

## Front panel valve M5 SV

**FESTO**



## Characteristics

### At a glance

Pushbutton:

- Pushbuttons return to the initial switching position after actuation.

Switch:

- Switches have several switching positions between which you can alternate as required. Key actuators can only be operated with a key. The key can be removed in any switch position.

Mushroom pushbuttons/pushbuttons, detenting

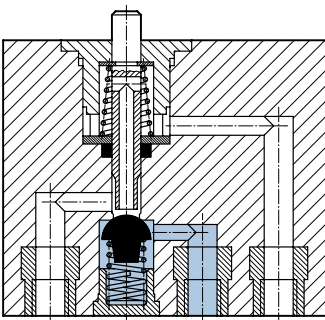
- Mushroom pushbuttons return to the initial switching position after actuation. Detenting mushroom pushbuttons are actuated by pressing, and return to the initial switching position after unlocking.
- Type PR: the attachment is unlocked by rotating the detent ring on the mushroom head.
- Type PRS: the attachment can only be unlocked using the key. The key can be removed in both switch positions.

### Valve function

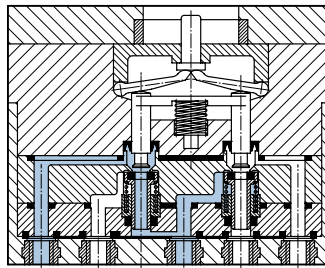
The basic valves are poppet valves that have no overlap.

- No overflow between the ducts during switching
- Limited self-cleaning through air flow during operation

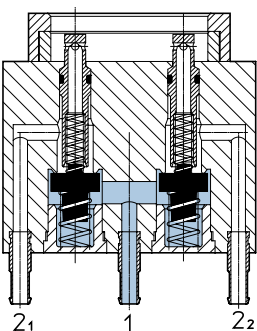
[32] 3/2-way valve



[52] 5/2-way valve



[T32C] 2x3/2-way valve, normally closed



## Datasheet

Short type code	H	N-22-SW	NR	P	PR	PRS	Q	T
Actuating force	–			14 N	25 N	–		14 N
Actuating torque	0.14 Nm	0.4 Nm	–					
Product weight	19 g	21 g	–	20 g	26 g	44.8 g	36.8 g	14 g
Colour	Black		–	Black	Red		Black	Yellow, Red, Black
Note on materials	–					RoHS-compliant		–

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

Short type code	SV		SV/O		SVOS		SVS	
Valve function	3/2-way, closed, monostable		5/2-way, monostable		2x3/2-way, monostable, closed		3/2 open, single solenoid	
Design	Poppet valve with spring return			–		Piston seat		
lap	Overlap			–		Overlap		–
Note on forced dynamization	–							Switching frequency min. 1/week
Flow direction	Non-reversible		–		Non-reversible			
Type of piloting	Direct							Pilot actuated
Type of actuation	Manual			–		Mechanical		
Type of reset	Mechanical spring							
Sealing principle	Soft							
Mounting position	optional							
Type of mounting	Front panel mounting, With through-hole				With through-hole			
Pneumatic connection, port 1	M5			PK-3		G1/8		
Pneumatic connection, port 2	–			PK-3		G1/8		
Pneumatic connection, port 3	–			–		G1/8		
Nominal size	2 mm		2.3 mm		2.5 mm		–	
Standard nominal flow rate (standardised to DIN 1343)	65 l/min		95 l/min		70 l/min		120 l/min	
Actuating force	12 N		17 N		–		8 N	
Product weight	40 g		53 g		34 g		–	

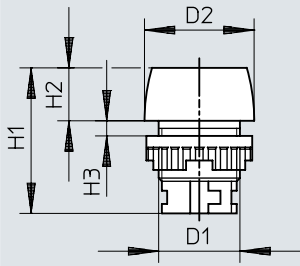
Short type code	SV		SV/O		SVOS		SVS	
Valve function	3/2-way, closed, monostable		5/2-way, monostable		2x3/2-way, monostable, closed		3/2 open, single solenoid	
Material housing	Polymer, Brass			–		Aluminium		
Material cover	–					POM		
Material seals	NBR					NBR, TPE-U(PU)		

Short type code	SV		SV/O		SVOS		SVS	
Valve function	3/2-way, closed, monostable		5/2-way, monostable		2x3/2-way, monostable, closed		3/2 open, single solenoid	
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]		Compressed air to ISO 8573-1:2010 [:-:-]		Compressed air to ISO 8573-1:2010 [7:-:-]		Compressed air to ISO 8573-1:2010 [:-:-]	
Operating pressure	-0.095 ... 0.8 MPa		0 ... 0.8 MPa		–		0.35 ... 0.8 MPa	
Operating pressure	-0.95 ... 8 bar		0 ... 8 bar		–		3.5 ... 8 bar	
Media temperature	–							-10 ... 60°C
Ambient temperature	-10 ... 60°C							

## Dimensions

### Dimensions – Pushbutton actuator T

Download CAD data [www.festo.com](http://www.festo.com)

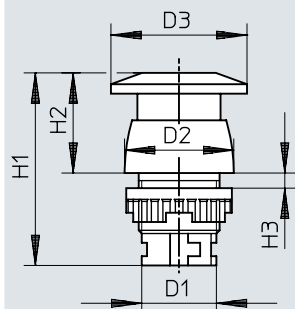


	1) Ø	D1 Ø	D2 Ø	H1	H2	H3
SV-T...	22,5	M22x1,5	29	38,5	14	1 ...6
	30,5	M30x1,5	36	39	8,5	1 ...12

1) Mounting Ø

## Dimensions

## Dimensions – Mushroom pushbutton P

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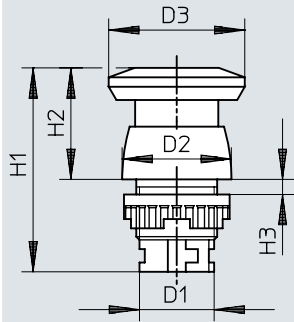
	1) ∅	D1 ∅	D2 ∅	D3 ∅	H1	H2	H3
SV-P-...	22,5	M22x1,5	29	36	51	26,5	1 ...6
	30,5	M30x1,5	36	36	51,5	21	1 ...12

1) Mounting ∅

## Dimensions

### Dimensions – Mushroom pushbutton, detenting PR

Download CAD data [www.festo.com](http://www.festo.com)



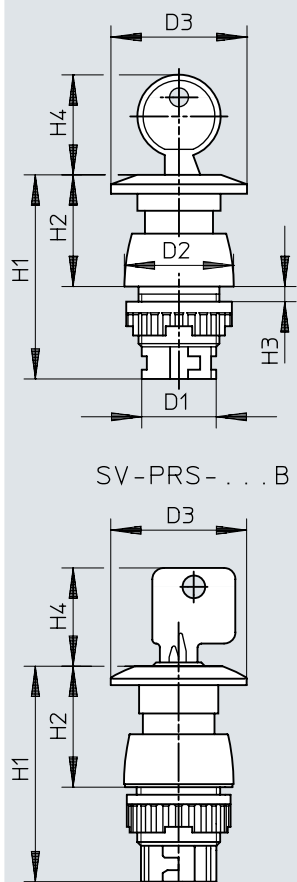
	1) ∅	D1 ∅	D2 ∅	D3 ∅	H1	H2	H3
SV-PR-...	22,5	M22x1,5	29	36	54	29,5	1 ...6
	30,5	M30x1,5	36	36	54,5	24	1 ...12

1) Mounting ∅

## Dimensions

Dimensions – Mushroom pushbutton, detenting lockable PRS

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SV-PRS- . . . B

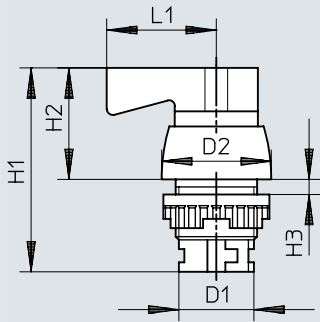
	1) ø	D1 ø	D2 ø	D3 ø	H1	H2	H3	H4
SV-PR-...	30,5	M30x1,5	36	36	56	25,5	1 ...12	26,5
SV-PRS-...	22,5	M22x1,5	29	36	57	32	1 ...6	26

1) Mounting ø

## Dimensions

### Dimensions – Selector switch N

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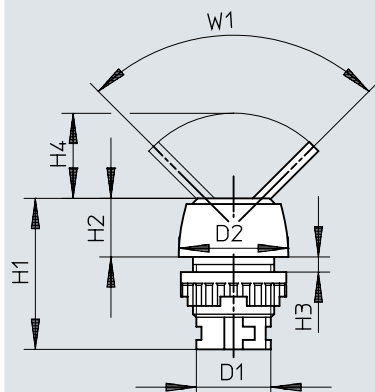
	1) ∅	D1 ∅	D2 ∅	H1	H2	H3	L1
SV-N-...	22,5	M22x1,5	29	54	29,5	1 ...6	29
	30,5	M30x1,5	36	54,5	24	1 ...12	29

1) Mounting ∅



## Dimensions

## Dimensions – Toggle switch H

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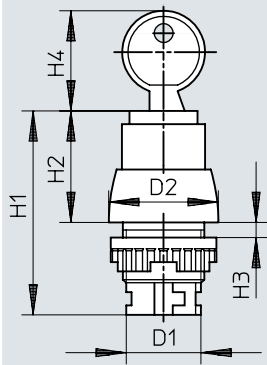
	1) Ø	D1 Ø	D2 Ø	H1	H2	H3	H4	W1
SV-H-...	22,5	M22x1,5	29	40	15,5	1 ...6	22,5	90°
	30,5	M30x1,5	36	40	9,5	1 ...12	22,5	90°

1) Mounting Ø

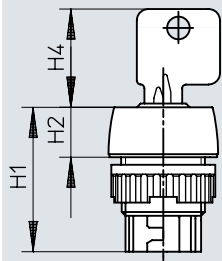
## Dimensions

### Dimensions – Key actuator Q

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SV-Q-... B



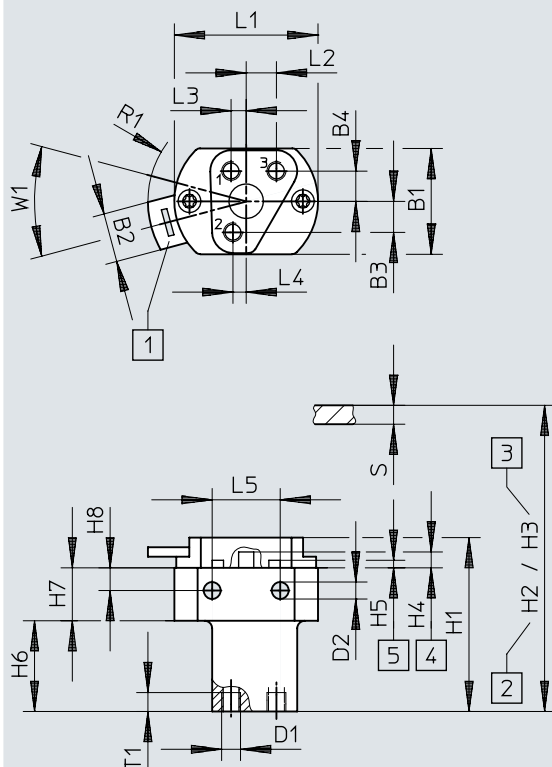
	1) Ø	D1 Ø	D2 Ø	H1	H2	H3	H4
SV-Q-...	30,5	M30x1,5	36	54,5	24	1 ...12	26,5
	22,5	M22x1,5	29	38,2	13,2	1 ...6	26

1) Mounting Ø

## Dimensions

Dimensions – Basic valves, SV-3-M5

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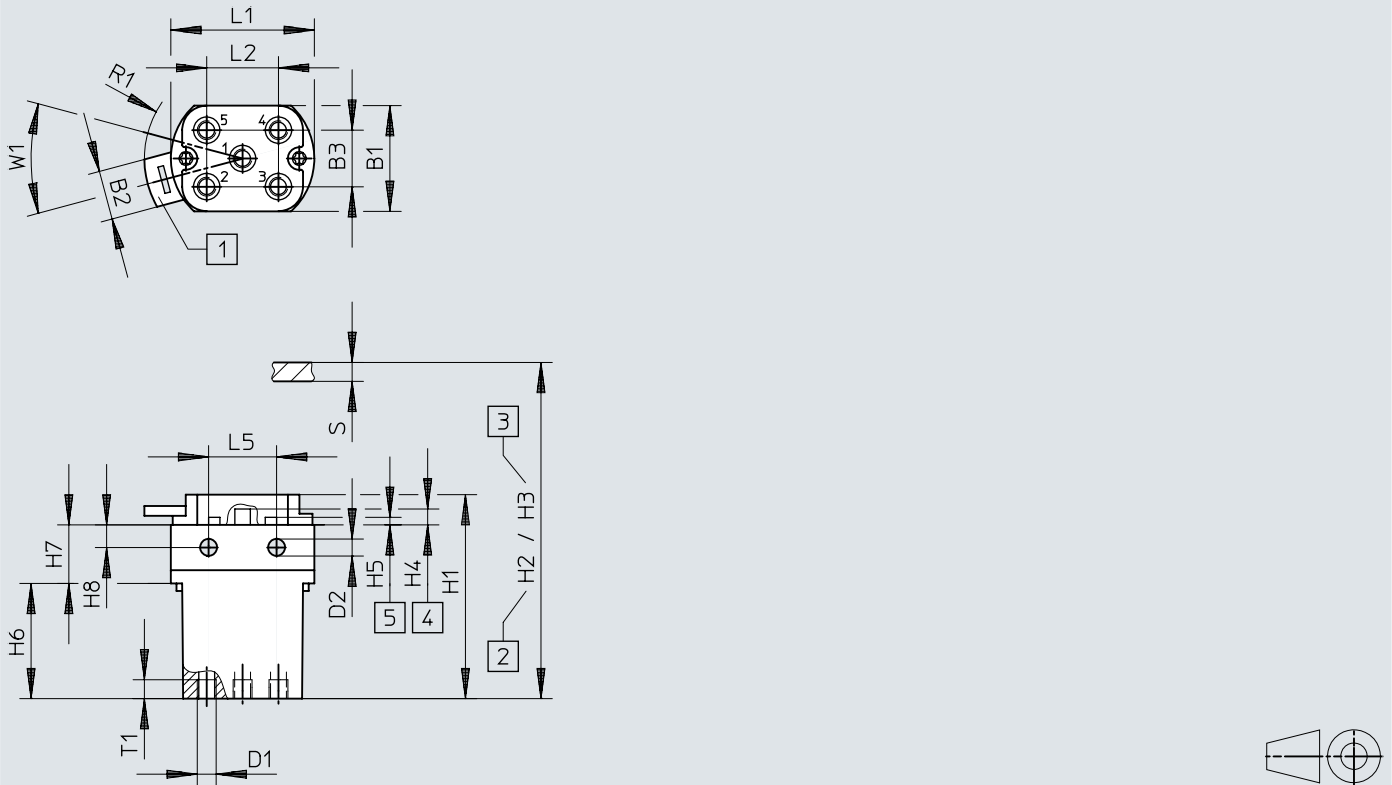
- [1] Quick snap-in coupling for actuator attachments
- [2] Installation dimension for  $\varnothing 22.5$
- [3] Installation dimension for  $\varnothing 30.5$
- [4] Max. stroke
- [5] Max. opening thickness of the front panel

	B1	B2	B3	B4	D1	D2 $\varnothing$	H1	H2	H3	H4 $\pm 0,2$	H5
SV-3-M5	28	13	8,2	8	M5	4,5	46	63,5	69,5	4,2	2
	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°

## Dimensions

### Dimensions – Basic valves, SV-5-M5-B

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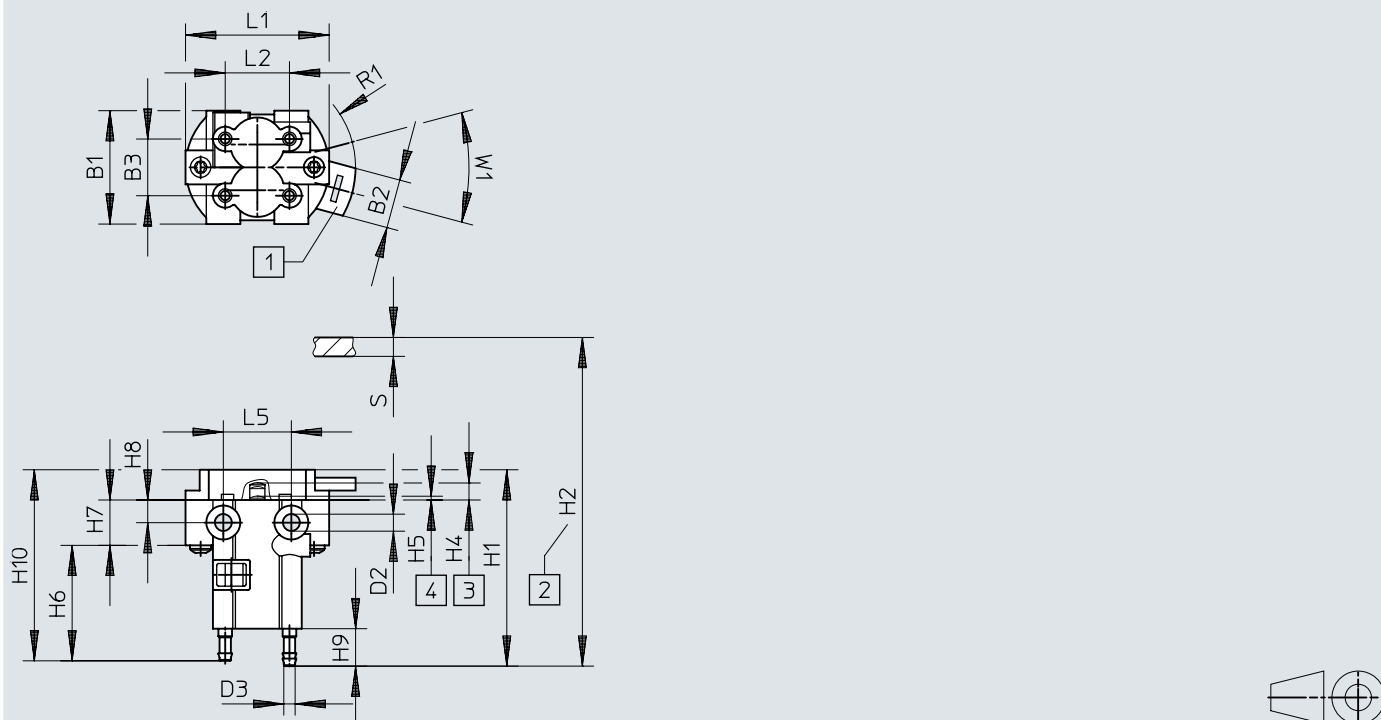
- [1] Quick snap-in coupling for actuator attachments
- [2] Installation dimension for  $\varnothing 22.5$
- [3] Installation dimension for  $\varnothing 30.5$
- [4] Max. stroke
- [5] Max. opening thickness of the front panel

	B1	B2	B3	D1	D2 $\varnothing$	H1	H2	H3	H4 $\pm 0,2$	H5
SV-5-M5-B	28	13	15	M5	4,5	54	71,5	77,5	4,2	2
	H6	H7	H8	L1	L2	L5	R1	T1	W1	
SV-5-M5-B	30,5	15,5	9,5	38	19	18	26	5	30°	

## Dimensions

Dimensions – Basic valves, SV/O-3-PK-3X2

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- [1] Quick snap-in coupling for actuator attachments
- [2] Installation dimension for  $\varnothing 22.5$
- [3] Max. stroke
- [4] Max. opening thickness of the front panel

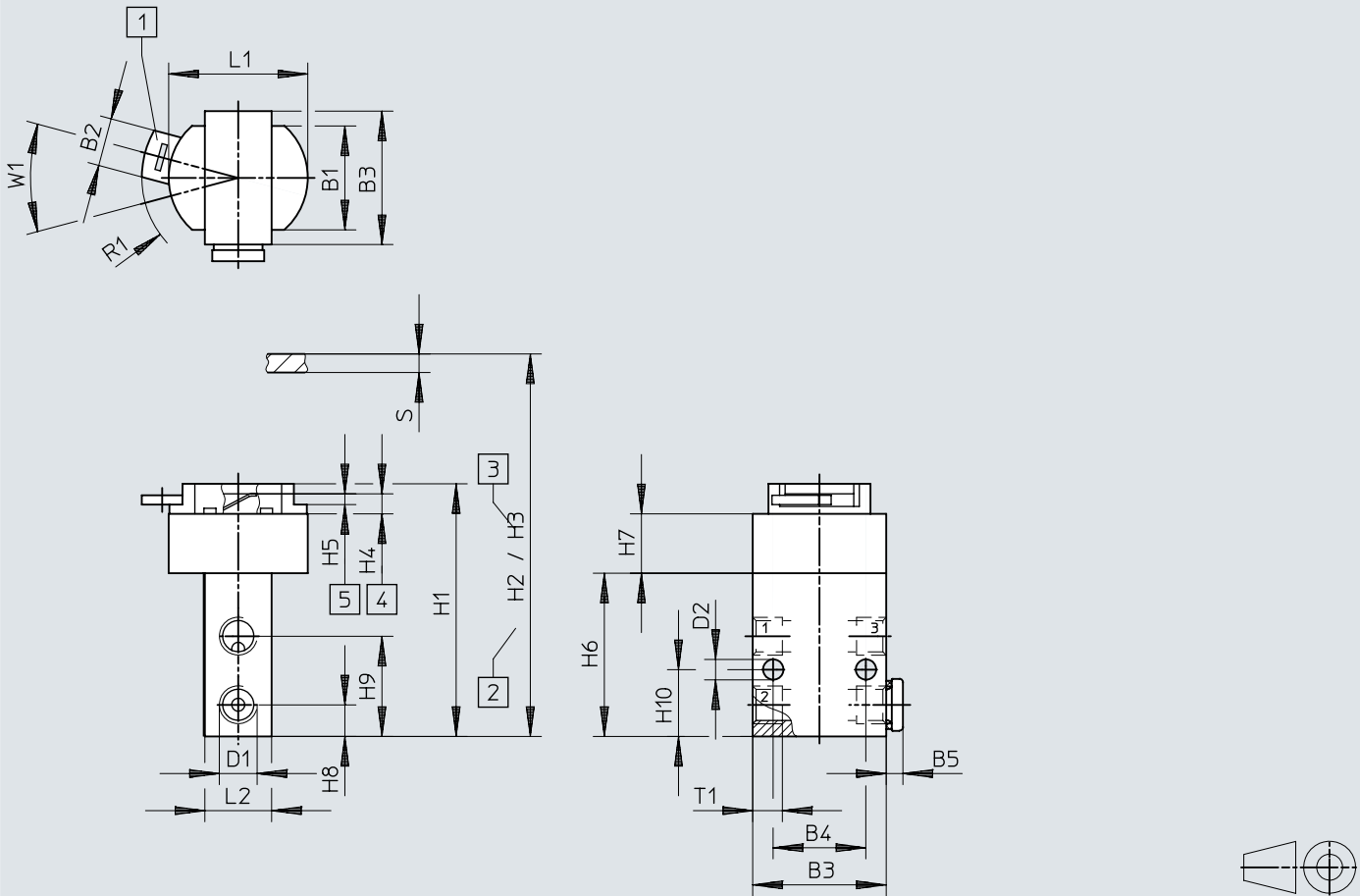
	B1	B2	B3	D2 $\varnothing$	D3 $\varnothing$	H1	H2	H4 $\pm 0,2$
SV/O-3-PK-3X2	30	13	15	4,5	3	52	68,5	4,5

	H5 +0,4 -0,8	H6	H7	H8	H9	H10	L1	L2	L5	R1	W1
SV/O-3-PK-3X2	1	30,6	12	6	9,9	50,6	38	17	18	26	30°

## Dimensions

Dimensions – Basic valves, SVS-3-1/8, SVOS-3-1/8

Download CAD data [www.festo.com](http://www.festo.com)

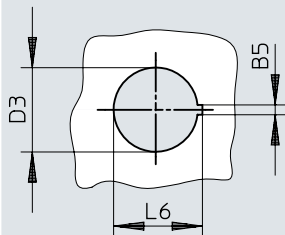


- [1] Quick snap-in coupling for actuator attachments
- [2] Installation dimension for  $\varnothing 22.5$
- [3] Installation dimension for  $\varnothing 30.5$
- [4] Max. stroke
- [5] Max. opening thickness of the front panel

	B1	B2	B3	B4	B5	D1	D2 $\varnothing$	H1	H2	H3	H4 $\pm 0,2$
SVS-3-1/8	28	13	36	25	4,5	G1/8	5,5	68	86	91	6
SVOS-3-1/8											
	H5 +0,4 -0,8	H6	H7	H8	H9	H10	L1	L2	R1	T1	W1
SVS-3-1/8	2...3	44	16	8,5	27	18	37,5	18	26	8	30°
SVOS-3-1/8											

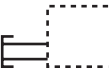
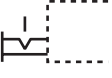
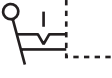
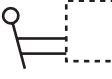



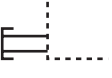
## Dimensions

## Dimensions – Installation opening (control panel cut-out)

Download CAD data [www.festo.com](http://www.festo.com)

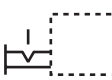

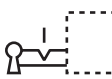
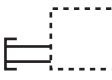

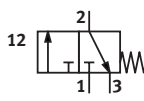
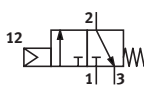
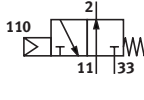
	B5	D3	L6
T-22-...	2,6	22,3	23,5
N-22-SW			
NR-22-SWX2			
H-22-SW			
H-22-SWX2			
Q-22-B			
P-22-SW			
PR-22-RT			
PRS-22-RT-B	3,1	30,3	31,5
T-30-...			
N-30-SW			
H-30-SW			
Q-30			
P-30-SW			
PR-30-RT			
PRS-30-RT			

Ordering data

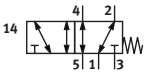
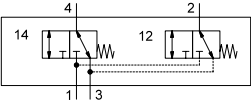
	Degree of protection	Colour	Part no.	Type
	IP40	Yellow	9290	T-22-GE
		Red	9997	T-22-RT
		Black	9289	T-22-SW
	IP40		25261	NR-22-SWX2
		Black	9301	N-22-SW
	IP40	Black	9305	H-22-SW
	IP40		25749	H-22-SWX2
	IP40	Black	573107	Q-22-B
	IP40	Black	9293	P-22-SW
	IP40	Red	9297	PR-22-RT
			573108	PRS-22-RT-B
	IP40	Yellow	9292	T-30-GE
		Red	10014	T-30-RT
		Black	9291	T-30-SW



## Ordering data

	Degree of protection	Colour	Part no.	Type
	IP40	Black	<b>9302</b>	<b>N-30-SW</b>
	IP40	Black	<b>9306</b>	<b>H-30-SW</b>
	IP40		<b>9304</b>	<b>Q-30</b>
	IP40	Black	<b>9295</b>	<b>P-30-SW</b>
	IP40	Red	<b>9300</b>	<b>PRS-30-RT</b>
			<b>9298</b>	<b>PR-30-RT</b>
	Valve function	Pneumatic connection, port 1	Part no.	Type
	3/2-way, closed, monostable	M5	<b>6817</b>	<b>SV-3-M5</b>
	Valve function	Pneumatic connection, port 1	Part no.	Type
	3/2-way, closed, monostable	G1/8	<b>10190</b>	<b>SVS-3-1/8</b>
	Valve function	Pneumatic connection, port 1	Part no.	Type
	3/2 open, single solenoid	G1/8	<b>10191</b>	<b>SVOS-3-1/8</b>

Ordering data

	Valve function	Pneumatic connection, port 1	Part no.	Type
	5/2-way, monostable	M5	<b>11914</b>	<b>SV-5-M5-B</b>
	2x3/2-way, monostable, closed	PK-3	<b>184135</b>	<b>SV/O-3-PK-3X2</b>