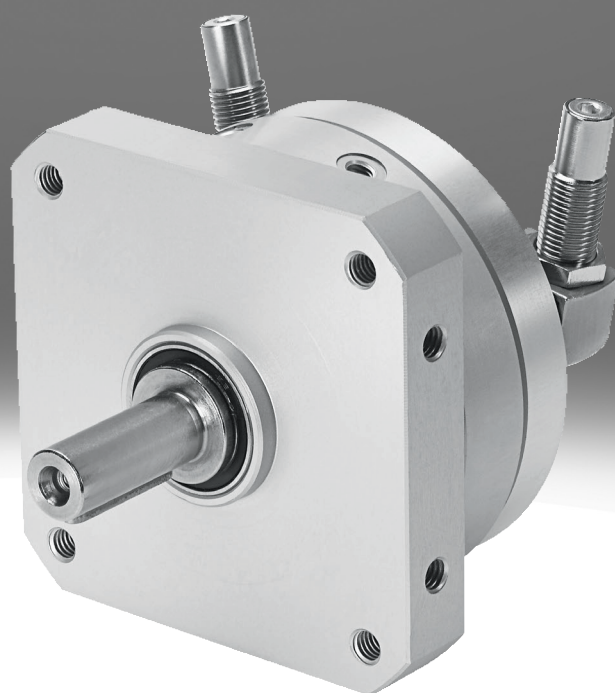


Semi-rotary drive DSM

FESTO



Characteristics

At a glance

- Double-acting semi-rotary drive with vane
- The swivel angle is infinitely adjustable over the entire swivel range
- High precision thanks to fixed metal stops
- Polyurethane ensures a long service life for the rotary vane and sealing system
- Simple fine adjustment of the end positions possible via the cushioning elements
- The mechanical gearing between the stop element and the semi-rotary drive prevents movement of the stop system under load
- Selected types according to ATEX directive. For more information, please get in touch with your local contact at Festo.

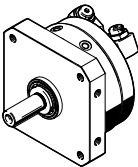
Diagrams [Link dsm](#)



The diagrams shown in this document are also available online. There, it is possible to display precise values.

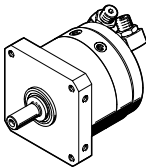
Design type

[] Standard



Double-acting semi-rotary drive with vane
Torques up to 40 Nm possible

[T] Tandem vane



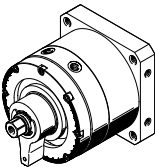
Torques of up to 80 Nm can be achieved by having two vanes on the multi-tooth shaft.
The functionality corresponds to that of the DSM without tandem vane:

- Infinitely adjustable swivel angle
- Identical interfaces
- Identical accessories

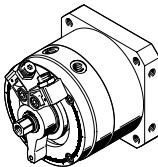
Cushioning

Using the damping brackets, the swivel angle can be adjusted on the DSM-...-P/-P1/-CC.

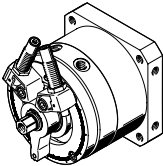
[] Without



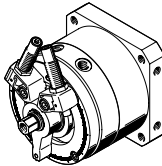
[P] Elastic cushioning rings/plates at both ends



[P1] Adjustable elastic cushioning components at both ends

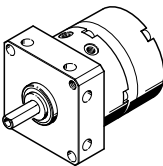


[CC] Pneumatic shock absorber at both ends, self-adjusting



Adjustable swivel angle

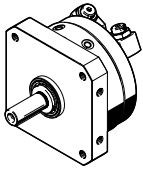
[FF] Adjustable swivel angle



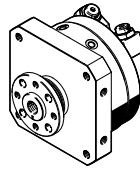
Characteristics

Shaft

[] Spigot shaft

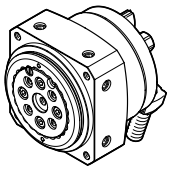


[FW] Flange shaft



- For DSM-6/8: Tapered shaft with a flat section
- From DSM-10: Tapered shaft with feather key

[HD] Flange shaft for high load torques



For sizes 12 ... 63

High-quality bearing elements with backlash-free preloading enable very high load torques and an extremely precise bearing with excellent running accuracy. The functionality corresponds to that of DSM-B without heavy-duty bearing:

- Infinitely adjustable swivel angle
- Identical mounting interfaces
- Identical accessories
- 2 Selectable cushioning types: Cushioning P1 and CC

Position sensing

[A] For proximity sensor

For sensing the vane position

Type code

001	Series	
DSM	Quarter turn actuator	

002	Design type	
	Standard	
T	Tandem vane	

003	Size [mm]	
6	6	
8	8	
10	10	
12	12	
16	16	
25	25	
32	32	
40	40	
63	63	

004	Nominal swivel angle [°]	
90	90	
180	180	
200	200	
240	240	
246	246	
270	270	

005	Cushioning	
	Without	
P	Elastic cushioning rings/plates at both ends	
P1	Adjustable elastic cushioning components at both ends	
CC	Pneumatic shock absorber at both ends, self-adjusting	

006	Adjustable swivel angle	
	Fixed swivel angle	
FF	Adjustable swivel angle	

007	Shaft	
	Spigot shaft	
FW	Flange shaft	
HD	Flange shaft for high load torques	

008	Position sensing	
	Without	
A	For proximity sensor	

009	Variant	
	Without	
B	B-series	

Datasheet

General technical data for DSM-6... 10

Size	6			8			10		
Design type	Standard []		Tandem vane [T]	Standard []		Tandem vane [T]	Standard []		Tandem vane [T]
Cushioning	Elastic cushioning rings/plates at both ends [P]								
Adjustable swivel angle	Fixed swivel angle []	Adjustable swivel angle [FF]	Fixed swivel angle []		Adjustable swivel angle [FF]	Fixed swivel angle []		Adjustable swivel angle [FF]	Fixed swivel angle []
Pneumatic connection	M3								
Structural design	Rotary vane								
Type of mounting	With internal thread								
Mounting position	Any								
Swivel angle	0 deg, 90 deg, 180 deg	0 deg, 180 deg	0 deg, 90 deg, 180 deg		0 deg, 180 deg	0 deg, 90 deg, 180 deg	0 deg, 90 deg, 180 deg, 240 deg	0 deg, 200 deg	0 deg, 90 deg, 180 deg, 240 deg
Cushioning angle	0.5 deg	0 deg	0.5 deg		0 deg	0.5 deg		0 deg	0.5 deg
Repetition accuracy	1 deg								
Max. swivel frequency at 6 bar ¹⁾	3 Hz						2 Hz, 3 Hz	2 Hz	2 Hz, 3 Hz

1) At a swivel angle of 240°: 2 Hz

General technical data for DSM-6... 10

Size	6	8	10
Design type	Tandem vane [T]		
Cushioning	Elastic cushioning rings/plates at both ends [P]		
Adjustable swivel angle	Fixed swivel angle []		
Pneumatic connection	M3		
Structural design	Rotary vane		
Type of mounting	With internal thread		
Mounting position	Any		
Swivel angle	0 deg, 90 deg, 180 deg	0 deg, 90 deg, 180 deg, 240 deg	
Cushioning angle	0.5 deg		
Repetition accuracy	1 deg		
Max. swivel frequency at 6 bar ¹⁾	3 Hz	2 Hz, 3 Hz	

1) At a swivel angle of 240°: 2 Hz

General technical data for DSM-12

Size	12											
Design type	Standard [L]											
Cushioning	Without [L]			Elastic cushioning rings/ plates at both ends [P]		Adjustable elastic cushioning compo- nents at both ends [P1]			Pneumatic shock absorber at both ends, self-adjusting [CC]			
Shaft	Spigot shaft [L]	Flange shaft [FW]	Flange shaft for high load torques [HD]	Spigot shaft [L]	Flange shaft [FW]	Spigot shaft [L]	Flange shaft [FW]	Flange shaft for high load torques [HD]	Spigot shaft [L]	Flange shaft [FW]	Flange shaft for high load torques [HD]	
Pneumatic connection	M5											
Structural design	Rotary vane											
Type of mounting	With internal thread											
Mounting position	Any											
Swivel angle ¹⁾	0 deg, 270 deg					0 deg, 246 deg						
Cushioning angle	–			1.8 deg		10 deg			15 deg			
Repetition accuracy	–			1 deg		0.1 deg						
Max. swivel frequency at 6 bar	2 Hz		1.5 Hz	2 Hz				1.5 Hz		1 Hz		

1) For DSM-12: Restricted swivel angle (max. 262°) in connection with sensor bracket SL-DSM-S-...

Datasheet

General technical data for DSM-12

Size	12					
Design type	Tandem vane [T]					
Cushioning	Without []		Elastic cushioning rings/plates at both ends [P]		Pneumatic shock absorber at both ends, self-adjusting [CC]	
Shaft	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]
Pneumatic connection	M5					
Structural design	Rotary vane					
Type of mounting	With internal thread					
Mounting position	Any					
Swivel angle ¹⁾	0 deg, 270 deg				0 deg, 246 deg	
Cushioning angle	–		1.8 deg		15 deg	
Repetition accuracy	–		1 deg		0.1 deg	
Max. swivel frequency at 6 bar	2 Hz				1.5 Hz	

1) For DSM-12: Restricted swivel angle (max. 262°) in connection with sensor bracket SL-DSM-S...

General technical data for DSM-16

Size	16										
Design type	Standard []										
Cushioning	Without []			Elastic cushioning rings/ plates at both ends [P]		Adjustable elastic cushioning compo- nents at both ends [P1]			Pneumatic shock absorber at both ends, self-adjusting [CC]		
Shaft	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]
Pneumatic connection	M5										
Structural design	Rotary vane										
Type of mounting	With internal thread										
Mounting position	Any										
Swivel angle	0 deg, 270 deg					0 deg, 246 deg					
Cushioning angle	–			1.4 deg		9 deg			12 deg		
Repetition accuracy	–			1 deg		0.1 deg					
Max. swivel frequency at 6 bar	2 Hz		1.5 Hz	2 Hz				1.5 Hz	1 Hz		

General technical data for DSM-16

Size	16					
Design type	Tandem vane [T]					
Cushioning	Without []		Elastic cushioning rings/plates at both ends [P]		Pneumatic shock absorber at both ends, self-adjusting [CC]	
Shaft	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]
Pneumatic connection	M5					
Structural design	Rotary vane					
Type of mounting	With internal thread					
Mounting position	Any					
Swivel angle	0 deg, 270 deg				0 deg, 246 deg	
Cushioning angle	–		1.4 deg		12 deg	
Repetition accuracy	–		1 deg		0.1 deg	
Max. swivel frequency at 6 bar	2 Hz				1 Hz	

Datasheet

General technical data for DSM-25

Size	25										
Design type	Standard []										
Cushioning	Without []			Elastic cushioning rings/ plates at both ends [P]		Adjustable elastic cushioning compo- nents at both ends [P1]			Pneumatic shock absorber at both ends, self-adjusting [CC]		
Shaft	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]
Pneumatic connection	M5										
Structural design	Rotary vane										
Type of mounting	With internal thread										
Mounting position	Any										
Swivel angle	0 deg, 270 deg					0 deg, 246 deg					
Cushioning angle	–			1.2 deg		7.5 deg			10 deg		
Repetition accuracy	–			1 deg		0.1 deg					
Max. swivel frequency at 6 bar	2 Hz		1.5 Hz	2 Hz				1.5 Hz	1 Hz		

General technical data for DSM-25

General technical data for DSM 25						
Size	25					
Design type	Tandem vane [T]					
Cushioning	Without []		Elastic cushioning rings/plates at both ends [P]		Pneumatic shock absorber at both ends, self-adjusting [CC]	
Shaft	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]
Pneumatic connection	M5					
Structural design	Rotary vane					
Type of mounting	With internal thread					
Mounting position	Any					
Swivel angle	0 deg, 270 deg				0 deg, 246 deg	
Cushioning angle	–		1.2 deg		10 deg	
Repetition accuracy	–		1 deg		0.1 deg	
Max. swivel frequency at 6 bar	2 Hz				1 Hz	

General technical data for DSM-32

General technical data for DSM 32											
Size	32										
Design type	Standard []										
Cushioning	Without []			Elastic cushioning rings/ plates at both ends [P]		Adjustable elastic cushioning compo- nents at both ends [P1]			Pneumatic shock absorber at both ends, self-adjusting [CC]		
Shaft	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]
Pneumatic connection	G1/8										
Structural design	Rotary vane										
Type of mounting	With internal thread										
Mounting position	Any										
Swivel angle	0 deg, 270 deg					0 deg, 246 deg					
Cushioning angle	–			1.4 deg		6.5 deg			12 deg		
Repetition accuracy	–			1 deg		0.1 deg					
Max. swivel frequency at 6 bar	2 Hz		1.5 Hz	2 Hz				1.5 Hz	0.7 Hz		0.5 Hz

Datasheet

General technical data for DSM-32

Size	32					
Design type	Tandem vane [T]					
Cushioning	Without []		Elastic cushioning rings/plates at both ends [P]		Pneumatic shock absorber at both ends, self-adjusting [CC]	
Shaft	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]
Pneumatic connection	G1/8					
Structural design	Rotary vane					
Type of mounting	With internal thread					
Mounting position	Any					
Swivel angle	0 deg, 270 deg				0 deg, 246 deg	
Cushioning angle	–		1.4 deg		12 deg	
Repetition accuracy	–		1 deg		0.1 deg	
Max. swivel frequency at 6 bar	2 Hz				0.7 Hz	

General technical data for DSM-40

Size	40											
Design type	Standard []											
Cushioning	Without []			Elastic cushioning rings/plates at both ends [P]		Adjustable elastic cushioning components at both ends [P1]			Pneumatic shock absorber at both ends, self-adjusting [CC]			
Shaft	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]	
Pneumatic connection	G1/8											
Structural design	Rotary vane											
Type of mounting	With internal thread											
Mounting position	Any											
Swivel angle	0 deg, 270 deg					0 deg, 240 deg						
Cushioning angle	–			2 deg		6.5 deg			16 deg			
Repetition accuracy	–			1 deg		0.1 deg						
Max. swivel frequency at 6 bar	2 Hz		1.5 Hz	2 Hz			1.5 Hz		0.7 Hz		0.5 Hz	

General technical data for DSM-40

General technical data for DSM 40						
Size	40					
Design type	Tandem vane [T]					
Cushioning	Without []		Elastic cushioning rings/plates at both ends [P]		Pneumatic shock absorber at both ends, self-adjusting [CC]	
Shaft	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]
Pneumatic connection	G1/8					
Structural design	Rotary vane					
Type of mounting	With internal thread					
Mounting position	Any					
Swivel angle	0 deg, 270 deg				0 deg, 240 deg	
Cushioning angle	–		2 deg		16 deg	
Repetition accuracy	–		1 deg		0.1 deg	
Max. swivel frequency at 6 bar	2 Hz				0.7 Hz	

Datasheet

General technical data for DSM-63

Size	63											
Design type	Standard []											
Cushioning	Without []			Elastic cushioning rings/ plates at both ends [P]		Adjustable elastic cushioning compo- nents at both ends [P1]			Pneumatic shock absorber at both ends, self-adjusting [CC]			
Shaft	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]	
Pneumatic connection	G1/4											
Structural design	Rotary vane											
Type of mounting	With internal thread											
Mounting position	Any											
Swivel angle	0 deg, 270 deg					0 deg, 240 deg						
Cushioning angle	–			2 deg		6 deg			17.5 deg			
Repetition accuracy	–			1 deg		0.1 deg						
Max. swivel frequency at 6 bar	1.6 Hz		1 Hz	1.6 Hz				1 Hz	0.6 Hz		0.5 Hz	

General technical data for DSM-63

Size	63					
Design type	Tandem vane [T]					
Cushioning	Without []		Elastic cushioning rings/plates at both ends [P]		Pneumatic shock absorber at both ends, self-adjusting [CC]	
Shaft	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]
Pneumatic connection	G1/4					
Structural design	Rotary vane					
Type of mounting	With internal thread					
Mounting position	Any					
Swivel angle	0 ... 270 deg				0 ... 240 deg	
Cushioning angle	–		2 deg		17.5 deg	
Repetition accuracy	–		1 deg		0.1 deg	
Max. swivel frequency at 6 bar	1.6 Hz				0.6 Hz	

Operating and environmental conditions for DSM-6 ... 10

Size	6				8				10			
Design type	Standard []		Tandem vane [T]		Standard []		Tandem vane [T]		Standard []		Tandem vane [T]	
Shaft	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4]											
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)											
Operating pressure	50.75 ... 116 psi		58 ... 116 psi		50.75 ... 116 psi		58 ... 116 psi		36.25 ... 116 psi		50.75 ... 116 psi	
Operating pressure	3.5 ... 8 bar		4 ... 8 bar		3.5 ... 8 bar		4 ... 8 bar		2.5 ... 8 bar		3.5 ... 8 bar	
Ambient temperature	0 ... 60°C											

Operating and environmental conditions for DSM-12/-16

Size	12				16			
Design type	Standard []			Tandem vane [T]	Standard []			Tandem vane [T]
Shaft	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]	Spigot shaft []	
Operating medium	Compressed air as per ISO 8573-1:2010 [7:-:]							
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)							
Operating pressure	29 ... 145 psi		43.5 ... 145 psi	36.25 ... 145 psi	26.1 ... 145 psi		43.5 ... 145 psi	36.25 ... 145 psi
Operating pressure	2 ... 10 bar		3 ... 10 bar	2.5 ... 10 bar	1.8 ... 10 bar		3 ... 10 bar	2.5 ... 10 bar
Ambient temperature	-10 ... 60°C							

Datasheet

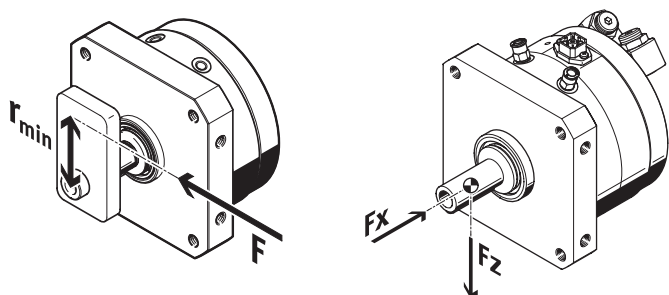
Operating and environmental conditions for DSM-25/-32

Size	25					32				
Design type	Standard []			Tandem vane [T]		Standard []			Tandem vane [T]	
Shaft	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]	Spigot shaft []	Flange shaft [FW]
Operating medium	Compressed air as per ISO 8573-1:2010 [7:-:-]									
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)									
Operating pressure	21.75 ... 145 psi		29 ... 145 psi			21.75 ... 145 psi		29 ... 145 psi		
Operating pressure	1.5 ... 10 bar		2 ... 10 bar			1.5 ... 10 bar		2 ... 10 bar		
Ambient temperature	-10 ... 60°C									

Operating and environmental conditions for DSM-40/-63

Size	40					63				
Design type	Standard []			Tandem vane [T]		Standard []			Tandem vane [T]	
Shaft	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]	Spigot shaft []	Flange shaft [FW]
Operating medium	Compressed air as per ISO 8573-1:2010 [7:-:-]									
Information on operating and pilot media	Operation with oil lubrication possible (required for further use)									
Operating pressure	21.75 ... 145 psi		29 ... 145 psi			21.75 ... 145 psi		29 ... 145 psi		
Operating pressure	1.5 ... 10 bar		2 ... 10 bar			1.5 ... 10 bar		2 ... 10 bar		
Ambient temperature	-10 ... 60°C									

Forces and torques



If the semi-rotary drives DSM-...-A-B are used without a stop system or the maximum mass moment of inertia is exceeded, external stops must be attached. A minimum radius relative to the drive shaft (r_{min}) must be observed. The stop force may not exceed a maximum force.

Forces and torques for DSM-6 ... 10

Size	6				8				10			
Design type	Standard []		Tandem vane [T]		Standard []		Tandem vane [T]		Standard []		Tandem vane [T]	
Shaft	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]
Theoretical torque at 6 bar	0.15 Nm		0.3 Nm		0.35 Nm		0.7 Nm		0.85 Nm		1.7 Nm	
Permissible stop radius	≥10 mm								≥13 mm			
Max. stop force	15 N				30 N				60 N			
Max. radial force ¹⁾	15 N				20 N				30 N			
Max. axial force ²⁾	10 N											

1) Reference point for the forces is the axis of rotation and the center of the output shaft

2) Reference point for the forces is the axis of rotation and the center of the output shaft

Datasheet

Forces and torques for DSM-12/-16

Size	12				16			
Design type	Standard []			Tandem vane [T]	Standard []			Tandem vane [T]
Shaft	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]		Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]	Spigot shaft []
Theoretical torque at 6 bar	1.25 Nm				2.5 Nm			5 Nm
Permissible stop radius	≥15 mm				≥17 mm			
Max. stop force	90 N				160 N			
Max. radial force ¹⁾	45 N		200 N	45 N	75 N		300 N	75 N
Max. axial force ²⁾	18 N		180 N	18 N	30 N		290 N	30 N

1) Reference point for the forces is the axis of rotation and the center of the output shaft

2) Reference point for the forces is the axis of rotation and the center of the output shaft

Forces and torques for DSM-25/-32

Forces and torques for DGM 19/ 32											
Size	25					32					
Design type	Standard []			Tandem vane [T]		Standard []			Tandem vane [T]		
Shaft	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]	Spigot shaft []	Flange shaft [FW]	
Theoretical torque at 6 bar	5 Nm			10 Nm						20 Nm	
Permissible stop radius	≥21 mm					≥28 mm					
Max. stop force	320 N					480 N					
Max. radial force ¹⁾	120 N		450 N	120 N		200 N		550 N	200 N		
Max. axial force ²⁾	50 N		350 N	50 N		75 N		450 N	75 N		

1) Reference point for the forces is the axis of rotation and the center of the output shaft

2) Reference point for the forces is the axis of rotation and the center of the output shaft

Forces and torques for DSM-40/-63

Size	40					63				
Design type	Standard []			Tandem vane [T]		Standard []			Tandem vane [T]	
Shaft	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]	Spigot shaft []	Flange shaft [FW]	Spigot shaft []	Flange shaft [FW]	Flange shaft for high load torques [HD]	Spigot shaft []	Flange shaft [FW]
Theoretical torque at 6 bar	20 Nm			40 Nm			80 Nm			
Permissible stop radius	≥40 mm					≥50 mm				
Max. stop force	650 N					1,050 N				
Max. radial force ¹⁾	350 N		1,200 N	350 N		500 N		1,600 N	500 N	
Max. axial force ²⁾	120 N		950 N	120 N		500 N		1,300 N	500 N	

1) Reference point for the forces is the axis of rotation and the center of the output shaft

2) Reference point for the forces is the axis of rotation and the center of the output shaft

Forces for DSM-6 ... 10

Size	6		8	10
Cushioning	Elastic cushioning rings/plates at both ends [P]			
Permissible mass moment of inertia	0.00065 kgm ²		0.0013 kgm ²	0.0026 kgm ²

Moment of inertia for DSM-12/-16

Size	12			16	
Cushioning	Without []	Elastic cushioning rings/plates at both ends [P]	Pneumatic shock absorber at both ends, self-adjusting [CC]	Without []	Elastic cushioning rings/plates at both ends [P]
Permissible mass moment of inertia	–	0.005 kgm ²	0.008 kgm ²	–	0.01 kgm ²

Datasheet

Moment of inertia for DSM-25/-32

Size	25				32			
Cushioning	Without ☐	Elastic cushioning rings/plates at both ends [P]	Adjustable elastic cushioning components at both ends [P1]	Pneumatic shock absorber at both ends, self-adjusting [CC]	Without ☐	Elastic cushioning rings/plates at both ends [P]	Adjustable elastic cushioning components at both ends [P1]	Pneumatic shock absorber at both ends, self-adjusting [CC]
Permissible mass moment of inertia	–	0.015 kgm ²	0.045 kgm ²	0.03 kgm ²	–	0.025 kgm ²	0.075 kgm ²	0.05 kgm ²

Moment of inertia for DSM-40/-63

Size	40				63			
Cushioning	Without ☐	Elastic cushioning rings/plates at both ends [P]	Adjustable elastic cushioning components at both ends [P1]	Pneumatic shock absorber at both ends, self-adjusting [CC]	Without ☐	Elastic cushioning rings/plates at both ends [P]	Adjustable elastic cushioning components at both ends [P1]	Pneumatic shock absorber at both ends, self-adjusting [CC]
Permissible mass moment of inertia	–	0.035 kgm ²	0.105 kgm ²	0.11 kgm ²	–	0.15 kgm ²	0.45 kgm ²	0.5 kgm ²

Weights for DSM-6

Size	6									
Design type	Standard ☐								Tandem vane [T]	
Shaft	Spigot shaft ☐				Flange shaft [FW]				Spigot shaft ☐	Flange shaft [FW]
Adjustable swivel angle	Fixed swivel angle ☐		Adjustable swivel angle [FF]		Fixed swivel angle ☐		Adjustable swivel angle [FF]		Fixed swivel angle ☐	
Position sensing	Without ☐	For proximity sensor [A]	Without ☐	For proximity sensor [A]	Without ☐	For proximity sensor [A]	Without ☐	For proximity sensor [A]	Without ☐	
Product weight	45 g	50 g	70 g	85 g	51 g	56 g	76 g	91 g	60 g	65 g

Weights for DSM-8

Size	8									
Design type	Standard ☐								Tandem vane [T]	
Shaft	Spigot shaft ☐				Flange shaft [FW]				Spigot shaft ☐	Flange shaft [FW]
Adjustable swivel angle	Fixed swivel angle ☐		Adjustable swivel angle [FF]		Fixed swivel angle ☐		Adjustable swivel angle [FF]		Fixed swivel angle ☐	
Position sensing	Without ☐	For proximity sensor [A]	Without ☐	For proximity sensor [A]	Without ☐	For proximity sensor [A]	Without ☐	For proximity sensor [A]	Without ☐	
Product weight	78 g	85 g	140 g	155 g	85 g	92 g	147 g	162 g	110 g	117 g

Weights for DSM-10

Size	10									
Design type	Standard ☐								Tandem vane [T]	
Shaft	Spigot shaft ☐				Flange shaft [FW]				Spigot shaft ☐	Flange shaft [FW]
Adjustable swivel angle	Fixed swivel angle ☐		Adjustable swivel angle [FF]		Fixed swivel angle ☐		Adjustable swivel angle [FF]		Fixed swivel angle ☐	
Position sensing	Without ☐	For proximity sensor [A]	Without ☐	For proximity sensor [A]	Without ☐	For proximity sensor [A]	Without ☐	For proximity sensor [A]	Without ☐	
Product weight	140 g	149 g	240 g	255 g	150 g	159 g	250 g	265 g	200 g	210 g

Weights for DSM-12

Size	12										
Shaft	Spigot shaft ☐				Flange shaft [FW]				Flange shaft for high load torques [HD]		
Cushioning	Without ☐	Elastic cushioning rings/plates at both ends [P]	Adjustable elastic cushioning components at both ends [P1]	Pneumatic shock absorber at both ends, self-adjusting [CC]	Without ☐	Elastic cushioning rings/plates at both ends [P]	Adjustable elastic cushioning components at both ends [P1]	Pneumatic shock absorber at both ends, self-adjusting [CC]	Without ☐	Adjustable elastic cushioning components at both ends [P1]	Pneumatic shock absorber at both ends, self-adjusting [CC]
Product weight	240 g	275 g	285 g		260 g	293 g	303 g	300 g	375 g	420 g	

Datasheet

Weights for DSM-12 with tandem wing

Size	12					
Shaft	Spigot shaft [L]			Flange shaft [FW]		
Cushioning	Without [L]	Elastic cushioning rings/plates at both ends [P]	Pneumatic shock absorber at both ends, self-adjusting [CC]	Without [L]	Elastic cushioning rings/plates at both ends [P]	Pneumatic shock absorber at both ends, self-adjusting [CC]
Product weight	330 g	365 g	375 g	350 g	383 g	390 g

Weights for DSM-16

Size	16										
Shaft	Spigot shaft [L]				Flange shaft [FW]				Flange shaft for high load torques [HD]		
Cushioning	Without [L]	Elastic cushioning rings/plates at both ends [P]	Adjustable elastic cushioning components at both ends [P1]	Pneumatic shock absorber at both ends, self-adjusting [CC]	Without [L]	Elastic cushioning rings/plates at both ends [P]	Adjustable elastic cushioning components at both ends [P1]	Pneumatic shock absorber at both ends, self-adjusting [CC]	Without [L]	Adjustable elastic cushioning components at both ends [P1]	Pneumatic shock absorber at both ends, self-adjusting [CC]
Product weight	410 g	470 g	475 g	480 g	450 g	510 g	515 g	520 g	625 g	700 g	705 g

Weights for DSM-16 with tandem wing

Size	16					
Shaft	Spigot shaft [L]			Flange shaft [FW]		
Cushioning	Without [L]	Elastic cushioning rings/plates at both ends [P]	Pneumatic shock absorber at both ends, self-adjusting [CC]	Without [L]	Elastic cushioning rings/plates at both ends [P]	Pneumatic shock absorber at both ends, self-adjusting [CC]
Product weight	590 g	650 g	660 g	630 g	690 g	700 g

Weights for DSM-25

Size	25										
Shaft	Spigot shaft [L]				Flange shaft [FW]				Flange shaft for high load torques [HD]		
Cushioning	Without [L]	Elastic cushioning rings/plates at both ends [P]	Adjustable elastic cushioning components at both ends [P1]	Pneumatic shock absorber at both ends, self-adjusting [CC]	Without [L]	Elastic cushioning rings/plates at both ends [P]	Adjustable elastic cushioning components at both ends [P1]	Pneumatic shock absorber at both ends, self-adjusting [CC]	Without [L]	Adjustable elastic cushioning components at both ends [P1]	Pneumatic shock absorber at both ends, self-adjusting [CC]
Product weight	620 g	700 g	715 g	710 g	645 g	725 g	740 g	735 g	950 g	1,015 g	1,010 g

Weights for DSM-25 with tandem wing

Size	25					
Shaft	Spigot shaft [L]			Flange shaft [FW]		
Cushioning	Without [L]	Elastic cushioning rings/plates at both ends [P]	Pneumatic shock absorber at both ends, self-adjusting [CC]	Without [L]	Elastic cushioning rings/plates at both ends [P]	Pneumatic shock absorber at both ends, self-adjusting [CC]
Product weight	890 g	970 g	980 g	915 g	995 g	1,005 g

Weights for DSM-32

Size	32										
Shaft	Spigot shaft [L]				Flange shaft [FW]				Flange shaft for high load torques [HD]		
Cushioning	Without [L]	Elastic cushioning rings/plates at both ends [P]	Adjustable elastic cushioning components at both ends [P1]	Pneumatic shock absorber at both ends, self-adjusting [CC]	Without [L]	Elastic cushioning rings/plates at both ends [P]	Adjustable elastic cushioning components at both ends [P1]	Pneumatic shock absorber at both ends, self-adjusting [CC]	Without [L]	Adjustable elastic cushioning components at both ends [P1]	Pneumatic shock absorber at both ends, self-adjusting [CC]
Product weight	1,250 g	1,425 g	1,475 g	1,460 g	1,325 g	1,500 g	1,550 g		1,810 g	2,035 g	2,020 g

Datasheet

Weights for DSM-32 with tandem wing

Size	32					
Shaft	Spigot shaft []			Flange shaft [FW]		
Cushioning	Without []	Elastic cushioning rings/plates at both ends [P]	Pneumatic shock absorber at both ends, self-adjusting [CC]	Without []	Elastic cushioning rings/plates at both ends [P]	Pneumatic shock absorber at both ends, self-adjusting [CC]
Product weight	1,865 g	2,040 g	2,075 g	1,940 g	2,115 g	2,165 g

Weights for DSM-40

Size	40										
Shaft	Spigot shaft []				Flange shaft [FW]				Flange shaft for high load torques [HD]		
Cushioning	Without []	Elastic cushioning rings/plates at both ends [P]	Adjustable elastic cushioning components at both ends [P1]	Pneumatic shock absorber at both ends, self-adjusting [CC]	Without []	Elastic cushioning rings/plates at both ends [P]	Adjustable elastic cushioning components at both ends [P1]	Pneumatic shock absorber at both ends, self-adjusting [CC]	Without []	Adjustable elastic cushioning components at both ends [P1]	Pneumatic shock absorber at both ends, self-adjusting [CC]
Product weight	2,400 g	2,700 g	2,870 g	2,800 g	2,535 g	2,835 g	3,005 g	2,935 g	3,712 g	4,100 g	4,030 g

Weights for DSM-40 with tandem wing

Size	40					
Shaft	Spigot shaft []			Flange shaft [FW]		
Cushioning	Without []	Elastic cushioning rings/plates at both ends [P]	Pneumatic shock absorber at both ends, self-adjusting [CC]	Without []	Elastic cushioning rings/plates at both ends [P]	Pneumatic shock absorber at both ends, self-adjusting [CC]
Product weight	3,570 g	3,870 g	3,970 g	3,705 g	4,005 g	4,105 g

Weights for DSM-63

Size	63										
Shaft	Spigot shaft []				Flange shaft [FW]				Flange shaft for high load torques [HD]		
Cushioning	Without []	Elastic cushioning rings/plates at both ends [P]	Adjustable elastic cushioning components at both ends [P1]	Pneumatic shock absorber at both ends, self-adjusting [CC]	Without []	Elastic cushioning rings/plates at both ends [P]	Adjustable elastic cushioning components at both ends [P1]	Pneumatic shock absorber at both ends, self-adjusting [CC]	Without []	Adjustable elastic cushioning components at both ends [P1]	Pneumatic shock absorber at both ends, self-adjusting [CC]
Product weight	4,220 g	4,900 g	5,090 g	5,150 g	4,475 g	5,150 g	5,340 g	5,400 g	5,730 g	6,600 g	6,660 g

Weights for DSM-63 with tandem wing

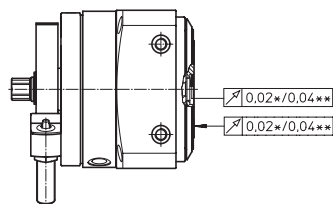
Size	63					
Shaft	Spigot shaft []			Flange shaft [FW]		
Cushioning	Without []	Elastic cushioning rings/plates at both ends [P]	Pneumatic shock absorber at both ends, self-adjusting [CC]	Without []	Elastic cushioning rings/plates at both ends [P]	Pneumatic shock absorber at both ends, self-adjusting [CC]
Product weight	6,050 g	6,730 g	6,980 g	6,305 g	6,980 g	7,230 g

Materials

Series	Quarter turn actuator [DSM]								
Size	6	8	10	12	16	25	32	40	63
Housing material	Aluminum, Anodized			Anodized aluminum					
Drive shaft material	high-alloy stainless steel			Steel, Nickel-plated					
Seals material	TPE-U(PU)								
Note on materials	RoHS compliant								
LABS (PWIS) conformity	VDMA24364-B2-L, VDMA24364-B1/B2-L								

Datasheet

Axial runout and radial runout of DSM-...-HD



Axial runout:

Measured on the surface of the turntable, at the edge of the plate, when new.

Radial runout:

Measured at the center of the rotating plate, when new.

Axial runout / radial runout:

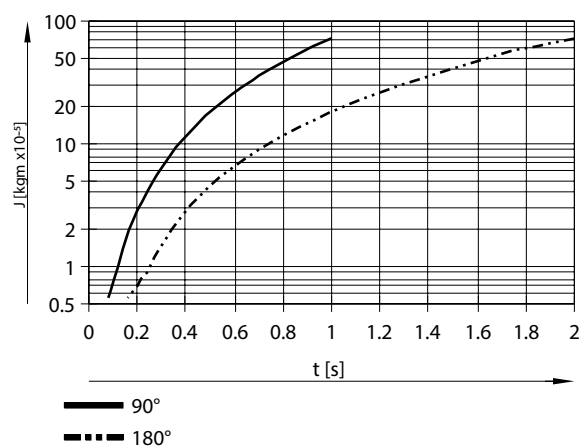
DSM-12/-16/-25: ≤ 0.02 mm

DSM-32/-40/-63: ≤ 0.04 mm

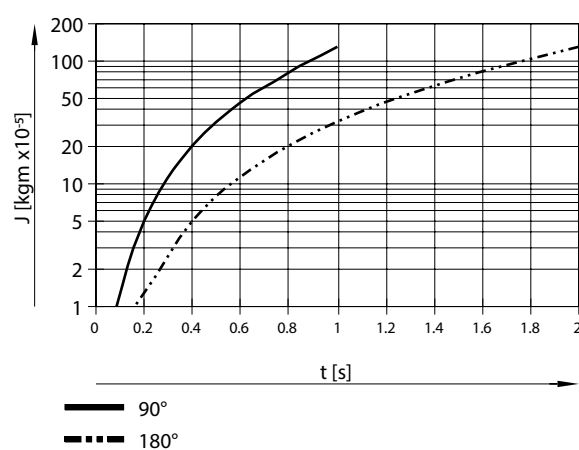
* DSM-12-...-25

** DSM-32-...-63

Mass moment of inertia J as a function of swivel time t for DSM-6

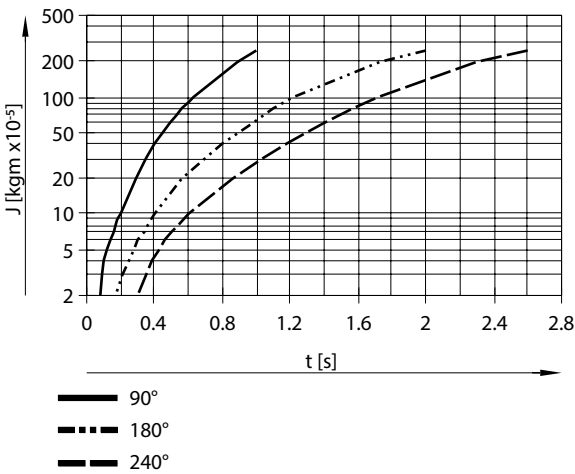


Mass moment of inertia J as a function of swivel time t for DSM-8

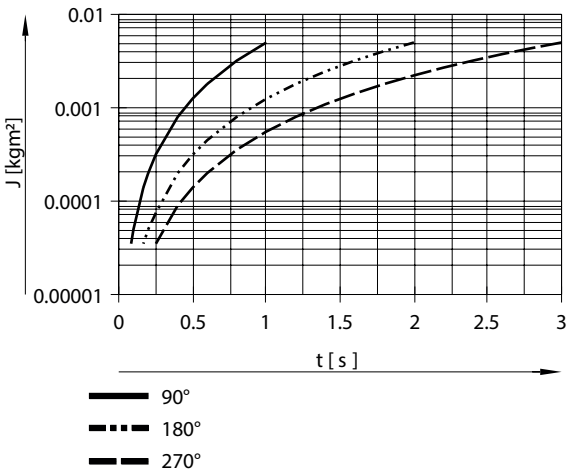


Datasheet

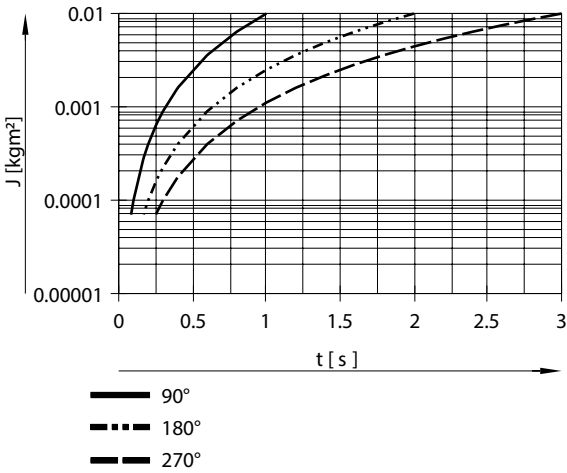
Mass moment of inertia J as a function of swivel time t for DSM-10



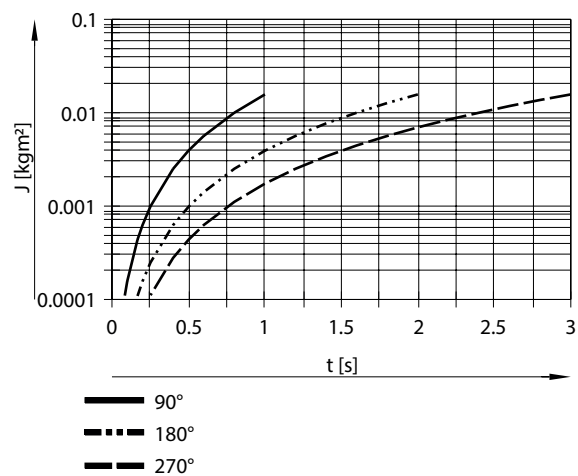
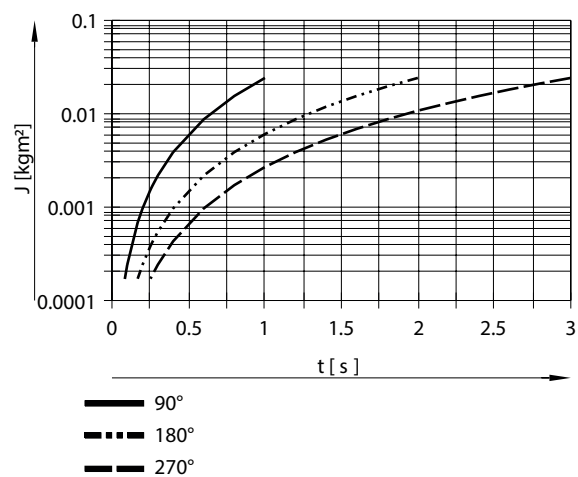
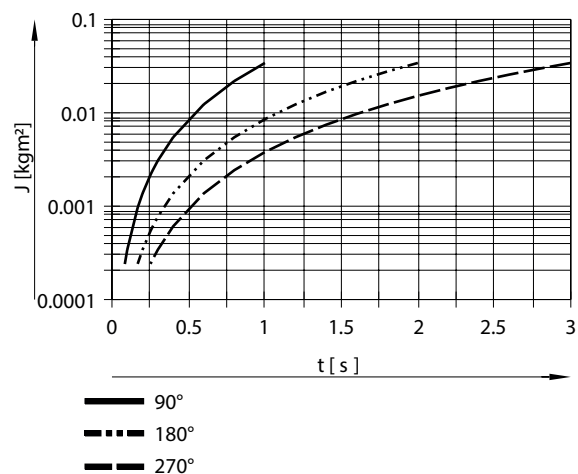
Mass moment of inertia J as a function of swivel time t with cushioning P for DSM-12



Mass moment of inertia J as a function of swivel time t with cushioning P for DSM-16

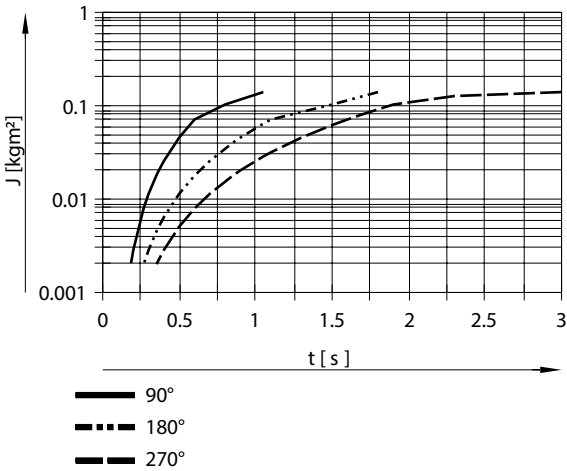


Datasheet

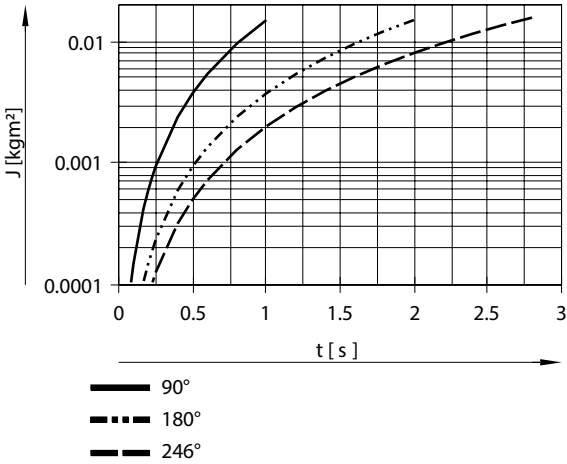
Mass moment of inertia J as a function of swivel time t with cushioning P for DSM-25Mass moment of inertia J as a function of swivel time t with cushioning P for DSM-32Mass moment of inertia J as a function of swivel time t with cushioning P for DSM-40

Datasheet

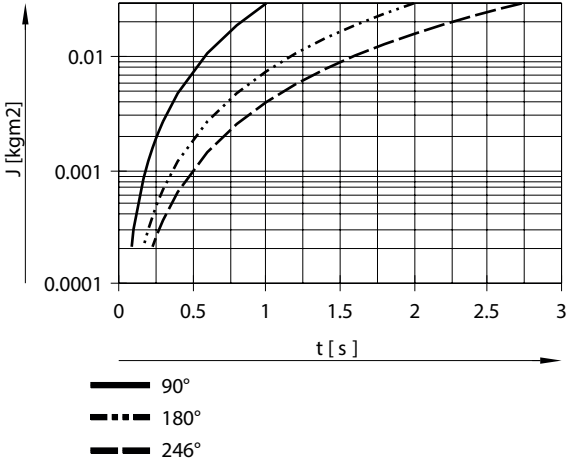
Mass moment of inertia J as a function of swivel time t with cushioning P for DSM-63



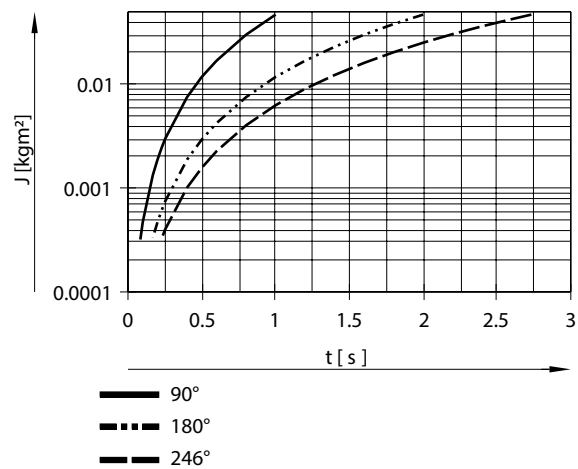
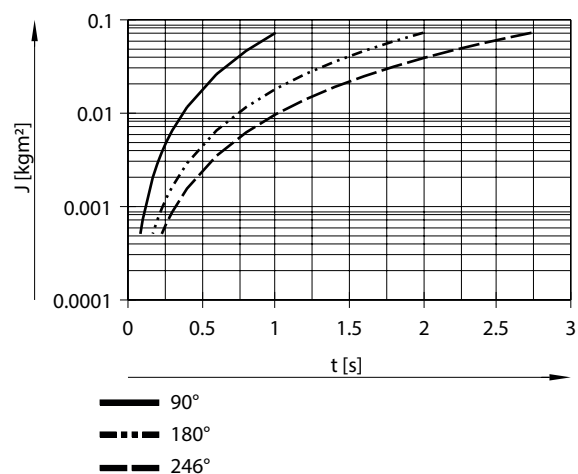
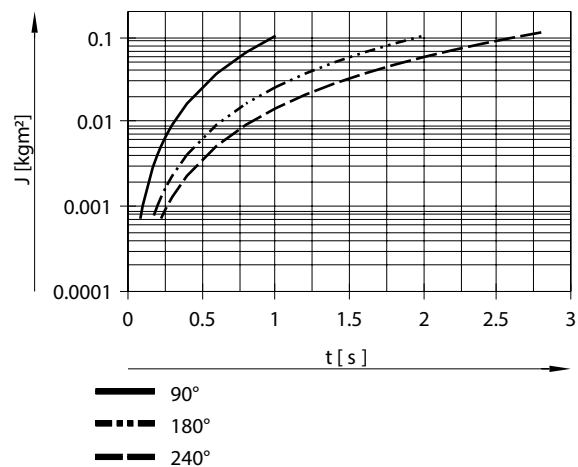
Mass moment of inertia J as a function of swivel time t with cushioning P1 for DSM-12



Mass moment of inertia J as a function of swivel time t with cushioning P1 for DSM-16

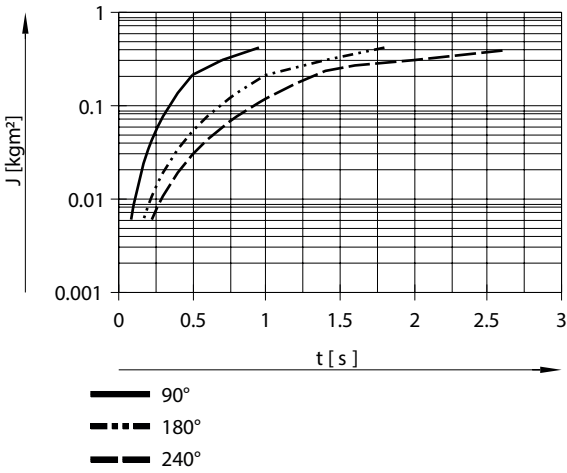


Datasheet

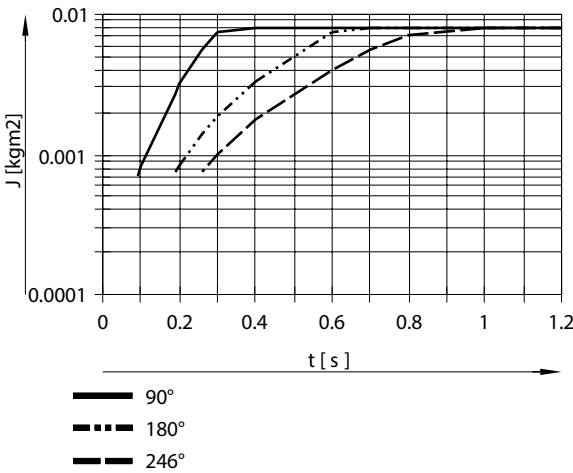
Mass moment of inertia J as a function of swivel time t with cushioning P1 for DSM-25Mass moment of inertia J as a function of swivel time t with cushioning P1 for DSM-32Mass moment of inertia J as a function of swivel time t with cushioning P1 for DSM-40

Datasheet

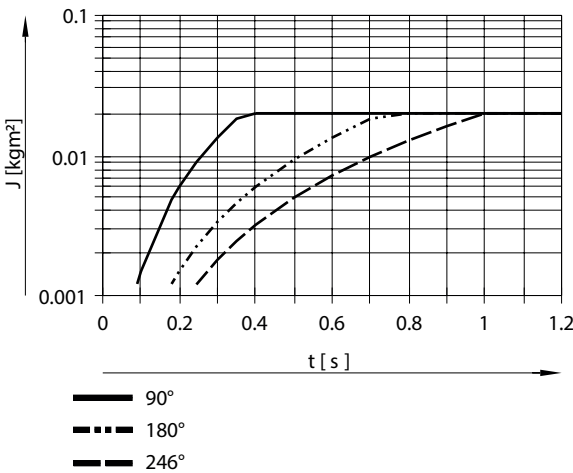
Mass moment of inertia J as a function of swivel time t with cushioning P1 for DSM-63



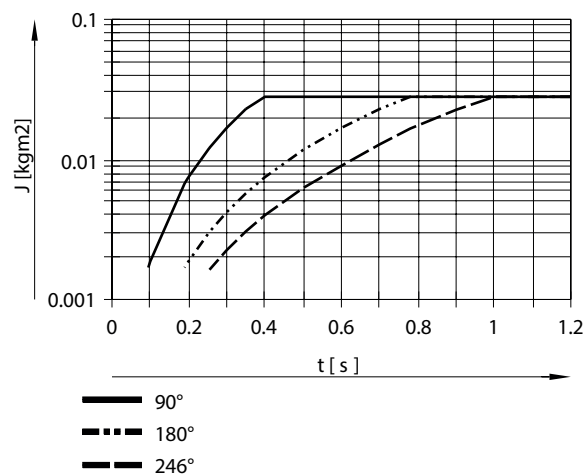
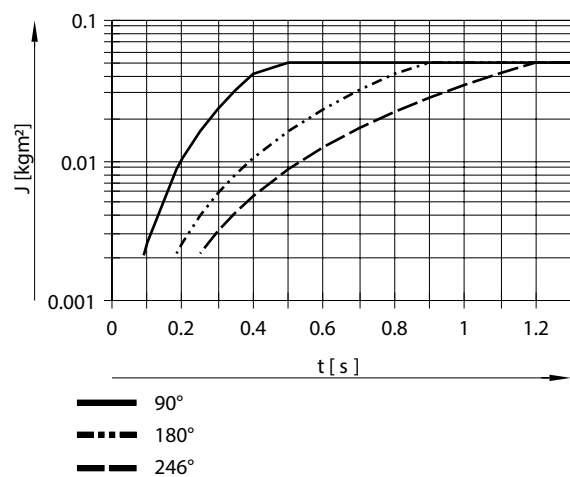
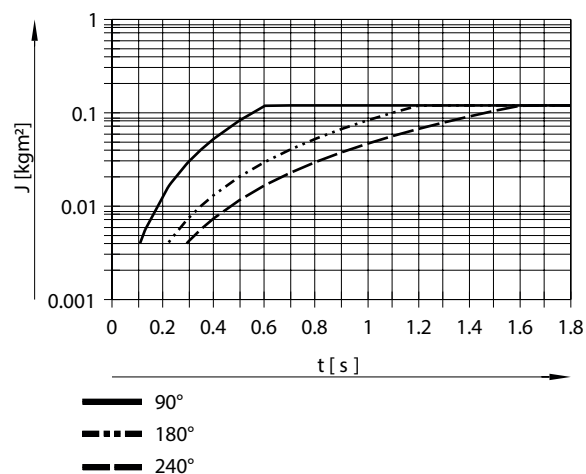
Mass moment of inertia J as a function of swivel time t with cushioning CC for DSM-12



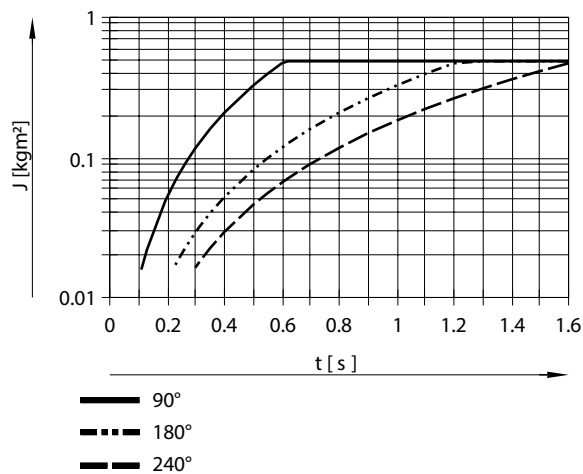
Mass moment of inertia J as a function of swivel time t with cushioning CC for DSM-16



Datasheet

Mass moment of inertia J as a function of swivel time t with cushioning CC for DSM-25Mass moment of inertia J as a function of swivel time t with cushioning CC for DSM-32Mass moment of inertia J as a function of swivel time t with cushioning CC for DSM-40

Datasheet

Mass moment of inertia J as a function of swivel time t with cushioning CC for DSM-63

Shock Absorber Damping Time

The diagrams DSM-...-CC show the swivel time until the stop lever strikes the shock absorber. To obtain the total swivel time, the damping time of the shock absorber must also be added.

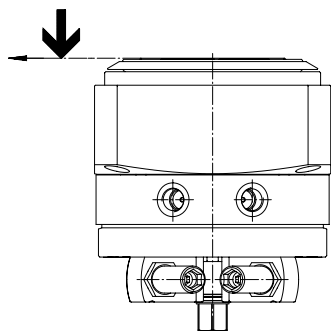
Shock Absorber Damping Time

For size 12/16/25: 0.1 s

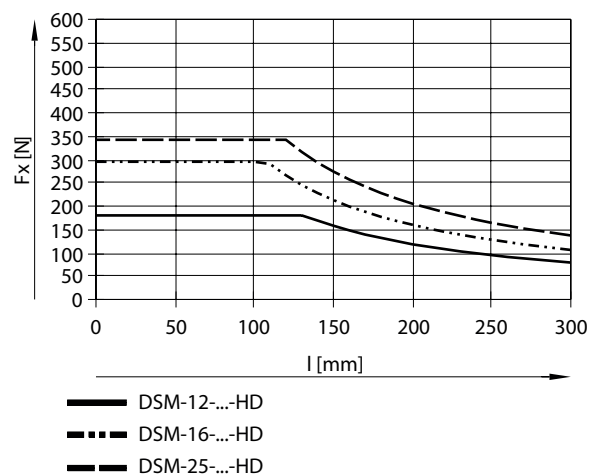
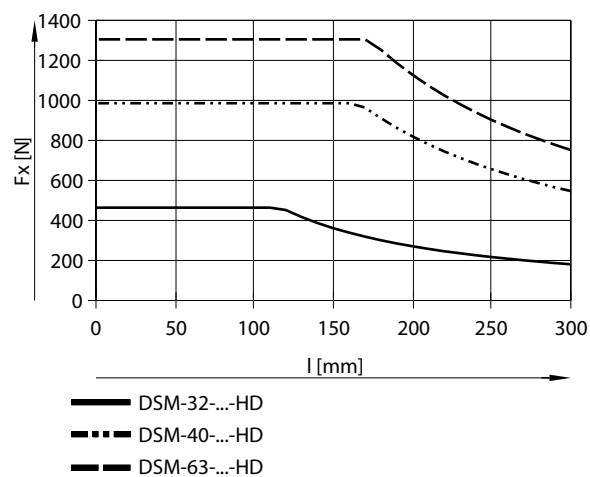
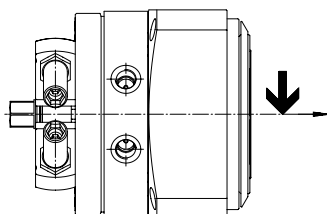
For size 32: 0.25 s

For size 40: 0.3 s

For size 63: 0.4 s

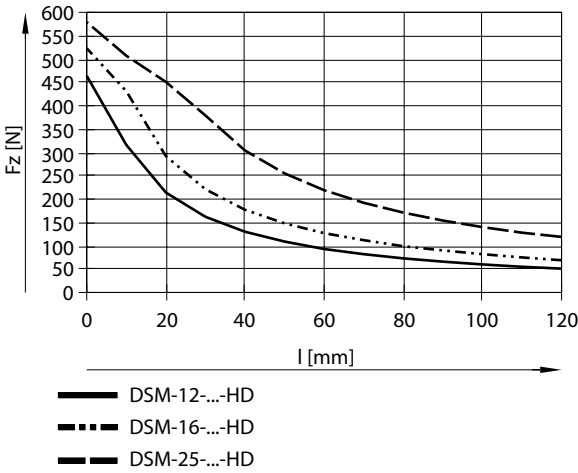
Permissible axial force F_x 

Datasheet

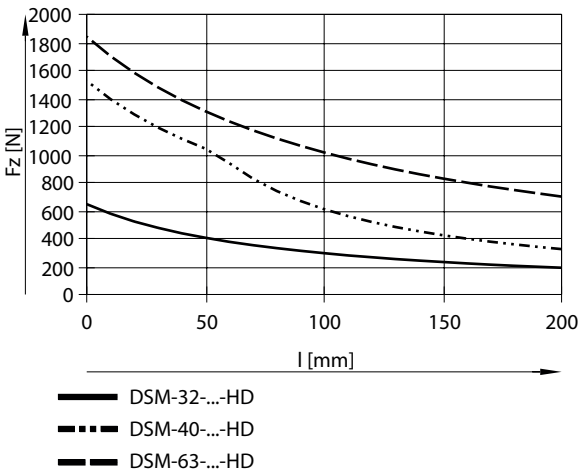
Permissible axial force F_x as a function of distance l for DSM-12...25-HDPermissible axial force F_x as a function of distance l for DSM-32...63-HDPermissible radial force F_z 

Datasheet

Permissible radial force F_z as a function of distance l for DSM-12...25-HD

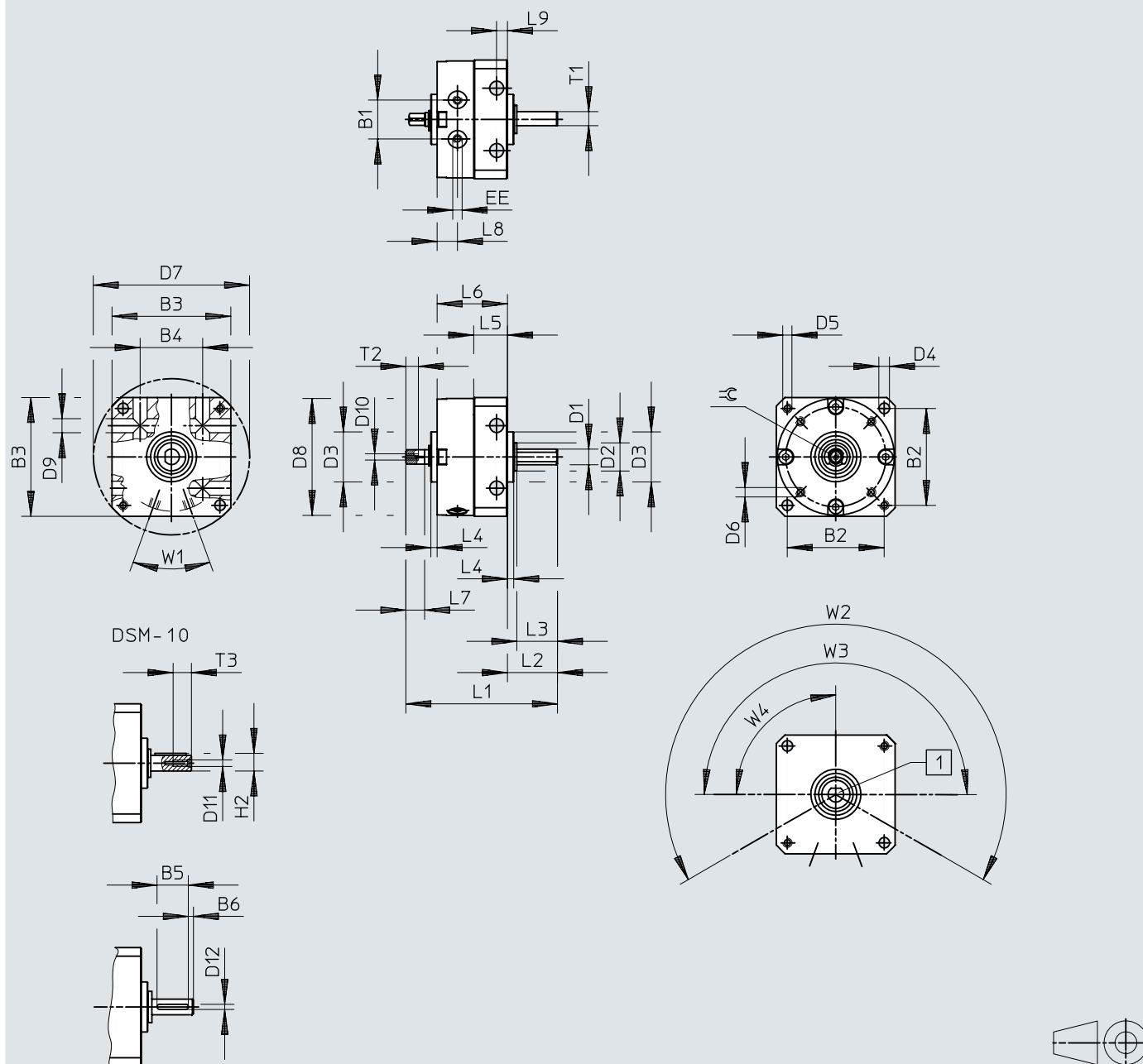


Permissible radial force F_z as a function of distance l for DSM-32...63-HD



Dimensions

Dimensions – DSM-6 ... 10 – with spigot shaft

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[1] Spigot shaft

[2] The compressed air connections are located at the bottom of this illustration.

Dimensions

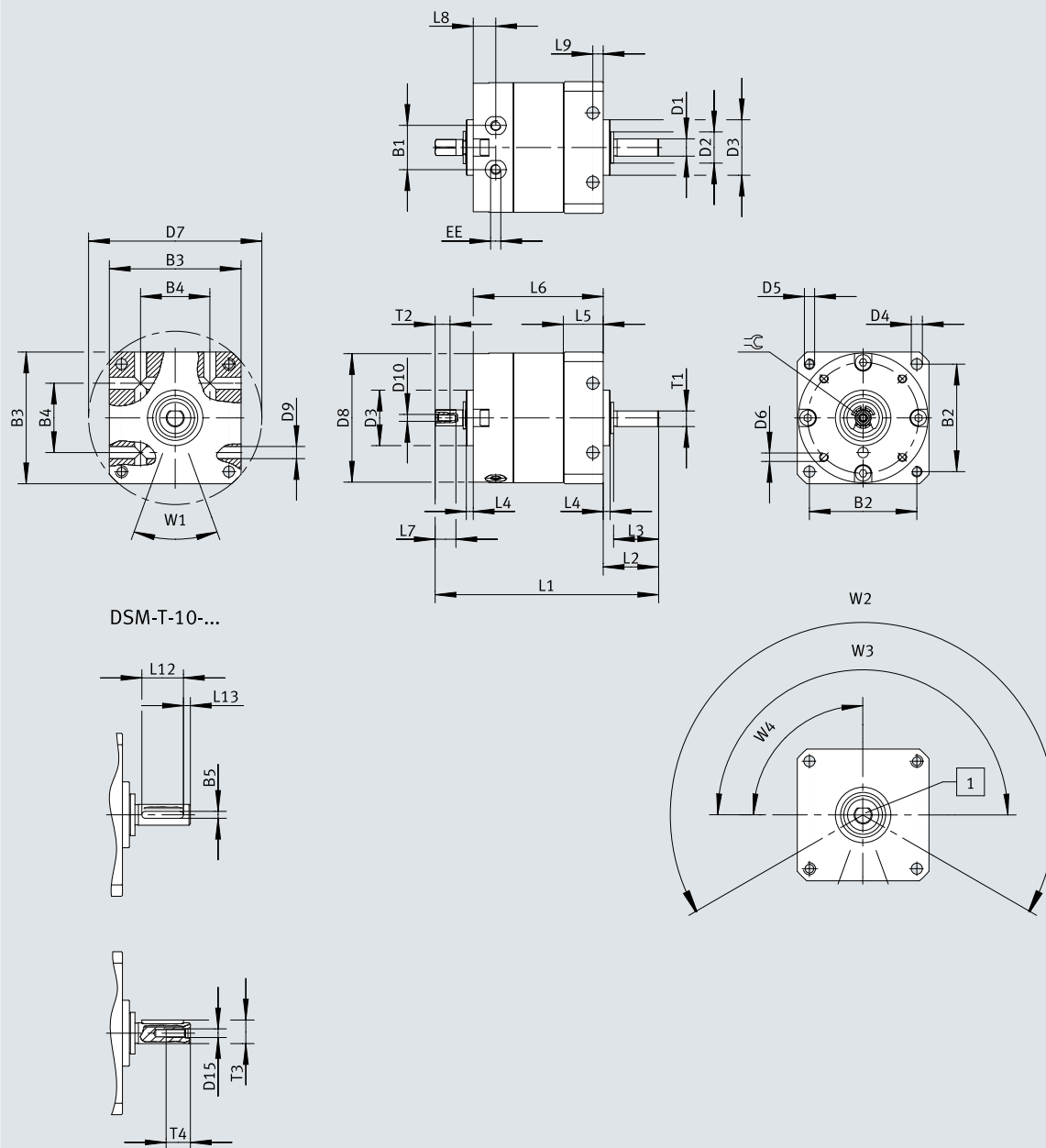
	B1	B2	B3	B4	B5	B6	D1 ∅ g7	D2 ∅	D3 ∅ f8	D4 ∅ H12	D5	D6	D7 ∅ H12	D8 ∅	D9 ∅ H12	D10	D11	D12 h9
DSM-6	10	25	30	17	–	–	4	8	14	3,2	M3	M2	40	29,4	3,5	M2	–	–
DSM-8	12,8	31	38	20	–	–	5	9	16	3,2	M3	M2,5	50	37,4	3,5	M2	–	–
DSM-10	15,9	38	47	26	12	2	6	12	19	4,3	M4	M3	62	46,4	4,5	M2,5	M2,5	2

	EE	H2 max	L1	L2	L3	L4	L5	L6	L7	L8	L9	T1	T2 h12	T3	≈	1)	W1	W2	W3	W4
DSM-6	M3	–	43	13	10	2	9,8	21	5	6	3	3,5	4	–	3	0/+5°	40°	240°	180°	90°
DSM-8	M3	–	50	16	13	2	11,3	23	6	6,5	3	4,5	4,3	–	3,5	0/+5°				
DSM-10	M3	6,8	61	19,6	16	2	14,3	28,4	8	7,5	4	–	5	4,5	4,5	0/+5°				

1) Swivel angle tolerance

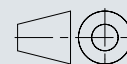
Dimensions

Dimensions – DSM-T-6 ... 10 – with spigot shaft and tandem vane

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DSM-T-10-...

- [1] Spigot shaft
 [2] The compressed air connections are located at the bottom of this illustration.



Dimensions

	B1	B2	B3	B4	B5	D1 ∅ g7	D2 ∅	D3 ∅ f8	D4 ∅ H12	D5	D6	D7 ∅ H12	D8 ∅	D9 ∅ H12	D10	D15	EE
DSM-T-6	10	25	30	17	–	4	8	14	3,2	M3	M2	40	29,4	3,5	M2	–	M3
DSM-T-8	12,8	31	38	20	–	5	9	16	3,2	M3	M2,5	50	37,4	3,5	M2	–	M3
DSM-T-10	15,9	38	47	26	2	6	12	19	4,3	M4	M3	62	46,4	4,5	M2,5	M2,5	M3

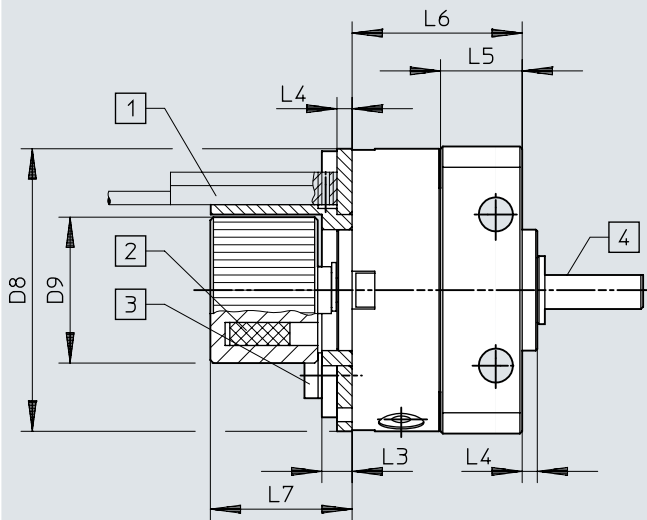
	L1	L2	L3	L4	L5	L6	L7	L8	L9	L12	L13	T1	T2 h12	T3	T4	≈C	1)	W1	W2	W3	W4
DSM-T-6	55,5	13	10	2	9,8	33,5	5	6	3	–	–	3,5	4	–	–	3	0/+5°	40°	240°	180°	90°
DSM-T-8	64,5	16	13	2	11,3	37,5	6	6,5	3	–	–	4,5	4,3	–	–	3,5	0/+5°				
DSM-T-10	79	19,6	16	2	14,3	46	8	7,5	4	12	2	–	5	6,8	7	4,5	0/+5°				

1) Swivel angle tolerance

Dimensions

Dimensions – DSM-6... 10 – with spigot shaft, tandem vane and position sensing

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- [1] Proximity switch not included in the scope of delivery. Note the installation space of the proximity switch and cable guide
- [2] Position of the magnet
- [3] Max. tightening torque for sensor bracket screws
- [4] The flat or the featherkey on the shaft indicates the position of the rotary vane

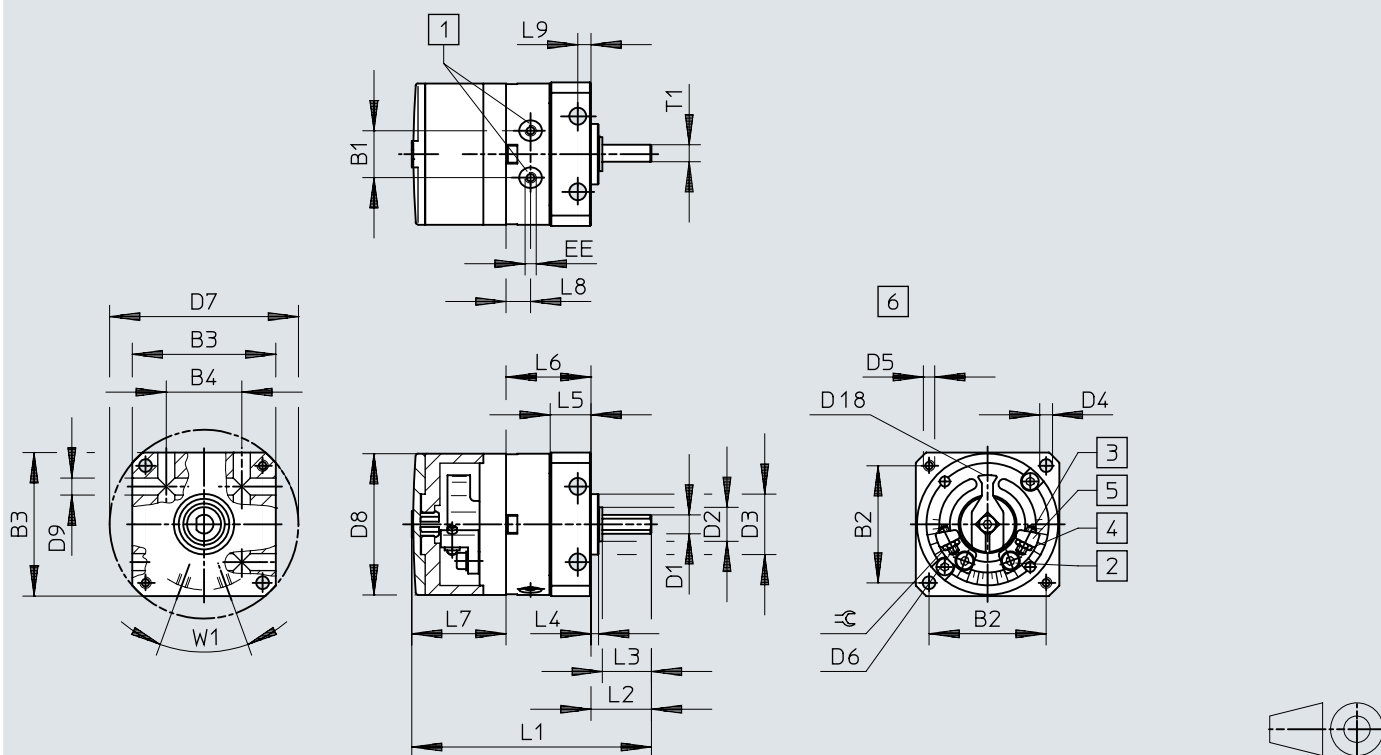
	D8 Ø	D9 Ø	L3	L4	L5	L6		L7	1) [Nm]
						DSM-...	DSM-T-...		
DSM-6	29,4	17,3	4	2	9,8	21	33,5	19,5	0,19
DSM-8	37,4	19,3	4	2	11,3	23	37,5	19,5	0,32
DSM-10	46,4	22,3	4	2	14,3	28	45,6	19,5	0,44

1) Tightening torque

Dimensions

Dimensions – DSM-6... 10 – with spigot shaft, tandem vane and adjustable swivel angle

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- [1] Supply ports
- [2] Locking screw for clamping the stop
- [3] Limit position calibration
- [4] Lock nut for end-position adjustment
- [5] Infinitely adjustable stops
- [6] without orifice and covering

	B1	B2	B3	B4	D1 Ø g7	D2 Ø	D3 Ø f8	D4 Ø H12	D5	D6	D7 Ø H12	D8 Ø	D9 Ø H12	D18 Ø	EE
DSM-6	10	25	30	17	4	8	14	3,2	M3	M2	40	29,4	3,5	22	M3
DSM-8	12,8	31	38	20	5	9	16	3,2	M3	M2,5	50	37,4	3,5	26	M3
DSM-10	15,9	38	47	26	6	12	19	4,3	M4	M3	62	46,4	4,5	35,8	M3

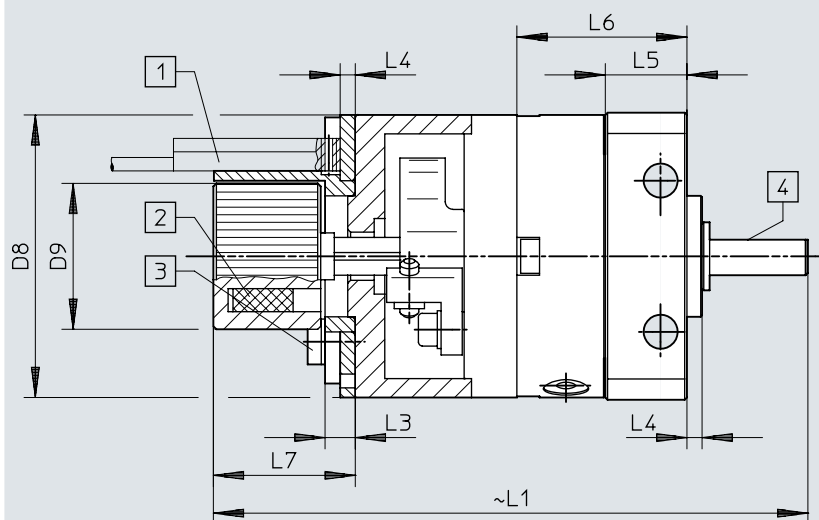
	L1		L2	L3	L4	L5	L6		L7	L8	L9	T1	≈	1)	2)
	DSM-...	DSM-T-...					DSM-...	DSM-T-...							
DSM-6	52	64,5	13	10	2	9,8	21	33,5	17,8	6	3	3,5	4	180°+5°	+1°/-5°
DSM-8	64	78,5	16	13	2	11,3	23	37,5	24,9	6,5	3	4,5	5	180°+5°	+1°/-5°
DSM-10	76	93,6	19,6	16	2	14,3	28,4	46	28,2	7,5	4	–	5,5	200°+5°	+1°/-5°

- 1) Max. swivel angle
- 2) Precision adjustment per side

Dimensions

Dimensions – DSM-6... 10 – with spigot shaft, tandem vane, adjustable swivel angle and position sensing

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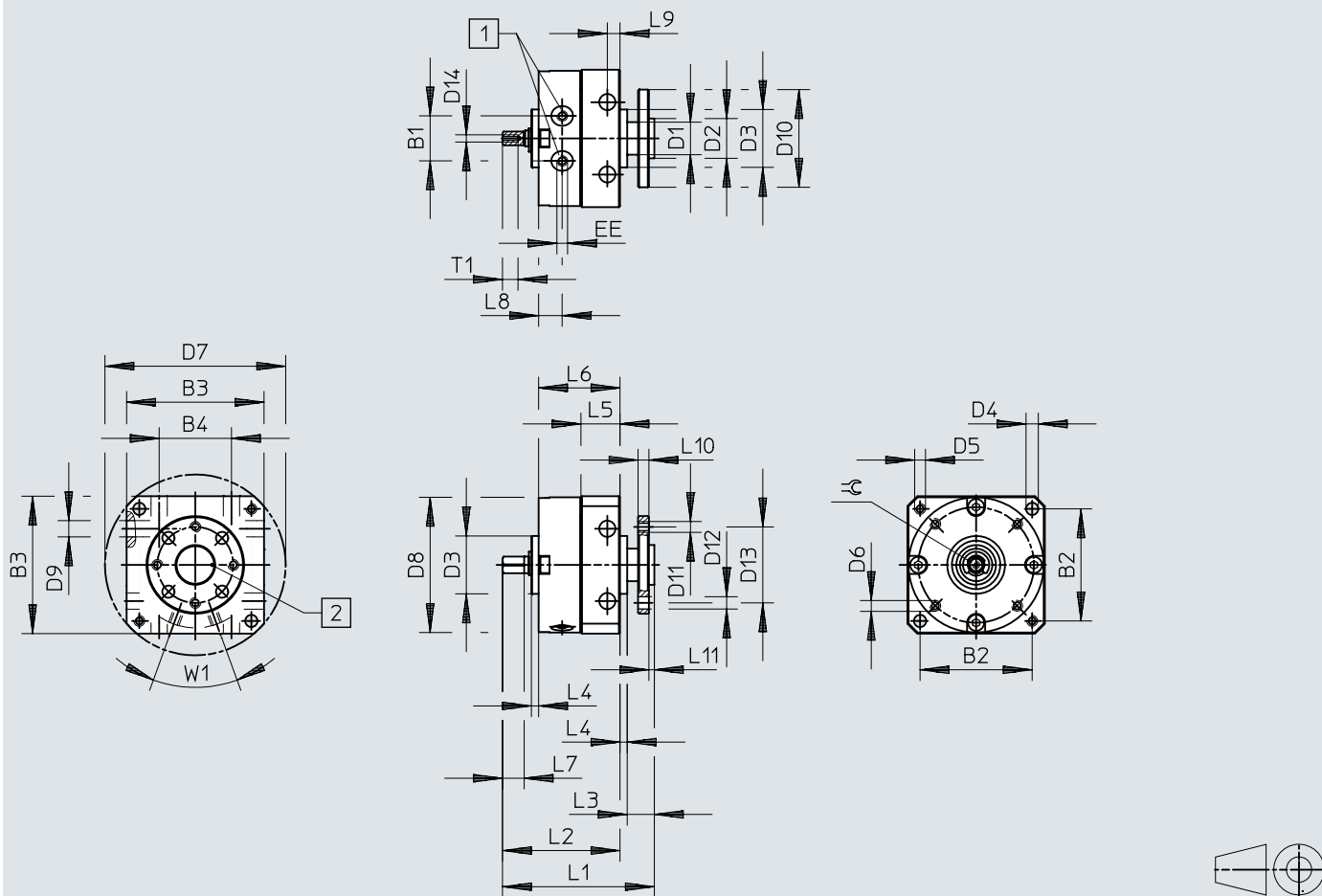
- [1] Sensor not included in the scope of delivery. Note the installation space of the proximity switch and cable guide
- [2] Position of the magnet
- [3] Max. tightening torque for sensor bracket screws
- [4] The flat or the featherkey on the shaft indicates the position of the rotary vane

	D8 Ø	D9	L1		L3	L4	L5	L6		L7	1) [Nm]
			DSM-...	DSM-T-...				DSM-...	DSM-T-...		
DSM-6	29,4	17,3	68,5	81	4	2	9,8	21	33,5	19,5	0,19
DSM-8	37,4	19,3	80	94,5	4	2	11,3	23	37,5	19,5	0,32
DSM-10	46,4	22,3	91,5	109,1	4	2	14,3	28,4	46	19,5	0,44

1) Tightening torque

Dimensions

Dimensions – DSM-6 ... 10 – with flange shaft

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[1] Supply ports

[2] Mark indicating rotary vane position

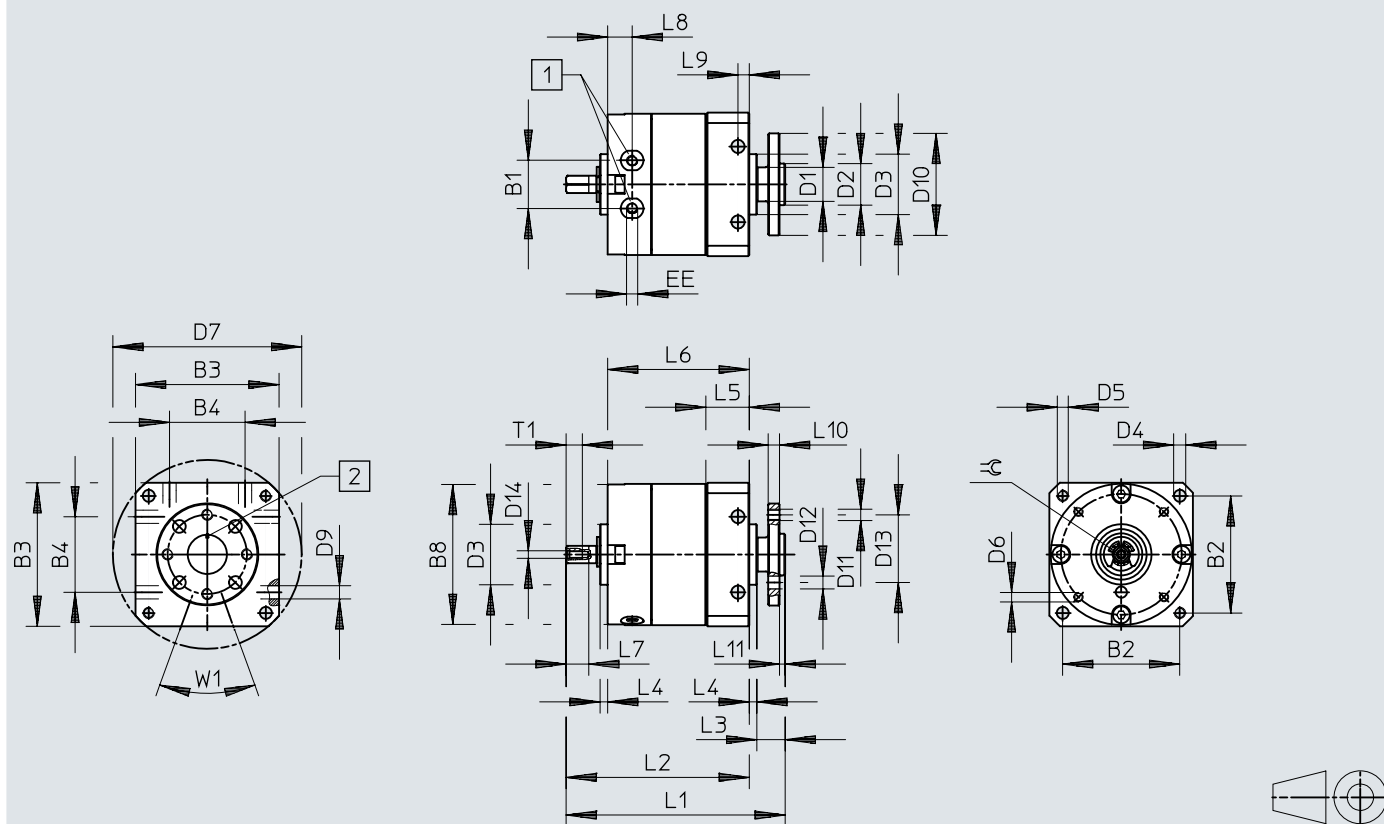
	B1	B2	B3	B4	D1 ø	D2 ø g7	D3 ø f8	D4 ø	D5	D6	D7 ø H12	D8 ø	D9 ø H12	D10 ø	D11	D12 ø H13
DSM-6	10	25	30	17	8	8	14	3,2	M3	M2	40	29,4	3,5	23	M3	3,4
DSM-8	12,8	31	38	20	9	11	16	3,2	M3	M2,5	50	37,4	3,5	27	M3	3,4
DSM-10	15,9	38	47	26	10	11	19	4,3	M4	M3	62	46,4	4,5	30	M3	3,4

	D13 ø	D14	EE	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	T1	≅	1)
DSM-6	16	M2	M3	39,5	30	7,5	2	9,8	21	5	6	3	3	1,5	4	3	0/+5°
DSM-8	21	M2	M3	43,5	34	7,5	2	11,3	23	6	6,5	3	3	1,5	4,3	3,5	0/+5°
DSM-10	21	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°

1) Swivel angle tolerance

Dimensions

Dimensions – DSM-T-6... 10 with flange shaft and tandem vane

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[1] Supply ports

[2] Mark indicating rotary vane position

	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
DSM-6	10	25	30	17	8	8	14	3,2	M3	M2	40	29,4	3,5	23	M3	3,4
DSM-8	12,8	31	38	20	9	11	16	3,2	M3	M2,5	50	37,4	3,5	27	M3	3,4
DSM-10	15,9	38	47	26	10	11	19	4,3	M4	M3	62	46,4	4,5	30	M3	3,4

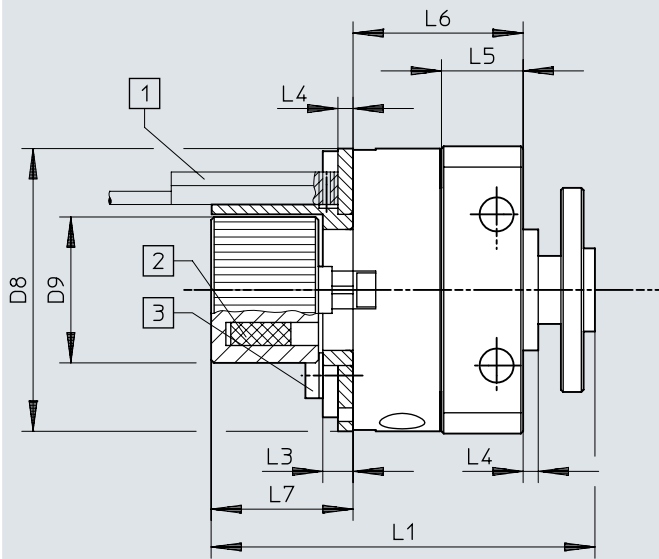
	D13 ø	D14	EE	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	T1	≈G	1)
DSM-6	M2	M3	52	42,5	7,5	2	9,8	33,5	5	6	3	3	1,5	4	3	3	0/+5°
DSM-8	M2	M3	58	48,5	7,5	2	11,3	37,5	6	6,5	3	3	1,5	4,3	3,5	3,5	0/+5°
DSM-10	M2,5	M3	71	59,4	9,6	2	14,3	46	8	7,5	4	3	1,6	5	4,5	4,5	0/+5°

1) Swivel angle tolerance

Dimensions

Dimensions – DSM-6... 10 – with flange shaft, tandem vane and position sensing

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- [1] Proximity switch not included in the scope of delivery. Note the installation space of the proximity switch and cable guide
- [2] Position of the magnet
- [3] Max. tightening torque for sensor bracket screws

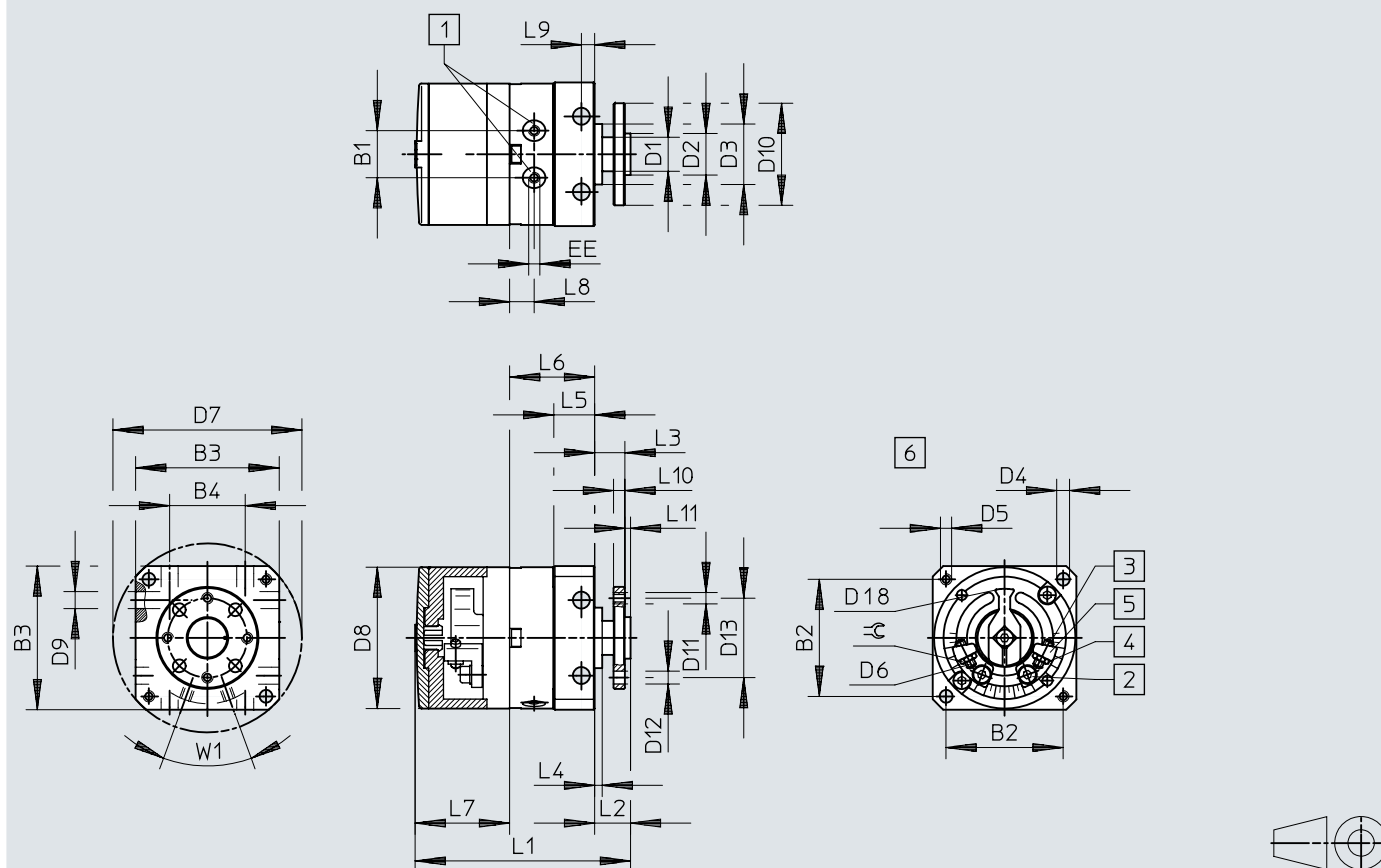
	D8 ø	D9 ø	L1		L3	L4	L5	L6		L7	1) [Nm]
			DSM-...	DSM-T-...				DSM-...	DSM-T-...		
DSM-6	29,4	17,3	50	62,5	4	2	9,8	21	33,5	19,5	0,19
DSM-8	37,4	19,3	52	66,5	4	2	11,3	23	37,5	19,5	0,32
DSM-10	46,4	22,3	59,5	77,1	4	2	14,3	28,4	46	19,5	0,44

1) Tightening torque

Dimensions

Dimensions – DSM-6... 10 – with flange shaft, tandem vane and adjustable swivel angle

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- [1] Supply ports
- [2] Locking screw for clamping the stop
- [3] Limit position calibration
- [4] Lock nut for end-position adjustment
- [5] Infinitely adjustable stops
- [6] without orifice and covering

	B1	B2	B3	B4	D1 ø	D2 ø g7	D3 ø f8	D4 ø H12	D5	D6	D7 ø H12	D8 ø	D9 ø H12	D10 ø	D11	D12 ø H13	D13 ø	D18 ø
DSM-6	10	25	30	17	8	8	14	3,2	M3	M2	40	29,4	3,5	23	M3	3,4	16	22
DSM-8	12,8	31	38	20	9	11	16	3,2	M3	M2,5	50	37,4	3,5	27	M3	3,4	21	26
DSM-10	15,9	38	47	26	10	11	19	4,3	M4	M3	62	46,4	4,5	30	M3	3,4	21	35,8

	EE	L1		L2	L3	L4	L5	L6		L7	L8	L9	L10	L11	≈	1)	2)
		DSM-...	DSM-T-...					DSM-...	DSM-T-...								
DSM-6	M3	48	60,5	9,5	8	2	9,8	21	33,5	17,8	6	3	3	1,5	4	180° +5°	+1°/-5°
DSM-8	M3	58	72,5	9,5	8	2	11,3	23	37,5	24,9	6,5	3	3	1,5	5	180° +5°	+1°/-5°
DSM-10	M3	68	85,6	11,6	10	2	14,3	28,4	46	28,2	7,5	4	3	1,6	5,5	200° +5°	+1°/-5°

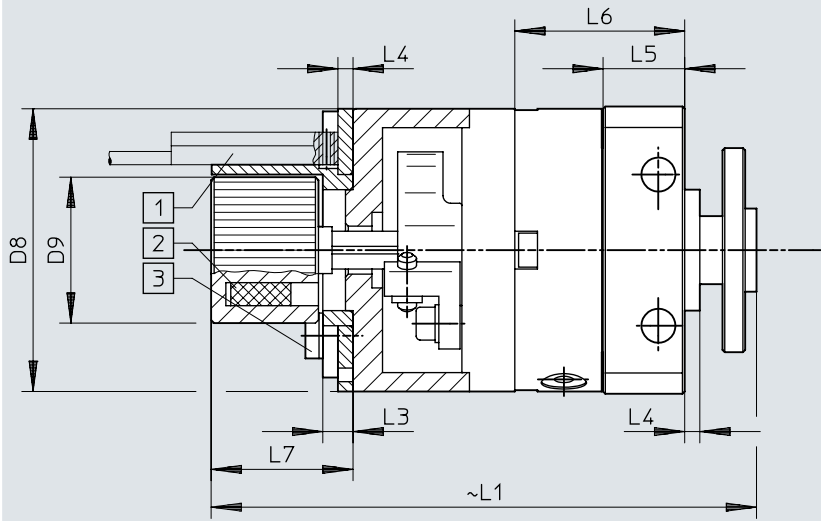
1) Max. swivel angle

2) Precision adjustment per side

Dimensions

Dimensions – DSM-6... 10 - with flange shaft, tandem vane, adjustable swivel angle and position sensing

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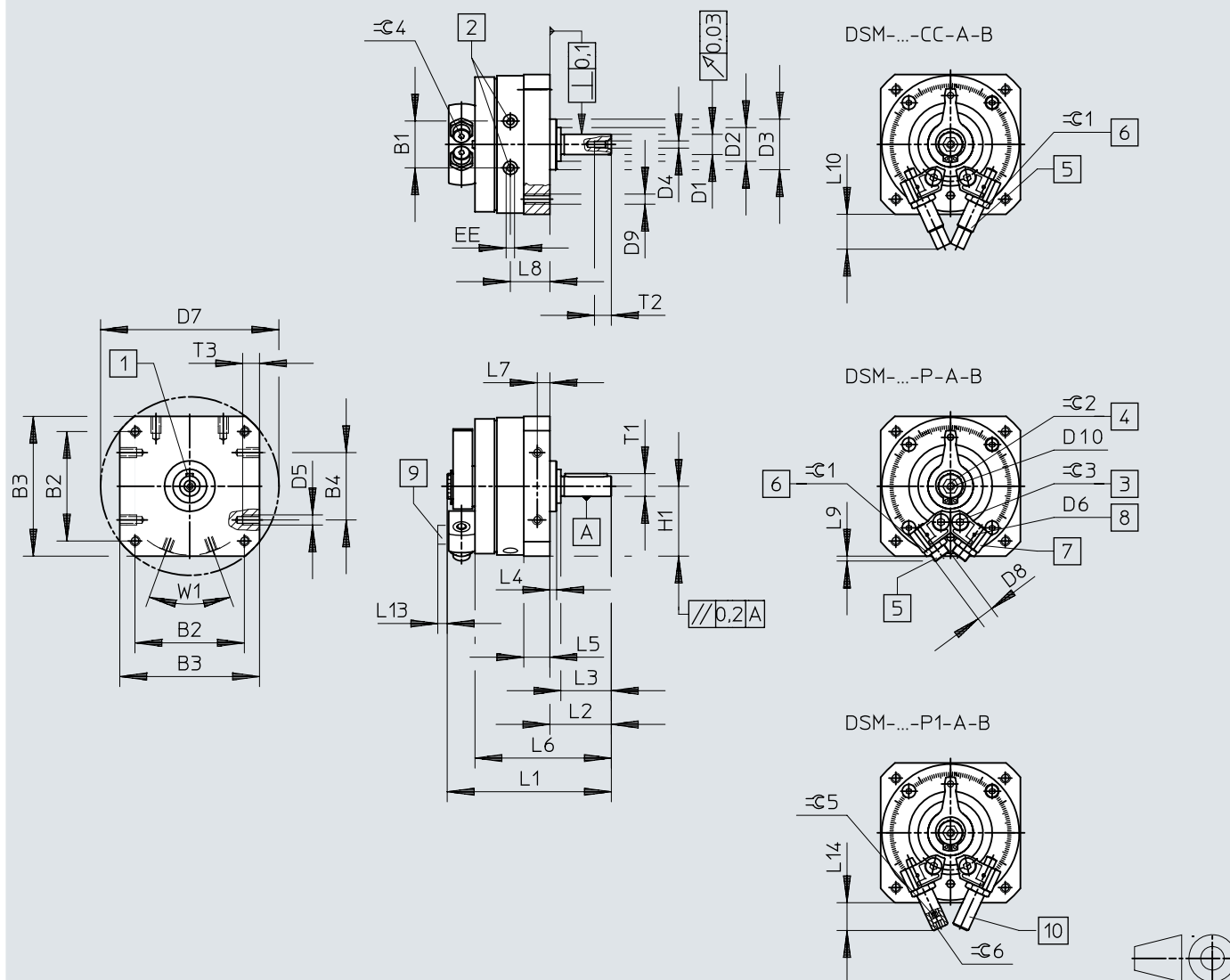
- [1] Proximity switch not included in the scope of delivery. Note the installation space of the proximity switch and cable guide
- [2] Position of the magnet
- [3] Max. tightening torque for sensor bracket screws

	D8 Ø	D9 Ø	L1		L3	L4	L5	L6		L7	1) [Nm]
			DSM-...	DSM-T-...				DSM-...	DSM-T-...		
DSM-6	29,4	17,3	65	77,5	4	2	9,8	21	33,5	19,5	0,19
DSM-8	37,4	19,3	73,5	88	4	2	11,3	23	37,5	19,5	0,32
DSM-10	46,4	22,3	83	100,6	4	2	14,3	28,4	46	19,5	0,44

1) Tightening torque

Dimensions

Dimensions – DSM-12 ... 63 – with spigot shaft

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- [1] Featherkey position at 0°
- [2] Supply ports
- [3] Locking screw for clamping the stop
- [4] Manual override (hexagon socket). The position of the hexagon socket is not defined.
- [5] Limit position calibration
- [6] Lock nut for end-position adjustment
- [7] Infinitely adjustable stops
- [8] Mounting thread for sensor bracket
- [9] Sensor bracket
- [10] End-position adjustment

Dimensions

	B1 ±0,5	B2	B3	B4	D1 Ø g7	D2 Ø	D3 Ø f8	D4	D5	D6
DSM-B-12	19,8	48±0,3	59±0,3	30±0,2	8	15±0,2	24	M3	M4	M2
DSM-B-16	23,5	57±0,3	70±0,3	40±0,2	10	18 _{-0,3}	28	M3	M5	M2
DSM-B-25	28	65±0,3	83±0,3	40±0,2	12	20 _{-0,3}	30	M4	M6	M2
DSM-B-32	35,5	85±0,3	105±0,3	60±0,3	16	27 _{-0,4}	42	M5	M8	M2
DSM-B-40	43,8	105±0,3	130±0,5	80±0,3	20	36 _{-0,4}	52	M6	M10	M2
DSM-B-63	50,3	125±0,5	152 ^{+0,2}	80±0,3	25	40±0,3	70	M10	M10	M3

	D7 Ø	D8	D9	D10	EE	H1 ±0,2	L1	L2 +0,6 -0,7	L3
DSM-B-12	78±0,3	M8x1	M4	M4	M5	29,5	68,3±0,3	24,5	20±0,2
DSM-B-16	91±0,3	M10x1	M5	M5	M5	35	82,7±1	28	23±0,2
DSM-B-25	106±0,3	M10x1	M6	M5	M5	41,5	97,5±0,5	36,5	30±0,2
DSM-B-32	135±0,3	M12x1	M8	M5	G1/8	52,5	127,1±0,5	51	40±0,2
DSM-B-40	168±0,5	M16x1	M10	M6	G1/8	65	155,5±0,6	62	50±0,3
DSM-B-63	200±0,5	M22x1,5	M12	M6	G1/4	76	197±0,4/-0,55	75,5	60±0,3

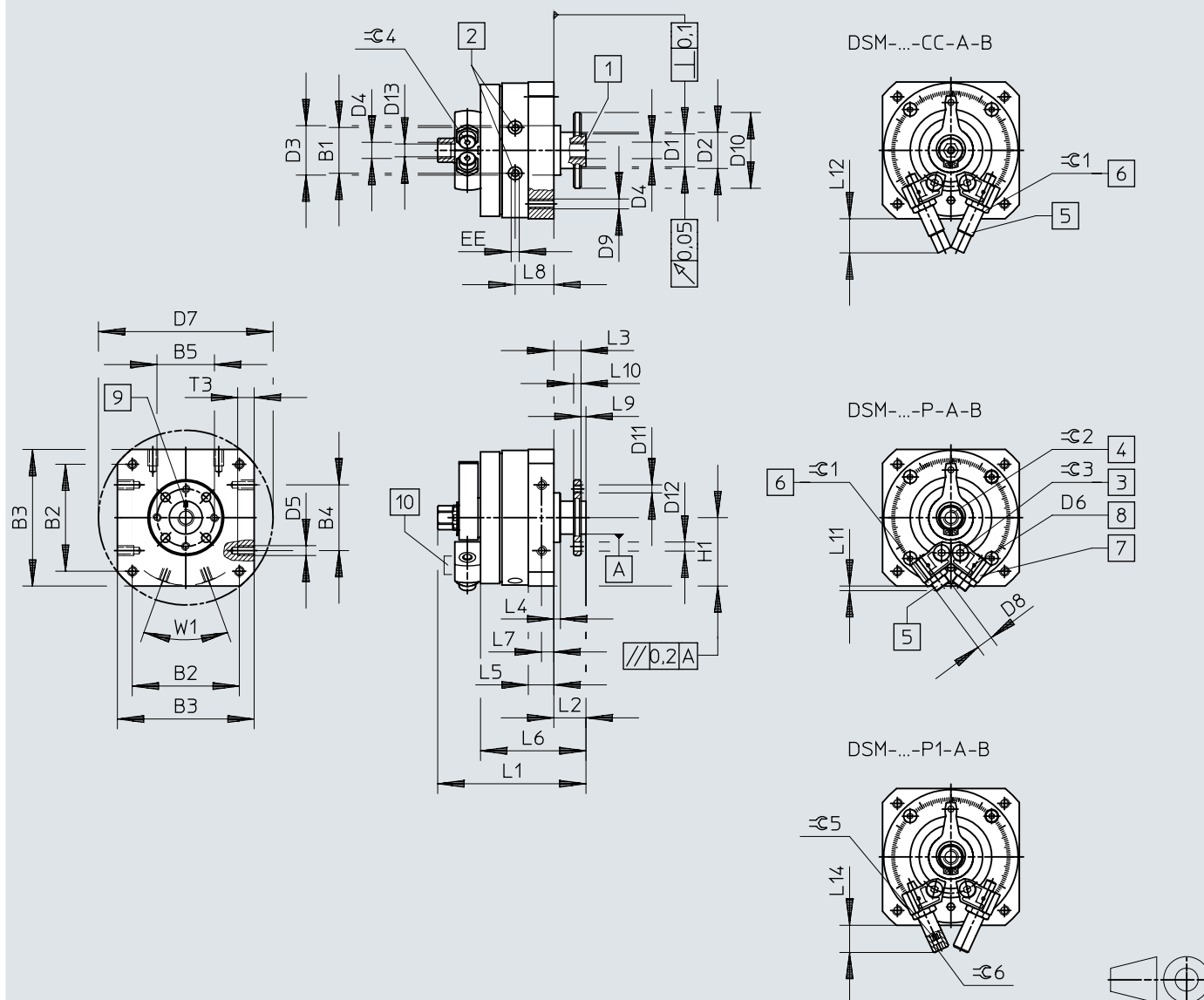
	L4 ±0,4	L5	L6	L7	L8	L9	L10	L13	L14 max.
DSM-B-12	3	10,3±0,2/-0,3	55,5±0,8	5±0,1	16,5	3	22,7	6,5	21,2
DSM-B-16	2,6	13±0,2/-0,4	67,1±0,9	6,5±0,2	20,2	7,2	26,1	6,5	22
DSM-B-25	4	15,2±0,2/-0,4	81±1	7,5±0,2	23,5	2,9	20,7	6,5	17
DSM-B-32	8	19,2±0,2/-0,4	107±1,1	9,5±0,2	30,5	3,8	29,1	6,5	23
DSM-B-40	8	23,7±0,2/-0,4	131±1,2	12±0,2	36	3,4	43,5	6,5	36,5
DSM-B-63	10,5	28,5±0,3/-0,5	159,5±1,2	14±0,2	45	10	72,5	4,5	—

	T1 max.	T2 +2	T3 +0,2	≈ 1	≈ 2	≈ 3	≈ 4	≈ 5	≈ 6	1)
DSM-B-12	8,8	9	8	10	6	2,5	2,5	2,5	2,5	A2x2x16
DSM-B-16	11,2	9	8	13	8	3	3	3	5	A3x3x18
DSM-B-25	13,5	10	10	13	8	4	3	3	6	A4x4x25
DSM-B-32	18	12,5	12	15	10	5	4	4	8	A5x5x36
DSM-B-40	22,5	16	15	19	10	6	5	5	10	A6x6x45
DSM-B-63	28	22	16	27	10	8	5	—	—	A8x7x50

1) Featherkey according to DIN 6885 included in the scope of delivery

Dimensions

Dimensions – DSM-12 ... 63 – with flange shaft

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- [1] Flanged shaft with through-hole
- [2] Supply ports
- [3] Locking screw for clamping the stop
- [4] Manual override (external hexagon). The position of the external hexagon is not defined.
- [5] Limit position calibration
- [6] Lock nut for end-position adjustment
- [7] Infinitely adjustable stops
- [8] Mounting thread for sensor bracket
- [9] Position of marking corresponds to position of stop
- [10] Sensor bracket

Dimensions

	B1 ±0,5	B2	B3	B4	B5	D1 Ø f8	D2 Ø	D3 Ø f8	D4	D5
DSM-B-12	19,8	48±0,3	59±0,3	30±0,2	25	14	15±0,2	24	M5	M4
DSM-B-16	23,5	57±0,3	70±0,3	40±0,2	28	16	18 _{-0,3}	28	M5	M5
DSM-B-25	28	65±0,3	83±0,3	40±0,2	35	20	20 _{-0,3}	30	G1/8	M6
DSM-B-32	35,5	85±0,3	105±0,3	60±0,3	45	28	27 _{-0,4}	42	G1/8	M8
DSM-B-40	43,8	105±0,3	130±0,5	80±0,3	54	36	36 _{-0,4}	52	G1/4	M10
DSM-B-63	50,3	125±0,5	152±0,2	80±0,3	64	38	40±0,3	70	G1/4	M10

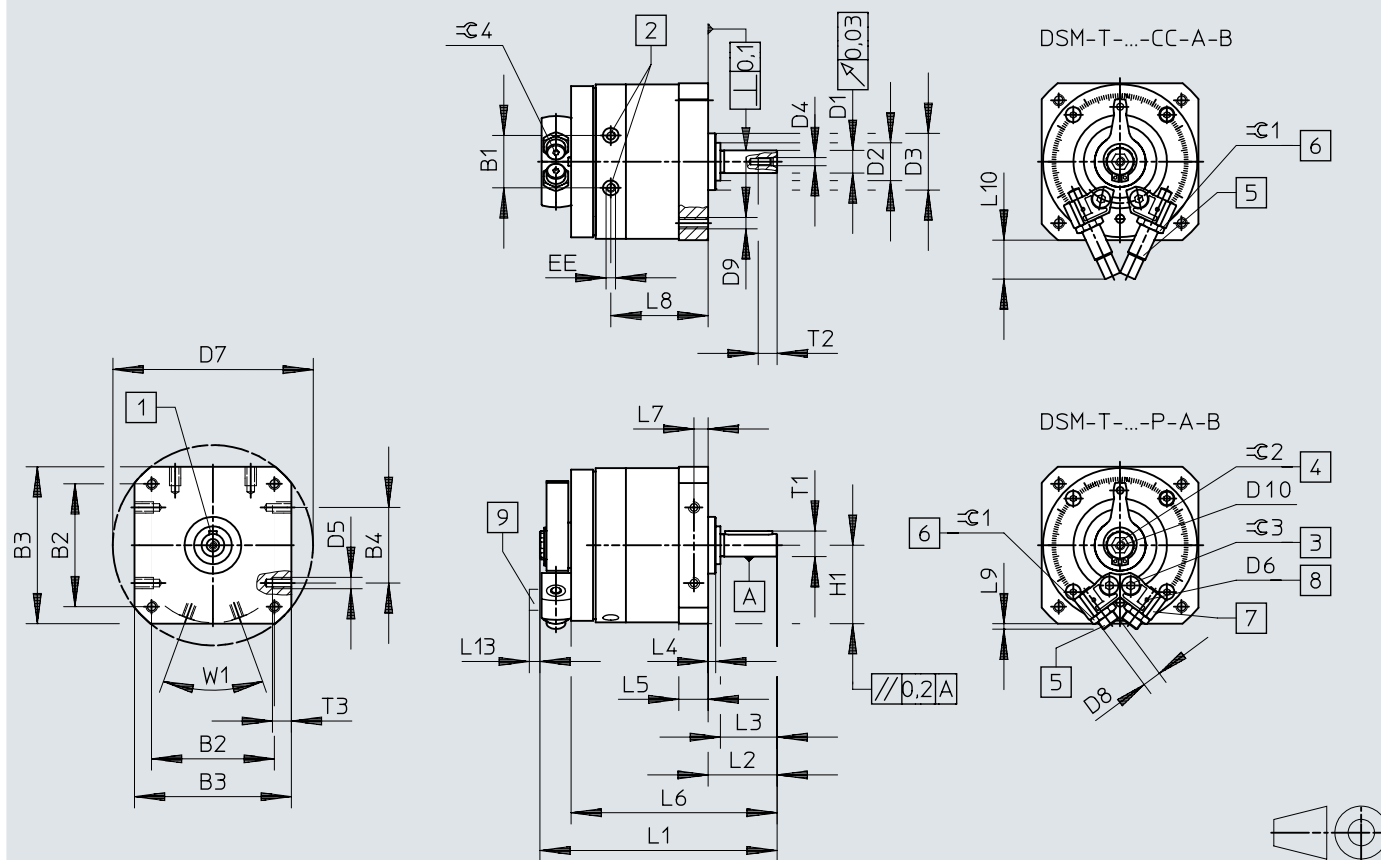
	D6	D7 Ø	D8	D9	D10 Ø	D11	D12 H13	D13	EE	H1 ±0,2
DSM-B-12	M2	78±0,3	M8x1	M4	33	M3	3,4	4,2	M5	29,5
DSM-B-16	M2	91±0,3	M10x1	M5	38	M4	4,5	4,2	M5	35
DSM-B-25	M2	106±0,3	M10x1	M6	46	M5	5,5	8,6	M5	41,5
DSM-B-32	M2	135±0,3	M12x1	M8	60	M6	6,5	8,6	G1/8	52,5
DSM-B-40	M2	168±0,5	M16x1	M10	70	M8	9	11,5	G1/8	65
DSM-B-63	M3	200±0,5	M22x1,5	M12	88	M8	12	11,5	G1/4	76

	L1	L2 +0,5 -0,85	L3 +0,5 -0,62	L4 ±0,4	L5	L6 ±1	L7	L8	L9 -0,2	L10
DSM-B-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
DSM-B-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
DSM-B-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
DSM-B-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
DSM-B-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
DSM-B-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

	L11	L12	L14 max.	T3 +0,2	≈ 1	≈ 2	≈ 3	≈ 4	≈ 5	≈ 6
DSM-B-12	3	22,7	21,2	8	10	8	2,5	2,5	2,5	2,5
DSM-B-16	7,2	26,1	22	8	13	11	3	3	3	5
DSM-B-25	2,9	20,7	17	10	13	13	4	3	3	6
DSM-B-32	3,8	29,1	23	12	15	13	5	4	4	8
DSM-B-40	3,4	43,5	36,5	15	19	19	6	5	5	10
DSM-B-63	10	72,5	—	16	27	22	8	5	—	—

Dimensions

Dimensions – DSM-T-12 ... 63 – with spigot shaft and tandem vane

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- [1] Featherkey position at 0°
- [2] Supply ports
- [3] Locking screw for clamping the stop
- [4] Manual override (hexagon socket). The position of the hexagon socket is not defined.
- [5] Limit position calibration
- [6] Lock nut for end-position adjustment
- [7] Infinitely adjustable stops
- [8] Mounting thread for sensor bracket
- [9] Sensor bracket

Dimensions

	B1 ±0,5	B2	B3	B4	D1 ∅ g7	D2 ∅	D3 ∅ f8	D4	D5
DSM-B-12	19,8	48±0,3	59±0,3	30±0,2	8	15±0,2	24	M3	M4
DSM-B-16	23,5	57±0,3	70±0,3	40±0,2	10	18 _{-0,3}	28	M3	M5
DSM-B-25	28	65±0,3	83±0,3	40±0,2	12	20 _{-0,3}	30	M4	M6
DSM-B-32	35,5	85±0,3	105±0,3	60±0,3	16	27 _{-0,4}	42	M5	M8
DSM-B-40	43,8	105±0,3	130±0,5	80±0,3	20	36 _{-0,4}	52	M6	M10
DSM-B-63	50,3	125±0,5	152 ^{+0,2}	80±0,3	25	40±0,3	70	M10	M10

	D6	D7 ∅	D8	D9	D10	EE	H1 ±0,2	L1	L2 +0,6 -0,7
DSM-B-12	M2	78±0,3	M8x1	M4	M4	M5	29,5	87,3±0,3	24,5
DSM-B-16	M2	91±0,3	M10x1	M5	M5	M5	35	106,6±1	28
DSM-B-25	M2	106±0,3	M10x1	M6	M5	M5	41,5	125,5±0,5	36,5
DSM-B-32	M2	135±0,3	M12x1	M8	M5	G1/8	52,5	164±0,5	51
DSM-B-40	M2	168±0,5	M16x1	M10	M6	G1/8	65	200,5±0,6	62
DSM-B-63	M3	200±0,5	M22x1,5	M12	M6	G1/4	76	254,4 ^{+0,4/-0,55}	75,5

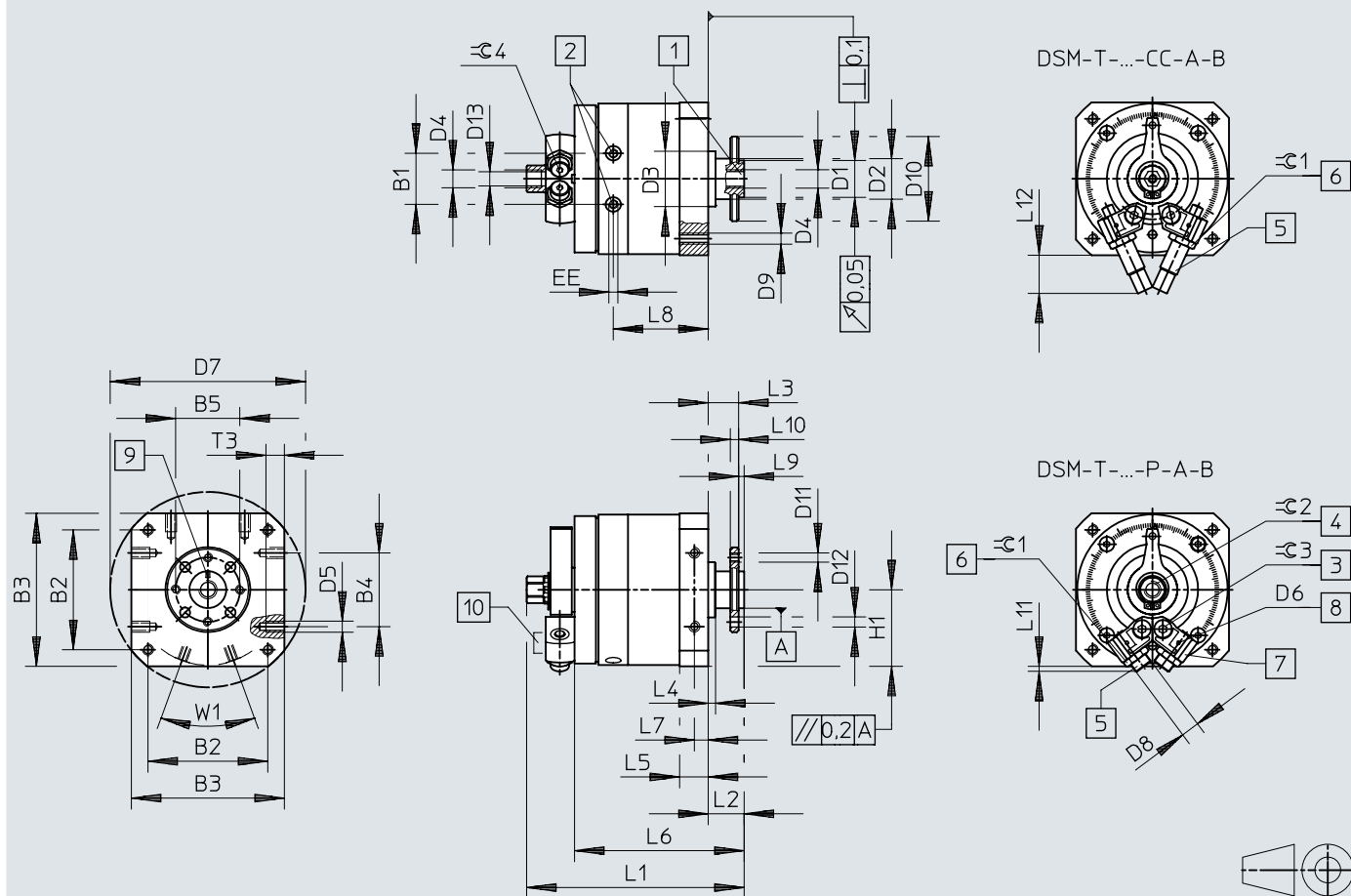
	L3	L4 ±0,4	L5	L6	L7	L8	L9	L10	L13
DSM-B-12	20±0,2	3	10,3 ^{+0,2/-0,3}	74,5±0,8	5±0,1	35,5	3	22,7	6,5
DSM-B-16	23±0,2	2,6	13 ^{+0,2/-0,4}	91±0,9	6,5±0,2	44,1	7,2	26,1	6,5
DSM-B-25	30±0,2	4	15,2 ^{+0,2/-0,4}	109±1	7,5±0,2	51,5	2,9	20,7	6,5
DSM-B-32	40±0,2	8	19,2 ^{+0,2/-0,4}	144±1,1	9,5±0,2	67,4	3,8	29,1	6,5
DSM-B-40	50±0,3	8	23,7 ^{+0,2/-0,4}	176±1,2	12±0,2	81	3,4	43,5	6,5
DSM-B-63	60±0,3	10,5	28,5 ^{+0,3/-0,5}	216,5±1,2	14±0,2	99	10	72,5	4,5

	T1 max.	T2 +2	T3 +0,2	≈ 1	≈ 2	≈ 3	≈ 4	1)
DSM-B-12	8,8	9	8	10	6	2,5	2,5	A2x2x16
DSM-B-16	11,2	9	8	13	8	3	3	A3x3x18
DSM-B-25	13,5	10	10	13	8	4	3	A4x4x25
DSM-B-32	18	12,5	12	15	10	5	4	A5x5x36
DSM-B-40	22,5	16	15	19	10	6	5	A6x6x45
DSM-B-63	28	22	16	27	10	8	5	A8x7x50

1) Featherkey included in the scope of delivery.

Dimensions

Dimensions – DSM-T-12... 63 with flange shaft and tandem vane

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- [1] Flanged shaft with through-hole
- [2] Supply ports
- [3] Locking screw for clamping the stop
- [4] Manual override (external hexagon). The position of the external hexagon is not defined.
- [5] Limit position calibration
- [6] Lock nut for end-position adjustment
- [7] Infinitely adjustable stops
- [8] Mounting thread for sensor bracket
- [9] Position of marking corresponds to position of stop
- [10] Sensor bracket

Dimensions

	B1 ±0,5	B2	B3	B4	B5	D1 Ø f8	D2 Ø	D3 Ø f8	D4
DSM-B-12	19,8	48±0,3	59±0,3	30±0,2	25	14	15±0,2	24	M5
DSM-B-16	23,5	57±0,3	70±0,3	40±0,2	28	16	18 _{-0,3}	28	M5
DSM-B-25	28	65±0,3	83±0,3	40±0,2	35	20	20 _{-0,3}	30	G1/8
DSM-B-32	35,5	85±0,3	105±0,3	60±0,3	45	28	27 _{-0,4}	42	G1/8
DSM-B-40	43,8	105±0,3	130±0,5	80±0,3	54	36	36 _{-0,4}	52	G1/4
DSM-B-63	50,3	125±0,5	152±0,2	80±0,3	64	38	40±0,3	70	G1/4

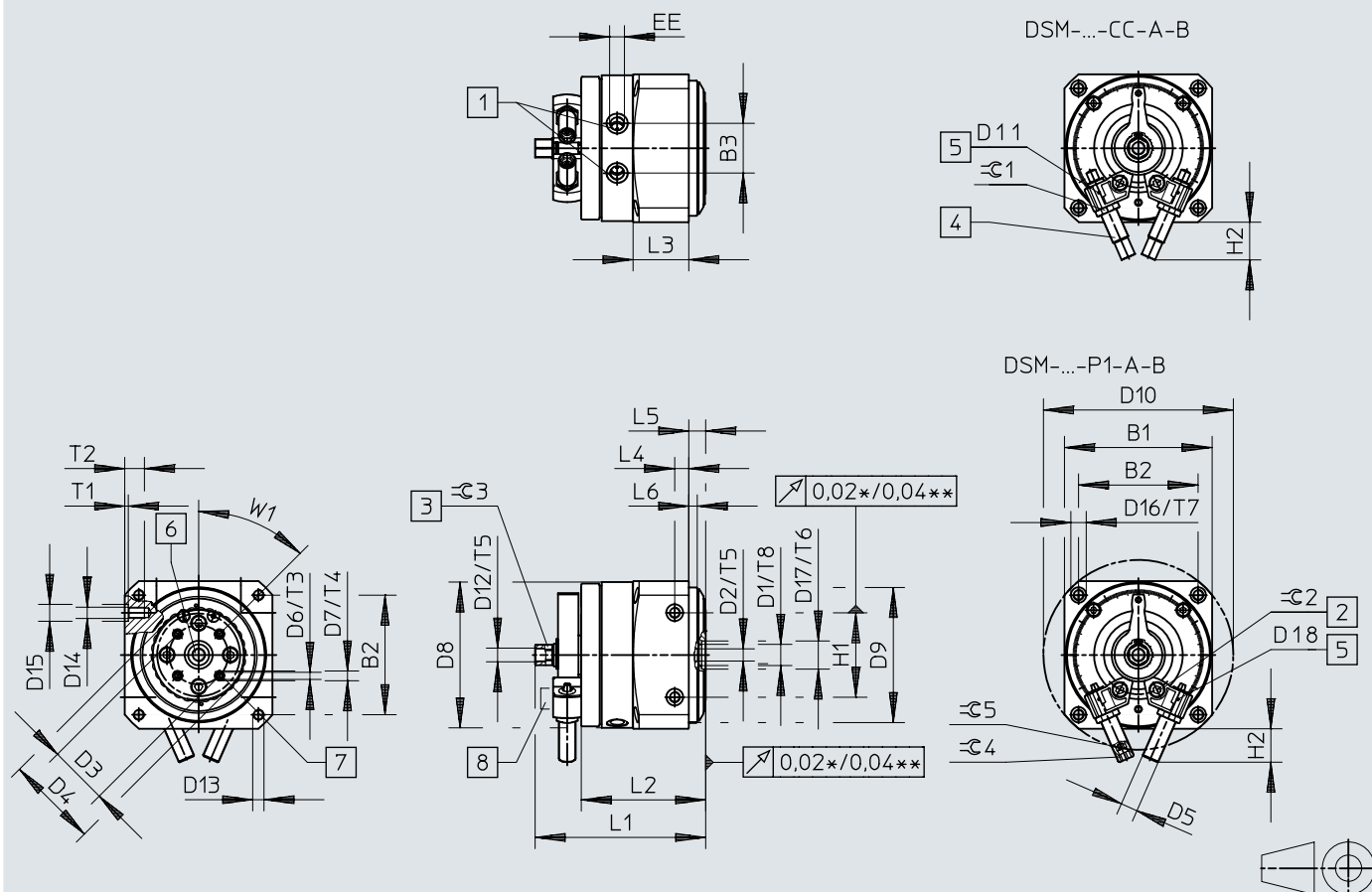
	D5	D6	D7 Ø	D8	D9	D10 Ø	D11	D12 H13	D13
DSM-B-12	M4	M2	78±0,3	M8x1	M4	33	M3	3,4	4,2
DSM-B-16	M5	M2	91±0,3	M10x1	M5	38	M4	4,5	4,2
DSM-B-25	M6	M2	106±0,3	M10x1	M6	46	M5	5,5	8,6
DSM-B-32	M8	M2	135±0,3	M12x1	M8	60	M6	6,5	8,6
DSM-B-40	M10	M2	168±0,5	M16x1	M10	70	M8	9	11,5
DSM-B-63	M10	M3	200±0,5	M22x1,5	M12	88	M8	12	11,5

	EE	H1 ±0,2	L1	L2 +0,5 -0,85	L3 +0,5 -0,62	L4 ±0,4	L5	L6 ±1	L7
DSM-B-12	M5	29,5	86,3+0,4/-0,65	13	11	3	10,3+0,2/-0,3	63	5±0,1
DSM-B-16	M5	35	103+0,4/-0,65	15	13	2,6	13+0,2/-0,4	78	6,5±0,2
DSM-B-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
DSM-B-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
DSM-B-40	G1/8	65	188,8+0,4/-0,7	33	28	8	23,7+0,2/-0,4	147	12±0,2
DSM-B-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

	L8	L9 -0,2	L10	L11	L12	T3 +0,2	≈G 1	≈G 2	≈G 3	≈G 4
DSM-B-12	35,5	2	3±0,1	3	22,7	8	10	8	2,5	2,5
DSM-B-16	44,1	2	4±0,1	7,2	26,1	8	13	11	3	3
DSM-B-25	51,5	3	4,5±0,1	2,9	20,7	10	13	13	4	3
DSM-B-32	67,4	4	6±0,1	3,8	29,1	12	15	13	5	4
DSM-B-40	81	5	7,5±0,1	3,4	43,5	15	19	19	6	5
DSM-B-63	99	6	9±0,2	10	72,5	16	27	22	8	5

Dimensions

Dimensions – DSM-12 ... 63-HD - for high load torques

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- [1] Supply ports
- [2] Locking screw for clamping the stop
- [3] Manual override (external hexagon). The position of the external hexagon is not defined.
- [4] Limit position calibration
- [5] Lock nut for end-position adjustment
- [6] Mounting thread for sensor bracket
- [7] Infinitely adjustable stops
- [8] Flanged shaft with through-hole
- [9] Threaded hole for ground connection

Dimensions

	B1 ±0,3	B2 ±0,3	B3 ±0,5	D1 ¹⁾	D2 ²⁾ ∅	D3 ±0,02	D4	D5 DSM-...-P1/DSM-...-CC
DSM-B-12	59	48	19,8	M5	–	22	36	M8x1
DSM-B-16	70	57	23,5	M5	–	28	45	M10x1
DSM-B-25	83	65	28	G1/8	–	30	50	M10x1
DSM-B-32	105	85	35,5	15	G1/8	42	65	M12x1
DSM-B-40	130	105	43,8	20	G1/4	56	90	M16x1
DSM-B-63	152	125	50,3	20	G1/4	70	105	M22x1,5

	D6	D7 H7	D8	D9 f8	D10 ±0,5	D11	D12	D13	D14
DSM-B-12	M3	5	57,5	58	78	M2	M5	M4	M4
DSM-B-16	M4	7	68,5	68	91	M2	M5	M5	M5
DSM-B-25	M5	7	81,5	76	106	M2	G1/8	M6	M6
DSM-B-32	M5	7	103,5	96	135	M2	G1/8	M8	M8
DSM-B-40	M8	12	128	126	168	M2	G1/4	M10	M10
DSM-B-63	M8	12	149	150	200	M3	G1/4	M12	M10

	D15 H7	D16	D17 H8	D18	EE	H1 ±0,03	H2 max.		L1 +0,4 –0,65	L2 +1
							DSM-...-P1	DSM-...-CC		
DSM-B-12	7	6	12	3,3	M5	30	21,2	22,7	76,3	53
DSM-B-16	7	8	12	4,2	M5	40	22	26,1	88,5	63,6
DSM-B-25	9	10	15	5,1	M5	40	17	20,7	98,7	72,7
DSM-B-32	12	11	20	6,8	G1/8	60	23	29,1	121	88,5
DSM-B-40	12	15	25	8,5	G1/8	80	36,5	43,5	154	112
DSM-B-63	12	18	25	10,2	G1/4	80	44	72,5	185,5	129,5

	L3	L4 ±0,1	L5 ±0,2	L6 ±0,1	T1 +0,1	T2	T3	T4 +0,1	T5	T6 +0,1
DSM-B-12	22,3	10	10	4	1,5	9	9	1,2	6	2,5
DSM-B-16	27,6	10	10	4	1,5	9	9	1,5	6	2,5
DSM-B-25	33,4	10	10	6	2	12	8	1,5	8	2,5
DSM-B-32	39,6	10	12	6	2,5	14	9,5	1,5	8	2,8
DSM-B-40	52,7	12	14	5,5	2,5	17	15	2,5	12	2,8
DSM-B-63	58	14	16	10	2,5	18	14	2,5	15	2,8

	T7	T8	T9	≈ 1	≈ 2	≈ 3 h13	≈ 4		≈ 5 DSM-...-P1	W1
							DSM-...-P1	DSM-...-CC		
DSM-B-12	6,3	5,5	12	10	2,5	8	5	2,5	2,5	45°
DSM-B-16	8,5	6	14	13	3	11	6	3	3	45°
DSM-B-25	10	5,3	16	13	4	13	6	3	3	45°
DSM-B-32	9,5	–	20	15	5	13	8	4	4	45°
DSM-B-40	15	–	24	19	6	19	8	5	5	45°
DSM-B-63	18	–	28	27	8	22	10	5	5	45°

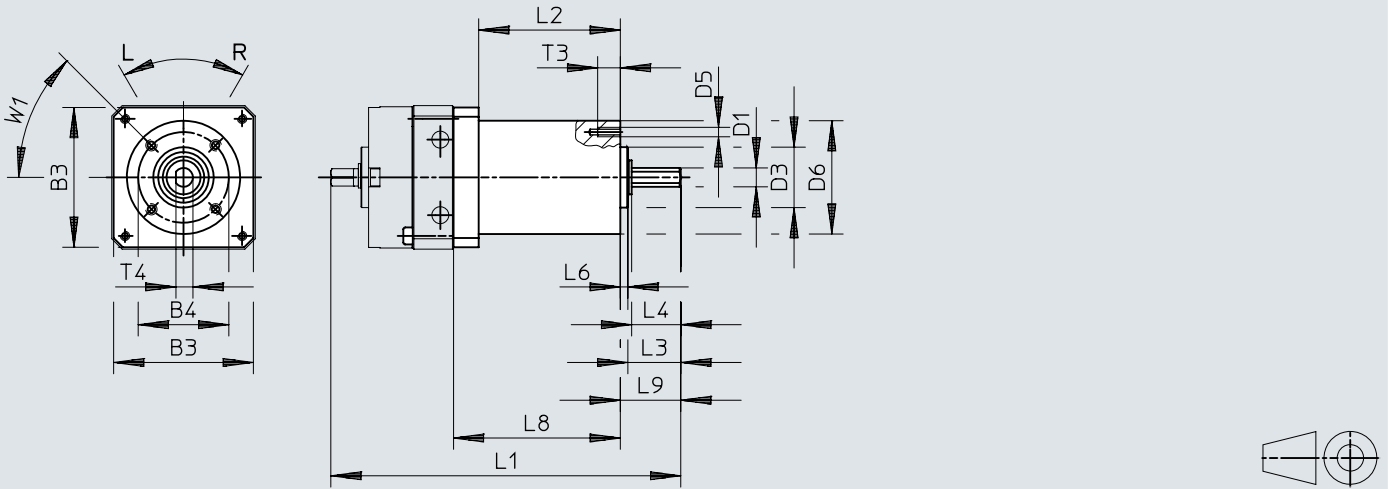
1) Thread for compressed air through-feed for sizes 12 ... 25

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

Dimensions

Dimensions – Free wheel unit FLSM-6/8

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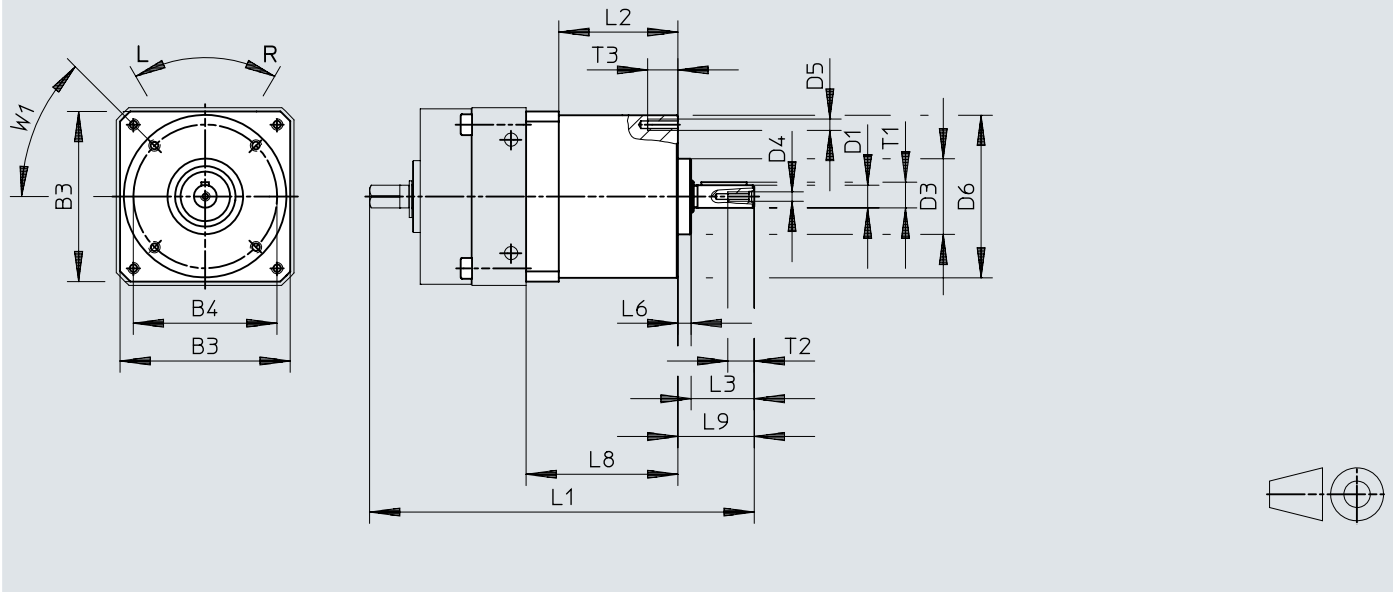


[1] Threaded pin M3x5 DIN 916

	B3	B4	D1	D3	D5	D6	L1	L2	L3	L4	L6	L8	L9	T3	T4
		±0,15	Ø g7	Ø h8		Ø ±0,3					±0,2	±0,1			
FLSM-6	29,5	23	4	14	M3	28	85,8	36 ±0,1	10,8	10	2	43	12,8	5	3,5
FLSM-8	37	24	5	16	M3	30	94,5	37,5 ±0,1	14	13	2	44,5	16	6	4,5

Dimensions

Dimensions – Free wheel unit FLSM-10 Download CAD data www.festo.com



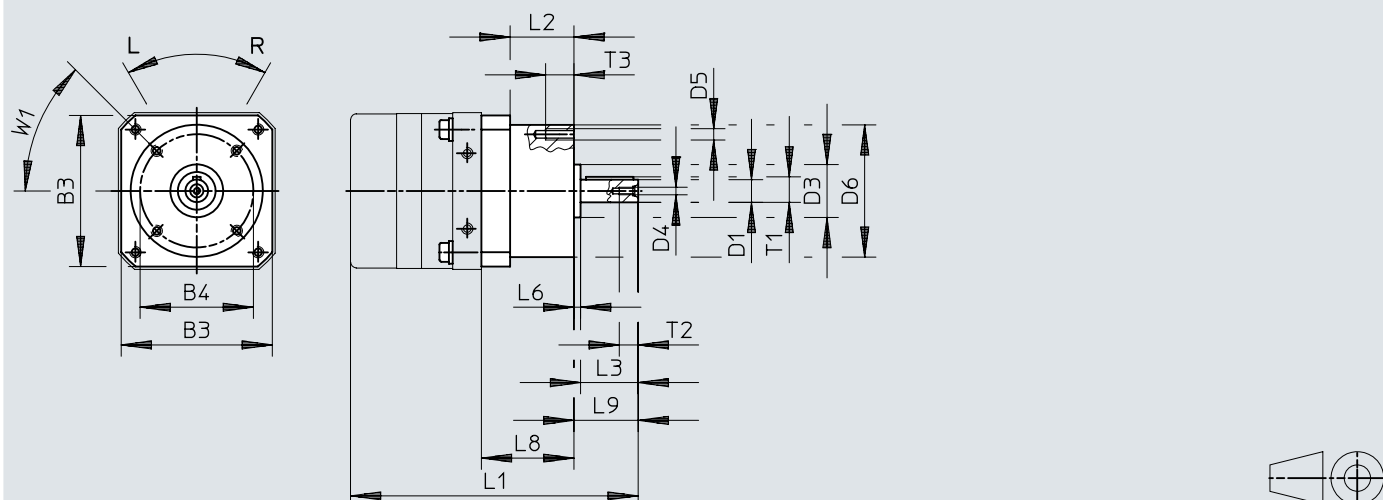
	B3	B4	D1	D3	D4	D5	D6	L1	L2
		±0,15	∅ g7	∅ h8			∅ ±0,3		
FLSM-10	45	38	6	20	M2,5	M3	43	101	30 ±0,1

	L3	L6	L8	L9	T1	T2	T3	1)
		±0,2	±0,1					
FLSM-10	16,7	3,5	40	20,2	6,8	7	8	A2x2x12

1) Featherkey according to DIN 6885

Dimensions

Dimensions – Free wheel unit FLSM-12 ... 40

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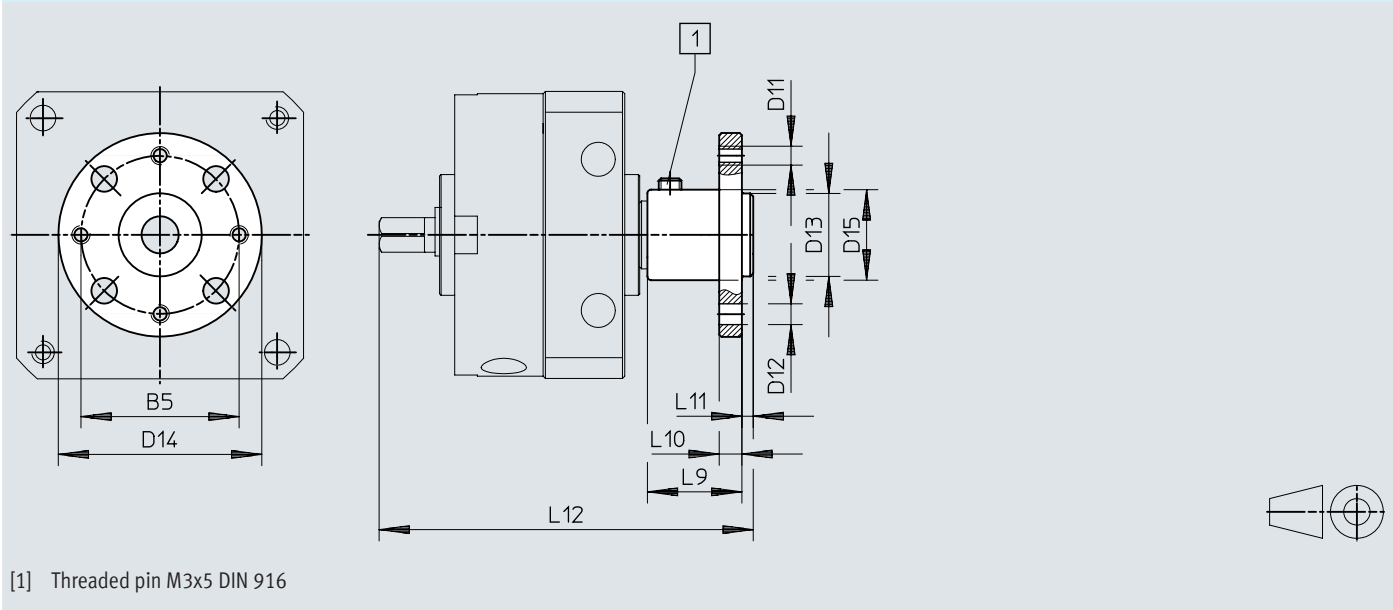
	B3	B4 ±0,15	D1 ø g7	D3 ø h8	D4	D5	D6 ø ±0,3	L1	L2
FLSM-12	55	42	8	25	M3	M3	48,5	125	37 ±0,4
FLSM-16	65	50	10	24	M3	M4	60	137	34 ±0,4
FLSM-25	80	60	12	28	M4	M6	70	152	34 ±0,4
FLSM-32	100	83	16	42	M5	M6	95	197,8	42,8 ±0,4
FLSM-40	120	96	20	52	M6	M8	110	244,5	54 ±0,4

	L3	L6 +0,2	L8 ±0,1	L9	T1	T2	T3	1)
FLSM-12	20	3,5	47,3	24,5	8,8	9	8	A2x2x16
FLSM-16	23	3,5	47	27,4	11,2	9	10	A3x3x18
FLSM-25	30	3,5	49	34	13,5	10	15	A4x4x25
FLSM-32	40	7,2	60,8	48,5	18	12,5	15	A5x5x36
FLSM-40	50	6	77	58	22,5	16	15	A6x6x45

1) Featherkey according to DIN 6885

Dimensions

Dimensions – Push-on flange FWSR-6/8 Download CAD data www.festo.com

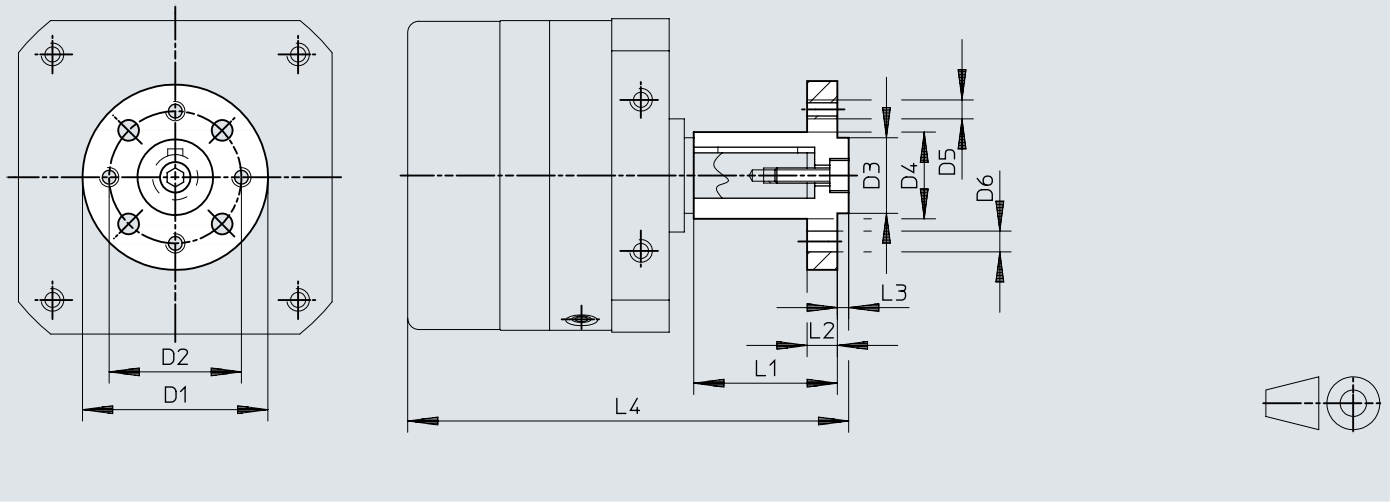


	B5	D11	D12 Ø H13	D13 Ø	D14 Ø	D15 Ø +0,4	L9	L10	L11	L12
FWSR-6	16	M3	3,4	8 _{g7}	23	10	10,5	3	1,5	45
FWSR-8	21	M3	3,4	11 _{g7}	27	12	12,5	3	1,5	51

Dimensions

Dimensions – Push-on flange FWSR-10

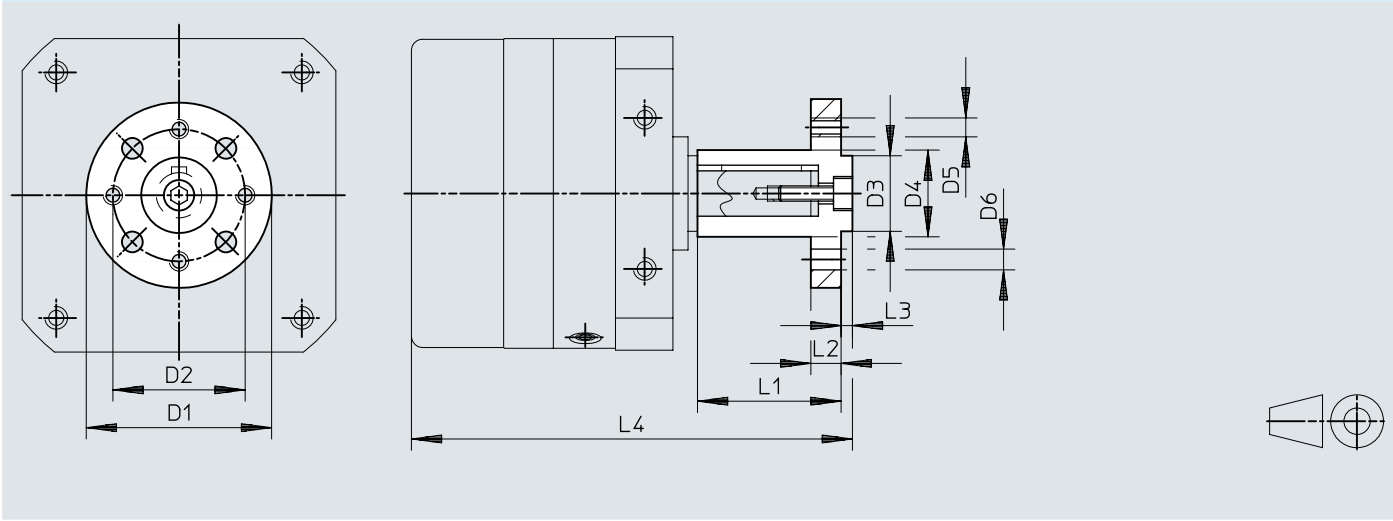
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	D1 ø	D2 ø	D3 ø f8	D4 ø	D5	D6 ø H13	L1	L2	L3 -0,2	L4
FWSR-10	30	21	11	12 _{+0,4}	M3	3,4	22 ±0,2	3	1,6	68,6

Dimensions

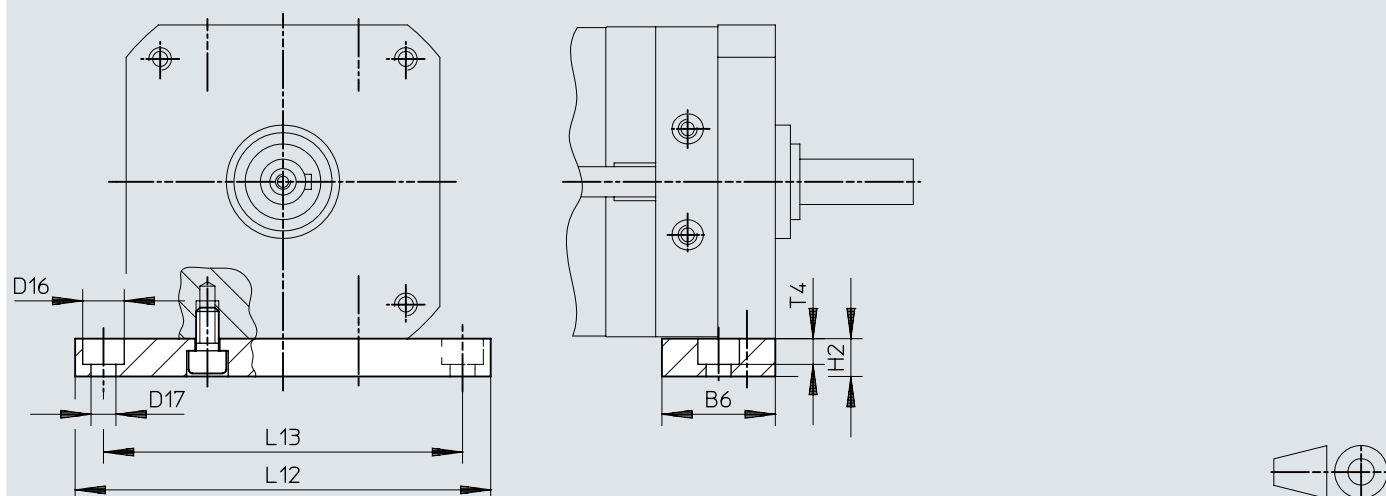
Dimensions – Push-on flange FWSR-12 ... 40 Download CAD data www.festo.com



	D1 ø	D2 ø	D3 ø f8	D4 ø	D5	D6 ø H13	L1	L2	L3 -0,2	L4
FWSR-12	35	28	14	15 _{+0,4}	M3	3,4	25 ±0,2	3	3	85,5
FWSR-16	40	28	16	17 _{+0,4}	M4	4,5	28 ±0,2	5	3	98,8
FWSR-25	50	35	20	23 _{+0,4}	M5	5,5	38 ±0,2	8	3	116,5
FWSR-32	60	45	28	28 _{+0,4}	M6	6,5	48 ±0,2	10	4	151,5
FWSR-40	70	54	36	38 _{+0,5}	M8	9	60 ±0,3	11	5	186,5

Dimensions

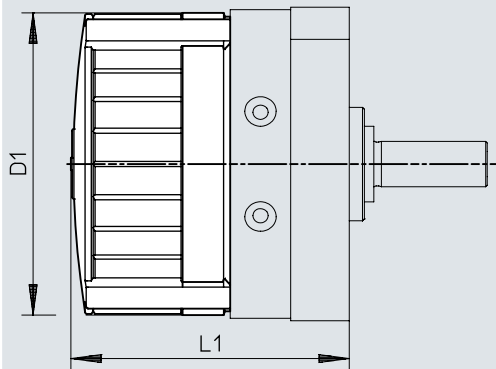
Dimensions – Mounting plate HSM

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	B6	D16 Ø	D17 Ø	H2	L12	L13	T4
HSM-12	20	8	4,5	10	84	72	4,6
HSM-16	28	10	5,5	10	98	84	5,7
HSM-25	30	11	6,6	10	110	95	6,8
HSM-32	40	15	9	15	145	125	9
HSM-40	45	18	11	20	180	155	11

Dimensions

Dimensions – Cover cap AKM Download CAD data www.festo.com



	D1 ø	L1		
		DSM-...	DSM-T-...	DSM-...-HD-...
AKM-12	59	56,2 $\pm$ 1,2	75,2 $\pm$ 1,2	68,2 $\pm$ 1,2
AKM-16	70	68 $\pm$ 1,2	92 $\pm$ 1,2	82,6 $\pm$ 1,2
AKM-25	83	73,4 $\pm$ 1,2	101,5 $\pm$ 1,2	91,6 $\pm$ 1,2
AKM-32	105	89,7 $\pm$ 1,5	126,7 $\pm$ 1,5	110,2 $\pm$ 1,5
AKM-40	130	107,1 $\pm$ 1,5	152,1 $\pm$ 1,5	136,1 $\pm$ 1,5

Ordering data

DSM-6 ...10 with PTO shaft					
Size	Nominal swivel angle [°]	Position sensing	Adjustable swivel angle	Part no.	Type
6	90 deg	Without	Fixed swivel angle	173188	DSM-6-90-P
		For proximity sensor		173195	DSM-6-90-P-A
	180 deg	Without		173189	DSM-6-180-P
			Adjustable swivel angle	175827	DSM-6-180-P-FF
		For proximity sensor	Fixed swivel angle	173196	DSM-6-180-P-A
			Adjustable swivel angle	175830	DSM-6-180-P-A-FF
8	90 deg	Without	Fixed swivel angle	173190	DSM-8-90-P
		For proximity sensor		173197	DSM-8-90-P-A
	180 deg	Without		173191	DSM-8-180-P
			Adjustable swivel angle	175828	DSM-8-180-P-FF
		For proximity sensor	Fixed swivel angle	173198	DSM-8-180-P-A
			Adjustable swivel angle	175831	DSM-8-180-P-A-FF
10	90 deg	Without	Fixed swivel angle	173192	DSM-10-90-P
		For proximity sensor		173199	DSM-10-90-P-A
	180 deg	Without		173193	DSM-10-180-P
		For proximity sensor		173200	DSM-10-180-P-A
	200 deg	Without	Adjustable swivel angle	175829	DSM-10-240-P-FF
		For proximity sensor		175832	DSM-10-240-P-A-FF
	240 deg	Without	Fixed swivel angle	173194	DSM-10-240-P
		For proximity sensor		173201	DSM-10-240-P-A

DSM-6 ...10 with spigot shaft and tandem vane					
Size	Nominal swivel angle [°]	Position sensing	Adjustable swivel angle	Part no.	Type
6	90 deg	Without	Fixed swivel angle	1564894	DSM-T-6-90-P
	180 deg			1565579	DSM-T-6-180-P
8	90 deg			1563451	DSM-T-8-90-P
	180 deg			1564407	DSM-T-8-180-P
10	90 deg			1559484	DSM-T-10-90-P
	180 deg			1561689	DSM-T-10-180-P
	240 deg			1562093	DSM-T-10-240-P

DSM-6 ...10 with flange shaft					
Size	Nominal swivel angle [°]	Position sensing	Adjustable swivel angle	Part no.	Type
6	90 deg	Without	Fixed swivel angle	185928	DSM-6-90-P-FW
		For proximity sensor		185930	DSM-6-90-P-A-FW
	180 deg	Without		185929	DSM-6-180-P-FW
			Adjustable swivel angle	185932	DSM-6-180-P-FF-FW
		For proximity sensor	Fixed swivel angle	185931	DSM-6-180-P-A-FW
			Adjustable swivel angle	185933	DSM-6-180-P-A-FF-FW
8	90 deg	Without	Fixed swivel angle	185934	DSM-8-90-P-FW
		For proximity sensor		185936	DSM-8-90-P-A-FW
	180 deg	Without		185935	DSM-8-180-P-FW
			Adjustable swivel angle	185938	DSM-8-180-P-FF-FW
		For proximity sensor	Fixed swivel angle	185937	DSM-8-180-P-A-FW
			Adjustable swivel angle	185939	DSM-8-180-P-A-FF-FW
10	90 deg	Without	Fixed swivel angle	185940	DSM-10-90-P-FW
		For proximity sensor		185943	DSM-10-90-P-A-FW
	180 deg	Without		185941	DSM-10-180-P-FW
		For proximity sensor		185944	DSM-10-180-P-A-FW
	200 deg	Without	Adjustable swivel angle	185946	DSM-10-240-P-FF-FW
		For proximity sensor		185947	DSM-10-240-P-A-FF-FW
	240 deg	Without	Fixed swivel angle	185942	DSM-10-240-P-FW
		For proximity sensor		185945	DSM-10-240-P-A-FW

Ordering data

DSM-6 ...10 with flange shaft and tandem wing					
Size	Nominal swivel angle [°]	Position sensing	Adjustable swivel angle	Part no.	Type
6	90 deg	Without	Fixed swivel angle	1565425	DSM-T-6-90-P-FW
				1564894	DSM-T-6-90-P
	180 deg			1565579	DSM-T-6-180-P
	1565483			DSM-T-6-180-P-FW	
8	90 deg			1564334	DSM-T-8-90-P-FW
				1563451	DSM-T-8-90-P
	180 deg			1564669	DSM-T-8-180-P-FW
				1564407	DSM-T-8-180-P
10	90 deg	1559484	DSM-T-10-90-P		
		1560818	DSM-T-10-90-P-FW		
	180 deg	1561556	DSM-T-10-180-P-FW		
		1562318	DSM-T-10-240-P-FW		
	240 deg	1562093	DSM-T-10-240-P		

DSM-12 ... 63 with spigot shaft				
Size	Nominal swivel angle [°]	Cushioning	Part no.	Type
12	246 deg	Adjustable elastic cushioning components at both ends	566203	DSM-12-270-P1-A-B
		Pneumatic shock absorber at both ends, self-adjusting	547572	DSM-12-270-CC-A-B
	270 deg	Without	547591	DSM-12-270-A-B
		Elastic cushioning rings/plates at both ends	547570	DSM-12-270-P-A-B
16	246 deg	Adjustable elastic cushioning components at both ends	566205	DSM-16-270-P1-A-B
		Pneumatic shock absorber at both ends, self-adjusting	547576	DSM-16-270-CC-A-B
	270 deg	Without	547592	DSM-16-270-A-B
		Elastic cushioning rings/plates at both ends	547574	DSM-16-270-P-A-B
25	246 deg	Adjustable elastic cushioning components at both ends	566207	DSM-25-270-P1-A-B
		Pneumatic shock absorber at both ends, self-adjusting	547580	DSM-25-270-CC-A-B
	270 deg	Without	547593	DSM-25-270-A-B
		Elastic cushioning rings/plates at both ends	547578	DSM-25-270-P-A-B
32	246 deg	Adjustable elastic cushioning components at both ends	566209	DSM-32-270-P1-A-B
		Pneumatic shock absorber at both ends, self-adjusting	547584	DSM-32-270-CC-A-B
	270 deg	Without	547594	DSM-32-270-A-B
		Elastic cushioning rings/plates at both ends	547582	DSM-32-270-P-A-B
40	240 deg	Adjustable elastic cushioning components at both ends	566211	DSM-40-270-P1-A-B
		Pneumatic shock absorber at both ends, self-adjusting	547588	DSM-40-270-CC-A-B
	270 deg	Without	547595	DSM-40-270-A-B
		Elastic cushioning rings/plates at both ends	547586	DSM-40-270-P-A-B
63	240 deg	Adjustable elastic cushioning components at both ends	566213	DSM-63-270-P1-A-B
		Pneumatic shock absorber at both ends, self-adjusting	552081	DSM-63-270-CC-A-B
	270 deg	Without	552083	DSM-63-270-A-B
		Elastic cushioning rings/plates at both ends	552079	DSM-63-270-P-A-B

Ordering data

DSM-12 ... 63 with spigot shaft and tandem vane				
Size	Nominal swivel angle [°]	Cushioning	Part no.	Type
12	246 deg	Pneumatic shock absorber at both ends, self-adjusting	1145088	DSM-T-12-270-CC-A-B
	270 deg	Without	1145122	DSM-T-12-270-A-B
		Elastic cushioning rings/plates at both ends	1145086	DSM-T-12-270-P-A-B
16	246 deg	Pneumatic shock absorber at both ends, self-adjusting	1145094	DSM-T-16-270-CC-A-B
	270 deg	Without	1145123	DSM-T-16-270-A-B
		Elastic cushioning rings/plates at both ends	1145092	DSM-T-16-270-P-A-B
25	246 deg	Pneumatic shock absorber at both ends, self-adjusting	1145100	DSM-T-25-270-CC-A-B
	270 deg	Without	1145124	DSM-T-25-270-A-B
		Elastic cushioning rings/plates at both ends	1145098	DSM-T-25-270-P-A-B
32	246 deg	Pneumatic shock absorber at both ends, self-adjusting	1145106	DSM-T-32-270-CC-A-B
	270 deg	Without	1145125	DSM-T-32-270-A-B
		Elastic cushioning rings/plates at both ends	1145104	DSM-T-32-270-P-A-B
40	240 deg	Pneumatic shock absorber at both ends, self-adjusting	1145112	DSM-T-40-270-CC-A-B
	270 deg	Without	1145126	DSM-T-40-270-A-B
		Elastic cushioning rings/plates at both ends	1145110	DSM-T-40-270-P-A-B
63	240 deg	Pneumatic shock absorber at both ends, self-adjusting	1145118	DSM-T-63-270-CC-A-B
	270 deg	Without	1145127	DSM-T-63-270-A-B
		Elastic cushioning rings/plates at both ends	1145116	DSM-T-63-270-P-A-B

DSM-12 ... 63 with flange shaft				
Size	Nominal swivel angle [°]	Cushioning	Part no.	Type
12	246 deg	Adjustable elastic cushioning components at both ends	566204	DSM-12-270-P1-FW-A-B
		Pneumatic shock absorber at both ends, self-adjusting	547573	DSM-12-270-CC-FW-A-B
	270 deg	Without	547596	DSM-12-270-FW-A-B
		Elastic cushioning rings/plates at both ends	547571	DSM-12-270-P-FW-A-B
16	246 deg	Adjustable elastic cushioning components at both ends	566206	DSM-16-270-P1-FW-A-B
		Pneumatic shock absorber at both ends, self-adjusting	547577	DSM-16-270-CC-FW-A-B
	270 deg	Without	547597	DSM-16-270-FW-A-B
		Elastic cushioning rings/plates at both ends	547575	DSM-16-270-P-FW-A-B
25	246 deg	Adjustable elastic cushioning components at both ends	566208	DSM-25-270-P1-FW-A-B
		Pneumatic shock absorber at both ends, self-adjusting	547581	DSM-25-270-CC-FW-A-B
	270 deg	Without	547598	DSM-25-270-FW-A-B
		Elastic cushioning rings/plates at both ends	547579	DSM-25-270-P-FW-A-B
32	246 deg	Adjustable elastic cushioning components at both ends	566210	DSM-32-270-P1-FW-A-B
		Pneumatic shock absorber at both ends, self-adjusting	547585	DSM-32-270-CC-FW-A-B
	270 deg	Without	547599	DSM-32-270-FW-A-B
		Elastic cushioning rings/plates at both ends	547583	DSM-32-270-P-FW-A-B

Ordering data

DSM-12 ... 63 with flange shaft				
Size	Nominal swivel angle [°]	Cushioning	Part no.	Type
40	240 deg	Adjustable elastic cushioning components at both ends	566212	DSM-40-270-P1-FW-A-B
		Pneumatic shock absorber at both ends, self-adjusting	547589	DSM-40-270-CC-FW-A-B
	270 deg	Without	547600	DSM-40-270-FW-A-B
		Elastic cushioning rings/plates at both ends	547587	DSM-40-270-P-FW-A-B
63	240 deg	Adjustable elastic cushioning components at both ends	566214	DSM-63-270-P1-FW-A-B
		Pneumatic shock absorber at both ends, self-adjusting	552082	DSM-63-270-CC-FW-A-B
	270 deg	Without	552084	DSM-63-270-FW-A-B
		Elastic cushioning rings/plates at both ends	552080	DSM-63-270-P-FW-A-B

DSM-12... 63 with flange shaft and tandem wing				
Size	Nominal swivel angle [°]	Cushioning	Part no.	Type
12	246 deg	Pneumatic shock absorber at both ends, self-adjusting	1145089	DSM-T-12-270-CC-FW-A-B
	270 deg	Without	1145128	DSM-T-12-270-FW-A-B
		Elastic cushioning rings/plates at both ends	1145087	DSM-T-12-270-P-FW-A-B
16	246 deg	Pneumatic shock absorber at both ends, self-adjusting	1145095	DSM-T-16-270-CC-FW-A-B
	270 deg	Without	1145129	DSM-T-16-270-FW-A-B
		Elastic cushioning rings/plates at both ends	1145093	DSM-T-16-270-P-FW-A-B
25	246 deg	Pneumatic shock absorber at both ends, self-adjusting	1145101	DSM-T-25-270-CC-FW-A-B
	270 deg	Without	1145130	DSM-T-25-270-FW-A-B
		Elastic cushioning rings/plates at both ends	1145099	DSM-T-25-270-P-FW-A-B
32	246 deg	Pneumatic shock absorber at both ends, self-adjusting	1145107	DSM-T-32-270-CC-FW-A-B
	270 deg	Without	1145131	DSM-T-32-270-FW-A-B
		Elastic cushioning rings/plates at both ends	1145105	DSM-T-32-270-P-FW-A-B
40	240 deg	Pneumatic shock absorber at both ends, self-adjusting	1145113	DSM-T-40-270-CC-FW-A-B
	270 deg	Without	1145132	DSM-T-40-270-FW-A-B
		Elastic cushioning rings/plates at both ends	1145111	DSM-T-40-270-P-FW-A-B
63	240 deg	Pneumatic shock absorber at both ends, self-adjusting	1145119	DSM-T-63-270-CC-FW-A-B
	270 deg	Without	1145133	DSM-T-63-270-FW-A-B
		Elastic cushioning rings/plates at both ends	1145117	DSM-T-63-270-P-FW-A-B

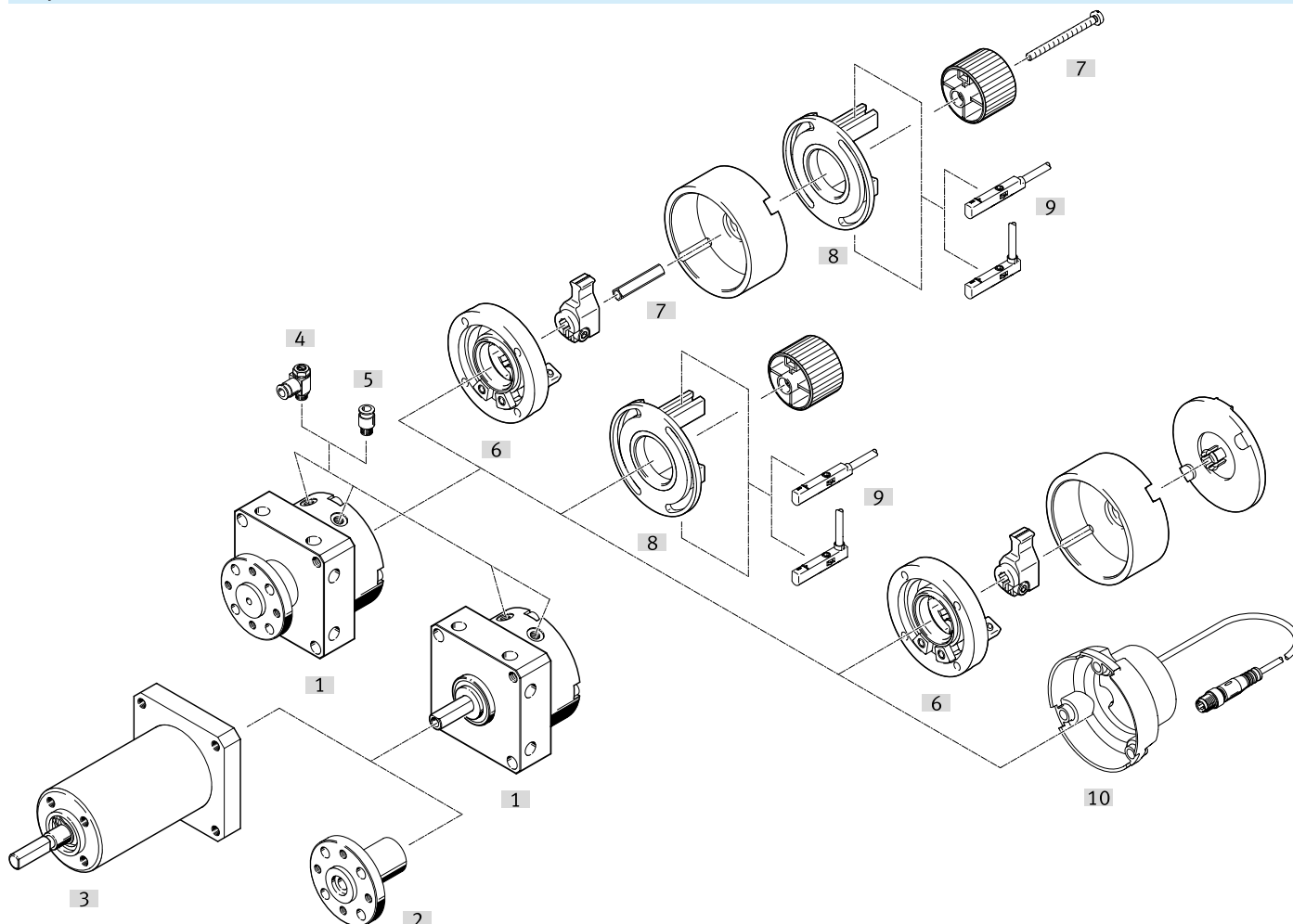
DSM-12 ... 63 for high load torques				
Size	Nominal swivel angle [°]	Cushioning	Part no.	Type
12	246 deg	Adjustable elastic cushioning components at both ends	1369116	DSM-12-270-P1-HD-A-B
		Pneumatic shock absorber at both ends, self-adjusting	1369122	DSM-12-270-CC-HD-A-B
	270 deg	Without	1369110	DSM-12-270-HD-A-B
16	246 deg	Adjustable elastic cushioning components at both ends	1369117	DSM-16-270-P1-HD-A-B
		Pneumatic shock absorber at both ends, self-adjusting	1369123	DSM-16-270-CC-HD-A-B
	270 deg	Without	1369111	DSM-16-270-HD-A-B

Ordering data

DSM-12 ... 63 for high load torques				
Size	Nominal swivel angle [°]	Cushioning	Part no.	Type
25	246 deg	Adjustable elastic cushioning components at both ends	1369118	DSM-25-270-P1-HD-A-B
		Pneumatic shock absorber at both ends, self-adjusting	1369124	DSM-25-270-CC-HD-A-B
	270 deg	Without	1369112	DSM-25-270-HD-A-B
32	246 deg	Adjustable elastic cushioning components at both ends	1369119	DSM-32-270-P1-HD-A-B
		Pneumatic shock absorber at both ends, self-adjusting	1369125	DSM-32-270-CC-HD-A-B
	270 deg	Without	1369113	DSM-32-270-HD-A-B
40	240 deg	Adjustable elastic cushioning components at both ends	1369120	DSM-40-270-P1-HD-A-B
		Pneumatic shock absorber at both ends, self-adjusting	1369126	DSM-40-270-CC-HD-A-B
	270 deg	Without	1369114	DSM-40-270-HD-A-B
63	240 deg	Adjustable elastic cushioning components at both ends	1369121	DSM-63-270-P1-HD-A-B
		Pneumatic shock absorber at both ends, self-adjusting	1369127	DSM-63-270-CC-HD-A-B
	270 deg	Without	1369115	DSM-63-270-HD-A-B

Peripherals overview

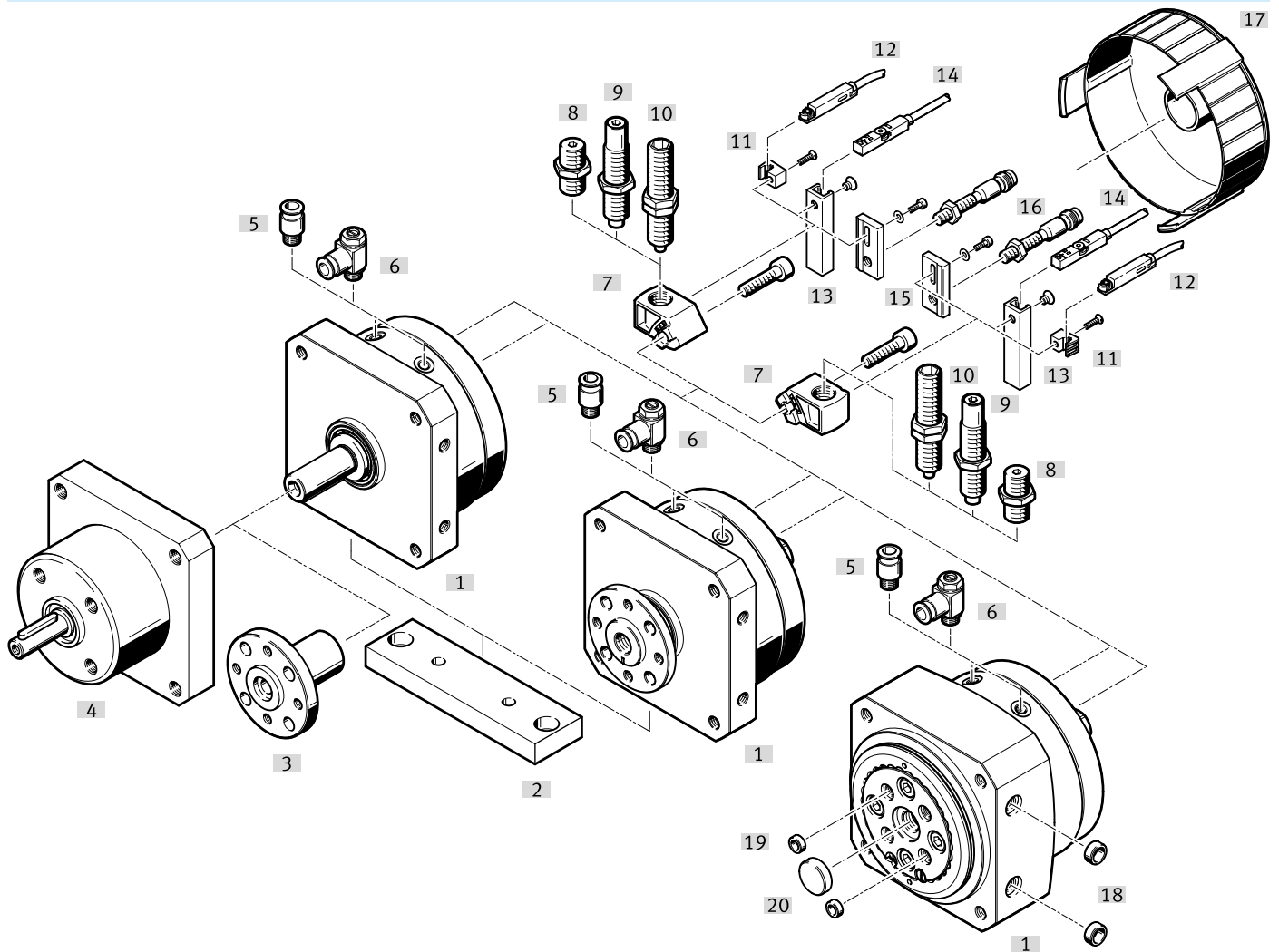
Peripherals overview for DSM-6 ... 10



Accessories		→ Page/Internet
Type/order code	Description	
[1] Semi-rotary drive DSM	Pneumatics semi-rotary drive	dsm
[2] Push-on flange FWSR	For retrofitting for DSM semi-rotary drive with spigot shaft	63
[3] Free wheel unit FLSM	- For clocked rotary motion in one direction - Only in combination with DSM semi-rotary drive with spigot shaft	63
[4] One-way flow control valve GRLA	For regulating speed	grla
[5] Push-in fitting QS	For connecting compressed air tubing with standard O.D.	qs
[6] Stop kit KSM	- For setting the swivel angle - Can be retrofitted for semi-rotary drive DSM-....P(-A)/DSM-....P(-A)-FW - For DSM-T-..., the stop kit must be ordered separately as an accessory - Can be combined with mounting kit WSM - The adapter kit DADP-AK must also be ordered in combination with the mounting kit WSM	65
[7] Adapter kit DADP-AK	For mounting the WSM mounting kit to the KSM stop kit	65
[8] Mounting kit WSM-...SME-10	- For sensing the swivel angle - For mounting the proximity switches SME-/SMT-10; - Can be retrofitted for semi-rotary drive DSM-....P(-FF)/DSM-....P(-FF)-FW - For DSM-T-..., the mounting kit must be ordered as an accessory - Can be combined with stop kit KSM - The adapter kit DADP-AK must also be ordered in combination with the stop kit KSM	65
[9] Proximity switch SME-10/SMT-10	Proximity switch for sensing the end position	67
[10] Position sensor SRBS	- For sensing the swivel angle - No adjustment of the proximity switches necessary - The end positions of the swivel angle are taught in at the touch of a button - Can only be mounted directly to the semi-rotary drive without additional accessories - Must be ordered separately as an accessory	66
[11] Distance sensor SOIA	For monitoring the condition of the damping elements	65

Peripherals overview

Peripherals overview for DSM-12 ... 63



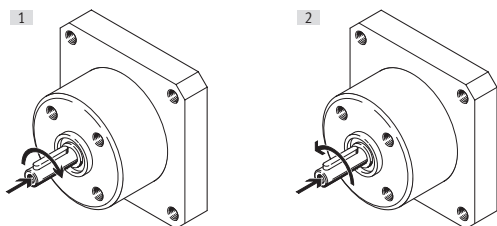
Accessories			→ Page/Internet
Type/order code	Description		
[1] Semi-rotary drive DSM	Pneumatics semi-rotary drive		dsm
[2] Mounting plate HSM	For foot or flange mounting		64
[3] Push-on flange FWSR	For retrofitting for DSM semi-rotary drive with spigot shaft		63
[4] Free wheel unit FLSM	- For clocked rotary motion in one direction - Only in combination with DSM semi-rotary drive with spigot shaft		63
[5] Push-in fitting QS	For connecting compressed air tubing with standard O.D.		qs
[6] One-way flow control valve GRLA	For regulating speed		grla
[7] Cushioning mount DSM-...-B	- For mounting elastic cushioning elements or shock absorbers - For semi-rotary drive DSM-...-P/P1/CC, included in the scope of delivery		64
[8] Cushioning kit DSM-...-P	- Elastic cushioning elements with fixed stop - For semi-rotary drive DSM-...-P, included in the scope of delivery		64
[9] Shock absorber DYE F	- Adjustable, elastic cushioning elements with fixed stop - For semi-rotary drive DSM-...-P1, included in the scope of delivery		64
[10] Shock absorber DYSC	- Self-adjusting shock absorbers with fixed stop - For semi-rotary drive DSM-...-CC, included in the scope of delivery		64
[11] Sensor bracket SL-DSM-B	For mounting the proximity switches SME/SMT-10		66
[12] Proximity switch SME/SMT-10	For sensing the end positions		67
[13] Sensor bracket SL-DSM-63-B	For mounting the proximity switches SME/SMT-8		66
[14] Proximity switches SME/SMT-8	For sensing the end positions		67
[15] Sensor bracket SL-DSM-S	For mounting the inductive proximity switch SIEN		66
[16] Proximity switch SIEN	Inductive proximity switch for sensing the end position		67
[17] Cover cap AKM	- Reduces the risk of injury in the swivel range of the stop lever - Cannot be used in combination with inductive proximity switch SIEN		64

Peripherals overview

Accessories		→ Page/Internet
Type/order code	Description	
[18] Centering sleeve ZBH	For centering the drive	68
[19] Centering sleeve ZBH	For centering attachments on the rotating plate	68
[20] Centering sleeve ZBH	For centering attachments on the rotating plate	69
[21] Distance sensor SOIA	For monitoring the condition of the damping elements	65

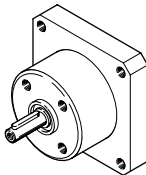
Accessories

Free wheel unit FLSM



The free wheel unit only allows movement in one of the two possible swivel directions of the semi-rotary drive DSM. The opposite direction is always blocked. The minimum switchable rotation angle is 3° in each case. However, the switching accuracy depends on the speed and load.

Free wheel unit FLSM

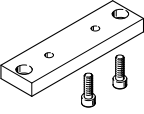


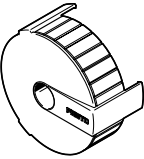
	Size	Direction of rotation	Theoretical torque at 6 bar	Housing material	Product weight	Part no.	Type
	6	Clockwise rotation	0.15 Nm	Wrought aluminum alloy	100 g	188522	FLSM-6-R
		Anticlockwise				188523	FLSM-6-L
	8	Clockwise rotation	0.35 Nm		125 g	188524	FLSM-8-R
		Anticlockwise				188525	FLSM-8-L
	10	Clockwise rotation	0.85 Nm		160 g	188526	FLSM-10-R
		Anticlockwise				188527	FLSM-10-L
	12	Clockwise rotation	1.2 Nm		300 g	164234	FLSM-12-R
		Anticlockwise				164229	FLSM-12-L
	16	Clockwise rotation	2.52 Nm		450 g	164235	FLSM-16-R
		Anticlockwise				164230	FLSM-16-L
	25	Clockwise rotation	4.98 Nm		650 g	164236	FLSM-25-R
		Anticlockwise				164231	FLSM-25-L
	32	Clockwise rotation	9.96 Nm		1,500 g	164237	FLSM-32-R
		Anticlockwise				164232	FLSM-32-L
	40	Clockwise rotation	19.98 Nm		2,350 g	164238	FLSM-40-R
		Anticlockwise				164233	FLSM-40-L

Push-on flange FWSR

	Size	Product weight	Housing material	Part no.	Type
	6	5 g	Wrought aluminum alloy	185948	FWSR-6
	8	7 g		185949	FWSR-8
	10	10 g		32798	FWSR-10
	12	19 g		14659	FWSR-12
	16	30 g		13239	FWSR-16
	25	70 g		13240	FWSR-25
	32	120 g		13241	FWSR-32
	40	240 g		14656	FWSR-40

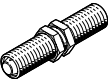
Accessories

Mounting plate HSM					
	Size	Product weight	Part no.	Type	
	12	48 g	165571	HSM-12	
	16	80 g	165572	HSM-16	
	25	94 g	165573	HSM-25	
	32	246 g	165574	HSM-32	
	40	459 g	165575	HSM-40	

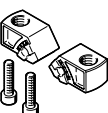
Cover cap AKM					
	Description ¹⁾	Cover cap material	Product weight	Part no.	Type
	for size 12	PA-reinforced	12 g	549194	AKM-12
	for size 16		16 g	549195	AKM-16
	for size 25		22 g	549196	AKM-25
	for size 32		36 g	549197	AKM-32
	for size 40		62 g	549198	AKM-40

1) Cannot be used in connection with inductive proximity switch SIEN.

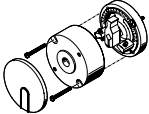
Cushioning kit DSM-...-P					
	Description	Product weight	Part no.	Type	
	for size 12	10 g	550657	DSM-12-P-B	
	For sizes 16, 25	25 g	550658	DSM-16/25-P-B	
	for size 32	50 g	550659	DSM-32-P-B	
	for size 40	115 g	550660	DSM-40-P-B	
	for size 63	180 g	552086	DSM-63-P-B	

Shock absorber DYEF					Link dyef
	Description	Product weight	Part no.	Type	
	for size 12	11.9 g	548373	DYEF-M8-Y1F	
	For sizes 16, 25	19.7 g	548374	DYEF-M10-Y1F	
	for size 32	39.6 g	548375	DYEF-M12-Y1F	
	for size 40	104 g	548377	DYEF-M16-Y1F	
	for size 63	200 g	1113706	DYEF-M22-Y1F	

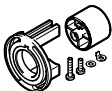
Shock absorber DYSC					Link dysc
	Description	Product weight	Part no.	Type	
	For size 12	9 g	548011	DYSC-5-5-Y1F	
	For sizes 16, 25	17 g	548012	DYSC-7-5-Y1F	
	For size 32	36 g	548013	DYSC-8-8-Y1F	
	For size 40	81 g	548014	DYSC-12-12-Y1F	
	For size 63	210 g	553593	DYSC-16-18-Y1F	

Cushioning mount DSM-...-B					
	Description	Stops material	Product weight	Part no.	Type
	for size 12	high-alloy stainless steel	25 g	547900	DSM-12-B
	for size 16		35 g	547901	DSM-16-B
	for size 25		57 g	547902	DSM-25-B
	for size 32		125 g	547903	DSM-32-B
	for size 40		185 g	547904	DSM-40-B
	for size 63		680 g	552085	DSM-63-B

Accessories

Stop kit KSM					
	Size	Swivel angle	Product weight	Part no.	Type
	6	180 deg	30 g	175833	KSM-6
	8		70 g	175834	KSM-8
	10	200 deg	100 g	175835	KSM-10

Adapter kit DADP				
	Size	Product weight	Part no.	Type
	6	2 g	3617044	DADP-AK-Q1-6
	8	3 g	3617045	DADP-AK-Q1-8
	10	4 g	3617046	DADP-AK-Q1-10

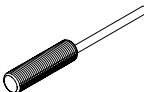
Mounting kit WSM				
	Size	Product weight	Part no.	Type
	6	12 g	173205	WSM-6-SME-10
	8	13 g	173206	WSM-8-SME-10
	10	16 g	173207	WSM-10-SME-10

Monitoring with distance sensor SOIA

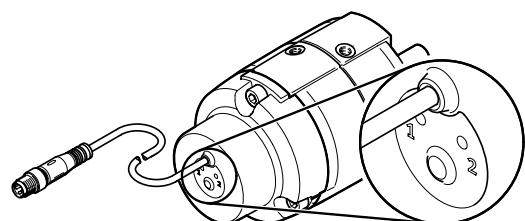
For monitoring the application and condition of the damping elements. Enables predictive maintenance and increases reliability and accuracy.

The following parameters can be monitored:

- Impact velocity
- End position
- Energy absorption
- Residual energy
- Damping reserve

Distance sensor SOIA, inductive						Link soia
	Mounting type	Position measuring range	Switching output	Electrical connection	Part no.	Type
	Flush	0 ... 2 mm	PNP/NPN switchable, Push-pull	Open end	8161194	SOIA-M8PB-PNLK-LE
	Not flush	0 ... 4 mm			8161196	SOIA-M8PNB-PNLK-LE

Position sensor SRBS



The position sensor is used for sensing the end positions of DSM semi-rotary drives.

The sensing is magnetic and contactless. 2 switching points are output.

- Quick assembly without having to manually search for switching points
- Simple and reliable operation with one key
- Only one connecting cable required
- Long service life thanks to robust and contactless position sensing

Accessories

Position sensor SRBS

Link [srbs](#)

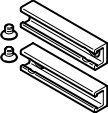
	Description	Sensing range	Switching point reproducibility	Switching output	Switching element function	Product weight	Part no.	Type
	for size 6	270 deg	<= 1°	2 x PNP or 2 x NPN switchable	N/C contact/N/O contact, switchable	25 g	2619969	SRBS-Q12-6-E270-EP-1-S-M8
	for size 8					30 g	2619972	SRBS-Q12-8-E270-EP-1-S-M8
	for size 10					35 g	2412001	SRBS-Q1-10-E270-EP-1-S-M8

Sensor bracket SL-DSM for proximity switch SME-/SMT-10

	Description ¹⁾	Product weight	Part no.	Type
	For sizes 12 ... 40	2 g	550661	SL-DSM-B

1) Packaging unit: 2 piece

Sensor bracket SL-DSM for proximity switch SME-/SMT-8

	Description ¹⁾	Product weight	Part no.	Type
	for size 63	10 g	552088	SL-DSM-63-B

1) Packaging unit: 2 piece

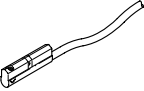
Sensor bracket SL-DSM for inductive proximity switches SIEN

	Description ¹⁾	Product weight	Part no.	Type
	For sizes 12 ... 40	4 g	1130882	SL-DSM-S-M5-B
			1132360	SL-DSM-S-M8-B

1) Packaging unit: 2 piece

SME proximity switch for round slots, magnetoresistive – for all sizes except DSM-16

Link [sme](#)

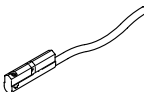
	Type of mounting ¹⁾	Switching element function	Electrical connection	Cable length	Part no.	Type
	Screwed on, Can be inserted in slot from above	N.O. contact	Open end	2.5 m	551373	SMT-10M-PS-24V-E-2,5-L-OE
			Plug M8, A-coded	0.3 m	551375	SMT-10M-PS-24V-E-0,3-L-M8D

1) For DRVS-6 ... 8: With mounting kit WSM-...-SME-10
 For DRVS-12 ... 40: With sensor bracket SL-DSM-B

Accessories

Proximity switch SME for round slot, magnetic reed – for DSM-6 ... 40

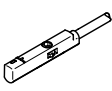
Link [sme](#)

	Type of mounting 1)	Switching element function	Electrical connection	Cable length	Part no.	Type
	Clamped in T slot, Can be inserted in slot lengthwise	N.O. contact	Open end	0.3 m	173212	SME-10-SL-LED-24
				2.5 m	173210	SME-10-KL-LED-24

1) For DRVS-6 ... 8: With mounting kit WSM-...SME-10
For DRVS-12 ... 40: With sensor bracket SL-DSM-B

Proximity switch SME for round slot, magnetic reed – for DSM-12 ... 40

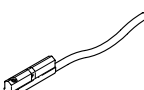
Link [sme](#)

	Type of mounting 1)	Switching output	Electrical connection	Cable length	Part no.	Type
	Screwed on, Can be inserted in slot from above	3-wire N/O contact	Open end	2.5 m	551365	SME-10M-DS-24V-E-2,5-L-OE
			Plug M8, A-coded	0.3 m	551367	SME-10M-DS-24V-E-0,3-L-M8D

1) With sensor bracket SL-DSM-B

Proximity switch SMT for T-slot, magnetoresistive for DSM-63

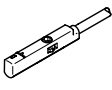
Link [smt](#)

	Type of mounting 1)	Switching element function	Electrical connection	Cable length	Part no.	Type
	Screwed on, Can be inserted in slot from above	N.O. contact	Open end	2.5 m	574338	SMT-8M-A-NS-24V-E-2,5-OE
					574335	SMT-8M-A-PS-24V-E-2,5-OE
			Plug M8, A-coded	0.3 m	574334	SMT-8M-A-PS-24V-E-0,3-M8D
					574339	SMT-8M-A-NS-24V-E-0,3-M8D

1) For DRVS-6 ... 8: With mounting kit WSM-...SME-10
For DRVS-12 ... 40: With sensor bracket SL-DSM-B

Proximity switch SME for round groove, magnetic reed for DSM-63

Link [sme](#)

	Type of mounting 1)	Switching output	Electrical connection	Cable length	Part no.	Type
	Screwed on, Can be inserted in slot from above	3-wire N/O contact	Open end	2.5 m	543862	SME-8M-DS-24V-K-2,5-OE
				5 m	543863	SME-8M-DS-24V-K-5,0-OE
			Plug M8, A-coded	0.3 m	543861	SME-8M-DS-24V-K-0,3-M8D
		2-wire N/O contact	Open end	2.5 m	543872	SME-8M-ZS-24V-K-2,5-OE

1) With sensor bracket SL-DSM-B

Proximity switch SIEN, inductive, with cable – for DSM-12 ... 40

Link [sien](#)

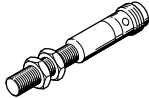
	Type of mounting 1)	Switching output	Electrical connection	Cable length	Part no.	Type
	With locknut	PNP	Open end	2.5 m	150386	SIEN-M8B-PS-K-L
					150370	SIEN-M5B-PS-K-L

1) With sensor bracket SL-DSM-S

Accessories

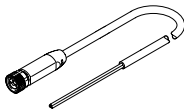
Proximity switch SIEN, inductive, with plug – for DSM-12 ... 40

Link [sien](#)

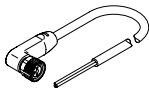
	Type of mounting ¹⁾	Switching output	Electrical connection	Part no.	Type
	With locknut	PNP	Plug M8, A-coded	150387	SIEN-M8B-PS-S-L
				150371	SIEN-M5B-PS-S-L

1) With sensor bracket SL-DSM-S

Connecting cables NEBA, straight

	Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/wires	Cable length	Part no.	Type
	M8x1 A-coded as per EN 61076-2-104	Open end	3	2.5 m	8078223	NEBA-M8G3-U-2.5-N-LE3
				5 m	8078224	NEBA-M8G3-U-5-N-LE3

Connecting cables NEBA, angled

	Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/wires	Cable length	Part no.	Type
	M8x1 A-coded as per EN 61076-2-104	Open end	3	2.5 m	8078230	NEBA-M8W3-U-2.5-N-LE3
				5 m	8078231	NEBA-M8W3-U-5-N-LE3

Centering sleeve ZBH-5

	Description	Sleeve material	Pack size	Product weight	Part no.	Type
	for size 12	Steel	10	1 g	8146543	ZBH-5-B

Centering sleeve ZBH-7

	Description	Sleeve material	Pack size	Product weight	Part no.	Type
	for sizes 12 ... 32	Steel	10	1 g	8146544	ZBH-7-B

Centering sleeve ZBH-9

	Description	Sleeve material	Pack size	Product weight	Part no.	Type
	for size 25	Steel	10	2 g	8137184	ZBH-9-B

Centering sleeve ZBH-12

	Description	Sleeve material	Pack size	Product weight	Part no.	Type
	For sizes 12, 16, 32, 40, 63	Steel	10	1 g	8137185	ZBH-12-B

Accessories

Centering sleeve ZBH-15						
	Description	Sleeve material	Pack size	Product weight	Part no.	Type
	for size 25	high-alloy stainless steel	10	3 g	191409	ZBH-15

Centering sleeve ZBH-25						
	Description	Sleeve material	Pack size	Product weight	Part no.	Type
	for sizes 40, 63	high-alloy stainless steel	10		8023856	ZBH-25