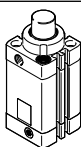
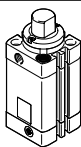
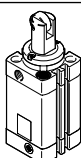
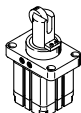
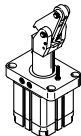
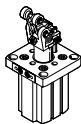


Product range overview

Function	Design	Type	Piston ∅	Stroke	Permissible impact force ¹⁾ [N]	Type of mounting		→ Page/ Internet
			[mm]	[mm]		Direct	Via flange	
Stopper cylinders DFSP								
Single-acting, pulling or double-acting	Trunnion							
		DFSP-...-S DFSP-...-F	16	5 ... 15	880	■	■	5
			20	5 ... 20	1370	■	■	
			32	5 ... 25	3270	■	■	
			40	5 ... 30	5540	■	■	
			50	5 ... 30	6280	■	■	
	Trunnion with protection against rotation							
		DFSP-Q-...-S DFSP-Q-...-F	16	5 ... 15	880	■	■	5
			20	5 ... 20	1100	■	■	
			32	5 ... 25	3270	■	■	
			40	5 ... 30	5540	■	■	
			50	5 ... 30	6280	■	■	
	Roller with protection against rotation							
		DFSP-Q-...-R	16	10, 15	710	■	■	5
			20	10, 15, 20	840	■	■	
			32	15, 20, 25	2670	■	■	
			40	20, 25, 30	4500	■	■	
			50	20, 25, 30	5000	■	■	
Stopper cylinder STAF								
Single-acting, pulling or double-acting	Roller							
		STAF-...-P-A-R	80	30, 40	14600	–	■	sta
Toggle lever								
		STAF-...-P-A-K	32	20	480	–	■	sta
Stopper cylinders DFST								
Single-acting, pulling or double-acting	Toggle lever							
		DFST-...-	50	30	3000	–	■	dfst
			63	30	5000			
			80	40	6000			

1) On the advanced piston rod


Data sheet

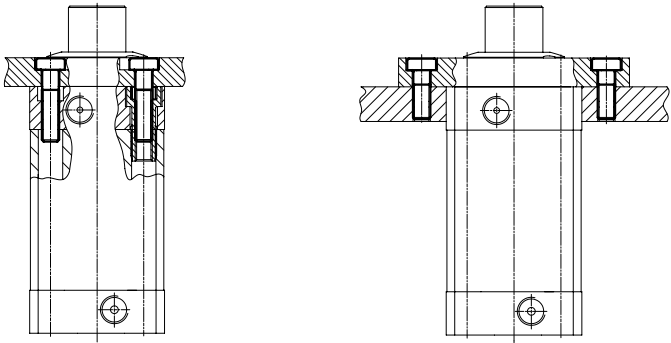
Ø Diameter
16 ... 50 mm

Stroke length
5 ... 30 mm



General technical data					
Piston Ø	16	20	32	40	50
Pneumatic connection	M5	M5	G1/8	G1/8	G1/8
Stroke [mm]	5 ... 15	5 ... 20	5 ... 25	5 ... 30	5 ... 30
Max. switching frequency [Hz]	5				
Design	Piston				
	Piston rod				
	Piston rod with roller				
	Profile barrel				
	Non-rotating				
Mode of operation	Double-acting with spring, pulling				
	Double-acting without spring				
	Single-acting, pulling				
Cushioning	Elastic cushioning rings/plates at both ends				
Type of mounting	With through-hole				
	With female thread				
	Via accessories				
Position sensing	Via proximity switch				
Mounting position	Any				

 **Note**
All technical data refer to the mounting options (→ right). The values may be much lower with the other mounting options.
Note the minimum screw-in depth → page 12



Data sheet

Operating and environmental conditions						
Piston Ø		16	20	32	40	50
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]				
Note on the operating/pilot medium		Lubricated operation possible (in which case lubricated operation will always be required)				
Min. operating pressure						
Without spring	[MPa]	0.1				
	[bar]	1				
With spring	[MPa]	0.28	0.16	0.12	0.12	0.12
	[bar]	2.8	1.6	1.2	1.2	1.2
At max. lateral force	[MPa]	→ Page 10				
	[bar]					
Max. operating pressure	[MPa]	1				
	[bar]	10				
Ambient temperature ¹⁾	[°C]	−10 ... +80				
Corrosion resistance class CRC ²⁾		2				

1) Note operating range of proximity switches

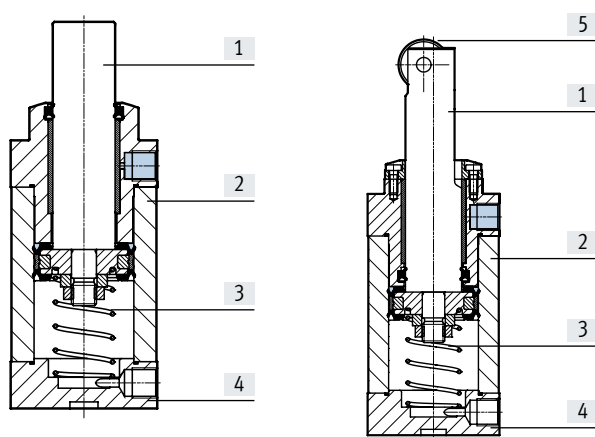
2) Corrosion resistance class 2 to Festo standard 940070

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

Effective force and impact energy						
Piston Ø		16	20	32	40	50
Effective force at 0.6 MPa (6 bar), advancing						
DFSP-...	[N]	107	171	438	683	1064
DFSP-...-D	[N]	121	188	483	754	1178
Effective force at 0.6 MPa (6 bar), retracting						
DFSP-...	[N]	74	121	294	459	696
Max. impact energy of the cylinder in the end positions						
DFSP-...	[J]	0.1	0.15	0.4	0.7	1.0

Materials

Sectional view



Stopper cylinder		
[1]	Piston rod	High-alloy stainless steel
[2]	Profile barrel	Smooth-anodised wrought aluminium alloy
[3]	Spring	Spring steel
[4]	Cover	Anodised wrought aluminium alloy
[5]	Roller	Galvanised steel
-	Flange screws	High-alloy stainless steel
	Seals	TPE-U(PU)
	Anti-rotation ring	POM
	Note on materials	RoHS-compliant
	PWIS conformity	VDMA24364-B1/B2-L