

Swivel modules DSM-12 ... 40-B

Overview

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- Semi-rotary drives with minimum space requirement
- Simple coarse and precision adjustment of the swivel angle
- High-performance cushioning
- Compact, low-cost sensing

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

Product Range Overview									
Function	Version	Size	Swivel angle [°]	Torque [Nm]	Variants				
					P	CC	–	FW	A
Double-acting	Without stop system, with fixed swivel angle	12, 16, 25, 32, 40	270	1.25 ... 20	–	–	■	■	■
	With adjustable swivel angle	12, 16, 25, 32, 40	270	1.25 ... 20	■	–	■	■	■
		12, 16, 25, 32	246	1.25 ... 10	–	■	■	■	■
		40	240	20	–	■	■	■	■

Variants

P	Flexible cushioning rings/pads on both sides	CC	Shock absorber at both ends	FW	Flanged shaft
		–	Shaft with woodruff key	A	Position sensing

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Note: All metric products can be used within inch tubing systems via hybrid fittings (→ Overview on page 241)

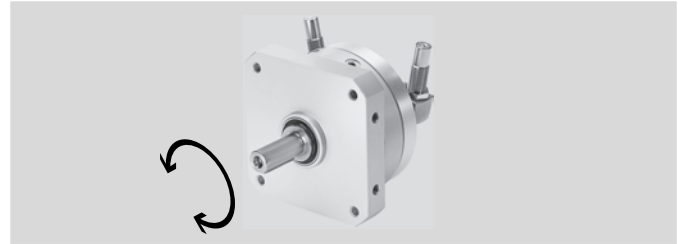
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Technical Data

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Materials
 Housing, flange, stop lever:
 Anodized aluminum
 Shaft: Nickel plated steel
 Rotary vane: Fibreglass-reinforced
 plastic
 Fixed stops: Galvanized steel
 Seals: Polyurethane



Technical Data						
Size		12	16	25	32	40
Pneumatic connection		M5			G1/8	
Cushioning	Fixed (P)	Flexible cushioning rings/pads at both ends				
	Adjustable (CC)	Self-adjusting at both ends				
Torque at 6 bar	[Nm]	1.25	2.5	5	10	20
Swivel angle	Fixed (P)	[°]	270			
	Adjustable (CC)	[°]	246			
Max. perm. swivelling frequency	Fixed (P)	[Hz]	2			
	Adjustable (CC)		1.5	1		0.7
Max. perm. radial load ¹⁾	[N]	45	75	120	200	350
Max. perm. axial load ¹⁾	[N]	1.25	2.5	5	10	20
Max. cushioning angle	[°]	15	12	10	12	16
Ø/length	[mm]	60/69	71/83	84/98	106/128	131/156

1) On the drive shaft.

Operating Conditions						
Size		12	16	25	32	40
Operating medium		Compressed air in accordance with ISO 8573-1:2010 [7:-:-]				
Operating pressure	[bar]	2 ... 10			1.5 ... 10	
Temperature range ¹⁾	[°C]	-10 ... +60				

1) Note operating range of proximity sensors.

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Ordering Data

Ordering Data – with Spigot Shaft				
Piston Ø [mm]	Swivel Angle	Part No.	Type	LT
without stop system				
12	270°	547591	DSM-12-270-A-B	1D
16		547592	DSM-16-270-A-B	1D
25		547593	DSM-25-270-A-B	1D
32		547594	DSM-32-270-A-B	1D
40		547595	DSM-40-270-A-B	1D
with flexible cushioning rings/pads at both ends, adjustable swivel angle				
12	270°	547570	DSM-12-270-P-A-B	1D
16		547574	DSM-16-270-P-A-B	1D
25		547578	DSM-25-270-P-A-B	1D
32		547582	DSM-32-270-P-A-B	1D
40		547586	DSM-40-270-P-A-B	1D
with self-adjusting shock-absorbers at both ends, adjustable swivel angle				
12	246°	547572	DSM-12-270-CC-A-B	1D
16		547576	DSM-16-270-CC-A-B	1D
25		547580	DSM-25-270-CC-A-B	1D
32		547584	DSM-32-270-CC-A-B	1D
40	240°	547588	DSM-40-270-CC-A-B	1D

Ordering Data – with Flanged Shaft				
Piston Ø [mm]	Swivel Angle	Part No.	Type	LT
without stop system				
12	270°	547596	DSM-12-270-FW-A-B	1D
16		547597	DSM-16-270-FW-A-B	1D
25		547598	DSM-25-270-FW-A-B	1D
32		547599	DSM-32-270-FW-A-B	1D
40		547600	DSM-40-270-FW-A-B	1D
with flexible cushioning rings/pads at both ends, adjustable swivel angle				
12	270°	547571	DSM-12-270-P-FW-A-B	1D
16		547575	DSM-16-270-P-FW-A-B	1D
25		547579	DSM-25-270-P-FW-A-B	1D
32		547583	DSM-32-270-P-FW-A-B	1D
40		547587	DSM-40-270-P-FW-A-B	1D
with self-adjusting shock-absorbers at both ends, adjustable swivel angle				
12	246°	547573	DSM-12-270-CC-FW-A-B	1D
16		547577	DSM-16-270-CC-FW-A-B	1D
25		547581	DSM-25-270-CC-FW-A-B	1D
32		547585	DSM-32-270-CC-FW-A-B	1D
40	240°	547589	DSM-40-270-CC-FW-A-B	1D

LT = Lead time

1D typically ships same day/next day

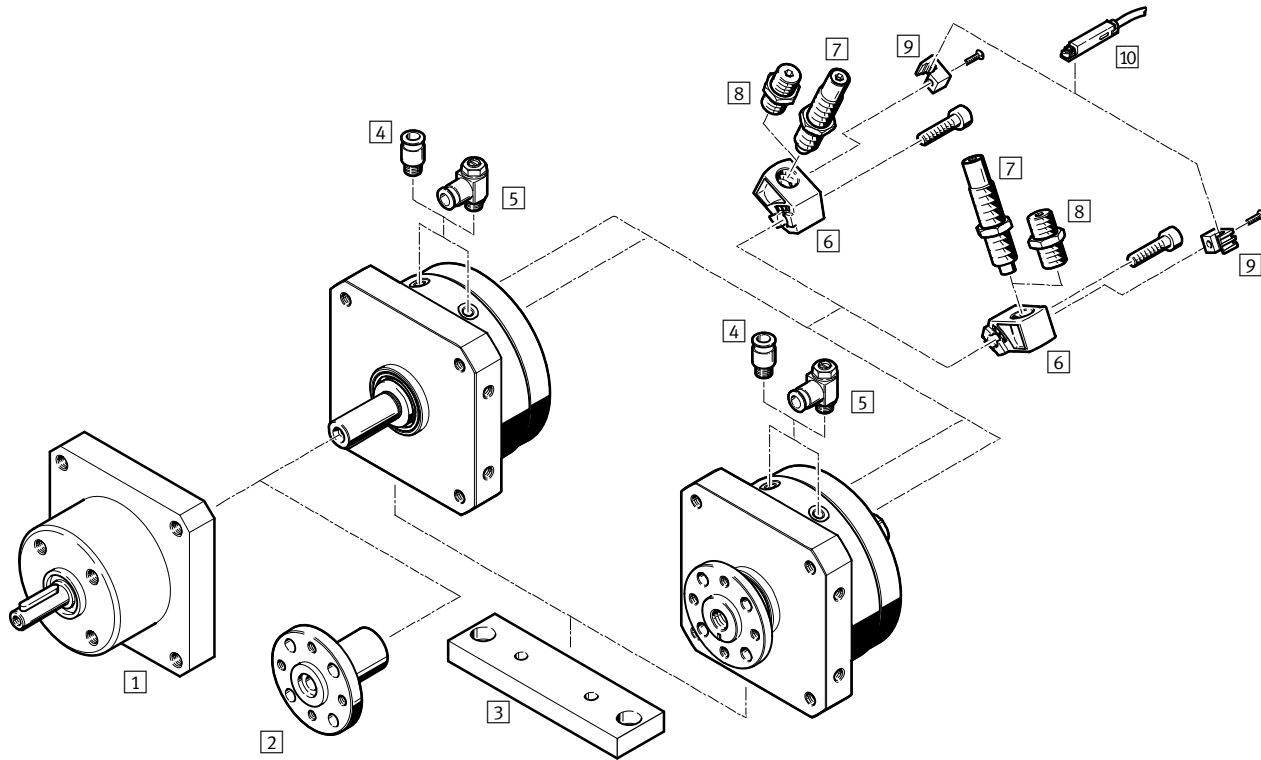
3D typically ships within 3 days

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Accessories

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Peripherals Overview




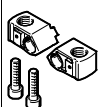


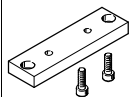
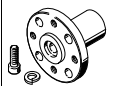
Accessories		→ Page/Internet
1	Freewheel unit FLSM	flsm
2	Push-on flange FWSR	87
3	Mounting plate HSM	87
4	Push-in fitting QS	87
5	One-way flow control valve GRLA	87
6	Shock absorber retainer DSM-B	87
7	Shock absorber DYSC	87
8	Cushioning kit DSM-...-P-B, with flexible fixed stop	87
9	Sensor retainer SL-DSM-B	87
10	Proximity sensor SME-/SMT-10	87

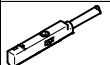
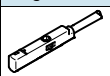

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Accessories


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Ordering Data			
	For size	Part No.	Type
Sensor retainer SL			
	12, 16, 25, 32, 40	550661	SL-DSM-B
Cushioning kit, with flexible fixed stop			
	12	550657	DSM-12-P-B
	16, 25	550658	DSM-16/25-P-B
	32	550659	DSM-32-P-B
	40	550660	DSM-40-P-B
Shock absorber DYSC			
	12	548011	DYSC-5-5-Y1F
	16/25	548012	DYSC-7-5-Y1F
	32	548013	DYSC-8-8-Y1F
	40	548014	DYSC-12-12-Y1F
Shock absorber retainer			
	12	547900	DSM-12-B
	16	547901	DSM-16-B
	25	547902	DSM-25-B
	32	547903	DSM-32-B
	40	547904	DSM-40-B

Ordering Data			
	For size	Part No.	Type
Mounting plate HSM			
	12	165571	HSM-12
	16	165572	HSM-16
	25	165573	HSM-25
	32	165574	HSM-32
	40	165575	HSM-40
Push-on flange FWSR			
	12	14659	FWSR-12
	16	13239	FWSR-16
		170153	FWSR-16-M5
	25	13240	FWSR-25
		170154	FWSR-25-M5
	32	13241	FWSR-32
	40	14656	FWSR-40

Ordering Data – Proximity Sensors and Connecting Cables			
	Description	Part No.	Type
Proximity sensor for C-slot, magneto-resistive – N/O contact Technical data → 168			
	PNP, cable, 2.5 m	551373	SMT-10M-PS-24V-E-2,5-L-OE
	PNP, plug	551375	SMT-10M-PS-24V-E-0,3-L-M8D
Magnetic reed – N/O contact Technical data → 169			
	Cable, 2.5 m	551369	SME-10M-ZS-24V-E-2,5-L-OE
	Plug	551367	SME-10M-DS-24V-E-0,3-L-M8D
Connecting cable, straight socket			
	2.5 m	541333	NEBU-M8G3-K-2.5-LE3

Ordering Data – One-way Flow Control Valves for Exhaust Air Flow Control				
Technical Data → 254				
Function	For Ø [mm]	Tubing O.D. [mm]	Part No.	Type
	12, 16, 25	4	197577	GRLA-M5-QS-4-RS-D
		6	197578	GRLA-M5-QS-6-RS-D
	32, 40	4	197580	GRLA-1/8-QS-4-RS-D
		6	197581	GRLA-1/8-QS-6-RS-D

Ordering Data – Push-in Fittings QB				
Technical Data → 246				
Function	For Ø [mm]	Tubing O.D. [mm]	Part No.	Type
	12, 16, 25	4	153304	QSM-M5-4
		6	153306	QSM-M5-6
	32, 40	4	153001	QS-1/8-4
		6	153002	QS-1/8-6

Lead Time LT for all products on this page: **1D** typically ships same day/next day