Twin-piston semi-rotary drives DRRD

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Twin-piston semi-rotary drives DRRD

Key features

At a glance

- Rack and pinion principle
- Very high accuracy in the end positions
- Very high load bearing capacity
- Very good axial run-out at the flanged shaft
- High mass moments of inertia
- Low-backlash and dynamic
- Splash-proof design to IP65 based on EN 60529
- Defined interfaces
- Supply port at one end
- Choice of mounting options
- Ideal for use in handling applications

Wide choice of variants

Flanged shaft

- Size 16 ... 63
- Torque: 1.6 ... 112 Nm
- Swivel angle: 0 ... 180°

End-position locking

- Size 16 ... 63
- Mechanical lock in the end positions to prevent unwanted movement in unpressurised condition

Position sensing

- Size 16 ... 63
- T-slot for proximity sensor SMT-/SME-8

External position sensing (sensor mounting)

- Size 16 ... 63
- Position sensing possible directly at the flanged shaft
- Inductive sensors SIES can be used in combination with external position sensing

Cushioning

- Size 16 ... 63
- Choice of four cushioning types:
  - Elastic cushioning with metal end position (P)
  - Shock absorber (Y9)
  - Shock absorber, hard (Y10)
  - Shock absorber, external (Y12)

External cushioning

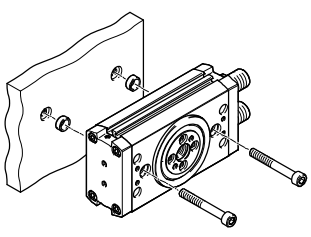
- Size 16 ... 63
- The full torque can be realised in the end positions in combination with external cushioning

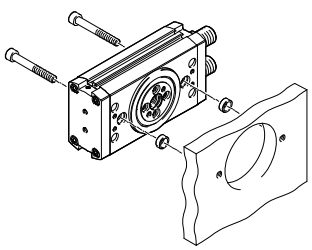
Energy throughfeed

- Size 16 ... 63
- Electric signals or compressed air can be transferred through the hollow shaft using the energy throughfeed. This enables fast and easy supply of the parts connected to the flange (e.g. gripper).

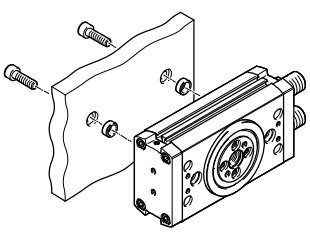
Mounting options

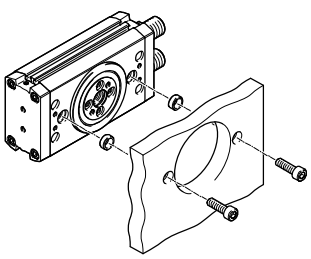
Via through-holes





Via thread in the housing profile





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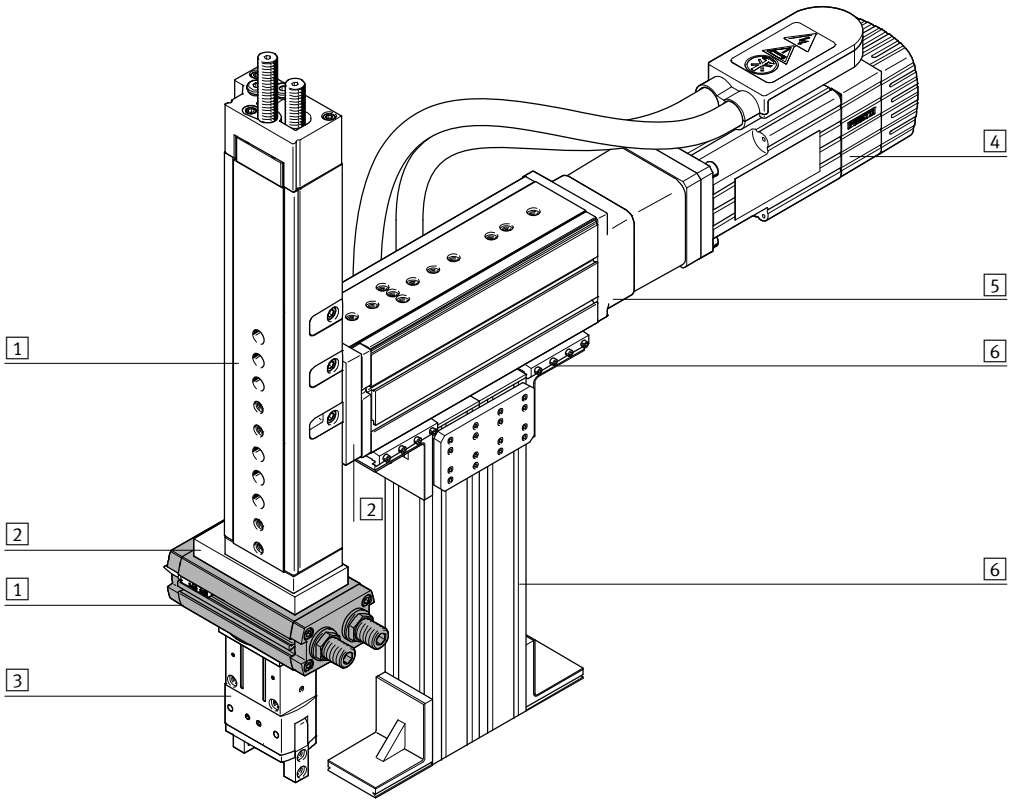
System example

System product for handling and assembly technology



System components and accessories			
		Brief description	**➔ Page/Internet**
1	Drives	Wide range of combinations possible within handling and assembly technology	drive
2	Adapters	For drive/drive and drive/gripper connections	adapter kit
3	Grippers	Wide range of combination options within handling and assembly technology	gripper
4	Motors	Servo and stepper motors, with or without gear unit	motor
5	Axes	Wide range of combinations possible within handling and assembly technology	axis
6	Basic components	Profiles and profile connections as well as profile/drive connections	basic component
–	Installation components	For a clear, safe layout of electrical cables and tubing	installation component

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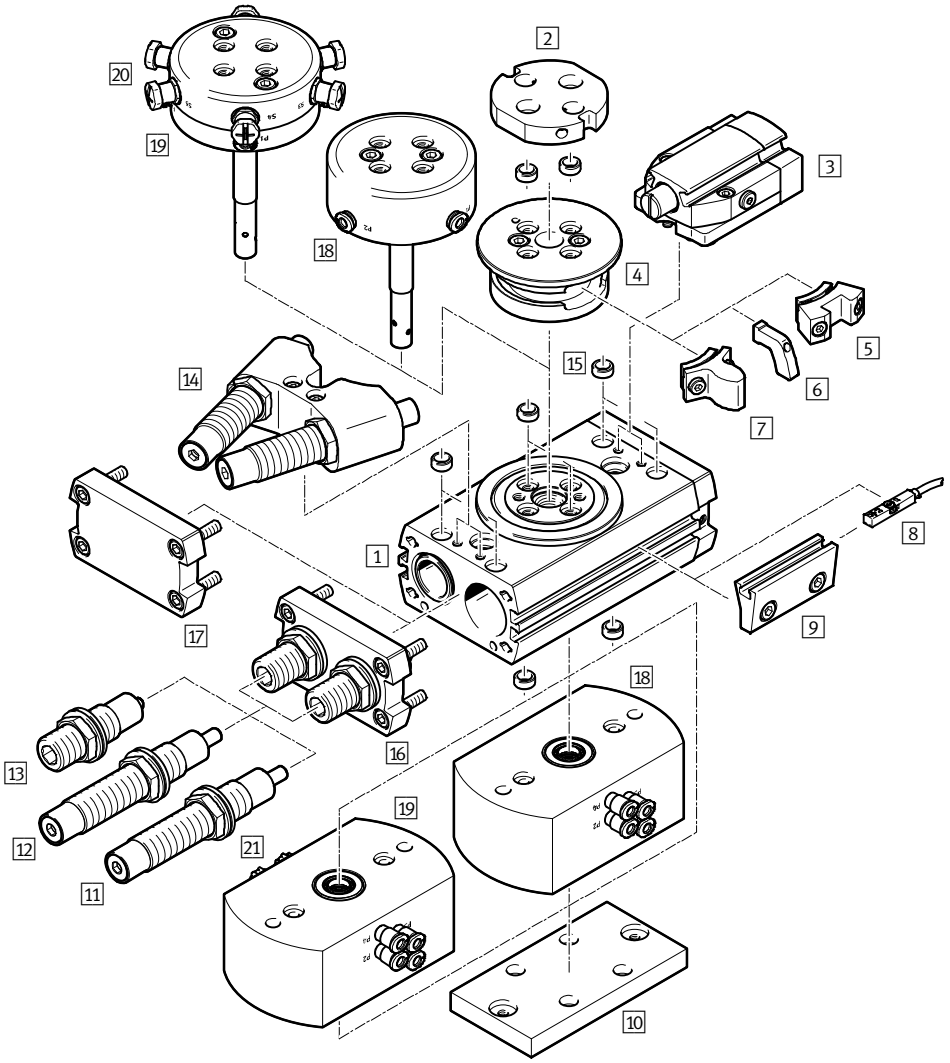
Peripherals overview



Variants, mounting components and accessories		Brief description	Size								➔ Page/ Internet
			16	20	25	32	35	40	50	63	
1	Semi-rotary drive DRRD	Double-acting	■	■	■	■	■	■	■	■	6
2	Adapter kit DHAA	• Connecting plate between semi-rotary drive and gripper • Included in the scope of delivery: 2 centring sleeves and screws	■	■	■	■	■	■	■	■	gripper
3	End-position locking E1 (clamping unit DADL-...-EL as an accessory)	• Mechanical lock in the end positions to prevent unwanted movement in unpressurised condition • Included in the scope of delivery: 3, 4, 2x 5	■	■	■	■	■	■	■	■	29
4	Flange assembly	• Required to mount components 5, 6 and 7	■	■	■	■	■	■	■	■	29
5	Clamping component (type: DADL-EC)	• Secures the semi-rotary drive DRRD when cylinder 3 is advanced • Two clamping components are included in the scope of delivery of the end-position locking (E1)	■	■	■	■	■	■	■	■	31

Twin-piston semi-rotary drives DRRD

Peripherals overview

Variants, mounting components and accessories										
		Brief description	Size							➔ Page/ Internet
			16	20	25	32	35	40	50	63	
6	Switch lug DASI-Q11-...-SL	• For sensing the piston position using e.g. inductive proximity sensors SIES-8M ➔ 32, in combination with sensor bracket 9 • Two switch lugs are included in the scope of delivery of the sensor mounting kit (R)	■	■	■	■	■	■	■	■	31
7	Stop element	• Serves as an end stop in combination with external shock absorbers (Y12) • Two stop elements are included in the scope of delivery of external shock absorbers (Y12)	■	■	■	■	■	■	■	■	28
8	Proximity sensor SMT-/SME-8	For sensing the piston position	■	■	■	■	■	■	■	■	32
9	Sensor mounting kit R (sensing kit DASI-...-KT as an accessory)	• For sensing the piston position using e.g. inductive proximity sensors SIES-8M ➔ 32 • Included in the scope of delivery: 4, 2x 6, 2x 9	■	■	■	■	■	■	■	■	30
10	Adapter kit DHAA	Connecting plate between semi-rotary drive and drive	■	■	■	■	■	■	■	■	adapter
11	Shock absorbers Y9	Linear shock absorber, self-adjusting at both ends	■	■	■	■	■	■	■	■	28
12	Shock absorber, hard Y10	Linear shock absorber, self-adjusting at both ends, hard	–	–	■	–	■	■	■	■	28
13	Shock absorbers P	Elastic cushioning with metal end position, both ends	■	■	■	■	■	■	–	–	28
14	Shock absorber, external Y12	• Linear shock absorber, self-adjusting at both ends, external • Included in the scope of delivery: 4, 2x 7, 14	■	■	■	■	■	■	■	–	28
15	Centring sleeve ZBH	For centring attachments (two centring sleeves for mounting the semi-rotary drive included in the scope of delivery)	■	■	■	■	■	■	■	■	31
16	End cap	In combination with elastic cushioning P or shock absorber Y9, Y10	■	■	■	■	■	■	■	■	–
17	End cap	In combination with external shock absorber Y12	■	■	■	■	■	■	■	–	–
18	Pneumatic energy throughfeed	Enables the quick and easy pneumatic supply of parts connected to the flange (e.g. gripper)	■	■	■	■	■	■	■	■	20
19	Pneumatic/electrical energy throughfeed	Enables the quick and easy pneumatic/electrical supply of parts connected to the flange (e.g. gripper)	■	■	■	■	■	■	■	■	20
20	Connecting cable NEBU	From the energy throughfeed to the proximity sensor	■	■	■	■	■	■	■	■	33
21	Connecting cable NEBU	From the energy throughfeed to the control	■	■	■	■	■	■	■	■	33

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Type codes

DRRD	–		–	180	–	FH		–		

Product type	
Double-acting	
DRRD	Semi-rotary drive

Size	

Nominal swivel angle	
180	180°

Output shaft	
FH	Flanged shaft, hollow

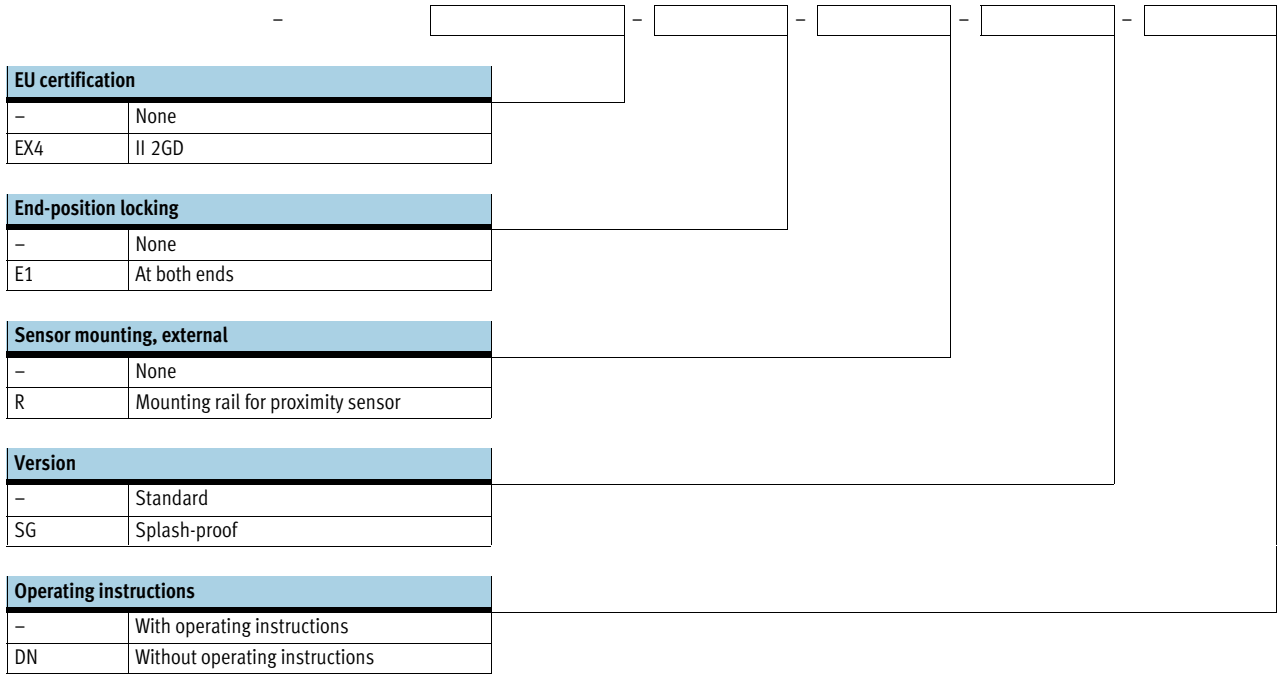
Energy throughfeed	
–	None
P2	Pneumatic, 2 channels
P2E2	Pneumatic, 2 channels; electric, 2 signals
P4	Pneumatic, 4 channels
P4E6	Pneumatic, 4 channels; electric, 6 signals
P8	Pneumatic, 8 channels
P8E8	Pneumatic, 8 channels; electric, 8 signals

Cushioning	
P	Elastic cushioning rings/pads at both ends
Y9	Linear shock absorber, self-adjusting at both ends
Y10	Linear shock absorber, self-adjusting at both ends, hard
Y12	Linear shock absorber, self-adjusting at both ends, external

Position sensing	
A	For proximity sensor

Twin-piston semi-rotary drives DRRD

Type codes



EU certification	
–	None
EX4	II 2GD

End-position locking	
–	None
E1	At both ends

Sensor mounting, external	
–	None
R	Mounting rail for proximity sensor

Version	
–	Standard
SG	Splash-proof

Operating instructions	
–	With operating instructions
DN	Without operating instructions

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Technical data

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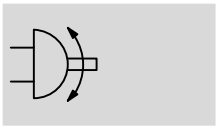
Function



Diameter
16 ... 63 mm

Force
1.6 ... 112 Nm

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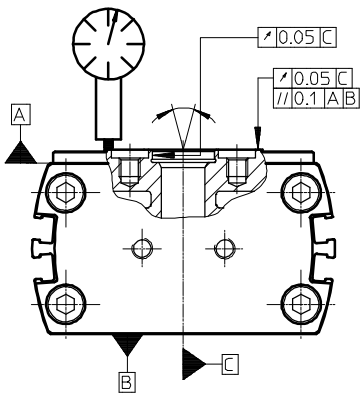
Spare_parts_service

General technical data									
Size		16	20	25	32	35	40	50	63
Design		Rack and pinion							
Mode of operation		Double-acting							
Pneumatic connection		M5			G1⁄8			G1⁄4	G3⁄8
Type of mounting		Via through-hole							
		Via female thread							
Swivel angle	[°]	180 (➔ 11)							
Cushioning with fixed stop									
DRRD-...-P		Elastic cushioning rings/pads at both ends						–	
DRRD-...-Y9		Linear shock absorber, self-adjusting at both ends							
DRRD-...-Y10		–		Linear shock absorber, self-adjusting at both ends, hard	–	Linear shock absorber, self-adjusting at both ends, hard			
DRRD-...-Y12		Linear shock absorber, self-adjusting at both ends, external							–
Repetition accuracy	[°]	< 0.05						≤0.03	
Axial run-out[1)]	[mm]	< 0.05							
Max. axial load (static)	[N]	1500	2400	2400	3750	6100	6100	9,000	11,000
Mounting position		Any							

1) Axial run-out in new condition



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Operating and environmental conditions		
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]
Note on operating/pilot medium		Lubricated operation possible (required during subsequent operation)
Operating pressure		
DRRD-...-P	[bar]	3 ... 8
DRRD-...-Y9/-Y10/-Y12	[bar]	2 ... 10
Ambient temperature	[°C]	–10 ... +60
Storage temperature	[°C]	–20 ... +60
Protection class based on EN 60529		
DRRD-...-SG		IP65

ATEX[1)]	
ATEX category for gas	II 2G
Explosion ignition protection type for gas	c T4
ATEX category for dust	II 2D
Explosion ignition protection type for dust	c T120°C
Explosion-proof ambient temperature	–10°C ≤ Ta ≤ +60°C
CE marking (see declaration of conformity)	To EU Explosion Protection Directive (ATEX)

1) Note the ATEX certification of the accessories.

Weight [g]								
Size	16	20	25	32	35	40	50	63
Basic drive with cushioning								
DRRD-...-P	640	839	1349	2815	4510	6070	–	–
DRRD-...-Y9/-Y10	650	883	1358	2976	4784	6424	11300	19100
DRRD-...-Y12	757	1132	1705	3760	5425	7160	12450	22400
Energy throughfeed (additional)								
DRRD-...-P	320	350	710	920	1090	1470	1950	2250
DRRD-...-P...E...	460	480	720	900	880	1770	2330	2610
End-position locking (additional)								
DRRD-...-E1	166	382	370	600	900	900	1610	2380
Sensor mounting, external (additional)								
DRRD-...-R	110	192	192	366	485	485	810	1390

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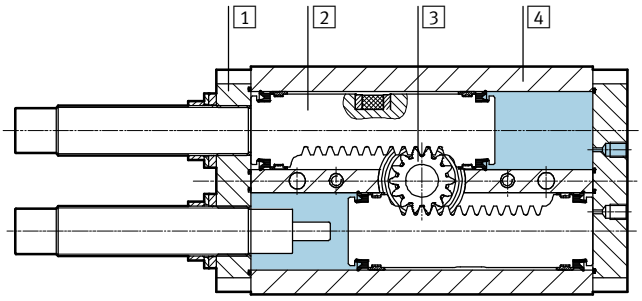
Forces and torques									
Size		16	20	25	32	35	40	50	63
Theoretical torque at 6 bar	[Nm]	1.6	2.4	5.1	10.1	15.8	24.1	53	112
Max. permissible mass moment of inertia									
DRRD-...-P	[kgcm^2]	175	400	900	1500	2500	6700	–	–
DRRD-...-Y9	[kgcm^2]	700	1250	1500	8,000	15,000	23,000	40,000	40,000
DRRD-...-Y10	[kgcm^2]	–	–	5500	–	45,000	67,000	200,000	420,000
DRRD-...-Y12	[kgcm^2]	900	1500	5500	26,000	45,000	67,000	200,000	–

Materials

Sectional view



Semi-rotary drive		
3	Flanged shaft	Tempered steel
1	End cap	Anodised wrought aluminium alloy
4	Housing	Smooth anodised wrought aluminium alloy
2	Piston	Stainless steel
	Seals	NBR
	Piston seal	TPE-U(PU)
	Note on materials	RoHS-compliant
		Contains PWIS (paint-wetting impairment substances)

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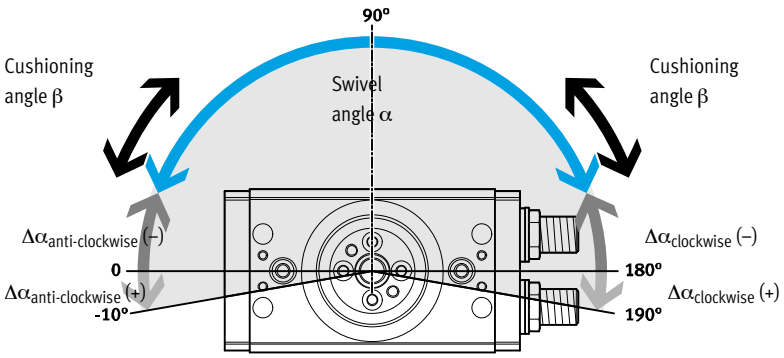
Swivel angle

Fundamentally, the following applies:
Swivel angle $\alpha \geq$ cushioning angle β
Swivel angle $\alpha = 180° + \Delta\alpha_{clockwise} + \Delta\alpha_{anti\text{-}clockwise}$



Size		16	20	25	32	35	40	50	63
Swivel angle α	[°]	180							
Min. swivel angle α									
DRRD-...-P	[°]	36	45	33	33	36	23	–	–
DRRD-...-Y9/-Y10	[°]	43	72	79	82	85	56	61	48
DRRD-...-Y12	[°]	20	24	38	34	34	34	30	34
DRRD-...-E1	[°]	60	60	60	55	57	57	62	55
Max. swivel angle α[1)]									
DRRD-...	[°]	200							
DRRD-...-Y12	[°]	194	196	190	194	195	195	188	192
Swivel angle adjustment α per side (infinitely adjustable)									
DRRD-...-P	[°]	–100 ... +10						–	–
DRRD-...-Y9/-Y10	[°]	≥ –100 ... +10							
DRRD-...-Y12	[°]	–94 ... +7	–85 ... +8	–88 ... +5	–93 ... +7	–86 ... +7		–86 ... +4	–91 ... +6
Cushioning angle β									
DRRD-...-P	[°]	36	45	33	33	36	23	–	–
DRRD-...-Y9/-Y10	[°]	43	72	79	82	85	56	61	48
DRRD-...-Y12	[°]	10	12	19	17	17	17	15	17

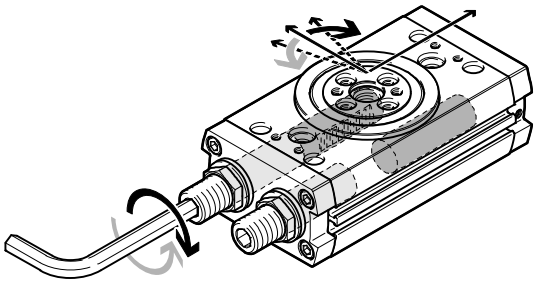
1) The max. swivel angle is reduced by approx. 10° in combination with the external sensor mounting

Swivel angle adjustment

Clockwise direction of rotation:
- Swivel angle decreases

Anti-clockwise direction of rotation:
- Swivel angle increases

The swivel angle is adjusted via the cushioning components using an Allen key. Any reduction in the swivel angle should preferably be evenly split between the two end positions.



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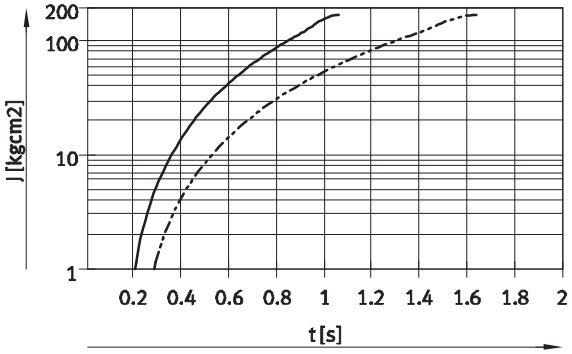
Technical data

Max. permissible mass moment of inertia J at the flanged shaft as a function of swivel time s (at room temperature and an operating pressure of 6 bar)

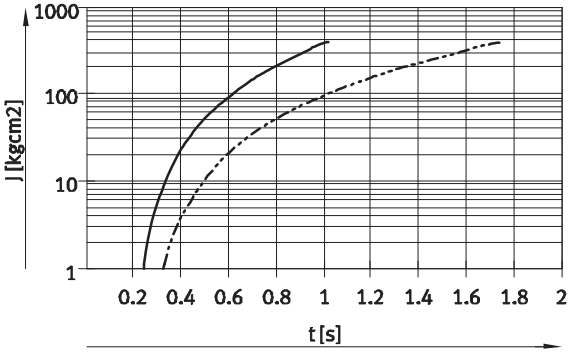
With cushioning P

Size 16



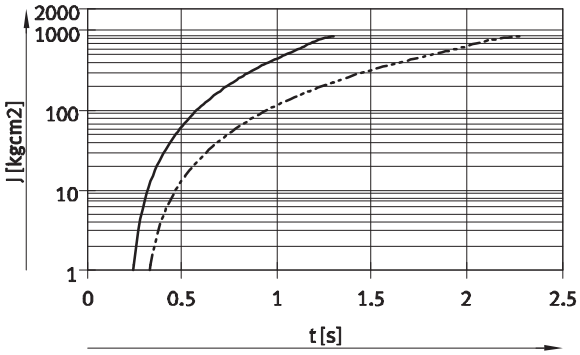
	Ranges
DRRD-16-...P (90°)	➔ 1 ... 175 kgcm²
DRRD-16-...-P (180°)	➔ 1 ... 175 kgcm²

Size 20



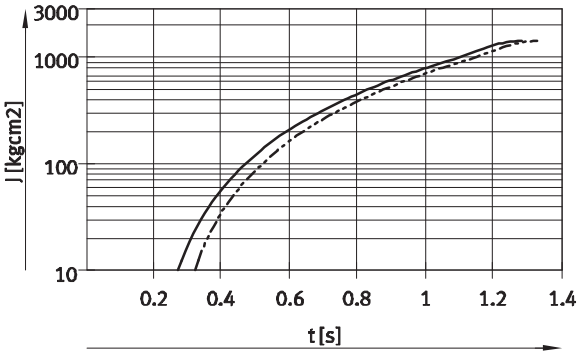
	Ranges
DRRD-20-...-P (90°)	➔ 1 ... 400 kgcm²
DRRD-20-...-P (180°)	➔ 1 ... 400 kgcm²

Size 25



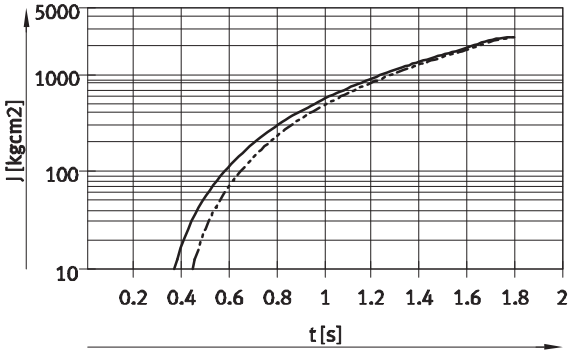
	Ranges
DRRD-25-...-P (90°)	➔ 1 ... 900 kgcm²
DRRD-25-...-P (180°)	➔ 1 ... 900 kgcm²

Size 32



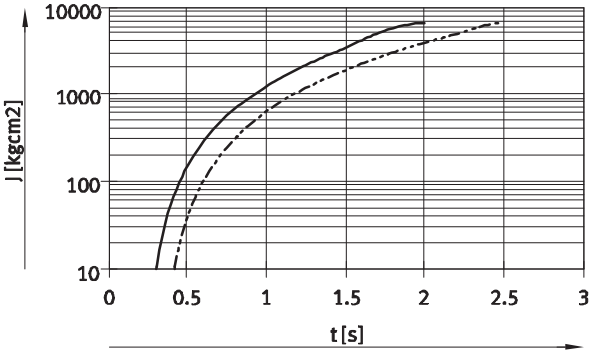
	Ranges
DRRD-32-...-P (90°)	➔ 10 ... 1500 kgcm²
DRRD-32-...-P (180°)	➔ 10 ... 1500 kgcm²

Size 35



	Ranges
DRRD-35-...-P (90°)	➔ 10 ... 2500 kgcm²
DRRD-35-...-P (180°)	➔ 10 ... 2500 kgcm²

Size 40



	Ranges
DRRD-40-...-P (90°)	➔ 10 ... 6700 kgcm²
DRRD-40-...-P (180°)	➔ 10 ... 6700 kgcm²

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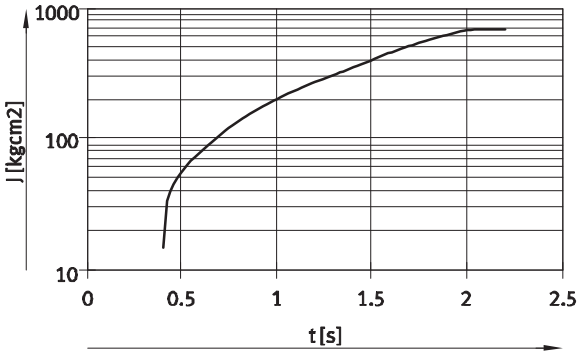
Max. permissible mass moment of inertia J at the flanged shaft as a function of swivel time s (at room temperature and an operating pressure of 6 bar)

With cushioning Y9/Y10

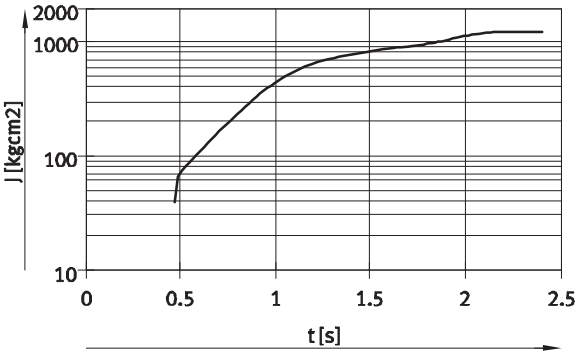
Size 16



Ranges

DRRD-16-180-...-Y9 (180°) ➔ 15 ... 700 kgcm²

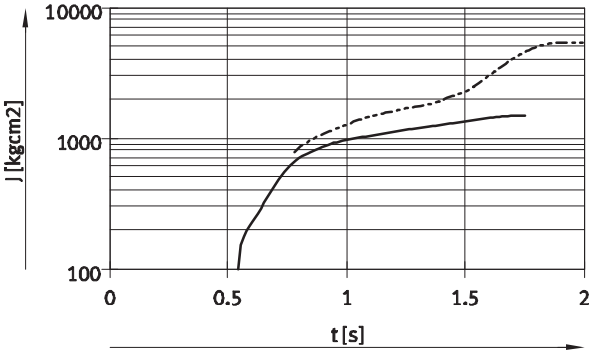
Size 20



Ranges

DRRD-20-180-...-Y9 (180°) ➔ 40 ... 1250 kgcm²

Size 25

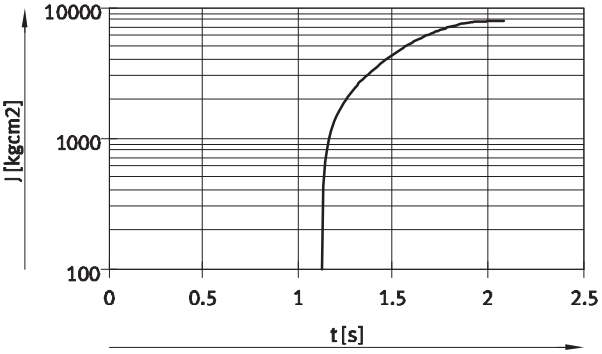


Ranges

DRRD-25-180-...-Y9 (180°) ➔ 100 ... 1500 kgcm²

DRRD-25-180-...-Y10 (180°) ➔ 800 ... 5500 kgcm²

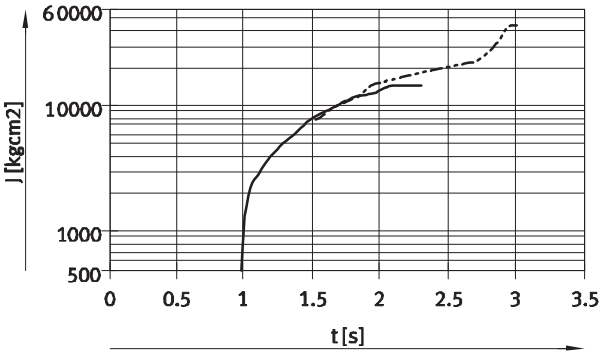
Size 32



Ranges

DRRD-32-180-...-Y9 (180°) ➔ 100 ... 8,000 kgcm²

Size 35

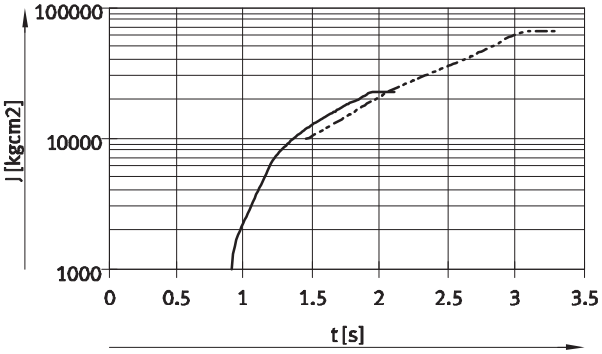


Ranges

DRRD-35-180-...-Y9 (180°) ➔ 500 ... 15,000 kgcm²

DRRD-35-180-...-Y10 (180°) ➔ 8,000 ... 45,000 kgcm²

Size 40



Ranges

DRRD-40-180-...-Y9 (180°) ➔ 1,000 ... 23,000 kgcm²

DRRD-40-180-...-Y10 (180°) ➔ 10,000 ... 67,000 kgcm²

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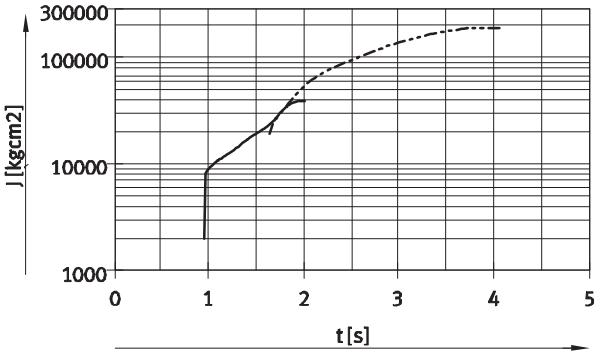
Technical data

FESTO

Max. permissible mass moment of inertia J at the flanged shaft as a function of swivel time s (at room temperature and an operating pressure of 6 bar)

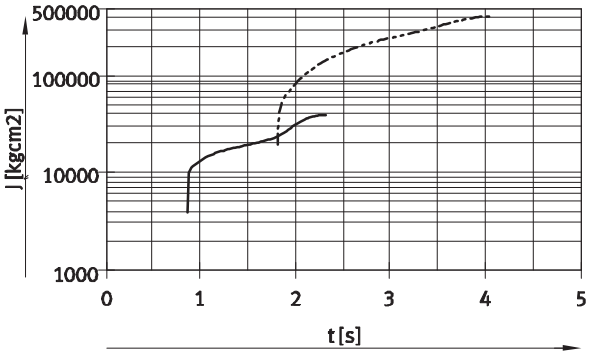
With cushioning Y9/Y10

Size 50



	Ranges
DRRD-50-180-...-Y9 (180°)	→ 2,000 ... 40,000 kgcm²
DRRD-50-180-...-Y10 (180°)	→ 20,000 ... 200,000 kgcm²

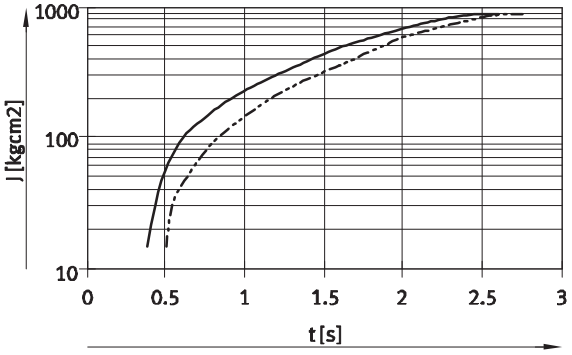
Size 63



	Ranges
DRRD-63-180-...-Y9 (180°)	→ 4,000 ... 40,000 kgcm²
DRRD-63-180-...-Y10 (180°)	→ 20,000 ... 420,000 kgcm²

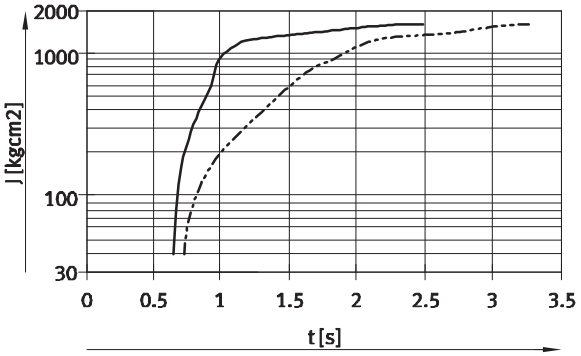
With cushioning Y12

Size 16



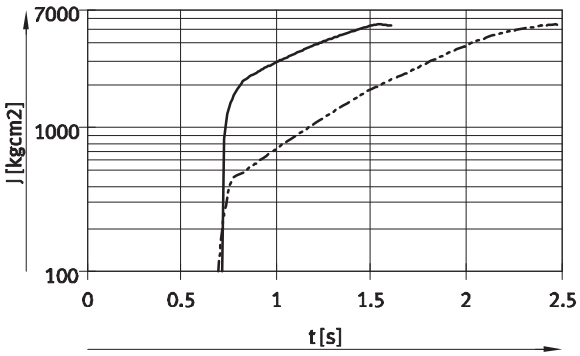
	Ranges
DRRD-16-...-Y12 (90°)	→ 15 ... 900 kgcm²
DRRD-16-...-Y12 (180°)	→ 15 ... 900 kgcm²

Size 20



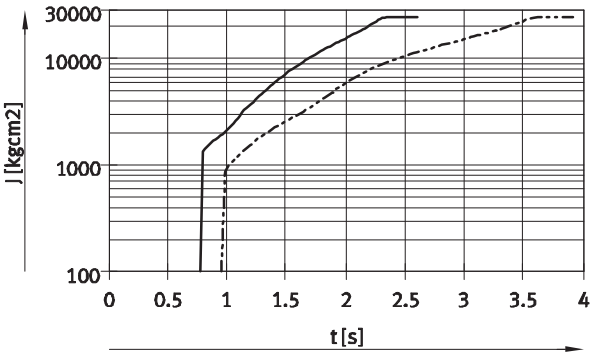
	Ranges
DRRD-20-...-Y12 (90°)	→ 40 ... 1500 kgcm²
DRRD-20-...-Y12 (180°)	→ 40 ... 1500 kgcm²

Size 25



	Ranges
DRRD-25-...-Y12 (90°)	→ 100 ... 5500 kgcm²
DRRD-25-...-Y12 (180°)	→ 100 ... 5500 kgcm²

Size 32



	Ranges
DRRD-32-...-Y12 (90°)	→ 100 ... 26,000 kgcm²
DRRD-32-...-Y12 (180°)	→ 100 ... 26,000 kgcm²

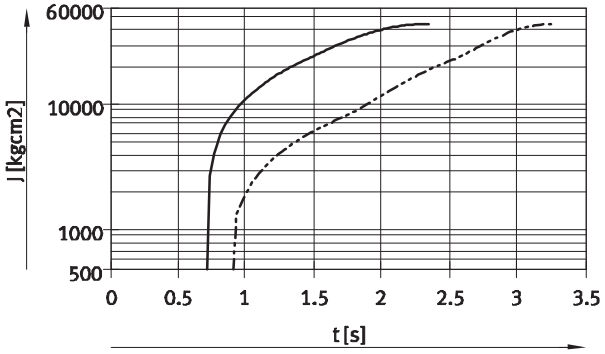
Twin-piston semi-rotary drives DRRD

Technical data

Max. permissible mass moment of inertia J at the flanged shaft as a function of swivel time s (at room temperature and an operating pressure of 6 bar)

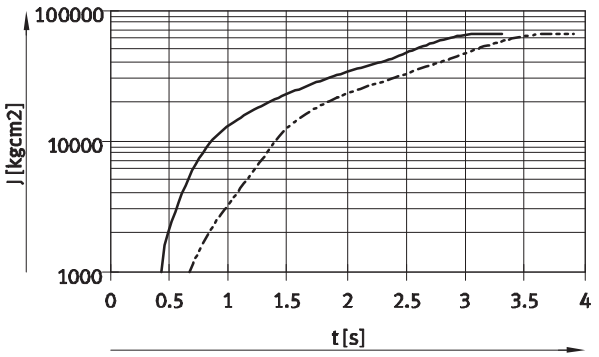
With cushioning Y12

Size 35



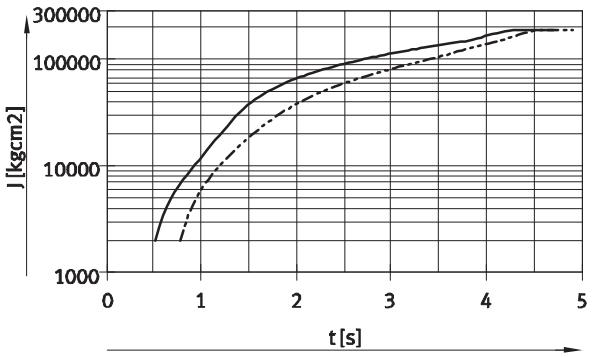
	Ranges
DRRD-35-...-Y12 (90°)	➔ 500 ... 45,000 kgcm²
DRRD-35-...-Y12 (180°)	➔ 500 ... 45,000 kgcm²

Size 40



	Ranges
DRRD-40-...-Y12 (90°)	➔ 1,000 ... 67,000 kgcm²
DRRD-40-...-Y12 (180°)	➔ 1,000 ... 67,000 kgcm²

Size 50



	Ranges
DRRD-50-180-...-Y12 (90°)	➔ 2,000 ... 200,000 kgcm²
DRRD-50-180-...-Y12 (180°)	➔ 2,000 ... 200,000 kgcm²

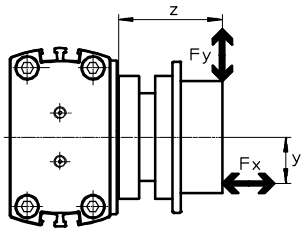
Twin-piston semi-rotary drives DRRD

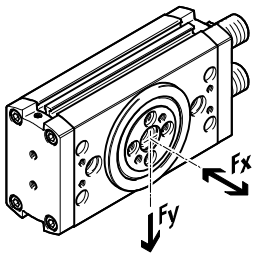
Technical data

FESTO

Max. dynamic load capacity at the flanged shaft

The zero point for the dimension Z is always the flange surface of the basic drive, regardless of the attachments (flange assembly).



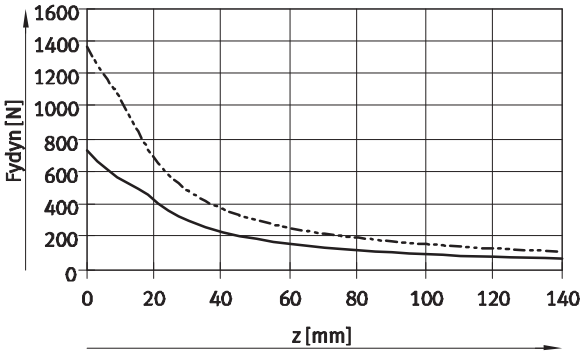


The following equation applies to combined loads (axial and radial):

$$\frac{F_{y\,(z)}}{F_{y,\,max.\,(z)}} \square \frac{F_{z\,(v)}}{F_{z,\,max.\,(v)}} \square 1$$

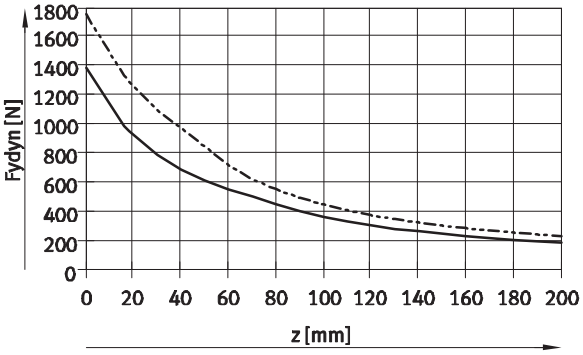
Max. dynamic radial force F_y as a function of distance z

Size 16/20



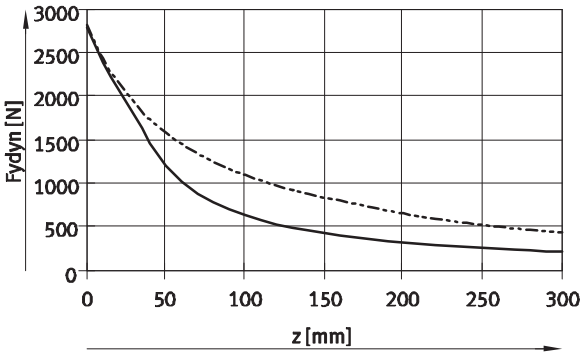
DRRD-16
DRRD-20

Size 25/32



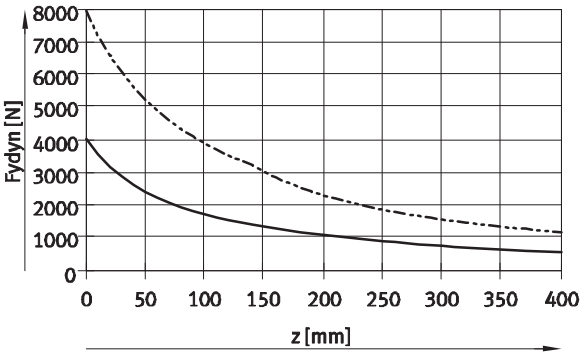
DRRD-25
DRRD-32

Size 35/40



DRRD-35
DRRD-40

Size 50/63



DRRD-50
DRRD-63

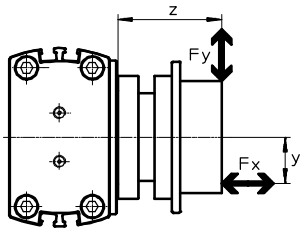
Twin-piston semi-rotary drives DRRD

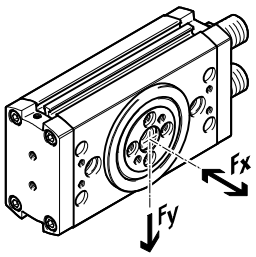
Technical data

FESTO

Max. dynamic load capacity at the flanged shaft

The zero point for the dimension Z is always the flange surface of the basic drive, regardless of the attachments (flange assembly).



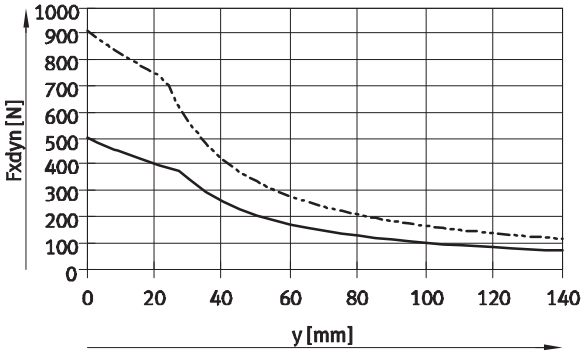


The following equation applies to combined loads (axial and radial):

$$\frac{F_{y\,(z)}}{F_{y,\,max.\,(z)}} \square \frac{F_{z\,(v)}}{F_{z,\,max.\,(v)}} \square 1$$

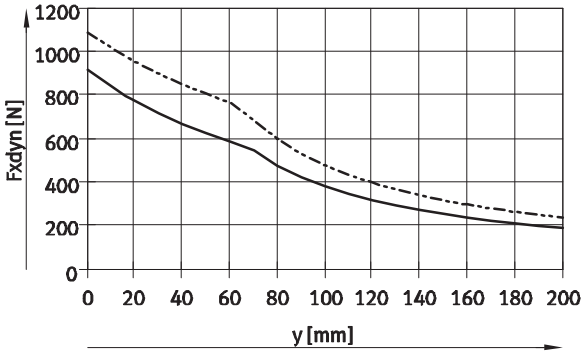
Max. dynamic axial force F_x as a function of distance y

Size 16/20



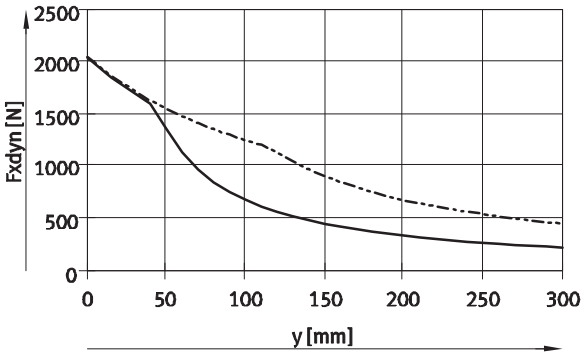
DRRD-16
DRRD-20

Size 25/32



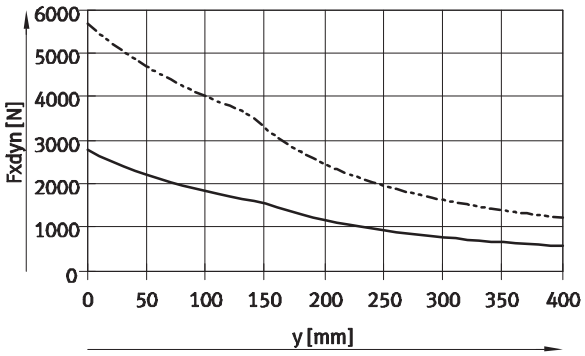
DRRD-25
DRRD-32

Size 35/40



DRRD-35
DRRD-40

Size 50/63



DRRD-50
DRRD-63

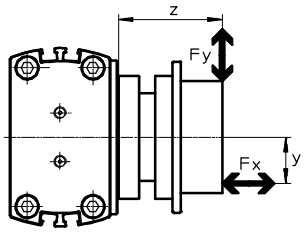
Twin-piston semi-rotary drives DRRD

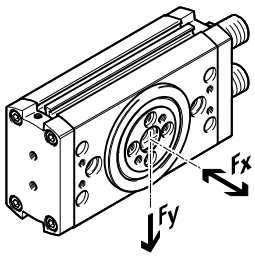
Technical data

FESTO

Max. static load capacity at the flanged shaft

The zero point for the dimension Z is always the flange surface of the basic drive, regardless of the attachments (flange assembly).



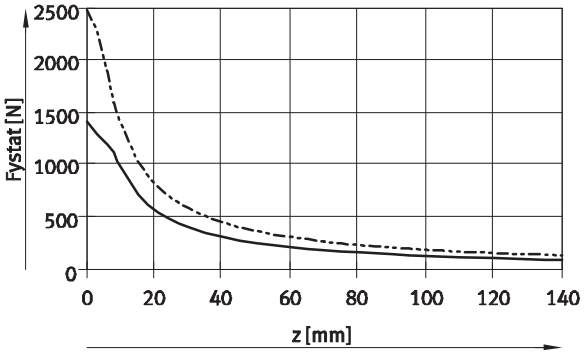


The following equation applies to combined loads (axial and radial):

$$\frac{F_{y\,(z)}}{F_{y,\,max.\,(z)}} \square \frac{F_{z\,(v)}}{F_{z,\,max.\,(v)}} \square 1$$

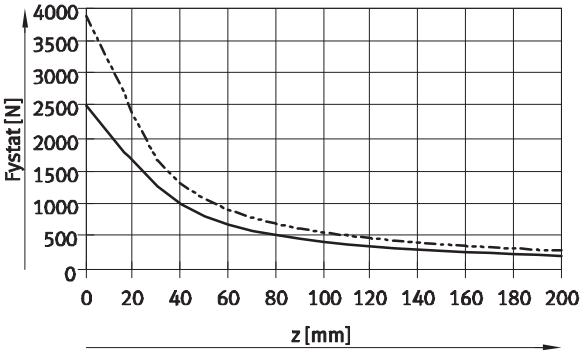
Max. static radial force F_y as a function of distance z

Size 16/20



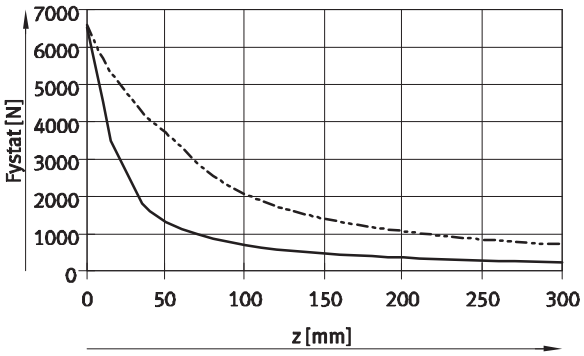
DRRD-16
DRRD-20

Size 25/32



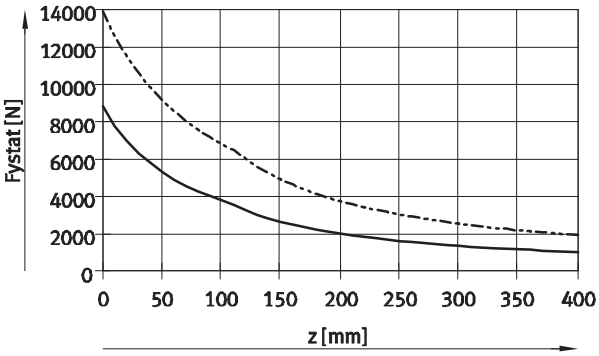
DRRD-25
DRRD-32

Size 35/40



DRRD-35
DRRD-40

Size 50/63



DRRD-50
DRRD-63

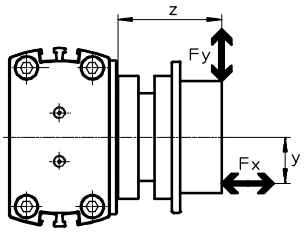
Twin-piston semi-rotary drives DRRD

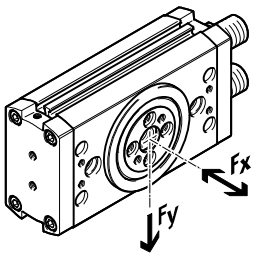
Technical data

FESTO

Max. static load capacity at the flanged shaft

The zero point for the dimension Z is always the flange surface of the basic drive, regardless of the attachments (flange assembly).



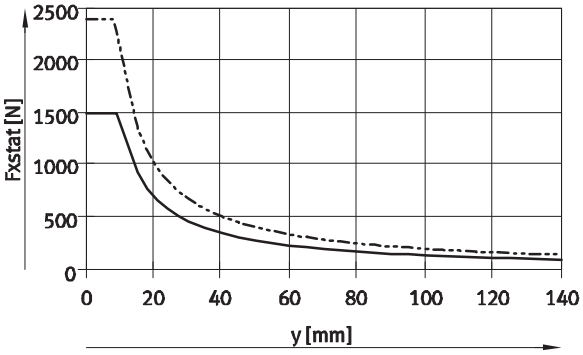


The following equation applies to combined loads (axial and radial):

$$\frac{F_{y\,(z)}}{F_{y,\,max.\,(z)}} \square \frac{F_{z\,(v)}}{F_{z,\,max.\,(v)}} \square 1$$

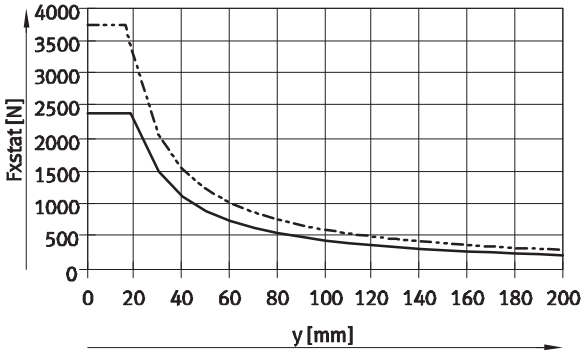
Max. static axial force F_x as a function of distance y

Size 16/20



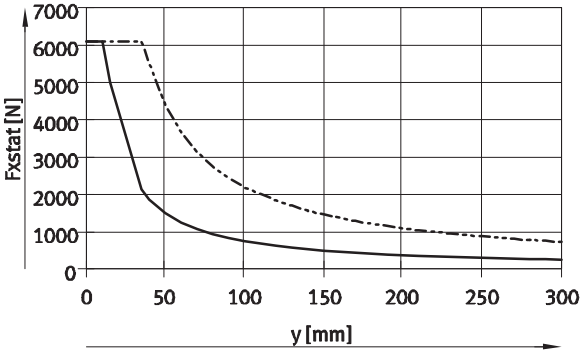
DRRD-16
DRRD-20

Size 25/32



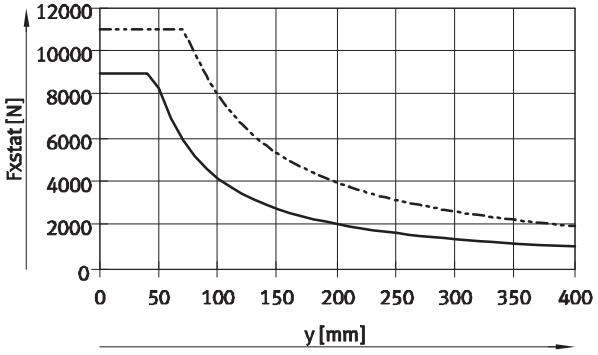
DRRD-25
DRRD-32

Size 35/40



DRRD-35
DRRD-40

Size 50/63



DRRD-50
DRRD-63

Twin-piston semi-rotary drives DRRD

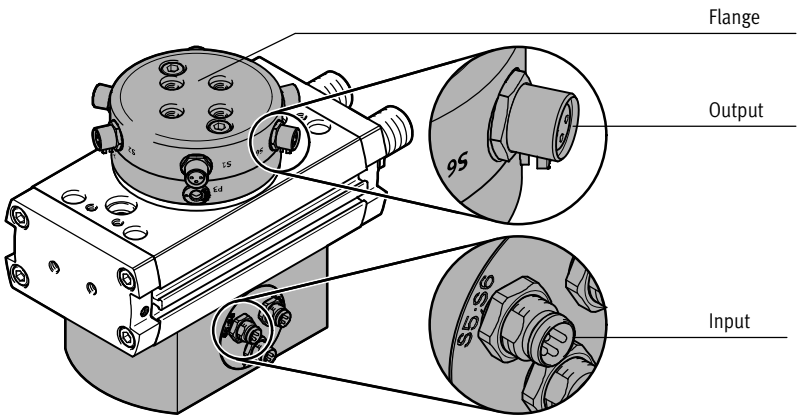
Technical data

FESTO

Energy throughfeed

Electric signals or compressed air can be transferred through the hollow shaft using the energy throughfeed. This enables quick and easy supply of the parts connected to the flange (e.g. gripper). This also prevents any damage to the compressed air tubes and electrical cables.

- Two versions available:
  - Pneumatic
  - Pneumatic and electrical
- Different number of connections depending on the size

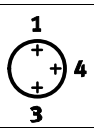
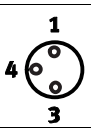
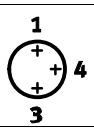
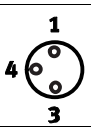


Technical data							
Size		16/20		25/32/35		40/50/63	
Variant		Pneumatic	Pneumatic/electrical	Pneumatic	Pneumatic/electrical	Pneumatic	Pneumatic/electrical
Order code		P2	P2E2	P4	P4E6	P8	P8E8
Pneumatic							
Number of pneumatic channels		2	2	4	4	8	8
Tubing O.D. ∅		4					
Max. operating pressure	[bar]	8					
Connection		M5					
Flow rate per channel	[l/min.]	86				33	
Electrical							
Number of electric signals		–	2	–	6	–	8
Rated voltage	[DC V]	–	30	–	30	–	30
Max. current[1)]	[A]	1.5					
Connection		M 8				M12	

1) The positive and negative lines of all electrical connections are connected together. The combined maximum peak current for this common positive and negative line is also 1.5 A.

Pin allocation

Size 16/20

Input M8 plug					Output M8 socket			
Designation	Signals	Pin[1)]	Circuit diagram		Circuit diagram	Pin[1)]	Signals	Designation
S1	+ – Sig 1	1 3 4				1 3 4	+ – Sig 1	S1
S2	+ – Sig 2	1 3 4				1 3 4	+ – Sig 2	S2

1) Pin 1 (+) and Pin 3 (-) are connected to each other between plugs S1 and S2. Unused plugs and sockets should therefore be protected with the cover caps.

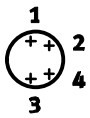
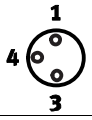
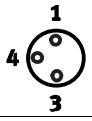
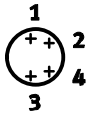
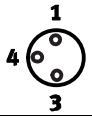
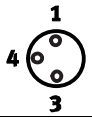
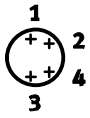
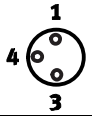
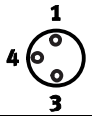
Twin-piston semi-rotary drives DRRD

Technical data

FESTO

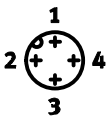
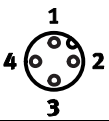
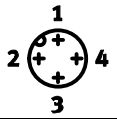
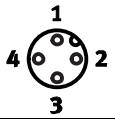
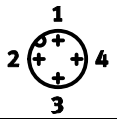
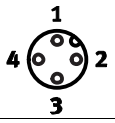
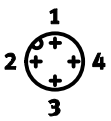
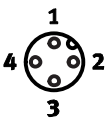
Pin allocation

Sizes 25/32/35

Input M8 plug				Output M8 socket			
Designation	Signals	Pin[1]	Circuit diagram	Circuit diagram	Pin[1]	Signals	Designation
S1;S2	+ Sig 2 – Sig 1	1 2 3 4			1 3 4	+ – Sig 1	S1
					1 3 4	+ – Sig 2	S2
S3;S4	+ Sig 4 – Sig 3	1 2 3 4			1 3 4	+ – Sig 3	S3
					1 3 4	+ – Sig 4	S4
S5;S6	+ Sig 6 – Sig 5	1 2 3 4			1 3 4	+ – Sig 5	S5
					1 3 4	+ – Sig 6	S6

1) Pin 1 (+) and Pin 3 (-) are connected to each other between plugs S1 ... S6. Unused plugs and sockets should therefore be protected with the cover caps.

Sizes 40/50/63

Input Plug M12				Output M12 socket			
Designation	Signals	Pin[1]	Circuit diagram	Circuit diagram	Pin[1]	Signals	Designation
S1;S2	+ Sig 2 – Sig 1	1 2 3 4			1 2 3 4	+ Sig 2 – Sig 1	S1;S2
S3;S4	+ Sig 4 – Sig 3	1 2 3 4			1 2 3 4	+ Sig 4 – Sig 3	S3;S4
S5;S6	+ Sig 6 – Sig 5	1 2 3 4			1 2 3 4	+ Sig 6 – Sig 5	S5;S6
S7;S8	+ Sig 8 – Sig 7	1 2 3 4			1 2 3 4	+ Sig 8 – Sig 7	S7;S8

1) Pin 1 (+) and Pin 3 (-) are connected to each other between plugs S1 ... S8. Unused plugs and sockets should therefore be protected with the cover caps.

Twin-piston semi-rotary drives DRRD

Technical data

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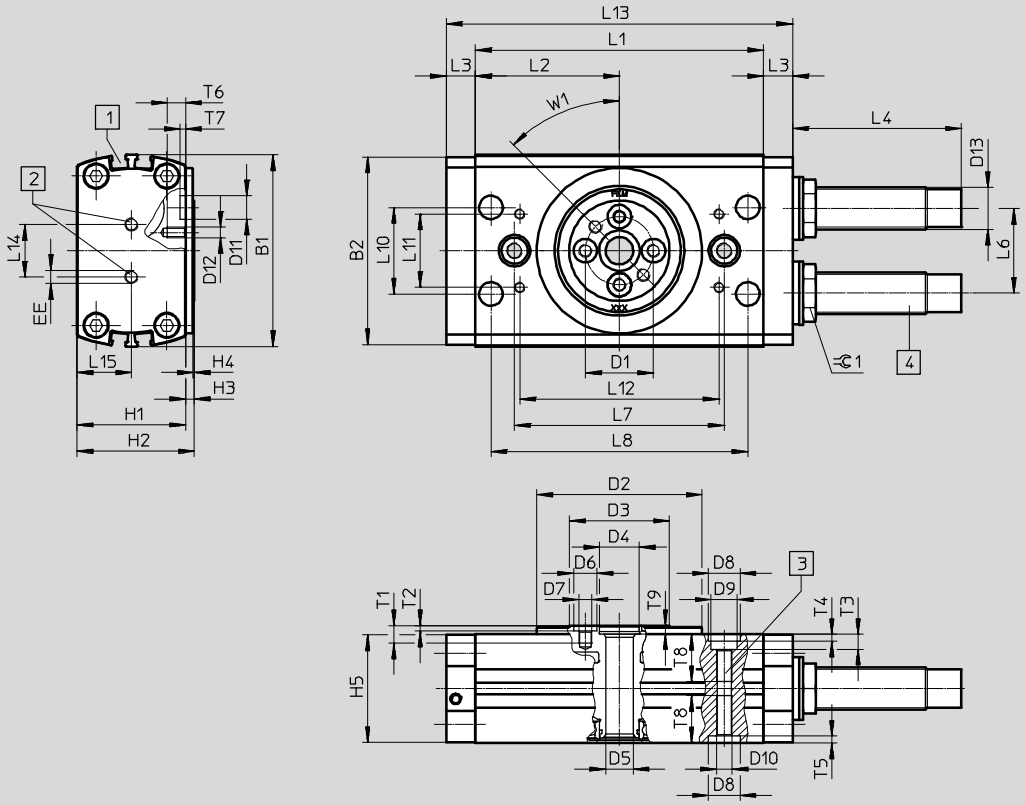
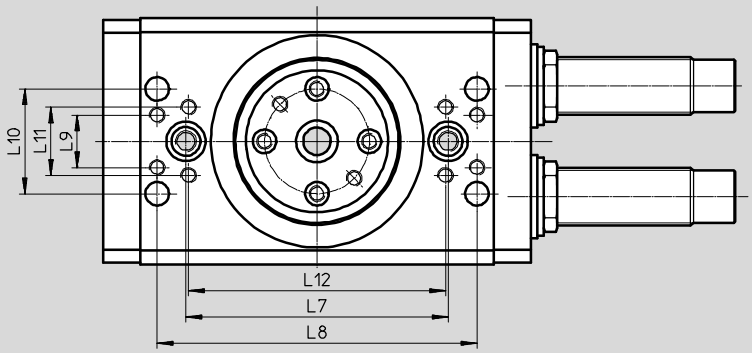
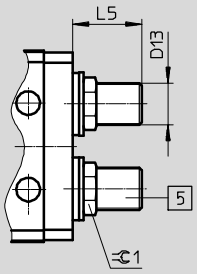
Dimensions Download CAD Data ➔ **www.festo.com/us/cad**



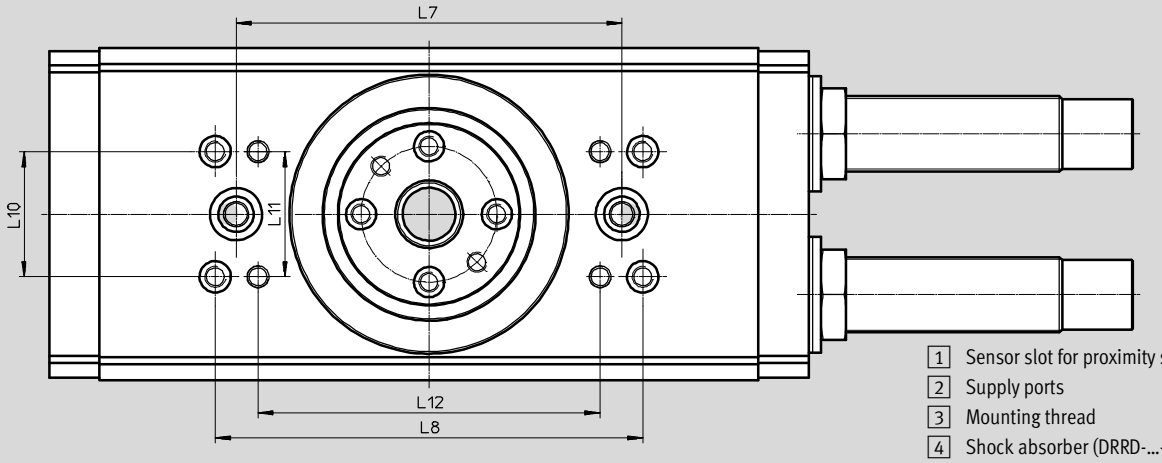
DRRD-32 ... 40



DRRD-...-P



DRRD-50/63



1 Sensor slot for proximity sensor
2 Supply ports
3 Mounting thread
4 Shock absorber (DRRD-...-Y9/-Y10)
5 Cushioning component (DRRD-...-P)

Twin-piston semi-rotary drives DRRD

Technical data

Size	B1 ±0.25	B2	D1 ∅ ±0.025	D2 ∅ h7	D3 ∅	D4 ∅	D5 ∅ +0.15/−0.05	D6 ∅ H7	D7	D8 ∅ H7	D9 ∅
16	58	56.2	21	50	32	12	8	7	M4	9	8
20	65	63.4	24	56	34.9	12	8	7	M4	9	8
25	73.2	71.5	26	63	38.3	15	10.5	9	M5	12	10
32	94	92.6	40	81	54.2	15	10.5	9	M6	15	11
35	106	104	45	91	59.9	25	10.5	9	M6	15	11
40	113	111	45	91	59.9	25	21	9	M6	15	14
50	132	139.7	54	110	73	25	21	12	M8	15	14
63	159	157	63	135	82.8	25	21	15	M10	25	17

Size	D10	D11 ∅ H7	D12	D13	H1 ±0.1	H2 +0.2/−0.1	H3 +0.3/−0.2	H4	H5	L1 ±0.1	L2
16	M5	7	M3	M10x1	33	35.6	2.6	0.5	32.6	84	42
20	M5	9	M4	M12x1	36	39.6	3.6	0.5	35.6	86	43
25	M6	9	M4	M16x1	41.4	44.7	3.3	0.5	41	110	55
32	M8	9	M6	M22x1.5	50	55.5	5.5	1	49.6	135	67.5
35	M8	9	M6	M26x1.5	63	67	4	1	62.2	148	74
40	M10	9	M6	M26x1.5	68	72	4	1	67.2	199	99.5
50	M10	15	M8	M30x1.5	78	83	5	1	77.2	262	131
63	M12	15	M10	M37x1.5	100	107	7	2	99.2	335	167.5

Size	L3 ±0.1	L6	L7 ±0.02	L8 ±0.2	L9 ±0.15	L10 ±0.02	L11 ±0.15	L12 ±0.2	L13	L14	L15 −0.1
16	10.5	23.2	64	74	–	26	22	61	105	20	16.3
20	11	26	70	74	–	33	14	80	108	20	17.8
25	11	32.4	80	98	–	33	14	98	132	20	20.5
32	14	42.2	100	122	20	40	26	98	163	30	24.8
35	15	49.6	120	130	44	26	44	105	178	42	31.1
40	15	56	120	130	44	26	44	105	229	42	33.6
50	20	64	160	160	34	34	54	132	302	50	39
63	25	78	170	190	60	60	60	149	385	50	49.6

Size	T1	T2 +0.1	T3	T4 +0.1	T5 +0.3/−0.2	T6	T7 +0.1	T8	T9	EE	W1	⌀1
16	5.6	1.6	4.7	2.1	2.1	6.3	1.6	15	2.6	M5	45°	13
20	6	1.6	4.7	2.1	2.1	6.3	2.1	15	2.6	M5	45°	15
25	6.6	2.1	5.7	2.6	2.6	7	2.1	18	3.1	M5	45°	19
32	8	2.1	6.5	3.1	3.1	7.8	2.1	23.1	3.1	G1/8	45°	27
35	8	2.1	6.5	3.1	3.1	8.5	2.1	22.6	3.5	G1/8	45°	32
40	8	2.1	8.6	3.1	3.1	9	2.1	32	3.5	G1/8	45°	32
50	10.6	2.6	8.6	3.1	3.1	10.5	3.1	30	3.5	G1/4	45°	36
63	14	3.1	11	3.5	3.5	14	3.1	40	3.5	G3/8	45°	46

Size	Dimension with 180° swivel angle		Swivel angle adjustment range		
	L4	L5	L4 min./max.	L5 min./max.	1 mm = ...°
16	37	17.6	−20/+1.5	−12/+1.4	8.7
20	41.8	18	−21.1/+1.5	−11/+1.4	9
25	63	24.3	−28.9/+1.9	−15/+1.8	6.6
32	78.3	29.5	−34.7/+2.4	−19/+2.3	5.6
35	97.5	40.9	−34.7/+2.4	−27/+2.3	5.6
40	98.2	41.6	−53/+3.2	−28/+3.1	3.6
50	126	–	−74.5/+4.4	–	2.6
63	120	–	−71.7/+7.1	–	1.9

Twin-piston semi-rotary drives DRRD

Technical data

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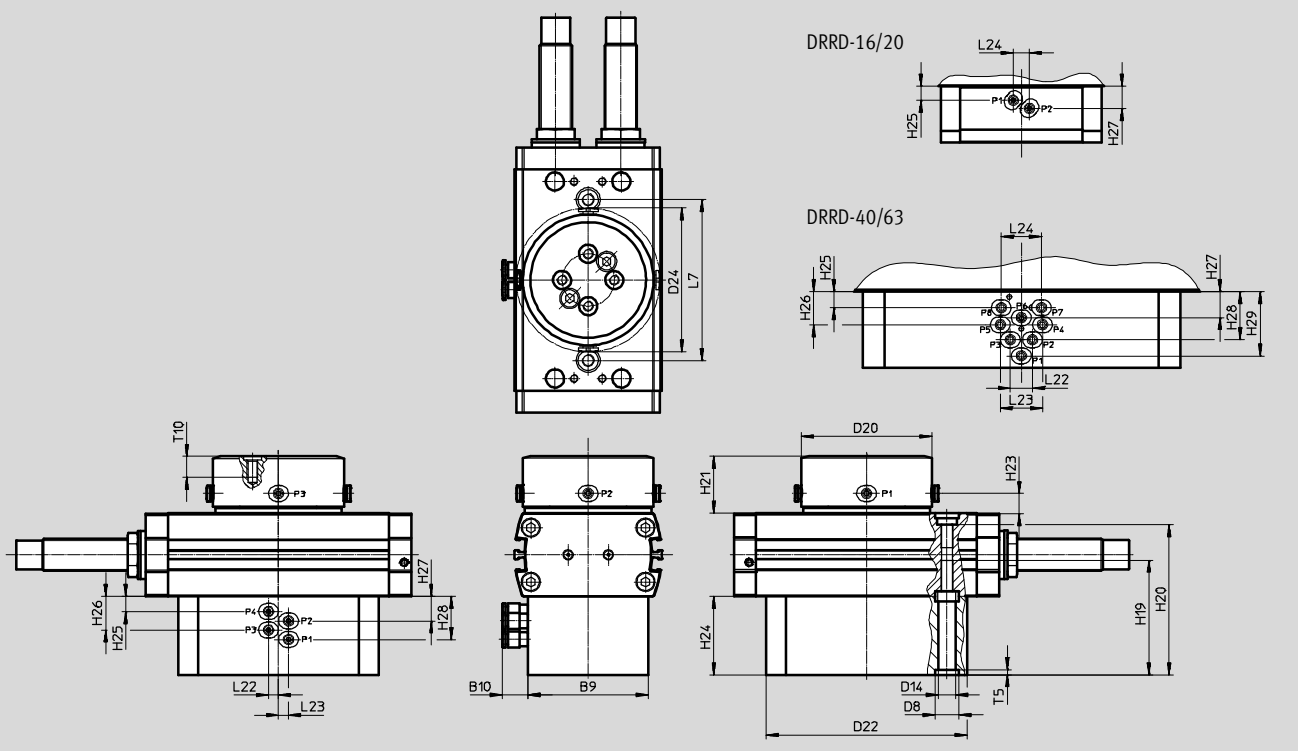
Dimensions – Variants Download CAD Data ➔ **www.festo.com/us/cad**

P... – Pneumatic energy throughfeed



Size	B9	B10	D8 ∅ H7	D14 ∅	D20 ∅	D22 ∅	D24 ∅	H19	H20	H21	H23	H24
16	52	13.4	9	6	54	80	70	43.1	56.4	14.6	7.6	28.1
20	58	13.4	9	6	54	80	70	43	59.3	15.6	8.6	28
25	60	12.8	12	6.5	64	100	71.6	57	74.7	28.3	9.8	39
32	70	12.8	15	8.5	64	120	71.6	62	82.4	31.5	12	38.9
35	80	12.8	15	8.5	64	138	71.6	61.6	95.5	30	10.5	39
40	80	13.4	15	11	89	158	96.9	70	97.4	19	8.5	38
50	80	13.4	15	11	89	190	96.9	68	107.4	22	9.5	38
63	80	13.4	25	13	89	210	96.9	78	127	27	11.5	38

Size	H25	H26	H27	H28	H29	L7 ±0.02	L22	L23	L24	T5 +0.3/–0.2	T10
16	7.2	–	11	–	–	64	4	4	8	2.1	7
20	7.2	–	11	–	–	70	4	4	8	2.1	7
25	7.5	16.7	12.2	21.4	–	80	5	5	–	2.6	8
32	7.4	16.6	12.1	21.3	–	100	5	5	–	3.1	9
35	7.5	16.7	12.2	21.4	–	120	5	5	–	3.1	9
40	8	16.5	13	24	32	120	11	21	20	3.1	15[1)]
50	8	16.5	13	24	32	160	11	21	20	3.1	17[1)]
63	8	16.5	13	24	32	170	11	21	20	3.5	19[1)]

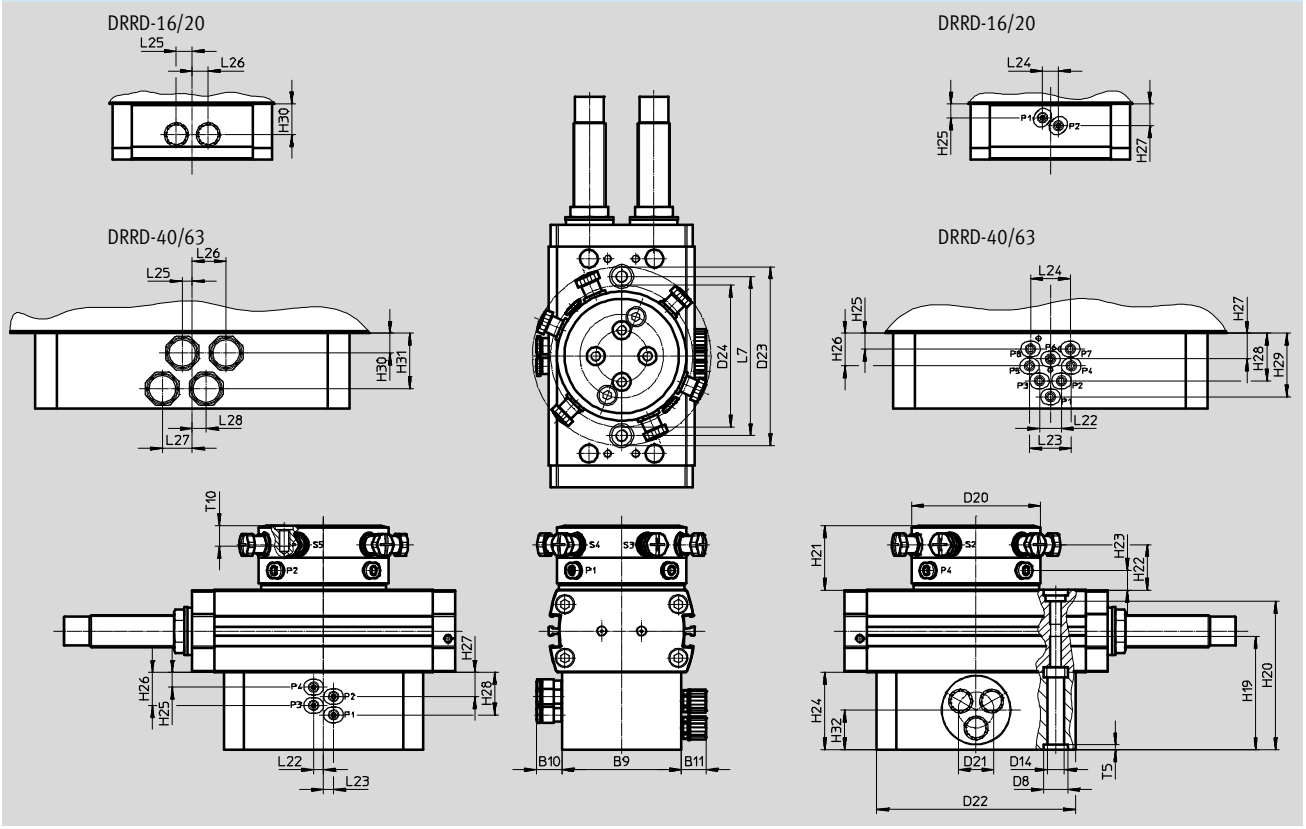
1) The dimensions for variants DRRD-...-P8E8 are T10 = 8 mm

Twin-piston semi-rotary drives DRRD

Technical data

Dimensions – Variants Download CAD Data ➔ **www.festo.com/us/cad**

P...E... – Pneumatic/electrical energy throughfeed



Size	B9	B10	B11	D8 ∅ H7	D14 ∅	D20 ∅	D21 ∅	D22 ∅	D23 ∅	D24 ∅	H21	H22	H23	H24	H25	H26
16	52	13.4	8.5	9	6	54	16	80	71.1	70	28.6	21.1	7.6	28.1	7.2	–
20	58	13.4	8.5	9	6	54	16	80	71.1	70	29.6	22.1	8.6	28	7.2	–
25	60	12.8	12.4	12	6.5	64	18	100	89.8	71.6	30.3	20.8	7.8	39	7.5	16.7
32	70	12.8	12.4	15	8.5	64	18	120	89.8	71.6	32.7	23.2	10.6	38.9	7.4	16.6
35	80	12.8	12.4	15	8.5	64	18	138	89.8	71.6	31	21.5	4.5	39	7.5	16.7
40	80	13.4	13	15	11	89	–	158	110.9	96.9	38	26.5	8.5	38	8	16.5
50	80	13.4	13	15	11	89	–	190	110.9	96.9	42	30.5	9.5	38	8	16.5
63	80	13.4	13	25	13	89	–	210	110.9	96.9	46	34.5	11.5	38	8	16.5

Size	H27	H28	H29	H30	H31	H32	L7 ±0.02	L22	L23	L24	L25	L26	L27	L28	T5 +0.3/–0.2	T10
16	11	–	–	15.5	–	–	64	4	4	8	8	8	–	–	2.1	7
20	11	–	–	15.5	–	–	70	4	4	8	8	8	–	–	2.1	7
25	12.2	21.4	–	–	–	20	80	5	5	–	–	–	–	–	2.6	8
32	12.1	21.3	–	–	–	20	100	5	5	–	–	–	–	–	3.1	9
35	12.2	21.4	–	–	–	20	120	5	5	–	–	–	–	–	3.1	9
40	13	24	32	10	28	–	120	11	21	20	5	17	15	7	3.1	15
50	13	24	32	10	28	–	160	11	21	20	5	17	15	7	3.1	17
63	13	24	32	10	28	–	170	11	21	20	5	17	15	7	3.5	19

1) The dimensions for variants DRRD-...-P8E8 are T10 = 8 mm

Twin-piston semi-rotary drives DRRD

Technical data

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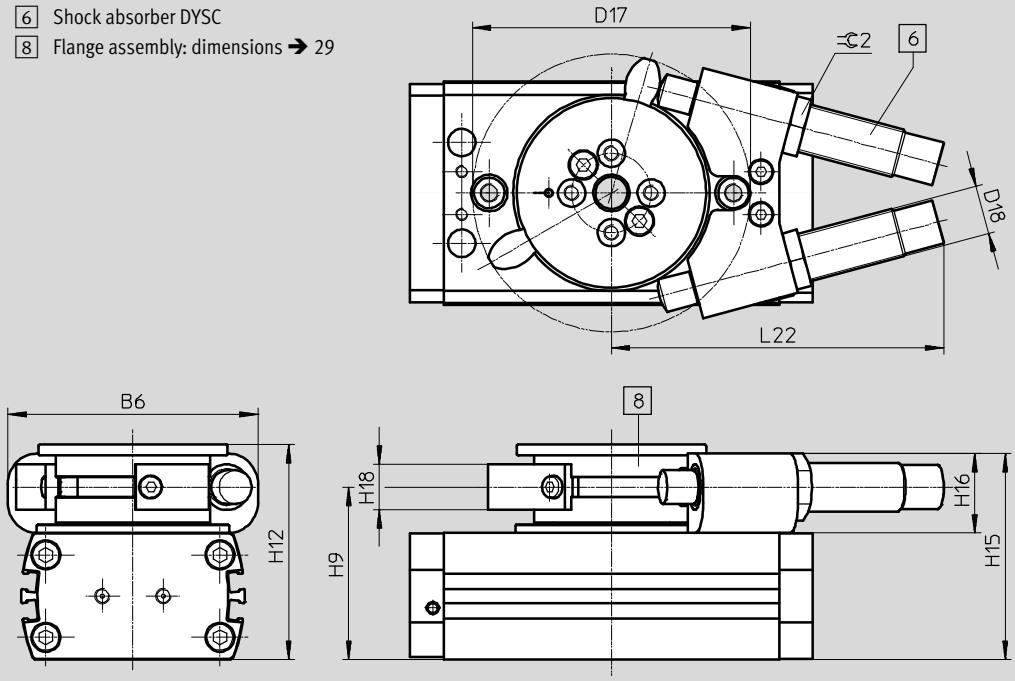
Dimensions – Variants Download CAD Data ➔ **www.festo.com/us/cad**

Y12 – With external shock absorber

6 Shock absorber DYSC
8 Flange assembly: dimensions ➔ 29



Size	B6	D17	D18	H9	H12 +0.3/−0.2	H15	H16	H18	L22	⊂2
16	58	69.4	M10x1	43.1	52.6	51	18	10	65.2	13
20	75	91	M12x1	51.2	65.2	59.5	23.5	15	85.3	15
25	82	91	M16x1	56.5	70.3	67.4	26	15	108.9	19
32	120	126.2	M22x1.5	68.5	87	85	35	22	149.7	27
35	133	146.7	M26x1.5	83	101	99	36	21	155.5	27
40	133	146.7	M30x1.5	88	106	104	36	21	155.5	27
50	152	165.2	M30x1.5	101.5	125	123	45	30	171.6	36

Twin-piston semi-rotary drives DRRD

Technical data

Ordering data – Stock items				
DRRD	Size	Swivel angle [°]	Part No.	Type
P – Elastic cushioning rings/pads at both ends				
	16	180	**1577238**	**DRRD-16-180-FH-PA**
	20		**1395606**	**DRRD-20-180-FH-PA**
	25		**1359980**	**DRRD-25-180-FH-PA**
	32		**1578512**	**DRRD-32-180-FH-PA**
	35		**1526825**	**DRRD-35-180-FH-PA**
	40		**1503269**	**DRRD-40-180-FH-PA**
Y9 – Linear shock absorber, self-adjusting at both ends				
	16	180	**1644389**	**DRRD-16-180-FH-Y9A**
	20		**1427379**	**DRRD-20-180-FH-Y9A**
	25		**1360248**	**DRRD-25-180-FH-Y9A**
	32		**1578518**	**DRRD-32-180-FH-Y9A**
	35		**1547102**	**DRRD-35-180-FH-Y9A**
	40		**1526986**	**DRRD-40-180-FH-Y9A**

Twin-piston semi-rotary drives DRRD

Ordering data – Modular product

FESTO

Ordering table

	Size	16	20	25	32	35	40	50	63	Conditions	Code	Entry code
M	Module No.	**574399**	**574400**	**574401**	**574402**	**574403**	**574404**	**574405**	**574407**			
	Function	Semi-rotary drive									**DRRD**	DRRD
	Size	16	20	25	32	35	40	50	63		**-...**	
	Nominal swivel angle	180°									**-180**	-180
	Output shaft	Flanged shaft, hollow									**-FH**	-FH
O	Energy throughfeed	None									**–**	
		Pneumatic, 2 channels		–							**P2**	
		Pneumatic, 2 channels; electric, 2 signals		–							**P2E2**	
		–		Pneumatic, 4 channels			–				**P4**	
		–		Pneumatic, 4 channels; electric, 6 signals			–				**P4E6**	
		–					Pneumatic, 8 channels				**P8**	
		–					Pneumatic, 8 channels; electric, 8 signals				**P8E8**	
M	Cushioning	Elastic cushioning rings/pads at both ends						–			**-P**	
		Linear shock absorber, self-adjusting at both ends									**-Y9**	
		–		Linear shock absorber, self-adjusting at both ends, hard		–	Linear shock absorber, self-adjusting at both ends, hard				**-Y10**	
		Linear shock absorber, self-adjusting at both ends, external							–	1 4	**-Y12**	
	Position sensing	For proximity sensor									**A**	A
O	EU certification	None										
		II 2GD								2	**-EX4**	
	End-position locking	None										
		At both ends								3 4	**-E1**	
	Sensor mounting, external	None										
		Mounting rail for proximity sensor								4	**-R**	
	Version	Standard										
		Splash-proof design									**-SG**	
	Operating instructions	With operating instructions										
		Without operating instructions									**-DN**	

1 **Y12** Not with end-position locking E1 and splash-proof design SG
2 **EX4** Not with end-position locking E1 and energy throughfeed P2E2, P4E6, P8E8
3 **E1** Not with sensor mounting R and splash-proof design SG
4 **Y12, E1, R** Not with energy throughfeed P2, P2E2, P4, P4E6, P8, P8E8

Transfer order code

	DRRD	–		–	180	–	FH	–		–		–	C	–		–		–		–		–	

Twin-piston semi-rotary drives DRRD

Accessories

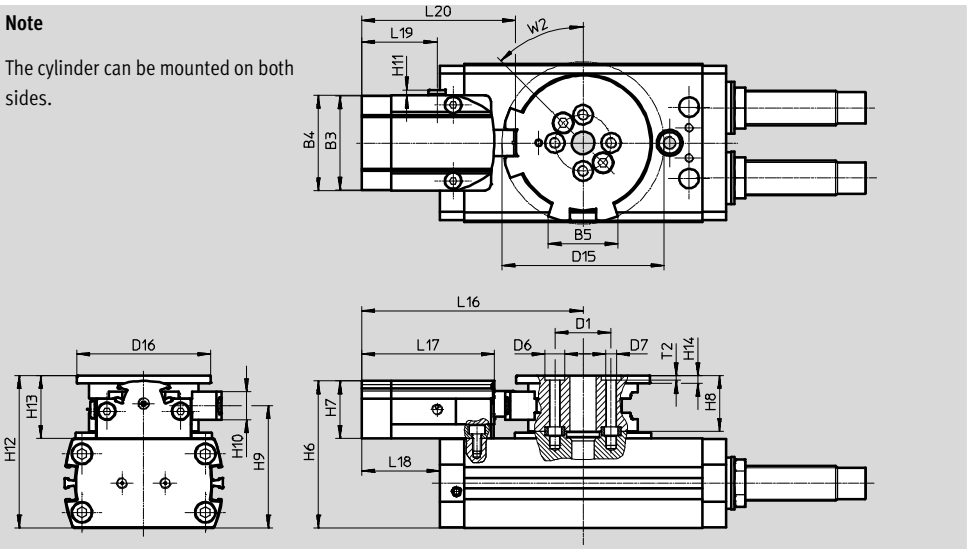
FESTO

Clamping unit DADL-EL
(order code: E1)
Stock items
Cannot be used in ATEX zones.

Material:
Housing: Anodised aluminium
Bearing: Plastic
RoHS-compliant

Note

The cylinder can be mounted on both sides.



Dimensions and ordering data

For size	B3 ±0.2	B4 ±0.2	B5	D1 ∅ ±0.025	D6 ∅ H7	D7	D15 ∅	D16 ∅	H6	H7 ±0.15	H8 ±0.1	H9
16	37.6	38	26.9	21	7	M4	61.9	49	51	18	17	43.1
20	43.6	44	32.4	24	7	M4	74.9	62	62.5	26.5	25.6	51.2
25	43.6	44	32.4	26	9	M5	74.9	62	67.9	26.5	25.6	56.5
32	43.6	44	39.4	40	9	M6	95.4	79	79	26.7	31.5	68.5
35	57.6	58	50.2	45	9	M6	110.9	89	98	35	34	83
40	57.6	58	50.2	45	9	M6	110.9	89	103	35	34	88
50	71.4	72	59.6	54	12	M8	124.3	110	123	45	42	101.5
63	71.4	72	65.8	63	15	M10	148.5	130	149	49	52	129.5

For size	H10	H11	H12	H13	H14	L16	L17	L18	L19	L20	T2 +0.1	W2
16	9	2.5	52.6	19.6	3.5	83	50	30.5	34	58.3	1.6	45°
20	13	2.5	65.2	29.2	3.5	102.2	61.2	48.2	34.8	71.1	1.6	45°
25	13	2.5	70.3	28.9	3.5	102.2	61.2	36.2	34.8	71.1	2.1	45°
32	17	2.5	87	37	4	112.2	61.2	30.7	34.8	71.1	2.1	45°
35	14.8	2.5	101	38	5	132.5	70.6	43.5	42.6	85.4	2.1	45°
40	14.8	2.5	106	38	5	132.5	70.6	18	42.6	85.4	2.1	45°
50	19	4.6	125	47	6	151	81	0	46	98	2.6	45°
63	22	4.6	159	59	6	163	81	−29.5	46	99.5	3.1	45°

For size	Pneumatic connection	Operating pressure [bar]	Position sensing	Adjustable swivel angle [°]	Weight [g]	Part No.	Type
16	M5	5 … 8	For proximity sensor	60 … 200	166	**1692770**	**DADL-EL-Q11-16**
20					382	**1579786**	**DADL-EL-Q11-20**
25					370	**1568183**	**DADL-EL-Q11-25**
32				55 … 200	600	**1631139**	**DADL-EL-Q11-32**
35				57 … 200	900	**1544900**	**DADL-EL-Q11-35/40**
40					900	**1544900**	**DADL-EL-Q11-35/40**
50	G1/8			62 … 200	1 610	**1796637**	**DADL-EL-Q11-50**
63				55 … 200	2,380	**1941568**	**DADL-EL-Q11-63**

Twin-piston semi-rotary drives DRRD

Accessories

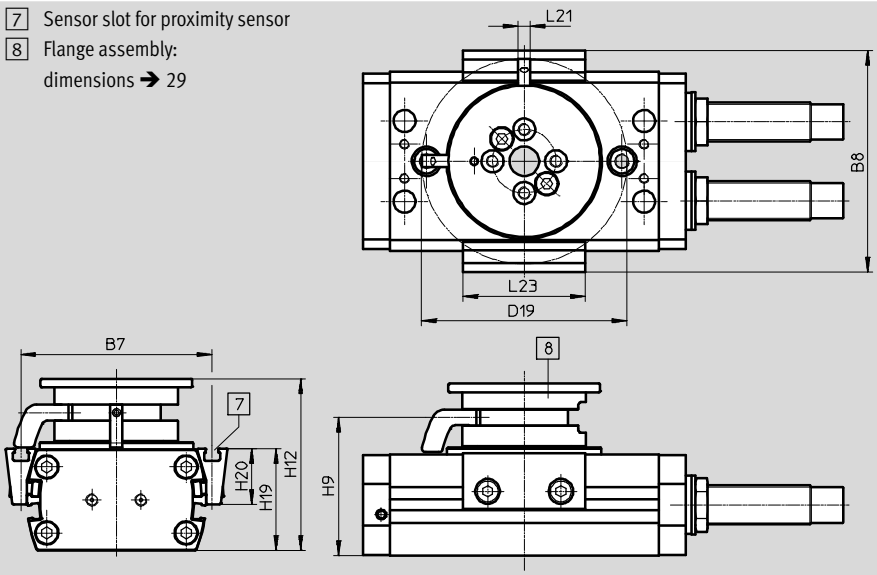
FESTO

Sensing kit DASI-...-KT
(order code: R)
Stock items

Material:
Anodised aluminium
RoHS-compliant

Also with inductive proximity sensor
SIES for sensing the piston position
➔ 32

7 Sensor slot for proximity sensor
8 Flange assembly:
dimensions ➔ 29



Dimensions and ordering data

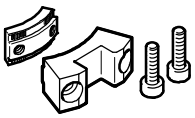
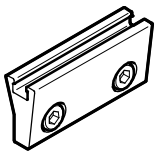
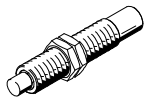
For size	B7	B8	D19 ∅	H9	H12	H19
16	64.4	76.1	70.9	43.1	52.6	33.5
20	74	85.7	84	51.2	65.2	36.4
25	78.2	90.7	84	56.5	70.3	41.8
32	100	113.5	107.5	68.5	87	50.5
35	116	132.9	125.2	83	101	63.5
40	118	135.8	125.2	88	106	68.5
50	136	155.3	146.6	101.5	125	79.1
63	163	185.3	173.9	129.5	159	101

For size	H20 ±0.1	L21	L23	Weight [g]	Part No.	Type
16	18.5	5	50	110	**1693008**	**DASI-Q11-16-A-KT**
20	20.2	5	50	192	**1580899**	**DASI-Q11-20-A-KT**
25	22.8	5	50	192	**1568461**	**DASI-Q11-25-A-KT**
32	26.5	7	50	366	**1632097**	**DASI-Q11-32-A-KT**
35	33.1	7	50	485	**1551144**	**DASI-Q11-35-A-KT**
40	35.5	7	50	485	**1550027**	**DASI-Q11-40-A-KT**
50	43	7	50	810	**1797135**	**DASI-Q11-50-A-KT**
63	55	7	50	1,390	**1946877**	**DASI-Q11-63-A-KT**

Twin-piston semi-rotary drives DRRD

Accessories

FESTO

Ordering data[3]	For size	Brief description	Weight [g]	Part No.	Type	PU[1]
Clamping component DADL-EC						
	16	For securing an intermediate position in combination with the clamping unit DADL-EL	18	**1692496**	**DADL-EC-Q11-16**	1
	20, 25		36	**1435411**	**DADL-EC-Q11-20/25**	
	32		67	**1631170**	**DADL-EC-Q11-32**	
	35, 40		98	**1535091**	**DADL-EC-Q11-35/40**	
	50		140	**1796626**	**DADL-EC-Q11-50**	
	63		220	**1941355**	**DADL-EC-Q11-63**	
Sensor bracket DASI-...-SR						
	16	Additional sensing option in combination with the sensing kit DASI-...-KT	28	**1692983**	**DASI-Q11-16-A-SR**	2
	20		32	**1581420**	**DASI-Q11-20-A-SR**	
	25		32	**1568451**	**DASI-Q11-25-A-SR**	
	32		42	**1631997**	**DASI-Q11-32-A-SR**	
	35		62	**1550870**	**DASI-Q11-35-A-SR**	
	40		62	**1548054**	**DASI-Q11-40-A-SR**	
	50		75	**1797071**	**DASI-Q11-50-A-SR**	
	63		110	**1971563**	**DASI-Q11-63-A-SR**	
Switch lug DASI-...-SL						
	16	Additional sensing option in combination with the sensing kit DASI-...-KT	2.5	**1692969**	**DASI-Q11-16-A-SL**	1
	20, 25		4	**1568436**	**DASI-Q11-20/25-A-SL**	
	32		6	**1631824**	**DASI-Q11-32-A-SL**	
	35, 40		8	**1548155**	**DASI-Q11-35/40-A-SL**	
	50		10	**1797021**	**DASI-Q11-50-A-SL**	
	63		15	**1971550**	**DASI-Q11-63-A-SL**	
Shock absorber DYSC						
	16	• Self-adjusting shock absorber • Included in the scope of delivery for semi-rotary drive DRRD-...-Y12	17	**548012**	**DYSC-7-5-Y1F**	1
	20		36	**548013**	**DYSC-8-8-Y1F**	
	25		81	**548014**	**DYSC-12-12-Y1F**	
	32, 35, 40		210	**553593**	**DYSC-16-18-Y1F**	
	50		370	**2479149**	**DYSC-20-18-Y1F**	
Centring sleeve ZBH[2]						
	16, 20	For centring the semi-rotary drive	1	**150927**	**ZBH-9**	10
	25		1	**189653**	**ZBH-12**	
	32 ... 50		3	**191409**	**ZBH-15**	
	63		5	**8023856**	**ZBH-25**	
	16, 20	For centring attachment parts on the flanged shaft	1	**186717**	**ZBH-7**	10
	25 ... 40		1	**150927**	**ZBH-9**	
	50		1	**189653**	**ZBH-12**	
	63		3	**191409**	**ZBH-15**	

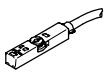
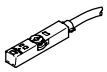
1) Packaging unit quantity
2) 2 included in the scope of delivery of the semi-rotary drive or attachments
3) Stock items

Twin-piston semi-rotary drives DRRD

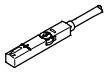
Accessories

FESTO

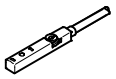
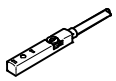
Ordering data – Proximity sensor for T-slot, magneto-resistive — Technical data ➔ Internet: smt

	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part No.	Type
N/O contact						
	Insertable in the slot from above, flush with the cylinder profile, short design	PNP	Cable, 3-wire	2.5	**574335**	**SMT-8M-A-PS-24V-E-2,5-OE**
			Plug M8x1, 3-pin	0.3	**574334**	**SMT-8M-A-PS-24V-E-0,3-M8D**
			Plug M12x1, 3-pin	0.3	**574337**	**SMT-8M-A-PS-24V-E-0,3-M12**
		NPN	Cable, 3-wire	2.5	**574338**	**SMT-8M-A-NS-24V-E-2,5-OE**
			Plug M8x1, 3-pin	0.3	**574339**	**SMT-8M-A-NS-24V-E-0,3-M8D**
N/C contact						
	Insertable in the slot from above, flush with the cylinder profile, short design	PNP	Cable, 3-wire	7.5	**574340**	**SMT-8M-A-PO-24V-E-7,5-OE**

Ordering data – Proximity sensors for T-slot, magnetic reed — Technical data ➔ Internet: sme

	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part No.	Type
N/O contact						
	Insertable in the slot from above, flush with the cylinder profile	Contacting	Cable, 3-wire	2.5	**543862**	**SME-8M-DS-24V-K-2,5-OE**
				5.0	**543863**	**SME-8M-DS-24V-K-5,0-OE**
			Cable, 2-wire	2.5	**543872**	**SME-8M-ZS-24V-K-2,5-OE**
			Plug M8x1, 3-pin	0.3	**543861**	**SME-8M-DS-24V-K-0,3-M8D**
	Insertable in the slot lengthwise, flush with the cylinder profile	Contacting	Cable, 3-wire	2.5	**150855**	**SME-8-K-LED-24**
			Plug M8x1, 3-pin	0.3	**150857**	**SME-8-S-LED-24**

Ordering data – Proximity sensor for T-slot, inductive — Technical data ➔ Internet: sies

	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part No.	Type
N/O contact						
	Insertable in the slot from above, flush with the cylinder profile	PNP	Cable, 3-wire	7.5	**551386**	**SIES-8M-PS-24V-K-7,5-OE**
			Plug M8x1, 3-pin	0.3	**551387**	**SIES-8M-PS-24V-K-0,3-M8D**
		NPN	Cable, 3-wire	7.5	**551396**	**SIES-8M-NS-24V-K-7,5-OE**
			Plug M8x1, 3-pin	0.3	**551397**	**SIES-8M-NS-24V-K-0,3-M8D**
N/C contact						
	Insertable in the slot from above, flush with the cylinder profile	PNP	Cable, 3-wire	7.5	**551391**	**SIES-8M-PO-24V-K-7,5-OE**
			Plug M8x1, 3-pin	0.3	**551392**	**SIES-8M-PO-24V-K-0,3-M8D**
		NPN	Cable, 3-wire	7.5	**551401**	**SIES-8M-NO-24V-K-7,5-OE**
			Plug M8x1, 3-pin	0.3	**551402**	**SIES-8M-NO-24V-K-0,3-M8D**

Note

The inductive proximity sensors SIES can only be used in combination with the sensing kit DASI-...-KT.

Ordering data – Connecting cables — Technical data ➔ Internet: nebu

	Electrical connection, left	Electrical connection, right	Cable length [m]	Part No.	Type
	Straight socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	**541333**	**NEBU-M8G3-K-2.5-LE3**
			5	**541334**	**NEBU-M8G3-K-5-LE3**
	Angled socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	**541338**	**NEBU-M8W3-K-2.5-LE3**
			5	**541341**	**NEBU-M8W3-K-5-LE3**

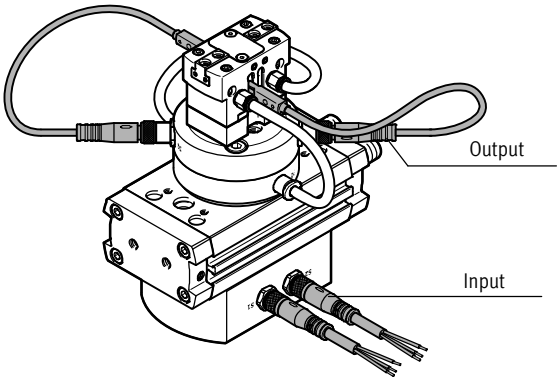
Twin-piston semi-rotary drives DRRD

Accessories

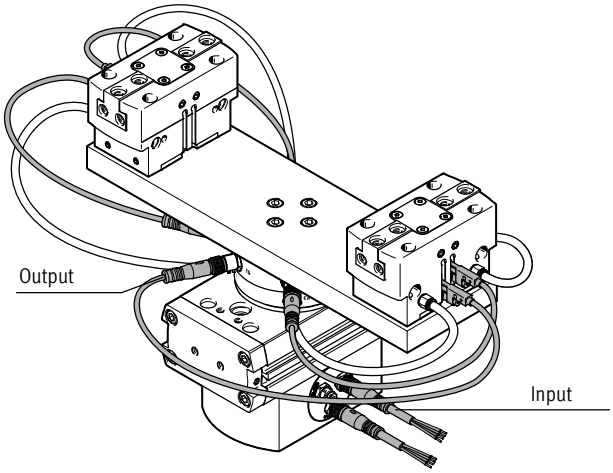
FESTO

Wiring of the proximity sensor only in combination with the energy throughfeed

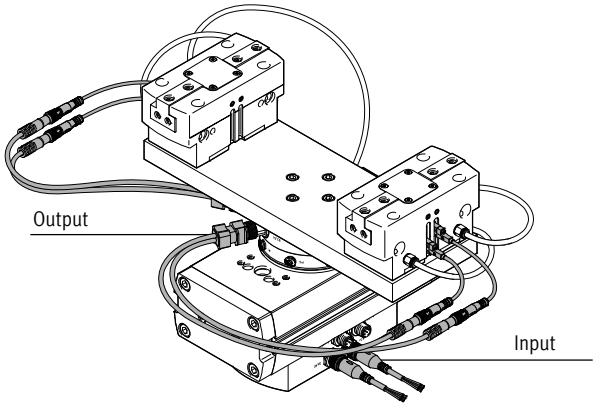
Size 16/20



Sizes 25/32/35



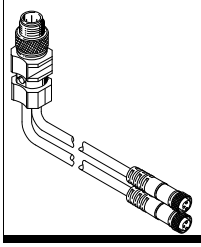
Sizes 40/50/63



Note

Proximity sensors with plug connectors must be used for attachments (e.g. grippers) at the output. On sizes 16 ... 35 these can be connected directly to the energy throughfeed module.
On sizes 40 ... 63, the proximity sensors must be connected to the energy throughfeed module using a push-in T-connector.

Ordering data Technical data ➔ Internet: nebu

	Electrical connection, left	Electrical connection, right	Cable length [m]	Part No.	Type
Input – Connecting cable					
Size 16/20					
	Straight socket, M8x1, 3-pin	Cable, open end, 3-wire	2.5	**541333**	**NEBU-M8G3-K-2.5-LE3**
	Straight socket, M8x1, 3-pin	Cable, open end, 3-wire	5	**541334**	**NEBU-M8G3-K-5-LE3**
Sizes 25/32/35					
	Straight socket, M8x1, 4-pin	Cable, open end, 4-wire	2.5	**541342**	**NEBU-M8G4-K-2.5-LE4**
	Straight socket, M8x1, 4-pin	Cable, open end, 4-wire	5	**541343**	**NEBU-M8G4-K-5-LE4**
Sizes 40/50/63					
	Straight socket, M12x1, 5-pin	Cable, open end, 4-wire	2.5	**550326**	**NEBU-M12G5-K-2.5-LE4**
	Straight socket, M12x1, 5-pin	Cable, open end, 4-wire	5	**541328**	**NEBU-M12G5-K-5-LE4**
Output – Push-in T-connector					
Sizes 40/50/63					
	Straight plug, M12x1, 4-pin	2x straight socket, M8x1, 3-pin	0.5	**18685**	**KM12-DUO-M8-GDGD**
	Straight plug, M12x1, 4-pin	2x angled sockets, M8x1, 3-pin	0.5	**18687**	**KM12-DUO-M8-WDWD**

Product Range and Company Overview

A Complete Suite and Company Overview

Our experienced engineers provide complete support at every stage of your development process, including: conceptualization, analysis, engineering, design, assembly, documentation, validation, and production.

Custom Automation Components
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Custom Control Cabinets
Comprehensive engineering support and on-site services

Complete Systems
Shipment, stocking and storage services

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With a comprehensive line of more than 30,000 automation components, Festo is capable of solving the most complex automation requirements.

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Supporting Advanced Automation... As No One Else Can!
Festo is a leading global manufacturer of pneumatic and electromechanical systems, components and controls for industrial automation, with more than 16,000 employees in 60 national headquarters serving more than 180 countries. For more than 80 years, Festo has continuously elevated the state of manufacturing with innovations and optimized motion control solutions that deliver higher performing, more profitable automated manufacturing and processing equipment. Our dedication to the advancement of automation extends beyond technology to the education and development of current and future automation and robotics designers with simulation tools, teaching programs, and on-site services.

Quality Assurance, ISO 9001 and ISO 14001 Certifications
Festo Corporation is committed to supply all Festo products and services that will meet or exceed our customers' requirements in product quality, delivery, customer service and satisfaction.

To meet this commitment, we strive to ensure a consistent, integrated, and systematic approach to management that will meet or exceed the requirements of the ISO 9001 standard for Quality Management and the ISO 14001 standard for Environmental Management.

9001:CERTCS-16248-2006-AQ-ESN-TGA
ISO 9001
ISO 14001
DNV
Certified Company
14001:CERTCS-16248A-2006-AQ-ESN-TGA

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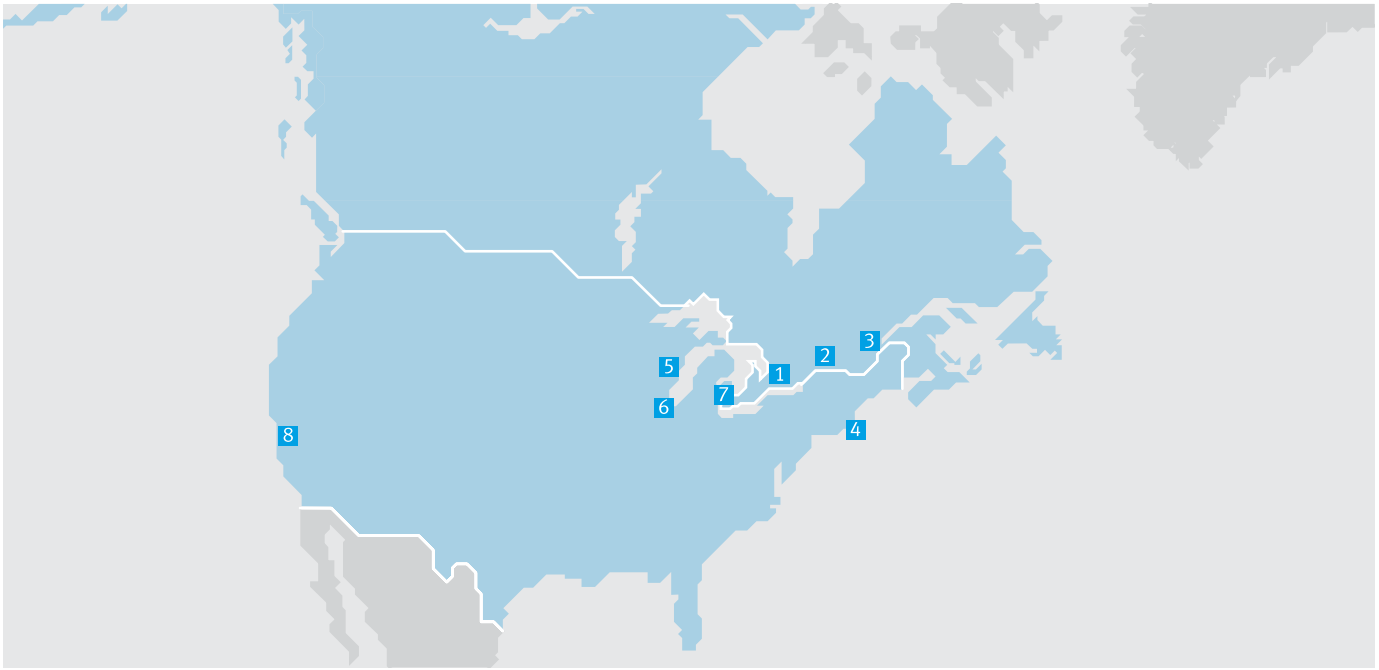
Festo North America



1 Festo Canada
Headquarters
Festo Inc.
5300 Explorer Drive
Mississauga, ON
L4W 5G4

2 Montréal
5600, Trans-Canada
Pointe-Claire, QC
H9R 1B6

3 Québec City
2930, rue Watt#117
Québec, QC
G1X 4G3

4 Festo United States
Headquarters
Festo Corporation
395 Moreland Road
Hauppauge, NY
11788

5 Appleton
North 922 Tower View Drive, Suite N
Greenville, WI
54942

6 Chicago
85 W Algonquin - Suite 340
Arlington Heights, IL
60005

7 Detroit
1441 West Long Lake Road
Troy, MI
48098

8 Silicon Valley
4935 Southfront Road, Suite F
Livermore, CA
94550

Festo Regional Contact Center

Canadian Customers
Commercial Support:
Tel: 1 877 GO FESTO (1 877 463 3786)
Fax: 1 877 FX FESTO (1 877 393 3786)
Email: festo.canada@ca.festo.com

Technical Support:
Tel:1 866 GO FESTO (1 866 463 3786)
Fax:1 877 FX FESTO(1 877 393 3786)
Email: technical.support@ca.festo.com

USA Customers
Commercial Support:
Tel:1 800 99 FESTO (1 800 993 3786)
Fax:1 800 96 FESTO (1 800 963 3786)
Email: customer.service@us.festo.com

Technical Support:
Tel:1 866 GO FESTO (1 866 463 3786)
Fax:1800 96 FESTO(1 800 963 3786)
Email: product.support@us.festo.com

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