Type codes

001	Series	
DZH	Flat cylinder, double-acting	

002	Piston diameter	
16	16	
20	20	
25	25	
32	32	
40	40	
50	50	
63	63	

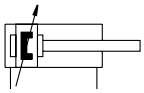
003	Stroke	
25	25	
40	40	
50	50	
80	80	
100	100	
125	125	
160	160	
200	200	
250	250	
300	300	
400	400	
...	1 ... 1000	

004	Position sensing	
A	For proximity sensor	

005	Piston rod type	
	At one end	
S2	Through piston rod	
S20	Through, hollow piston rod	

006	Temperature resistance	
	Standard	
S6	Heat-resistant seals max. 120 °C	

Data sheet



Diameter
16 ... 63 mm

Stroke length
1 ... 1000 mm

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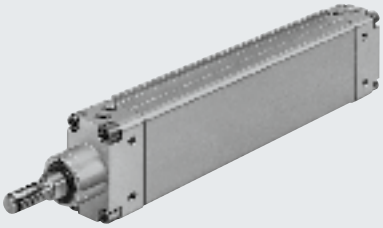


General technical data								
Piston ø		16	20	25	32	40	50	63
Pneumatic connection		M5	G1/8	G1/8	G1/8	G1/4	G1/4	G3/8
Piston rod end	Male thread	M6	M8	M10x1.25	M10x1.25	M12x1.25	M16x1.5	M16x1.5
Design		Piston, piston rod						
Protection against rotation/guide		Oval piston						
Stroke	[mm]	1 ... 200	1 ... 320	1 ... 500	1 ... 1000			
Cushioning		Pneumatic cushioning, adjustable at both ends						
Cushioning length	[mm]	14	17	17	19	21	23	23
Position sensing		Via proximity switch						
Type of mounting		With female thread						
		Via accessories						
Mounting position		Any						

Operating pressure [bar]								
Piston ø		16	20	25	32	40	50	63
		1.0 ... 10			0.6 ... 10			

Environmental conditions			
Flat cylinder		DZH-...	DZH-...-S6
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)	
Ambient temperature[1]	[°C]	–20 ... +80	0 ... +120
Corrosion resistance class CRC[2]		2	2

1) Note operating range of proximity switches

2) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation can occur. External visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment.

Data sheet

Forces [N] and torques [Nm]								
Piston ø		16	20	25	32	40	50	63
Theoretical force at 6 bar, advancing		121	188	295	483	754	1178	1870
	S2/S20	104	158	247	415	633	989	1682
Theoretical force at 6 bar, retracting		104	158	247	415	633	989	1682
	S2/S20	104	158	247	415	633	989	1682
Max. torque at the piston rod[1]		0.5	0.6	0.8	1.0	1.2	1.7	2.0

1) The max. torque must not be exceeded even when attaching mounting components to the piston rod

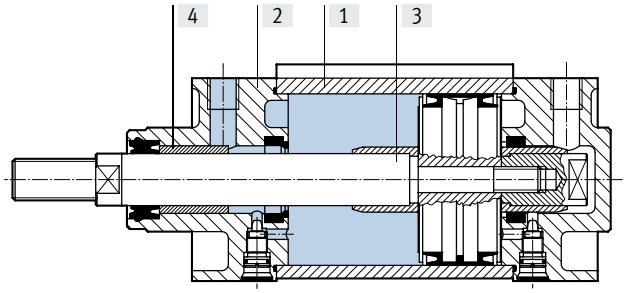
Weight [g]							
Piston ø	16	20	25	32	40	50	63
Product weight with 0 mm stroke	140	230	330	500	820	1200	1690
Additional weight per 10 mm stroke	11	15	21	30	40	60	80

Minimum stroke length [mm] for contactless position sensing with a proximity switch					
Piston ø	32	40	50	63	
SMEO-1/SMTO-1					
Plug	10				
Cable					

Minimum stroke length [mm] for contactless position sensing with two proximity switches					
Piston ø		32	40	50	63
SMEO-1					
Plug	To one another	86	87	90	91
	To the caps	46	48	49	50
Cable	To one another	63	64	67	68
	To the caps	48	50	51	53
SMTO-1					
Plug	To one another	105	107	106	107
	To the caps	Not possible, as the plug covers the pneumatic connection			
Cable	To one another	82	84	85	86
	To the caps	19	21	20	22

Materials

Sectional view



Flat cylinder			DZH-...	DZH-...-S6
[1]	Cylinder barrel		Anodised aluminium	Anodised aluminium
[2]	Bearing cap		Aluminium	Aluminium
[3]	Piston rod	ø 16 ... 25	Stainless steel	Stainless steel
		ø 32 ... 63	High-alloy steel	High-alloy steel
[4]	Dynamic seals		Polyurethane	Fluoro rubber
–	Note on materials		RoHS-compliant	