

Linear drives DGC-K

FESTO

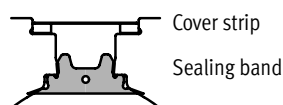


Key features

At a glance

- Without external guide, for simple drive functions
- Compact – installation length relative to stroke
- Fully interchangeable with the linear drive DGP
- Easy assembly and installation
- Choice of:
 - Standard piston
 - Extended piston
- Optional: NSF-H1 lubricant for the food zone

Sealing system:



Advantages of the sealing system

- Long strokes with no restrictions
- Virtually no leakage

The linear drive is of limited suitability for the food zone.

More information www.festo.com/sp → Certificates

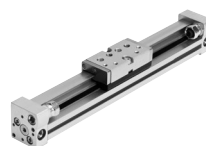
Guide variants

Compact design DGC-K



- Piston Ø 18 ... 80 mm
- Stroke lengths from 1 ... 8500 mm
- 30% narrower than the DGC-G
- Low moving dead weight
- Symmetrical design

Basic design DGC-G



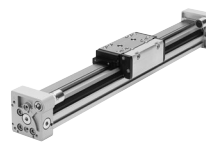
- Piston Ø 8 ... 63 mm
- Stroke lengths from 1 ... 8500 mm
- Guide backlash = 0.2 mm
- For small loads
- Operating behaviour under torque load = average

Plain-bearing guide DGC-GF



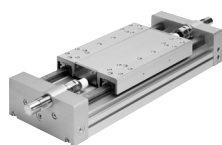
- Piston Ø 18 ... 63 mm
- Stroke lengths from 1 ... 8500 mm
- Guide backlash = 0.05 mm
- For small and medium loads
- Operating behaviour under torque load = average

Recirculating ball bearing guide DGC-KF



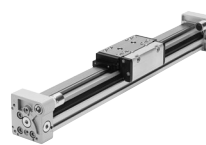
- Piston Ø 8 ... 63 mm
- Stroke lengths from 1 ... 8500 mm
- Guide backlash = 0 mm
- For medium and larger loads
- Precise mounting interface with stainless steel slide
- Operating behaviour under torque load = very good

Heavy-duty guide DGC-HD



- Piston Ø 18, 25, 40 mm
- Stroke lengths from 10 ... 5000 mm
- Guide backlash = 0 mm
- For large loads
- Operating behaviour under torque load = very good

Guide axis DGC-FA



- Without drive
- Piston Ø 8 ... 63 mm
- Stroke lengths from 1 ... 8500 mm
- Guide backlash = 0 mm
- Precision guide, suitable for the DGC-KF. Can be used as machine component or as a twin guide with the DGC-KF

D2 – Compressed air supply port at both ends



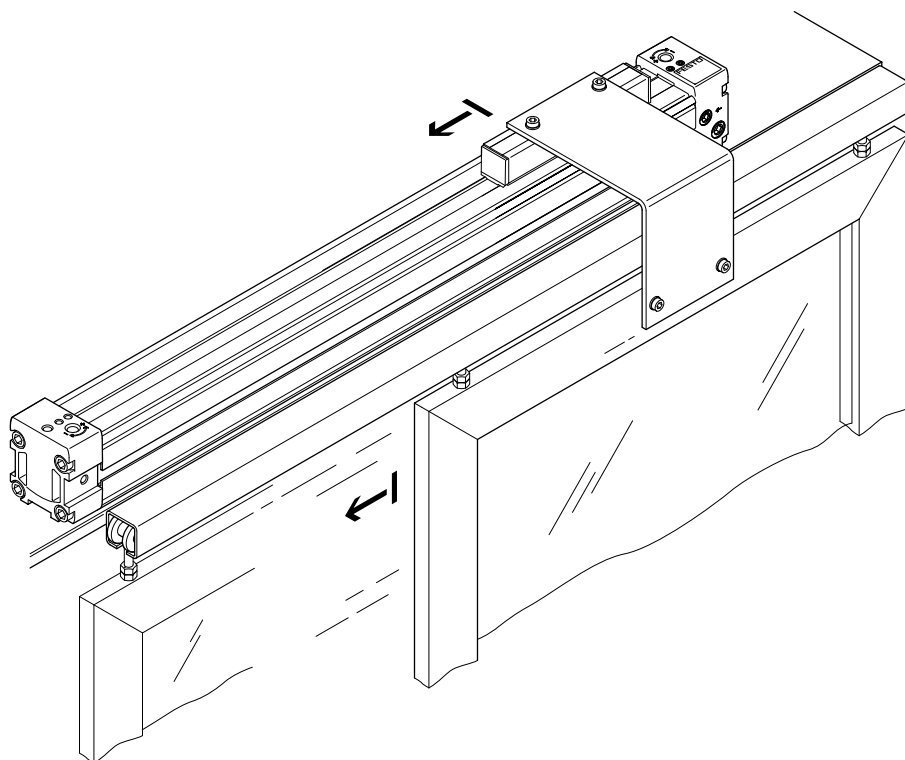
The compressed air connections on the linear actuator DGC-K are located on a connection cap as standard.

The linear drive is actuated at both ends by specifying order code D2 in the modular product system. Actuation at one end is then no longer possible.

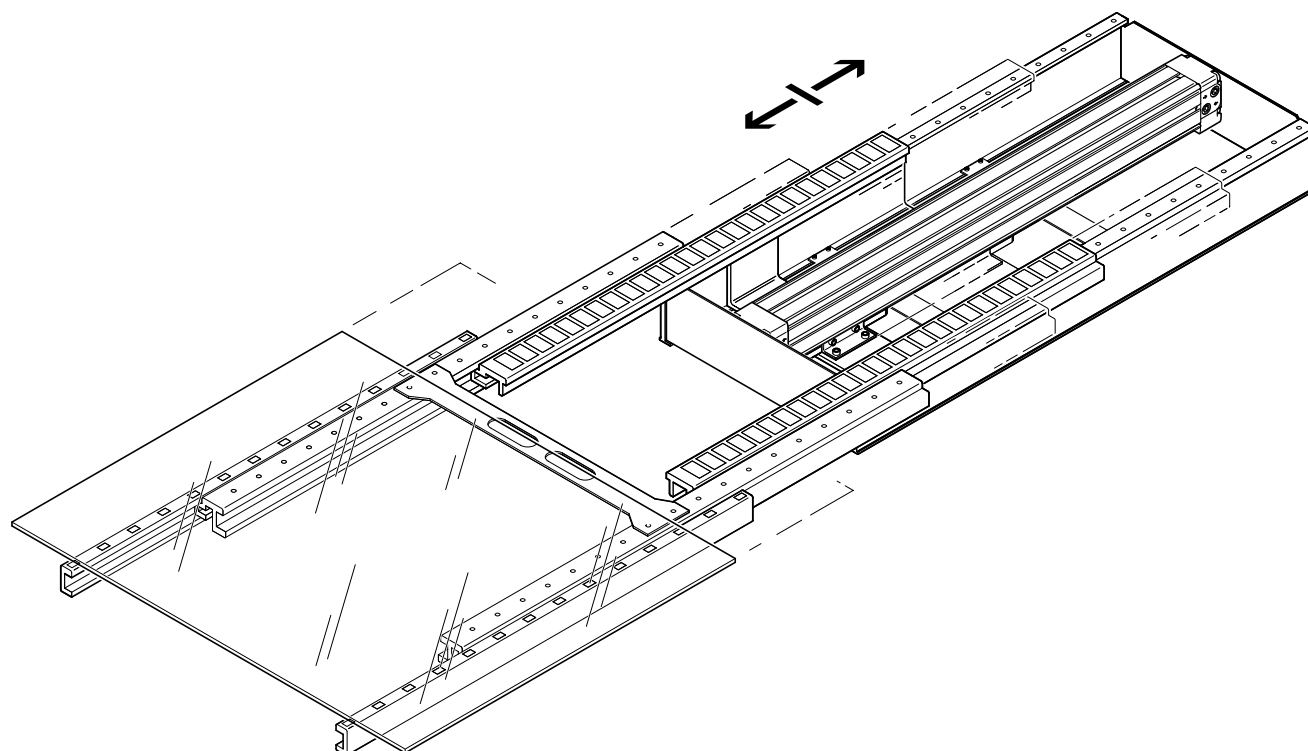
Key features

Application examples

For opening and closing doors

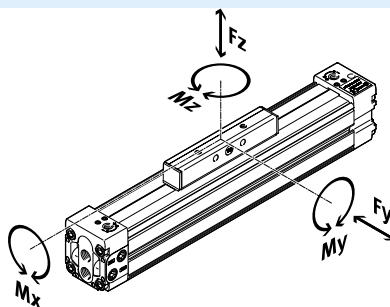


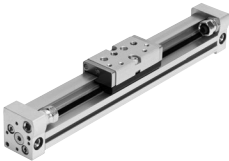
For transporting glass plates



Product range overview

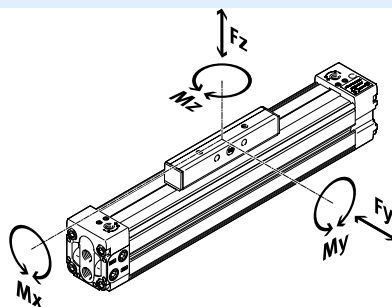
Product variants

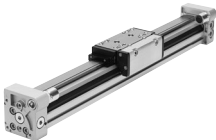
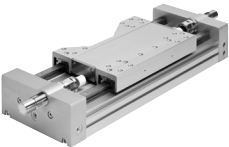


	Piston Ø	Theoretical force at 0.6 MPa (6 bar, 87 psi)	Guide characteristics					→ Page/Inter-net
	[mm]	[N]	Fy [N]	Fz [N]	Mx [Nm]	My [Nm]	Mz [Nm]	
Compact design DGC-K								
	18	153	–	120	0.8	11	1	6
	25	295	–	330	1.2	20	3	
	32	483	–	480	1.9	40	5	
	40	754	–	800	3.8	60	8	
	50	1178	–	1200	6	120	15	
	63	1870	–	1600	5.7	150	24	
	80	3016	–	2500	30.6	400	100	
Basic design DGC-G								
	8	30	150	150	0.5	2	2	dgc
	12	68	300	300	1.3	5	5	
	18	153	70	340	1.9	12	4	
	25	295	180	540	4	20	5	
	32	483	250	800	9	40	12	
	40	754	370	1100	12	60	25	
	50	1178	480	1600	20	150	37	
	63	1870	650	2000	26	150	48	
Plain-bearing guide DGC-GF								
	18	153	440	540	3.4	20	8.5	dgc
	25	295	640	1300	8.5	40	20	
	32	483	900	1800	15	70	33	
	40	754	1380	2000	28	110	54	
	50	1178	1500	2870	54	270	103	
	63	1870	2300	4460	96	450	187	

Product range overview

Product variants



	Piston Ø	Theoretical force at 0.6 MPa (6 bar, 87 psi)	Guide characteristics					→ Page/Internet
	[mm]	[N]	Fy [N]	Fz [N]	Mx [Nm]	My [Nm]	Mz [Nm]	
Recirculating ball bearing guide DGC-KF								
	8	30	300	300	1.7	4.5	4.5	dgc
	12	68	650	650	3.5	10	10	
	18	153	1850	1850	16	51	51	
	25	295	3050	3050	36	97	97	
	32	483	3310	3310	54	150	150	
	40	754	6890	6890	144	380	380	
	50	1 178	6890	6890	144	634	634	
	63	1 870	15200	15200	529	1157	1157	
Heavy-duty guide DGC-HD								
	18	153	3650	3650	140	275	275	dgc-hd
	25	295	5600	5600	300	500	500	
	40	754	13000	13000	900	1450	1450	

Type codes

001	Series	
DGC	Linear drive	

002	Guide	
K	Compact	

003	Piston diameter	
18	18	
25	25	
32	32	
40	40	
50	50	
63	63	
80	80	

004	Stroke	
...	1 ... 8500	

005	Cushioning	
PPV	Pneumatic cushioning, adjustable at both ends	

006	Position sensing	
A	For proximity sensor	

007	Basic version	
GK	Piston/slide standard	
GV	Extended piston/slide	

008	Compressed air connection	
	At one end	
D2	Both sides	

009	Lubrication	
	Standard	
H1	Food-safe lubrication	

010	Moment compensator	
	None	
FK	Moment compensator	

011	EU certification	
	None	
EX2	II 3GD	
EX3	II 2G	

012	Accessories	
	None	
ZUB	Accessories supplied loose	

013	Foot mounting	
	None	
F	1 record	

014	Central support	
	None	
...M	1 ... 10 pieces	

015	Slot nut, mounting slot	
	None	
...Y	1 ... 10 pieces	

016	Slot cover for mounting slot	
	None	
...B	1...10 pieces	

017	Proximity sensor, cable 2.5 m	
	None	
...G	1 ... 10 pieces	

018	Proximity sensor, plug M8	
	None	
...H	1 ... 10 pieces	

019	Proximity sensor, contactless, cable 2.5 m	
	None	
...I	1 ... 10 pieces	

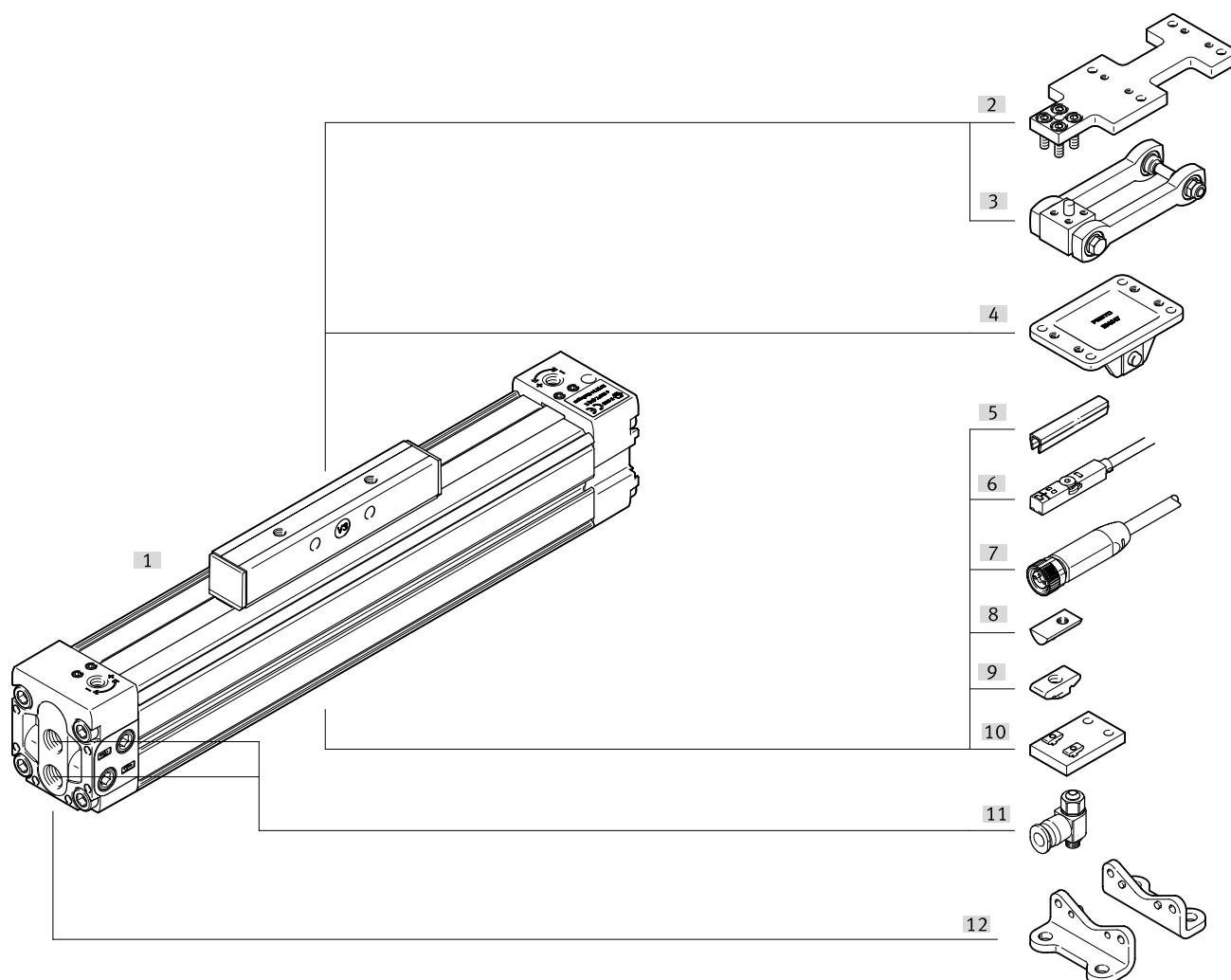
020	Proximity sensor, contactless, plug M8	
	None	
...J	1 ... 10 pieces	

021	Proximity sensor, N/C contact, cable 2.5 m	
	None	
...N	1 ... 10 pieces	

022	Connecting cable 2.5 m, plug M8	
	None	
...V	1 ... 10 pieces	

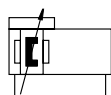
023	Slot cover, sensor slot	
	None	
...S	1 ... 10 pieces	

Peripherals overview



Accessories			
Type/order code	Description		→ Page/Internet
[1] Linear drive DGC-K	Linear drive without accessories, basic design		8
[2] Adapter plate DAMF	Has the same interface as the moment compensator FKP for the linear drive DGP		30
[3] Moment compensator DARD-...-M	For compensating misalignments when using external guides		28
[4] Moment compensator FK (type: DARD-...-S)	For compensating misalignments when using external guides. Has the same interface as the moment compensator FKP for the linear drive DGP		26
[5] Slot cover B/S	For protecting against contamination and securing the proximity switch cable		32
[6] Proximity switch G/H/I/J/N	For sensing the moment compensator position		32
[7] Connecting cable V	Via proximity switch		33
[8] Slot nut for mounting slot Y (type: NST)	For mounting attachments Piston diameter 18 and 25 cannot be used with DGC-...-D2 (compressed air supply port at both ends)		32
[9] Slot nut for mounting slot Y (type: ABAN)	For mounting attachments All combinations can be used with piston diameter 18 and 25		32
[10] Central support M	For mounting the axis, especially for long strokes		25
[11] One-way flow control valve GRLA	For regulating speed		32
[12] Foot mounting F	For mounting the axis		24

Datasheet


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Repair service



- Ø - Diameter
18 ... 80 mm
- I - Stroke length
1 ... 8500 mm

General technical data							
Piston Ø	18	25	32	40	50	63	80
Design	Pneumatic linear drive with slide						
Guide	Slotted cylinder barrel						
Operating mode	Double-acting						
Stroke [mm]	1 ... 3000	1 ... 8500			1 ... 6000	1 ... 5000 ¹⁾	1 ... 3000 ²⁾
Pneumatic port	M5	G1/8		G1/4		G3/8	G1/2
Cushioning [PPV]	Adjustable at both ends						
Cushioning length [mm]	16	18	20	30	30	30	83
Max. speed							
With adjust. pneum. cushioning PPV [m/s]	2						
With external cushioning [m/s]	3						
Position sensing	Via proximity switch						
Type of mounting	With accessories						
Mounting position	Any						

1) Piston Ø 63: A stroke of max. 4800 mm is available with variant GV (extended piston).

2) Piston Ø 80: With effective strokes over 2000 mm, the drive must be installed with the sealing strip facing downwards; further strokes on request.

Operating and environmental conditions								
Piston Ø		18	25	32	40	50	63	80
Operating pressure	[MPa]	0.2 ... 0.8				0.15 ... 0.8		
	[bar]	2 ... 8				1.5 ... 8		
	[psi]	29 ... 116				21.75 ... 116		
Operating medium		Compressed air to ISO 8573-1:2010 [7:-:-]						
Note on the operating/pilot medium		Lubricated operation possible (in which case lubricated operation will always be required)						
Ambient temperature ¹⁾	[°C]	-10 ... +60						
Food-safe ²⁾		→ Further information on materials						
Corrosion resistance class CRC ³⁾		1						

1) Note operating range of proximity switches.

2) More information www.festo.com/sp → Certificates.

3) More information www.festo.com/x/topic/crc

ATEX ¹⁾	
Explosion-proof ambient temperature	-10°C ≤ Ta ≤ +60°C
CE marking (see declaration of conformity)	To EU Explosion Protection Directive (ATEX)
EX2 certification	
ATEX category for gas	II 3G
Type of (ignition) protection for gas	Ex h IIC T4 Gc X
ATEX category for dust	II 3D
Type of ignition protection for dust	Ex h IIIC T120°C Dc X
EX3 certification	
ATEX category for gas	II 2G
Type of (ignition) protection for gas	Ex h IIC T4 Gb X

1) Note the ATEX certification of the accessories.

Datasheet

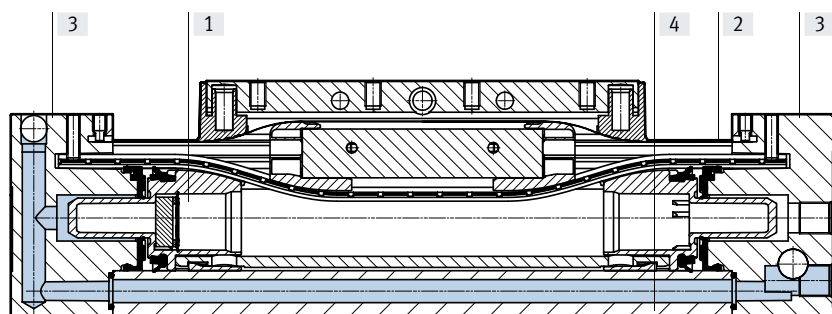
Forces [N] and impact energy [J]							
Piston Ø	18	25	32	40	50	63	80
Theoretical force at 0.6 MPa (6 bar, 87 psi)	153	295	483	754	1178	1870	3016
Max. impact energy in the end positions ¹⁾	0.04	0.05	0.12	0.25	0.5	0.5	3

1) Permissible residual impact energy with adjustable pneumatic cushioning PPV.

Weight [g]							
Piston Ø	18	25	32	40	50	63	80
Basic weight with 0 mm stroke							
DGC...-GK	370	933	1319	2450	5438	8620	16775
DGC...-GV	630	1343	1999	3620	8073	13000	–
Additional weight per 10 mm stroke							
DGC...-GK	18	29	37	53	100	137	157
DGC...-GV	18	29	37	53	100	137	–
Moving mass							
DGC...-GK	64	136	227	360	1095	1782	5000
DGC...-GV	130	261	427	700	1713	2704	–

Materials

Sectional view



Linear drives	
[1] Slide	Anodised aluminium
[2] Sealing band/cover strip	Polyurethane/steel
[3] Cover	Painted aluminium
[4] Cylinder barrel	Anodised aluminium
– Piston seal	Polyurethane
– Slide elements	Polyacetal
– Note on materials	RoHS-compliant

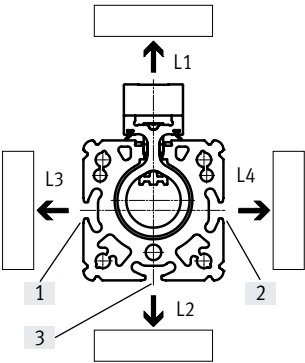
Datasheet

Influence of ferritic materials on proximity switches

Ferritic materials (steel parts or sheet metal) in the immediate vicinity of the proximity sensors can cause sensing malfunctions. The following safety distances must be observed.

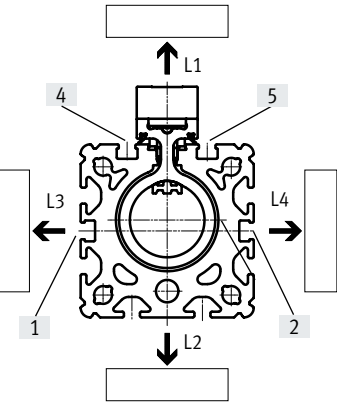
The distance depends on the position of the proximity switch (see [1] and [2]).

Piston Ø 18/25



Position		L1	L2	L3	L4
Piston Ø 18					
[1]	[mm]	0	10	30	0
[2]	[mm]	0	10	0	30
[3]	[mm]	0	30	10	10
Piston Ø 25					
[1]	[mm]	0	0	10	0
[2]	[mm]	0	0	0	10
[3]	[mm]	0	10	0	0

Piston Ø 32 ... 80



Position		L1	L2	L3	L4
Piston Ø 32					
[1]	[mm]	0	0	10	0
[2]	[mm]	0	0	0	10
[4] and [5]	[mm]	10	0	0	0
Piston Ø 40					
[1]	[mm]	0	0	30	0
[2]	[mm]	0	0	0	30
[4] and [5]	[mm]	30	0	0	0
Piston Ø 50					
[1]	[mm]	0	0	10	0
[2]	[mm]	0	0	0	10
[4] and [5]	[mm]	10	0	0	0
Piston Ø 63					
[1]	[mm]	0	0	20	0
[2]	[mm]	0	0	0	20
[4] and [5]	[mm]	20	0	0	0
Piston Ø 80					
[1]	[mm]	0	0	10	0
[2]	[mm]	0	0	0	10
[4] and [5]	[mm]	10	0	0	0

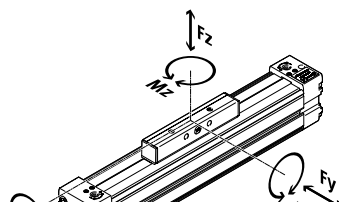
Datasheet

Load values

The indicated forces and torques refer to the surface of the slide.

These values must not be exceeded during dynamic operation. Special attention must be paid to the deceleration phase.

If the drive is simultaneously subjected to several of the forces and torques indicated below, the following equations must be satisfied in addition to the indicated maximum loads:



$$0,4 \cdot \frac{F_{z1}}{F_{z2}} + \frac{M_{x1}}{M_{x2}} + \frac{M_{y1}}{M_{y2}} + 0,2 \cdot \frac{M_{z1}}{M_{z2}} \leq 1$$

$$\frac{F_{z1}}{F_{z2}} \leq 1 \quad \frac{M_{z1}}{M_{z2}} \leq 1$$

F1/M1 = dynamic value

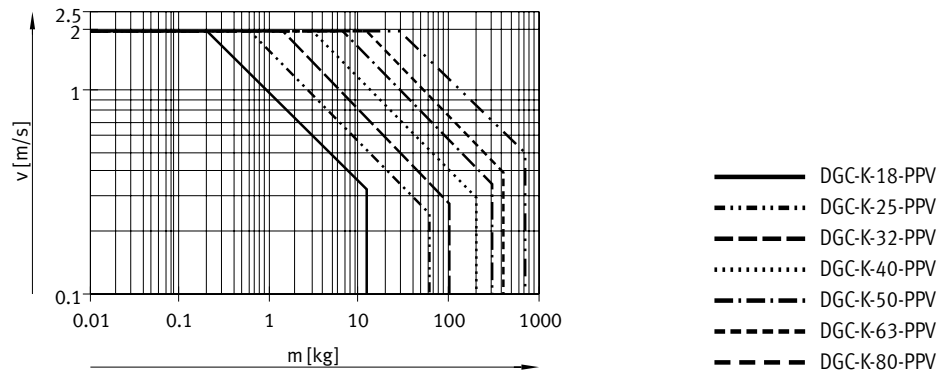
F2/M2 = maximum value

Permissible forces and torques								
Piston Ø		18	25	32	40	50	63	80
Fz_{max}								
DGC...-GK	[N]	120	330	480	800	1200	1600	2500
DGC...-GV	[N]	120	330	480	800	1200	1600	–
Mx_{max}								
DGC...-GK	[Nm]	0.8	1.2	1.9	3.8	6	5.7	30.6
DGC...-GV	[Nm]	1.6	2.4	3.8	7.6	12	11.4	–
My_{max}								
DGC...-GK	[Nm]	11	20	40	60	120	150	400
DGC...-GV	[Nm]	22	40	80	120	240	300	–
Mz_{max}								
DGC...-GK	[Nm]	1	3	5	8	15	24	100
DGC...-GV	[Nm]	2	6	10	16	30	48	–

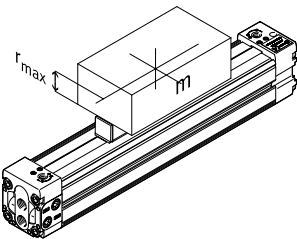
Datasheet

Maximum permissible piston speed v as a function of payload m and distance r_{max} from the centre of mass

These specifications represent the maximum values that can be achieved.
In practice, these values can fluctuate relative to the position of the payload and mounting position.



Operating range of the cushioning



The end-position cushioning must be adjusted to ensure jerk-free operation. If the operating conditions are outside the permissible range, the moving mass must be cushioned using suitable equipment (external shock absorbers), preferably at the centre of mass.

Piston Ø	18	25	32	40	50	63	80
Distance r_{max} [mm]	14	40	40	40	40	40	40

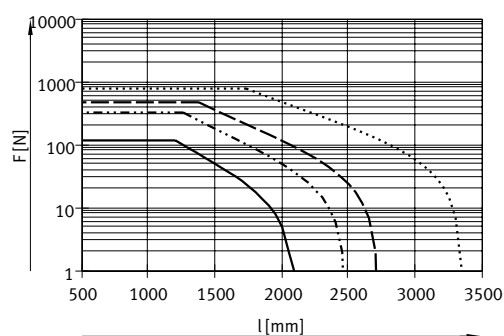
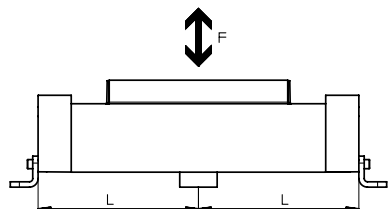
Datasheet

Number of central supports MUP as a function of weight force F and distance l between supports

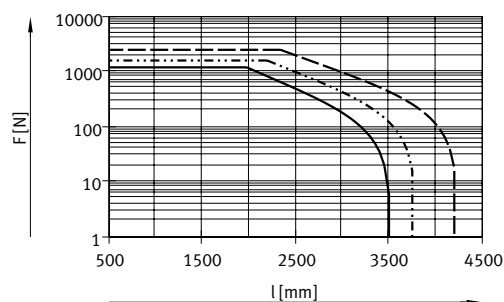
The drive may need to be supported to limit the deflection in the case of large strokes. The following graphs can be used to determine the maximum permissible support spacing as a function of the mounting position and the applied weight and normal forces.

Mounting position

Horizontal

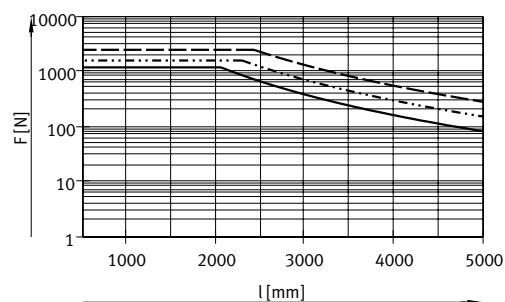
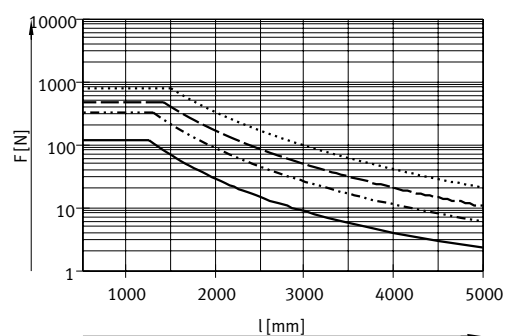
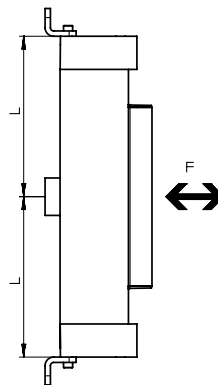


— DGC-K-18
 - - - DGC-K-25
 - - - DGC-K-32
 DGC-K-40



— DGC-K-50
 - - - DGC-K-63
 - - - DGC-K-80

Vertical



Example:

The drive DGC-K-25-1500 is subjected to a force of 200 N in a horizontal mounting position.

The drive has an overall length of:
 $l = \text{stroke length} + L1$ (see dimensions)
 $= 1500 \text{ mm} + 200 \text{ mm}$
 $= 1700 \text{ mm}$

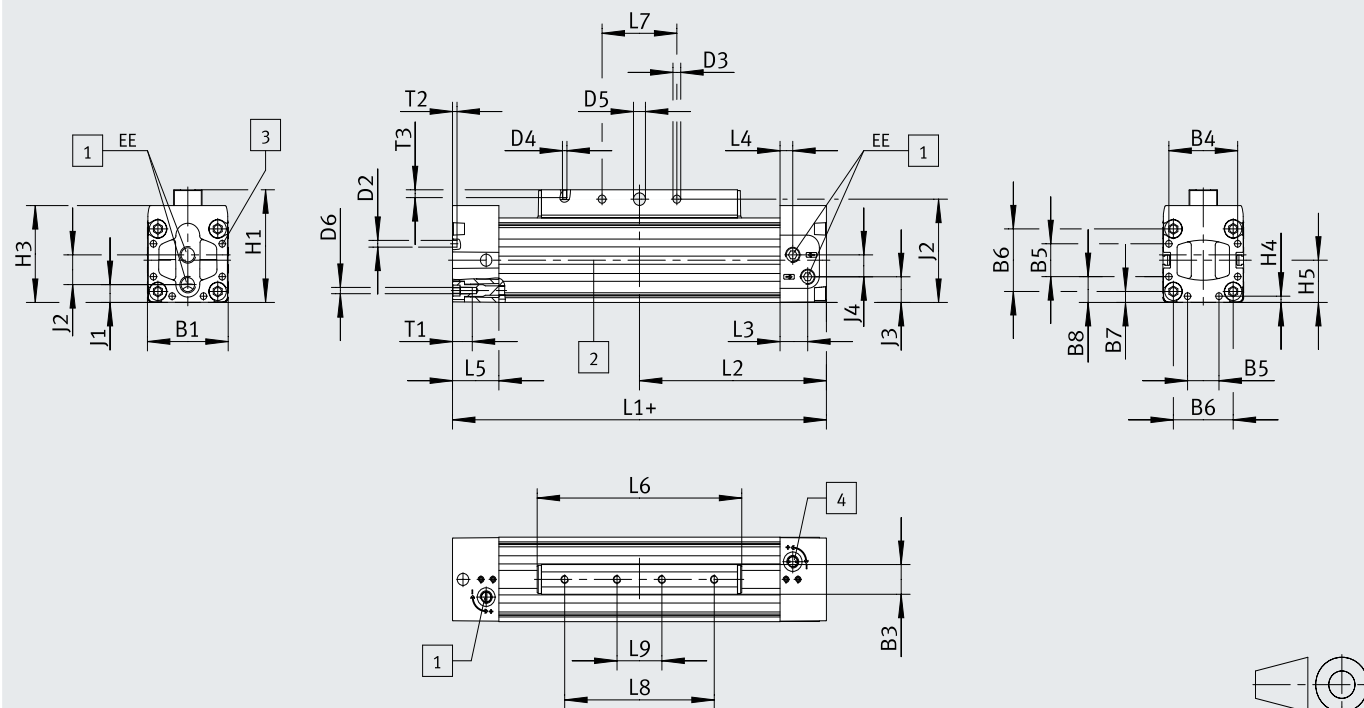
According to the graph, the max. support spacing for the drive DGC-K-25 with a force of 200 N is 1450 mm.

In this example, central supports are required as the max. support spacing (1450 mm) is smaller than the overall length of the drive (1700 mm).

Datasheet

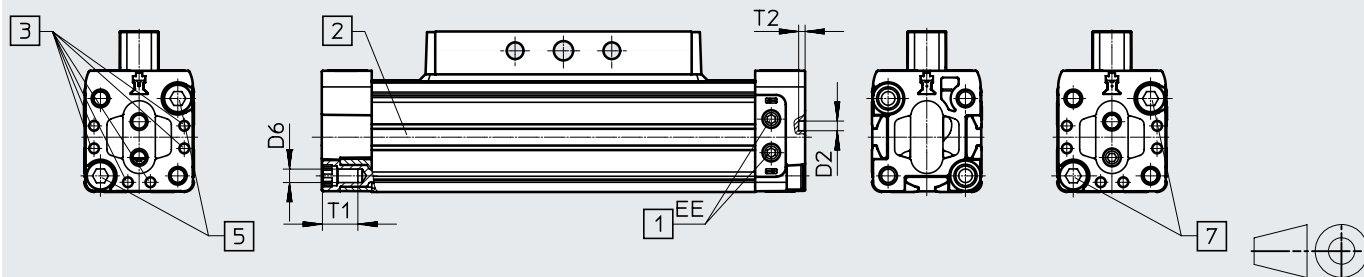
Dimensions

Download CAD data → www.festo.com

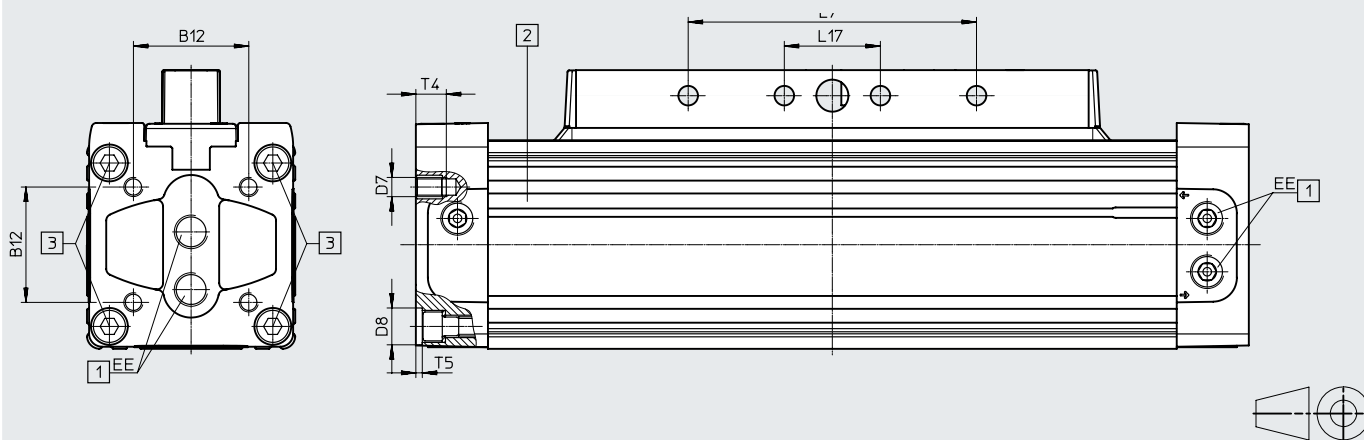


Ø18

DGC-...-D2



Ø80



+ plus stroke length

[1] Compressed air supply port options on 3 sides

[2] Sensor slot for proximity switch

[3] Mounting holes for foot mounting HP

[4] Adjusting screw for adjustable end-position cushioning

[5] No mounting thread here with N 18

[7] No mounting thread here with N 18, in combination with variant D2

Datasheet

∅ [mm]	B1	B3 ±0.2	B4	B5	B6	B7	B8	B12	D2 ∅	D3 ∅ +0.2
18	34 ^{+0.2/-0.05}	12	28	7	24	5	13.5	–	3	5.2
25	45 ^{+0.4}	19	39.1	18	32.5	6.3	13.5	–	3.3	5.2
32	54 ^{+0.4}	19	46	21	40	7	16.5	–	4.3	5.2
40	64 ^{+0.4}	21	53	28	49	7.5	18	–	4.3	6.5
50	90 ^{+0.4}	24	76	44	72	9	23	–	6.3	8.5
63	106 ^{+0.4}	24	89	44	83	11.5	31	–	6.3	8.5
80	130 ^{+0.8}	36	–	–	102	14	29	72	–	12.2

∅ [mm]	D4	D5 ∅	D6	D7	D8 ∅	EE	H1	H2	H3	H4	H5
18	M5	6 ^{H7}	M5	–	–	M5	49.8	43.8	37.6	3	17
25	M5	8 ^{H7}	M4	–	–	G1/8	63	57	51	3	22.5
32	M5	8 ^{H7}	M5	–	–	G1/8	72	66	61.8	4	27
40	M6	10 ^{H7}	M5	–	–	G1/4	86	78	71.8	5.5	32
50	M8	12 ^{H7}	M6	–	–	G1/4	115	106	99	7	45
63	M8	12 ^{H7}	M8	–	–	G3/8	131	122	115	8.5	53
80	M12	20 ^{H10}	–	M12	23	G1/2	174	158	140.5	–	85

∅ [mm]	J1	J2	J3	J4	L1		L2		L3	L4	L5
					GK	GV	GK	GV			
18	10.7	11.1	12.2	10.4	150	230	75	115	5	5	15.5
25	9	16.7	15.7	13	200	300	100	150	17	7	25
32	11.4	19	17.1	14	250	380	125	190	18.5	8.5	31
40	13.5	22	19.5	21	300	470	150	235	11.5	11.5	31
50	21	30.8	27	29.3	350	550	175	275	14	14	34
63	25	36	32	33	400	650	200	325	13.5	13.5	34
80	37	36	48.1	33.3	520	–	260	–	19	19	45

∅ [mm]	L6		L7	L8	L9	L17 ±0.15	T1	T2	T3	T4	T5
	GK	GV									
18	85	165	30±0.1	60±0.1	–	–	11	2	10	–	–
25	109	209	30±0.1	50±0.1	–	–	13	2	7.5	–	–
32	135	265	50±0.1	100±0.1	30±0.1	–	13.2	3	7.5	–	–
40	171	341	70±0.1	130±0.1	40±0.1	–	13.2	4	10	–	–
50	206	406	80±0.1	150±0.1	50±0.1	–	15.2	6	12.5	–	–
63	234	484	110±0.1	190±0.1	70±0.1	–	21.2	6	12.5	–	–
80	334	–	180±0.15	230±0.15	115±0.15	60	–	–	19	18	4

Length tolerance											
For stroke	[mm]	≤ 1000	≤ 2000	≤ 3000	≤ 4000	≤ 5000	≤ 6000	≤ 7000	≤ 8000	≤ 9000	
L1	[mm]	±0.45	±0.55	±0.70	±0.75	±0.80	±0.85	±1.10	±1.15	±1.20	

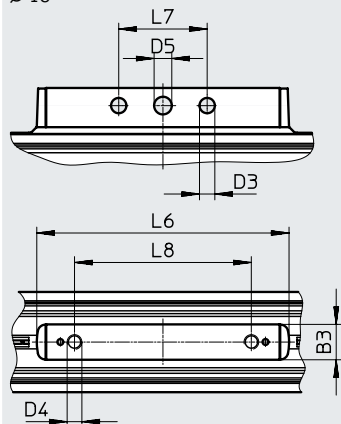
Datasheet

Dimensions

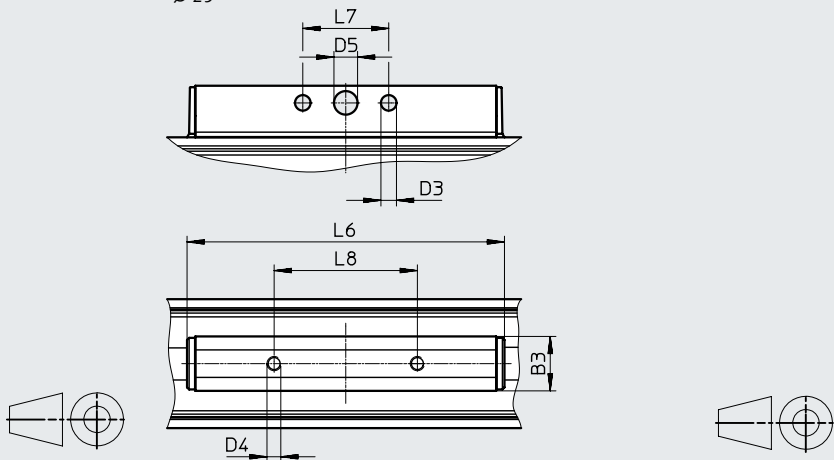
Download CAD data → www.festo.com

GK – Standard piston

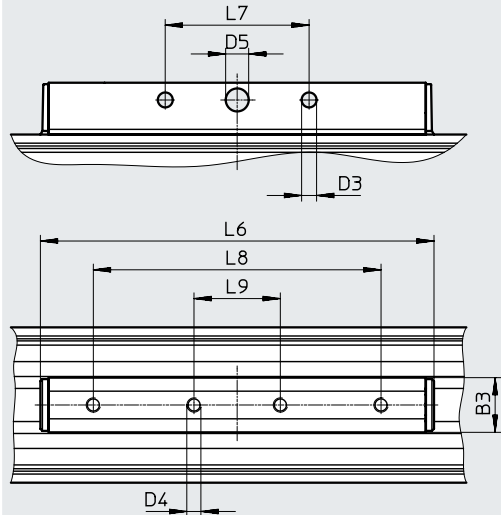
Ø 18



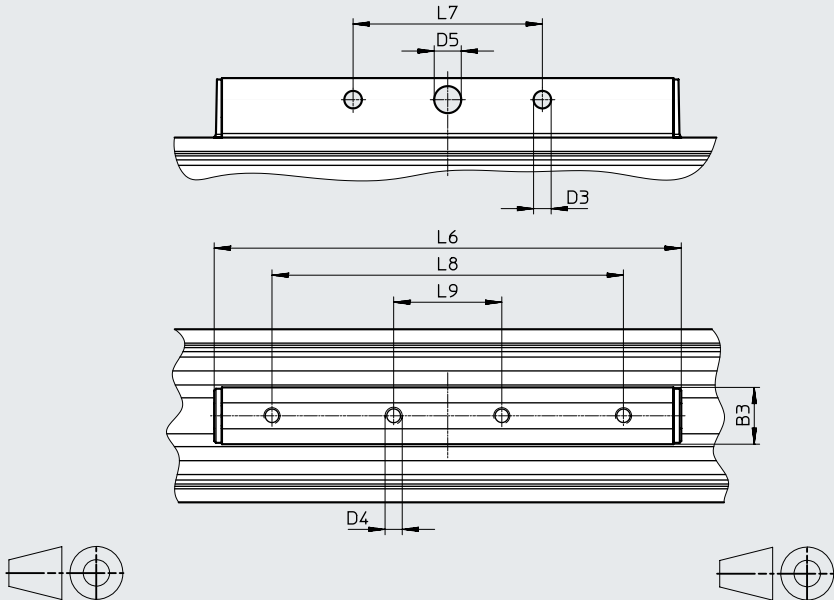
Ø 25



Ø 32



Ø 40



Ø	B3	D3 Ø	D4	D5 Ø H7	L6	L7	L8	L9
[mm]	±0.2	+0.2				±0.1	±0.1	±0.1
18	12	5.2	M5	6	85	30	60	–
25	19	5.2	M5	8	109	30	50	–
32	19	5.2	M5	8	135	50	100	30
40	21	6.5	M6	10	171	70	130	40

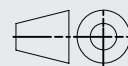
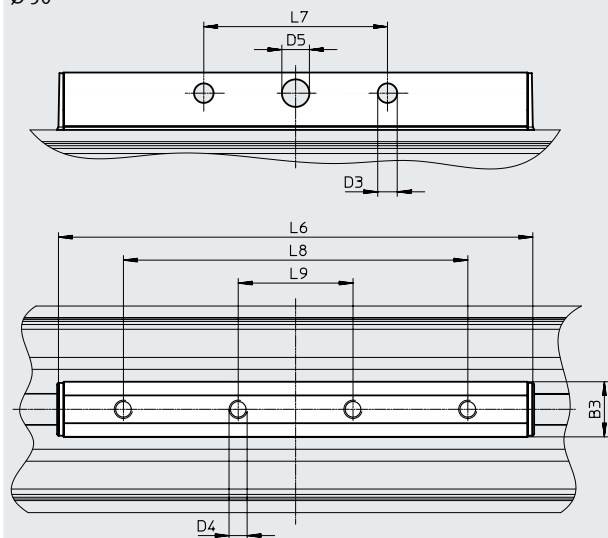
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Dimensions

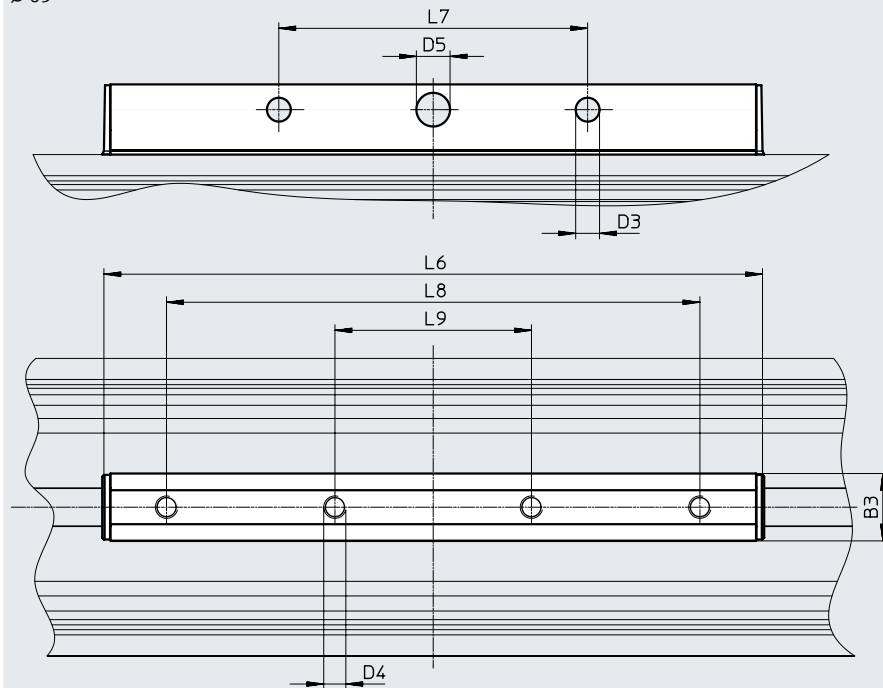
Download CAD data → www.festo.com

GK – Standard piston

Ø 50



Ø 63



Ø	B3	D3	D4	D5	L6	L7	L8	L9
[mm]	±0.2	Ø +0.2		Ø H7		±0.1	±0.1	±0.1
50	24	8.5	M8	12	206	80	150	50
63	24	8.5	M8	12	234	110	190	70

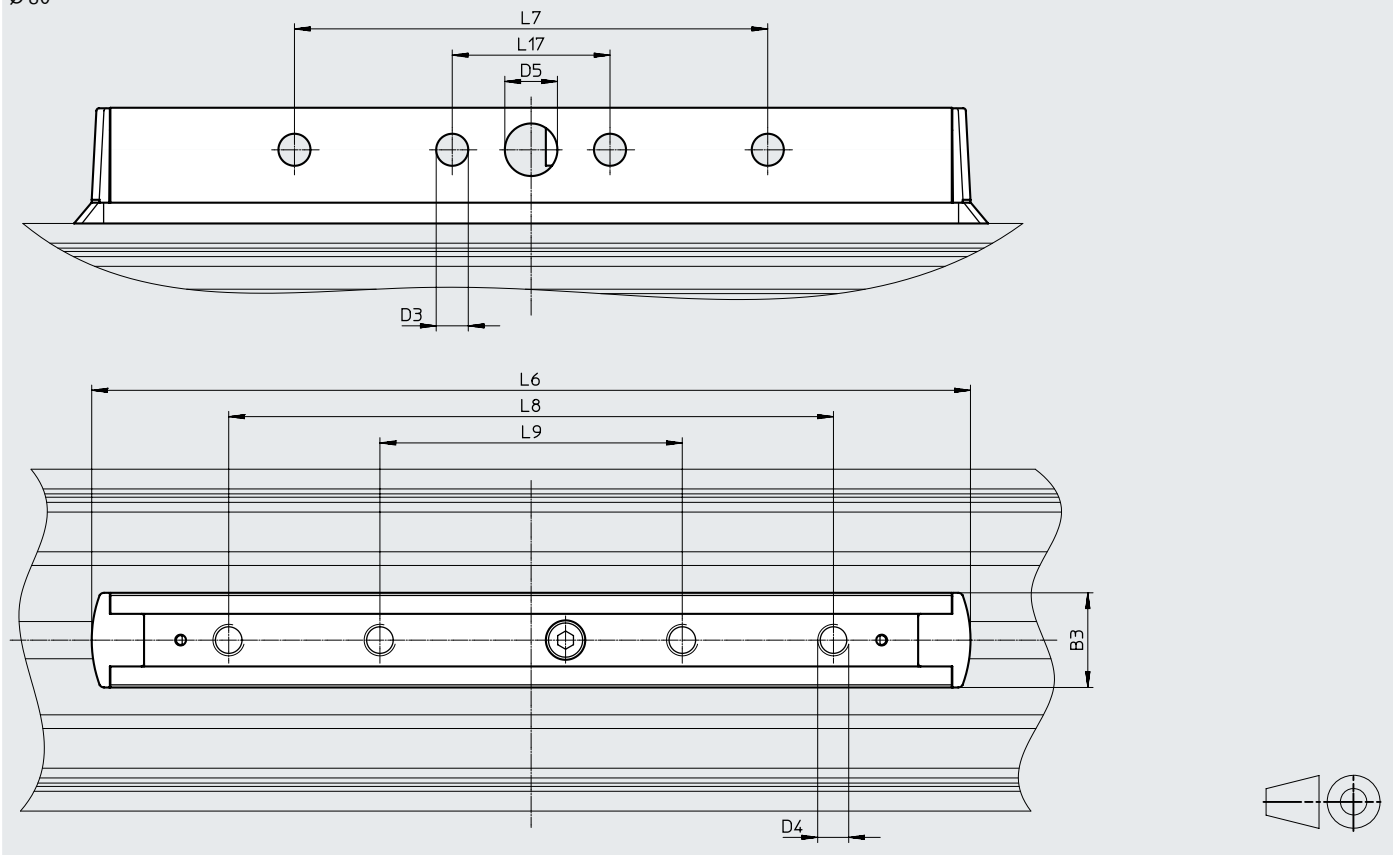
Datasheet

Dimensions

Download CAD data → www.festo.com

GK – Standard piston

Ø 80



Ø	B3	D3 Ø	D4	D5	L6	L7	L8	L9	L17
[mm]	±0.2	+0.2		H10		±0.15	±0.15	±0.15	
80	36	12.2	M12	20	334	180	230	115	60

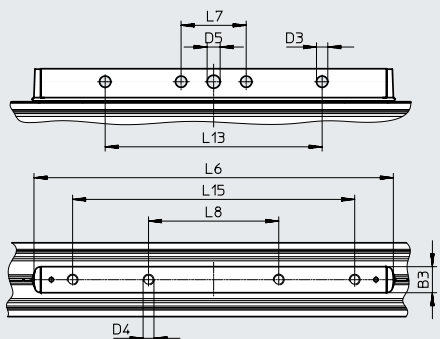
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Dimensions

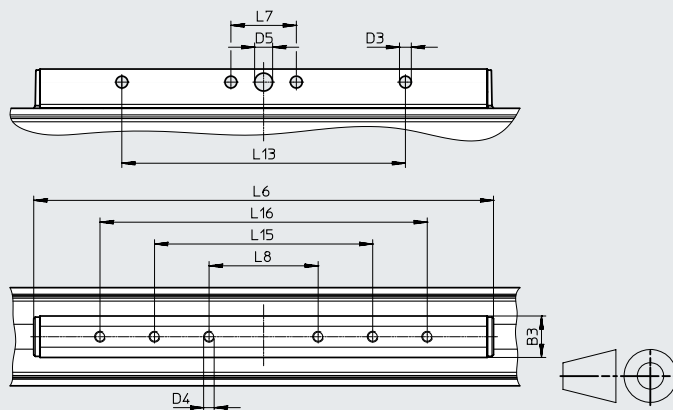
Download CAD data → www.festo.com

GV – Extended piston

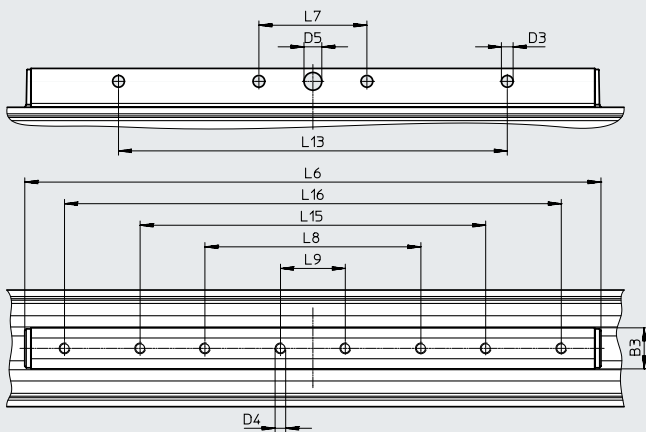
Ø 18



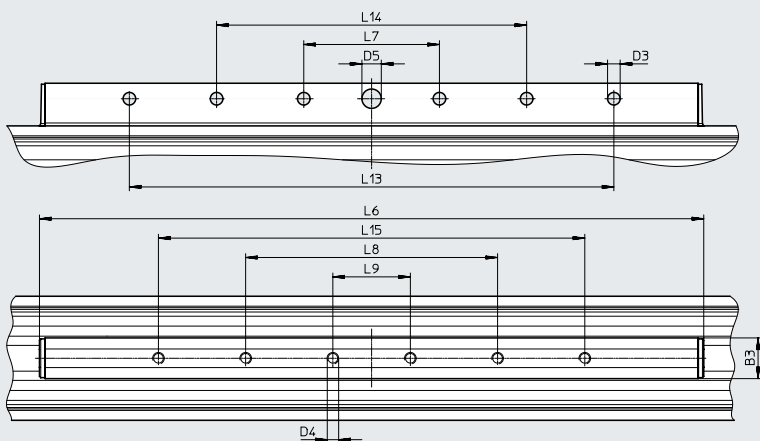
Ø 25



Ø 32



Ø 40



Ø	B3	D3	D4	D5	L6	L7	L8	L9	L13	L14	L15	L16
[mm]	±0.2	Ø +0.2		Ø H7		±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1
18	12	5.2	M5	6	165	30	60	–	100	–	130	–
25	19	5.2	M5	8	209	30	50	–	130	–	100	150
32	19	5.2	M5	8	265	50	100	30	180	–	160	230
40	21	6.5	M6	10	341	70	130	40	160	250	220	–

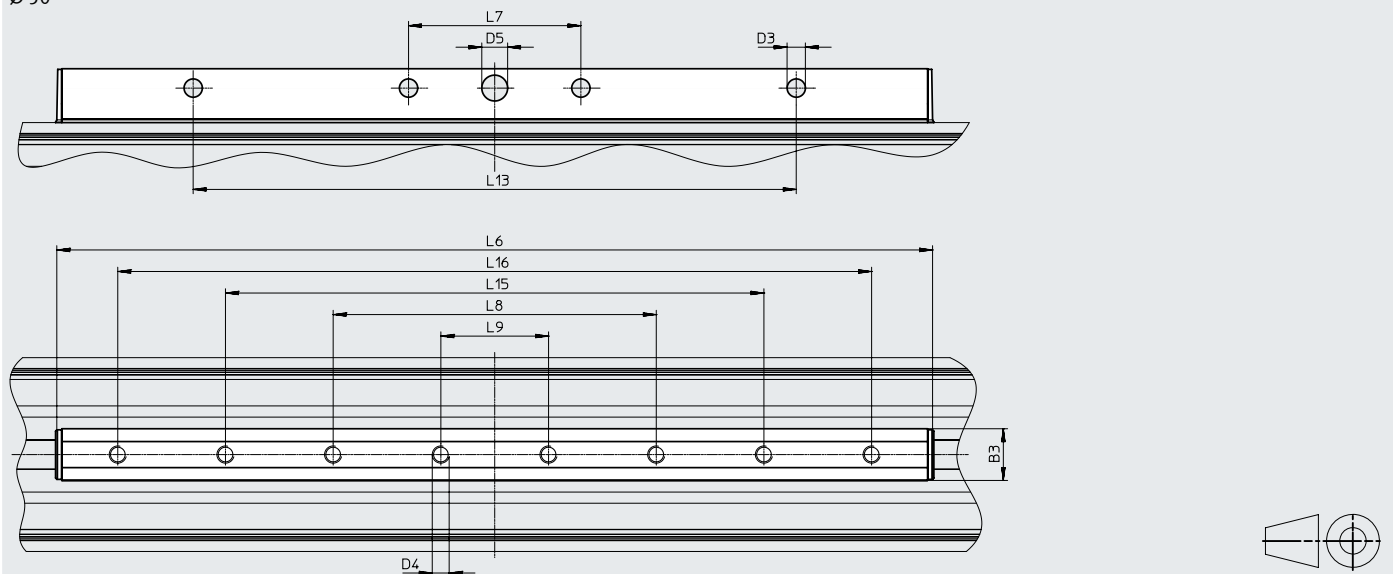
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Dimensions

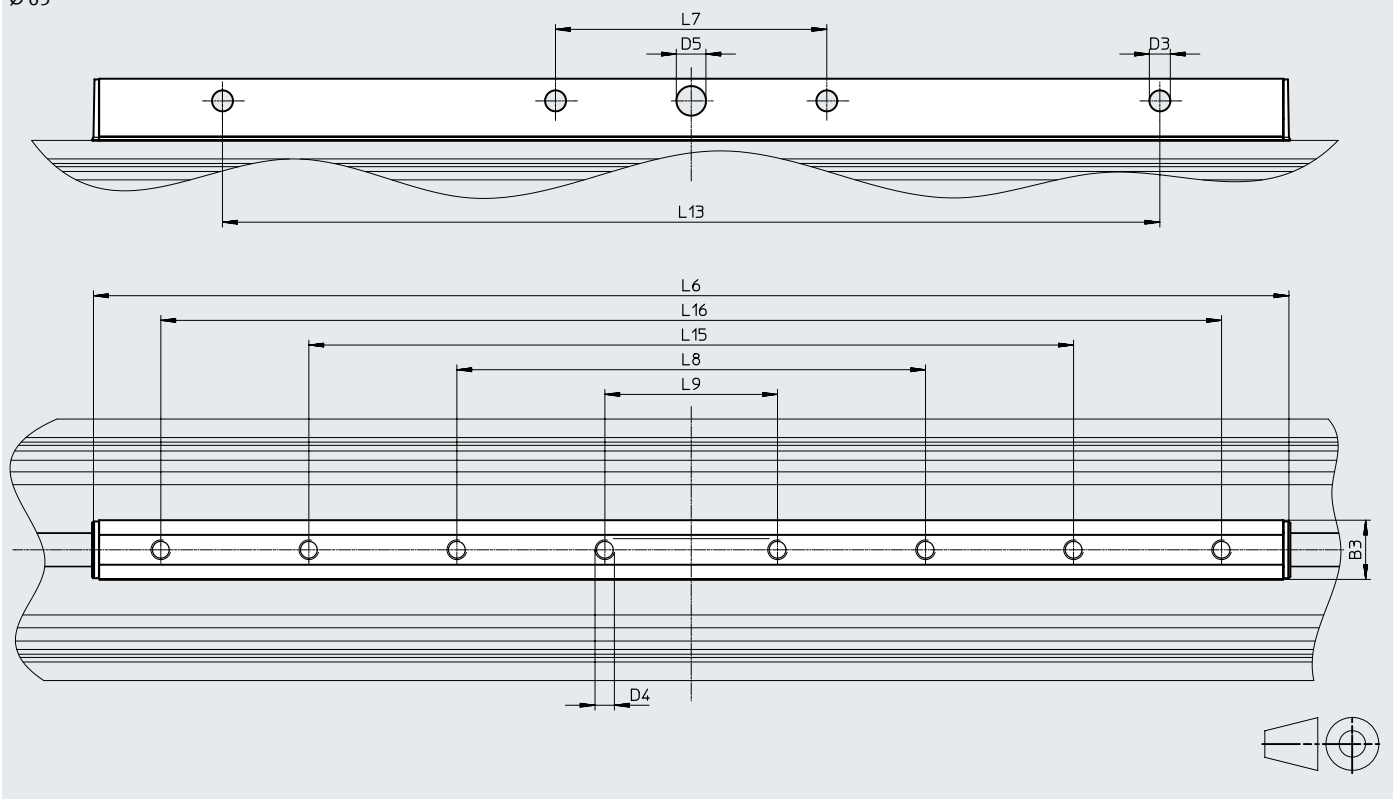
Download CAD data → www.festo.com

GV – Extended piston

Ø 50



Ø 63



Ø	B3	D3 Ø	D4	D5 Ø H7	L6	L7	L8	L9	L13	L15	L16
[mm]	±0.2	+0.2				±0.1	±0.1	±0.1	±0.1	±0.1	±0.1
50	24	8.5	M8	12	406	80	150	50	280	250	350
63	24	8.5	M8	12	484	110	190	70	380	310	430

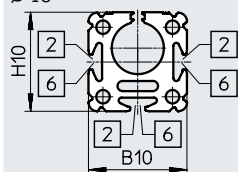
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Dimensions

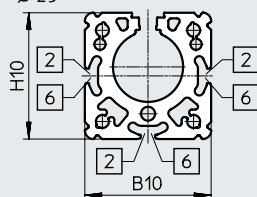
Download CAD data → www.festo.com

Profile barrel

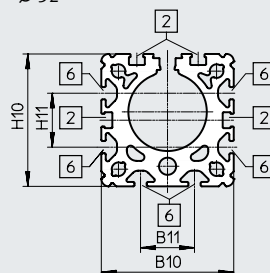
Ø 18



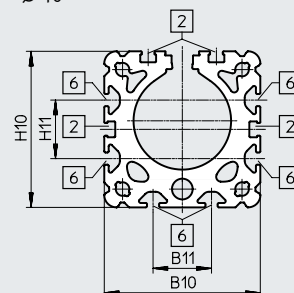
Ø 25



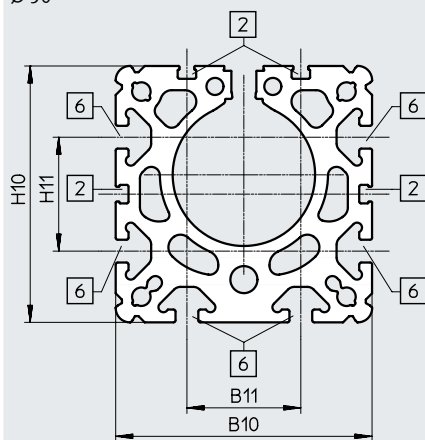
Ø 32



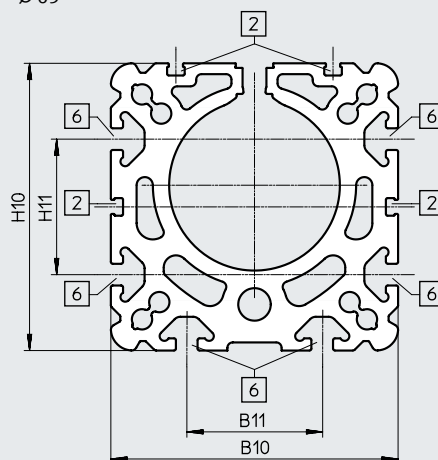
Ø 40



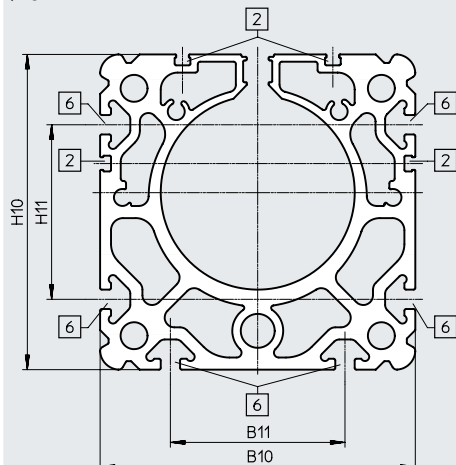
Ø 50



Ø 63



Ø 80



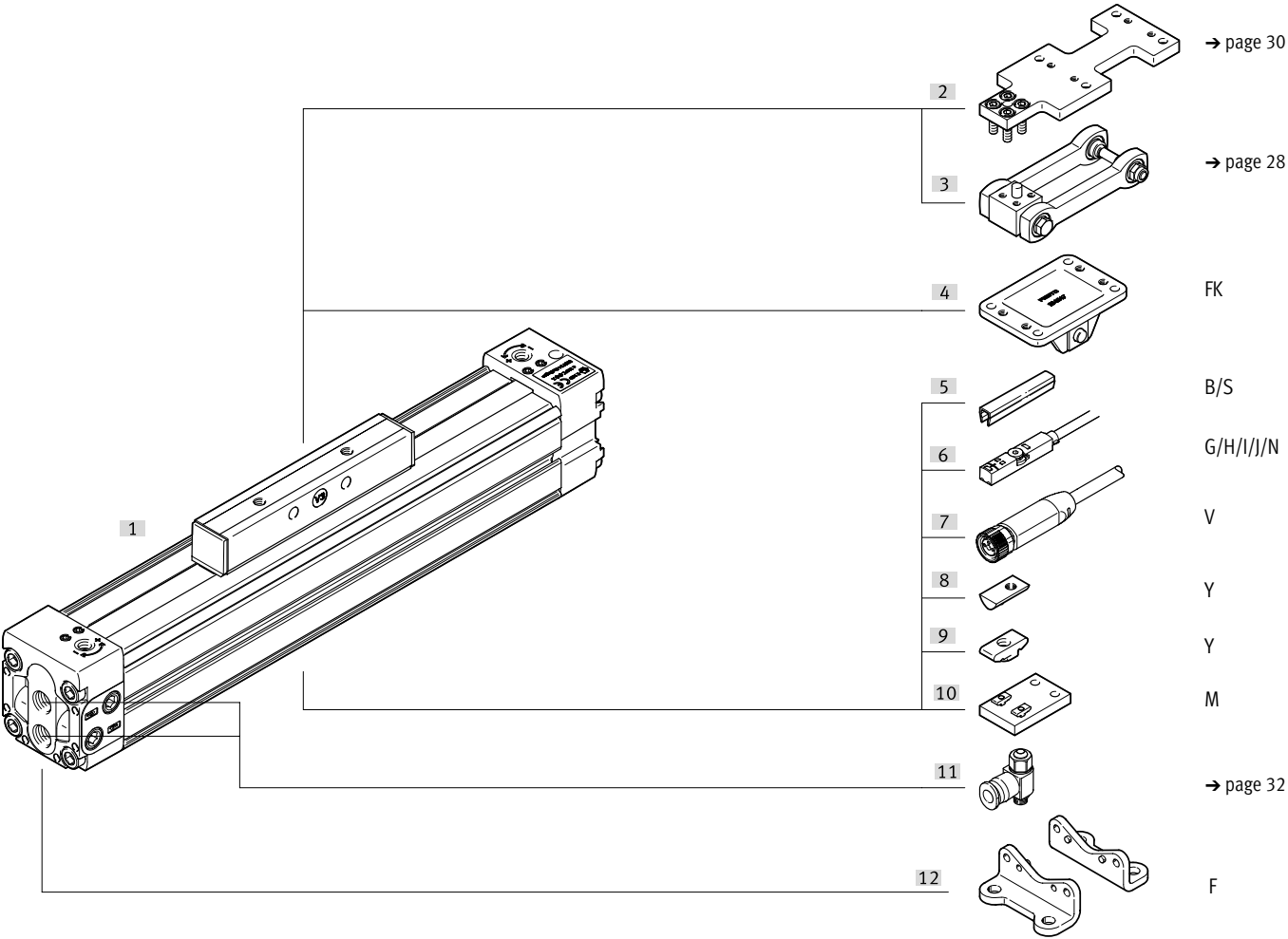
- [2] Sensor slot for proximity switch
[6] Mounting slot for slot nut

Ø [mm]	B10	B11	H10	H11
18	34	–	34	–
25	45	–	45	–
32	54	22	54	22
40	64	24	64	24
50	90	40	90	40
63	106	50	106	50
80	130	72	130	72

Ordering data – Modular product system

Order code

-  - Note: The item numbers refer to the peripherals overview → page 7



Ordering data – Modular product system

Ordering table											
Size	18	25	32	40	50	63	80	Condi- tions	Code		Enter code
Module no.	1312500	1312501	1312502	1312503	1312504	1312505	1312506				
Function	Linear drive								DGC		DGC
Guide	Compact								-K		-K
Piston Ø [mm]	18	25	32	40	50	63	80		-...		
Stroke [mm]	1 ... 3000	1 ... 8500			1 ... 6000	1 ... 5000 ¹⁾	1 ... 3000		-...		
Cushioning	Pneumatic cushioning, adjustable at both ends								-PPV		-PPV
Position sensing	Via proximity switch								-A		-A
Basic design	Standard piston								-GK		
	Extended piston						–		-GV		
Compressed air supply port	At one end										
	At both ends							[1]	-D2		
Lubrication	Standard										
	Food-safe lubrication								-H1		
Moment compensator	None										
	Coupling for moment compensator								-FK		
EU certification	None										
	II 3GD							[2]	-EX2		
	II 2G							[2]	-EX3		
Accessories	Enclosed separately (can be retrofitted)								ZUB-		ZUB-
Foot mounting	1								F		
Central support	1 ... 10								...M		
Slot nut for mounting slot	1 ... 10							[3] [1]	...Y		
Slot cover for mounting slot	–	–	1 ... 10						...B		
Proximity sensor, N/O contact	2.5 m cable	1 ... 10							...G		
	Plug M8	1 ... 10							...H		
Proximity sensor, N/O contact, contactless, PNP	2.5 m cable	1 ... 10							...I		
	Plug M8	1 ... 10							...J		
Proximity sensor, N/C contact	1 ... 10								...N		
	7.5 m cable										
Connecting cable	M8, 2.5 m	1 ... 10							...V		
Slot cover, sensor slot	1 ... 10								...S		

1) Stroke max. 4800 mm with piston Ø 63 with variant GV

[1] Y + D2 The following applies to sizes 18 and 25: entry "1Y" = delivery quantity of 4 pieces

[2] EX2, EX3 Not with proximity sensor G, H, I, J, N or connecting cable V

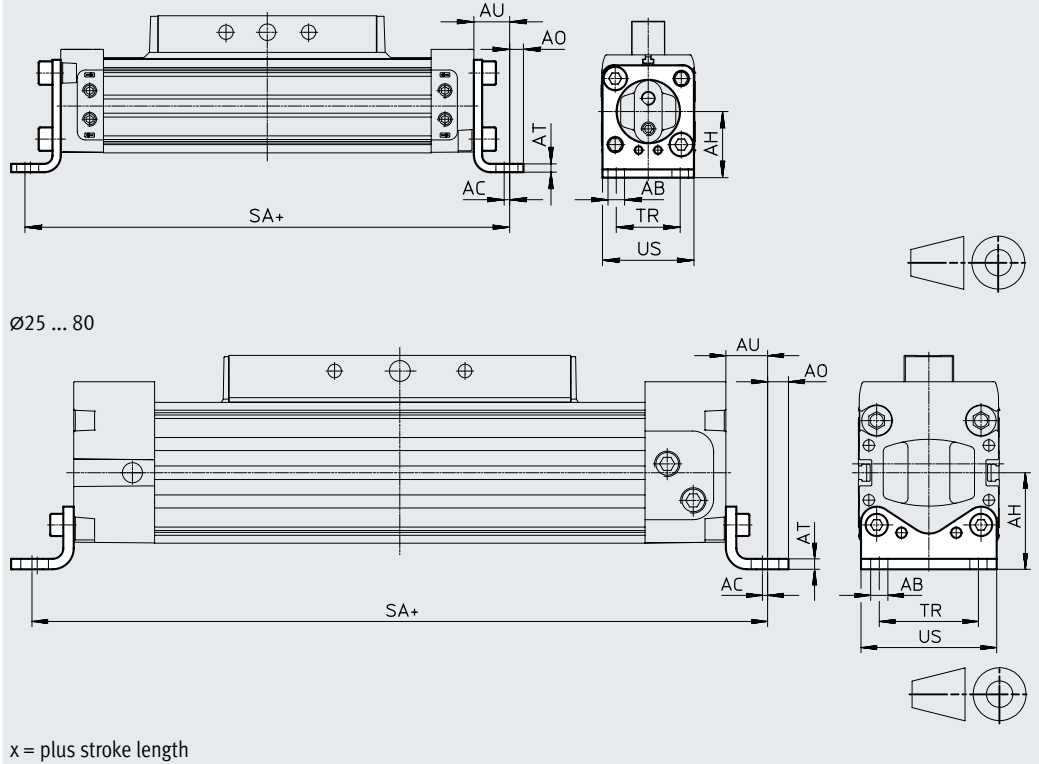
[3] Y For sizes 18 and 25 there is just one slot for mounting and proximity sensor

Accessories

Foot mounting HP
(order code: F)



Material:
Galvanised steel
Ø18



Dimensions and ordering data													
For Ø	AB	AC	AH	AO	AT	AU	SA		TR	US	Weight	Part no.	Type1)
[mm]	Ø						GK	GV			[g]		
18	5.5	2	24	4.7	3	13.3	176.6	256.6	24	33.2	59	158472	HP-18
25	5.5	2	29.5	6	3	13	226	326	32.5	44	61	150731	HP-25
32	6.6	2	37	7	4	17	284	414	38	52	117	150732	HP-32
40	6.6	2	46	8.5	5	17.5	335	505	45	62	188	150733	HP-40
50	9	3	61	11	6	25	400	600	65	87	243	150734	HP-50
63	11	3	69	13.5	6	28	456	706	75	102	305	150735	HP-63
80	13	3	85	12	8	28	576	—	72	128	620	158453	HP-80

1) Suitable for ATEX

Accessories

Central support MUP

(order code: M)

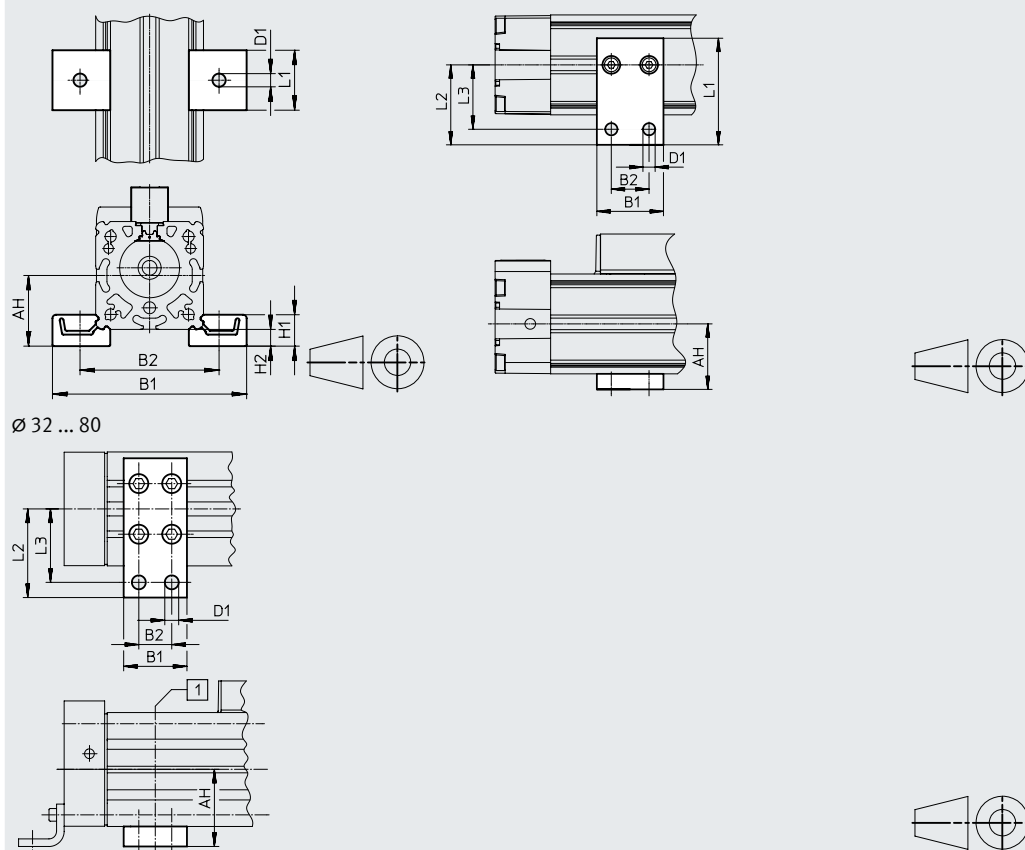
Material:

Anodised aluminium

Ø 18/25 with MUP-18/25

Ø 18/25 with MUP-18/25-P

Mounting on one side only



[1] Position of the central support along the profile barrel is freely selectable

Dimensions and ordering data

For Ø	AH	B1	B2	D1 Ø	H1	H2	L1	L2	L3	Weight [g]	Part no.	Type ²⁾
[mm]												
18	24	70.5	47	5.5	13	7	25	–	–	33	150736	MUP-18/25
	24	30	17	5.5	–	–	48	36	29	32	1711704	MUP-18/25-P ¹⁾
25	29.5	81	58	5.5	13	7	25	–	–	33	150736	MUP-18/25
	29.5	30	17	5.5	–	–	48	36	29	32	1711704	MUP-18/25-P ¹⁾
32	37	35	22	6.6	–	–	–	41.5	35	89	150737	MUP-32
40	46	35	22	6.6	–	–	–	47	40	126	150738	MUP-40
50	61	50	26	11	–	–	–	70	58	241	150739	MUP-50
63	69	50	26	11	–	–	–	77	65	340	150800	MUP-63
80	85	50	26	11	–	–	–	88	76	590	158455	MUP-80

1) This central support cannot be ordered using order code M in the modular product system.

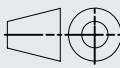
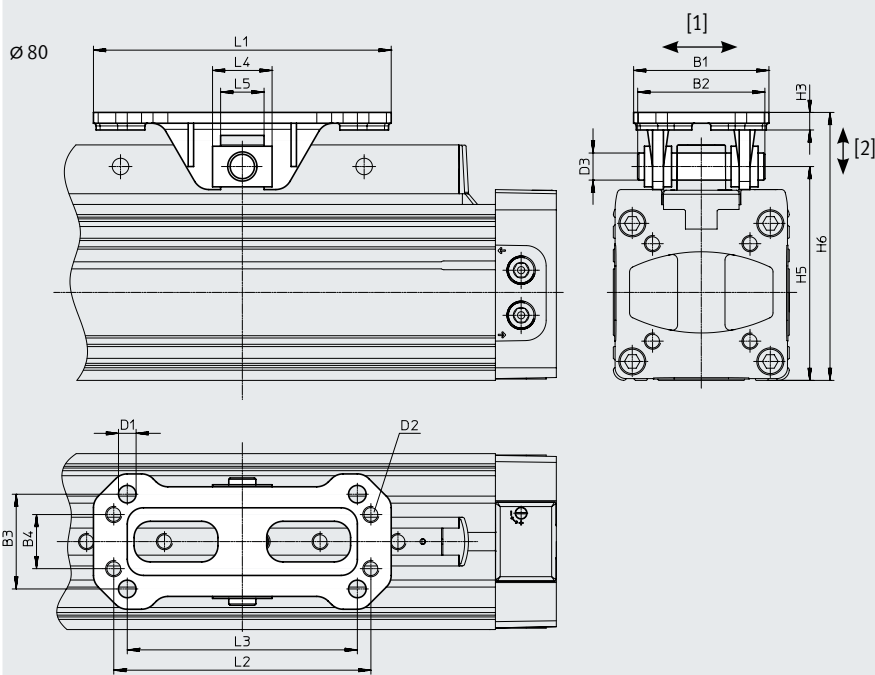
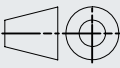
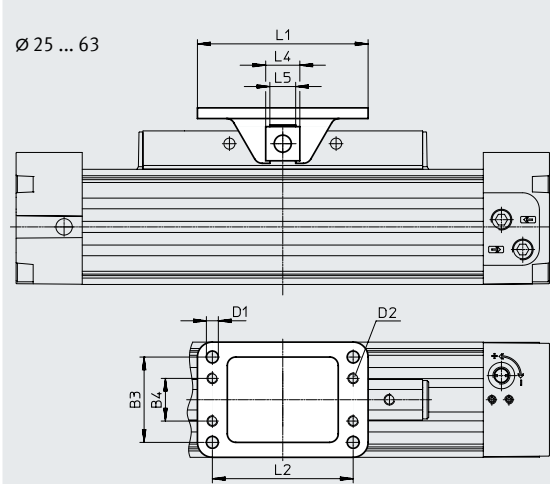
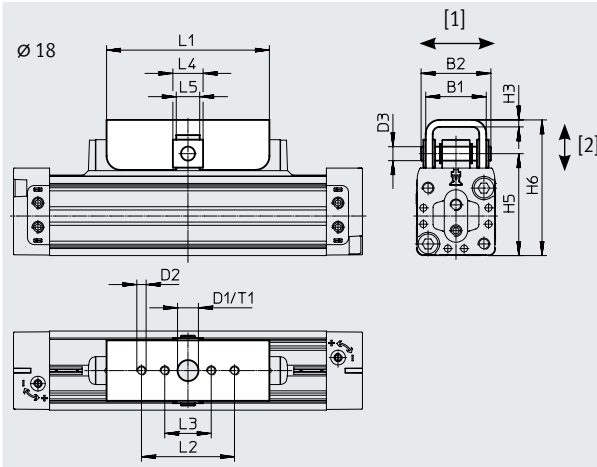
2) Suitable for ATEX

Accessories

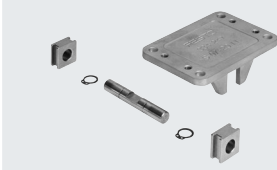
Moment compensator DARD-S
(order code: FK)

Materials: Clevis: high-alloy steel
Bolt: high-alloy steel Sliding piece: Brass Circlip: Spring steel

The moment compensator DARD-S has the same interface as the moment compensator FKP for the linear drive DGP. Use moment compensator DARD-M in servo-pneumatic systems.



Note: Compensation possible in the direction of the arrow.



Accessories

Technical data					
For Ø	Max. offset between linear drive and external guide		Max. permissible load in the direction of force	Ambient temperature	Weight
[mm]	[1] [mm]	[2]	[N]	[°C]	[g]
18	±1.8	±1.2	550	-20 ... +120	104
25	±2	±2	1100		231
32			1100		231
40			1800		362
50			2500		712
63			2500		712
80	±4	±4	7000		1955

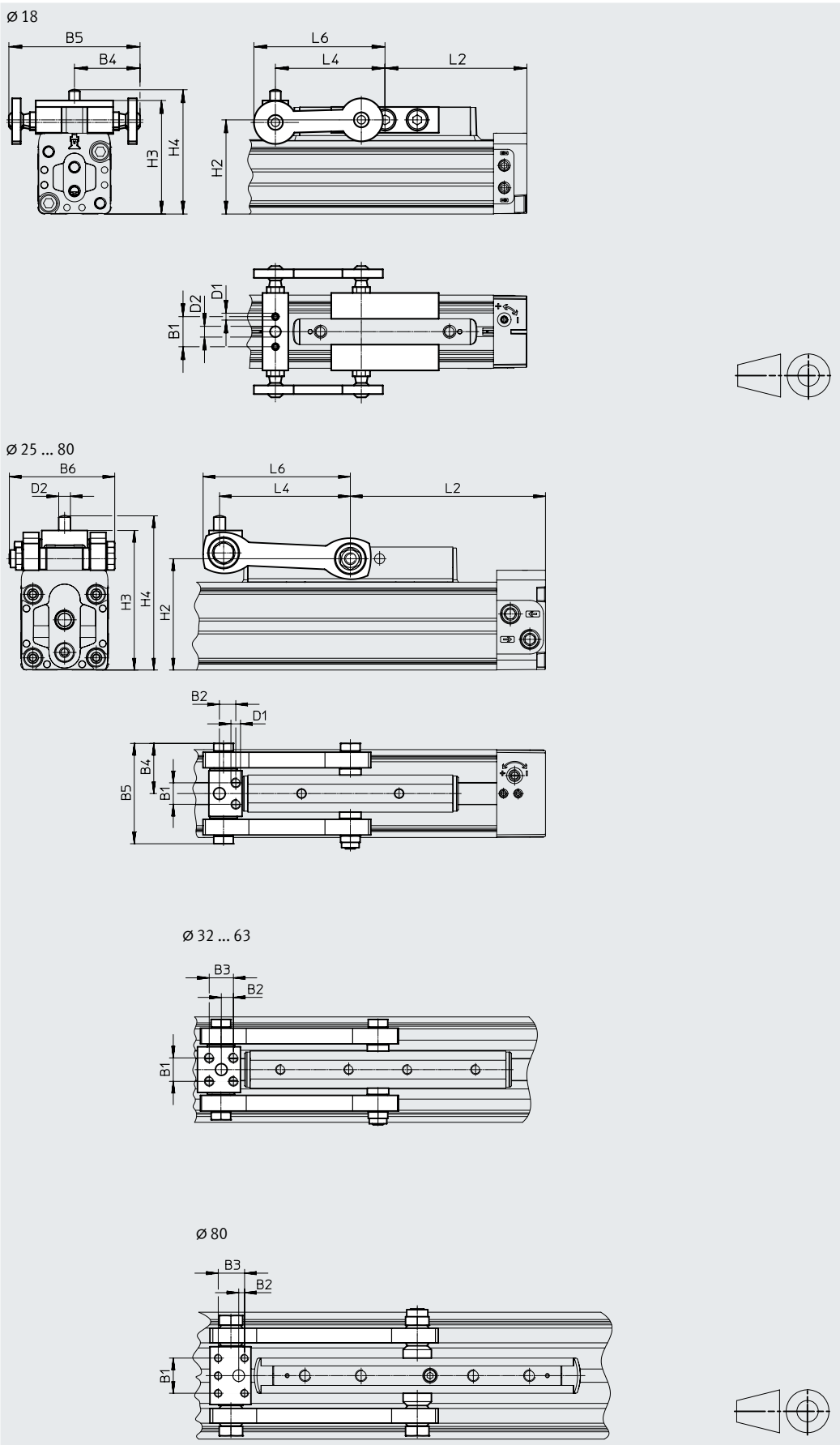
Dimensions and ordering data										
For Ø	B1	B2	B3	B4	D1 Ø	D2	D3 Ø	H3	H5	H6
[mm]										
18	26	30	–	–	9 ^{H7}	M4	6	3	43.8	57.8
25	54	50	40	20	5.5	M5	8	5	57	75
32					5.6				66	84
40	58	60	44	24	6.6	M6	10	6	78	99
50	71	63	51	23	9	M8	12	8	106	130
63									122	146
80	100	94	70	40	13	M12	20	13	158	194.5

For Ø	L1	L2	L3	L4	L5	T1	Part no.	Type
[mm]								
18	70	40	20	13	10.1	2.1	8001411	DARD-L1-18-S
25	80	66	–	16	12.1	–	8001412	DARD-L1-32-S
32							8001412	DARD-L1-32-S
40	90	76	–	18	14.1	–	8001413	DARD-L1-40-S
50	122	102	–	22	16.1	–	8001414	DARD-L1-63-S
63							8001414	DARD-L1-63-S
80	220	190	170	44	32.1	–	8001415	DARD-L1-80-S

Accessories

Moment compensator DARD-M
Almost backlash-free

Material:
Galvanised steel



Accessories

Technical data				
For Ø	Max. offset between linear drive and external guide ¹⁾	Max. permissible load in the direction of force	Ambient temperature	Weight
[mm]	[mm]	[N]	[°C]	[g]
18	±2.5	400	-10 ... +60	94
25		800		240
32		1300		275
40		2000		580
50	±4	3150		960
63		5000		1000
80		7800		2815

1) Laterally and vertically.

Dimensions and ordering data									
For Ø	B1	B2	B3	B4	B5	B6	D1 Ø	D2 Ø	H2
[mm]									
18	14	–	–	30.5±2.5	61	–	M3x6.2	5	43.8
25	11	8.4	–	25.7±2.5	51.4	54	M5x17	6	57
32	12	6.2	12.4	25.7±2.5	51.4	54	M5x13	6	66
40	18	11	17	36±2.5	72	75.3	M6x16	8	78
50	26	12.6	19	44±4	88	96.4	M8x18	10	106
63	26	12.6	19	44±4	88	96.4	M8x18	10	122
80	36	6	27	61.6±4	123.2	130	M8x26.6	12	158

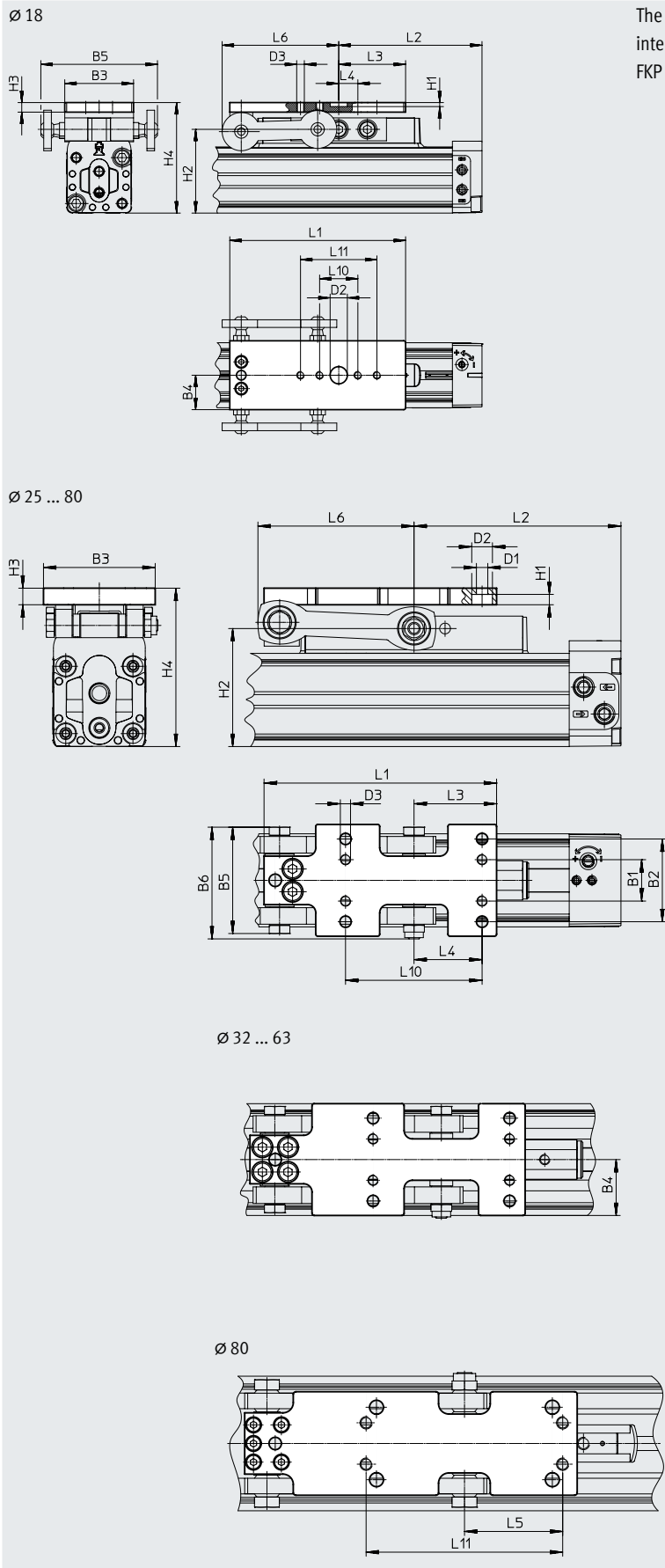
For Ø	H3	H4	L2	L4	L6	Part no.	Type
[mm]					max.		
18	52.8±2.5	57.8±2.5	75	51	61	2349274	DARD-L1-18-M
25	71.5±2.5	79±2.5	100	67.1	75.5	2349275	DARD-L1-25-M
32	80.5±2.5	88±2.5	125	80.3	91	2349276	DARD-L1-32-M
40	94.5±2.5	104.5±2.5	150	104	117	2349277	DARD-L1-40-M
50	125.5±4	135.5±4	175	124	139	2349278	DARD-L1-50-M
63	142±4	152±4	200	138	153	2349279	DARD-L1-63-M
80	187.5±4	199.5±4	260	182.9	212.5	2349280	DARD-L1-80-M

Accessories

Adapter plate DAMF

Material:
Galvanised steel

The adapter plate DAMF has the same interface as the moment compensator FKP for the linear drive DGP.



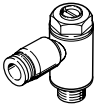
Accessories

Dimensions and ordering data								
For Ø	B1	B2	B3	B4	B5	B6	D1 Ø	D2 Ø
[mm]				±2.5				
18	–	–	36	18±2.5	61	–	–	9
25	20	40	54	27±2.5	51.4	54	5.5	10
32	20	40	54	27±2.5	51.4	54	5.5	10
40	24	44	58	29±2.5	72	75.3	6.6	11
50	23	51	71	35±4	88.1	96.4	9	15
63	23	51	71	35±4	88.1	96.4	9	15
80	40	70	100	50±4	123.2	130	13.5	20

For Ø	D3	H1	H2	H3	H4	L1	L2	L3
[mm]								
18	M4	2.1	43.8	5	57.8±2.5	92	75	35
25	M5	5	57	8	75±2.5	112.4	100	40
32	M5	5	66	8	84±2.5	133	125	40.5
40	M6	6	78	10	99±2.5	162	150	45
50	M8	8	106	10	130±4	200	175	61
63	M8	8	122	10	146±4	214	200	61
80	M12	9	158	12	194±4	322.4	260	109

For Ø	L4	L5	L6	L10	L11	Weight	Part no.	Type
[mm]			max.					
18	10	–	61	20	40	127	2349281	DAMF-18-FKP
25	33	–	75.5	66	–	265	2349282	DAMF-25-FKP
32	33	–	91	66	–	308	2349283	DAMF-32-FKP
40	38	–	117	76	–	593	2349284	DAMF-40-FKP
50	51	–	139	102	–	966	2349285	DAMF-50-FKP
63	51	–	153	102	–	1042	2349286	DAMF-63-FKP
80	85	95	212.5	170	190	2817	2349287	DAMF-80-FKP

Accessories

Ordering data						
	For Ø	Description	Order code	Part no.	Type	PU ¹⁾
Slot nut ABAN/NST2) Datasheets → Internet: hmbn						
	18, 25	For mounting slot	Y	8003032	ABAN-1M4-5	4
	18, 25	- For mounting slot - In the case of diameter 18 and 25, cannot be used with DGC....-D2 (compressed air supply port at both ends)		526091	NST-HMV-M4	10
	32, 40	For mounting slot		150914	NST-5-M5-1	1
	50, 63, 80			150915	NST-8-M6-1	
Slot cover ABP2) Datasheets → Internet: abp						
	32, 40	For mounting slot	B	151681	ABP-5	2
	50, 63, 80	Every 0.5 m		151682	ABP-8	
	18, 25, 32, 40, 50, 63, 80	For sensor slot Every 0.5 m	S	563360	ABP-5-S1	2
One-way flow control valve GRLA Datasheets → Internet: grla						
	18	Metal design	–	193137	GRLA-M5-QS-3-D	1
	25, 32			193138	GRLA-M5-QS-4-D	
				193142	GRLA-1/8-QS-3-D	
				193143	GRLA-1/8-QS-4-D	
				193144	GRLA-1/8-QS-6-D	
				193145	GRLA-1/8-QS-8-D	
	40, 50			193146	GRLA-1/4-QS-6-D	
				193147	GRLA-1/4-QS-8-D	
				193148	GRLA-1/4-QS-10-D	
	63			193149	GRLA-3/8-QS-6-D1	
				193150	GRLA-3/8-QS-8-D	
				193151	GRLA-3/8-QS-10-D	
80		193152	GRLA-1/2-QS-12-D			

- 1) Packaging unit
2) Suitable for ATEX



Note

When using the variant DGC-K-...-D2 (compressed air supply port at both ends), only to use proximity sensors that can be inserted in the slot from above can be used.

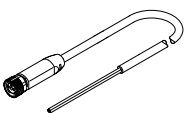
Ordering data – Proximity switch for T-slot, magneto-resistive						Datasheets → Internet: smt
	Type of mounting	Switching out-put	Electrical connection	Cable length [m]	Part no.	Type
N/O						
	Inserted in the slot from above, flush with the cylinder profile, short design	PNP	Cable, 3-core	2.5	574335	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-core	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						
	Inserted in the slot from above, flush with the cylinder profile, short design	PNP	Cable, 3-core	7.5	574340	SMT-8M-A-PO-24V-E-7.5-OE

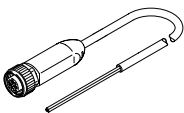
Accessories

Ordering data – Proximity switch for T-slot, magnetic reed						Datasheets → Internet: sme	
	Type of mounting	Switching out-put	Electrical connec-tion	Cable length [m]	Part no.	Type	
N/O							
	Inserted in the slot from above, flush with the cylinder profile	Contacting	Cable, 3-core	2.5	543862	SME-8M-DS-24V-K-2.5-OE	
				5.0	543863	SME-8M-DS-24V-K-5.0-OE	
			Cable, 2-core	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	
N/C							
	Inserted in the slot from above, flush with the cylinder profile	Contacting	Cable, 3-core	7.5	546799	SME-8M-DO-24V-K-7.5-OE	

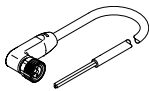
Ordering data – Proximity switch for T-slot, NAMUR							Datasheets → Internet: sdbt
	Type of mounting	Switching out-put	Electrical connec-tion	Cable length [m]	Part no.	Type	
N/O							
	Inserted in the slot from above, flush with cylinder profile	NAMUR	Cable, 2-core	5	579071	SDBT-MS-20NL-ZN-E-5-LE-EX6	
				10	579072	SDBT-MS-20NL-ZN-E-10-LE-EX6	

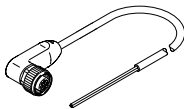
Ordering data – Safety clip for ATEX zone						
	Description	For size	Part no.	Type		
	- Protects "equipment that is not intrinsically safe" against simple dis-connection, here the plug of the proximity switch SMT and connecting cable NEBA - ATEX category: gas: II 3G / dust: II 3D	Plug M8x1	548067	NEAU-M8-GD		

Connecting cables NEBA, straight, M8 connection						
	Electrical connec-tion 1, connection technology	Electrical connec-tion 2, connection technology	Electrical connec-tion 2, number of pins/cores	Cable length	Part no.	Type
	M8x1 A-coded to 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, straight, M12 connection						
	Electrical connec-tion 1, connection technology	Electrical connec-tion 2, connection technology	Electrical connec-tion 2, number of pins/cores	Cable length	Part no.	Type
	M12x1, A-coded to EN 61076-2-101	Open end	3	2.5 m	8078236	NEBA-M12G5-U-2.5-N-LE3
				5 m	8078237	NEBA-M12G5-U-5-N-LE3

Accessories

Connecting cables NEBA, angled, M8 connection						
	Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/cores	Cable length	Part no.	Type
	M8x1 A-coded to 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

Connecting cables NEBA, angled, M12 connection						
	Electrical connection 1, connection technology	Electrical connection 2, connection technology	Electrical connection 2, number of pins/cores	Cable length	Part no.	Type
	M12x1, A-coded to EN 61076-2-101	Open end	3	2.5 m	8078245	NEBA-M12W5-U-2.5-N-LE3
				5 m	8078246	NEBA-M12W5-U-5-N-LE3