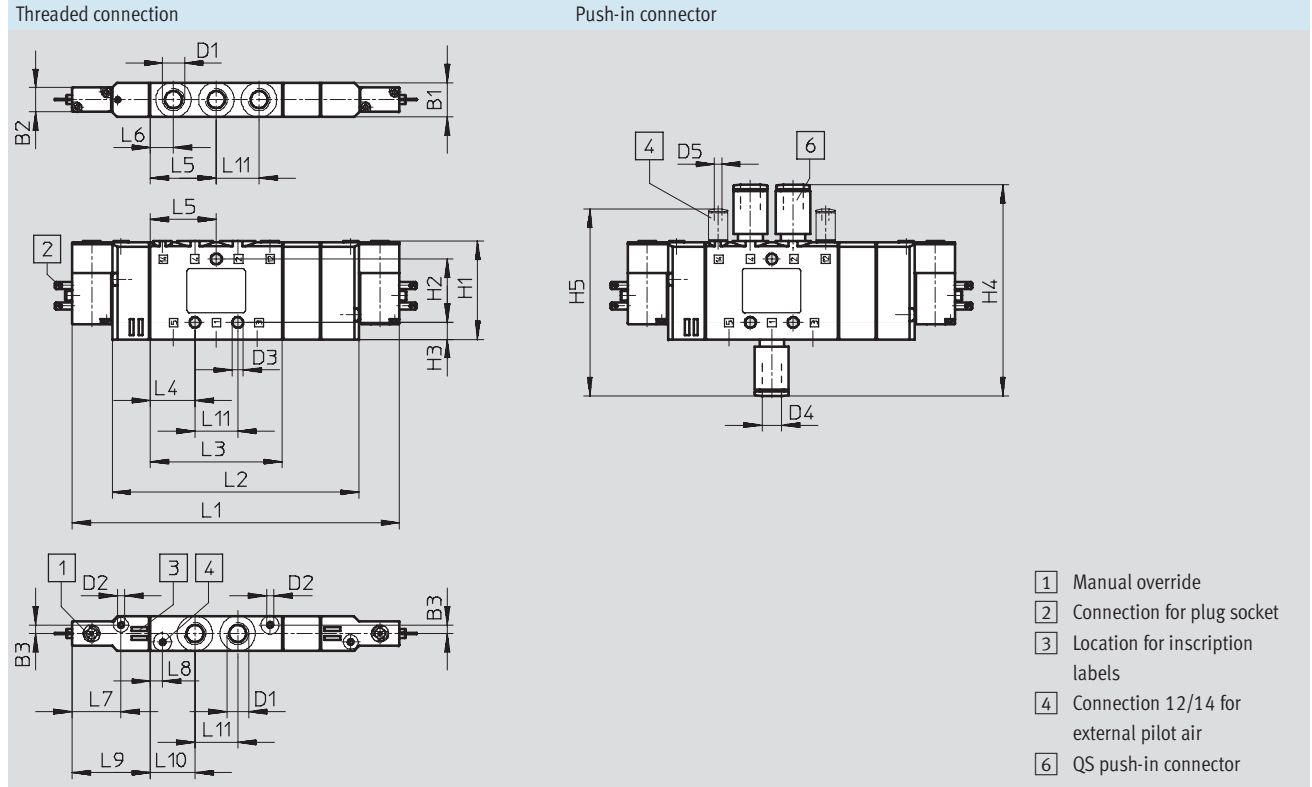
Solenoid valves CPE, Compact Performance

Technical data – 5/3-way valves

FESTO

Dimensions – Mini CPE14, Midi CPE18, Maxi CPE24

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



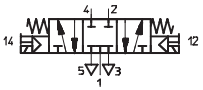
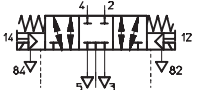
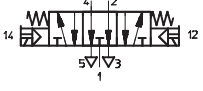
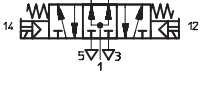
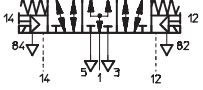
Pneumatic connection	B1	B2	B3	D1	D2	D3 Ø	D4 Ø	D5 Ø	H1	H2	H3	H4
Mini CPE14												
G1/8	14	10	3.5	G1/8	M3	4.4	–	–	40.3	26	7	–
QS-6							6	3				75.3
QS-8							8					86.3
Midi CPE18												
G1/4	18	17.5	3.5	G1/4	M5	4.4	–	–	57	45	6	–
QS-8							8	6				98
QS-10							10					105
Maxi CPE24												
G3/8	24	17.5	6	G3/8	M5	6.5	–	–	62	40	11	–
QS-10							10	6				108
QS-12							12					113

Pneumatic connection	H5	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11
Mini CPE14												
G¼	–	134	101	54	18.3	27	9.5	20	5	32	18.3	17.5
QS-6	70.9											
QS-8	76.4											
Midi CPE18												
G¼	–	182	132	75	28	38	17.5	29	5.5	44	27.5	20
QS-8	90.5											
QS-10	94											
Maxi CPE24												
G¾	–	213	163	100	35	50	20	33	10	45	35	30
QS-10	99.5											
QS-12	102											

Solenoid valves CPE, Compact Performance

FESTO

Technical data – 5/3-way valves

Ordering data – Micro CPE10				
Circuit symbol	Description	Pneumatic connection	Part No.	Type
Operating voltage 24 V DC				
	• Normally closed • Internal pilot air	M5	533 159	CPE10-M1BH-5/3G-M5-B
		M7	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
	• Normally closed • External pilot air	M5	533 160	CPE10-M1BH-5/3GS-M5-B
		M7	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
	• Normally exhausted • Internal pilot air	M5	533 161	CPE10-M1BH-5/3E-M5-B
		M7	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
	• Normally exhausted • External pilot air	M5	533 162	CPE10-M1BH-5/3ES-M5-B
		M7	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
	• Normally pressurised • Internal pilot air	M5	533 163	CPE10-M1BH-5/3B-M5-B
		M7	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
	• Normally pressurised • External pilot air	M5	533 164	CPE10-M1BH-5/3BS-M5-B
		M7	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

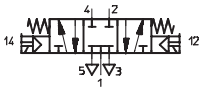
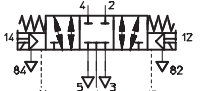
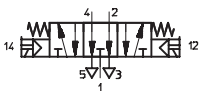
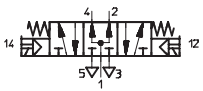
Directional control valves for standard applications
Compact Performance

2.1

Solenoid valves CPE, Compact Performance

Technical data – 5/3-way valves

FESTO

Ordering data – Mini CPE14				
Circuit symbol	Description	Pneumatic connection	Part No.	Type
Operating voltage 24 V DC				
	- Normally closed - Internal pilot air	G1/8	196 937	CPE14-M1BH-5/3G-1/8
		QS-6	196 903	CPE14-M1BH-5/3G-QS-6
		QS-8	196 904	CPE14-M1BH-5/3G-QS-8
	- Normally closed - External pilot air	G1/8	196 938	CPE14-M1BH-5/3GS-1/8
		QS-6	196 905	CPE14-M1BH-5/3GS-QS-6
		QS-8	196 906	CPE14-M1BH-5/3GS-QS-8
	- Normally exhausted - Internal pilot air	G1/8	196 935	CPE14-M1BH-5/3E-1/8
		QS-6	196 899	CPE14-M1BH-5/3E-QS-6
		QS-8	196 900	CPE14-M1BH-5/3E-QS-8
	- Normally exhausted - External pilot air	G1/8	196 936	CPE14-M1BH-5/3ES-1/8
		QS-6	196 901	CPE14-M1BH-5/3ES-QS-6
		QS-8	196 902	CPE14-M1BH-5/3ES-QS-8
	- Normally pressurised - Internal pilot air	G1/8	196 933	CPE14-M1BH-5/3B-1/8
		QS-6	196 895	CPE14-M1BH-5/3B-QS-6
		QS-8	196 896	CPE14-M1BH-5/3B-QS-8
	- Normally pressurised - External pilot air	G1/8	196 934	CPE14-M1BH-5/3BS-1/8
		QS-6	196 897	CPE14-M1BH-5/3BS-QS-6
		QS-8	196 898	CPE14-M1BH-5/3BS-QS-8

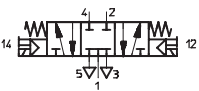
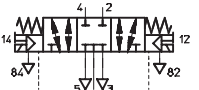
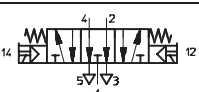
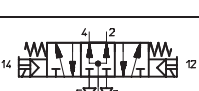
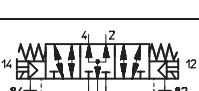
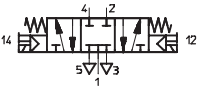
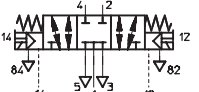
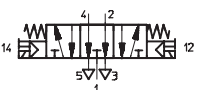
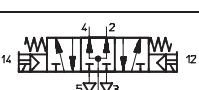
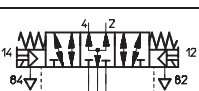
Solenoid valves CPE, Compact Performance

Technical data – 5/3-way valves

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Directional control valves for standard applications
Compact Performance

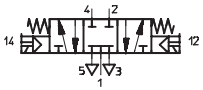
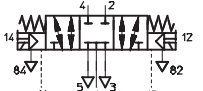
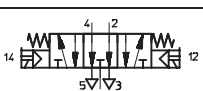
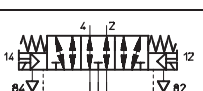
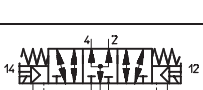
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Ordering data – Midi CPE18				
Circuit symbol	Description	Pneumatic connection	Part No.	Type
Operating voltage 24 V DC				
	• Normally closed • Internal pilot air	G¼	170 247	CPE18-M1H-5/3G-¼
		QS-8	170 253	CPE18-M1H-5/3G-QS-8
		QS-10	170 259	CPE18-M1H-5/3G-QS-10
	• Normally closed • External pilot air	G¼	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
	• Normally exhausted • Internal pilot air	G¼	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
	• Normally exhausted • External pilot air	G¼	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
	• Normally pressurised • Internal pilot air	G¼	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
	• Normally pressurised • External pilot air	G¼	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
Operating voltage 110 V AC				
	• Normally closed • Internal pilot air	G¼	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
	• Normally closed • External pilot air	G¼	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-QS-10
	• Normally exhausted • Internal pilot air	G¼	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
	• Normally exhausted • External pilot air	G¼	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-QS-10
	• Normally pressurised • Internal pilot air	G¼	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
	• Normally pressurised • External pilot air	G¼	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

Solenoid valves CPE, Compact Performance

Technical data – 5/3-way valves

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Ordering data – Midi CPE18				
Circuit symbol	Description	Pneumatic connection	Part No.	Type
Operating voltage 230 V AC				
	- Normally closed - Internal pilot air	G $\frac{1}{4}$	170 319	CPE18-M3H-5/3G- $\frac{1}{4}$
		QS-8	170 325	CPE18-M3H-5/3G-QS-8
		QS-10	170 331	CPE18-M3H-5/3G-QS-10
	- Normally closed - External pilot air	G $\frac{1}{4}$	170 320	CPE18-M3H-5/3GS- $\frac{1}{4}$
		QS-8	170 326	CPE18-M3H-5/3GS-QS-8
		QS-10	170 332	CPE18-M3H-5/3GS-QS10
	- Normally exhausted - Internal pilot air	G $\frac{1}{4}$	170 321	CPE18-M3H-5/3E- $\frac{1}{4}$
		QS-8	170 327	CPE18-M3H-5/3E-QS-8
		QS-10	170 333	CPE18-M3H-5/3E-QS-10
	- Normally exhausted - External pilot air	G $\frac{1}{4}$	170 322	CPE18-M3H-5/3ES- $\frac{1}{4}$
		QS-8	170 328	CPE18-M3H-5/3ES-QS-8
		QS-10	170 334	CPE18-M3H-5/3ES-QS10
	- Normally pressurised - Internal pilot air	G $\frac{1}{4}$	170 323	CPE18-M3H-5/3B- $\frac{1}{4}$
		QS-8	170 329	CPE18-M3H-5/3B-QS-8
		QS-10	170 335	CPE18-M3H-5/3B-QS-10
	- Normally pressurised - External pilot air	G $\frac{1}{4}$	170 324	CPE18-M3H-5/3BS- $\frac{1}{4}$
		QS-8	170 330	CPE18-M3H-5/3BS-QS-8
		QS-10	170 336	CPE18-M3H-5/3BS-QS-10

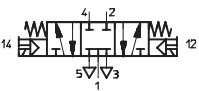
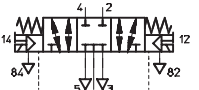
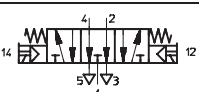
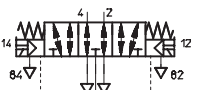
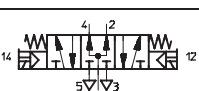
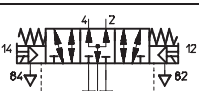
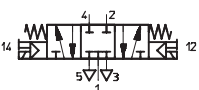
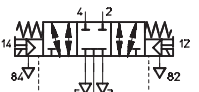
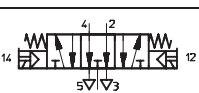
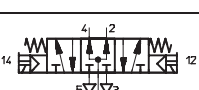
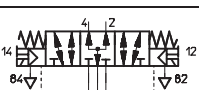
Solenoid valves CPE, Compact Performance

Technical data – 5/3-way valves

FESTO

Directional control valves for standard applications
Compact Performance

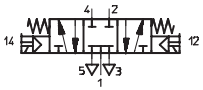
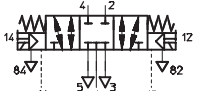
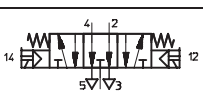
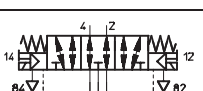
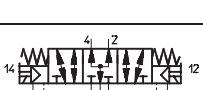
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Ordering data – Maxi CPE24				
Circuit symbol	Description	Pneumatic connection	Part No.	Type
Operating voltage 24 V DC				
	• Normally closed • Internal pilot air	G3/8	170 265	CPE24-M1H-5/3G-3/8
		QS-10	170 271	CPE24-M1H-5/3G-QS-10
		QS-12	170 277	CPE24-M1H-5/3G-QS-12
	• Normally closed • External pilot air	G3/8	170 266	CPE24-M1H-5/3GS-3/8
		QS-10	170 272	CPE24-M1H-5/3GS-QS-10
		QS-12	170 278	CPE24-M1H-5/3GS-QS-12
	• Normally exhausted • Internal pilot air	G3/8	170 267	CPE24-M1H-5/3E-3/8
		QS-10	170 273	CPE24-M1H-5/3E-QS-10
		QS-12	170 279	CPE24-M1H-5/3E-QS-12
	• Normally exhausted • External pilot air	G3/8	170 268	CPE24-M1H-5/3ES-3/8
		QS-10	170 274	CPE24-M1H-5/3ES-QS-10
		QS-12	170 280	CPE24-M1H-5/3ES-QS-12
	• Normally pressurised • Internal pilot air	G3/8	170 269	CPE24-M1H-5/3B-3/8
		QS-10	170 275	CPE24-M1H-5/3B-QS-10
		QS-12	170 281	CPE24-M1H-5/3B-QS-12
	• Normally pressurised • External pilot air	G3/8	170 270	CPE24-M1H-5/3BS-3/8
		QS-10	170 276	CPE24-M1H-5/3BS-QS-10
		QS-12	170 282	CPE24-M1H-5/3BS-QS-12
Operating voltage 110 V AC				
	• Normally closed • Internal pilot air	G3/8	170 301	CPE24-M2H-5/3G-3/8
		QS-10	170 307	CPE24-M2H-5/3G-QS-10
		QS-12	170 313	CPE24-M2H-5/3G-QS-12
	• Normally closed • External pilot air	G3/8	170 302	CPE24-M2H-5/3GS-3/8
		QS-10	170 308	CPE24-M2H-5/3GS-QS-10
		QS-12	170 314	CPE24-M2H-5/3GS-QS-12
	• Normally exhausted • Internal pilot air	G3/8	170 303	CPE24-M2H-5/3E-3/8
		QS-10	170 309	CPE24-M2H-5/3E-QS-10
		QS-12	170 315	CPE24-M2H-5/3E-QS-12
	• Normally exhausted • External pilot air	G3/8	170 304	CPE24-M2H-5/3ES-3/8
		QS-10	170 310	CPE24-M2H-5/3ES-QS-10
		QS-12	170 316	CPE24-M2H-5/3ES-QS-12
	• Normally pressurised • Internal pilot air	G3/8	170 305	CPE24-M2H-5/3B-3/8
		QS-10	170 311	CPE24-M2H-5/3B-QS-10
		QS-12	170 317	CPE24-M2H-5/3B-QS-12
	• Normally pressurised • External pilot air	G3/8	170 306	CPE24-M2H-5/3BS-3/8
		QS-10	170 312	CPE24-M2H-5/3BS-QS-10
		QS-12	170 318	CPE24-M2H-5/3BS-QS-12

Solenoid valves CPE, Compact Performance

Technical data – 5/3-way valves

FESTO

Ordering data – Maxi CPE24				
Circuit symbol	Description	Pneumatic connection	Part No.	Type
Operating voltage 230 V AC				
	- Normally closed - Internal pilot air	G $\frac{3}{8}$	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
	- Normally closed - External pilot air	G $\frac{3}{8}$	170 338	CPE24-M3H-5/3GS- $\frac{3}{8}$
		QS-10	170 344	CPE24-M3H-5/3GS-QS-10
		QS-12	170 350	CPE24-M3H-5/3GS-QS-12
	- Normally exhausted - Internal pilot air	G $\frac{3}{8}$	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
	- Normally exhausted - External pilot air	G $\frac{3}{8}$	170 340	CPE24-M3H-5/3ES- $\frac{3}{8}$
		QS-10	170 346	CPE24-M3H-5/3ES-QS-10
		QS-12	170 352	CPE24-M3H-5/3ES-QS-12
	- Normally pressurised - Internal pilot air	G $\frac{3}{8}$	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
	- Normally pressurised - External pilot air	G $\frac{3}{8}$	170 342	CPE24-M3H-5/3BS- $\frac{3}{8}$
		QS-10	170 348	CPE24-M3H-5/3BS-QS-10
		QS-12	170 354	CPE24-M3H-5/3BS-QS-12

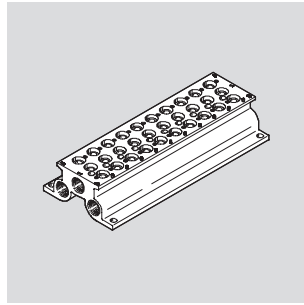
Solenoid valves CPE, Compact Performance

Technical data – Manifold block

FESTO

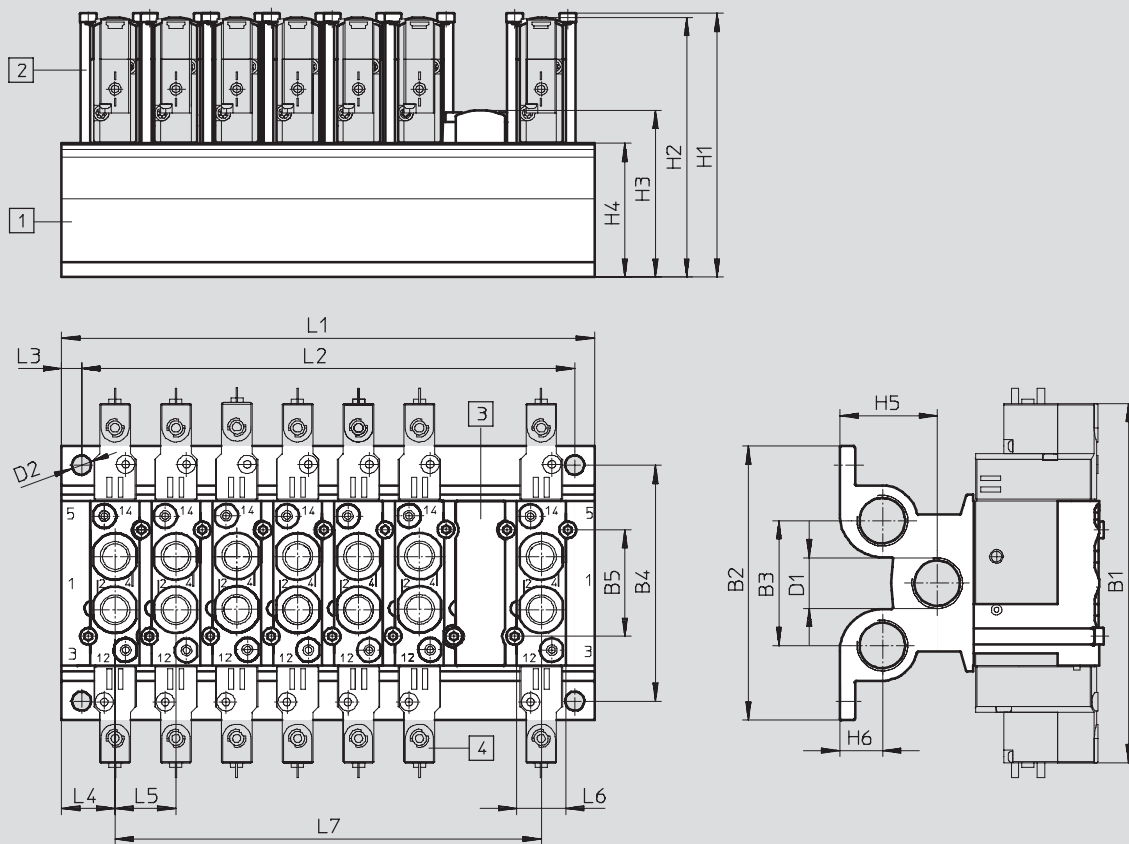
Manifold block CPE...-PRS

Material:
Wrought aluminium alloy



Dimensions

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



- 1 Manifold block 2 Valve retainer 3 Blanking plate 4 Valves

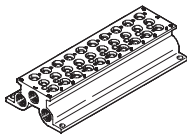
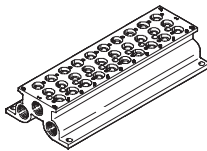
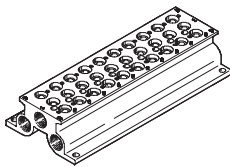
Type	B1	B2	B3	B4	B5	D1	D2	H1	H2	H3	H4	H5
CPE10-PRS...	103	79	35	67.5	26	G1¼	5.3	72	69.5	44.8	34	23.5
CPE14-PRS...	108	90	41	77.5	35	G¾	6.3	86.7	84.8	54.8	44	32
CPE18-PRS...	155	102	46	85.6	40	G¾	8.3	105	101.45	59.8	44	30.5

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

Solenoid valves CPE, Compact Performance

Technical data – Manifold block

FESTO

Ordering data					
	Valve positions	CRC ¹⁾	Weight [g]	Part No.	Type
Micro CPE10					
	2	2	131	543 821	CPE10-PRS-1/4-2
	3	2	179	543 822	CPE10-PRS-1/4-3
	4	2	227	543 823	CPE10-PRS-1/4-4
	5	2	275	543 824	CPE10-PRS-1/4-5
	6	2	323	543 825	CPE10-PRS-1/4-6
	7	2	371	543 826	CPE10-PRS-1/4-7
	8	2	419	543 827	CPE10-PRS-1/4-8
	9	2	467	543 828	CPE10-PRS-1/4-9
	10	2	515	543 829	CPE10-PRS-1/4-10
Mini CPE14					
	2	2	239	543 830	CPE14-PRS-3/8-2
	3	2	326	543 831	CPE14-PRS-3/8-3
	4	2	412	543 832	CPE14-PRS-3/8-4
	5	2	498	543 833	CPE14-PRS-3/8-5
	6	2	584	543 834	CPE14-PRS-3/8-6
	7	2	671	543 835	CPE14-PRS-3/8-7
	8	2	757	543 836	CPE14-PRS-3/8-8
	9	2	843	543 837	CPE14-PRS-3/8-9
	10	2	930	543 838	CPE14-PRS-3/8-10
Midi CPE18					
	2	2	353	543 839	CPE18-PRS-3/8-2
	3	2	482	543 840	CPE18-PRS-3/8-3
	4	2	611	543 841	CPE18-PRS-3/8-4
	5	2	740	543 842	CPE18-PRS-3/8-5
	6	2	870	543 843	CPE18-PRS-3/8-6
	7	2	999	543 844	CPE18-PRS-3/8-7
	8	2	1128	543 845	CPE18-PRS-3/8-8
	9	2	1257	543 846	CPE18-PRS-3/8-9
	10	2	1386	543 847	CPE18-PRS-3/8-10

1) Corrosion resistance class 2 to Festo standard 940 070

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

Solenoid valves CPE, Compact Performance

Technical data – Manifold block

Blanking plate CPE...-RP

for vacant positions

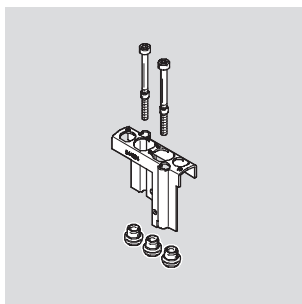
Material:
Polyamide



Ordering data				
Size	Pneumatic connection 1, 3, 5	Weight [g]	Part No.	Type
Micro CPE10	G $\frac{1}{4}$	7.6	544 479	CPE10-RP
Mini CPE14	G $\frac{3}{8}$	9	544 480	CPE14-RP
Midi CPE18	G $\frac{3}{8}$	20.3	544 481	CPE18-RP

Valve retainer CPE...-H5-SET

Material:
Retainer: High-alloy stainless steel
Screws: Galvanised steel
Seals: Nitrile rubber



Ordering data				
Size	Pneumatic connection 1, 3, 5	Part No.	Type	
Micro CPE10	G $\frac{1}{4}$	544 394	CPE10-H5-SET	
Mini CPE14	G $\frac{3}{8}$	544 395	CPE14-H5-SET	
Midi CPE18	G $\frac{3}{8}$	544 396	CPE18-H5-SET	

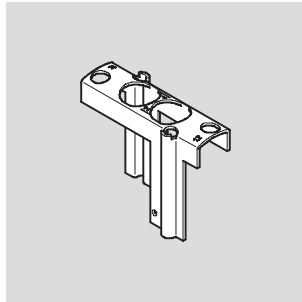
Solenoid valves CPE, Compact Performance

Technical data – Manifold block

FESTO

Valve retainer CPE...-H5

Material:
High-alloy stainless steel



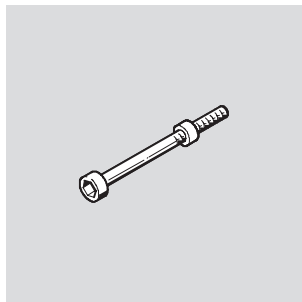
Ordering data				
Size	Pneumatic connection 1, 3, 5	Part No.	Type	PU ¹⁾
Micro CPE10	G $\frac{1}{4}$	547 045	CPE10-H5-50	50
Mini CPE14	G $\frac{3}{8}$	547 046	CPE14-H5-50	50
Midi CPE18	G $\frac{3}{8}$	547 047	CPE18-H5-50	50

1) Packaging unit quantity

Screw M...

for valve retainer CPE...-H5

Material:
Galvanised steel



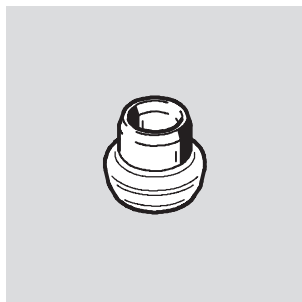
Ordering data				
Size	Pneumatic connection 1, 3, 5	Part No.	Type	PU ¹⁾
Micro CPE10	G $\frac{1}{4}$	547 048	M3X40-8.8-VS-100	100
Mini CPE14	G $\frac{3}{8}$	547 049	M3X45-8.8-VS-100	100
Midi CPE18	G $\frac{3}{8}$	547 050	M4X65-8.8-VS-100	100

1) Packaging unit quantity

Seal CPV...-VI...

for valve retainer CPE...-H5

Material:
Nitrile rubber



Ordering data				
Size	Pneumatic connection 1, 3, 5	Part No.	Type	PU ¹⁾
Micro CPE10	G $\frac{1}{4}$	547 051	CPV10-VI-PM7-150	150
Mini CPE14	G $\frac{3}{8}$	547 052	CPV14-VI-P $\frac{1}{8}$ -150	150
Midi CPE18	G $\frac{3}{8}$	547 053	CPV18-VI-P $\frac{1}{4}$ -150	150

1) Packaging unit quantity

Solenoid valves CPE, Compact Performance

Technical data – Manifold

FESTO

Basic manifold block CPE...-PRSG...-2 for 2 valves

Material:
Reinforced polyamide



Ordering data				
Size	Pneumatic connection 1, 3, 5	Weight [g]	Part No.	Type
with closed PRS ducts				
Micro CPE10	G1/4	50	164 960	CPE10-PRSG-2
Mini CPE14	G3/8	95	164 965	CPE14-PRSG-2
Midi CPE18	G1/2	170	164 970	CPE18-PRSG-2
with open PRS ducts				
Micro CPE10	G1/4	50	187 827	CPE10-PRSGO-2
Mini CPE14	G3/8	95	187 829	CPE14-PRSGO-2
Midi CPE18	G1/2	170	187 831	CPE18-PRSGO-2

Dimensions → 2 / 2.1-64

Possible combinations → 2 / 2.1-65

Basic manifold block CPE...-PRSG...-3 for 3 valves

Material:
Reinforced polyamide



Ordering data				
Size	Pneumatic connection 1, 3, 5	Weight [g]	Part No.	Type
with closed PRS ducts				
Micro CPE10	G1/4	70	187 823	CPE10-PRSG-3
Mini CPE14	G3/8	130	187 824	CPE14-PRSG-3
Midi CPE18	G1/2	225	187 825	CPE18-PRSG-3
with open PRS ducts				
Micro CPE10	G1/4	70	187 819	CPE10-PRSGO-3
Mini CPE14	G3/8	130	187 820	CPE14-PRSGO-3
Midi CPE18	G1/2	225	187 821	CPE18-PRSGO-3

Dimensions → 2 / 2.1-64

Possible combinations → 2 / 2.1-65

Solenoid valves CPE, Compact Performance

Technical data – Manifold

FESTO

Expansion manifold block

CPE...-PRSE...-2

for 2 valves

Material:

Reinforced polyamide



Ordering data				
Size	Pneumatic connection 1, 3, 5	Weight [g]	Part No.	Type
with closed PRS ducts				
Micro CPE10	G $\frac{1}{4}$	40	164 962	CPE10-PRSE-2
Mini CPE14	G $\frac{3}{8}$	85	164 967	CPE14-PRSE-2
Midi CPE18	G $\frac{1}{2}$	145	164 972	CPE18-PRSE-2
with open PRS ducts				
Micro CPE10	G $\frac{1}{4}$	40	187 828	CPE10-PRSE0-2
Mini CPE14	G $\frac{3}{8}$	85	187 830	CPE14-PRSE0-2
Midi CPE18	G $\frac{1}{2}$	145	187 832	CPE18-PRSE0-2

Dimensions → 2 / 2.1-64

Possible combinations → 2 / 2.1-65

End block CPE...-PRS-EP

Material:

Reinforced polyamide



Ordering data				
Size	Pneumatic connection 1, 3, 5	Weight [g]	Part No.	Type
Micro CPE10	G $\frac{1}{4}$	70	164 964	CPE10-PRS-EP
Mini CPE14	G $\frac{3}{8}$	80	164 969	CPE14-PRS-EP
Midi CPE18	G $\frac{1}{2}$	125	164 973	CPE18-PRS-EP

Dimensions → 2 / 2.1-64

Possible combinations → 2 / 2.1-65

Solenoid valves CPE, Compact Performance

Technical data – Manifold



Blanking plate CPE...-PRSB
for vacant positions

Material:
Reinforced polyamide



Ordering data				
Size	Pneumatic connection 1, 3, 5	Weight [g]	Part No.	Type
Micro CPE10	G1/4	10	164 963	CPE10-PRSB
Mini CPE14	G3/8	15	164 968	CPE14-PRSB
Midi CPE18	G1/2	28	164 974	CPE18-PRSB

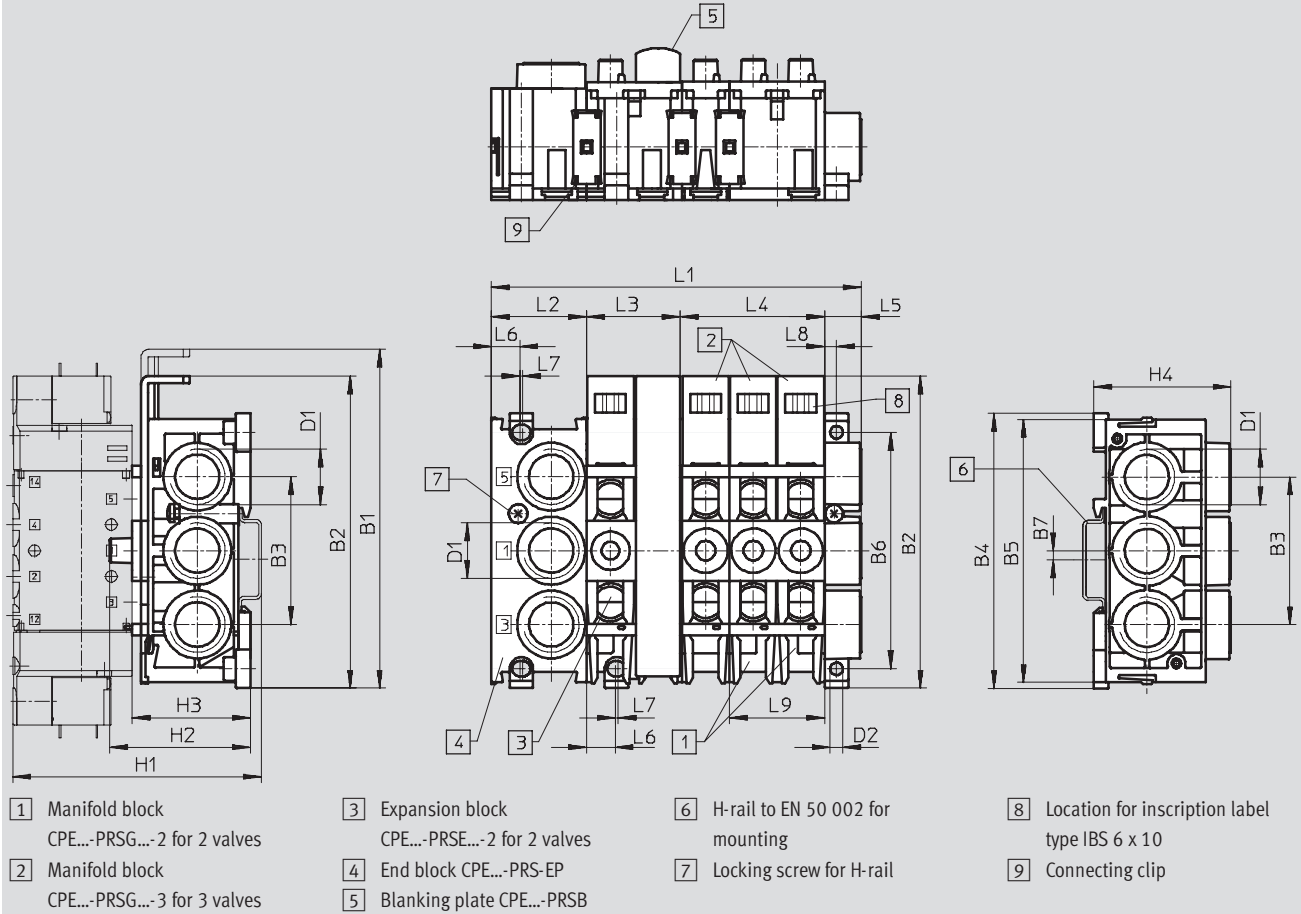
Solenoid valves CPE, Compact Performance

Technical data – Manifold

FESTO

Dimensions – Valve manifold

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



Size	B1	B2	B3	B4	B5	B6	B7	D1	D2 Ø	H1	H2	H3
Micro CPE10	93.5	87	37	73	71	60	7	G¼	3.3	~72	~40	~34
Mini CPE14	114.6	105.6	50	93	89	80	3	G⅜	4.3	~84	~48	~40
Midi CPE18	151.6	136.5	59	113	–	100	2.75	G½	5.3	~106	~58	~46

Size	H4	L1 ¹⁾	L2	L3	L4	L5	L6	L7	L8	L9
Micro CPE10	37	24+(nx12)+11.4	24	24	36	11.4	9.6	–	3.2	24
Mini CPE14	46.4	32+(nx16)+12.4	32	32	48	12.4	10.1	–	4	32
Midi CPE18	51.4	40+(nx20)+16.4	40	40	60	16.4	12.6	1	5.2	40

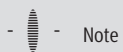
1) n = number of valve positions

Solenoid valves CPE, Compact Performance

Technical data – Manifold

FESTO

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



Note

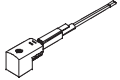
A maximum of 6 valve positions are possible per air supply.
Use valve manifold blocks in combination with 5/2- and 5/3-way valves only.

Solenoid valves CPE, Compact Performance

Accessories

FESTO

Ordering data – Plug sockets, plug sockets with cable for KMYZ solenoid coils					
	Voltage	Cable length [m]	Switching status display with LED	Part No.	Type
Plug socket with PUR cable				Technical data ➔ 2 / 7.3-24	
	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				Technical data ➔ 2 / 7.3-24	
	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

Ordering data – Plug sockets, plug sockets with cable for EB solenoid coils					
	Voltage	Cable length [m]	Switching status display with LED	Part No.	Type
Plug socket without cable			Technical data → 2 / 7.2-10		
	–	–	–	151 687	MSDD-EB
	–	–	–	539 712	MSDD-EB-M12
Plug socket without cable with insulation displacement technology			Technical data → 2 / 7.2-10		
	–	–	–	192 745	MSDD-EB-S-M14
Plug socket with PVC cable			Technical data → 2 / 7.3-24		
	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			Technical data → 2 / 7.3-24		
	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 seals for EB solenoid coils					Technical data → 2 / 7.4-1
	Voltage		Part No.	Type	
	[V DC]	[V AC]			
	12 ... 24	–	151 717	MEB-LD-12-24DC	
	–	230	151 718	MEB-LD-230AC	

Solenoid valves CPE, Compact Performance

Accessories

FESTO

Ordering data – General accessories		
		Part No. Type
Push-in fittings QS		
	–	→ Volume 3
Blanking plug		
	For manifold block CPE10	3 569 B-1/4
	For manifold block CPE14, CPE18	3 570 B-3/8
Separator for pressure zones		
	For manifold block CPE10	537 515 VABD-B6-14-P-C
	For manifold block CPE14, CPE18	160 997 PRSV-1/8
Silencer		
	For M3 thread	163 978 U-M3
	For M5 thread	165 003 UC-M5
	For M7 thread	161 418 UC-M7
	For thread G1/8	161 419 UC-1/8
	For thread G1/4	165 004 UC-1/4
Manual override tool		
	For KMYZ coils	157 600 AHB-MZB
	For EB coils	157 601 AHB-MEB
Inscription labels		
	–	18 576 IBS-6x10