

Front panel valves SV

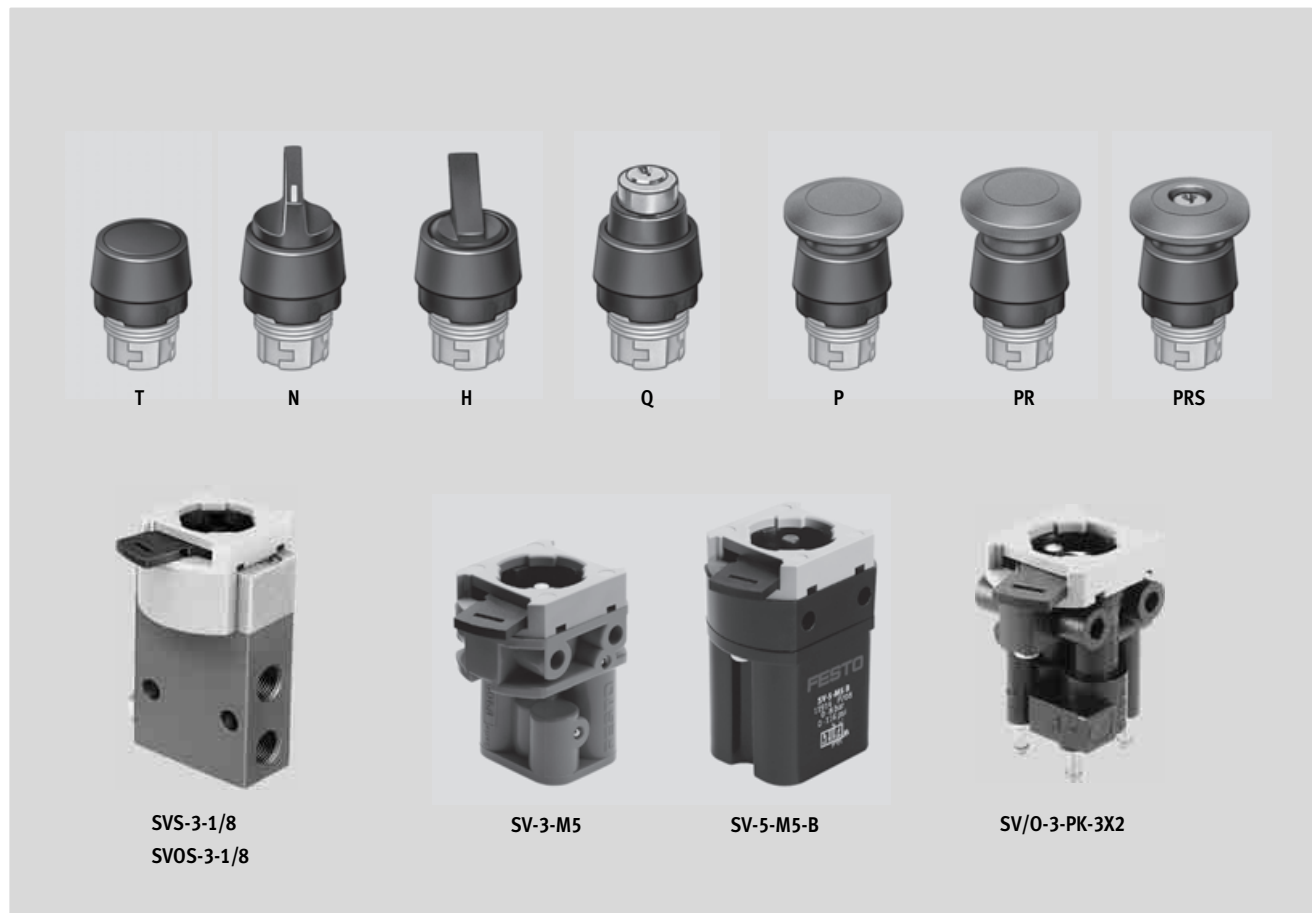
FESTO



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

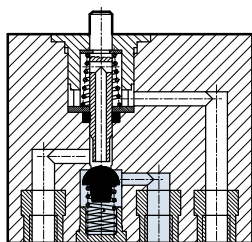
Mushroom pushbuttons return to their initial switching position after they are actuated. Mushroom pushbuttons with detent are actuated by pressing them and return to their initial switching position after they are unlocked:

- 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

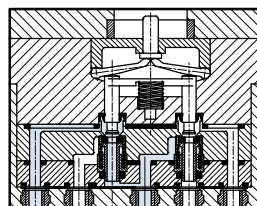
3/2-way valve

SV-3-M5, SVS-3-1/8, SVOS-3-1/8



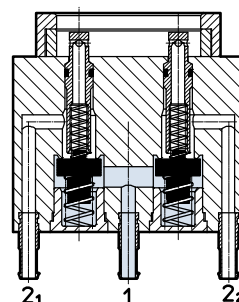
5/2-way valve

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

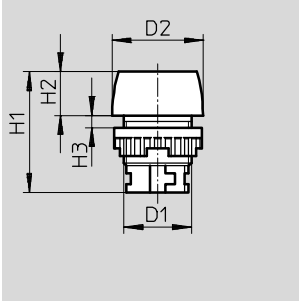
Technical data

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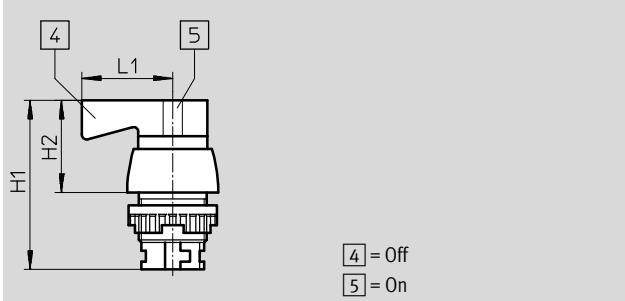
Dimensions – Actuator attachments

Download CAD data → www.festo.com

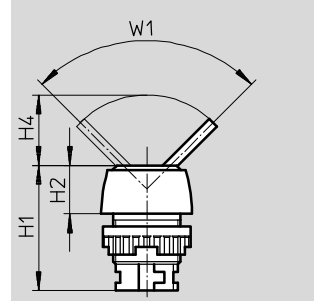
Pushbutton actuator T



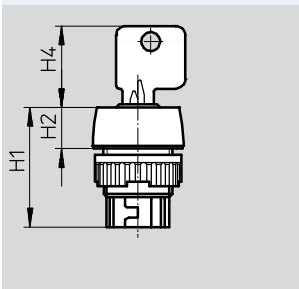
Selector switch N



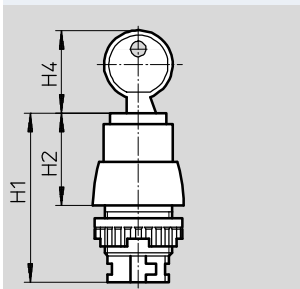
Toggle switch H



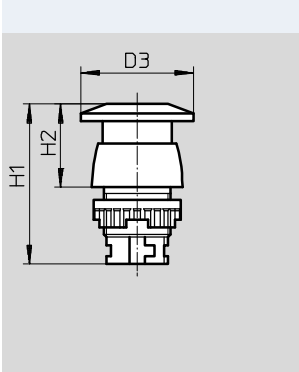
Key actuator Q,
installation Ø 22.5 mm



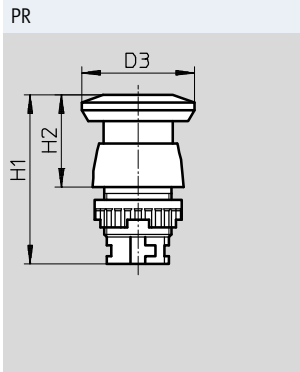
Key actuator Q,
installation Ø 30.5 mm



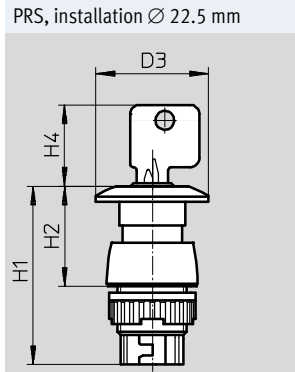
Mushroom pushbutton P



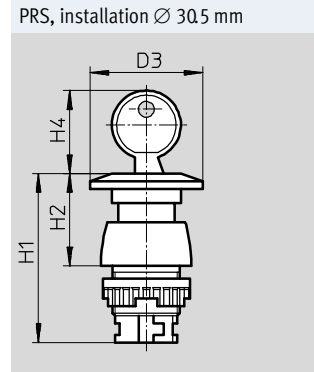
Mushroom pushbutton with detent
PR



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 ... 120 l/min
-  Pressure
-0.95 ... +8 bar
-  Temperature range
-10 ... +60 °C



General technical data – Basic valves					
	3/2-way valve SV-3-M5	SVS-3-1/8	SVOS-3-1/8	5/2-way valve SV-5-M5-B	2x 3/2-way valve SV/O-3-PK-3X2
Valve function	Closed, monostable	Closed, monostable	Open, monostable	Open, monostable	Closed, monostable
Design	Poppet valve with spring return				
Flow direction	Non-reversible	Non-reversible	Non-reversible	Reversible	Non-reversible
Type of control	Direct	Piloted	Piloted	Direct	Direct
Type of actuation	Manual				
Type of reset	Mechanical spring				
Sealing principle	Soft				
Mounting position	Any				
Type of mounting	Front panel mounting, with through-hole				
Pneumatic connection	M5	G1/8	G1/8	M5	PK-3
Nominal size [mm]	2	3.5	3.5	2.3	2.5
Standard nominal flow rate [l/min]	65	120	120	95	70
Actuating force at 6 bar [N]	12	8	8	17	22
Weight [g]	40	115	115	53	34

Materials					
	3/2-way valve SV-3-M5	SVS-3-1/8	SVOS-3-1/8	5/2-way valve SV-5-M5-B	2x 3/2-way valve SV/O-3-PK-3X2
Housing	Polymer	Polymer	Polymer	Polymer	Polymer
Housing	Brass	Aluminium	Aluminium	Brass	Brass
Cap	–	POM	POM	–	–
Seals	NBR	NBR, TPE-U(PU)	NBR, TPE-U(PU)	NBR	NBR
Note on materials	–	RoHS compliant	RoHS compliant	–	–

Operating and environmental conditions					
	3/2-way valve SV-3-M5	SVS-3-1/8	SVOS-3-1/8	5/2-way valve SV-5-M5-B	2x 3/2-way valve SV/O-3-PK-3X2
Operating medium, compressed air to					
ISO 8573-1:2010 [7:-:-]	–	–	–	–	■
ISO 8573-1:2010 [-:-:-]	■	■	■	■	–
Operating pressure ¹⁾ [bar]	-0.95 ... +8	3.5 ... +8	3.5 ... +8	0 ... +8	0 ... +8
Temperature of medium [°C]	–	-10 ... +60	–	–	–
Ambient temperature [°C]	-10 ... +60				

1) SV-3-M5: Vacuum port on 1

Front panel valves and actuator attachments

Technical data – Basic valves

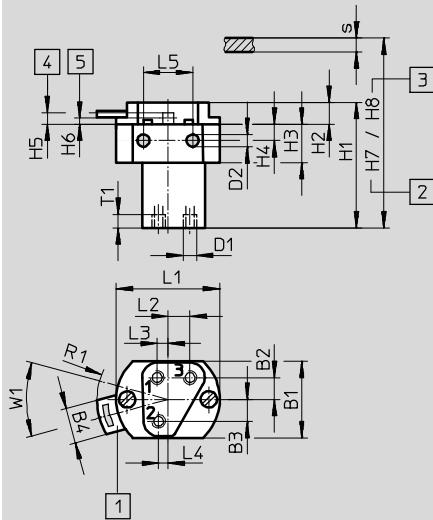
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Dimensions – Basic valves

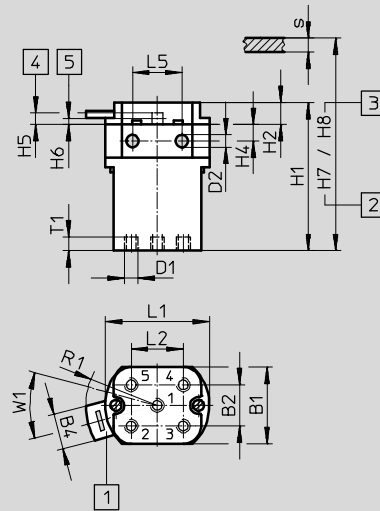
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SV-3-M5

SV-5-M5-B



- 1 Quick latching coupler for actuator attachments
- 2 Installation dimensions for Ø 22.5
- 3 Installation dimensions for Ø 30.5
- 4 Max. stroke
- 5 Max. opening
- s Front panel thickness



- 1 Quick latching coupler for actuator attachments
- 2 Installation dimensions for Ø 22.5
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	B1	B2	B3	B4	D1	D2 Ø	H1	H2	H3	H4 ± 0.2	H5
SV-3-M5	28	13	8.2	8	M5	4.5	46	63.5	69.5	4.2	2
SV-5-M5-B			15	–			54	71.5	77.5		

	H6	H7	H8	L1	L2	L3	L4	L5	R1	T1	W1
SV-3-M5	24	14	6	38	8	4	3.5	18	26	5	30°
SV-5-M5-B	30.5	15.5	9.5		19	–	–				

Front panel valves and actuator attachments

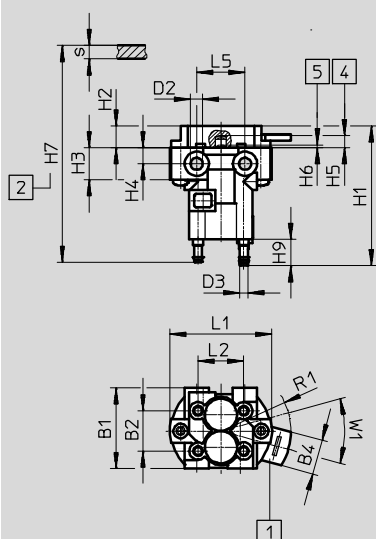
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Technical data – Basic valves

Dimensions – Basic valves

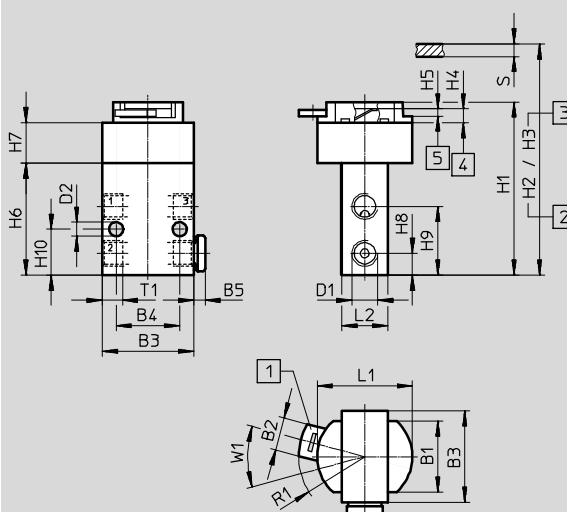
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SV/O-3-PK-3X2



- 1 Quick latching coupler for actuator attachments
- 2 Installation dimensions for $\varnothing 22.5$
- 3 Front panel thickness
- 4 Max. stroke
- 5 Max. opening

SVS-3-1/8, SVOS-3-1/8



- 1 Quick latching coupler for actuator attachments
- 2 Installation dimensions for $\varnothing 22.5$
- 3 Installation dimensions for $\varnothing 30.5$
- 4 Max. stroke
- 5 Max. opening

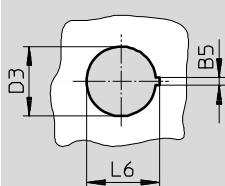
	B1	B2	B3	B4	B5	D1	D2 $\varnothing$	D3 $\varnothing$	H1	H2	H3	H4 ± 0.2
SV/O-3-PK-3X2	30	13	15	–	–	–	4.5	3	52	68.5	–	4.5
SVS-3-1/8 SVOS-3-1/8	28		36	25	4.5	G1/8	5.5	–	68	86	91	6

	H5 +0.4 –0.8	H6	H7	H8	H9	H10	L1	L2	L5	R1	T1	W1
SV/O-3-PK-3X2	1	30.6	12	6	9.9	50.6	38	17	18	26	–	30°
SVS-3-1/8 SVOS-3-1/8	2 ... 3	44	16	8.5	27	18	37.5	18	–		8	

Dimensions

Download CAD data → www.festo.com

Mounting aperture (control panel cut-out)

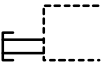
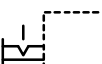
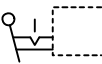
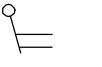
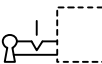
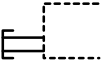
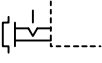
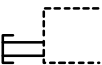
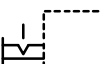
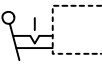
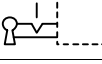
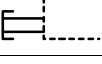
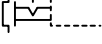


	B5	D3	L6
Mounting aperture, $\varnothing 22.5$	2.6	22.3	23.5
Mounting aperture, $\varnothing 30.5$	3.1	30.3	31.5

Front panel valves and actuator attachments

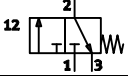
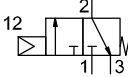
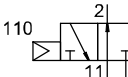
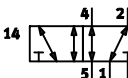
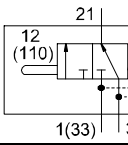
Accessories

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Ordering data				
Circuit symbol	Description		Part No.	Type
Actuator attachments, installation Ø 22.5 mm, protection class IP40				
	Pushbutton actuator	Black	9289	T-22-SW
		Yellow	9290	T-22-GE
		Red	9997	T-22-RT
	Selector switch	Black	9301	N-22-SW
			25261	NR-22-SWX2
	Toggle switch, detenting	Black	9305	H-22-SW
	Toggle switch	Black	25749	H-22-SWX2
	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, protection class IP40				
	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

Front panel valves and actuator attachments

Accessories

Ordering data			
Circuit symbol	Description	Part No.	Type
Basic valves			
	3/2-way valve	6817	SV-3-M5
	3/2-way valve, NC	10190	SVS-3-1/8
	3/2-way valve, NO	10191	SVOS-3-1/8
	5/2-way valve	11914	SV-5-M5-B
	2x 3/2-way valve	184135	SV/O-3-PK-3X2

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