

Front panel valves SV

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Front panel valves and actuator attachments

Key features

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Actuator attachments

Pushbutton T

Pushbuttons return to their initial switching position after they are actuated.

Switch N, H, Q

Switches have several switching positions that can be alternated between as desired. Key actuators can only be activated using the key. The key can be removed in any switching position.

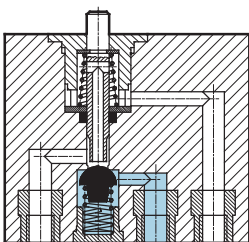
Mushroom pushbutton/mushroom pushbutton with detent P

Mushroom pushbuttons return to their initial switching position after they are actuated. Mushroom pushbuttons with detent are actuated by pressing them and return to their initial switching position after they are unlocked:

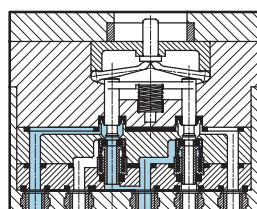
- Type PR: the actuator is unlocked by turning the detent ring on the mushroom head.
- Type PRS: the actuator can only be unlocked using the key. The key can be removed in either switching position.

Basic valves

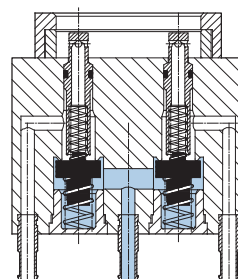
3/2-way valve SV-3-M5



5/2-way valve SV-5-M5-B



2x 3/2-way valve SV/O-3-PK-3X2



Key features

The two basic valves are poppet valves that work without any overlap:

- No overflow between the channels during switching
- Limited self-cleaning by air flow during operation

Front panel valves and actuator attachments

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Technical data

Temperature range

–10 ... +60 °C



General technical data – Actuator attachments with 22.5 mm installation diameter

	T-22-SW	T-22-GE	T-22-RT	N-22-SW	H-22-SW	Q-22-B	P-22-SW	PR-22-RT	PRS-22-RT-B
Actuating force [N]	14	14	14	–	–	–	14	25	–
Actuating torque [Nm]	–	–	–	0.4	0.14	–	–	–	–
Product weight [g]	14	14	14	21	19	37	20	26	45
Colour	Black	Yellow	Red	Black	Black	Black	Black	Red	Red
Note on materials	–	–	–	–	–	RoHS-compliant	–	–	RoHS-compliant

General technical data – Actuator attachments with 30.5 mm installation diameter

	T-30-SW	T-30-GE	T-30-RT	N-30-SW	H-30-SW	Q-30	P-30-SW	PR-30-RT	PRS-30-RT
Actuating force [N]	14	14	14	–	–	23	14	25	23
Actuating torque [Nm]	–	–	–	0.4	0.14	–	–	–	–
Product weight [g]	22	22	22	30	27	88	28	37	91
Colour	Black	Yellow	Red	Black	Black	–	Black	Red	Red
Note on materials	–	–	–	–	–	–	–	–	–

Front panel valves and actuator attachments

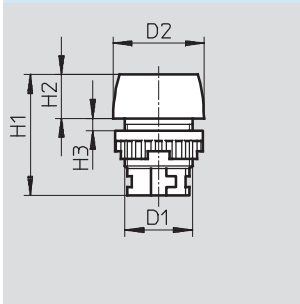
Technical data

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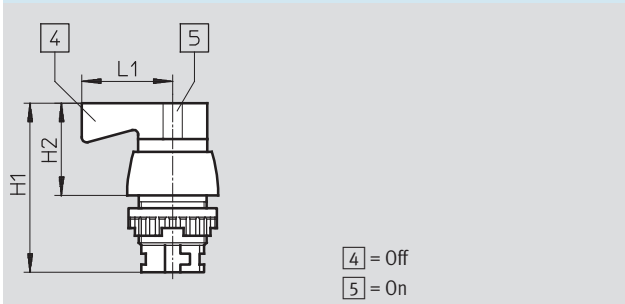
Dimensions – Actuator attachments

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

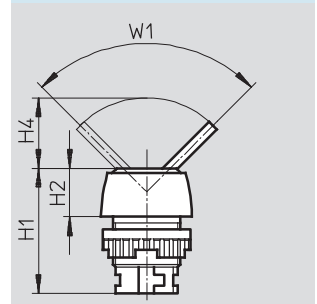
Pushbutton actuator T



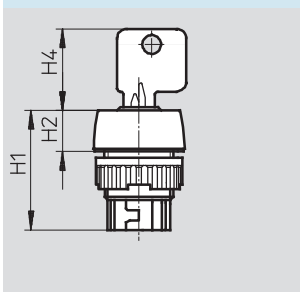
Selector switch N



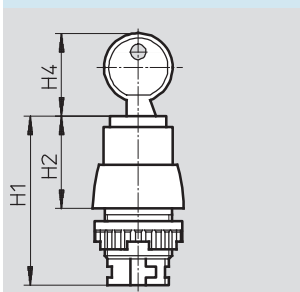
Toggle switch H



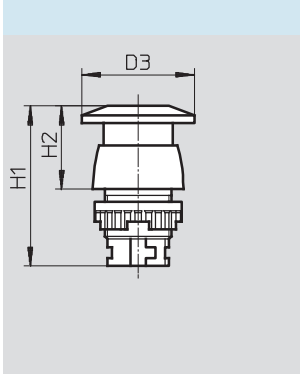
Key actuator Q,
installation Ø 22.5 mm



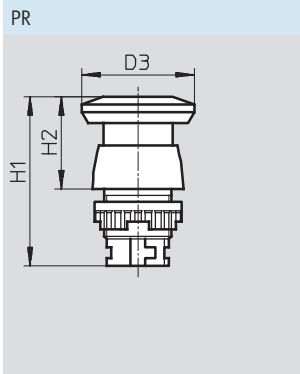
Key actuator Q,
installation Ø 30.5 mm



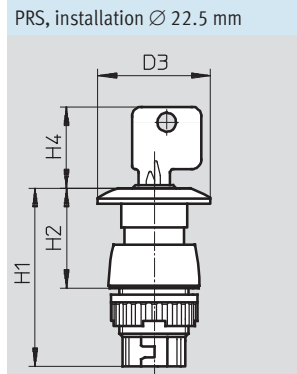
Mushroom pushbutton P



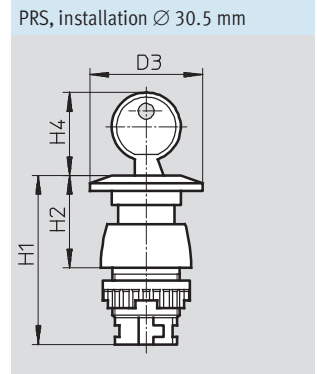
Mushroom pushbutton with detent
PR



Mushroom pushbutton with detent
PRS, installation Ø 22.5 mm



Mushroom pushbutton with detent
PRS, installation Ø 30.5 mm



	Installation Ø	Ø D1	Ø D2	Ø D3	H1	H2	H3	H4	L1	W1
Pushbutton actuator T	22.5	M22x1.5	29	–	38.5	14	1 ... 6	–	–	–
	30.5	M30x1.5	36	–	39	8.5	1 ... 12	–	–	–
Selector switch N	22.5	M22x1.5	29	–	54	29.5	1 ... 6	–	29	–
	30.5	M30x1.5	36	–	54.5	24	1 ... 12	–	29	–
Toggle switch H	22.5	M22x1.5	29	–	40	15.5	1 ... 6	22.5	–	90°
	30.5	M30x1.5	36	–	40	9.5	1 ... 12	22.5	–	90°
Key actuator Q	22.5	M22x1.5	29	–	38.2	13.2	1 ... 6	26	–	–
	30.5	M30x1.5	36	–	54.5	24	1 ... 12	26.5	–	–
Mushroom pushbutton P	22.5	M22x1.5	29	36	51	26.5	1 ... 6	–	–	–
	30.5	M30x1.5	36	36	51.5	21	1 ... 12	–	–	–
Mushroom pushbutton with detent PR	22.5	M22x1.5	29	36	54	29.5	1 ... 6	–	–	–
	30.5	M30x1.5	36	36	54.5	24	1 ... 12	–	–	–
Mushroom pushbutton with detent, lockable PRS	22.5	M22x1.5	29	36	57	32	1 ... 6	26	–	–
	30.5	M30x1.5	36	36	56	25.5	1 ... 12	26.5	–	–

Front panel valves and actuator attachments

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Technical data

Flow rate
65 ... 95 l/min

Pressure
-0.9 ... +8 bar
0 ... 8 bar

Temperature range
-10 ... +60 °C



General technical data – Basic valves			
	3/2-way valve	5/2-way valve	2x 3/2-way valve
Valve function	3/2-way single solenoid valve, closed	5/2-way single solenoid valve	2x 3/2-way single solenoid valve, closed
Actuation type	Manual		
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:-:-]		
Design	Poppet valve with spring return		
Reset method	Mechanical spring		
Sealing principle	Soft		
Mounting position	Any		
Type of control	Direct		
Type of mounting	Front panel mounting, with through-hole		
Pneumatic connection	M5		PK-3
Nominal size [mm]	2	2.3	2.5
Standard nominal flow rate [l/min]	65	95	70
Actuating force at 6 bar [N]	12	17	22
Weight [g]	40	53	34

Materials	
Housing	Plastic
Valve stem	Brass
Seals	Nitrile rubber

Operating and environmental conditions			
	3/2-way valve	5/2-way valve	2x 3/2-way valve
Operating pressure [bar]	-0.95 ... +8	0 ... +8	0 ... +8
Ambient temperature [°C]	-10 ... +60		

Front panel valves and actuator attachments

Technical data – Basic valves

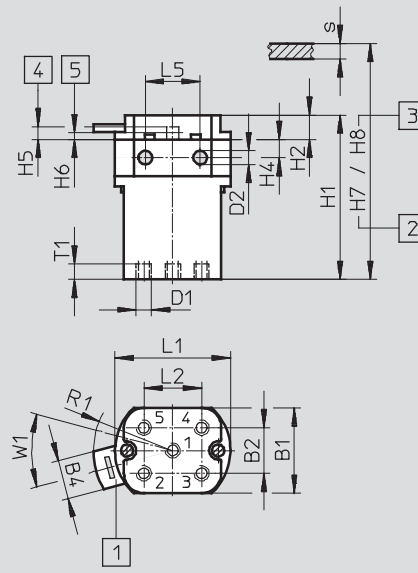
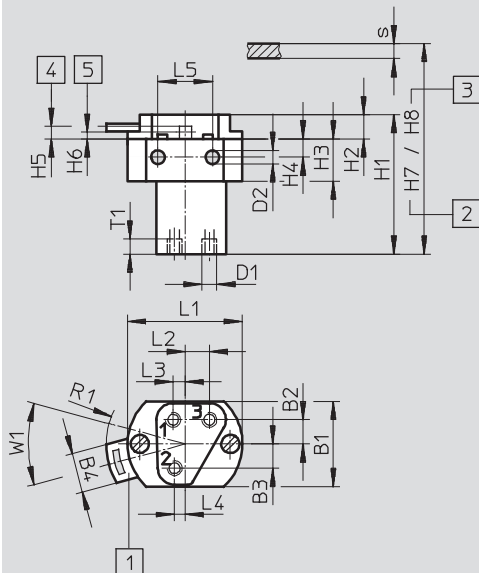
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Dimensions – Basic valves

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SV-3-M5

SV-5-M5-B



- 1 Quick latching coupler for actuator attachments
- 2 Install. dimensions for Ø 22.5

- 3 Installation dimensions for Ø 30.5

- 4 Max. stroke
- 5 Start of opening

- 6 Max. opening
- s Front panel thickness

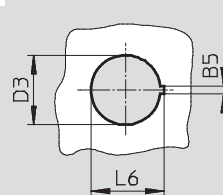
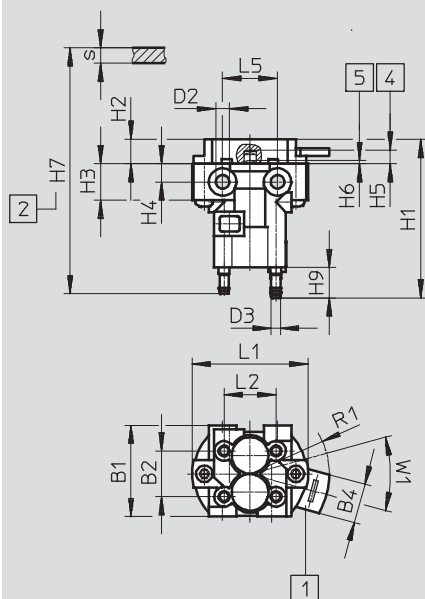
	B1	B2	B3	B4	D1	D2	H1	H2	H3	H4	H5	H6	H7	H8	L1	L2	L3	L4	L5	R1	T1	W1
SV-3-M5	28	8	8.2	13	M5	4.5	46	8	14	6	4.2	2	63.5	69.5	38	8	4	3.5	18	26	5	30°
SV-5-M5-B		15	-				54		-				71.5	77.5		19	-	-				

Dimensions

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

SV/O-3-PK-3X2

Mounting aperture (control panel cutout)






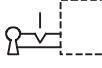

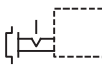
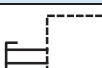
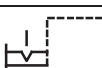

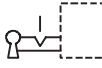

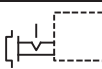
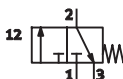

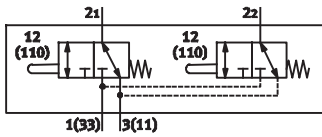
- 1 Quick latching coupler for actuator attachments
- 2 Installation dimensions for Ø 22.5
- 4 Max. stroke
- 5 Max. opening
- s Front panel thickness

	B1	B2	B4	B5	D2	D3	H1	H2	H3	H4	H5	H6	H7	H9	L1	L2	L5	L6	R1	W1
SV/O-3-PK-3X2	30	15	13	-	4.5	3	52	8	12	6	4.5	1	68.5	9.9	38	17	18	-	26	30°
Mounting aperture, Ø 22.5	-	-	-	2.6	-	22.3	-	-	-	-	-	-	-	-	-	-	-	23.5	-	-
Mounting aperture, Ø 30.5	-	-	-	3.1	-	30.3	-	-	-	-	-	-	-	-	-	-	-	31.5	-	-

Front panel valves and actuator attachments

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Accessories

Ordering data				
Circuit symbol	Description		Part No.	Type
Actuator attachments, installation Ø 22.5 mm				
	Pushbutton actuator	Black	9289	T-22-SW
		Yellow	9290	T-22-GE
		Red	9997	T-22-RT
	Selector switch	Black	9301	N-22-SW
	Toggle switch	Black	9305	H-22-SW
	Key actuator with key	Black	573107	Q-22-B
	Mushroom pushbutton	Black	9293	P-22-SW
	Mushroom pushbutton with detent	Red, not lockable	9297	PR-22-RT
		Red, lockable	573108	PRS-22-RT-B
Actuator attachments, installation Ø 30.5 mm				
	Pushbutton actuator	Black	9291	T-30-SW
		Yellow	9292	T-30-GE
		Red	10014	T-30-RT
	Selector switch	Black	9302	N-30-SW
	Toggle switch	Black	9306	H-30-SW
	Key actuator with key	–	9304	Q-30
	Mushroom pushbutton	Black	9295	P-30-SW
	Mushroom pushbutton with detent	Red, not lockable	9298	PR-30-RT
		Red, lockable	9300	PRS-30-RT
Basic valves				
	3/2-way valve		6817	SV-3-M5
	5/2-way valve		11914	SV-5-M5-B
	2x 3/2-way valve		184135	SV/O-3-PK-3X2

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