

Linear drives DGC-K

FESTO



Linear drives DGC

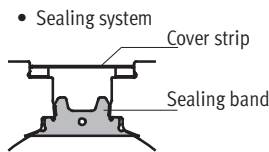
Features

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At a glance

- Without external guide, for simple drive functions
- Compact – fitting length relative to stroke
- Fully interchangeable with the linear drive DGP

- Easy assembly and installation
- Choice of:
 - Standard piston
 - Extended piston



- Advantages of the sealing system:
- Long strokes with no restrictions
 - Virtually no leakage

- Optional: NSF-H1 lubricant for the food industry

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

More information on suitability for use in the food industry

➔ Manufacturer's declaration.

Guide variants

Compact design DGC-K



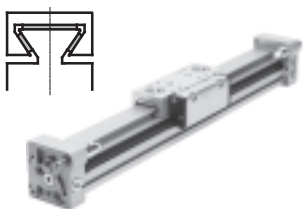
- Piston Ø 18 ... 80 mm
- Stroke lengths from 1 ... 8,500 mm
- 30% narrower than the DGC-G
- Low moving dead weight
- Symmetrical design

Basic design DGC-G



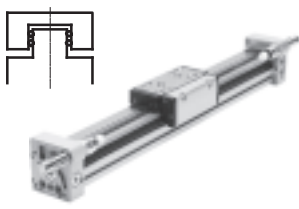
- Piston Ø 8 ... 63 mm
- Stroke lengths from 1 ... 8,500 mm
- Guide backlash = 0.2 mm
- For small loads
- Operating behaviour with torque load = average

Plain-bearing guide DGC-GF



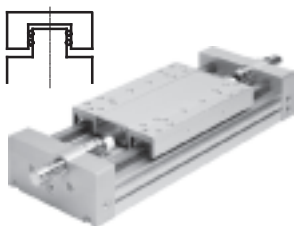
- Piston Ø 18 ... 63 mm
- Stroke lengths from 1 ... 8,500 mm
- Guide backlash = 0.05 mm
- For small and medium loads
- Operating behaviour with torque load = average

Recirculating ball bearing guide DGC-KF



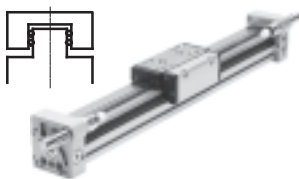
- Piston Ø 8 ... 63 mm
- Stroke lengths from 1 ... 8,500 mm
- Guide backlash = 0 mm
- For medium and large loads
- Precision mounting interface with stainless steel slide
- Operating behaviour under torque load = very good

Heavy-duty guide DGC-HD



- Piston Ø 18, 25, 40 mm
- Stroke lengths from 10 ... 5,000 mm
- Guide backlash = 0 mm
- For large loads
- Operating behaviour under torque load = very good

Passive guide axis DGC-FA



- Without drive
- Piston Ø 8 ... 63 mm
- Stroke lengths from 1 ... 8,500 mm
- Guide backlash = 0 mm
- Precision guide, suitable for DGC-KF. Can be used as machine component or as twin guide with DGC-KF

D2 – Compressed air connection at both ends



The compressed air connections on the linear drive DGC-K are located on the end caps as standard.

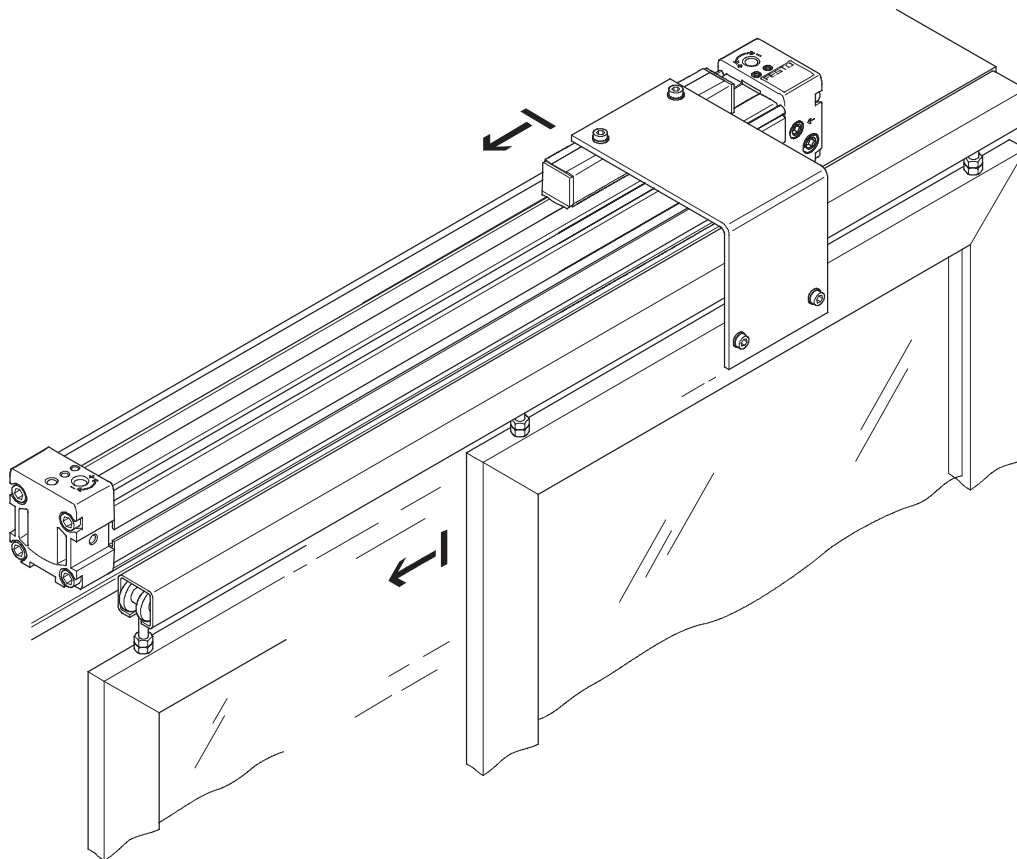
The linear drive can be actuated at both ends by specifying order code D2 in the modular product system.

Linear drives DGC

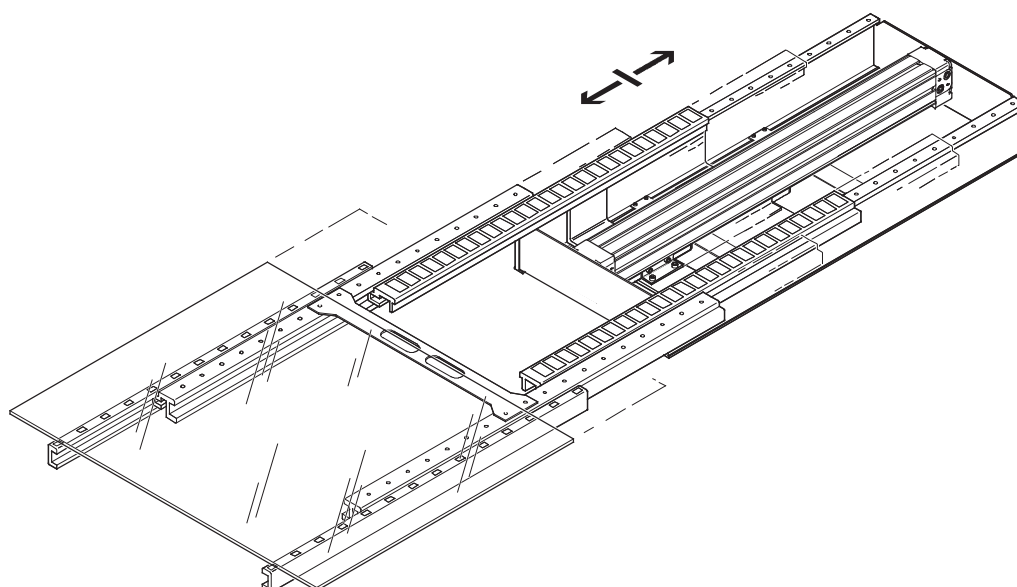
Features

Application examples

For opening and closing doors



For transporting glass plates

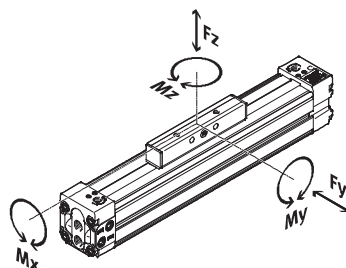


Linear drives DGC

Product range overview

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Product variants

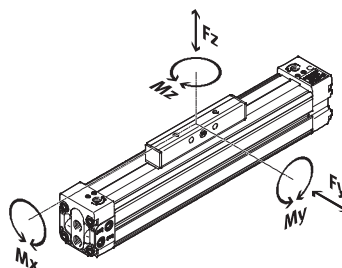


	Piston Ø	Theoretical force at 6 bar	Guide characteristics					→ Page/ Internet
	[mm]	[N]	Fy [N]	Fz [N]	Mx [Nm]	My [Nm]	Mz [Nm]	
Compact design DGC-K								
	18	153	–	120	0.8	11	1	8
	25	295	–	330	1.2	20	3	
	32	483	–	480	1.9	40	5	
	40	754	–	800	3.8	60	8	
	50	1,178	–	1,200	6	120	15	
	63	1,870	–	1,600	5.7	150	24	
	80	3,016	–	2,500	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	1,100	12	60	25	
	50	1,178	480	1,600	20	150	37	
	63	1,870	650	2,000	26	150	48	
Plain-bearing guide DGC-GF								
	18	153	440	540	3.4	20	8.5	dgc
	25	295	640	1,300	8.5	40	20	
	32	483	900	1,800	15	70	33	
	40	754	1,380	2,000	28	110	54	
	50	1,178	1,500	2,870	54	270	103	
	63	1,870	2,300	4,460	96	450	187	

Linear drives DGC

Product range overview

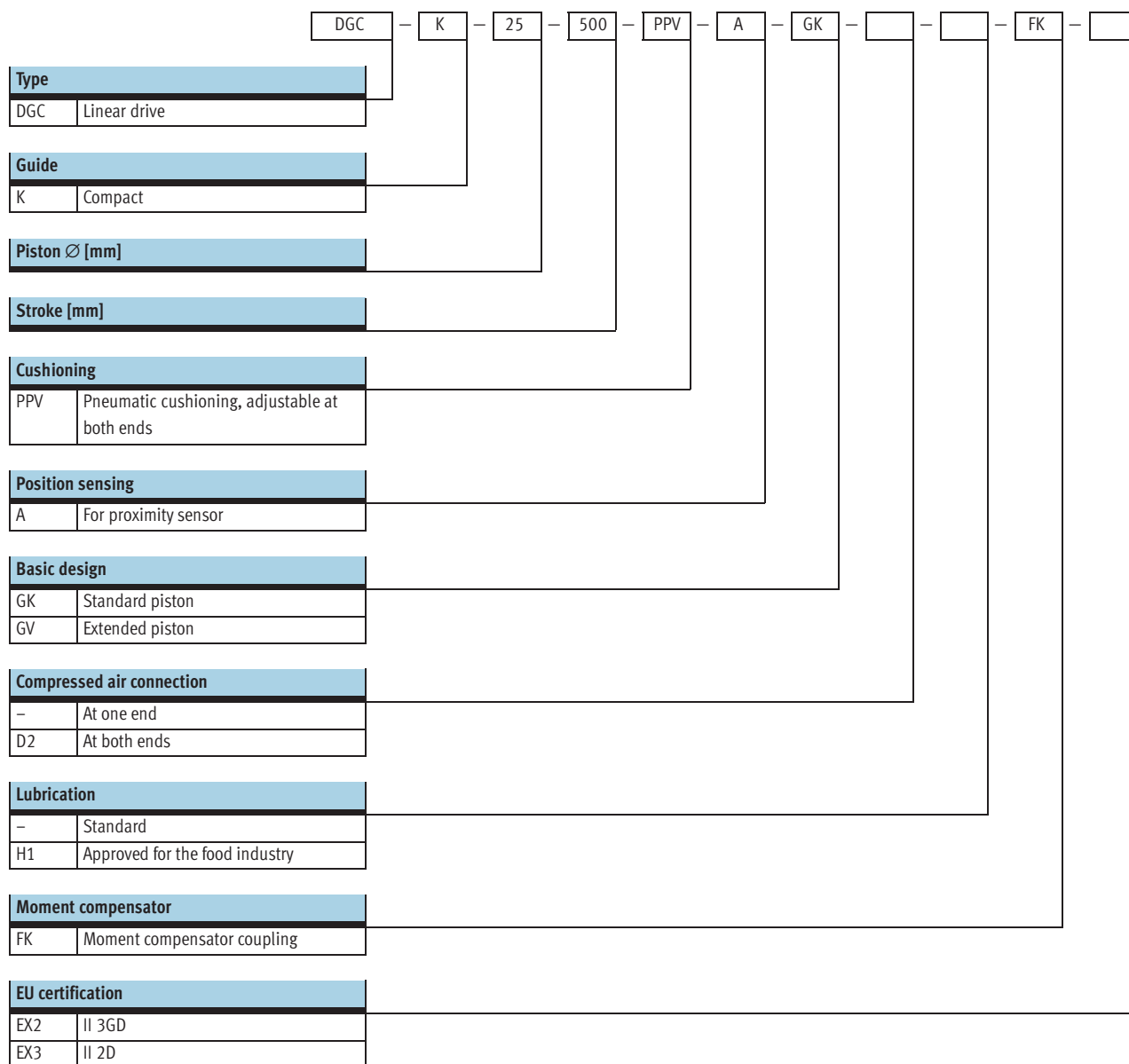
Product variants



	Piston Ø	Theoretical force at 6 bar	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	1,850	1,850	16	51	51	
	25	295	3,050	3,050	36	97	97	
	32	483	3,310	3,310	54	150	150	
	40	754	6,890	6,890	144	380	380	
	50	1,178	6,890	6,890	144	634	634	
	63	1,870	15,200	15,200	529	1,157	1,157	
Heavy-duty guide DGC-HD								
	18	153	3,650	3,650	140	275	275	dgc-hd
	25	295	5,600	5,600	300	500	500	
	40	754	13,000	13,000	900	1,450	1,450	

Type codes

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Linear drives DGC-K

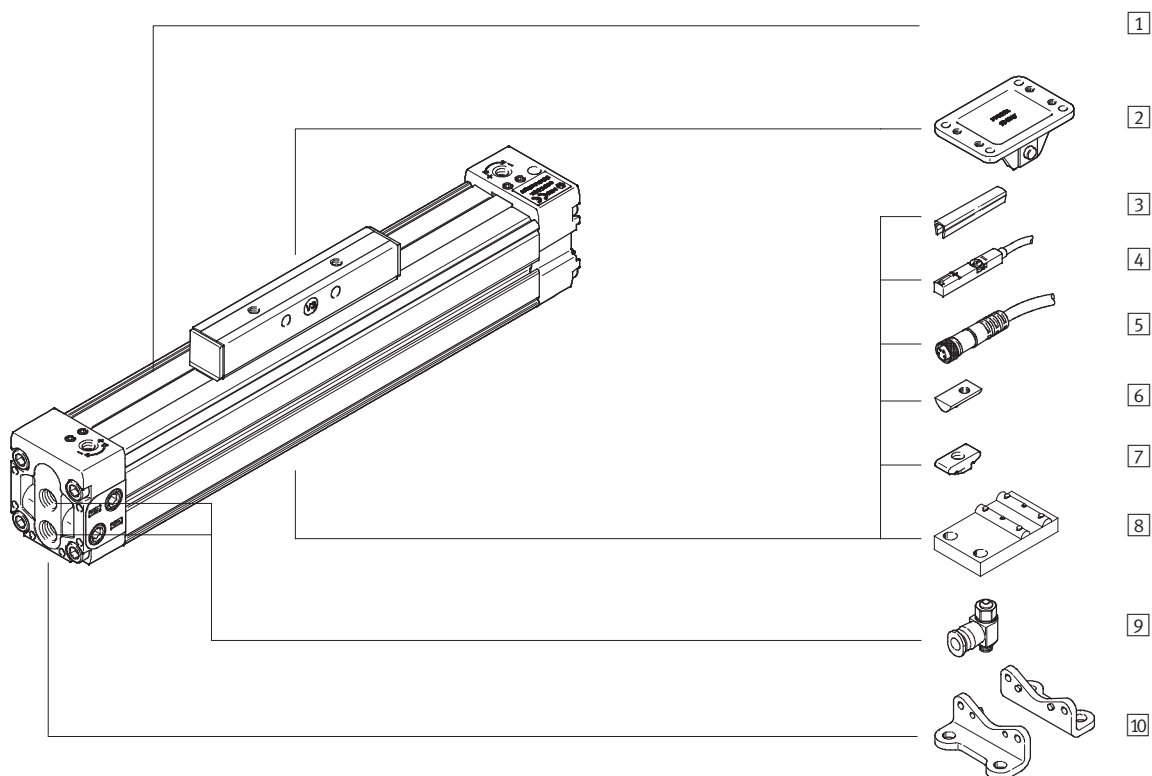
Type codes

➔		+ ZUB	-	F			2B	2G			2S
Accessories											
ZUB	Accessories enclosed separately										
Foot mounting											
F	Foot mounting										
Profile mounting											
...M	Profile mounting										
Slot nut											
...Y	For mounting slot										
Slot cover											
...B	For mounting slot										
Proximity sensor, N/O contact											
...G	With cable, 2.5 m										
...H	With plug										
...I	Contactless with cable, 2.5 m										
...J	Contactless plug										
Proximity sensor, N/C contact											
...N	With cable, 2.5 m										
Connecting cable											
...V	With plug, 2.5 m										
Slot cover											
...S	For sensor slot										

Linear drives DGC-K

Peripherals overview

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Linear drives DGC-K

Peripherals overview

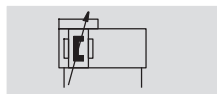
Accessories		
Type	Brief description	→ Page/Internet
1 Linear drive DGC-K	Pneumatic linear drive with moment compensator	10
2 Moment compensator FK (type: DARD)	For compensating misalignments when using external guides	28
3 Slot cover B/S	For protecting against the ingress of dirt and securing proximity sensor cables	30
4 Proximity sensor G/H/I/J/N	For sensing the moment compensator position	30
5 Connecting cable V	For proximity sensor	31
6 Slot nut for mounting slot Y (type: NST)	- For mounting components - Piston Ø 18 and 25: cannot be used with DGC-...-D2 (Compressed air connection at both ends)	30
7 Slot nut for mounting slot Y (type: ABAN)	- For mounting components - Piston Ø 18 and 25: possible with all combinations	30
8 Central support M	For mounting the axis, particularly with long strokes	27
9 One-way flow control valve GRLA	For regulating speed	30
10 Foot mounting F	For mounting the axis	26

Linear drives DGC-K

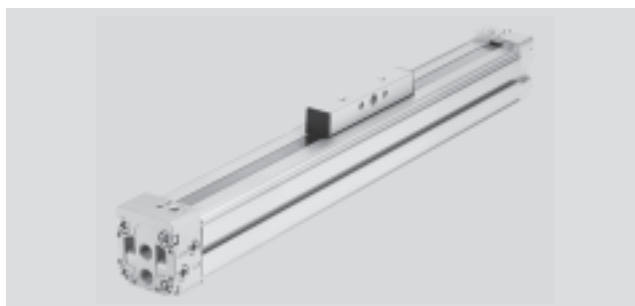
Technical data

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Function



- N- Diameter
18 ... 80 mm
- T- Stroke length
1 ... 8,500 mm



General technical data								
Piston Ø	18	25	32	40	50	63	80	
Design	Pneumatic linear drive with slide							
Guide	Slotted cylinder barrel							
Mode of operation	Double-acting							
Stroke	[mm]	1 ... 3,000	1 ... 8,500			1 ... 6,000	1 ... 5,000	1 ... 3,000
Pneumatic connection		M5	G¼		G¼	G¾	G½	
Cushioning	PPV	Adjustable at both ends						
Cushioning length	[mm]	16	18	20	30	30	30	83
Max. speed								
With PPV cushioning	[m/s]	2						
With external cushioning	[m/s]	3						
Position sensing	For proximity sensor							
Type of mounting	With accessories							
Mounting position	Any							

Operating and environmental conditions							
Piston Ø	18	25	32	40	50	63	80
Operating pressure [bar]	2 ... 8				1.5 ... 8		
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:-:-]						
Note on the operating/control medium	Lubricated operation possible (required during subsequent operation)						
Ambient temperature ¹⁾ [°C]	-10 ... +60						
Corrosion resistance class CRC ²⁾	1						

1) Note operating range of proximity sensors

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

Components subject to low corrosion stress. Transport and storage protection. Parts that do not have primarily decorative surface requirements, e.g. in internal areas that are not visible or behind covers.

ATEX ¹⁾	
Explosion-proof temperature rating	-10°C ≤ Ta ≤ +60°C
CE marking (see declaration of conformity)	As per EU Explosion Protection Directive (ATEX)
EX2 certification	
ATEX category for gas	II 3G
Explosion ignition protection type for gas	c T4 X
ATEX category for dust	II 3D
Explosion ignition protection type for dust	c T120°C X
EX3 certification	
ATEX category for gas	II 2G
Explosion ignition protection type for gas	c T4 X

1) Note the ATEX certification of the accessories.

Linear drives DGC-K

Technical data

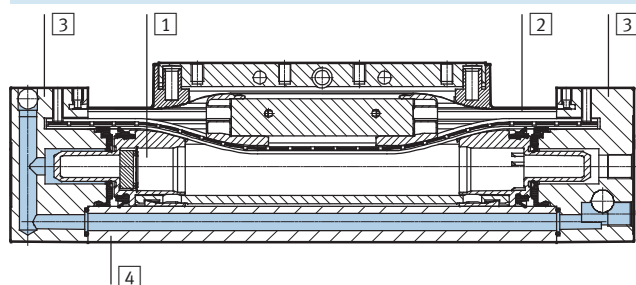
Forces [N] and impact energy [J]							
Piston Ø	18	25	32	40	50	63	80
Theoretical force at 6 bar	153	295	483	754	1,178	1,870	3,016
Max. impact energy in the end positions ¹⁾	0.04	0.05	0.12	0.25	0.5	0.5	3

1) Permissible residual impact energy following PPV cushioning

Weight [g]							
Piston Ø	18	25	32	40	50	63	80
Basic weight with 0 mm stroke							
DGC-...-GK	370	933	1,319	2,450	5,438	8,620	16,775
DGC-...-GV	630	1,343	1,999	3,620	8,073	13,000	–
Additional weight per 10 mm stroke							
DGC-...-GK	18	29	37	53	100	137	157
DGC-...-GV	18	29	37	53	100	137	–
Moving load							
DGC-...-GK	64	136	227	360	1,095	1,782	5,000
DGC-...-GV	130	261	427	700	1,713	2,704	–

Materials

Sectional view



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

Linear drives DGC-K

Technical data

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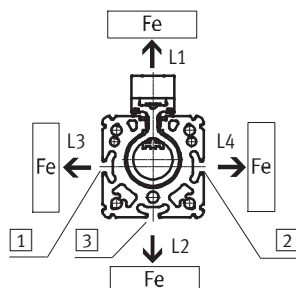
Influence of ferritic materials on proximity sensors

Ferritic materials (steel parts or panels) directly next to the proximity sensors can cause sensing

malfunctions. The following safety distances must be observed.

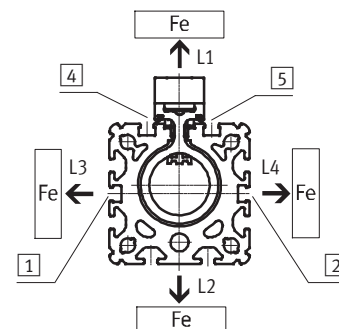
The distance depends on the position of the proximity sensor (see [1] and [2]).

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



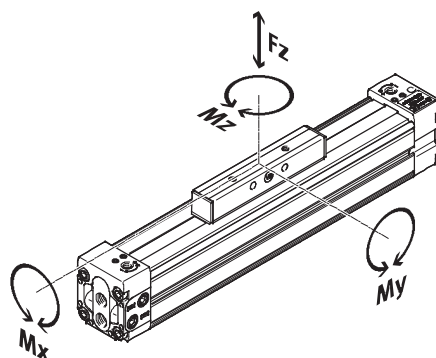
Position		L1	L2	L3	L4
Piston Ø 32					
[1]	[mm]	0	0	10	0
[2]	[mm]	0	0	0	10
[4] and [5]	[mm]	10	0	0	0
Piston Ø 40					
[1]	[mm]	0	0	30	0
[2]	[mm]	0	0	0	30
[4] and [5]	[mm]	30	0	0	0
Piston Ø 50					
[1]	[mm]	0	0	10	0
[2]	[mm]	0	0	0	10
[4] and [5]	[mm]	10	0	0	0
Piston Ø 63					
[1]	[mm]	0	0	20	0
[2]	[mm]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

Linear drives DGC-K

Technical data

Characteristic 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.

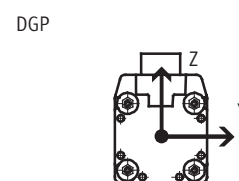
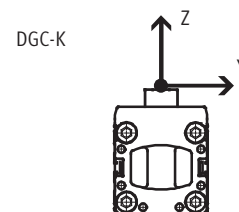


If the drive is simultaneously subjected to several of the forces and torques indicated below, the following equations must be met in addition to the specified maximum loads:

$$0,4 \times \frac{F_z}{F_{z_{\max}}} + \frac{M_x}{M_{x_{\max}}} + \frac{M_y}{M_{y_{\max}}} + 0,2 \times \frac{M_z}{M_{z_{\max}}} \leq 1$$

$$\frac{F_z}{F_{z_{\max}}} \leq 1 \quad \frac{M_z}{M_{z_{\max}}} \leq 1$$

Comparison of the reference system with DGC-K and DGP:



Permissible forces and torques								
Piston Ø		18	25	32	40	50	63	80
F_zmax.								
DGC-...-GK	[N]	120	330	480	800	1,200	1,600	2,500
DGC-...-GV	[N]	120	330	480	800	1,200	1,600	–
M_xmax.								
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	–
M_ymax.								
DGC-...-GK	[Nm]	11	20	40	60	120	150	400
DGC-...-GV	[Nm]	22	40	80	120	240	300	–
M_zmax.								
DGC-...-GK	[Nm]	1	3	5	8	15	24	100
DGC-...-GV	[Nm]	2	6	10	16	30	48	–

Note

QuickCalc
sizing software
→ www.festo.com

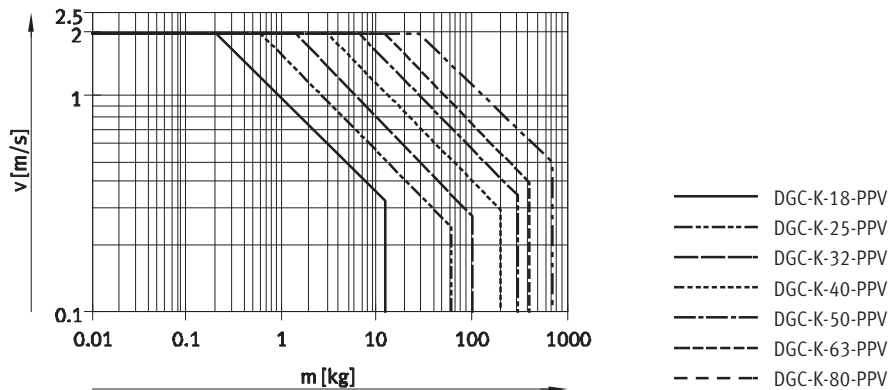
Linear drives DGC-K

Technical data

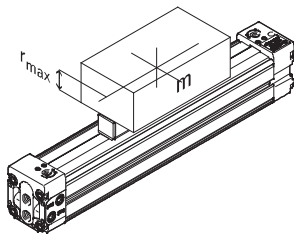
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Maximum permissible piston speed v as a function of effective load m and distance $r_{\max}$ from the centre of gravity of the load

These specifications represent the maximum values that can be achieved. In practice, these values can fluctuate relative to the position of the effective load 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 load to be moved must be

cushioned using suitable equipment (external shock absorbers), preferably at the centre of gravity of the load.

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

Linear drives DGC-K

Technical data

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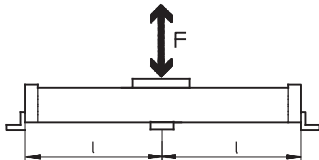
Number of central supports MUP as a function of weight due to force F and distance between supports l

The drive may need to be supported to limit the deflection in the case of large strokes. The following diagrams

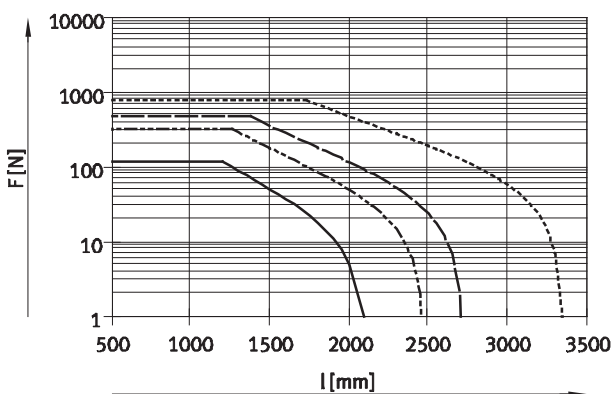
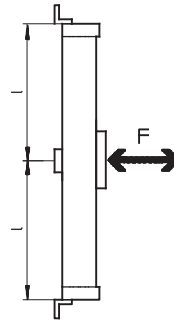
are provided to determine the maximum permissible distance between supports as a function of the

installation position and the applied weight and normal forces.

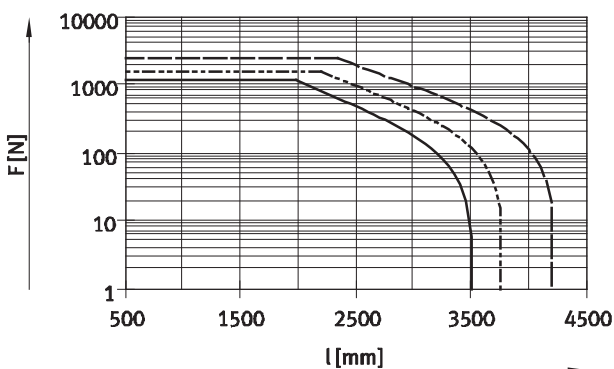
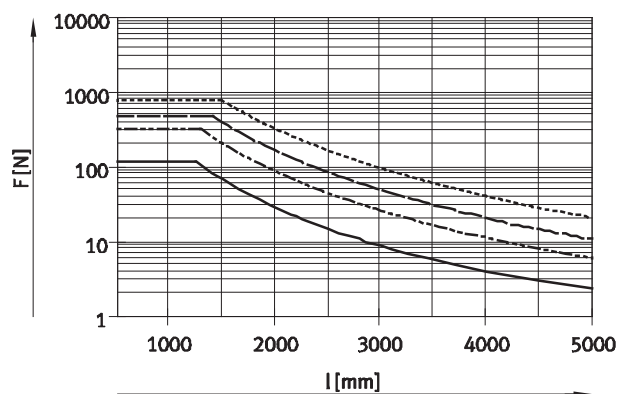
Mounting position
Horizontal



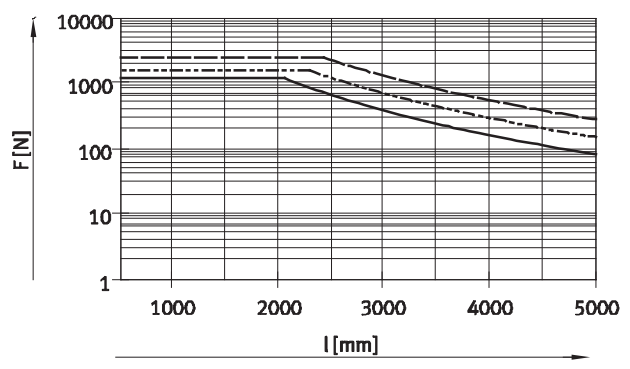
Vertical



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



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



Example:

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

The drive has an overall length of:
 $l = \text{stroke length} + L1$
 (see dimensions)
 $= 1,500 \text{ mm} + 200 \text{ mm}$
 $= 1,700 \text{ mm}$

According to the graph, the max. support span for the drive DGC-K-25 with a force of 200 N is 1,450 mm.

In this example, central supports are required as the max. support distance (1,450 mm) is smaller than the total length of the drive (1,700 mm).

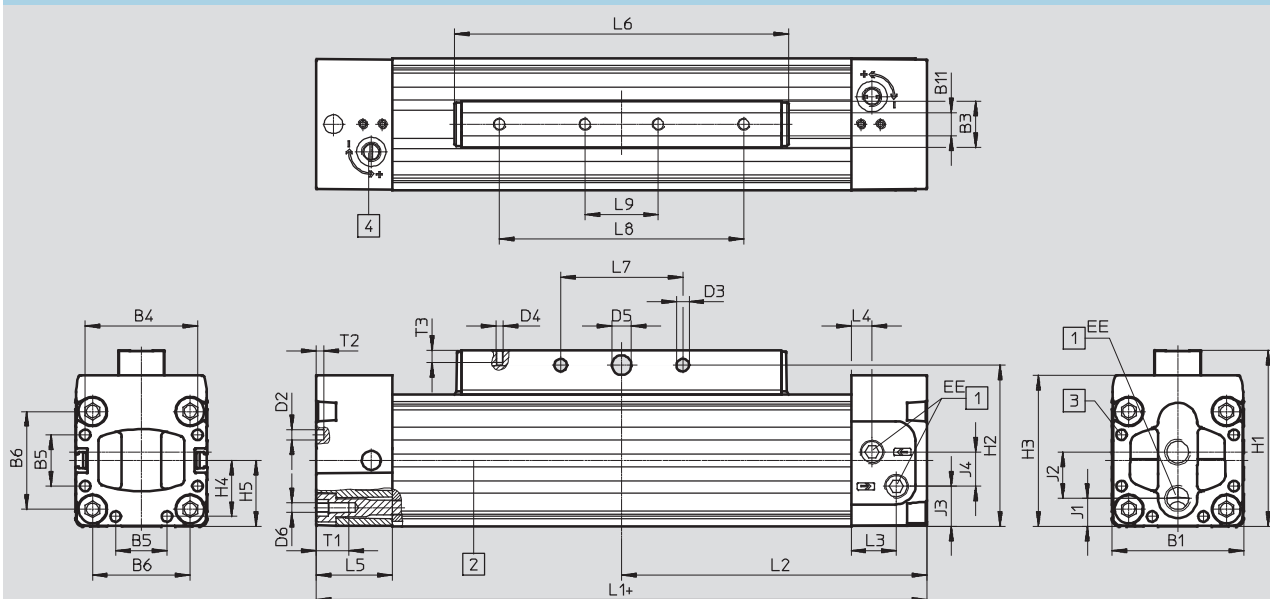
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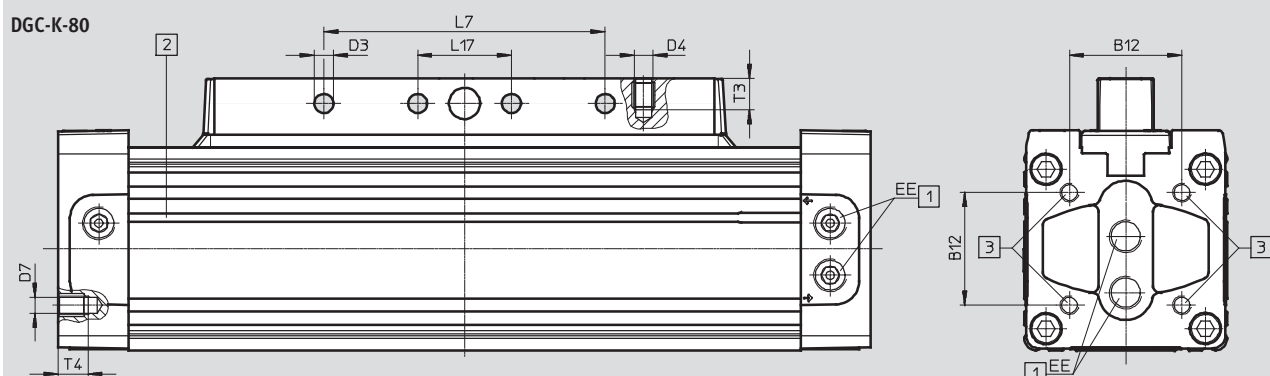
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Dimensions

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



DGC-K-80



+ = plus stroke length

1 Optional compressed air connections on 3 sides

2 Sensor slot for proximity sensor

3 Mounting hole for foot mounting HP

4 Regulating screw for adjustable end-position cushioning

Ø	B1	B3	B4	B5	B6	B11	B12	D2	D3	D4
[mm]		±0.2						Ø	Ø	
18	34 ^{+0.2/-0.05}	12	28	7	24	–	–	3	5.2	M5
25	45 ^{+0.4}	19	39.1	18	32.5	11.5	–	3.3	5.2	M5
32	54 ^{+0.4}	19	46	21	40	11.5	–	4.3	5.2	M5
40	64 ^{+0.4}	21	53	28	49	9.5	–	4.3	6.5	M6
50	90 ^{+0.4}	24	76	44	72	12	–	6.3	8.5	M8
63	106 ^{+0.4}	24	89	44	83	12	–	6.3	8.5	M8
80	130 ^{+0.8}	36	–	–	102	–	72	–	12.2	M12

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Ø [mm]	D5 Ø	D6	D7	EE	H1	H2	H3	H4	H5	J1
18	6 ^{H7}	M5	–	M5	49.8	43.8	37.6	14	17	10.7
25	8 ^{H7}	M4	–	G ¹ / ₈	63	57	51	19.55	22.5	12
32	8 ^{H7}	M5	–	G ¹ / ₈	72	66	61.8	23	27	11.4
40	10 ^{H7}	M5	–	G ¹ / ₄	86	78	71.9	26.5	32	13.5
50	12 ^{H7}	M6	–	G ¹ / ₄	115	106	99	38	45	21
63	12 ^{H7}	M8	–	G ³ / ₈	131	122	115	44.5	53	22
80	–	–	M12	G ¹ / ₂	174	158	140.5	56	85	37

Ø [mm]	J2	J3	J4	L1		L2		L3	L4	L5
				GK	GV	GK	GV			
18	11.1	12.2	10.4	150	230	75	115	5	5	15.5
25	16.7	15.7	13	200	300	100	150	17	7	25
32	19	17.1	14	250	380	125	190	18.5	8.5	31
40	22	19.5	21	300	470	150	235	11.5	11.5	31
50	30.8	27	29.3	350	550	175	275	14	14	34
63	36	29	33	400	650	200	325	13.5	13.5	34
80	36	48.1	33.3	520	–	260	–	19	19	45

Ø [mm]	L6		L7	L8	L9	L17 ±0.15	T1	T2	T3	T4
	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	10.5	–
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

Linear drives DGC-K

Technical data

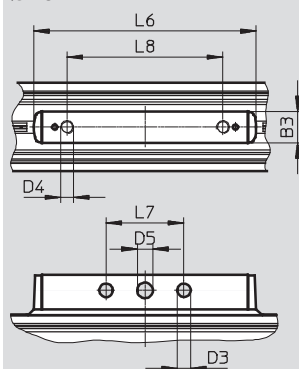
FESTO

Dimensions

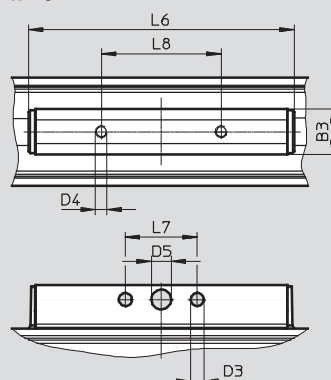
Download CAD Data → www.festo.com/us/cad

GK – Standard piston

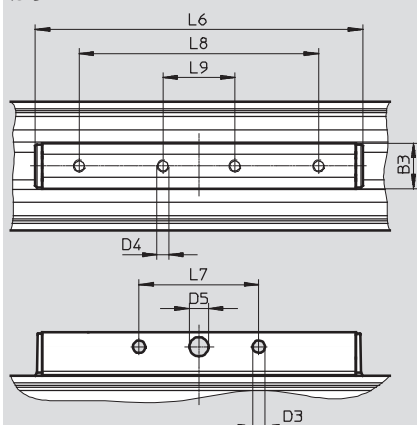
Ø 18



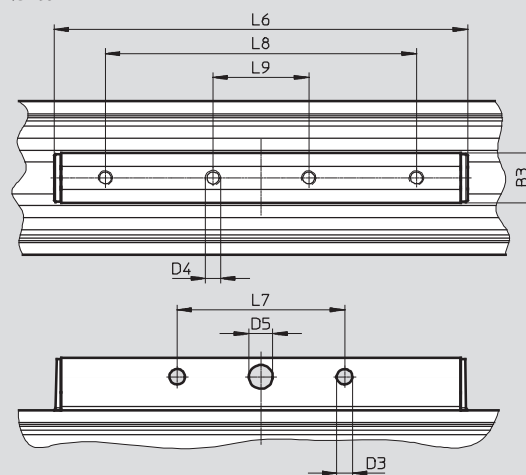
Ø 25



Ø 32



Ø 40



Ø	B3	D3	D4	D5	L6	L7	L8	L9
[mm]	±0.2	Ø +0.2		Ø H7		±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

Linear drives DGC-K

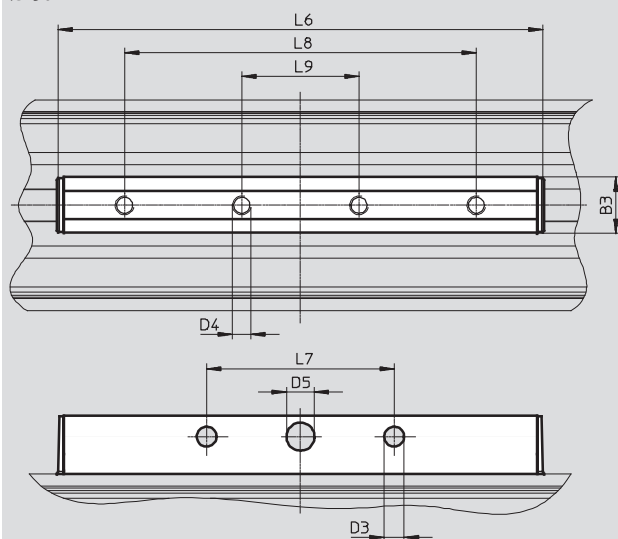
Technical data

Dimensions

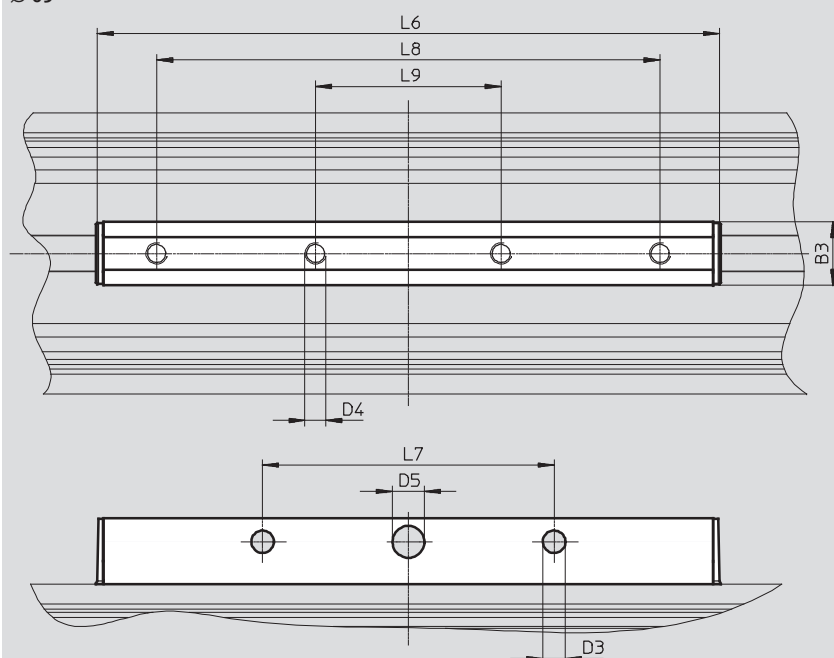
Download CAD Data → www.festo.com/us/cad

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

Linear drives DGC-K

Technical data

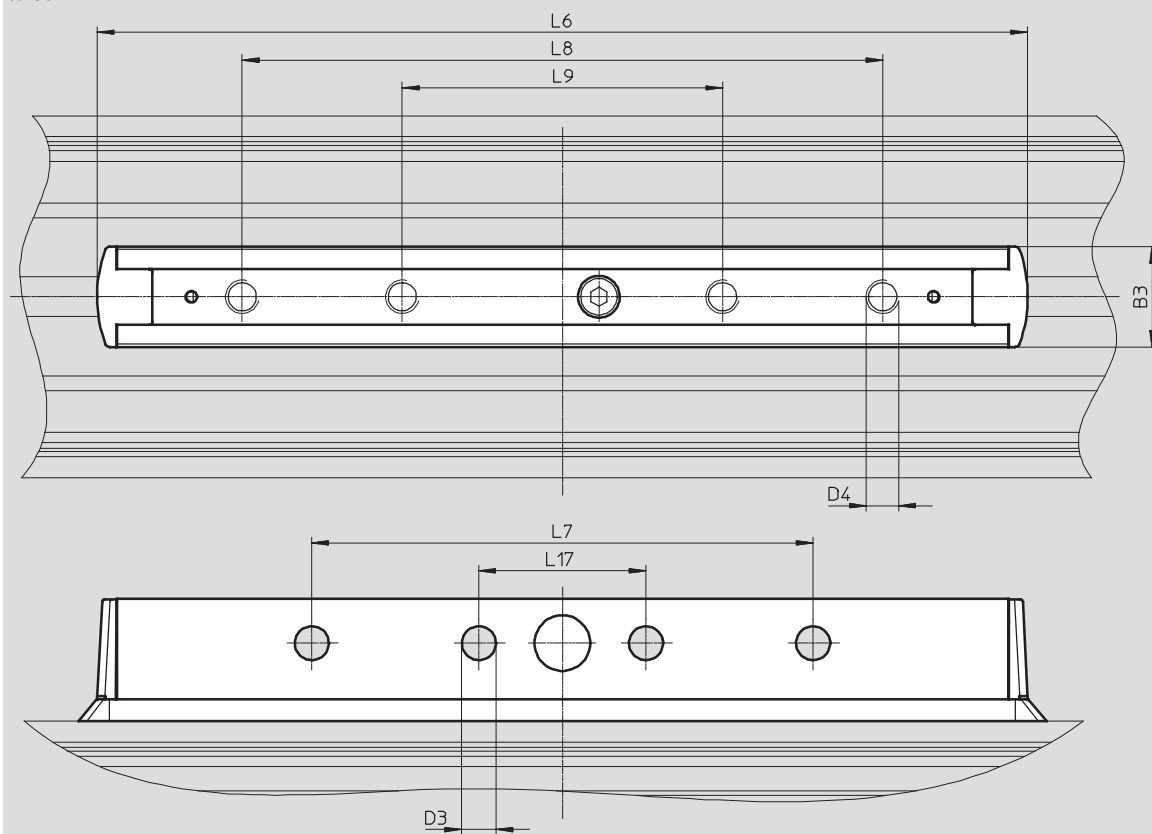
FESTO

Dimensions

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

GK – Standard piston

Ø 80



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

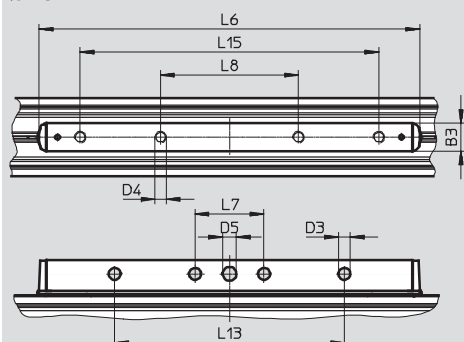
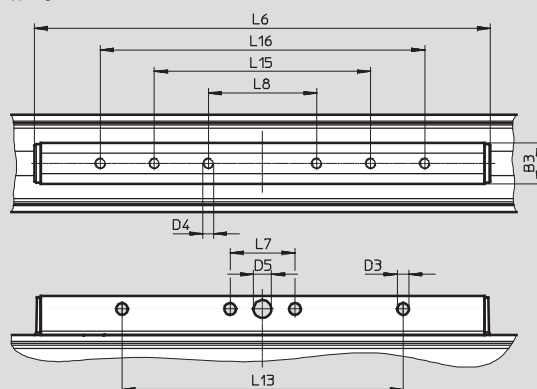
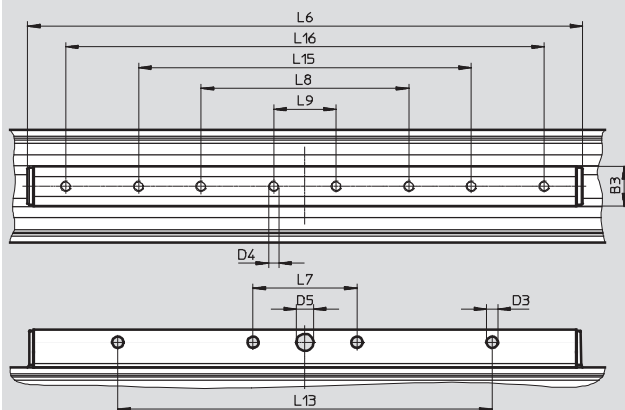
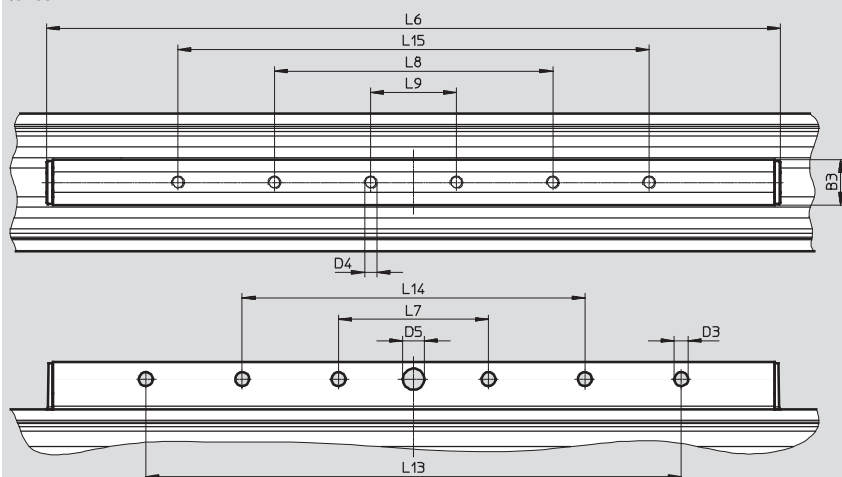
Linear drives DGC-K

Technical data

Dimensions

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

GV – Extended piston

Ø 18

Ø 25

Ø 32

Ø 40


Ø [mm]	B3 ±0.2	D3 Ø +0.2	D4	D5 Ø H7	L6	L7 ±0.1	L8 ±0.1	L9 ±0.1	L13 ±0.1	L14 ±0.1	L15 ±0.1	L16 ±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	–

Linear drives DGC-K

Technical data

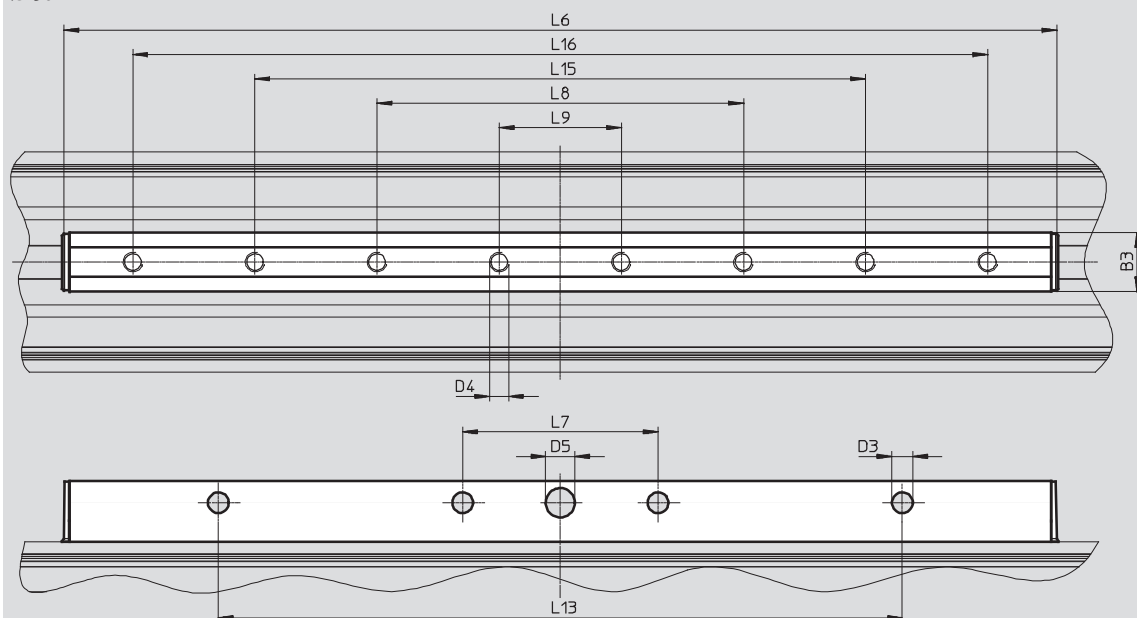
FESTO

Dimensions

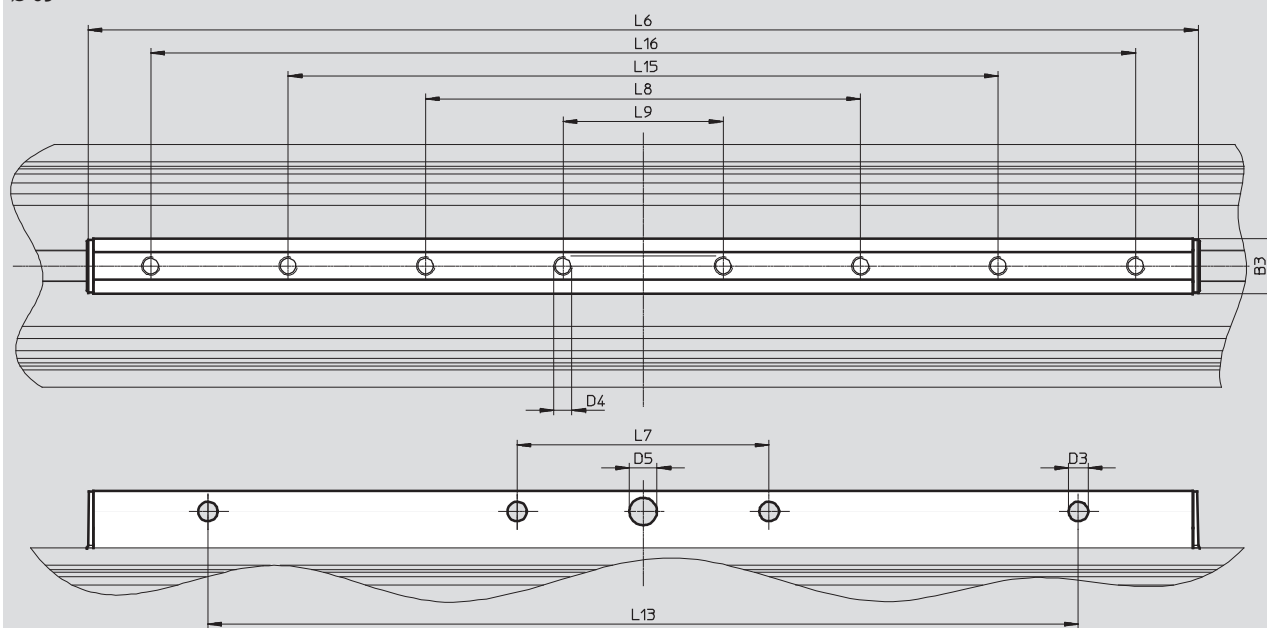
Download CAD Data → www.festo.com/us/cad

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

Linear drives DGC-K

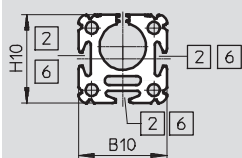
Technical data

Dimensions

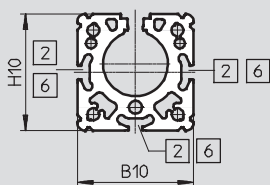
 Download CAD Data → www.festo.com/us/cad

Profile barrel

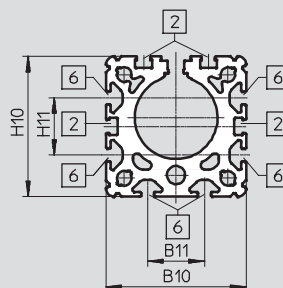
Ø 18



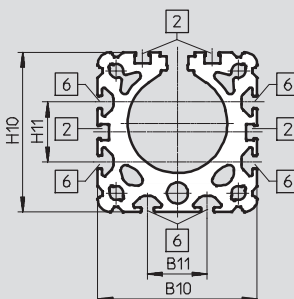
Ø 25



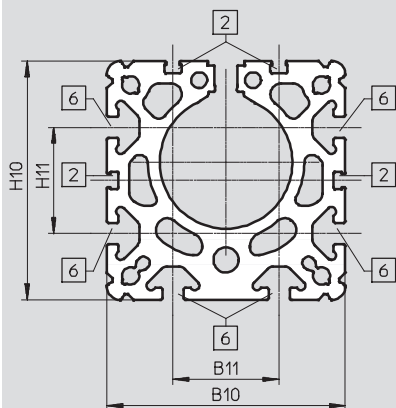
Ø 32



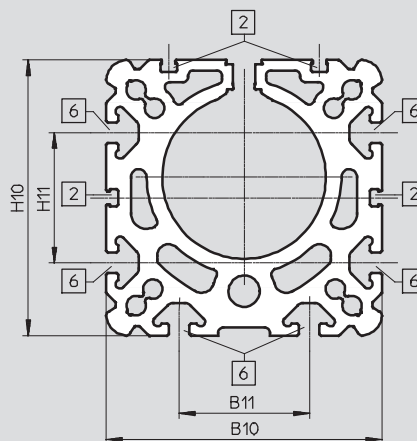
Ø 40



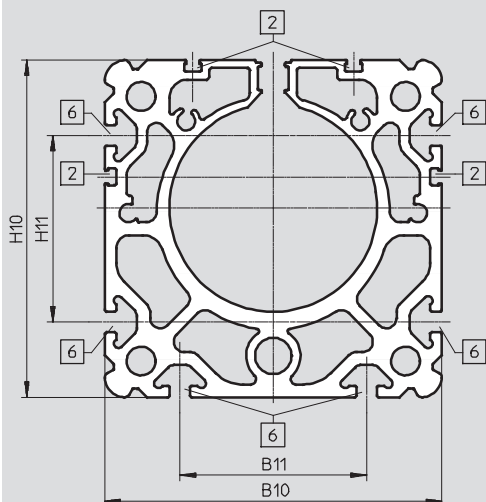
Ø 50



Ø 63



Ø 80



- 2 Sensor slot for proximity sensor
- 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

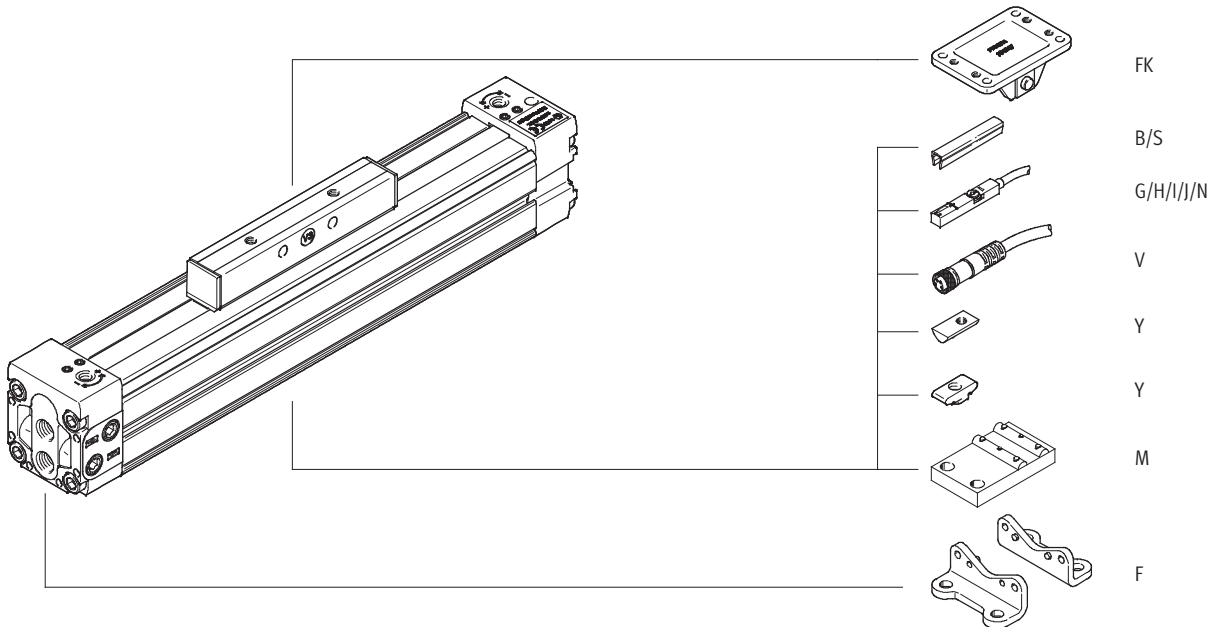
Linear drives DGC-K

Ordering data – Modular products

FESTO

Order code

Mandatory data/options



Linear drives DGC-K

Ordering data – Modular product

Ordering table											
Size		18	25	32	40	50	63	80	Conditions	Code	Enter code
M	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 ... 3,000	1 ... 8,500			1 ... 6,000	1 ... 5,000	1 ... 3,000		-...	
	Cushioning	Pneumatic cushioning, adjustable at both ends								-PPV	-PPV
	Position sensing	For proximity sensor								-A	-A
	Basic design	Standard piston								-GK	
Extended piston							—		-GV		
O	Compressed air connection	At one end									
		At both ends							3	-D2	
	Lubrication	Standard									
		Approved for use in the food industry								-H1	
	Moment compensator	Moment compensator coupling								-FK	
	EU certification	II 3GD							1	-EX2	
		II 2G							1	-EX3	
O	Accessories	Enclosed separately (can be retrofitted)								ZUB-	ZUB-
	Foot mounting	1								F	
	Central support	1 ... 10								...M	
	Slot nut for mounting slot	1 ... 10							2 3	...Y	
	Slot cover for mounting slot	—	—	1 ... 10					...b		
	Proximity sensor, N/O contact	2.5 m cable	1 ... 10						...G		
		M8 plug	1 ... 10						...H		
	Proximity sensor, N/O contact, contactless, PNP	2.5 m cable	1 ... 10						...I		
		M8 plug	1 ... 10						...J		
	Proximity sensor, N/C contact	2.5 m cable	1 ... 10						...N		
	Connecting cable	M8, 2.5 m	1 ... 10						...V		
	Slot cover for sensor slot	1 ... 10						...S			

- [1] EX2, EX3** Not with proximity sensor G, H, I, J, N or connecting cable V
- [2] Y** For sizes 18 and 25 there is just one slot for mounting and proximity sensor.
- [3] Y + D2** The following applies to sizes 18 and 25: entry "1Y" = delivery quantity of 4 units

Transfer order code

DGC - **K** - - - **PPV** - **C** - - - - - **ZUB**

Linear drives DGC-K

Accessories

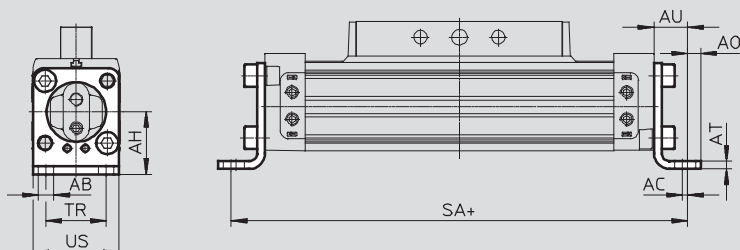
FESTO

Foot mounting HP
(order code: F)

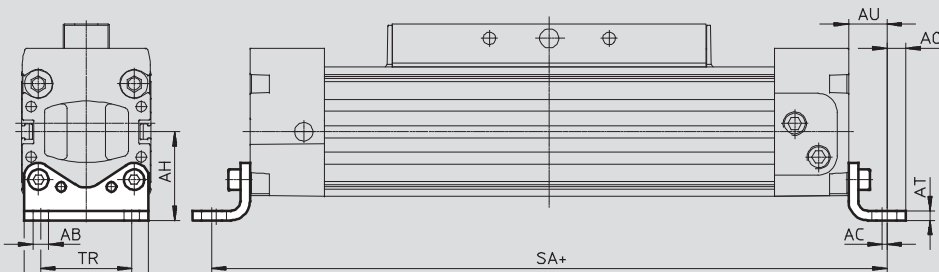
Material:
Galvanized steel
Free of copper and PTFE



DGC-K-18



DGC-K-25 ... 80



+ = plus stroke length

Dimensions and ordering data

For Ø	AB Ø	AC	AH	AO	AT	AU	SA		TR	US	Weight [g]	Part No.	Type
							GK	GV					
[mm]													
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

Linear drives DGC-K

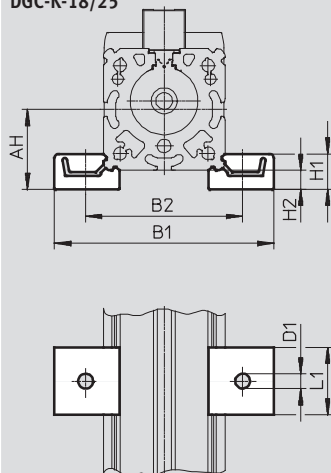
Accessories

Central support MUP (order code: M)

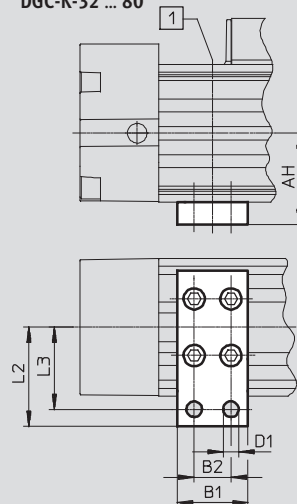
Material:
Galvanized steel
Free of copper and PTFE



DGC-K-18/25



DGC-K-32 ... 80



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
[mm]												
18	24	70.5	47	5.5	13	7	25	–	–	33	150736	MUP-18/25
25	29.5	81	58	5.5	13	7	25	–	–	33	150736	MUP-18/25
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

Linear drives DGC-K

Accessories

FESTO

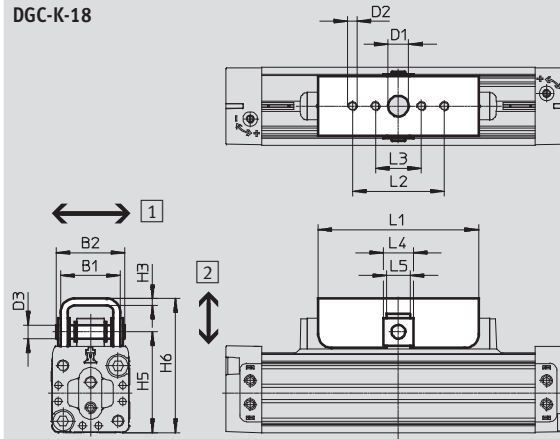
Moment compensator DARD
(order code: FK)

Materials:
Bolt: High-alloy steel

Clevis: High-alloy steel
Slip piece: Brass

Retaining ring: Spring steel

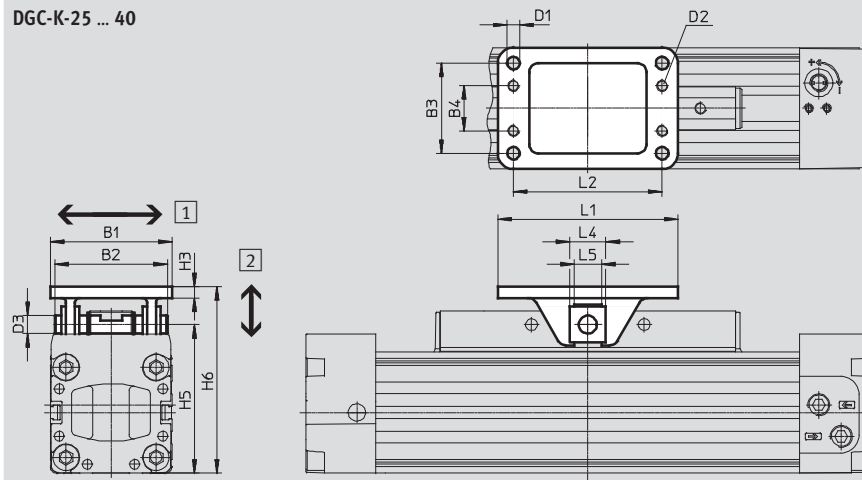
DGC-K-18



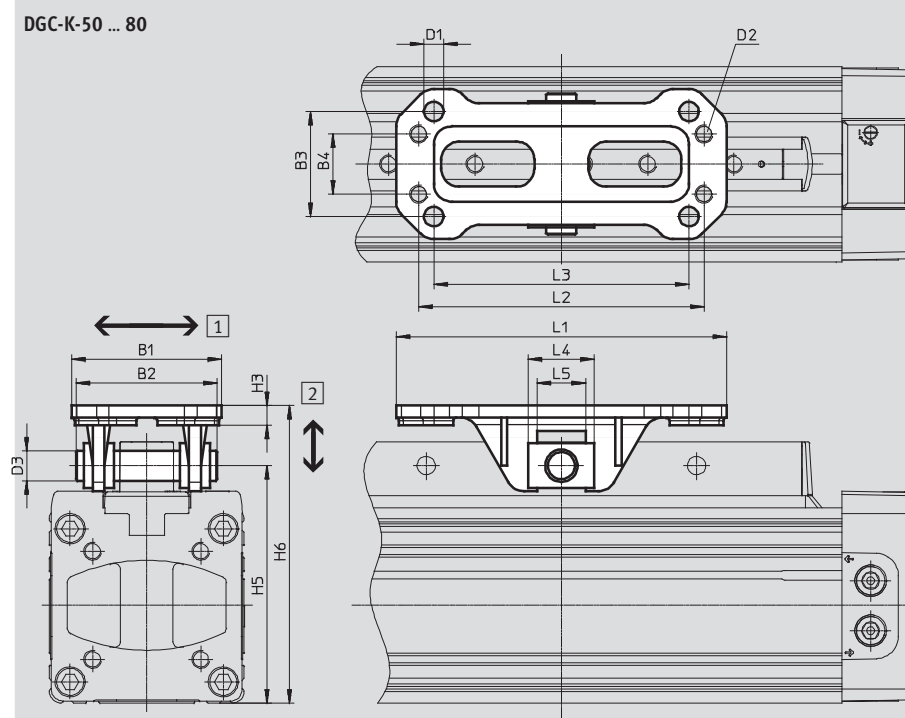
Note

Compensation possible in direction of arrow.

DGC-K-25 ... 40



DGC-K-50 ... 80



Linear drives DGC-K

Accessories

Dimensions and ordering data				
For Ø [mm]	Max. offset between linear drive and external guide		Max. permissible load in direction of force [N]	Ambient temperature [°C]
	1 [mm]	2 [mm]		
18	±1.8	±1.2	550	-20 ... +120
25	±2	±2	1,100	
32			1,100	
40			1,800	
50			2,500	
63			2,500	
80	±4	±4	7,000	

For Ø [mm]	B1	B2	B3	B4	D1 Ø	D2	D3 Ø	H3	H5	H6
18	26	30	–	–	9	M4	6	3	43.8	57.8
25	54	50	40	20	5.5	M5	8	5	57	75
32									66	84
40	58	60	44	24	6.5	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

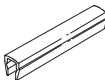
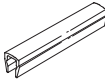
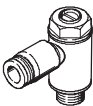
For Ø [mm]	L1	L2	L3	L4	L5	CRC ¹⁾	Weight [g]	Part No.	Type
18	70	40	20	13	10.1	1	104	8001411	DARD-L1-18-S
25	80	66	–	16	12.1	1	231	8001412	DARD-L1-32-S
32						1	231	8001412	DARD-L1-32-S
40	90	76	–	18	14.1	1	362	8001413	DARD-L1-40-S
50	122	102	–	22	16.1	1	712	8001414	DARD-L1-63-S
63						1	712	8001414	DARD-L1-63-S
80	220	190	170	44	32.1	1	1,955	8001415	DARD-L1-80-S

1) Corrosion resistance class 1 according to Festo standard 940 070
Components subject to low corrosion stress. Transport and storage protection. Parts that do not have primarily decorative surface requirements, e.g. in internal areas that are not visible or behind covers.

Linear drives DGC-K

Accessories

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Ordering data						
	For Ø	Description	Order code	Part No.	Type	PU ¹⁾
Slot nut ABAN/NST				Technical data ➔ Internet: hmbn		
	18, 25	For mounting slot	Y	8003032	ABAN-1M4-5	4
	18, 25			526091	NST-HMV-M4 2)	1
	32, 40			150914	NST-5-M5	
	50, 63, 80			150915	NST-8-M6	
Slot cover ABP				Technical data ➔ 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				Technical data ➔ 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-D	
				193150	GRLA-3/8-QS-8-D	
				193151	GRLA-3/8-QS-10-D	
	80			193152	GRLA-1/2-QS-12-D	

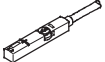
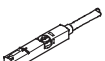
1) Packaging unit

2) Piston Ø 18 and 25: cannot be used with DGC-...-D2 (Compressed air connection at both ends)

Ordering data – Proximity sensors for T-slot, magneto-resistive					Technical data ➔ Internet: smt	
	Type of mounting	Switching output	Electrical connection	Cable length [m]	Part No.	Type
N/O contact						
	Insertable in 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

Linear drives DGC-K

Accessories

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
N/C contact						
	Insertable in the slot from above, flush with the cylinder profile	Contacting	Cable, 3-wire	7.5	546799	SME-8M-DO-24V-K-7,5-OE

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

Product Range and Company Overview

A Complete Suite of Automation Services

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
Complete custom engineered solutions



Custom Control Cabinets
Comprehensive engineering support and on-site services



Complete Systems
Shipment, stocking and storage services

The Broadest Range of Automation Components

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



Electromechanical
Electromechanical actuators, motors, controllers & drives



Pneumatics
Pneumatic linear and rotary actuators, valves, and air supply



PLCs and I/O Devices
PLC's, operator interfaces, sensors and I/O devices

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 12,000 employees in 56 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.



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