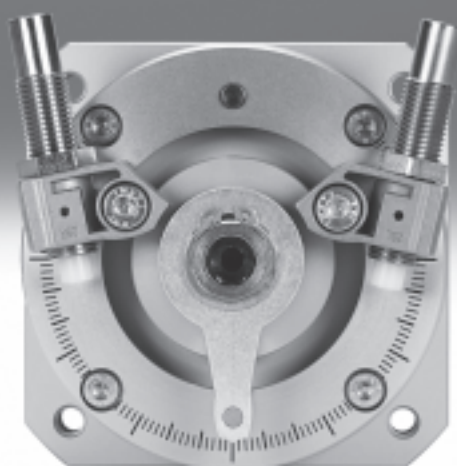


Swivel modules DSM/DSM-B

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Swivel modules DSM/DSM-B

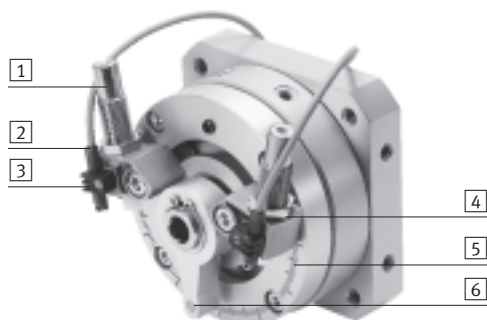
Key features

At a glance

- The swivel module DSM is a double-acting semi-rotary drive with rotary vane
- The swivel angle is infinitely adjustable over the entire swivel range
- High precision thanks to metal fixed stops
- Polyurethane ensures a long service life for the rotary vane and sealing system
- Easy precision adjustment of the end positions using the cushioning components
- The mechanical gearing between the stop element and the swivel module prevents movement of the stop system under load
- Torques of up to 80 Nm with tandem rotary vanes in combination with multi-tooth shaft

The technology in detail

Sensing with proximity sensors SME/SMT



1 Cushioning

- Three types of cushioning, with metal fixed stop:
 - Flexible cushioning components (P)
 - Adjustable, flexible cushioning components (P1)
 - Hydraulic shock absorbers (CC)

2 Position sensing

- Compact sensing of the swivel position:
 - For size 6 ... 40: SME/SMT-10 or SIEN
 - For size 63: SME/SMT-8

3 Sensor bracket

- The sensor brackets are mounted directly on the stop system

4 Precision end-position adjustment

- After the lock nut is loosened, precision adjustment of the end positions is possible using an Allen key

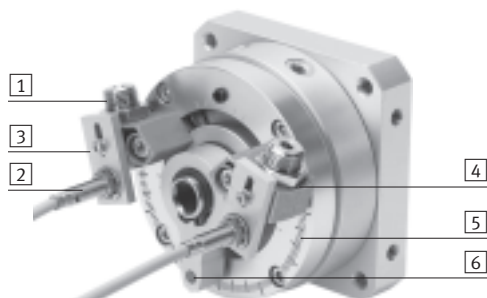
5 Swivel angle scale

- The required swivel angle can easily be preset using the scale

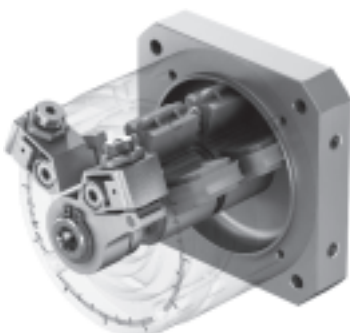
6 Stop lever

- The magnet in the stop lever enables the swivel angle to be sensed

Sensing with proximity sensors SIEN



DSM-T-...: Swivel module with tandem rotary vanes



The arrangement of two rotary vanes on the multi-tooth shaft permits torques of up to 80 Nm.

The functionality corresponds to that of the DSM-B without tandem rotary vanes:

- Infinitely adjustable swivel angle
- Identical interfaces
- Identical accessories

Three cushioning types selectable:

- Cushioning P, CC
- The cushioning type P1 can only be ordered as an accessory in combination with the swivel module DSM-T-... (→ 47)

DSM-...-HD: Swivel module with rotary vane



Backlash-free, preloaded, high-quality bearing elements allow very high load torques and very precise bearing with high running accuracy.

The functionality corresponds to that of the DSM-B without heavy-duty bearing:

- Infinitely adjustable swivel angle

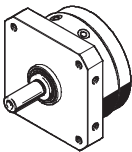
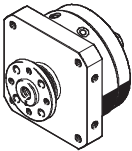
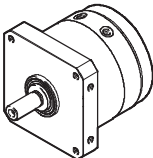
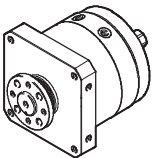
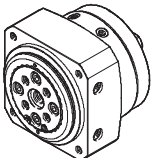
- Identical mounting interfaces
 - Identical accessories
- Two cushioning types selectable:
- Cushioning P1 and CC

Swivel modules DSM/DSM-B

Product range overview

Characteristic values of the swivel modules

The specifications shown in the table are maximum values. The precise values for each of the sizes can be found in the relevant technical data in the catalogue.

Version	Type	Size	Swivel angle	Max. torque	Max. axial force	Max. radial force	Cushioning			Position sensing	→ Page
			[°]	[Nm]	[N]	[N]	P	P1	CC	A	
Spigot shaft											
	DSM-...	6, 8, 10	90, 180	0,85	10	30	■	–	–	■	6
		10	240				■	–	–	■	
		12, 16, 25, 32, 40, 63	270	40	500	500	■	–	–	■	18
		12, 16, 25, 32	246				–	■	■	■	
		40, 63	240				–	■	■	■	
Flanged shaft											
	DSM-...-FW	6, 8, 10	90, 180	0,85	10	30	■	–	–	■	6
		10	240				■	–	–	■	
		12, 16, 25, 32, 40, 63	270	40	500	500	■	–	–	■	18
		12, 16, 25, 32	246				–	■	■	■	
		40, 63	240				–	■	■	■	
Tandem rotary vanes and spigot shaft											
	DSM-T-...	12, 16, 25, 32, 40, 63	270	80	500	500	■	–	–	■	18
		12, 16, 25, 32	246				–	–1)	■	■	
		40, 63	240				–	–1)	■	■	
Tandem rotary vanes and flanged shaft											
	DSM-T-...-FW	12, 16, 25, 32, 40, 63	270	80	500	500	■	–	–	■	18
		12, 16, 25, 32	246				–	–1)	■	■	
		40, 63	240				–	–1)	■	■	
Heavy-duty bearing											
	DSM-...-HD	12, 16, 25, 32, 40, 63	270	40	1 300	1 800	–	–	–	■	18
		12, 16, 25, 32	246				–	■	■	■	
		40, 63	240				–	■	■	■	

1) The cushioning type P1 can be ordered as an accessory (→ 47).

Swivel modules DSM/DSM-B

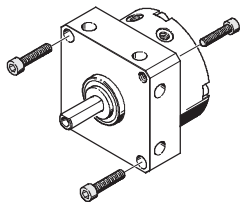
FESTO

Key features

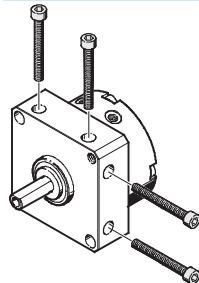
Mounting options

Size 6 ... 10

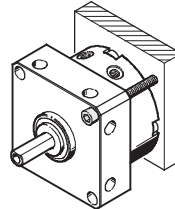
Via threaded through-holes/through-holes



Via through-holes, lateral

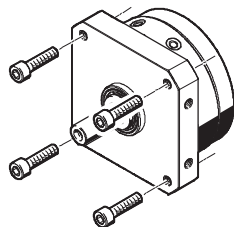


Via threaded holes, lateral

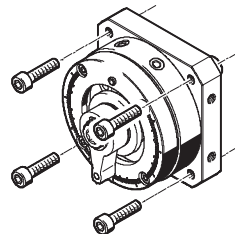


Size 12 ... 63

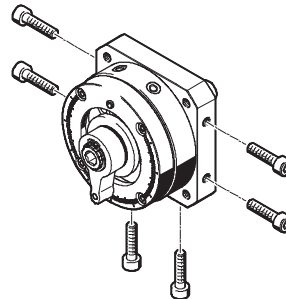
Via threaded through-holes



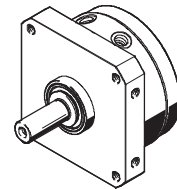
Via through-holes



Via threaded holes, lateral

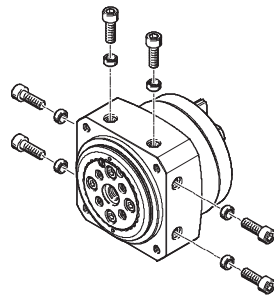


Centring via centring collar

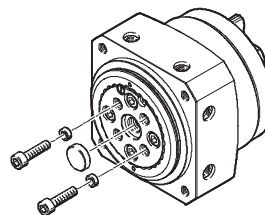


Special mounting options for DSM-...-HD

Via threaded holes, lateral



Of attachments



Positive-locking connections possible through use of centring sleeves ZBH.

Swivel modules DSM/DSM-B

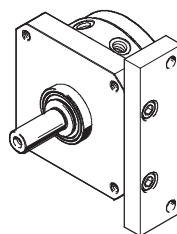
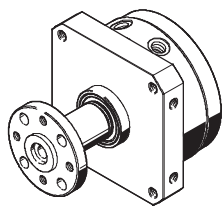
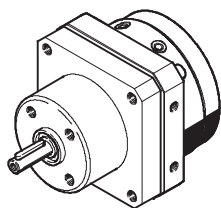
Key features

Accessories

Freewheel unit FLSM
Size 6 ... 40

Push-on flange FWSR
Size 6 ... 40

Mounting plate HSM
Size 12 ... 40



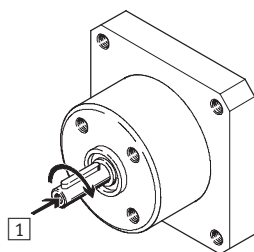
Direction of rotation in combination with freewheel unit FLSM

The freewheel unit blocks one of the two possible swivel directions of

the swivel module DSM. The reverse direction is blocked.

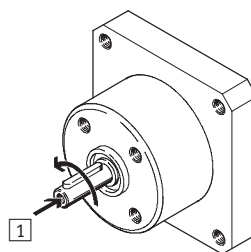
Dimensions and ordering data → 43

FLSM-...-R, right-hand (clockwise) rotation



1 View towards drive shaft

FLSM-...-L, left-hand (anti-clockwise) rotation



Swivel modules DSM

Type codes DSM-6 ... 10

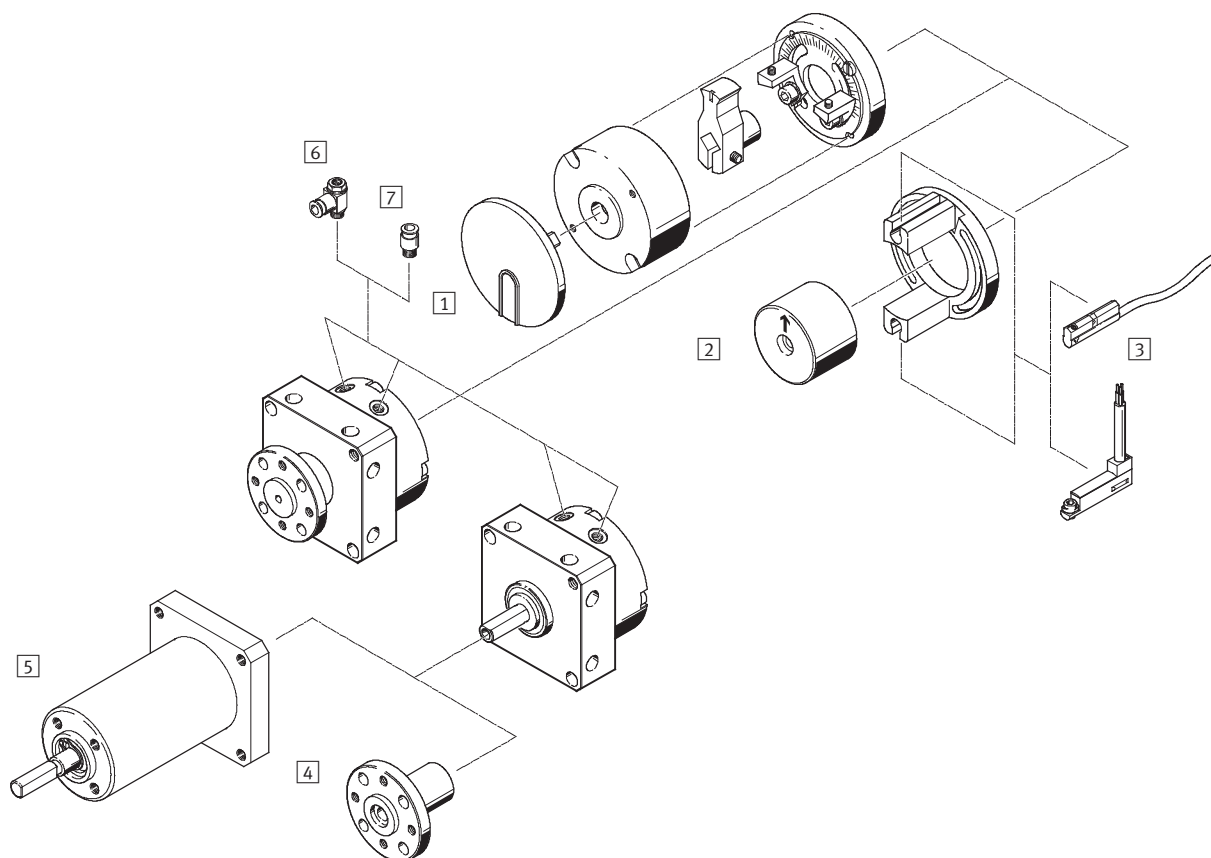
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		DSM	–	8	–	180	–	P	–	A	–	FF	–	FW
Type														
Double-acting														
DSM	Swivel module													
Size [mm]														
Swivel angle [°]														
Cushioning														
P	Flexible cushioning rings/pads at both ends													
Position sensing														
–	No position sensing													
A	Via proximity sensor													
Adjustable swivel angle														
–	Fixed swivel angle													
FF	Adjustable swivel angle													
Shaft														
–	Spigot shaft													
FW	Flanged shaft													

Swivel modules DSM

Peripherals overview DSM-6 ... 10

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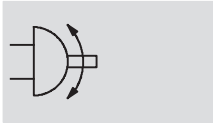
Accessories		
	Brief description	→ Page/Internet
1 Stop kit KSM	- For adjusting the swivel angle - Can be retrofitted for swivel module DSM-...-P(-A)/DSM-...-P(-A)-FW - Can be combined with mounting kit WSM - An adapter and socket head screws must also be ordered for installation of the stop kit in combination with mounting kit WSM → 47	47
2 Mounting kit WSM-...-SME-10	- For sensing the swivel angle - For mounting the proximity sensor SME/SMT-10 - Can be retrofitted for swivel module DSM-...-P(-FF)/DSM-...-P(-FF)-FW - Can be combined with stop kit KSM - An adapter and socket head screws must also be ordered for installation of the mounting kit in combination with stop kit KSM → 47	47
3 Proximity sensor SME/SMT-10	Proximity sensor for end position sensing	48
4 Push-on flange FWSR	For retrofitting on swivel module DSM with spigot shaft	45
5 Freewheel unit FLSM	- For synchronous rotation in one direction - Only in combination with swivel module DSM with spigot shaft	43
6 One-way flow control valve GRLA	For regulating speed	50
7 Push-in fitting QS	For connecting compressed air tubing with standard O.D.	quick star

Swivel modules DSM

Technical data DSM-6 ... 10

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Function



-N- Size
6 ... 10 mm



General technical data					
Size			6	8	10
Pneumatic connection			M3		
Design			Rotary vane		
Cushioning			P – flexible cushioning at both ends		
Type of mounting			Via female thread		
Mounting position			Any		
Swivel angle	Fixed	[°]	90 or 180	90 or 180	90, 180 or 240
	Adjustable	[°]	0 ... 180		0 ... 200
Max. swivel frequency at 6 bar		[Hz]	3		3 (at 240°: 2 Hz)
Cushioning angle		[°]	0.5		
Air consumption at max. swivel angle and 6 bar ¹⁾	90°	[cm ³]	0.6	0.7	5.5
	180°	[cm ³]	1.2	1.4	11
	240°	[cm ³]	–		15

1) Theoretical values

Operating and environmental conditions				
Size		6	8	10
Operating medium		Filtered compressed air, lubricated or unlubricated		
Operating pressure	[bar]	3.5 ... 8	3.5 ... 8	2.5 ... 8
Ambient temperature ¹⁾	[°C]	0 ... +60		
ATEX		Specified types → www.festo.com		

1) Note operating range of proximity sensors

Forces and torques				
Size		6	8	10
Torque at 6 bar	[Nm]	0.15	0.35	0.85
Max. permissible axial force on drive shaft	[N]	10		
Max. permissible radial force on drive shaft	[N]	15	20	30
Max. permissible mass moment of inertia on drive shaft ¹⁾	[kgm ²]	0.00065	0.0013	0.0026

1) Maximum value, please see graphs on → 10

Swivel modules DSM

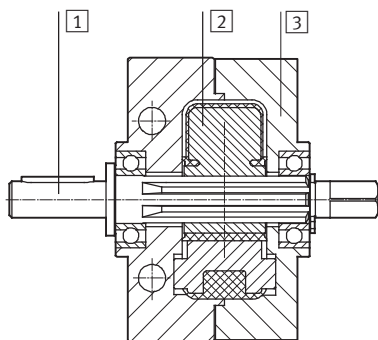
Technical data DSM-6 ... 10

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Weight [g]				
Size		6	8	10
Spigot shaft				
DSM-...-P	90°	45	78	140
	180°	78	140	140
	240°	–	–	140
DSM-...-P-A				
DSM-...-P-A	90°	50	85	149
	180°	50	85	149
	240°	–	–	149
DSM-...-P-FF				
DSM-...-P-FF	180°	70	140	–
	200°	–	–	240
DSM-...-P-A-FF				
DSM-...-P-A-FF	180°	85	155	–
	200°	–	–	255
Flanged shaft				
DSM-...-P-FW	90°	51	85	150
	180°	51	85	150
	240°	–	–	150
DSM-...-P-A-FW				
DSM-...-P-A-FW	90°	56	92	159
	180°	56	92	159
	240°	–	–	159
DSM-...-P-FF-FW				
DSM-...-P-FF-FW	180°	76	147	–
	200°	–	–	250
DSM-...-P-A-FF-FW				
DSM-...-P-A-FF-FW	180°	91	162	–
	200°	–	–	265

Materials

Sectional view



Swivel module

1	Shaft	High-alloy stainless steel
2	Rotary vane	Glass fibre-reinforced plastic
3	Housing	Anodised aluminium
–	Screws	Galvanised steel
–	Seals	Polyurethane
–	Note on materials	Free of copper and PTFE

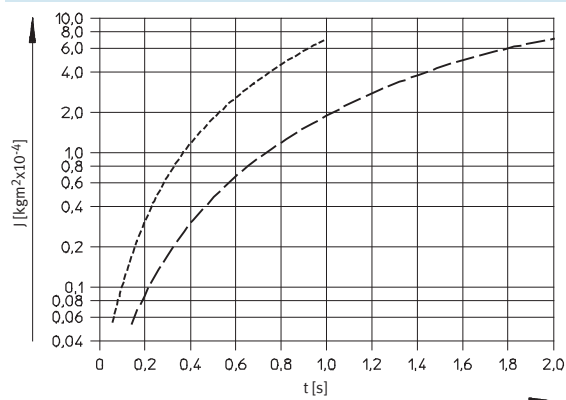
Swivel modules DSM

Technical data DSM-6 ... 10

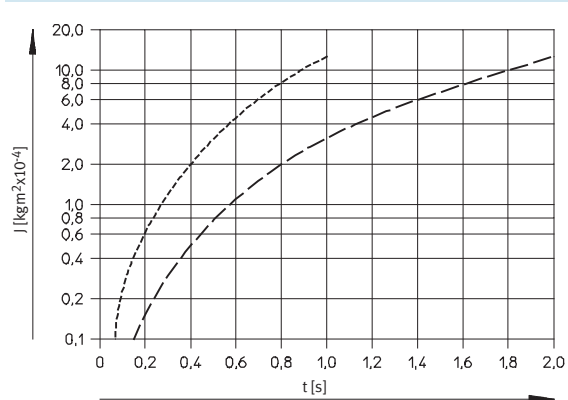
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Mass moment of inertia J as a function of swivel time t

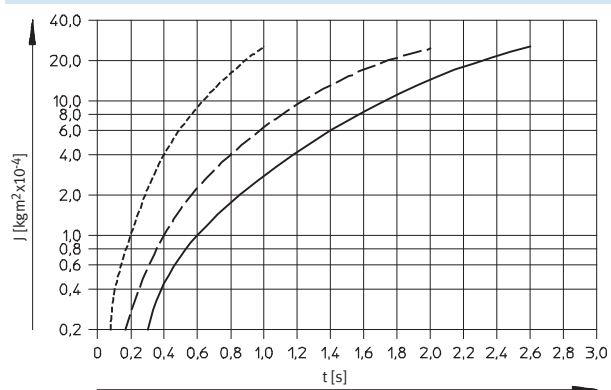
DSM-6



DSM-8



DSM-10



--- 90°
 - - - 180°
 ——— 240°

Swivel modules DSM

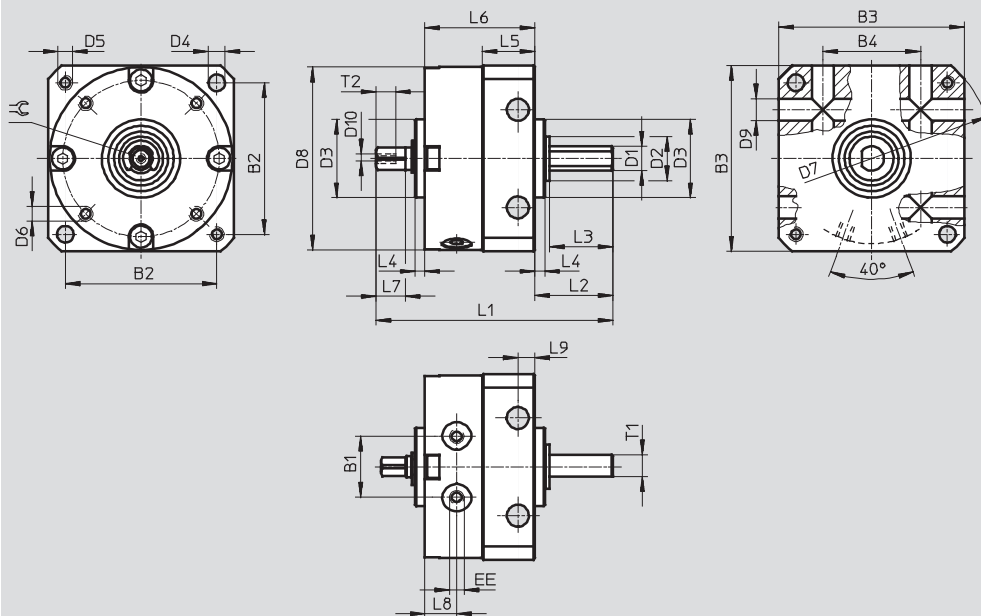
Technical data DSM-6 ... 10

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Dimensions

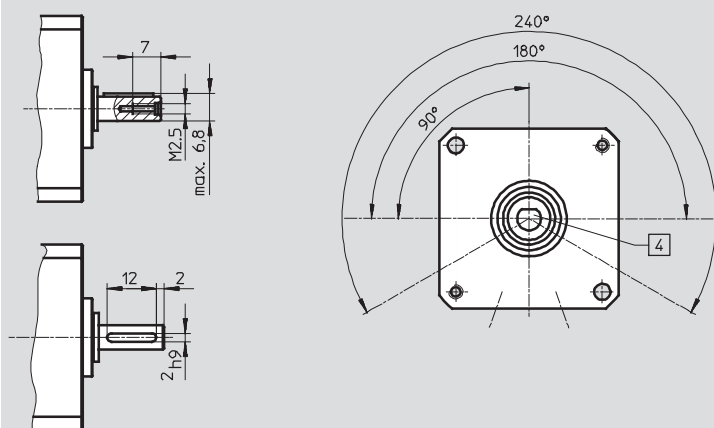
Download CAD Data → www.festo.com/us/cad

With spigot shaft and fixed stop



Trunnion design for swivel module
DSM-10

Shaft position



Note

For swivel angle tolerance → table below. The supply ports are at the bottom in this drawing.

Size	B1	B2	B3	B4	D1 Ø	D2 Ø	D3 Ø	D4 Ø	D5	D6	D7 Ø	D8 Ø	D9 Ø	D10	EE
[mm]					g7			H12			H12		H12		
6	10	25	30	17	4	8	14	3.2	M3	M2	40	29.4	3.5	M2	M3
8	12.8	31	38	20	5	9	16	3.2	M3	M2.5	50	37.4	3.5	M2	M3
10	15.9	38	47	26	6	12	19	4.3	M4	M3	62	46.4	4.5	M2.5	M3

Size	L1	L2	L3	L4	L5	L6	L7	L8	L9	T1	T2	⌀	Swivel angle tolerance
[mm]											h12		
6	43	13	10	2	9.8	21	5	6	3	3.5	4	3	0/+5°
8	50	16	13	2	11.3	23	6	6.5	3	4.5	4.3	3.5	0/+5°
10	61	19.6	16	2	14.3	28.4	8	7.5	4	–	5	4.5	0/+5°

Swivel modules DSM

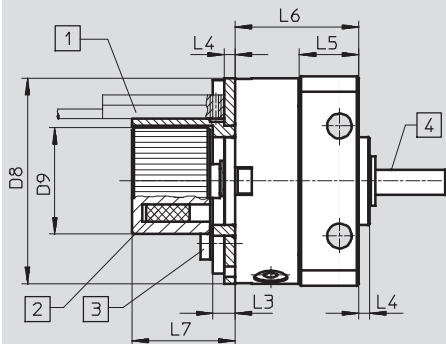
Technical data DSM-6 ... 10

FESTO

Dimensions

Download CAD Data → www.festo.com/us/cad

With spigot shaft, fixed stop and position sensing



1 Proximity sensor not included in the scope of delivery. Observe fitting space for proximity sensor and cable

2 Magnet position

3 Max. tightening torque for sensor bracket screws → table below

4 The flat or the woodruff key on the shaft indicates the position of the rotary vane

Size [mm]	D8 Ø	D9 Ø	L3	L4	L5	L6	L7	Tightening torque [Nm]
6	29.4	17.3	4	2	9.8	21	19.5	0.19
8	37.4	19.3	4	2	11.3	23	19.5	0.32
10	46.4	22.3	4	2	14.3	28	19.5	0.44

Swivel modules DSM

Technical data DSM-6 ... 10

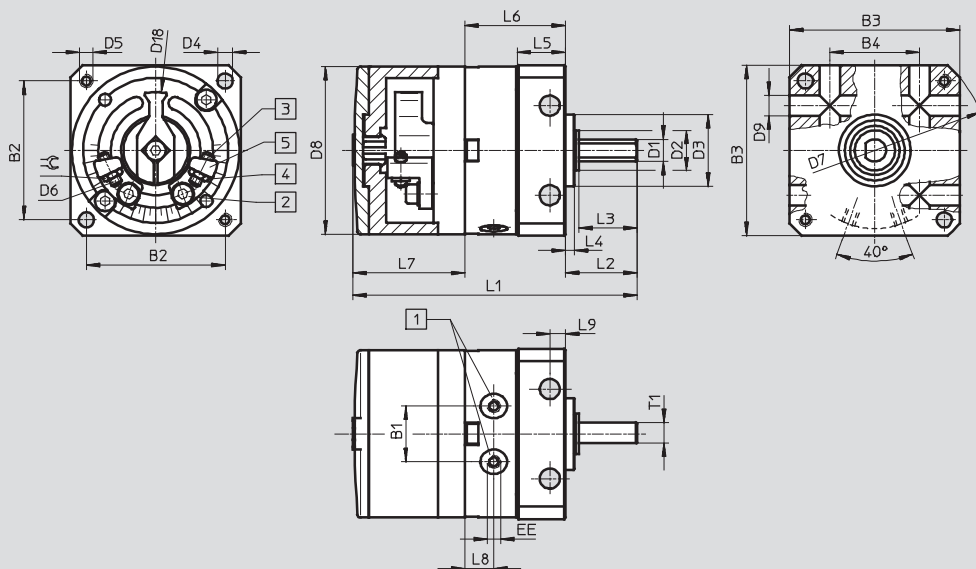
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Dimensions

Download CAD Data → www.festo.com/us/cad

With spigot shaft, fixed stop and adjustable swivel angle

Without orifice and cover



Note

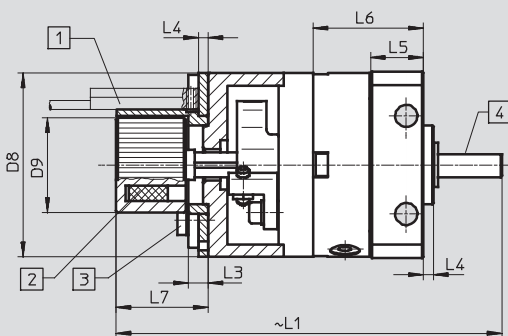
The swivel angle is infinitely adjustable over the entire swivel range. Size 6 can only be adjusted symmetrically to the centre.

- 1 Supply ports
- 2 Locking screw for clamping the stop
- 3 End-position adjustment
- 4 Lock nut for end-position adjustment
- 5 Infinitely adjustable stops

Size	B1	B2	B3	B4	D1 Ø g7	D2 Ø	D3 Ø	D4 Ø H12	D5	D6	D7 Ø H12	D8 Ø	D9 Ø H12	D18 Ø	EE
[mm]															
6	10	25	30	17	4	8	14	3.2	M3	M2	40	29.4	3.5	22	M3
8	12.8	31	38	20	5	9	16	3.2	M3	M2.5	50	37.4	3.5	26	M3
10	15.9	38	47	26	6	12	19	4.3	M4	M3	62	46.4	4.5	35.8	M3

Size	L1	L2	L3	L4	L5	L6	L7	L8	L9	T1	≈	Max. swivel angle	Precision adjustment per end
[mm]													
6	52	13	10	2	9.8	21	17.8	6	3	3.5	4	180°+5°	+1°/-5°
8	64	16	13	2	11.3	23	24.9	6.5	3	4.5	5	180°+5°	+1°/-5°
10	76	19.6	16	2	14.3	28.4	28.2	7.5	4	—	5.5	200°+5°	+1°/-5°

With spigot shaft, fixed stop, adjustable swivel angle and position sensing



- 1 Sensor not included in the scope of delivery. Observe fitting space for proximity sensor and cable
- 2 Magnet position
- 3 See table below for maximum tightening torque for sensor bracket screw
- 4 The flat or the woodruff key on the shaft indicates the position of the rotary vane

Size	D8 Ø	D9	L1	L3	L4	L5	L6	L7	Tightening torque
[mm]									[Nm]
6	29.4	17.3	68.5	4	2	9.8	21	19.5	0.19
8	37.4	19.3	80	4	2	11.3	23	19.5	0.32
10	46.4	22.3	91.5	4	2	14.3	28.4	19.5	0.44

Swivel modules DSM

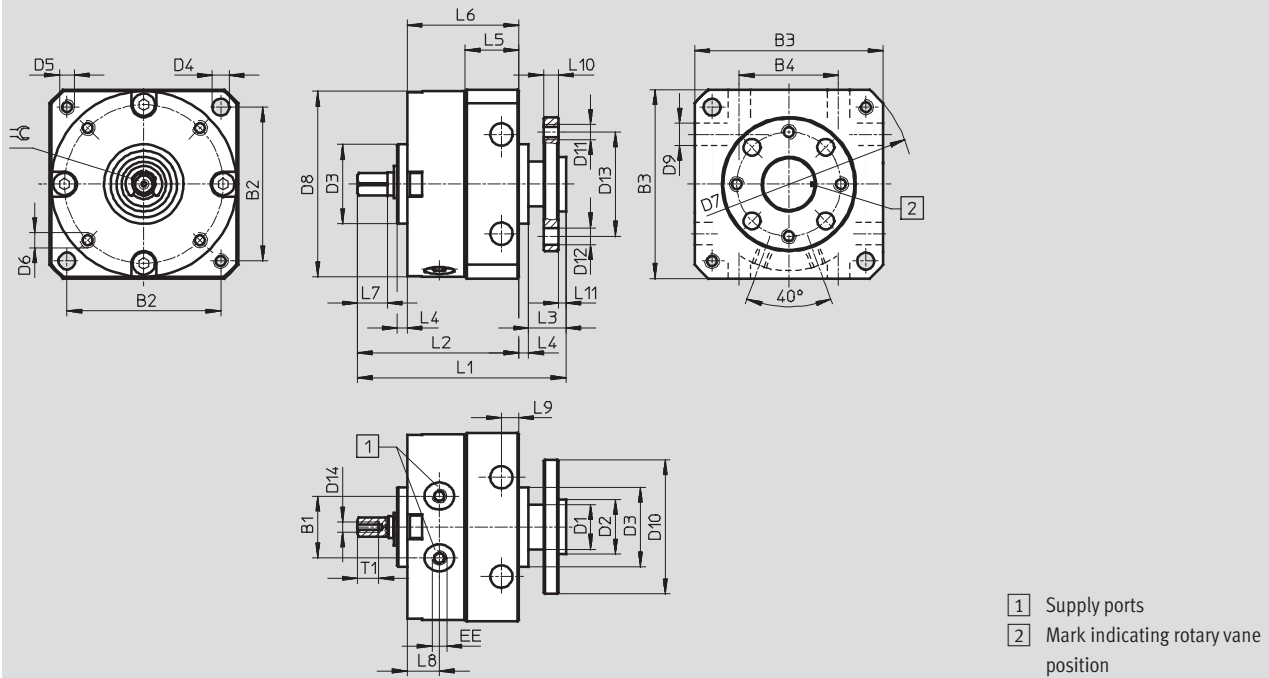
Technical data DSM-6 ... 10

FESTO

Dimensions

Download CAD Data → www.festo.com/us/cad

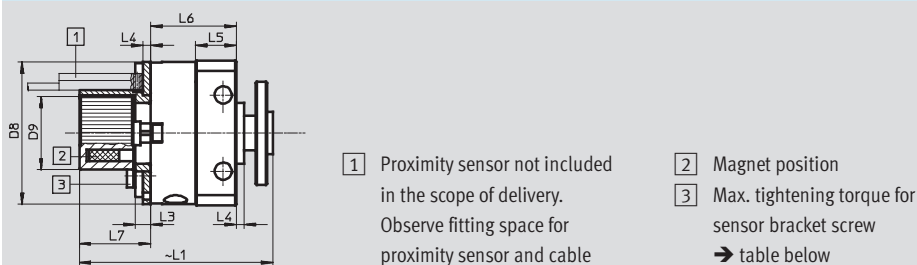
With flanged shaft and fixed stop



Size [mm]	B1	B2	B3	B4	D1 Ø	D2 Ø g7	D3 Ø f8	D4 Ø	D5	D6	D7 Ø H12	D8 Ø	D9 Ø H12	D10 Ø	D11	D12 Ø H13	D13 Ø
6	10	25	30	17	8	8	14	3.2	M3	M2	40	29.4	3.5	23	M3	3.4	16
8	12.8	31	38	20	9	11	16	3.2	M3	M2.5	50	37.4	3.5	27	M3	3.4	21
10	15.9	38	47	26	10	11	19	4.3	M4	M3	62	46.4	4.5	30	M3	3.4	21

Size [mm]	D14	EE	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	T1	⌀	Swivel angle tolerance
6	M2	M3	39.5	30	7.5	2	9.8	21	5	6	3	3	1.5	4	3	0/+5°
8	M2	M3	43.5	34	7.5	2	11.3	23	6	6.5	3	3	1.5	4.3	3.5	0/+5°
10	M2.5	M3	53	41.4	9.6	2	14.3	28.4	8	7.5	4	3	1.6	5	4.5	0/+5°

With flanged shaft, fixed stop and position sensing



Size [mm]	D8 Ø	D9 Ø	L1	L3	L4	L5	L6	L7	Tightening torque [Nm]
6	29.4	17.3	50	4	2	9.8	21	19.5	0.19
8	37.4	19.3	52	4	2	11.3	23	19.5	0.32
10	46.4	22.3	59.5	4	2	14.3	28.4	19.5	0.44

Swivel modules DSM

Technical data DSM-6 ... 10

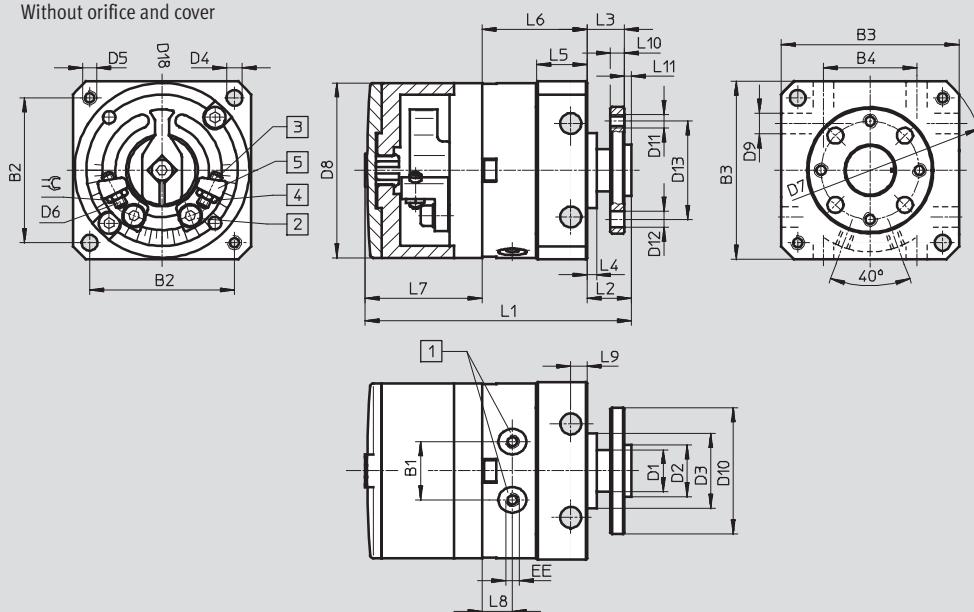
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Dimensions

Download CAD Data → www.festo.com/us/cad

With flanged shaft, fixed stop and adjustable swivel angle

Without orifice and cover



Note

The swivel angle is infinitely adjustable over the entire swivel range.
Size 6 can only be adjusted symmetrically to the centre.

- 1 Supply ports
- 2 Locking screw for clamping the stop
- 3 End-position adjustment
- 4 Lock nut for end-position adjustment
- 5 Infinitely adjustable stops

Size	B1	B2	B3	B4	D1 Ø	D2 Ø g7	D3 Ø f8	D4 Ø H12	D5	D6	D7 Ø H12	D8 Ø
[mm]												
6	10	25	30	17	8	8	14	3.2	M3	M2	40	29.4
8	12.8	31	38	20	9	11	16	3.2	M3	M2.5	50	37.4
10	15.9	38	47	26	10	11	19	4.3	M4	M3	62	46.4

Size	D9 Ø H12	D10 Ø	D11	D12 Ø H13	D13 Ø	D18 Ø	EE	L1	L2	L3	L4
[mm]											
6	3.5	23	M3	3.4	16	22	M3	48	9.5	8	2
8	3.5	27	M3	3.4	21	26	M3	58	9.5	8	2
10	4.5	30	M3	3.4	21	35.8	M3	68	11.6	10	2

Size	L5	L6	L7	L8	L9	L10	L11	≈	Max. swivel angle	Precision adjustment per end
[mm]										
6	9.8	21	17.8	6	3	3	1.5	4	180° +5°	+1°/-5°
8	11.3	23	24.9	6.5	3	3	1.5	5	180° +5°	+1°/-5°
10	14.3	28.4	28.2	7.5	4	3	1.6	5.5	200° +5°	+1°/-5°

Swivel modules DSM

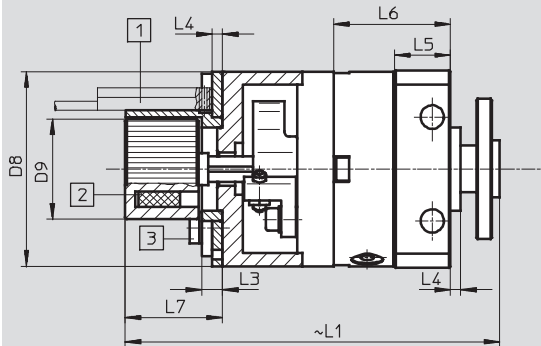
Technical data DSM-6 ... 10

FESTO

Dimensions

Download CAD Data → www.festo.com/us/cad

With flanged shaft, fixed stop, adjustable swivel angle and position sensing



- 1 Proximity sensor not included in the scope of delivery. Observe fitting space for proximity sensor and cable
- 2 Magnet position

- 3 Max. tightening torque for sensor bracket screws → table below

Note

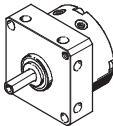
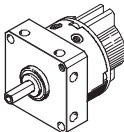
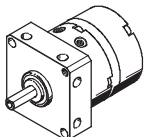
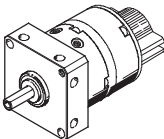
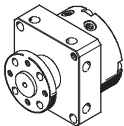
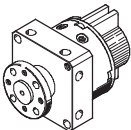
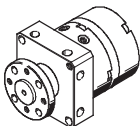
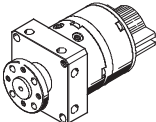
The swivel angle is infinitely adjustable over the entire swivel range. Size 6 can only be adjusted symmetrically to the centre.

Size [mm]	D8 Ø	D9 Ø	L1	L3	L4	L5	L6	L7	Tightening torque [Nm]
6	29.4	17.3	65	4	2	9.8	21	19.5	0.19
8	37.4	19.3	73.5	4	2	11.3	23	19.5	0.32
10	46.4	22.3	83	4	2	14.3	28.4	19.5	0.44

Swivel modules DSM

Technical data DSM-6 ... 10

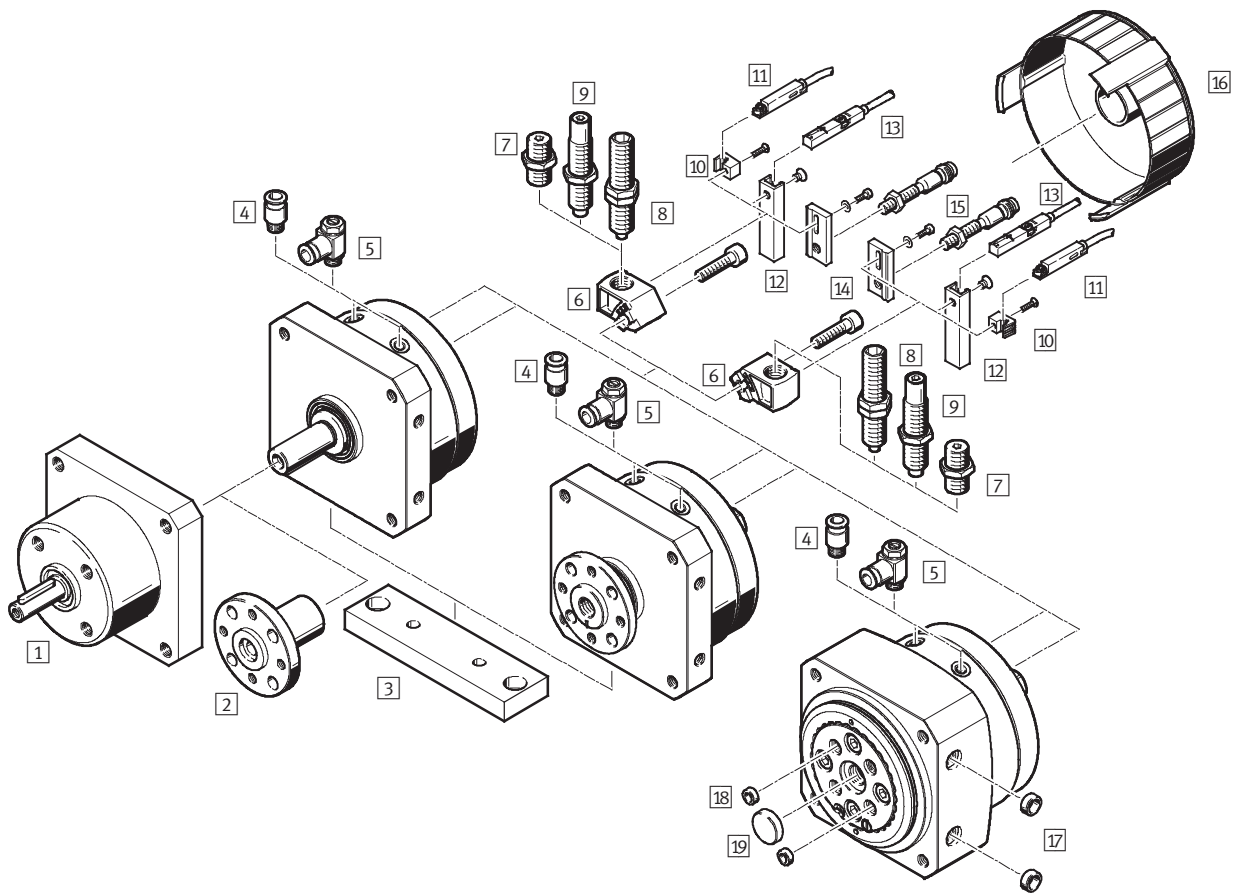
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Ordering data					
Swivel module	Key features	Swivel angle	Size [mm]	Part No.	Type
Spigot shaft					
	Flexible cushioning rings/pads at both ends	90°	6	173188	DSM-6-90-P
			8	173190	DSM-8-90-P
			10	173192	DSM-10-90-P
		180°	6	173189	DSM-6-180-P
			8	173191	DSM-8-180-P
			10	173193	DSM-10-180-P
		240°	10	173194	DSM-10-240-P
	- Flexible cushioning rings/pads at both ends - Position sensing	90°	6	173195	DSM-6-90-P-A
			8	173197	DSM-8-90-P-A
			10	173199	DSM-10-90-P-A
		180°	6	173196	DSM-6-180-P-A
			8	173198	DSM-8-180-P-A
			10	173200	DSM-10-180-P-A
		240°	10	173201	DSM-10-240-P-A
	- Flexible cushioning rings/pads at both ends - Adjustable swivel angle	180°	6	175827	DSM-6-180-P-FF
			8	175828	DSM-8-180-P-FF
		200°	10	175829	DSM-10-240-P-FF
	- Flexible cushioning rings/pads at both ends - Position sensing - Adjustable swivel angle	180°	6	175830	DSM-6-180-P-A-FF
			8	175831	DSM-8-180-P-A-FF
		200°	10	175832	DSM-10-240-P-A-FF
Flanged shaft					
	Flexible cushioning rings/pads at both ends	90°	6	185928	DSM-6-90-P-FW
			8	185934	DSM-8-90-P-FW
			10	185940	DSM-10-90-P-FW
		180°	6	185929	DSM-6-180-P-FW
			8	185935	DSM-8-180-P-FW
			10	185941	DSM-10-180-P-FW
		240°	10	185942	DSM-10-240-P-FW
	- Flexible cushioning rings/pads at both ends - Position sensing	90°	6	185930	DSM-6-90-P-A-FW
			8	185936	DSM-8-90-P-A-FW
			10	185943	DSM-10-90-P-A-FW
		180°	6	185931	DSM-6-180-P-A-FW
			8	185937	DSM-8-180-P-A-FW
			10	185944	DSM-10-180-P-A-FW
		240°	10	185945	DSM-10-240-P-A-FW
	- Flexible cushioning rings/pads at both ends - Adjustable swivel angle	180°	6	185932	DSM-6-180-P-FF-FW
			8	185938	DSM-8-180-P-FF-FW
		200°	10	185946	DSM-10-240-P-FF-FW
	- Flexible cushioning rings/pads at both ends - Position sensing - Adjustable swivel angle	180°	6	185933	DSM-6-180-P-A-FF-FW
			8	185939	DSM-8-180-P-A-FF-FW
		200°	10	185947	DSM-10-240-P-A-FF-FW

Swivel modules DSM-B

Peripherals overview DSM-12 ... 63

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Swivel modules DSM-B

Peripherals overview DSM-12 ... 63

Accessories	For size	Brief description	→ Page/ Internet
1 Freewheel unit FLSM	12 ... 40	- For synchronous rotation in one direction - Only in combination with swivel module DSM with spigot shaft	44
2 Push-on flange FWSR	12 ... 40	For retrofitting on swivel module DSM with spigot shaft	45
3 Mounting plate HSM	12 ... 40	For foot or flange mounting	46
4 Push-in fitting QS	12 ... 63	For connecting compressed air tubing with standard O.D.	quick star
5 One-way flow control valve GRLA	12 ... 63	For regulating speed	50
6 Cushioning mount DSM-B	12 ... 63	- For mounting flexible cushioning components or shock absorbers - Included in the scope of delivery for swivel module DSM-...-P/P1/CC	47
7 Cushioning kit DSM-...-P	12 ... 63	- Flexible cushioning components with fixed stop - Included in the scope of delivery for swivel module DSM-...-P	40
8 Shock absorber DYEF	12 ... 63	- Adjustable, flexible cushioning components with fixed stop - Included in the scope of delivery for swivel module DSM-...-P1	40
9 Shock absorber DYSC	12 ... 63	- Self-adjusting shock absorbers with fixed stop - Included in the scope of delivery for swivel module DSM-...-CC	40
10 Sensor bracket SL-DSM-B	12 ... 40	For mounting the proximity sensor SME/SMT-10	48
11 Proximity sensor SME/SMT-10	12 ... 40	For sensing the end positions	48
12 Sensor bracket SL-DSM-63-B	63	For mounting the proximity sensor SME/SMT-8	48
13 Proximity sensor SME/SMT-8	63	For sensing the end positions	49
14 Sensor bracket SL-DSM-S	12 ... 40	For mounting the round inductive proximity sensor SIEN	48
15 Proximity sensor SIEN	12 ... 40	Inductive proximity sensor for sensing the end positions	49
16 Cover cap AKM	12 ... 40	Reduces the risk of injury in the swivel range of the stop lever	46
17 Centring sleeve ZBH	12 ... 63	For centring the drive	50
18 Centring sleeve ZBH	12 ... 63	For centring attachments on the rotating plate	50
19 Centring sleeve/disc ZBH/SLZZ	12, 16, 25, 40, 63	For mid-centring attachments on the rotating plate	50

Swivel modules DSM-B

Type codes DSM-12 ... 63

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DSM-...: Swivel module

DSM		–	16	–	270	–	P	–	FW	–	A	–	B
Type													
Double-acting													
DSM	Swivel module												
Size [mm]													
Max. swivel angle [°], adjustable													
Cushioning													
P	Flexible cushioning at both ends												
P1	Adjustable flexible cushioning components at both ends												
CC	Self-adjusting shock absorbers at both ends												
Shaft													
–	Spigot shaft												
FW	Flanged shaft												
Position sensing													
A	Via proximity sensor												
Variant													
B	B series												

DSM-T-...: Swivel module with tandem rotary vanes

DSM		–	T	–	16	–	270	–	P	–	FW	–	A	–	B
Type															
Double-acting															
DSM	Swivel module														
Design															
T	Tandem rotary vanes														
Size [mm]															
Max. swivel angle [°], adjustable															
Cushioning															
P	Flexible cushioning at both ends														
CC	Self-adjusting shock absorbers at both ends														
Shaft															
–	Spigot shaft														
FW	Flanged shaft														
Position sensing															
A	Via proximity sensor														
Variant															
B	B series														

Swivel modules DSM-B

Type codes DSM-12 ... 63

DSM-...-HD: Swivel module with heavy-duty bearing

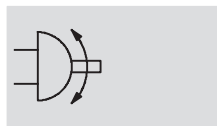
		DSM	–	16	–	270	–	CC	–	HD	–	A	–	B
Type														
Double-acting														
DSM	Swivel module													
Size [mm]														
Max. swivel angle [°], adjustable														
Cushioning														
P1	Adjustable flexible cushioning components at both ends													
CC	Self-adjusting shock absorbers at both ends													
Shaft														
HD	Heavy-duty bearing													
Position sensing														
A	Via proximity sensor													
Variant														
B	B series													

Swivel modules DSM-B

Technical data DSM-12 ... 63

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Function



-N- Size
12 ... 63



General technical data							
Size	12	16	25	32	40	63	
Pneumatic connection	M5			G1/8		G1/4	
Design	Swivel module with rotary vane						
Cushioning							
DSM-...-P	Flexible cushioning at both ends						
DSM-...-P1	Adjustable flexible cushioning at both ends						
DSM-...-CC	Self-adjusting shock absorbers at both ends						
Type of mounting	Via female thread						
Mounting position	Any						
Swivel angle							
DSM-... [°]	270						
DSM-...-P [°]	270/262 ¹⁾		270				
DSM-...-P1 [°]	246				240		
DSM-...-CC [°]	246				240		
Swivel angle adjustment							
DSM-...-P [°]	−6						
DSM-...-P1 [°]	−6						
DSM-...-CC [°]	−3						
Cushioning angle							
DSM-...-P1 [°]	10	9	7.5	6.5	6.5	6	
DSM-...-CC [°]	15	12	10	12	16	17.5	
Repetition accuracy							
DSM-...-P [°]	1						
DSM-...-P1 [°]	0.1						
DSM-...-CC [°]	0.1						

1) Restricted swivel angle in combination with sensor bracket SL-DSM-S-...

Note: This product conforms to ISO 1179-1 and ISO 228-1

Technical data – Swivel frequency [Hz]						
Size	12	16	25	32	40	63
DSM-... / DSM-T...						
Swivel frequency (at max. swivel angle)						
DSM-...-P	2					1.6
DSM-...-P1	2					1.6
DSM-...-CC	1.5	1		0.7		0.6
Swivel frequency (at smaller swivel angle)						
DSM-...-CC	2	1.5				
DSM-...-HD						
Swivel frequency (at max. swivel angle)						
DSM-...-P1	1.5					1
DSM-...-CC	1			0.5		

Swivel modules DSM-B

Technical data DSM-12 ... 63

Operating and environmental conditions						
Size	12	16	25	32	40	63
Operating medium	Filtered compressed air, lubricated or unlubricated					
Operating pressure						
DSM-... [bar]	2 ... 10	1.8 ... 10	1.5 ... 10			
DSM-...-T-... [bar]	2.5 ... 10		2 ... 10			
DSM-...-HD [bar]	3 ... 10		2 ... 10			
Ambient temperature [°C]	-10 ... +60					
Storage temperature [°C]	20					
ATEX	Specified types → www.festo.com					

Weight [g]						
Size	12	16	25	32	40	63
Spigot shaft						
DSM-...-	240	410	620	1,250	2,400	4,220
DSM-...-P	275	470	700	1,425	2,700	4,900
DSM-...-P1	285	475	715	1,475	2,870	5,090
DSM-...-CC	285	480	710	1,460	2,800	5,150
Flanged shaft						
DSM-...-FW	260	450	645	1,325	2,535	4,475
DSM-...-P-FW	293	510	725	1,500	2,835	5,150
DSM-...-P1-FW	303	515	740	1,550	3,005	5,340
DSM-...-CC-FW	300	520	735	1,550	2,935	5,400
Tandem rotary vanes and spigot shaft						
DSM-T-...	330	590	890	1,865	3,570	6,050
DSM-T-...-P	365	650	970	2,040	3,870	6,730
DSM-T-...-CC	375	660	980	2,075	3,970	6,980
Tandem rotary vanes and flanged shaft						
DSM-T-...-FW	350	630	915	1,940	3,705	6,305
DSM-T-...-P-FW	383	690	995	2,115	4,005	6,980
DSM-T-...-CC-FW	390	700	1,005	2,165	4,105	7,230
Heavy-duty bearing						
DSM-...-HD	375	625	950	1,810	3,712	5,730
DSM-...-P1-HD	420	700	1,015	2,035	4,100	6,600
DSM-...-CC-HD	420	705	1,010	2,020	4,030	6,660

Swivel modules DSM-B

Technical data DSM-12 ... 63

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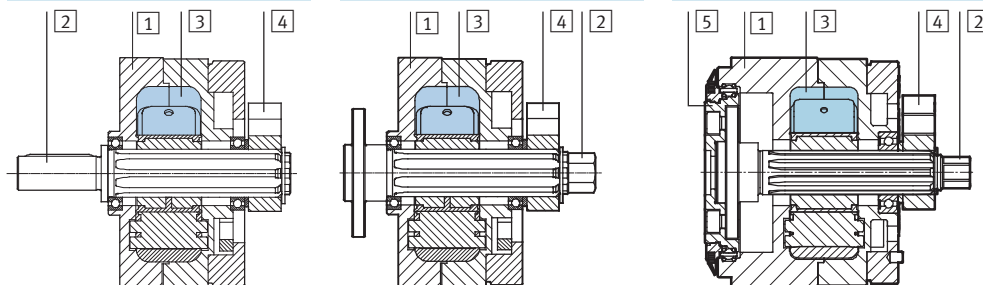
Materials

Sectional view

DSM-... / DSM-T-...

DSM-... FW / DSM-T-...-FW

DSM-...-HD



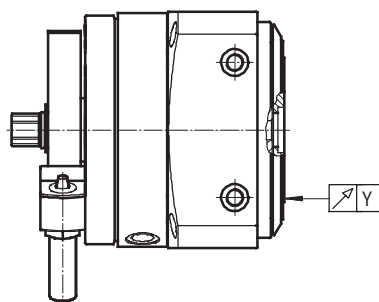
Swivel module

1	Housing, flange	Anodised aluminium
2	Shaft	Nickel-plated steel
3	Rotary vane	Glass fibre-reinforced plastic
4	Stop lever	Anodised aluminium
5	Rotating plate	Anodised aluminium
-	Fixed stops	Stainless steel
	Screws	Galvanised steel
	Stop screws	Stainless steel
	Cover cap	Glass fibre-reinforced plastic
	Seals	Polyurethane
	Note on materials	Free of copper and PTFE
		RoHS-compliant

Axial eccentricity and concentricity of DSM-...-HD

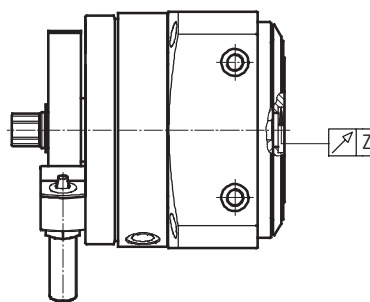
Axial eccentricity

Measured on the surface of the rotating plate at the plate edge, in new condition.



Concentricity

Measured on the centre of the rotating plate, in new condition.

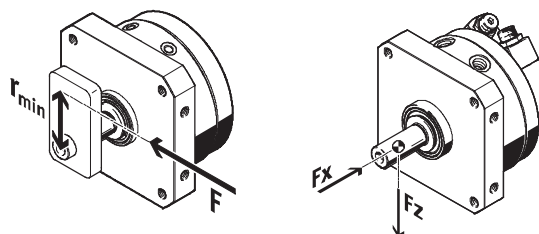


Size		12	16	25	32	40	63
Axial eccentricity Y	[mm]	≤ 0.02	≤ 0.02	≤ 0.02	≤ 0.04	≤ 0.04	≤ 0.04
Concentricity Z	[mm]	≤ 0.02	≤ 0.02	≤ 0.02	≤ 0.04	≤ 0.04	≤ 0.04

Swivel modules DSM-B

Technical data DSM-12 ... 63

Forces and torques							
Size		12	16	25	32	40	63
Torque at 6 bar							
DSM-...	[Nm]	1.25	2.5	5	10	20	40
DSM-T-...	[Nm]	2.5	5	10	20	40	80
DSM-...-HD	[Nm]	1.25	2.5	5	10	20	40
Torque per bar							
DSM-...	[Nm]	0.2	0.41	0.83	1.66	3.33	6.66
DSM-T-...	[Nm]	0.4	0.82	1.66	3.33	6.66	13.33
Min. perm. stop radius r	[mm]	15	17	21	28	40	50
Max. perm. stop force F	[N]	90	160	320	480	650	1,050
Max. perm. dyn. axial force F_X on drive shaft							
DSM-... / DSM-T-...	[N]	18	30	50	75	120	500
DSM-...-HD	[N]	180	290	350	450	950	1,300
Max. perm. dyn. radial force F_Z on drive shaft							
DSM-... / DSM-T-...	[N]	45	75	120	200	350	500
DSM-...-HD	[N]	200	300	450	550	1,200	1 600
Max. permissible mass moment of inertia							
DSM-...-P	[kgm ²]	→ 27					
DSM-...-P1	[kgm ²]	→ 28					
DSM-...-CC	[kgm ²]	→ 29					



Note

If the swivel modules DSM-...-A-B are used without a stop system or the maximum mass moment of inertia is exceeded, external stops must be

used. A minimum radius relative to the drive shaft (r_{min}) must be observed. The stop force must not exceed the maximum force.

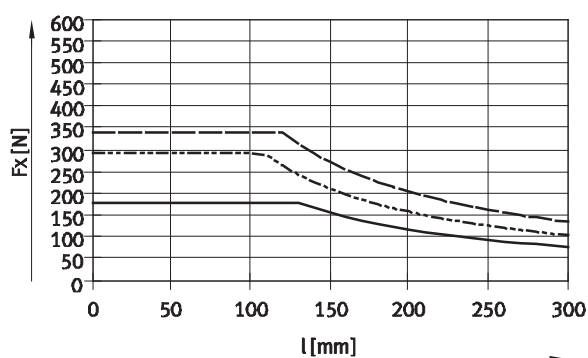
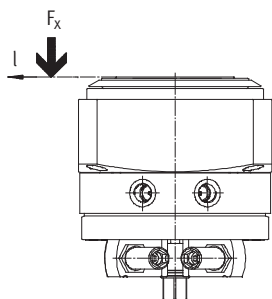
Swivel modules DSM-B

Technical data DSM-12 ... 63

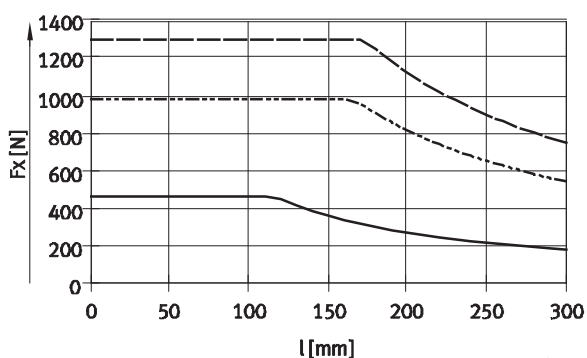
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Permissible dynamic load for DSM-...-HD

Permissible axial force F_x as a function of distance l

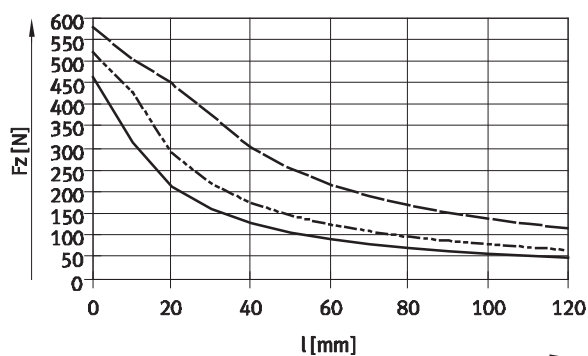
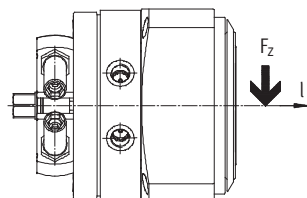


— DSM-12-...-HD
- - - DSM-16-...-HD
- · - DSM-25-...-HD

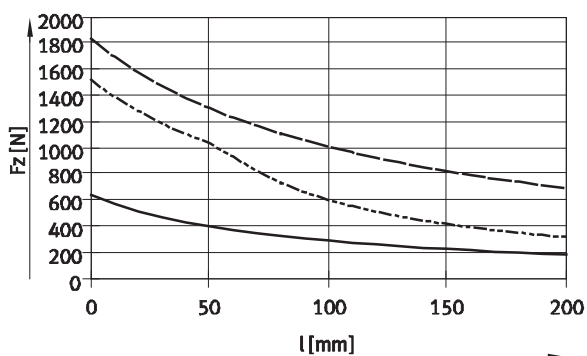


— DSM-32-...-HD
- - - DSM-40-...-HD
- · - DSM-63-...-HD

Permissible radial force F_z as a function of distance l



— DSM-12-...-HD
- - - DSM-16-...-HD
- · - DSM-25-...-HD



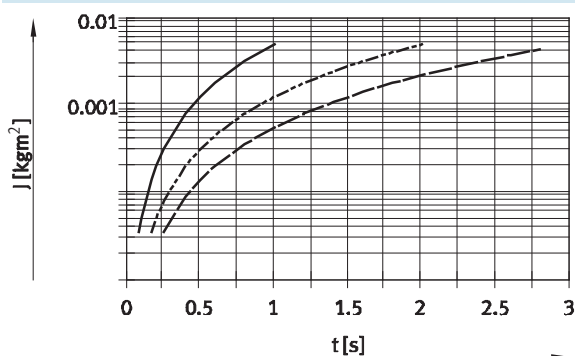
— DSM-32-...-HD
- - - DSM-40-...-HD
- · - DSM-63-...-HD

Swivel modules DSM-B

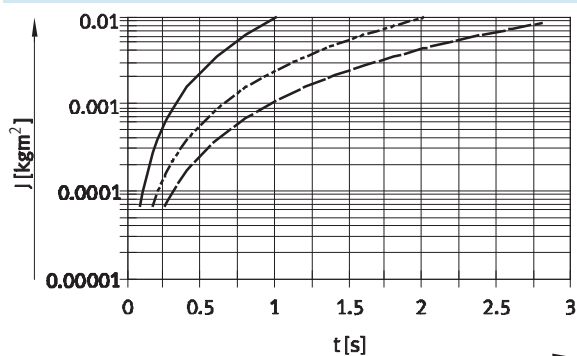
Technical data DSM-12 ... 63

Mass moment of inertia J as a function of swivel time t
With flexible cushioning components (P)

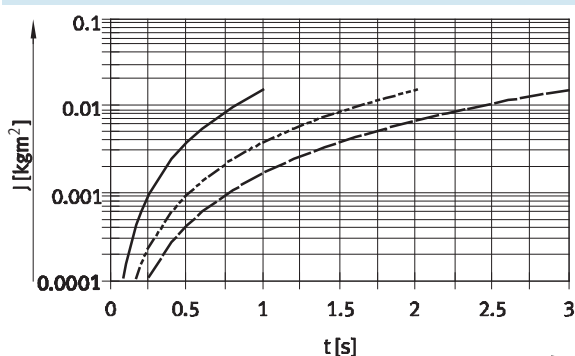
DSM-12-270-P



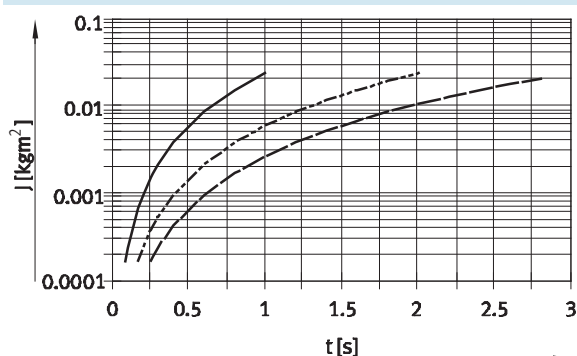
DSM-16-270-P



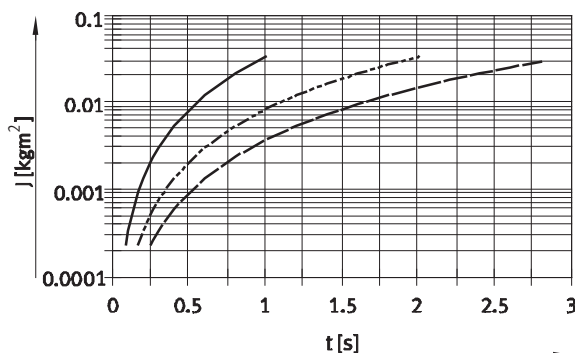
DSM-25-270-P



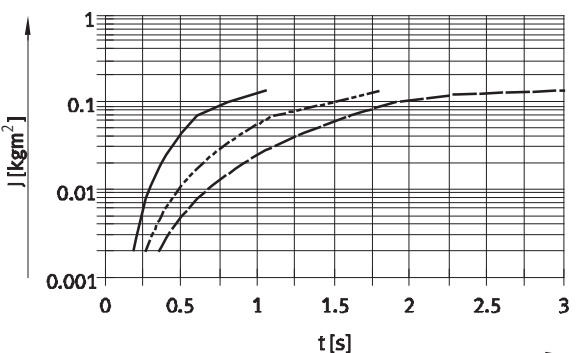
DSM-32-270-P



DSM-40-270-P



DSM-63-270-P



— 90°
- - - 180°
- · - 270°

Note

Sizing software for calculating mass moment of inertia → www.festo.com

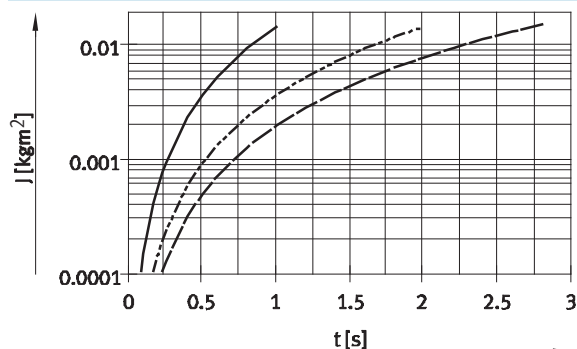
Swivel modules DSM-B

Technical data DSM-12 ... 63

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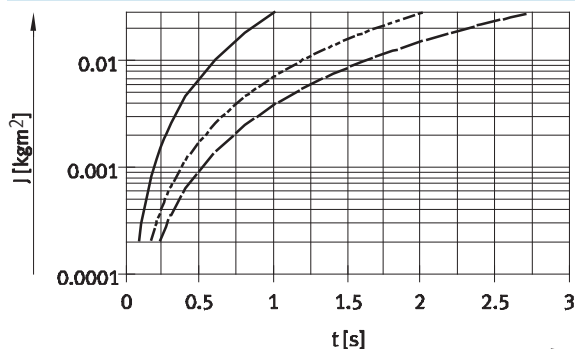
Mass moment of inertia J as a function of swivel time t
With adjustable, flexible cushioning components (P1)

DSM-12-270-P1

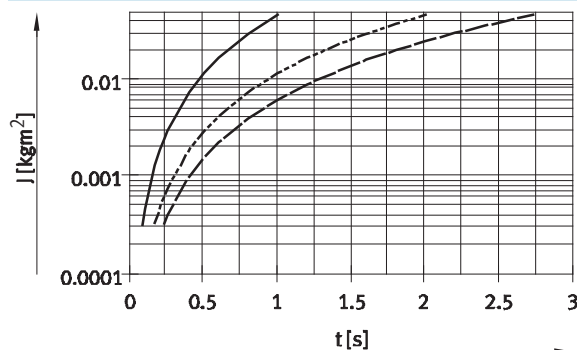


— 90°
- - - 180°
- · - 246°

DSM-16-270-P1

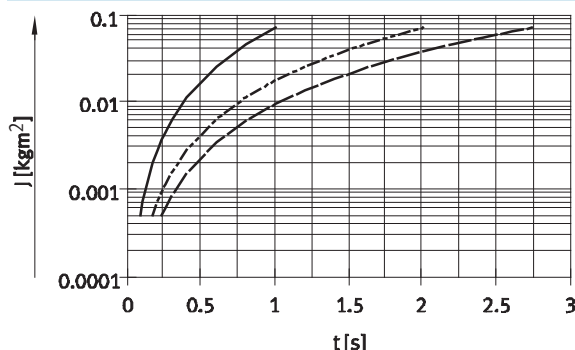


DSM-25-270-P1

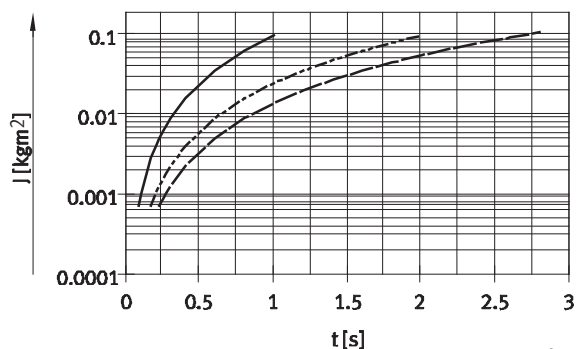


— 90°
- - - 180°
- · - 246°

DSM-32-270-P1

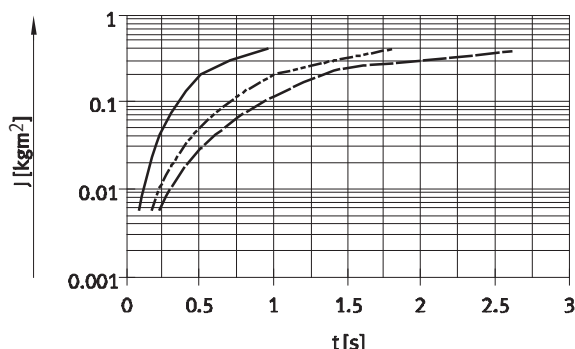


DSM-40-270-P1



— 90°
- - - 180°
- · - 246°

DSM-63-270-P1

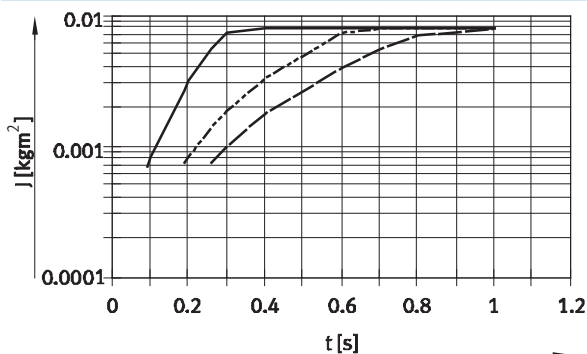


Swivel modules DSM-B

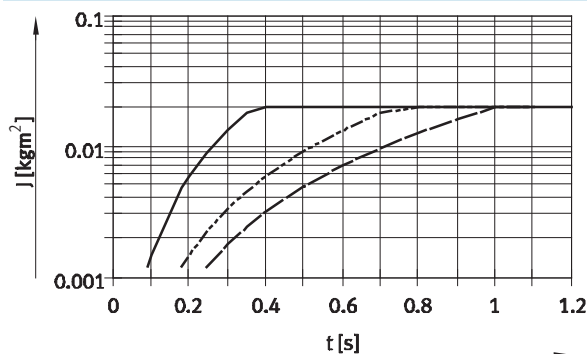
Technical data DSM-12 ... 63

Mass moment of inertia J as a function of swivel time t
With hydraulic shock absorbers (CC)

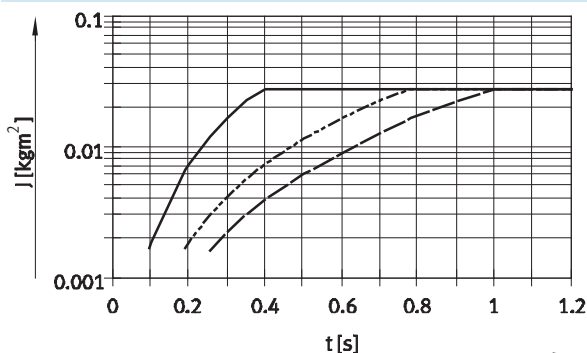
DSM-12-270-CC



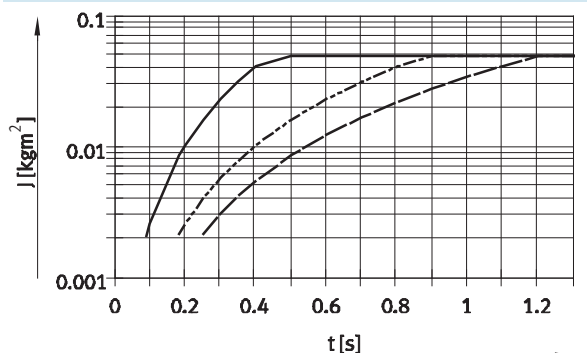
DSM-16-270-CC



DSM-25-270-CC

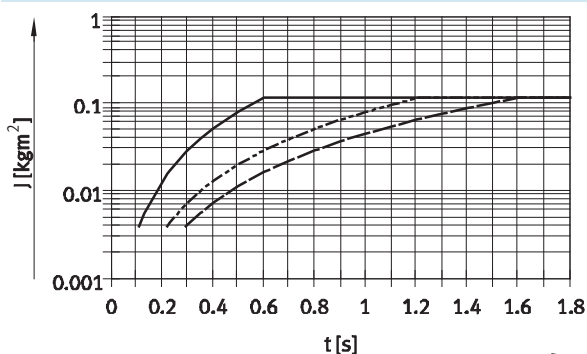


DSM-32-270-CC

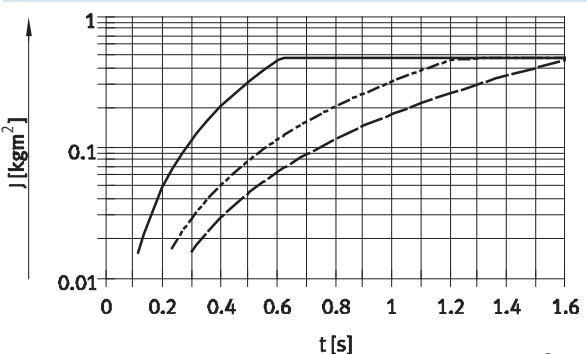


— 90°
- - - 180°
- · - 246°

DSM-40-270-CC



DSM-63-270-CC



— 90°
- - - 180°
- · - 240°

The graphs for the DSM-...-CC show the swivel time up to the point where the stop lever meets the shock absorber. The cushioning time of the shock absorber must be added in order to obtain the total swivel time.

Cushioning time of the shock absorber

Size	12/16/25	32	40	63
Cushioning time [s]	0.1	0.25	0.3	0.4

Swivel modules DSM-B

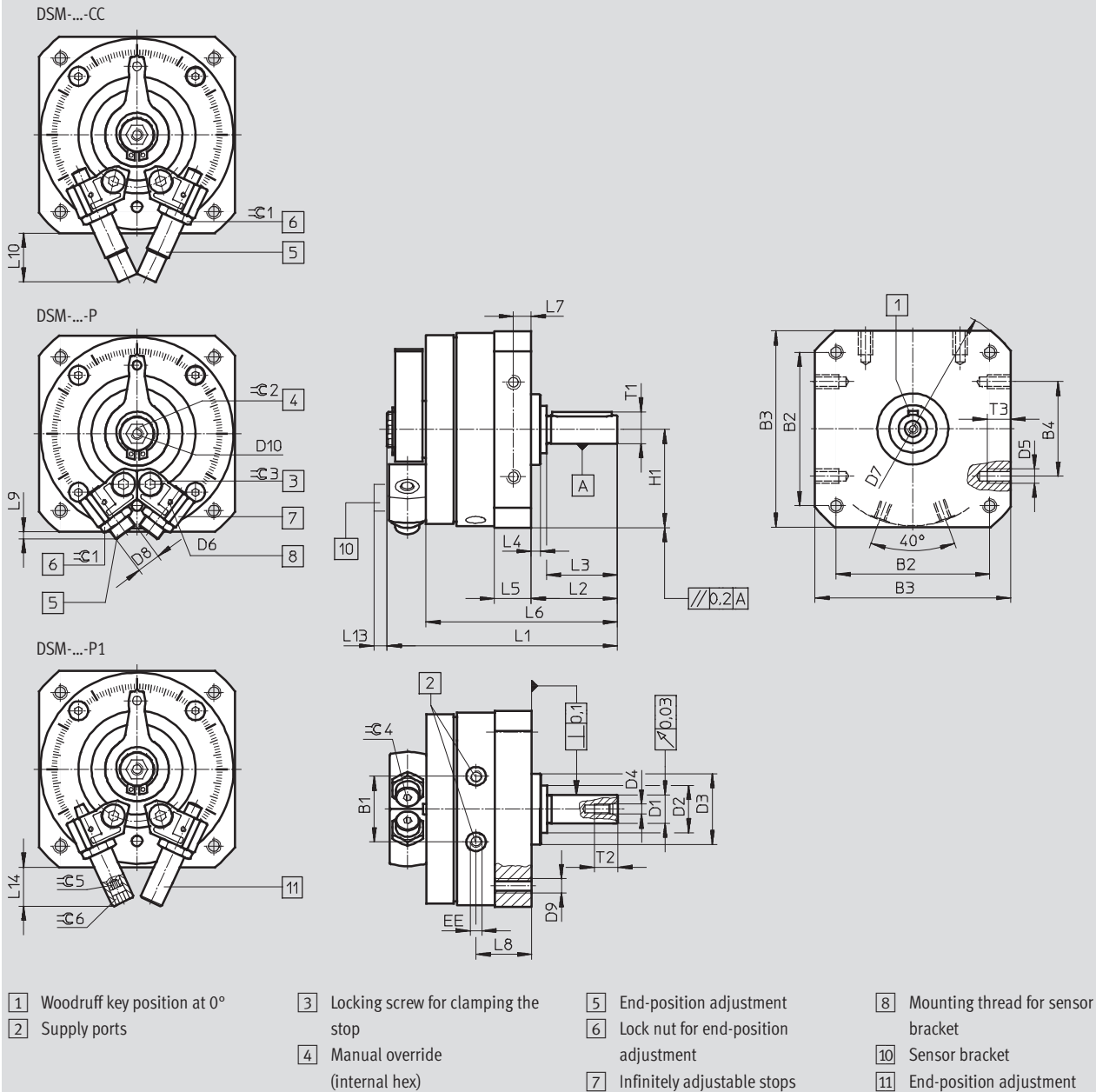
Technical data DSM-12 ... 63

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Dimensions

Download CAD Data → www.festo.com/us/cad

DSM-... – with spigot shaft



Swivel modules DSM-B

Technical data DSM-12 ... 63

Size	B1 ±0.5	B2	B3	B4	D1 Ø g7	D2 Ø	D3 Ø f8	D4
12	19.8	48±0.3	59±0.3	30±0.2	8	15±0.2	24	M3
16	23.5	57±0.3	70±0.3	40±0.2	10	18 _{0.3}	28	M3
25	28	65±0.3	83±0.3	40±0.2	12	20 _{0.3}	30	M4
32	35.5	85±0.3	105±0.3	60±0.3	16	27 _{0.4}	42	M5
40	43.8	105±0.3	130±0.5	80±0.3	20	36 _{0.4}	52	M6
63	50.3	125±0.5	152±0.2	80±0.3	25	40±0.3	70	M10

Size	D5	D6	D7 Ø	D8	D9	D10	EE
12	M4	M2	78±0.3	M8x1	M4	M4	M5
16	M5	M2	91±0.3	M10x1	M5	M5	M5
25	M6	M2	106±0.3	M10x1	M6	M5	M5
32	M8	M2	135±0.3	M12x1	M8	M5	G ₁ / ₈
40	M10	M2	168±0.5	M16x1	M10	M6	G ₁ / ₈
63	M10	M3	200±0.5	M22x1.5	M12	M6	G ₁ / ₄

Size	H1 ±0.2	L1	L2 +0.6 -0.7	L3	L4 ±0.4	L5	L6	L7
12	29.5	68.3±0.3	24.5	20±0.2	3	10.3+0.2/-0.3	55.5±0.8	5±0.1
16	35	82.7±1	28	23±0.2	2.6	13+0.2/-0.4	67.1±0.9	6.5±0.2
25	41.5	97.5±0.5	36.5	30±0.2	4	15.2+0.2/-0.4	81±1	7.5±0.2
32	52.5	127.1±0.5	51	40±0.2	8	19.2+0.2/-0.4	107±1.1	9.5±0.2
40	65	155.5±0.6	62	50±0.3	8	23.7+0.2/-0.4	131±1.2	12±0.2
63	76	197+0.4/-0.55	75.5	60±0.3	10.5	28.5+0.3/-0.5	159.5±1.2	14±0.2

Size	L8	L9	L10	L13	L14 max.	T1 max.	T2 +2	T3 +0.2
12	16.5	3	22.7	6.5	21.2	8.8	9	8
16	20.2	7.2	26.1	6.5	22	11.2	9	8
25	23.5	2.9	20.7	6.5	17	13.5	10	10
32	30.5	3.8	29.1	6.5	23	18	12.5	12
40	36	3.4	43.5	6.5	36.5	22.5	16	15
63	45	10	72.5	4.5	–	28	22	16

Size	≈ 1	≈ 2	≈ 3	≈ 4	≈ 5	≈ 6	Woodruff key to DIN 6885 ¹⁾
12	10	6	2.5	2.5	2.5	2.5	A2x2x16
16	13	8	3	3	3	5	A3x3x18
25	13	8	4	3	3	6	A4x4x25
32	15	10	5	4	4	8	A5x5x36
40	19	10	6	5	5	10	A6x6x45
63	27	10	8	5	–	–	A8x7x50

1) Included in the scope of delivery

Note: This product conforms to ISO 1179-1 and ISO 228-1

Swivel modules DSM-B

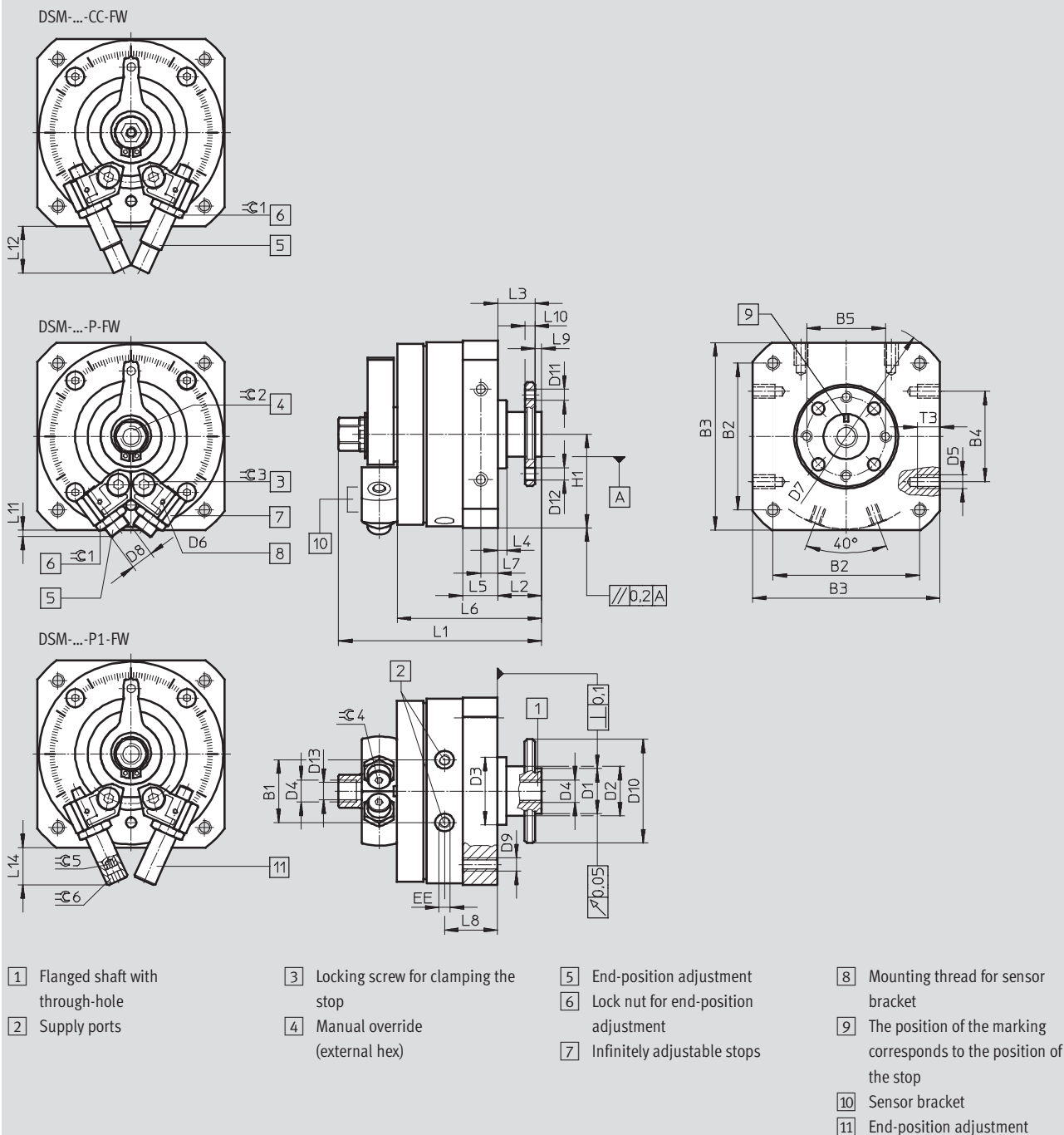
Technical data DSM-12 ... 63

FESTO

Dimensions

Download CAD Data → www.festo.com/us/cad

DSM-...-FW – with flanged shaft



Swivel modules DSM-B

Technical data DSM-12 ... 63

Size	B1 ±0.5	B2	B3	B4	B5	D1 Ø f8	D2 Ø	D3 Ø f8	D4	D5
12	19.8	48±0.3	59±0.3	30±0.2	25	14	15±0.2	24	M5	M4
16	23.5	57±0.3	70±0.3	40±0.2	28	16	18 _{-0.3}	28	M5	M5
25	28	65±0.3	83±0.3	40±0.2	35	20	20 _{-0.3}	30	G1/8	M6
32	35.5	85±0.3	105±0.3	60±0.3	45	28	27 _{-0.4}	42	G1/8	M8
40	43.8	105±0.3	130±0.5	80±0.3	54	36	36 _{-0.4}	52	G1/4	M10
63	50.3	125±0.5	152±0.2	80±0.3	64	38	40±0.3	70	G1/4	M10

Size	D6	D7 Ø	D8	D9	D10 Ø	D11	D12 H13	D13	EE	H1 ±0.2
12	M2	78±0.3	M8x1	M4	33	M3	3.4	4.2	M5	29.5
16	M2	91±0.3	M10x1	M5	38	M4	4.5	4.2	M5	35
25	M2	106±0.3	M10x1	M6	46	M5	5.5	8.6	M5	41.5
32	M2	135±0.3	M12x1	M8	60	M6	6.5	8.6	G1/8	52.5
40	M2	168±0.5	M16x1	M10	70	M8	9	11.5	G1/8	65
63	M3	200±0.5	M22x1.5	M12	88	M8	12	11.5	G1/4	76

Size	L1	L2 +0.5 -0.85	L3 +0.5 -0.62	L4 ±0.4	L5	L6 ±1	L7	L8	L9 -0.2	L10
12	67.3+0.4/-0.65	13	11	3	10.3+0.2/-0.3	44	5±0.1	16.5	2	3±0.1
16	79+0.4/-0.65	15	13	2.6	13+0.2/-0.4	54.1	6.5±0.2	20.2	2	4±0.1
25	90+0.4/-0.65	19.5	16.5	4	15.2+0.2/-0.4	64	7.5±0.2	23.5	3	4.5±0.1
32	115.8+0.4/-0.65	27	23	8	19.2+0.2/-0.4	83	9.5±0.2	30.5	4	6±0.1
40	143.8+0.4/-0.7	33	28	8	23.7+0.2/-0.4	102	12±0.2	36	5	7.5±0.1
63	177.4+0.2/-0.55	37.5	31.5	10.5	28.5+0.3/-0.5	121.5	14±0.2	45	6	9±0.2

Size	L11	L12	L14 max.	T3 +0.2	≈C 1	≈C 2	≈C 3	≈C 4	≈C 5	≈C 6
12	3	22.7	21.2	8	10	8	2.5	2.5	2.5	2.5
16	7.2	26.1	22	8	13	11	3	3	3	5
25	2.9	20.7	17	10	13	13	4	3	3	6
32	3.8	29.1	23	12	15	13	5	4	4	8
40	3.4	43.5	36.5	15	19	19	6	5	5	10
63	10	72.5	–	16	27	22	8	5	–	–

Note: This product conforms to ISO 1179-1 and ISO 228-1

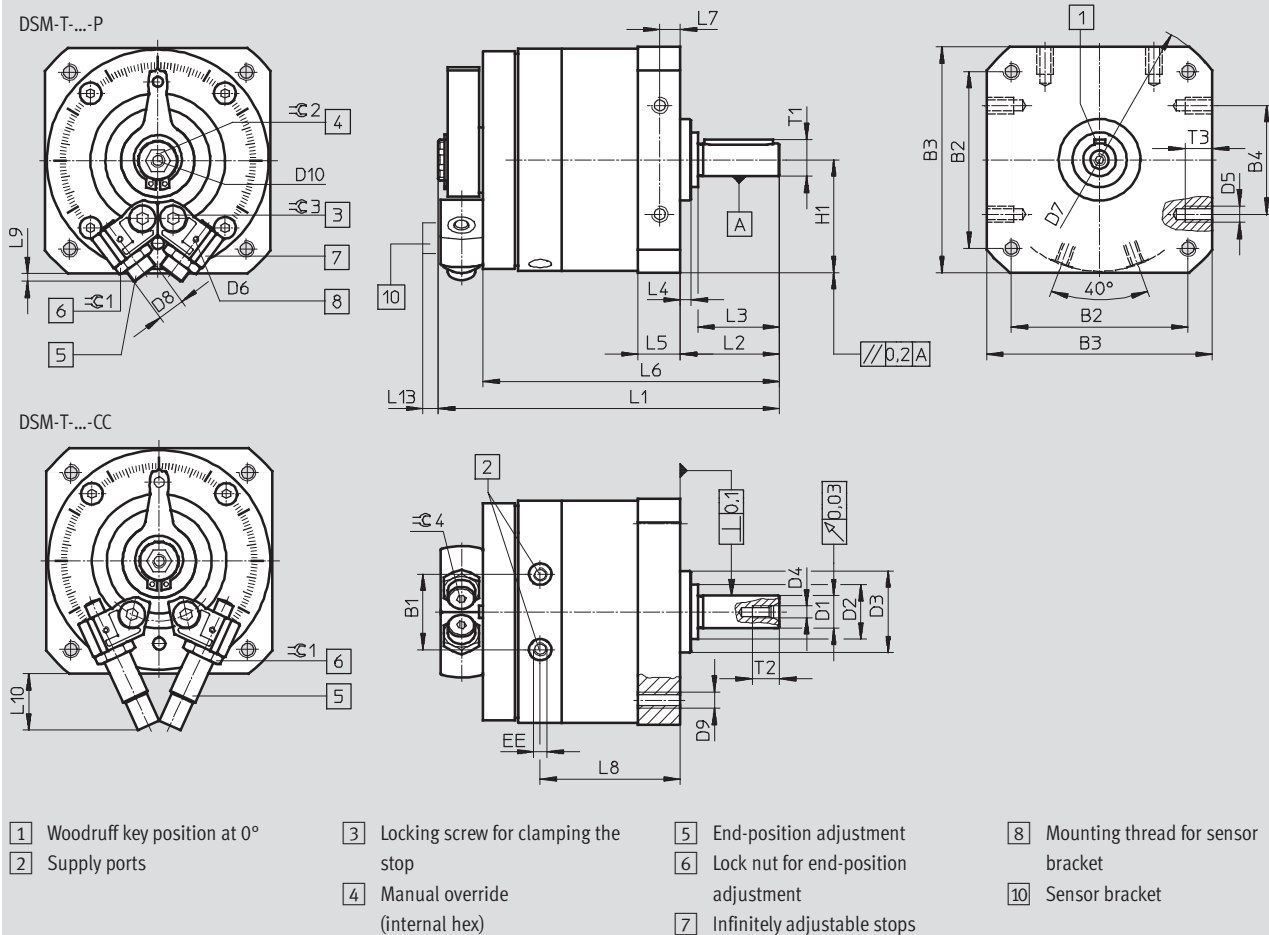
Swivel modules DSM-B

Technical data DSM-12 ... 63

Dimensions

Download CAD Data → www.festo.com/us/cad

DSM-T-... – with tandem rotary vanes and spigot shaft



Swivel modules DSM-B

Technical data DSM-12 ... 63

Size	B1 ±0.5	B2	B3	B4	D1 Ø g7	D2 Ø	D3 Ø f8
12	19.8	48±0.3	59±0.3	30±0.2	8	15±0.2	24
16	23.5	57±0.3	70±0.3	40±0.2	10	18 _{-0.3}	28
25	28	65±0.3	83±0.3	40±0.2	12	20 _{-0.3}	30
32	35.5	85±0.3	105±0.3	60±0.3	16	27 _{-0.4}	42
40	43.8	105±0.3	130±0.5	80±0.3	20	36 _{-0.4}	52
63	50.3	125±0.5	152±0.2	80±0.3	25	40±0.3	70

Size	D4	D5	D6	D7 Ø	D8	D9	D10
12	M3	M4	M2	78±0.3	M8x1	M4	M4
16	M3	M5	M2	91±0.3	M10x1	M5	M5
25	M4	M6	M2	106±0.3	M10x1	M6	M5
32	M5	M8	M2	135±0.3	M12x1	M8	M5
40	M6	M10	M2	168±0.5	M16x1	M10	M6
63	M10	M10	M3	200±0.5	M22x1.5	M12	M6

Size	EE	H1 ±0.2	L1	L2 +0.6 -0.7	L3	L4 ±0.4	L5
12	M5	29.5	87.3±0.3	24.5	20±0.2	3	10.3±0.2/-0.3
16	M5	35	106.6±1	28	23±0.2	2.6	13±0.2/-0.4
25	M5	41.5	125.5±0.5	36.5	30±0.2	4	15.2±0.2/-0.4
32	G1/8	52.5	164±0.5	51	40±0.2	8	19.2±0.2/-0.4
40	G1/8	65	200.5±0.6	62	50±0.3	8	23.7±0.2/-0.4
63	G1/4	76	254.4±0.4/-0.55	75.5	60±0.3	10.5	28.5±0.3/-0.5

Size	L6	L7	L8	L9	L10	L13	T1 max.
12	74.5±0.8	5±0.1	35.5	3	22.7	6.5	8.8
16	91±0.9	6.5±0.2	44.1	7.2	26.1	6.5	11.2
25	109±1	7.5±0.2	51.5	2.9	20.7	6.5	13.5
32	144±1.1	9.5±0.2	67.4	3.8	29.1	6.5	18
40	176±1.2	12±0.2	81	3.4	43.5	6.5	22.5
63	216.5±1.2	14±0.2	99	10	72.5	4.5	28

Size	T2 +2	T3 +0.2	≈ 1	≈ 2	≈ 3	≈ 4	Woodruff key to DIN 6885 ¹⁾
12	9	8	10	6	2.5	2.5	A2x2x16
16	9	8	13	8	3	3	A3x3x18
25	10	10	13	8	4	3	A4x4x25
32	12.5	12	15	10	5	4	A5x5x36
40	16	15	19	10	6	5	A6x6x45
63	22	16	27	10	8	5	A8x7x50

1) Included in the scope of delivery

Note: This product conforms to ISO 1179-1 and ISO 228-1

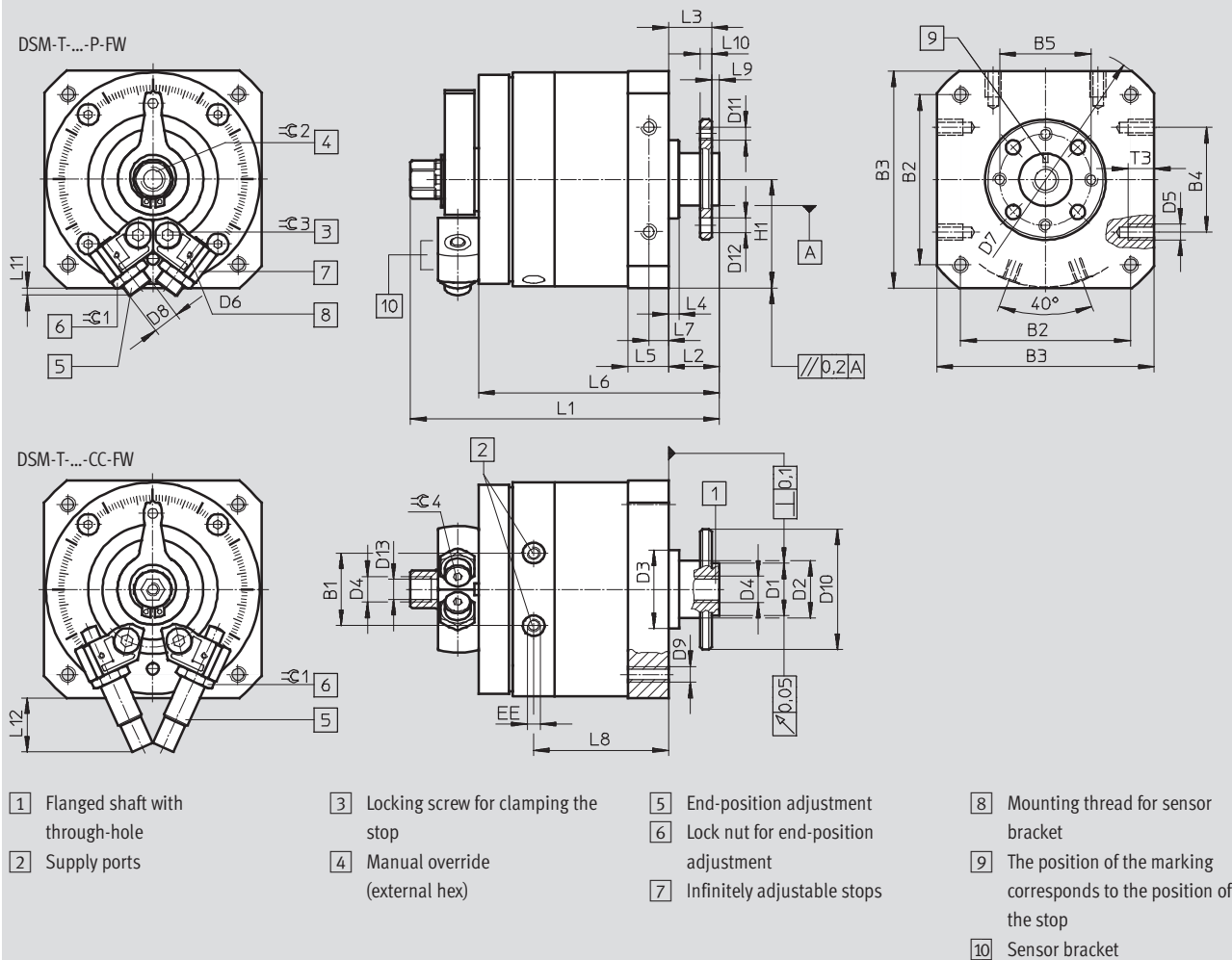
Swivel modules DSM-B

Technical data DSM-12 ... 63

Dimensions

Download CAD Data ➔ www.festo.com/us/cad

DSM-T-...-FW – with tandem rotary vanes and flanged shaft



Swivel modules DSM-B

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Technical data DSM-12 ... 63

Size	B1 ±0.5	B2	B3	B4	B5	D1 Ø f8	D2 Ø	D3 Ø f8	D4
12	19.8	48±0.3	59±0.3	30±0.2	25	14	15±0.2	24	M5
16	23.5	57±0.3	70±0.3	40±0.2	28	16	18 _{-0.3}	28	M5
25	28	65±0.3	83±0.3	40±0.2	35	20	20 _{-0.3}	30	G1/8
32	35.5	85±0.3	105±0.3	60±0.3	45	28	27 _{-0.4}	42	G1/8
40	43.8	105±0.3	130±0.5	80±0.3	54	36	36 _{-0.4}	52	G1/4
63	50.3	125±0.5	152±0.2	80±0.3	64	38	40±0.3	70	G1/4

Size	D5	D6	D7 Ø	D8	D9	D10 Ø	D11	D12 H13	D13
12	M4	M2	78±0.3	M8x1	M4	33	M3	3.4	4.2
16	M5	M2	91±0.3	M10x1	M5	38	M4	4.5	4.2
25	M6	M2	106±0.3	M10x1	M6	46	M5	5.5	8.6
32	M8	M2	135±0.3	M12x1	M8	60	M6	6.5	8.6
40	M10	M2	168±0.5	M16x1	M10	70	M8	9	11.5
63	M10	M3	200±0.5	M22x1.5	M12	88	M8	12	11.5

Size	EE	H1 ±0.2	L1	L2 +0.5 -0.85	L3 +0.5 -0.62	L4 ±0.4	L5	L6 ±1	L7
12	M5	29.5	86.3+0.4/-0.65	13	11	3	10.3+0.2/-0.3	63	5±0.1
16	M5	35	103+0.4/-0.65	15	13	2.6	13+0.2/-0.4	78	6.5±0.2
25	M5	41.5	118+0.4/-0.65	19.5	16.5	4	15.2+0.2/-0.4	92	7.5±0.2
32	G1/8	52.5	152.8+0.4/-0.65	27	23	8	19.2+0.2/-0.4	120	9.5±0.2
40	G1/8	65	188.8+0.4/-0.7	33	28	8	23.7+0.2/-0.4	147	12±0.2
63	G1/4	76	234.4+0.2/-0.55	37.5	31.5	10.5	28.5+0.3/-0.5	178.5	14±0.2

Size	L8	L9 -0.2	L10	L11	L12	T3 +0.2	≈C 1	≈C 2	≈C 3	≈C 4
12	35.5	2	3±0.1	3	22.7	8	10	8	2.5	2.5
16	44.1	2	4±0.1	7.2	26.1	8	13	11	3	3
25	51.5	3	4.5±0.1	2.9	20.7	10	13	13	4	3
32	67.4	4	6±0.1	3.8	29.1	12	15	13	5	4
40	81	5	7.5±0.1	3.4	43.5	15	19	19	6	5
63	99	6	9±0.2	10	72.5	16	27	22	8	5

Note: This product conforms to ISO 1179-1 and ISO 228-1

Swivel modules DSM-B

Technical data DSM-12 ... 63

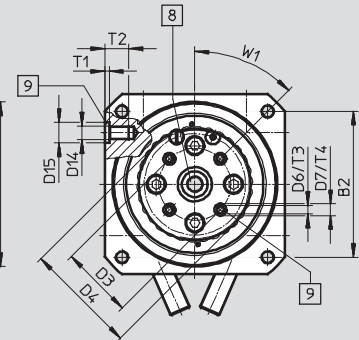
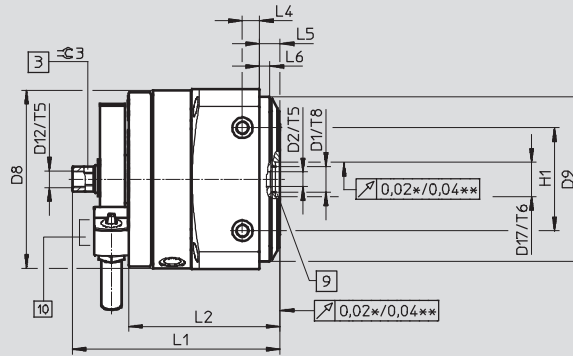
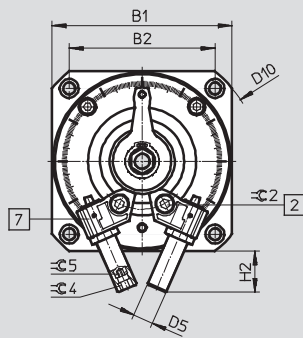
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Dimensions

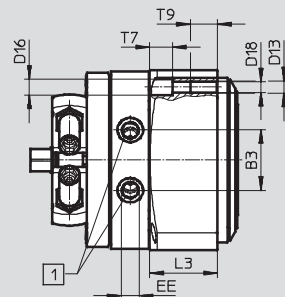
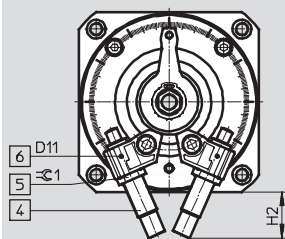
Download CAD Data → www.festo.com/us/cad

DSM-...-HD – with heavy-duty bearing

DSM-...-P1-HD



DSM-...-CC-HD



- 1 Supply ports
- 2 Locking screw for clamping the stop
- 3 Manual override (external hex)
- 4 End-position adjustment

- 5 Lock nut for end-position adjustment
- 6 Mounting thread for sensor bracket
- 7 Infinitely adjustable stops

- 8 Flanged shaft with through-hole
- 9 Hole for centring sleeve ZBH
- 10 Sensor bracket

- * Size 12 ... 25
- ** Size 32 ... 63

Swivel modules DSM-B

Technical data DSM-12 ... 63

Size	B1 ±0.3	B2 ±0.3	B3 ±0.5	D1 ¹⁾	D2 ²⁾ ∅	D3 ±0.02	D4	D5 DSM-...-P1/DSM-...-CC
12	59	48	19.8	M5	–	22	36	M8x1
16	70	57	23.5	M5	–	28	45	M10x1
25	83	65	28	G $\frac{1}{8}$	–	30	50	M10x1
32	105	85	35.5	15	G $\frac{1}{8}$	42	65	M12x1
40	130	105	43.8	20	G $\frac{1}{4}$	56	90	M16x1
63	152	125	50.3	20	G $\frac{1}{4}$	70	105	M22x1.5

Size	D6	D7 H7	D8	D9 f8	D10 ±0.5	D11	D12	D13	D14
12	M3	5	57.5	58	78	M2	M5	M4	M4
16	M4	7	68.5	68	91	M2	M5	M5	M5
25	M5	7	81.5	76	106	M2	G $\frac{1}{8}$	M6	M6
32	M5	7	103.5	96	135	M2	G $\frac{1}{8}$	M8	M8
40	M8	12	128	126	168	M2	G $\frac{1}{4}$	M10	M10
63	M8	12	149	150	200	M3	G $\frac{1}{4}$	M12	M10

Size	D15 H7	D16	D17 H8	D18	EE	H1 ±0.03	H2 max.		L1 +0.4 –0.65	L2 +1
							DSM-...-P1	DSM-...-CC		
12	7	6	12	3.3	M5	30	21.2	22.7	76.3	53
16	7	8	12	4.2	M5	40	22	26.1	88.5	63.6
25	9	10	15	5.1	M5	40	17	20.7	98.7	72.7
32	12	11	20	6.8	G $\frac{1}{8}$	60	23	29.1	121	88.5
40	12	15	25	8.5	G $\frac{1}{8}$	80	36.5	43.5	154	112
63	12	18	25	10.2	G $\frac{1}{4}$	80	44	72.5	185.5	129.5

Size	L3	L4 ±0.1	L5 ±0.2	L6 ±0.1	T1 +0.1	T2	T3	T4 +0.1	T5	T6 +0.1
12	22.3	10	10	4	1.5	9	9	1.2	6	2.5
16	27.6	10	10	4	1.5	9	9	1.5	6	2.5
25	33.4	10	10	6	2	12	8	1.5	8	2.5
32	39.6	10	12	6	2.5	14	9.5	1.5	8	2.8
40	52.7	12	14	5.5	2.5	18	15	2.5	12	2.8
63	58	14	16	10	2.5	18	14	2.5	15	2.8

Size	T7	T8	T9	≈C 1	≈C 2	≈C 3 h13	≈C 4		≈C 5 DSM-...-P1	W1
							DSM-...-P1	DSM-...-CC		
12	6.3	5.5	12	10	2.5	8	5	2.5	2.5	45°
16	8.5	6	14	13	3	11	6	3	3	45°
25	10	5.3	16	13	4	13	6	3	3	45°
32	9.5	–	20	15	5	13	8	4	4	45°
40	15	–	24	19	6	19	8	5	5	45°
63	18	–	28	27	8	22	10	5	5	45°

1) Thread for compressed air through-feed for size 12 ... 25

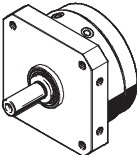
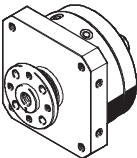
2) Thread for compressed air through-feed for size 32 ... 63

Note: This product conforms to ISO 1179-1 and ISO 228-1

Swivel modules DSM-B

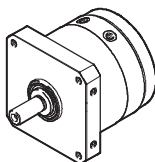
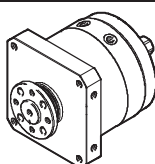
Technical data DSM-12 ... 63

FESTO

Ordering data – DSM-..., swivel module							
Swivel module	Key features	Swivel angle	Size	Part No.	Type		
Spigot shaft							
	Without cushioning components	270°	12	547591	DSM-12-270-A-B		
			16	547592	DSM-16-270-A-B		
			25	547593	DSM-25-270-A-B		
			32	547594	DSM-32-270-A-B		
			40	547595	DSM-40-270-A-B		
			63	552083	DSM-63-270-A-B		
	P With flexible cushioning components	270°	12	547570	DSM-12-270-P-A-B		
			16	547574	DSM-16-270-P-A-B		
			25	547578	DSM-25-270-P-A-B		
			32	547582	DSM-32-270-P-A-B		
			40	547586	DSM-40-270-P-A-B		
			63	552079	DSM-63-270-P-A-B		
	P1 With adjustable, flexible cushioning components	246°	12	566203	DSM-12-270-P1-A-B		
			16	566205	DSM-16-270-P1-A-B		
			25	566207	DSM-25-270-P1-A-B		
			32	566209	DSM-32-270-P1-A-B		
		240°	40	566211	DSM-40-270-P1-A-B		
			63	566213	DSM-63-270-P1-A-B		
			CC With shock absorbers	246°	12	547572	DSM-12-270-CC-A-B
					16	547576	DSM-16-270-CC-A-B
	25	547580			DSM-25-270-CC-A-B		
	32	547584			DSM-32-270-CC-A-B		
	240°	40		547588	DSM-40-270-CC-A-B		
		63		552081	DSM-63-270-CC-A-B		
Flanged shaft							
	Without cushioning components	270°	12	547596	DSM-12-270-FW-A-B		
			16	547597	DSM-16-270-FW-A-B		
			25	547598	DSM-25-270-FW-A-B		
			32	547599	DSM-32-270-FW-A-B		
			40	547600	DSM-40-270-FW-A-B		
			63	552084	DSM-63-270-FW-A-B		
	P With flexible cushioning components	270°	12	547571	DSM-12-270-P-FW-A-B		
			16	547575	DSM-16-270-P-FW-A-B		
			25	547579	DSM-25-270-P-FW-A-B		
			32	547583	DSM-32-270-P-FW-A-B		
			40	547587	DSM-40-270-P-FW-A-B		
			63	552080	DSM-63-270-P-FW-A-B		
	P1 With adjustable, flexible cushioning components	246°	12	566204	DSM-12-270-P1-FW-A-B		
			16	566206	DSM-16-270-P1-FW-A-B		
			25	566208	DSM-25-270-P1-FW-A-B		
			32	566210	DSM-32-270-P1-FW-A-B		
		240°	40	566212	DSM-40-270-P1-FW-A-B		
			63	566214	DSM-63-270-P1-FW-A-B		
	CC Shock absorbers	246°	12	547573	DSM-12-270-CC-FW-A-B		
			16	547577	DSM-16-270-CC-FW-A-B		
			25	547581	DSM-25-270-CC-FW-A-B		
			32	547585	DSM-32-270-CC-FW-A-B		
		240°	40	547589	DSM-40-270-CC-FW-A-B		
			63	552082	DSM-63-270-CC-FW-A-B		

Swivel modules DSM-B

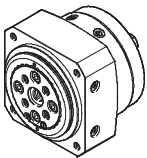
Technical data DSM-12 ... 63

Ordering data – DSM-T-..., swivel module with tandem rotary vanes					
Swivel module	Key features	Swivel angle	Size	Part No.	Type
Spigot shaft					
	Without cushioning components	270°	12	1145122	DSM-T-12-270-A-B
			16	1145123	DSM-T-16-270-A-B
			25	1145124	DSM-T-25-270-A-B
			32	1145125	DSM-T-32-270-A-B
			40	1145126	DSM-T-40-270-A-B
			63	1145127	DSM-T-63-270-A-B
	P With flexible cushioning components	270°	12	1145086	DSM-T-12-270-P-A-B
			16	1145092	DSM-T-16-270-P-A-B
			25	1145098	DSM-T-25-270-P-A-B
			32	1145104	DSM-T-32-270-P-A-B
			40	1145110	DSM-T-40-270-P-A-B
			63	1145116	DSM-T-63-270-P-A-B
	CC With shock absorbers	246°	12	1145088	DSM-T-12-270-CC-A-B
			16	1145094	DSM-T-16-270-CC-A-B
			25	1145100	DSM-T-25-270-CC-A-B
			32	1145106	DSM-T-32-270-CC-A-B
		240°	40	1145112	DSM-T-40-270-CC-A-B
			63	1145118	DSM-T-63-270-CC-A-B
Flanged shaft					
	Without cushioning components	270°	12	1145128	DSM-T-12-270-FW-A-B
			16	1145129	DSM-T-16-270-FW-A-B
			25	1145130	DSM-T-25-270-FW-A-B
			32	1145131	DSM-T-32-270-FW-A-B
			40	1145132	DSM-T-40-270-FW-A-B
			63	1145133	DSM-T-63-270-FW-A-B
	P With flexible cushioning components	270°	12	1145087	DSM-T-12-270-P-FW-A-B
			16	1145093	DSM-T-16-270-P-FW-A-B
			25	1145099	DSM-T-25-270-P-FW-A-B
			32	1145105	DSM-T-32-270-P-FW-A-B
			40	1145111	DSM-T-40-270-P-FW-A-B
			63	1145117	DSM-T-63-270-P-FW-A-B
	CC Shock absorbers	246°	12	1145089	DSM-T-12-270-CC-FW-A-B
			16	1145095	DSM-T-16-270-CC-FW-A-B
			25	1145101	DSM-T-25-270-CC-FW-A-B
			32	1145107	DSM-T-32-270-CC-FW-A-B
		240°	40	1145113	DSM-T-40-270-CC-FW-A-B
			63	1145119	DSM-T-63-270-CC-FW-A-B

Swivel modules DSM-B

Technical data DSM-12 ... 63

FESTO

Ordering data – DSM-...-HD, swivel module with heavy-duty guide					
Swivel module	Key features	Swivel angle	Size	Part No.	Type
Heavy-duty bearing					
	Without cushioning components	270°	12	1369110	DSM-12-270-HD-A-B
			16	1369111	DSM-16-270-HD-A-B
			25	1369112	DSM-25-270-HD-A-B
			32	1369113	DSM-32-270-HD-A-B
			40	1369114	DSM-40-270-HD-A-B
			63	1369115	DSM-63-270-HD-A-B
	P1 With adjustable, flexible cushioning components	246°	12	1369116	DSM-12-270-P1-HD-A-B
			16	1369117	DSM-16-270-P1-HD-A-B
			25	1369118	DSM-25-270-P1-HD-A-B
			32	1369119	DSM-32-270-P1-HD-A-B
		240°	40	1369120	DSM-40-270-P1-HD-A-B
			63	1369121	DSM-63-270-P1-HD-A-B
	CC With shock absorbers	246°	12	1369122	DSM-12-270-CC-HD-A-B
			16	1369123	DSM-16-270-CC-HD-A-B
			25	1369124	DSM-25-270-CC-HD-A-B
			32	1369125	DSM-32-270-CC-HD-A-B
		240°	40	1369126	DSM-40-270-CC-HD-A-B
			63	1369127	DSM-63-270-CC-HD-A-B

Swivel modules DSM/DSM-B

Accessories

FESTO

Freewheel unit FLSM

For size 6, 8

Material:

Housing: Anodised aluminium

Shaft, sleeve: Size 6, 8:

Steel

Size 10:

Hardened steel

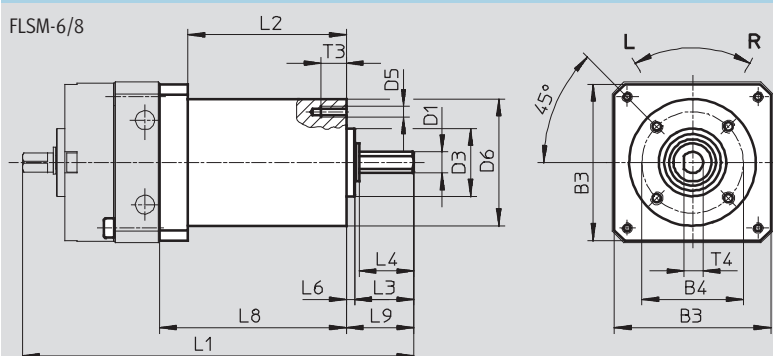


Note

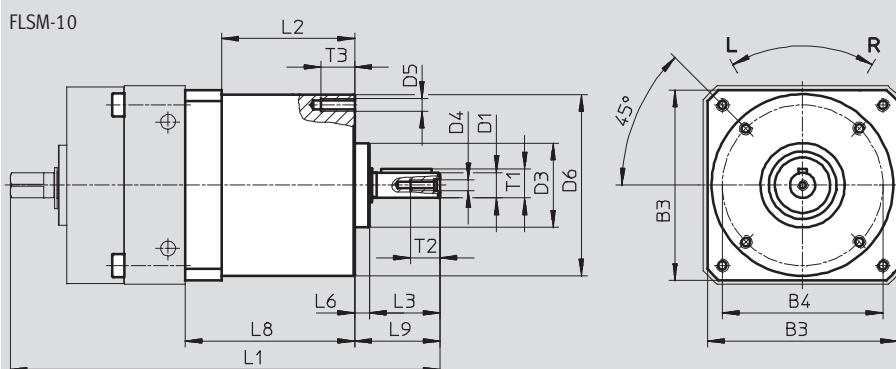
The minimum possible swivel angle is 3°. Switching accuracy is, however, dependent on speed and load.

Dimensions and ordering data

FLSM-6/8



FLSM-10



For size	B3	B4	D1	D3	D4	D5	D6	L1	L2	L3	L4	L6
		±0.15	Ø g7	Ø h8			Ø ±0.3					±0.2
6	29.5	23	4	14	–	M3	28	85.8	36 ±0.1	10.8	10	2
8	37	24	5	16	–	M3	30	94.5	37.5 ±0.1	14	13	2
10	45	38	6	20	M2.5	M3	43	101	30 ±0.1	16.7	–	3.5

For size	L8	L9	T1	T2	T3	T4	Woodruff key to DIN 6885	CRC ¹⁾	Weight [g]	Direction of rotation	Part No.	Type
	±0.1											
6	43	12.8	–	–	5	3.5	–	2	100	Anti-clockwise rotation	188523	FLSM-6-L
										Clockwise rotation	188522	FLSM-6-R
8	44.5	16	–	–	6	4.5	–	2	125	Anti-clockwise rotation	188525	FLSM-8-L
										Clockwise rotation	188524	FLSM-8-R
10	40	20.2	6.8	7	8	–	A2x2x12	2	160	Anti-clockwise rotation	188527	FLSM-10-L
										Clockwise rotation	188526	FLSM-10-R

1) Corrosion resistance class 2 according to Festo standard 940 070

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

Swivel modules DSM/DSM-B

Accessories

FESTO

Freewheel unit FLSM

For size 12 ... 40

Material:

Housing: Anodised aluminium

Shaft, sleeve: Hardened steel

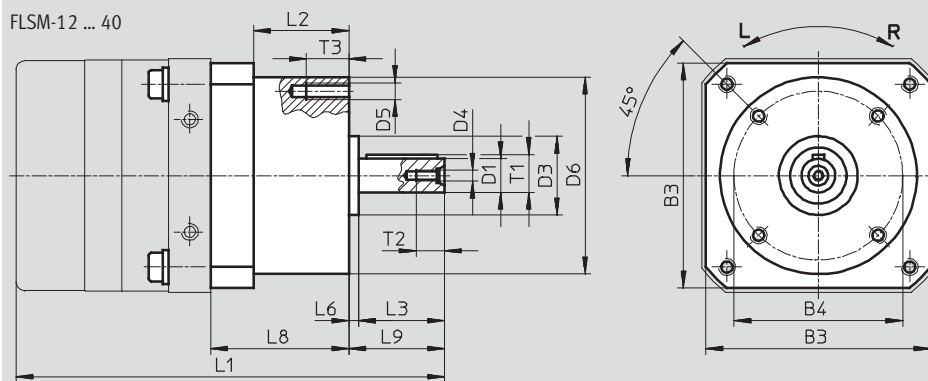


Note

The minimum possible swivel angle is 3°. Switching accuracy is, however, dependent on speed and load.

Dimensions and ordering data

FLSM-12 ... 40



For size	B3	B4	D1	D3	D4	D5	D6	L1	L2	L3	L6	L8
[mm]		±0.15	Ø g7	Ø h8			±0.3				+0.2	±0.1
12	55	42	8	25	M3	M3	48.5	125	37 ±0.4	20	3.5	47.3
16	65	50	10	24	M3	M4	60	137	34 ±0.4	23	3.5	47
25	80	60	12	28	M4	M6	70	152	34 ±0.4	30	3.5	49
32	100	83	16	42	M5	M6	95	197.8	42.8 ±0.4	40	7.2	60.8
40	120	96	20	52	M6	M8	110	244.5	54 ±0.4	50	6	77

For size	L9	T1	T2	T3	Woodruff key to DIN 6885	CRC ¹⁾	Weight	Direction of rotation	Part No.	Type
[mm]							[g]			
12	24.5	8.8	9	8	A2x2x16	2	300	Anti-clockwise rotation	164229	FLSM-12-L
								Clockwise rotation	164234	FLSM-12-R
16	27.4	11.2	9	10	A3x3x18	2	450	Anti-clockwise rotation	164230	FLSM-16-L
								Clockwise rotation	164235	FLSM-16-R
25	34	13.5	10	15	A4x4x25	2	650	Anti-clockwise rotation	164231	FLSM-25-L
								Clockwise rotation	164236	FLSM-25-R
32	48.5	18	12.5	15	A5x5x36	2	1 500	Anti-clockwise rotation	164232	FLSM-32-L
								Clockwise rotation	164237	FLSM-32-R
40	58	22.5	16	15	A6x6x45	2	2 350	Anti-clockwise rotation	164233	FLSM-40-L
								Clockwise rotation	164238	FLSM-40-R

1) Corrosion resistance class 2 according to Festo standard 940 070

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

Swivel modules DSM/DSM-B

Accessories

FESTO

Push-on flange FWSR

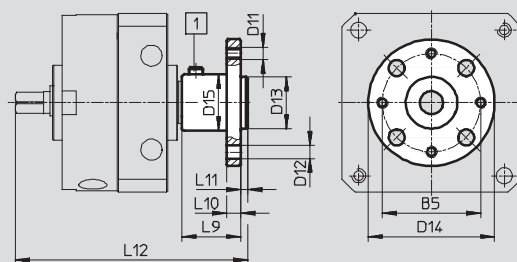
Material:

Anodised wrought aluminium alloy

Free of copper, PTFE and silicone

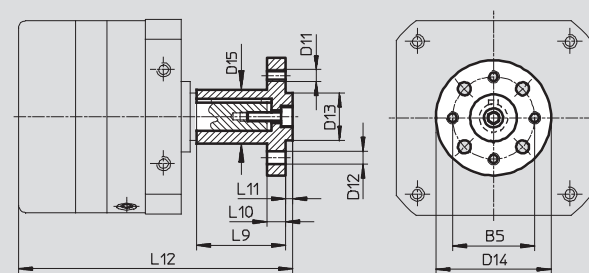


FWSR-6/8



1 Threaded pin M3x5 DIN 916

FWSR-10 ... 40



Dimensions and ordering data														
For size	B5	D11	D12	D13	D14	D15	L9	L10	L11	L12	CRC ¹⁾	Weight	Part No.	Type
[mm]			Ø H13	Ø g7	Ø	Ø						[g]		
6	16	M3	3.4	8	23	10	10.5	3	1.5	45	2	6	185948	FWSR-6
8	21	M3	3.4	11	27	12	12.5	3	1.5	51	2	8	185949	FWSR-8
10	21	M3	3.4	11	30	12	22	3	1.6	68.6	2	14	32798	FWSR-10
12	25	M3	3.4	14	35	15	25	3	3	85.5	2	32	14659	FWSR-12
16	28	M4	4.5	16	40	17	28	5	3	98.8	2	51	13239	FWSR-16
25	35	M5	5.5	20	50	23	38	8	3	116.5	2	68	13240	FWSR-25
32	45	M6	6.5	28	60	28	48	10	4	151.5	2	180	13241	FWSR-32
40	54	M8	9	36	70	38	60	11	5	186.5	2	300	14656	FWSR-40

1) Corrosion resistance class 2 according to Festo standard 940 070

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

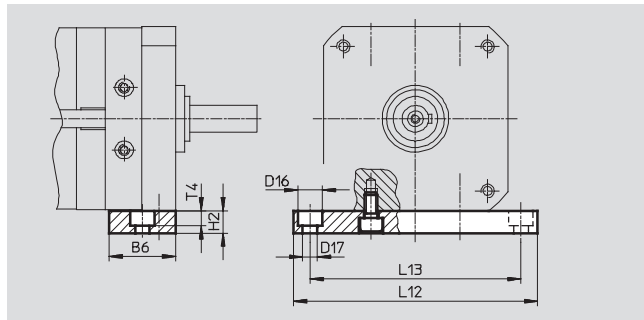
Swivel modules DSM/DSM-B

Accessories

FESTO

Mounting plate HSM

Material:
Aluminium



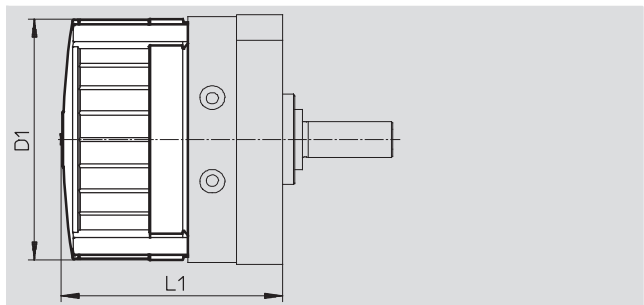
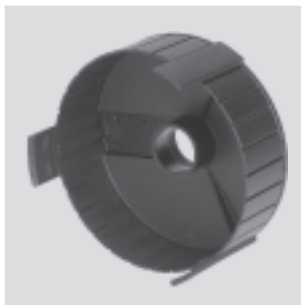
Dimensions and ordering data										
For size [mm]	B6	D16 Ø	D17 Ø	H2	L12	L13	T4	CRC ¹⁾	Weight [g]	Part No. Type
12	20	8	4.5	10	84	72	4.6	2	48	165571 HSM-12
16	28	10	5.5	10	98	84	5.7	2	80	165572 HSM-16
25	30	11	6.6	10	110	95	6.8	2	94	165573 HSM-25
32	40	15	9	15	145	125	9	2	246	165574 HSM-32
40	45	18	11	20	180	155	11	2	459	165575 HSM-40

1) Corrosion resistance class 2 according to Festo standard 940 070

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

Cover cap AKM

Material:
Polyamide

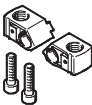


Dimensions and ordering data					
For size [mm]	D1 Ø	L1			Part No. Type
		DSM-...	DSM-T-...	DSM-...-HD-...	
12	59	56.2±1.2	75.2±1.2	68.2±1.2	549194 AKM-12
16	70	68±1.2	92±1.2	82.6±1.2	549195 AKM-16
25	83	73.4±1.2	101.5±1.2	91.6±1.2	549196 AKM-25
32	105	89.7±1.5	126.7±1.5	110.2±1.5	549197 AKM-32
40	130	107.1±1.5	152.1±1.5	136.1±1.5	549198 AKM-40

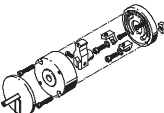
Swivel modules DSM/DSM-B

Accessories

FESTO

Ordering data					
	For size	Brief description	Part No.	Type	PU ¹⁾
Cushioning kit					
	12	- Flexible cushioning components with fixed stop - Included in the scope of delivery for swivel module DSM-...-P	550657	DSM-12-P-B	2
	16, 25		550658	DSM-16/25-P-B	
	32		550659	DSM-32-P-B	
	40		550660	DSM-40-P-B	
	63		552086	DSM-63-P-B	
Shock absorber Technical data → Internet: dyef					
	12	- Adjustable, flexible cushioning components with fixed stop - Included in the scope of delivery for swivel module DSM-...-P1	548373	DYEF-M8-Y1F	1
	16, 25		548374	DYEF-M10-Y1F	
	32		548375	DYEF-M12-Y1F	
	40		548377	DYEF-M16-Y1F	
	63		1113706	DYEF-M22-Y1F	
Shock absorber Technical data → Internet: dysc					
	12	- Self-adjusting shock absorbers with fixed stop - Included in the scope of delivery for swivel module DSM-...-CC	548011	DYSC-5-5-Y1F	1
	16, 25		548012	DYSC-7-5-Y1F	
	32		548013	DYSC-8-8-Y1F	
	40		548014	DYSC-12-12-Y1F	
	63		553593	DYSC-16-18-Y1F	
Cushioning mount					
	12	For mounting flexible cushioning components DSM-...-P-B, DYEF or shock absorbers DYSC	547900	DSM-12-B	2
	16		547901	DSM-16-B	
	25		547902	DSM-25-B	
	32		547903	DSM-32-B	
	40		547904	DSM-40-B	
	63		552085	DSM-63-B	

1) Packaging unit

Ordering data – Kits					
	For size	Brief description	Part No.	Type	
Mounting kit					Technical data → Internet: wsm
	6	For proximity sensors SME/SMT-10	173205	WSM-6-SME-10	
	8		173206	WSM-8-SME-10	
	10		173207	WSM-10-SME-10	
Stop kit					Technical data → Internet: ksm
	6	For adjusting the swivel angle, max. 180°	175833	KSM-6	
	8		175834	KSM-8	
	10	For adjusting the swivel angle, max. 200°	175835	KSM-10	

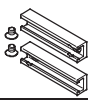
Ordering data – Kit accessories				
For size	Brief description	Part No.	Type	
6	Adapter for attachment of stop kit KSM in combination with mounting kit WSM-...-SME-10	375098	DSM-6-180-P-A-FF	
8		375099	DSM-8-180-P-A-FF	
10		375100	DSM-10-240-P-A-FF	
6	Socket head screw for attachment of stop kit KSM in combination with mounting kit WSM-...-SME-10	258568	DIN 84-M2x25-4.8	
8		385259	DIN 84-M2x30-4.8	
10		365902	M2.5x32 ¹⁾	

1) Screw similar to DIN 84

Swivel modules DSM/DSM-B

Accessories

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Ordering data – Sensor retainer					
	For size	Brief description	Part No.	Type	PU ¹⁾
	12, 16, 25, 32, 40	For proximity sensors SME-/SMT-10	550661	SL-DSM-B	2
	63	For proximity sensors SME-/SMT-8	552088	SL-DSM-63-B	2
	12, 16, 25, 32, 40	For inductive proximity sensors SIEN-M5	1130882	SL-DSM-S-M5-B	2
		For inductive proximity sensors SIEN-M8	1132360	SL-DSM-S-M8-B	

1) Packaging unit

Proximity sensors for size 6, 8, 12, 25, 32, 40

Ordering data – Proximity sensors for C-slot, magneto-resistive					Technical data → Internet: smt	
	Type of mounting	Switching output	Electrical connection, Connection direction	Cable length [m]	Part No.	Type
N/O contact						
	Is clamped to the DSM using the sensor bracket	PNP	Cable, 3-wire, in-line	2.5	551373	SMT-10M-PS-24V-E-2,5-L-OE
			Plug M8x1, 3-pin, in-line	0.3	551375	SMT-10M-PS-24V-E-0,3-L-M8D

Proximity sensors for size 6 ... 40

Ordering data – Proximity sensors for C-slot, magnetic reed					Technical data → Internet: sme	
	Type of mounting	Switching output	Electrical connection, Connection direction	Cable length [m]	Part No.	Type
N/O contact						
	Is clamped to the DSM using the sensor bracket	Contacting	Cable, 3-wire, in-line	2.5	173210	SME-10-KL-LED-24
			Plug M8x1, 3-pin, in-line	0.3	173212	SME-10-SL-LED-24

Proximity sensors for size 12 ... 40

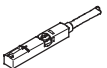
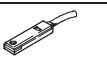
Ordering data – Proximity sensors for C-slot, magnetic reed					Technical data → Internet: sme	
	Type of mounting	Switching output	Electrical connection, Connection direction	Cable length [m]	Part No.	Type
N/O contact						
	Is clamped to the DSM using the sensor bracket	Contacting	Cable, 3-wire, in-line	2.5	551365	SME-10M-DS-24V-E-2,5-L-OE
			Plug M8x1, 3-pin, in-line	0.3	551367	SME-10M-DS-24V-E-0,3-L-M8D

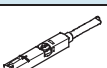
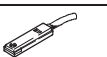
Swivel modules DSM/DSM-B

Accessories

FESTO

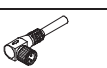
Proximity sensors for size 63

Ordering data – Proximity sensors for T-slot, magneto-resistive					Technical data → Internet: smt	
	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part No.	Type
N/O contact						
	Insertable in slot from above, flush with cylinder profile	PNP	Cable, 3-wire	2.5	543867	SMT-8M-PS-24V-K-2.5-OE
			Plug M8x1, 3-pin	0.3	543866	SMT-8M-PS-24V-K-0,3-M8D
			Plug M12x1, 3-pin	0.3	543869	SMT-8M-PS-24V-K-0,3-M12
		NPN	Cable, 3-wire	2.5	543870	SMT-8M-NS-24V-K-2,5-OE
	Insertable in slot lengthwise, flush with cylinder profile	PNP	Cable, 3-wire	2.5	175436	SMT-8-PS-K-LED-24-B
			Plug M8x1, 3-pin	0.3	175484	SMT-8-PS-S-LED-24-B

Ordering data – Proximity sensors for T-slot, magnetic reed					Technical data → Internet: sme	
	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part No.	Type
N/O contact						
	Insertable in slot from above, flush with cylinder profile	Contacting	Cable, 3-wire	2.5	543862	SME-8M-DS-24V-K-2.5-OE
				5.0	543863	SME-8M-DS-24V-K-5.0-OE
			Cable, 2-wire	2.5	543872	SME-8M-ZS-24V-K-2,5-OE
				0.3	543861	SME-8M-DS-24V-K-0,3-M8D
	Insertable in slot lengthwise, flush with cylinder profile	Contacting	Cable, 3-wire	2.5	150855	SME-8-K-LED-24
			Plug M8x1, 3-pin	0.3	150857	SME-8-S-LED-24

Inductive proximity sensors for size 12 ... 40

Ordering data – Proximity sensors, inductive				Technical data → Internet: sien	
	Thread	Contact	Connection	Part No.	Type
	M5	N/O contact	Cable, 2.5 m	150370	SIEN-M5B-PS-K-L
			Plug	150371	SIEN-M5B-PS-S-L
	M8	N/O contact	Cable, 2.5 m	150386	SIEN-M8B-PS-K-L
			Plug	150387	SIEN-M8B-PS-S-L

Ordering data – Connecting cables				Technical data → Internet: nebu	
	Electrical connection, left	Electrical connection, right	Cable length [m]	Part No.	Type
	Straight socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541333	NEBU-M8G3-K-2.5-LE3
			5	541334	NEBU-M8G3-K-5-LE3
	Straight socket, M12x1, 5-pin	Cable, open end, 3-wire	2.5	541363	NEBU-M12G5-K-2.5-LE3
			5	541364	NEBU-M12G5-K-5-LE3
	Angled socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	541338	NEBU-M8W3-K-2.5-LE3
			5	541341	NEBU-M8W3-K-5-LE3
	Angled socket, M12x1, 5-pin	Cable, open end, 3-wire	2.5	541367	NEBU-M12W5-K-2.5-LE3
			5	541370	NEBU-M12W5-K-5-LE3

Swivel modules DSM/DSM-B

Accessories

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Ordering data – One-way flow control valves					Technical data ➔ Internet: grla	
	For size	Connection		Material	Part No.	Type
		Thread	For tubing O.D.			
For exhaust air						
	12, 16, 25	M5	3	Metal design	193137	GRLA-M5-QS-3-D
			4		193138	GRLA-M5-QS-4-D
			6		193139	GRLA-M5-QS-6-D
	32, 40	G1/8	3		193142	GRLA-1/8-QS-3-D
			4		193143	GRLA-1/8-QS-4-D
			6		193144	GRLA-1/8-QS-6-D
			8		193145	GRLA-1/8-QS-8-D
			10		193147	GRLA-1/4-QS-8-D
	63	G1/4	8		193147	GRLA-1/4-QS-8-D
			10		193148	GRLA-1/4-QS-10-D

Ordering data – Centring sleeves for DSM-...-HD				Technical data → Internet: zbh	
	For size	Brief description	Part No.	Type	PU ¹⁾
	12, 16	For centring the drive for lateral mounting	186717	ZBH-7	10
	25		150927	ZBH-9	
	32 ... 63		189653	ZBH-12	
	12	For centring attachments on the rotating plate	189652	ZBH-5	
	16 ... 32		186717	ZBH-7	
	40, 63		189653	ZBH-12	
	12, 16	For mid-centring attachments on the rotating plate	189653	ZBH-12	1
	25		191409	ZBH-15	
	40, 63		330670	SLZZ-25/16	

1) Packaging unit

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