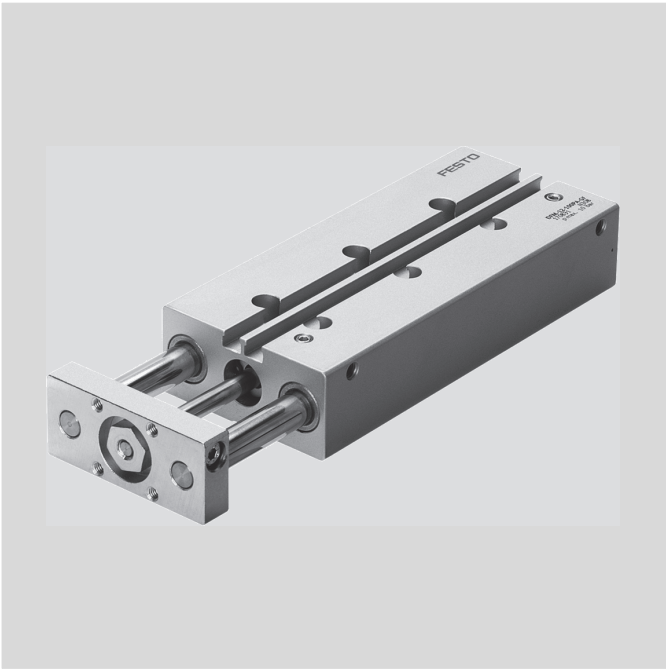


Guided Drives DFM

Overview



- Sturdy and accurate
- With plain-bearing or recirculating ball bearing guide
- High resistance to torques and lateral forces
- Wide range of applications
- Spare parts service
- Repair service

Detailed product information → www.festo.com/catalog/dfm

Product Range Overview						
Function	Version	Piston Ø [mm]	Stroke [mm]	Force [N]	Variants	
					P	A
Double-acting	Plain-bearing guide (GF)	12, 16, 20, 25, 32, 40, 50, 63	10 ... 200	68 ... 1,870	■	■

Variants		
P	Flexible cushioning rings/pads at both ends	A Position sensing

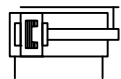
General Technical Data								
Piston Ø	12	16	20	25	32	40	50	63
Pneumatic connection	M5	M5	M5	G1/8	G1/8	G1/8	G1/4	G1/4
Protection against rotation	Guide rods with yoke, with plain-bearing or recirculating ball bearing guide							

Contents	
– Technical Data	→ 50
– Ordering Data	→ 51
– Accessories Overview	→ 52
– Accessories	→ 53

Note: All metric products can be used within inch tubing systems via hybrid fittings (→ Overview on page 240)

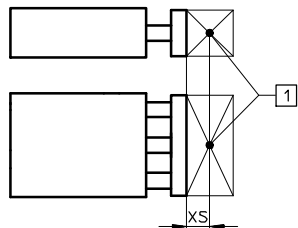
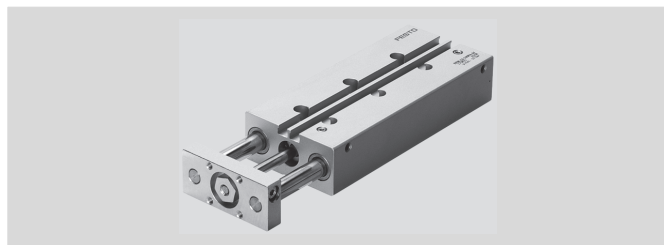
Guided Drives DFM

Technical Data

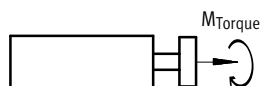


Materials

Housing, end caps:
Anodized aluminum
Yoke plate: Galvanized steel
Piston rod, guide rods:
High-alloy steel
Seals: Nitrile rubber



1 Centre of gravity of effective load



Technical Data					
Piston Ø		12	16	20	25
Cushioning		Flexible cushioning rings/pads at both ends			
Theoretical force at 6 bar, advancing	[N]	68	121	188	295
Theoretical force at 6 bar, retracting	[N]	51	90	141	247
Max. effective load ¹⁾	[N]	19 ... 28	24 ... 73	35 ... 110	84 ... 123
Torque load ²⁾	[Nm]	0.38 ... 0.65	0.55 ... 1.68	1.01 ... 3	2.85 ... 4.2
Length at min. stroke	[mm]	59	60	75	93
Width	[mm]	60	67	83	95
Height	[mm]	28	32	36	44

Piston Ø		32	40	50	63
Cushioning		Flexible cushioning rings/pads at both ends			
Theoretical force at 6 bar, advancing	[N]	482	754	1,178	1,870
Theoretical force at 6 bar, retracting	[N]	415	686	1,057	1,750
Max. effective load ¹⁾	[N]	112 ... 188	109 ... 180	168 ... 257	168 ... 257
Torque load ²⁾	[Nm]	4.25 ... 7.3	4.80 ... 7.90	9.30 ... 14.15	10.50 ... 15.90
Length at 0 mm stroke	[mm]	101	106	118	118
Width	[mm]	110	120	148	162
Height	[mm]	49	54	64	78

- 1) Dependent on stroke and distance xs.
2) Dependent on stroke.

Operating Conditions								
Piston Ø	12	16	20	25	32	40	50	63
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:4:4]							
Note on operating/pilot medium	Operation with lubricated medium possible (in which case lubricated operation will always be required)							
Operating pressure [bar]	2 ... 10			1.5 ... 10			1 ... 10	
Ambient temperature ¹⁾ [°C]	-20 ... +80							

- 1) Note operating range of proximity sensors.

Guided Drives DFM

Ordering Data

FESTO

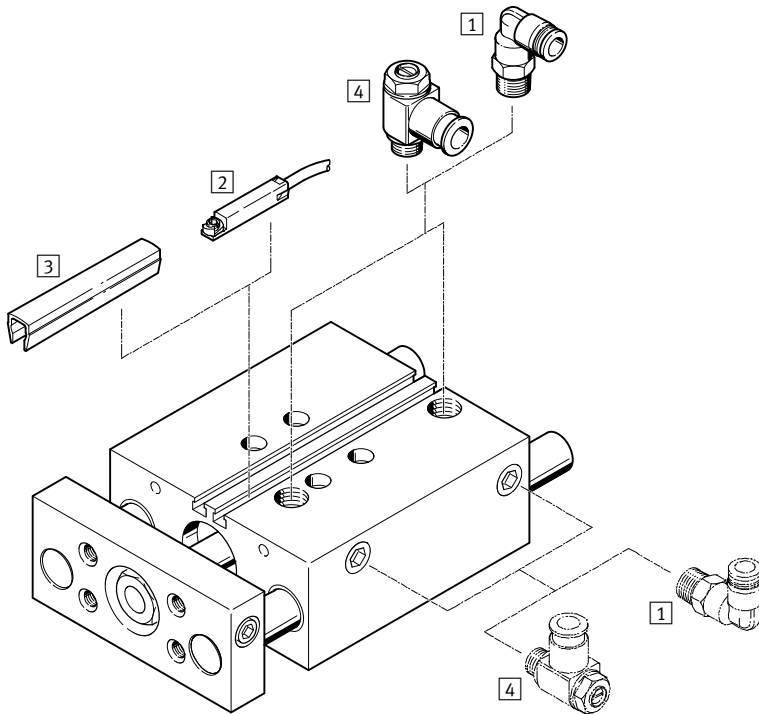
Ordering Data – Progressive Shock Absorber										
Piston Ø [mm]	Stroke [mm]	Part No.	Type	LT	Piston Ø [mm]	Stroke [mm]	Part No.	Type	LT	
12	10	170824	DFM-12-10-P-A-GF	1D	32	25	170855	DFM-32-25-P-A-GF	1D	
	25	170826	DFM-12-25-P-A-GF	1D		50	170858	DFM-32-50-P-A-GF	1D	
	50	170829	DFM-12-50-P-A-GF	1D		80	170859	DFM-32-80-P-A-GF	1D	
	80	170830	DFM-12-80-P-A-GF	1D		100	170860	DFM-32-100-P-A-GF	1D	
	100	170831	DFM-12-100-P-A-GF	1D		125	170861	DFM-32-125-P-A-GF	1D	
16	10	170832	DFM-16-10-P-A-GF	1D		160	170862	DFM-32-160-P-A-GF	1D	
	25	170834	DFM-16-25-P-A-GF	1D		200	170863	DFM-32-200-P-A-GF	1D	
	50	170837	DFM-16-50-P-A-GF	1D	40	25	170864	DFM-40-25-P-A-GF	1D	
	80	170838	DFM-16-80-P-A-GF	1D		50	170865	DFM-40-50-P-A-GF	1D	
	100	170839	DFM-16-100-P-A-GF	1D		80	170866	DFM-40-80-P-A-GF	1D	
20	25	170841	DFM-20-25-P-A-GF	1D		100	170867	DFM-40-100-P-A-GF	1D	
	50	170844	DFM-20-50-P-A-GF	1D		125	170868	DFM-40-125-P-A-GF	1D	
	80	170845	DFM-20-80-P-A-GF	1D		160	170869	DFM-40-160-P-A-GF	1D	
	100	170846	DFM-20-100-P-A-GF	1D		200	170870	DFM-40-200-P-A-GF	1D	
25	25	170848	DFM-25-25-P-A-GF	1D	50	25	170871	DFM-50-25-P-A-GF	1D	
	50	170851	DFM-25-50-P-A-GF	1D		50	170872	DFM-50-50-P-A-GF	1D	
	80	170852	DFM-25-80-P-A-GF	1D		80	170873	DFM-50-80-P-A-GF	1D	
	100	170853	DFM-25-100-P-A-GF	1D		100	170874	DFM-50-100-P-A-GF	1D	
						125	170875	DFM-50-125-P-A-GF	1D	
						160	170876	DFM-50-160-P-A-GF	1D	
						200	170877	DFM-50-200-P-A-GF	1D	
					63	25	170878	DFM-63-25-P-A-GF	1D	
						50	170879	DFM-63-50-P-A-GF	1D	
						80	170880	DFM-63-80-P-A-GF	1D	
						100	170881	DFM-63-100-P-A-GF	1D	
						125	170882	DFM-63-125-P-A-GF	1D	
						160	170883	DFM-63-160-P-A-GF	1D	
						200	170884	DFM-63-200-P-A-GF	1D	

LT = Lead time

1D typically ships same day/next day

3D typically ships within 3 days

Peripherals Overview



Accessories		→ Page/Internet
1	Push-in fitting QS	53
2	Proximity sensor SME-/SMT-8	53
3	Slot cover ABP-5-S	abp
4	One-way flow control valve GRLA	53
–	Centering sleeve ZBH	53

Guided Drives DFM

Accessories

FESTO

Centering Sleeves Included in Scope of Delivery			
	For Ø	Centering sleeves ¹⁾	
		For housing	For yoke plate
	12	2x ZBH-5, 2x ZBH-9	2x ZBH-5
	16	2x ZBH-5, 2x ZBH-9	2x ZBH-5
	20	2x ZBH-7, 2x ZBH-9	2x ZBH-9
	25	2x ZBH-7, 2x ZBH-9	2x ZBH-9
	32	2x ZBH-9, 2x ZBH-12	2x ZBH-9
	40	2x ZBH-9, 2x ZBH-12	2x ZBH-9
	50	2x ZBH-12	2x ZBH-12
	63	2x ZBH-12	2x ZBH-12

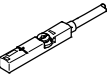
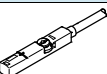
1) Supplied in packs of 10 for repeat orders.

Ordering Data – Centering Sleeves ¹⁾			
Technical Data → <a href="http://www.festo.com/catalog/<type>or<order code>">www.festo.com/catalog/<type>or<order code>			
	For Ø	Part No.	Type
	See table above	189652	ZBH-5
		186717	ZBH-7
		150927	ZBH-9
		189653	ZBH-12

1) Packaging unit quantity 10 pieces.

Ordering Data – One-way Flow Control Valves for Exhaust Air Flow Control				
Technical Data → 253				
Function	For Ø [mm]	Tubing O.D. [mm]	Part No.	Type
	12, 16, 20	4	197577	GRLA-M5-QS-4-RS-D
		6	197578	GRLA-M5-QS-6-RS-D
	25, 32, 40	4	197580	GRLA-1/8-QS-4-RS-D
		6	197581	GRLA-1/8-QS-6-RS-D
	50, 63	6	162965	GRLA-1/4-QS-6-RS-B
		8	162966	GRLA-1/4-QS-8-RS-B

Ordering Data – Push-in Fittings QB				
Technical Data → 245				
Function	For Ø [mm]	Tubing O.D. [mm]	Part No.	Type
	12, 16, 20	4	153304	QSM-M5-4
		6	153306	QSM-M5-6
	25, 32, 40	4	153001	QS-1/8-4
		6	153002	QS-1/8-6
	50, 63	6	153003	QS-1/4-6
		8	153005	QS-1/4-8

Ordering Data – Proximity Sensors and Connecting Cables			
	Description	Part No.	Type
Proximity sensor for T-slot, magneto-resistive – N/O contact Technical data → 169			
	PNP, cable, 2.5 m	574335	SMT-8M-A-PS-24V-E-2,5-OE
	PNP, plug	574334	SMT-8M-A-PS-24V-E-0,3-M8D
	NPN, cable, 2.5 m	574338	SMT-8M-A-NS-24V-E-2,5-OE
	NPN, plug	574339	SMT-8M-A-NS-24V-E-0,3-M8D
Magnetic reed – N/O contact Technical data → 170			
	Cable, 2.5 m	543862	SME-8M-ZS-24V-K-2,5-OE
	Plug	543861	SME-8M-DS-24V-K-0,3-M8D
Connecting cable, straight socket			
	2.5 m	541333	NEBU-M8G3-K-2.5-LE3