

Front panel valves SV

FESTO



Key features



Actuator attachments

Pushbuttons

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

Switches

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

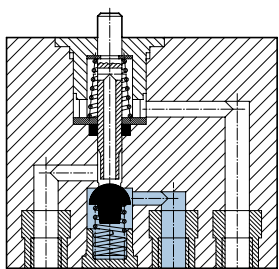
Mushroom pushbuttons/mushroom pushbuttons with detent

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:

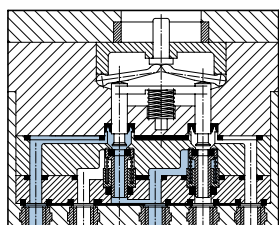
- Type PR: the attachment is unlocked by rotating the detent ring on the mushroom head.
- Type PRS: the attachment can only be unlocked using the key. The key can be removed in both switching positions.

Basic valves

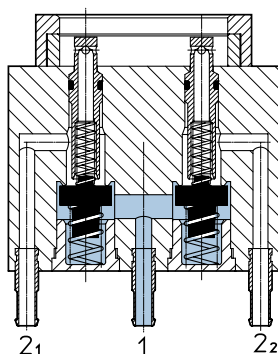
3/2-way valve



5/2-way valve




2x 3/2-way valve



Key features

- The basic valves are poppet valves that have no overlap:
- No overflow between the ducts during switching
 - Limited self-cleaning by air flow during operation

Data sheet – Actuator attachments

-  - 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

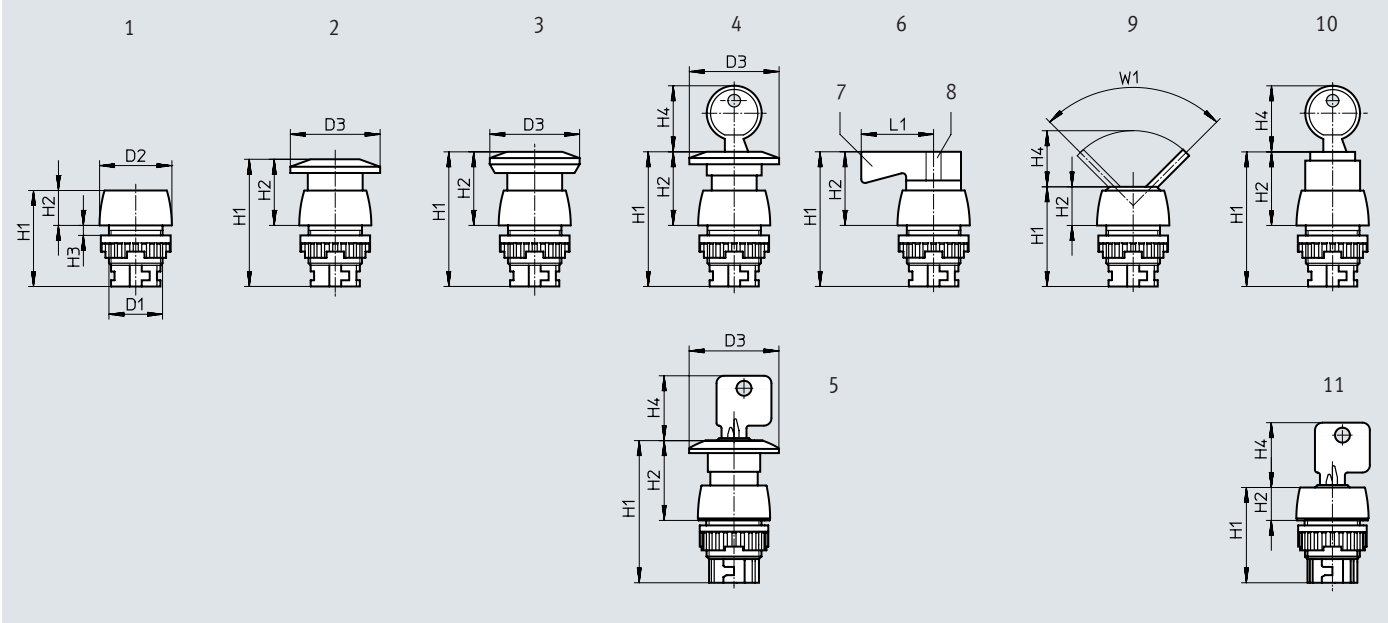
General technical data – Actuator attachments with 30.5 mm installation diameter

	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	–	–	–	–	–	–	–	–	–

Data sheet – Actuator attachments

Dimensions – Actuator attachments


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No.	Designation	Installation ø	ø D1	ø D2	ø D3	H1	H2	H3	H4	L1	W1
[1]	Pushbutton actuator T	22.5	M22x1.5	29	–	38.5	14	1 ...6	–	–	–
		30.5	M30x1.5	36	–	39	8.5	1 ...12	–	–	–
[2]	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	–	–	–
[3]	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	–	–	–
[4]	Mushroom pushbutton with detent, lockable PRS	30.5	M30x1.5	36	36	56	25.5	1 ...12	26.5	–	–
[5]	Mushroom pushbutton with detent, lockable PRS	22.5	M22x1.5	29	36	57	32	1 ...6	26	–	–
[6] [7] [8]	Selector switch N Position "ON" Position "OFF"	22.5	M22x1.5	29	–	54	29.5	1 ...6	–	29	–
		30.5	M30x1.5	36	–	54.5	24	1 ...12	–	29	–
[9]	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°
[10]	Key actuator Q	30.5	M30x1.5	36	–	54.5	24	1 ...12	26.5	–	–
[11]	Key actuator Q	22.5	M22x1.5	29	–	38.2	13.2	1 ...6	26	–	–

Data sheet – Basic valves

-  - 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			5/2-way valve	2x 3/2-way valve
	SV-3-M5	SVS-3-1/8	SVOS-3-1/8	SV-5-M5-B	SV/O-3-PK-3X2
Valve function	Closed, monostable	Closed, monostable	Open, monostable	Open, monostable	Closed, monostable
Design	Poppet valve with spring return	Poppet	Poppet	Poppet valve with spring return	–
Overlap	Positive overlap	–	Positive overlap	Positive overlap	–
Note on forced checking procedure	–	Switching frequency min. 1/week	–	–	–
Flow direction	Reversible	Non-reversible	Non-reversible	–	Reversible
Type of control	Direct	Piloted	Direct	Direct	Direct
Actuation type	Manual	Mechanical	Mechanical	Manual	–
Reset method	Mechanical spring				
Sealing principle	Soft				
Mounting position	Any				
Type of mounting	Front panel mounting, with through-hole				
Pneumatic connection 1	M5	G1/8	G1/8	M5	PK-3
Pneumatic connection 2	–	G1/8	G1/8	–	PK-3
Pneumatic connection 3	–	G1/8	G1/8	–	–
Nominal width [mm]	2	3.5	3.5	2.3	2.5
Standard nominal flow rate [l/min]	65	120	120	95	70
Actuating force [N]	12	8	8	17	–
Weight [g]	40	–	–	53	34

Materials

	3/2-way valve			5/2-way valve	2x 3/2-way valve
	SV-3-M5	SVS-3-1/8	SVOS-3-1/8	SV-5-M5-B	SV/O-3-PK-3X2
Housing	Polymer	–	–	Polymer	–
	Brass	Aluminium	Aluminium	Brass	–
Cover	–	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			5/2-way valve	2x 3/2-way valve
	SV-3-M5	SVS-3-1/8	SVOS-3-1/8	SV-5-M5-B	SV/O-3-PK-3X2
Operating medium	Compressed air to ISO 8573-1:2010 [–:–:–]				Compressed air to ISO 8573-1:2010 [7:–:–]
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				

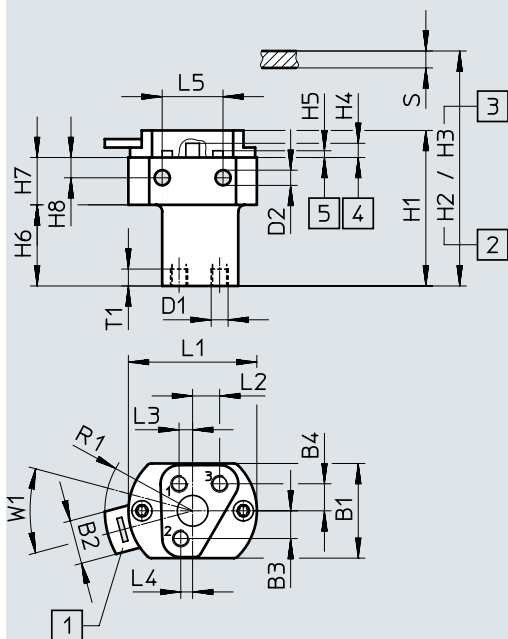
1) SV-3-M5: Vacuum connection at port 1

Data sheet – Basic valves

Dimensions – Basic valves

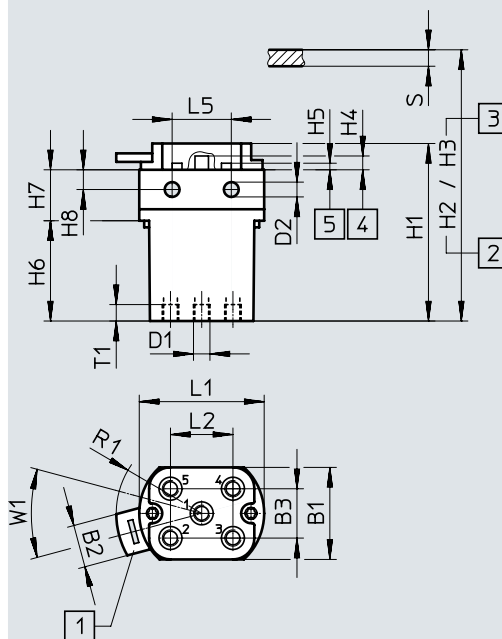
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SV-3-M5



- [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
- s Front panel thickness

SV-5-M5-B



- [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
- s Front panel thickness

	B1	B2	B3	B4	D1	D2 \varnothing	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		

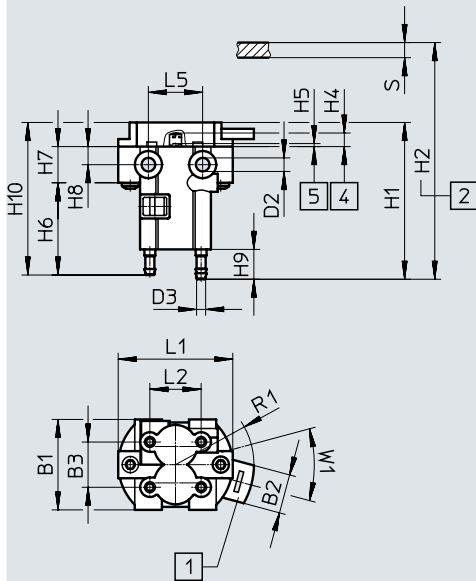
	H6	H7	H8	L1	L2	L3	L4	L5	R1	T1	W1
SV-3-M5	24	14	6	38	8	4	3.5	18	26	5	30°
SV-5-M5-B	30.5	15.5	9.5		19	-	-				

Data sheet – Basic valves

Dimensions – Basic valves

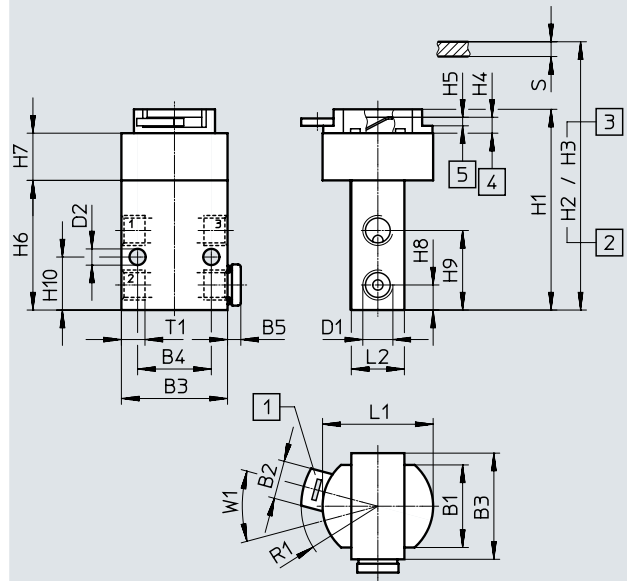
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SV/O-3-PK-3X2



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

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
- s Front panel thickness

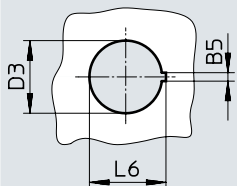
	B1	B2	B3	B4	B5	D1	D2 \varnothing	D3 \varnothing	H1	H2	H3	H4 ± 0.2
SV/O-3-PK-3X2	30	13	15	-	-	-	4.5	3	52	68.5	-	4.5
SVS-3-1/8 SVOS-3-1/8	28		36	25	4.5	G1/8	5.5	-	68	86	91	6

	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

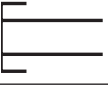

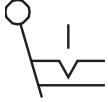
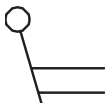
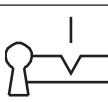
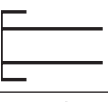

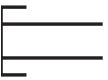

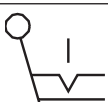
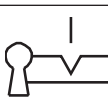
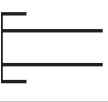
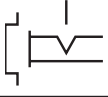
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Installation opening (control panel cut-out)

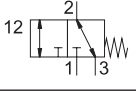
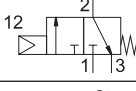
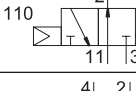

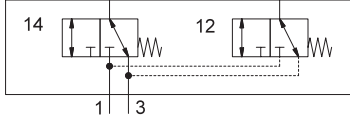


	B5	D3	L6
Installation opening $\varnothing 22.5$	2.6	22.3	23.5
Installation opening $\varnothing 30.5$	3.1	30.3	31.5

Data sheet

Ordering data					
Circuit symbol	Description		Part no.	Type	
Actuator attachments installation \varnothing 22.5 mm, degree of protection 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, detenting	Red, not lockable	9297	PR-22-RT	
		Red, lockable	573108	PRS-22-RT-B	
Actuator attachments installation \varnothing 30.5 mm, degree of protection 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, detenting	Red, not lockable	9298	PR-30-RT	
		Red, lockable	9300	PRS-30-RT	

Data sheet

Ordering data				
Circuit symbol	Description	Pneumatic connection	Part no.	Type
Basic valves				
	3/2-way valve, normally closed	M5	6817	SV-3-M5
	3/2-way valve, normally closed	G1/8	10190	SVS-3-1/8
	3/2-way valve, normally open	G1/8	10191	SVOS-3-1/8
	5/2-way valve	M5	11914	SV-5-M5-B
	2x 3/2-way valve, normally closed	PK-3	184135	SV/O-3-PK-3X2

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