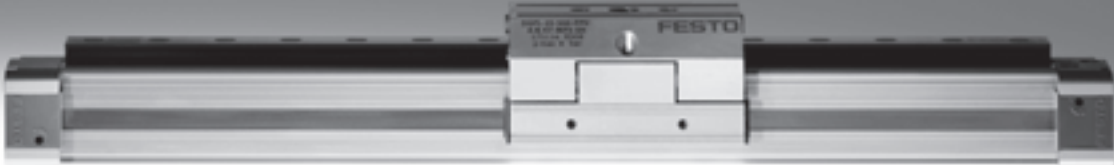


Linear drives DGPL



Linear drives DGPL

Selection aid

FESTO

General

- Compact, fitting length relative to stroke
- Highly adaptable thanks to wide choice of mounting and attachment options
- Adjustable end-position cushioning systems
- Can be combined with the modular system for handling and assembly technology
- Maintenance-free (for up to 5000 km with a recirculating ball bearing guide)
- Wide choice of variants:
 - Extended slide
 - Air connections on both sides
 - Electronic cushioning with SoftStop SPC11

With recirculating ball bearing guide DGPL-KF-GK/-GV

- Piston \varnothing 18 ... 80 mm
- Stroke lengths from 10 ... 3000 mm
- Backlash-free
- DGPL-GK: standard slide
DGPL-GV: extended slide
- Precise and rigid guide
- For high loads and torques



Protected version DGPL-GA

- Piston \varnothing 18 ... 40 mm
- Stroke lengths from 10 ... 2000 mm
- Guide and slide are fitted with a cover to protect against the ingress of particles from above and from the side
- Backlash-free
- Precise and rigid guide
- For high loads and torques



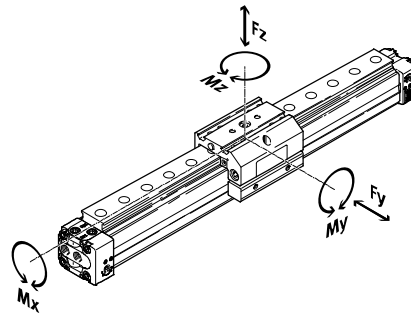
Linear drives DGPL

Selection aid

Guide characteristics

The specifications for forces and torques are based on the variant with standard slide (GK).

The values for the other variants can be found in the relevant technical data in the catalogue.



Version	Piston \varnothing [mm]	Stroke ¹⁾ [mm]	Theoretical force at 6 bar [N]	Forces and torques					→ Page/Internet
				Fy [N]	Fz [N]	Mx [Nm]	My [Nm]	Mz [Nm]	
With recirculating ball bearing guide DGPL-KF									
	18	10 ... 1800	153	930	930	7	23	23	5
	25	10 ... 3000	295	3080	3080	45	85	85	
	32	10 ... 3000	483	3080	3080	63	127	127	
	40	10 ... 3000	754	7300	7300	170	330	330	
	50	10 ... 3000	1178	7300	7300	240	460	460	
	63	10 ... 3000	1870	14050	14050	580	910	910	
	80	10 ... 3000	3016	14050	14050	745	1545	1545	

1) For effective strokes of over 2000 mm, the drive must be installed with the sealing band facing downwards; longer strokes on request.

Note

Piston \varnothing 8 and 12: linear drives DGC → Internet: dgc

Alternatives to DGPL-...-GF: linear drives DGC-...-GF → Internet: dgc

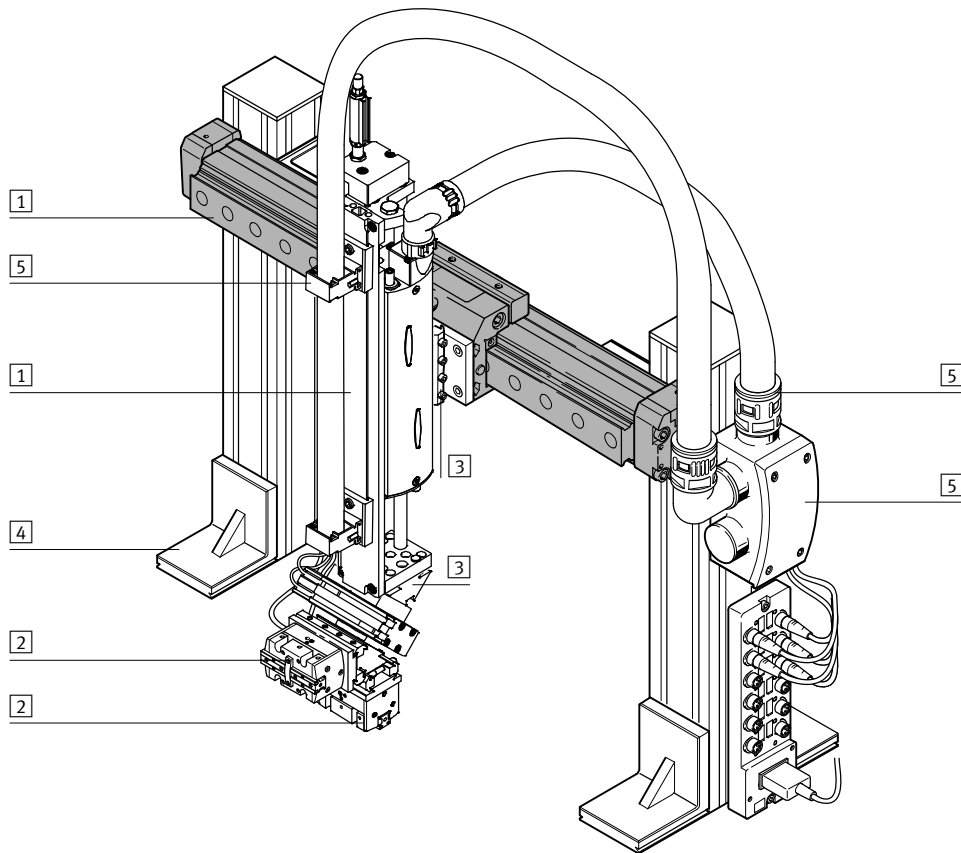
Alternatives to DGP: linear drives DGC-K → Internet: dgc

Linear drives DGPL

Feature

FESTO

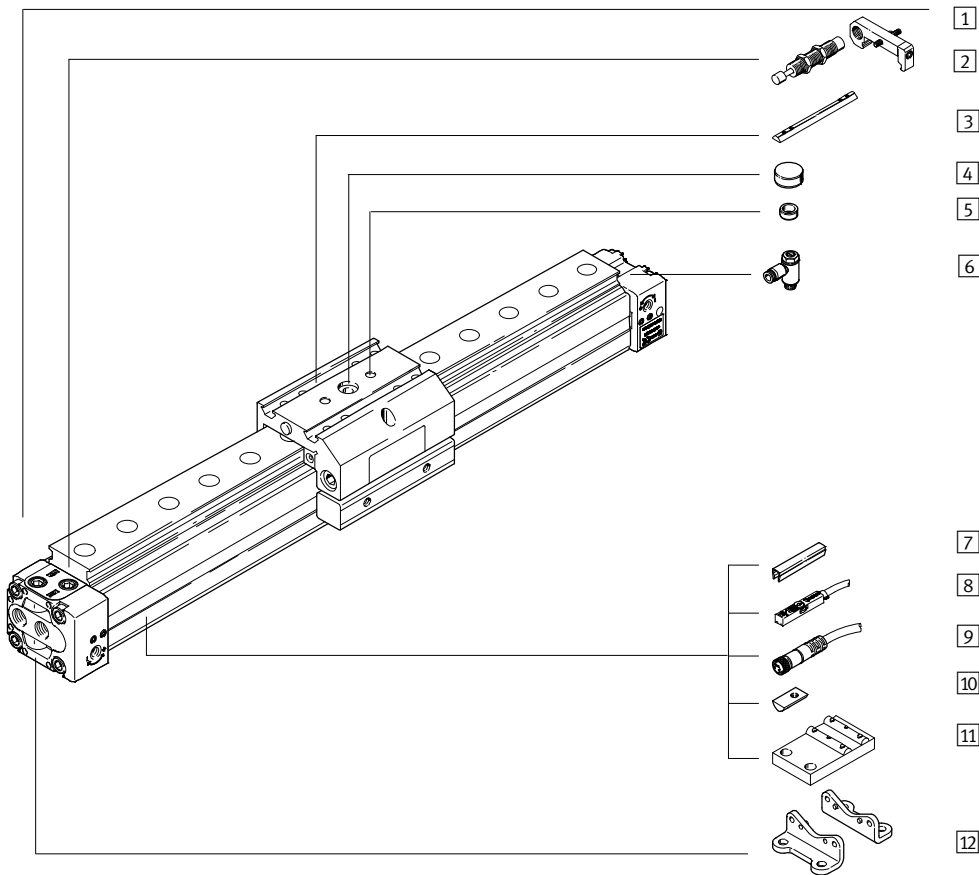
System product for handling and assembly technology



System components and accessories		
	Description	→ Page/Internet
1	Drives	Wide range of combinations possible within handling and assembly technology drive
2	Grippers	Wide range of variations possible within handling and assembly technology gripper
3	Adapters	For drive/drive connections 30
		For drive/gripper connections gripper
4	Basic components	Profiles and profile connections as well as profile/drive connections basic component
5	Installation components	For a clear, safe layout of electrical cables and tubing Installation component
-	Axes	Wide range of combinations possible within handling and assembly technology axis
-	Motors	Servo and stepper motors, with or without gear unit motor

Linear drives DGPL, with guide

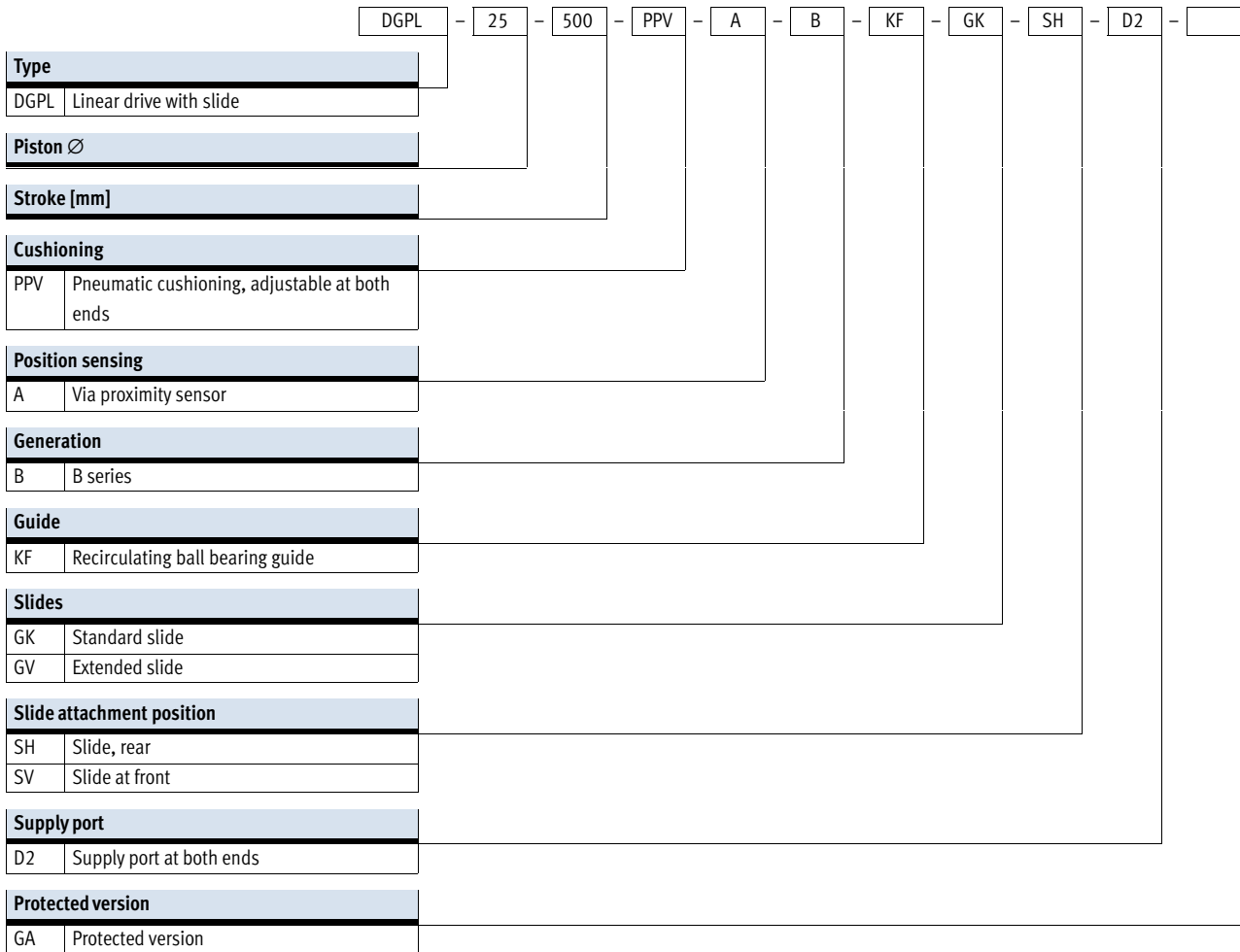
Peripherals overview



Variants and accessories		Description	DGPL		→ Page/Internet
Type/Order code			KF	GA	
1	Linear axis DGPL	Pneumatic linear drive with slide	■	■	6
2	Shock absorber kit C	For slowing higher speeds to a stop	■	-	26
2	Shock absorber kit E	For slowing higher speeds to a stop	-	■	27
3	Slot nut for slide X	For mounting loads and attachments on the slide	■	■	28
4	Central mounting Q	For centring loads and attachments on the slide	■	■	28
5	Centring pins/sleeves Z	For centring loads and attachments on the slide	■	■	28
6	One-way flow control valve GRLA	For regulating speed	■	■	27
7	Slot cover B/S	For protecting against the ingress of dirt and securing proximity sensor cables	■	■	28
8	Proximity sensor G/H/I/J/N	For sensing the slide position	■	■	29
9	Connecting cable V	For proximity sensor	■	■	29
10	Slot nut for profile barrel Y	For mounting attachments	■	■	28
11	Central support M	For mounting the axis	■	■	25
12	Foot mounting F	For mounting the axis	■	■	24

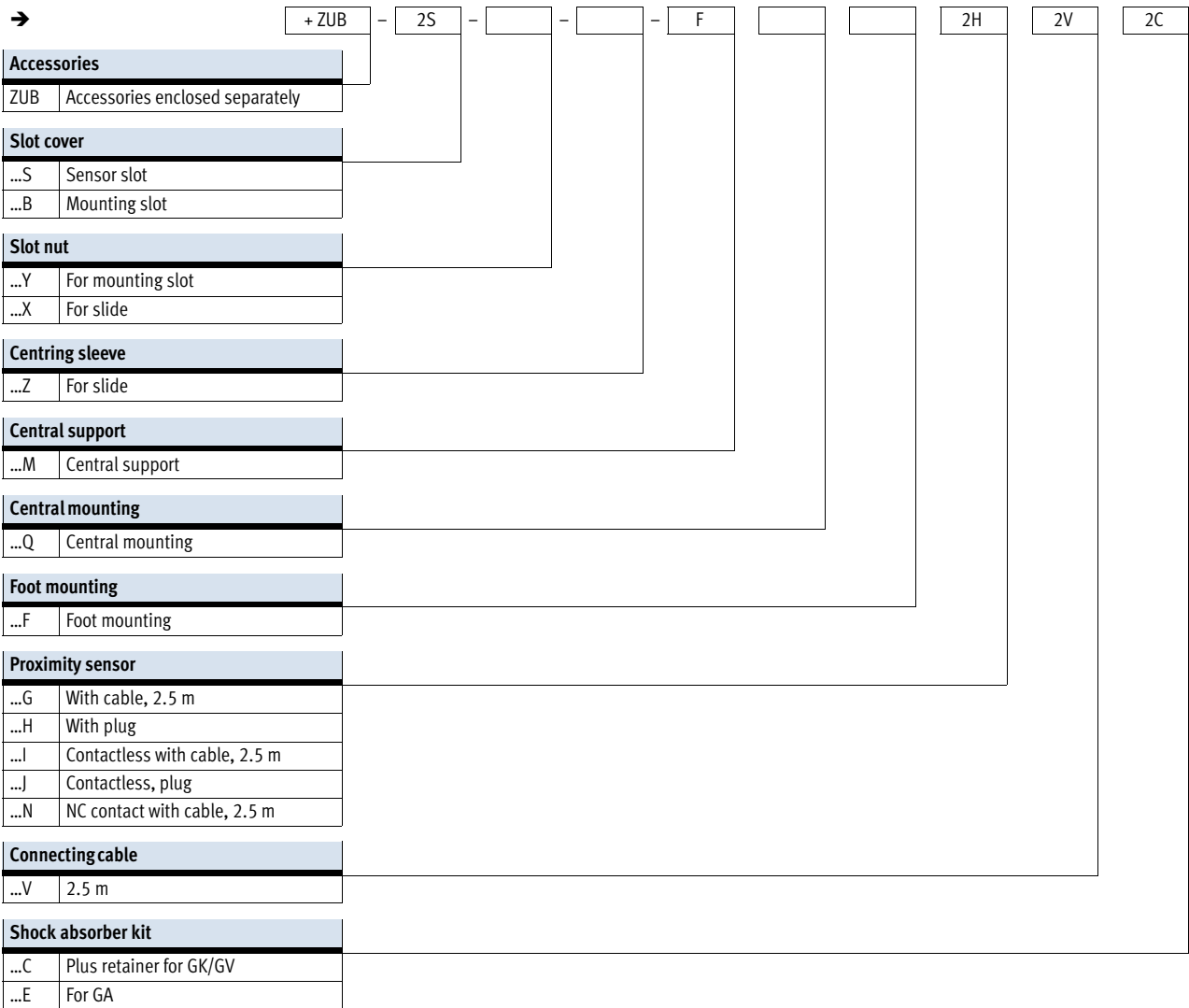
Linear drives DGPL, with guide

Type codes



Linear drives DGPL, with guide

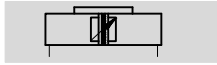
Type code



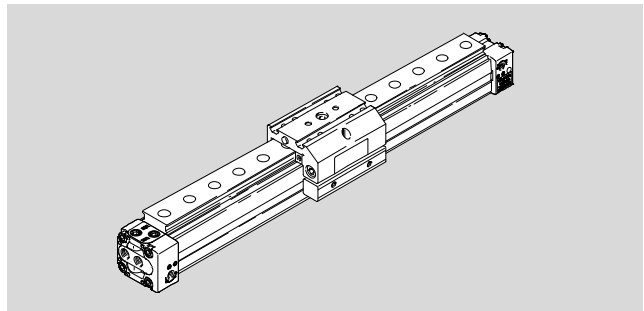
Linear drives DGPL, with guide

Technical data

Function



www.festo.com



- \varnothing - Diameter
18 ... 80 mm
- | - Stroke length
1 ... 3000 mm

General technical data							
Piston \varnothing	18	25	32	40	50	63	80
Design	Pneumatic linear drive with slide						
Guide	Recirculating ball bearing guide						
Mode of operation	Double-acting						
Moment compensator principle	Positive-locking (slot)						
Assembly position	Any						
Pneumatic connection	M5	G1/8		G1/4		G3/8	G1/2
Stroke length [mm]	10 ... 1800	10 ... 3000 ¹⁾					
Cushioning	Adjustable at both ends						
	Self-adjusting at both ends						
Cushioning length (PPV) [mm]	16	18	20	30			83
Position sensing	Via proximity sensor						
Max. speed							
DGPL-KF [m/s]	3						
DGPL-GA [m/s]	3						-

1) For effective strokes of over 2000 mm, the drive must be installed with the sealing band facing downwards; longer strokes on request.

Operating and environmental conditions							
Piston \varnothing	18	25	32	40	50	63	80
Operating medium	Compressed air to ISO 8573-1:2010 [7:-:-]						
Note on operating/pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)						
Operating pressure [bar]	2 ... 8			1.5 ... 8			
Ambient temperature ¹⁾ [°C]	-10 ... +60						
Corrosion resistance class CRC ²⁾	0						
ATEX	Specified types → www.festo.com						

1) Note operating range of proximity sensors.

2) Corrosion resistance class CRC 0 to Festo standard FN 940070

No corrosion stress. Applies to small, optically irrelevant standard parts such as threaded pins, circlips and clamping sleeves which are usually only available in a phosphated or burnished version (and possibly oiled) as well as to ball bearings (for components < CRC 3) and plain bearings.

Forces [N] and impact energy [Nm]							
Piston \varnothing	18	25	32	40	50	63	80
Theoretical force at 6 bar	153	295	483	754	1178	1870	3016
Impact energy	→ 11						

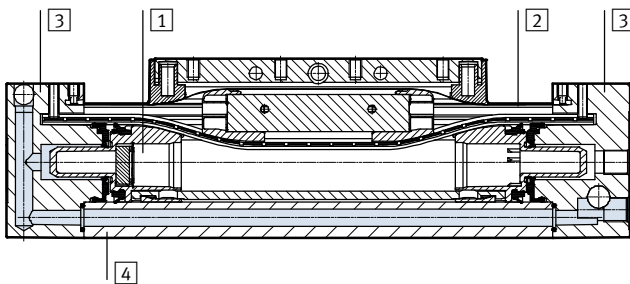
Linear drives DGPL, with guide

Technical data

Weight [kg]							
Piston \varnothing	18	25	32	40	50	63	80
Basic weight with 0 mm stroke	0.83	1.52	2.72	4.48	9.6	15.37	28.7
Additional weight per 10 mm stroke	0.026	0.053	0.069	0.097	0.167	0.236	0.27
Moving mass	0.29	0.43	0.58	1.15	1.96	3.22	7.50

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

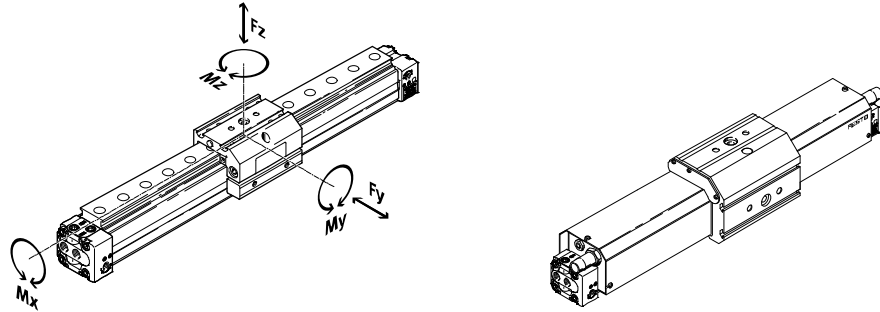
Linear drives DGPL, with guide

Technical data



Characteristic load values for axis with recirculating ball bearing guide KF or protected version GA

The indicated forces and torques refer to the centre of the guide rail. 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 indicated forces and torques, the following equation must be satisfied in addition to the indicated maximum loads:

$$\frac{F_y}{F_{y_{max.}}} + \frac{F_z}{F_{z_{max.}}} + \frac{M_x}{M_{x_{max.}}} + \frac{M_y}{M_{y_{max.}}} + \frac{M_z}{M_{z_{max.}}} \leq 1$$

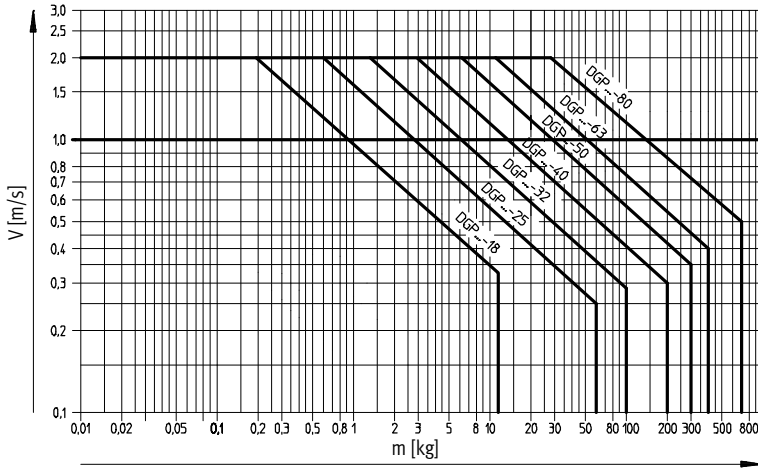
Permissible forces and torques								
Piston Ø		18	25	32	40	50	63	80
DGPL-GK/-GA (standard slide, protected)								
F _y _{max.}	[N]	930	3080	3080	7300	7300	14050	14050
F _z _{max.}	[N]	930	3080	3080	7300	7300	14050	14050
M _x _{max.}	[Nm]	7	45	63	170	240	580	745
M _y _{max.}	[Nm]	23	85	127	330	460	910	1545
M _z _{max.}	[Nm]	23	85	127	330	460	910	1545
DGPL-GV (extended slide)								
F _y _{max.}	[N]	930	3080	3080	7300	7300	14050	–
F _z _{max.}	[N]	930	3080	3080	7300	7300	14050	–
M _x _{max.}	[Nm]	7	45	63	170	240	580	–
M _y _{max.}	[Nm]	45	170	250	660	920	1820	–
M _z _{max.}	[Nm]	45	170	250	660	920	1820	–

Linear drives DGPL, with guide

Technical data

Operating range of the integrated end-position cushioning PPV

Maximum permissible speed v as a function of the moving load M

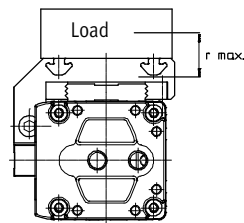


Note
The data applies to a horizontal mounting position, applied load on top.
 m = Applied load + moving mass
→ 9
The following diagram refers to r_{max} .

Pneumatic linear drives

With slide DGPL

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



$r_{max} = 20$ mm
for piston $\varnothing 18$ mm

$r_{max} = 50$ mm
for piston $\varnothing 25 \dots 80$ mm
(data for larger load distances on request)

Note
Evenness of applied loads for pneumatic linear drives with slide DGPL: to prevent the guide elements from tightening or slackening, the support surface for the assembly must maintain an evenness of 0.03 mm.

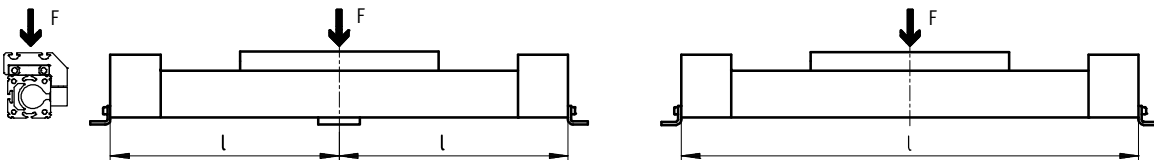
Maximum permissible support span l as a function of the force F

The axis may need to be supported with central supports MUP in order to limit deflection in the case of long

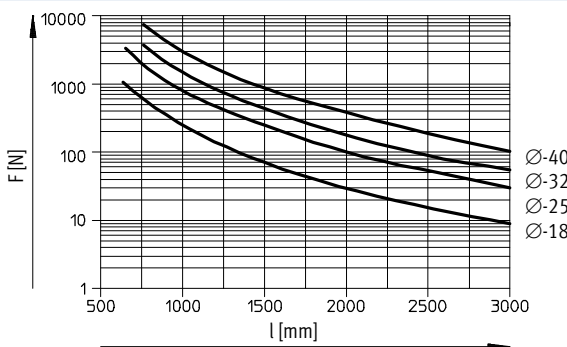
strokes. The following graphs can be used to determine the maximum

permissible support span l as a function of force F acting on the axis.

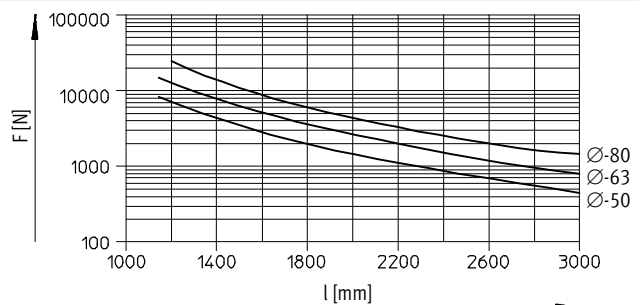
Force on the surface of the slide



Piston $\varnothing 18 \dots 40$



Piston $\varnothing 50 \dots 80$



Linear drives DGPL, with guide

Technical data

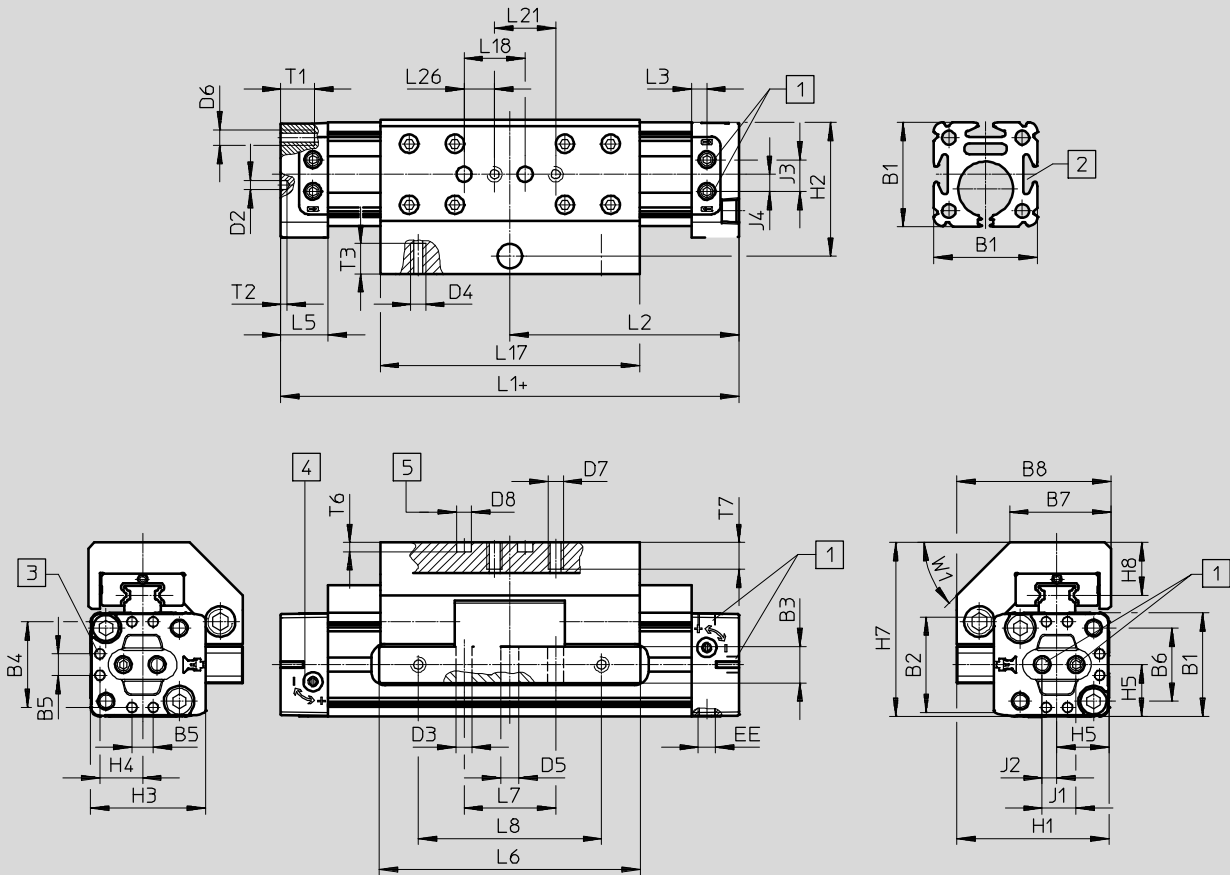
FESTO

Dimensions

Download CAD data → www.festo.com

Standard slide GK

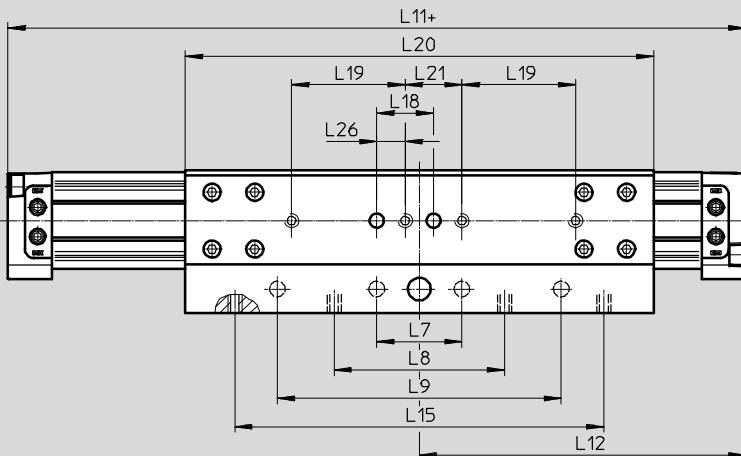
Piston Ø 18



- | | | | |
|---|--|--|-------------------------------|
| <p>1 DGPL-...: Supply ports on one end cap, freely selectable on 3 sides
DGPL-...-D2: Supply ports at both ends, freely selectable on 3 sides</p> | <p>2 Sensor slot for proximity sensor
3 Centring hole for foot mounting HP-...</p> | <p>4 Regulating screw for adjustable end-position cushioning
5 Hole for centring pin ZBS-5</p> | <p>+ = plus stroke length</p> |
|---|--|--|-------------------------------|

Extended slide GV

Piston Ø 18



Linear drives DGPL, with guide

Technical data

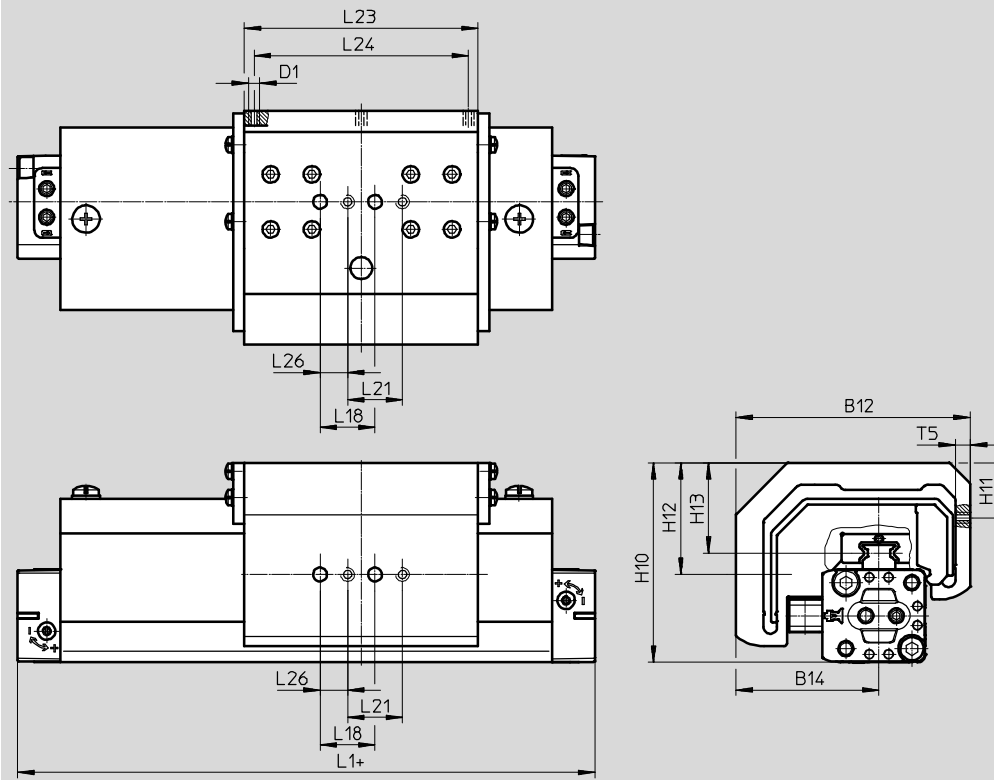
FESTO

Dimensions

Download CAD data → www.festo.com

Protected version GA

Piston $\varnothing 18$



\varnothing	B1	B2	B3	B4	B5	B6	B7	B8	B12	B14	D1	D2
[mm]			± 0.1									\varnothing
18	34	31.2	12	28	7	24	32	50.5	85.25	52.05	M4	3

\varnothing	D3	D4	D5	D6	D7	D8	EE	H1	H2	H3	H4	H5
[mm]	\varnothing		\varnothing			\varnothing						
18	$+0.2$	M5	6	M5	M5	5	M5	49.8	43.8	37.6	14	17

\varnothing	H7	H8	H10	H11	H12	H13	J1	J2	J3	J4	L1	L2
[mm]												
18	57	17	72.7	20	40.7	32.8	11.1	4.8	10.4	5.6	150	75

\varnothing	L3	L5	L6	L7	L8	L9	L11	L12	L15	L17	L18
[mm]				± 0.1	± 0.1	± 0.1	$+0.9/-0.2$	$+0.3/-0.6$	± 0.1	± 1	± 0.03
18	5	15.5	85	30	60	100	230	115	130	85	20

\varnothing	L19	L20	L21	L23	L24	L26	T1	T2	T3	T5	T6	T7	W1
[mm]	± 0.03		± 0.1			± 0.1					$+0.2$	max.	
18	40	165	20	85	78	10	11	2	10	5.35	3	10	45°

Linear drives DGPL, with guide

Technical data

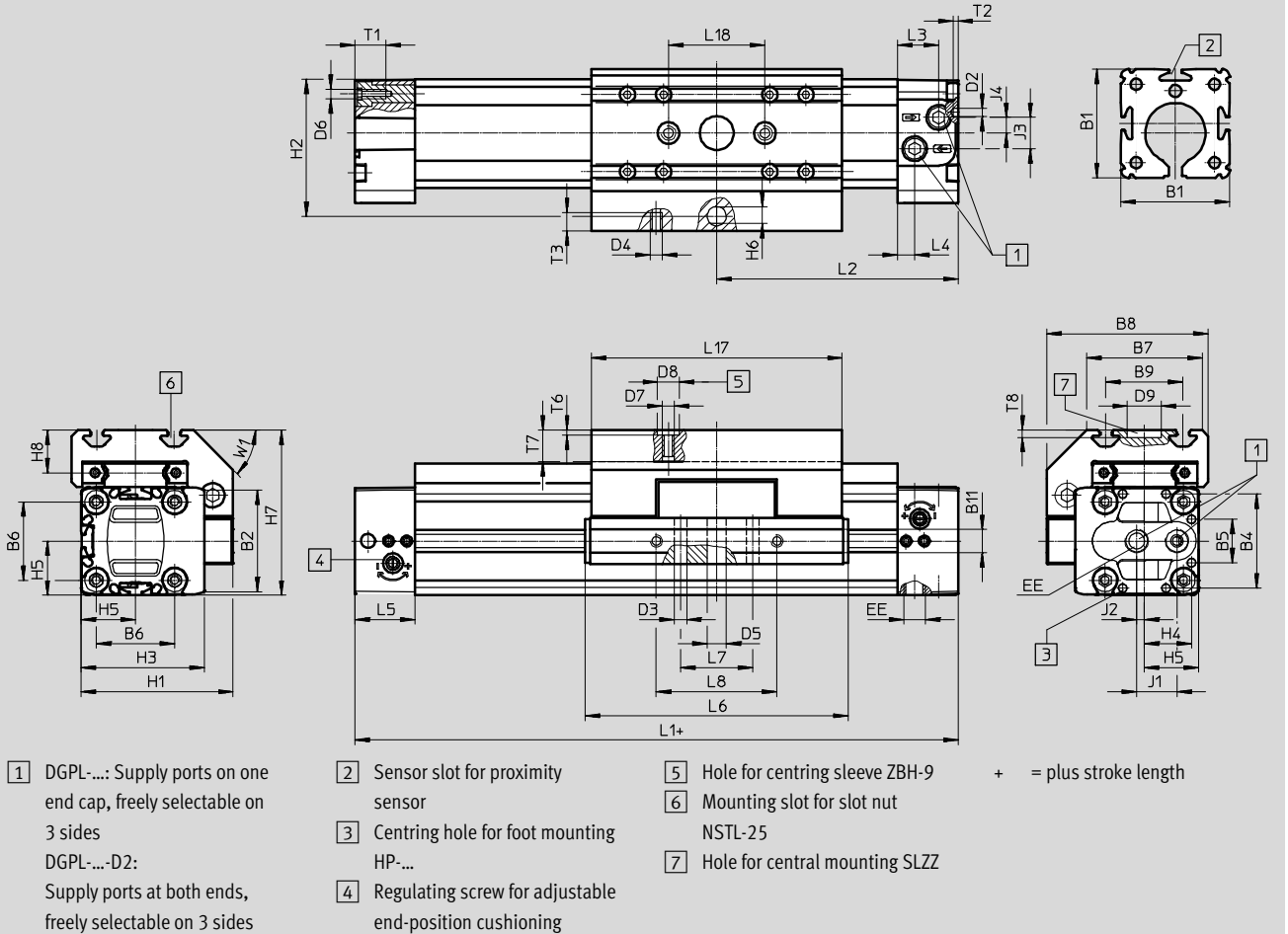


Dimensions

Download CAD data → www.festo.com

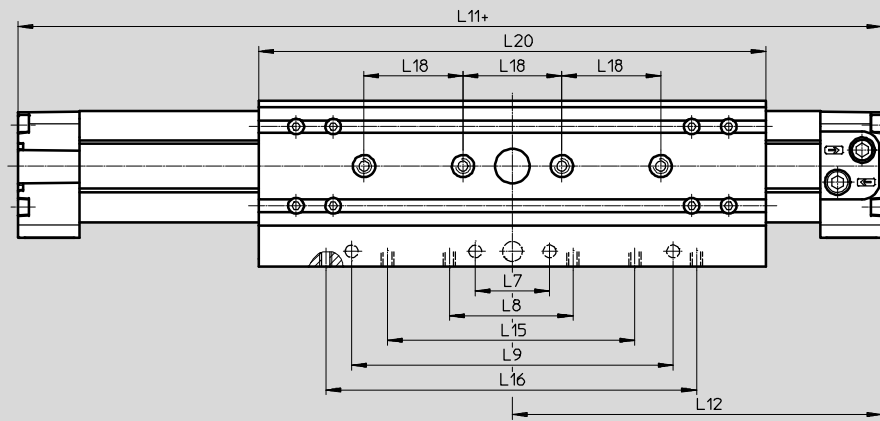
Standard slide GK

Piston Ø 25



Extended slide GV

Piston Ø 25



Linear drives DGPL, with guide

Technical data

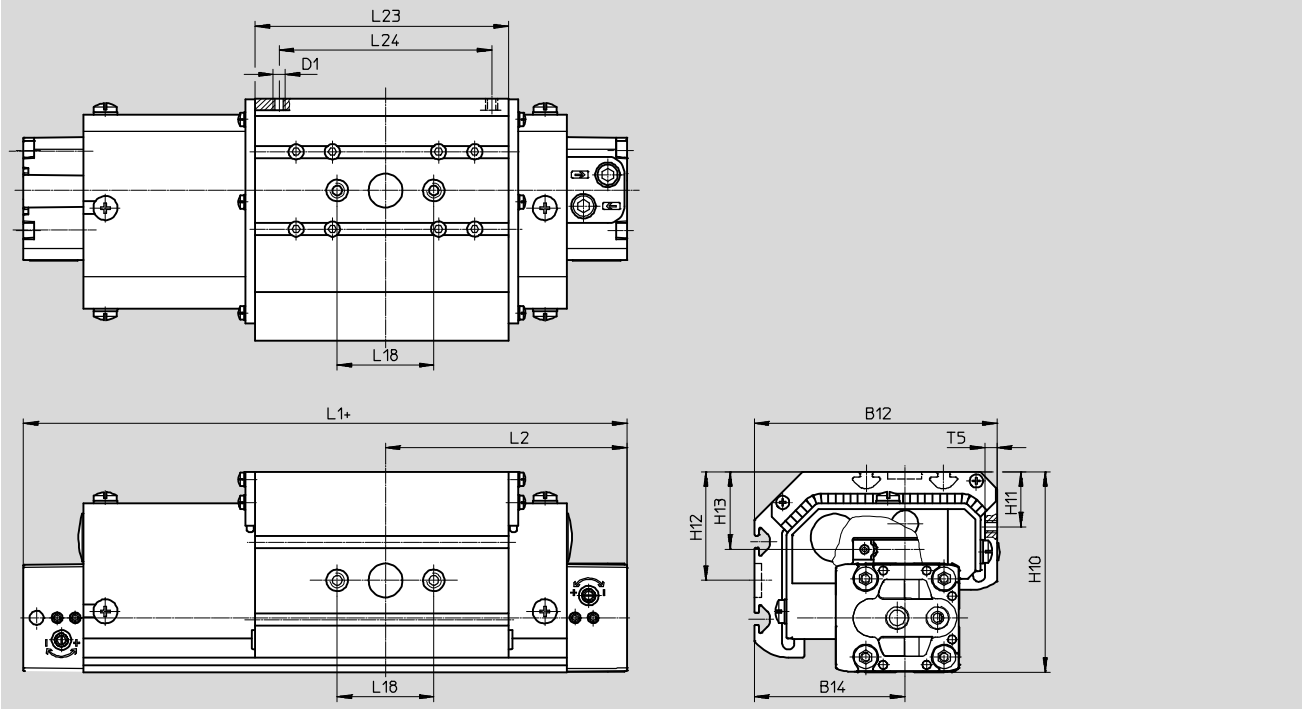
FESTO

Dimensions

Download CAD data → www.festo.com

Protected version GA

Piston $\varnothing 25$



\varnothing	B1	B2	B3	B4	B5	B6	B7	B8	B9	B11	B12	B14
[mm]			+0.2									
25	45	42.2	19	39.1	18	32.5	48	67	32	9.5	100.5	62.4

\varnothing	D1	D2	D3	D4	D5	D6	D7	D8	D9	EE	H1	H2	H3
[mm]		\varnothing	+0.2		\varnothing			\varnothing	\varnothing				
25	M5	3.3	5.2	M5	8	M4	M6	9	14	G $\frac{1}{8}$	63	57	51

\varnothing	H4	H5	H6	H7	H8	H10	H11	H12	H13	J1	J2	J3	J4
[mm]													
25	19.6	22.5	5.8	68.5	18.5	83.1	22.8	45	33.1	16.7	3.2	13	6.5

\varnothing	L1	L2	L3	L4	L5	L6	L7	L8	L9	L11	L12	L15
[mm]	+0.9/-0.2									+0.9/-0.2	+0.3/-0.6	± 0.1
25	200	100	17	7	25	109	30	50	130	300	150	100

\varnothing	L16	L17	L18	L20	L23	L24	T1	T2	T3	T5	T6	T7	T8	W1
[mm]	± 0.1	+2	± 0.03	± 0.1	+0.2						+0.2			
25	150	105	40	205	105	88	13	2	7.5	4.9	2.1	12.5	3	45°

Linear drives DGPL, with guide

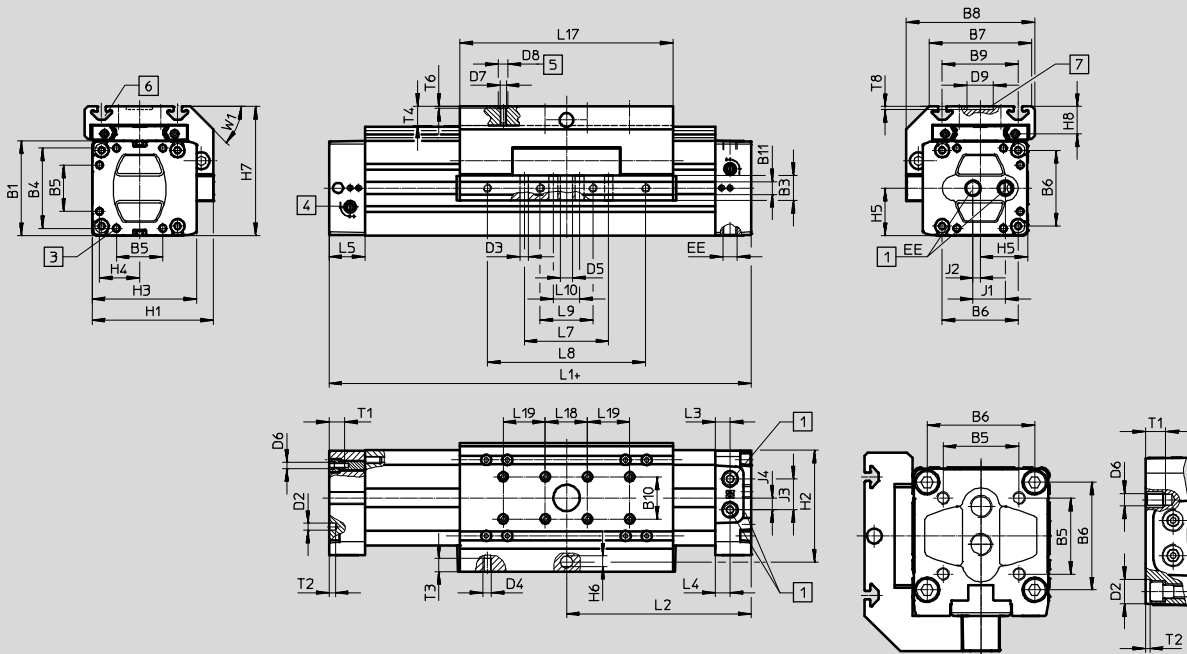
Technical data

Dimensions

Standard slide GK

Download CAD data → www.festo.com

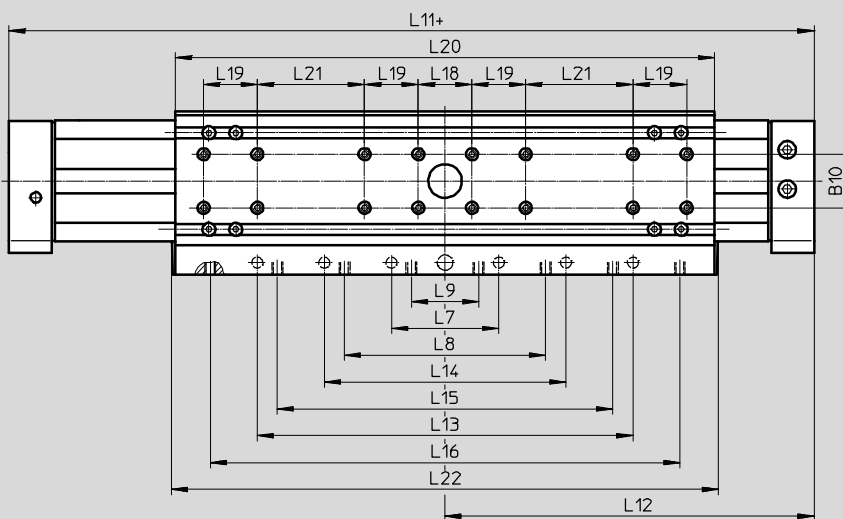
Piston $\varnothing 32 \dots 80$



- | | | |
|--|---|---|
| <p>1 DGPL-...: Supply ports on one end cap, freely selectable on 3 sides
DGPL-...-D2: Supply ports at both ends, freely selectable on 3 sides</p> | <p>3 Centring hole for foot mounting type HP-...</p> <p>4 Regulating screw for adjustable end-position cushioning</p> | <p>5 Hole for centring sleeve ZBH-9 + = plus stroke length
6 Mounting slot for slot nut NSTL-25
7 Hole for central mounting SLZZ</p> |
|--|---|---|

Extended slide GV

Piston $\varnothing 32 \dots 63$



Linear drives DGPL, with guide

Technical data

∅ [mm]	B1	B3 +0.2	B4	B5	B6	B7	B8	B9	B10 ±0.03	B11	D2 ∅	D3 ∅ +0.2
32	54 +0.4	19	46	21	40	63	79	47 ±0.15	20	9.5	4.3	5.2
40	64 +0.4	21	53	28	49	78.5	96.5	55 ±0.2	20	9.5	4.3	6.5
50	90 +0.4	24	76	44	72	97	122	72 ±0.2	40	12	6.3	8.5
63	106 +0.4	24	89	44	83	121	142	90 ±0.25	40	12	6.3	8.5
80	130 +0.8	36	–	72	102	151.5	188	112 +0.5/-0.2	40	–	23	12.2

∅ [mm]	D4	D5 ∅ H10	D6	D7	D8 ∅ H7	D9 ∅ G7	EE	H1	H2	H3	H4	H5	H6
32	M5	8	M5	M6	9	25	G1/8	72	66	61.8	23	27	5.8
40	M6	10	M5	M6	9	25	G1/4	86	78	71.8	26.5	32	7.7
50	M8	12	M6	M6	9	25	G1/4	115	106	99	38	45	9.7
63	M8	12	M8	M6	9	25	G3/8	131	122	115	44.5	53	9.7
80	M12	20	M12	M6	9	25	G1/2	174	158	140.5	51	85	–

∅ [mm]	H7	H8	J1	J2	J3	J4	L1 +0.9/-0.2	L2	L3	L4	L5	L6	L7
32	77.5	18.5	19	4.2	14	4.1	250	125	18.5	8.5	31	135	50 ±0.1
40	90.5	20	22	5	21	8.5	300	150	11.5	11.5	31	171	70 ±0.1
50	122.5	26	30.8	6.8	29.3	11.3	350	175	14	14	34	206	80 ±0.1
63	144.5	30	36	8	33	12	400	200	13.5	13.5	34	234	110 ±0.1
80	175	36.5	36	8	33.3	36.9	520	260	19	19	45	334	180 ±0.15

∅ [mm]	L8	L9	L10 ±0.15	L11 +0.9/-0.2	L12 +0.9/-0.2	L13 ±0.1	L14 ±0.1	L15 ±0.1	L16 ±0.1	L17	L18 ±0.03
32	100 ±0.1	30 ±0.1	–	380	190	180	–	160	230	131 +0.2	40
40	130 ±0.1	40 ±0.1	–	470	235	160	250	220	–	167 +0.2	40
50	150 ±0.1	50 ±0.1	–	550	275	280	–	250	350	202 +0.2	40
63	190 ±0.1	70 ±0.1	–	650	325	380	–	310	430	230 +0.2	40
80	230 ±0.15	115 ±0.15	60	–	–	–	–	–	–	320 -0.3	40

∅ [mm]	L19 ±0.03	L20	L21 ±0.1	L22	T1	T2	T3	T4 max.	T6 +0.1	T8	W1
32	–	261	40	265	13.2	3	7.5	12.5	2.1	3	45°
40	40	337	40	341	13.2	4	10.5	12.5	2.1	3	45°
50	40	402	80	406	15.2	6	12.5	18.5	2.1	3	45°
63	40	480	120	484	21.2	6	12.5	20.5	2.1	3	45°
80	40	–	–	–	18	4	19	27	2.1	3	45°

Linear drives DGPL, with guide

Technical data

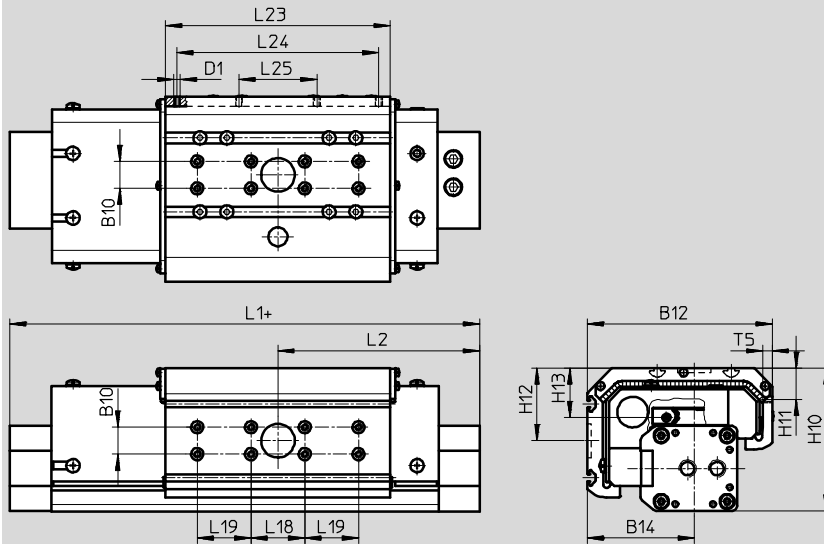
FESTO

Dimensions

Download CAD data → www.festo.com

Protected version GA

Piston Ø 32 ... 40



Ø	B10	B12	B14	D1	H10	H11	H12	H13
[mm]	±0.03							
32	20	112.1	67.6	–	93.1	–	49.5	34.1
40	20	137.6	79.6	M5	106.6	23.1	54	36.1


Ø	L1	L2	L18	L19	L23	L24	L25	T5
[mm]	+0.9/–0.2	+0.3/–0.6	±0.03	±0.03				
32	250	125	40	–	131	–	–	–
40	300	150	40	40	167	150	58	7

Linear drives DGPL, with guide

Ordering data

Ordering data – Standard strokes		
Piston Ø	Part No.	Type
25	526649	DGPL-25-250-PPV-A-B-KF
	526650	DGPL-25-400-PPV-A-B-KF
	526651	DGPL-25-500-PPV-A-B-KF
	526652	DGPL-25-1000-PPV-A-B-KF
32	526657	DGPL-32-250-PPV-A-B-KF
	526658	DGPL-32-400-PPV-A-B-KF
	526659	DGPL-32-500-PPV-A-B-KF
	526660	DGPL-32-1000-PPV-A-B-KF
40	526665	DGPL-40-250-PPV-A-B-KF
	526666	DGPL-40-400-PPV-A-B-KF
	526667	DGPL-40-500-PPV-A-B-KF
	526668	DGPL-40-1000-PPV-A-B-KF

Ordering data – Variable strokes for recirculating ball bearing guide KF		
Piston Ø	Part No.	Type
18	161777	DGPL-18-...-PPV-A-KF-B
25	161792	DGPL-25-...-PPV-A-KF-B
32	161793	DGPL-32-...-PPV-A-KF-B
40	161794	DGPL-40-...-PPV-A-KF-B
50	161795	DGPL-50-...-PPV-A-KF-B
63	161796	DGPL-63-...-PPV-A-KF-B
80	161797	DGPL-80-...-PPV-A-KF-B

 - Note
 Piston Ø 8 and 12
 Linear drives DGC
 → Internet: dgc

Linear drives DGPL, with guide

Ordering data – Modular product

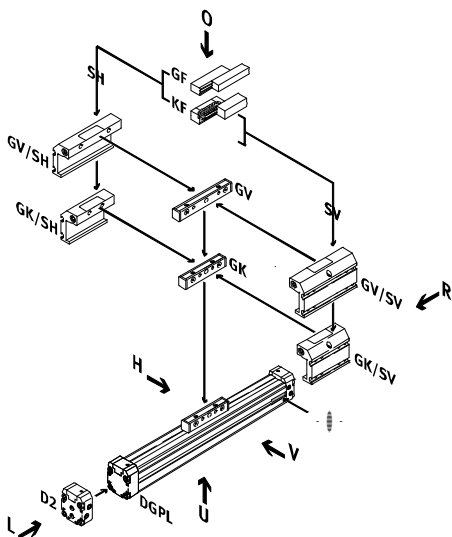
Order code

Mandatory data

GK	Standard slide	D2	Supply port
GV	Extended slide		
SH	Slide at rear		
SV	Slide at front		

Standard slide GK

Extended slide GV



-  - Note

The insertion point for the proximity sensor is located on the right-hand side of the pneumatic linear drive DGPL.

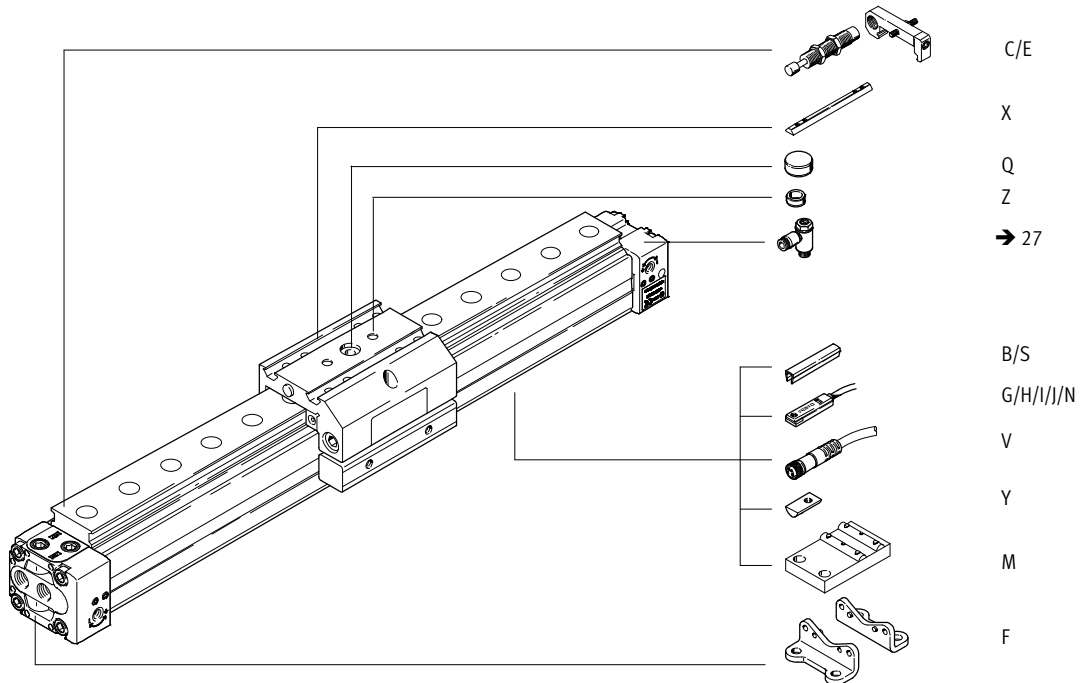
- O top
- U underneath
- R right
- L left
- V front
- H rear

Linear drives DGPL, with guide

Ordering data – Modular product

Order code

Options



Linear drives DGPL, with guide

Ordering data – Modular product

Ordering table										
Piston Ø	18	25	32	40	50	63	80	Condi- tions	Code	Entry code
M Module No.	175133	175134	175135	175136	175137	175138	175139			
Function	Linear drive with slide								DGPL	DGPL
Piston Ø [mm]	18	25	32	40	50	63	80		-...	
Stroke [mm]	10 ... 1800	10 ... 3000						¹	-...	
Cushioning	Pneumatic cushioning adjustable at both ends								-PPV	-PPV
Position sensing	Via proximity sensor								-A	-A
Generation	B series								-B	-B
Guide	Recirculating ball bearing guide								-KF	
O Basic design	Standard piston/slide								-GK	
	Extended piston/slide							-	-GV	
Slide attachment position	At rear								-SH	
	Slide at front								-SV	
↓ Compressed air supply port	Compressed air supply port at both ends								-D2	

¹ **Stroke** For piston-Ø 18 with extended piston/slide GV: restricted stroke 10 ... 1750 mm.

- M** Mandatory data
- O** Options

Transfer order code

DGPL - - - **PPV** - **A** - **B** - - - - -

Linear drives DGPL, with guide

Ordering data – Modular product

Ordering table											
Piston Ø	18	25	32	40	50	63	80	Condi- tions	Code	Entry code	
↓ Protection	Protected version						-	-	-	2	-GA
○ Accessories	Enclosed separately										:ZUB-
Slot cover, 2 pcs., 0.5 m	Sensor slot	1 ... 10									...S
	Mounting slot	-	-	1 ... 10							...B
Slot nut	Slides	-	1 ... 10							...X	
	Mounting slot	-	-	1 ... 10							...Y
Centring sleeve (pack of 10)	10, 20, 30, 40, 50, 60, 70, 80, 90									...Z	
Central support	1 ... 10									...M	
Central mounting	-	1 ... 10									...Q
Foot mounting	1 ... 10									...F	
Proximity sensor	With cable, 2.5 m									...G	
	1 ... 10										
Proximity sensor, contactless	With plug M8									...H	
	1 ... 10										
Proximity sensor, magnetic	With cable, 2.5 m									...I	
	1 ... 10										
Proximity sensor, magnetic	with plug M8									...J	
	1 ... 10										
Proximity sensor, magnetic	N/C contact with cable, 2.5 m									...N	
Connecting cable	1 ... 10									...V	
	M8, 2.5 m										
Shock absorber	Self-adjust- ing, with retainer	1 ... 10									...C
		1 ... 10						-	-	-	3

2 E Only with protected version GA.

Mandatory data

Options

Transfer order code

- : ZUB -

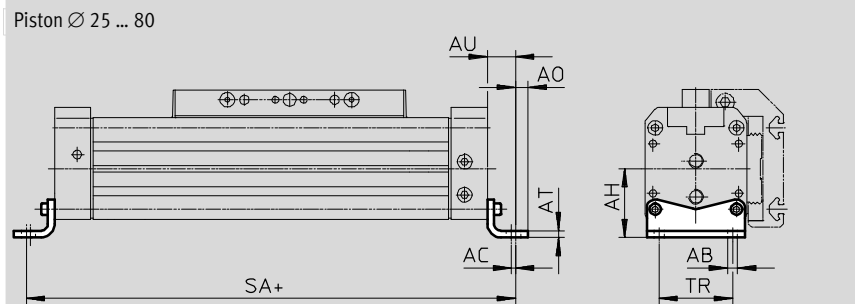
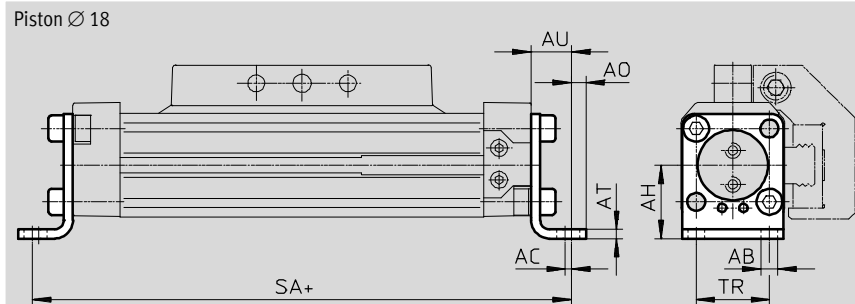
Linear drives DGPL

Accessories



Foot mounting HP
(order code F)

Material:
Galvanised steel
Free of copper and PTFE



+ = plus stroke length

Dimensions and ordering data

For \varnothing [mm]	AB \varnothing	AC	AH	AO	AT	AU	SA		TR	Weight [g]	Part No.	Type
							GK	GV				
18	5.5	2	24	4.8	3	13.2	176.5	256.4	24	59	158472	HP-18
25	5.5	2	29.5	6	3	13	226	326	32.5	61	150731	HP-25
32	6.6	2	37	7	4	17	284	414	38	117	150732	HP-32
40	6.6	2	46	8.5	5	17.5	335	505	45	188	150733	HP-40
50	9	3	61	11	6	25	400	600	65	243	150734	HP-50
63	11	3	69	13.5	6	28	456	706	75	305	150735	HP-63
80	13	3	85	12	8	28	576	-	72	620	158453	HP-80

Linear drives DGPL

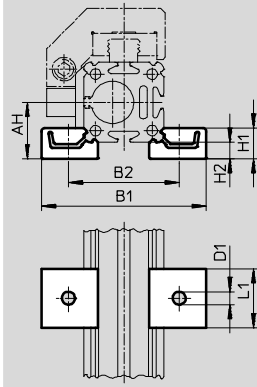
Accessories

Central support MUP
(order code: M)

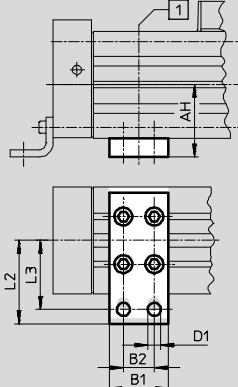
Material:
Anodised aluminium
Free of copper and PTFE



Piston \varnothing 18 and 25



Piston \varnothing 32 ... 63



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

Dimensions and ordering data

For \varnothing	AH	B1	B2	D1	H1	H2	L1	L2	L3	Weight	Part No.	Type
[mm]				\varnothing						[g]		
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 DGPL


Accessories



Shock absorber YSR-...-C
(order code: C)

Materials:
Housing: Galvanised steel
Piston rod: High-alloy steel
Seals: NBR, polyurethane
Free of copper and PTFE



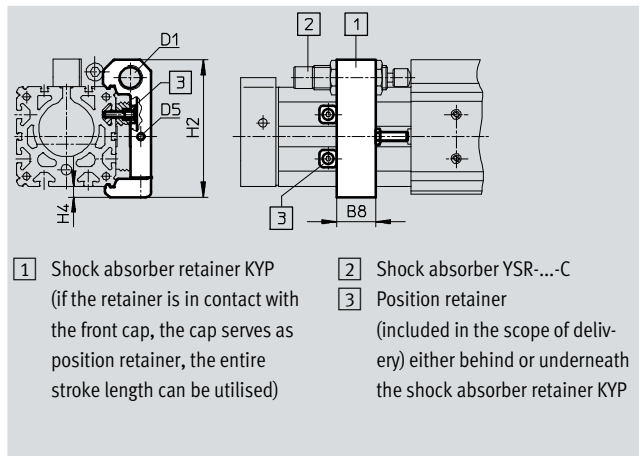
 Note
Shock absorber YSRW with progressive characteristic curve
→ Internet: ysrw

Ordering data		Part No.	Type
For Ø [mm]	Weight [g]		
18	50	34571	YSR-8-8-C
25	70	34572	YSR-12-12-C
32	70	34572	YSR-12-12-C
40	140	34573	YSR-16-20-C
50	140	34573	YSR-16-20-C
63	240	34574	YSR-20-25-C
80	240	34574	YSR-20-25-C

Shock absorber retainer KYP
(order code: C)

Material:
Retainer: Aluminium
Sleeve: Corrosion-resistant steel

Shock absorber not included in scope of delivery.



Dimensions and ordering data								
For Ø	B8	D1	D5	H2	H4	Weight [g]	Part No.	Type
18	14	M12x1	M4	50.5	4.5	65	158907	KYP-18
25	19	M16x1	M5	69.5	6	95	158908	KYP-25
32	25	M16x1	M5	80	8	130	158909	KYP-32
40	32	M22x1.5	M5	102	8	209	158910	KYP-40
50	35	M22x1.5	M8	124	10	415	158911	KYP-50
63	44	M26x1.5	M10	152.5	11.5	609	158912	KYP-63
80	44	M26x1.5	M10	179.5	11.5	774	158913	KYP-80

Linear drives DGPL

Accessories



Shock absorber DG-GA

in end position

Protected version GA

(order code: E)

Material:

Housing: Galvanised steel

Piston rod: High-alloy steel

Seals: NBR, polyurethane

Free of copper and PTFE



Note

Entire stroke can be used.




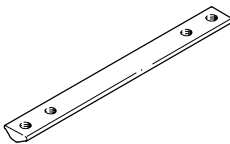


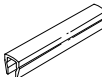
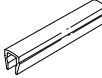
Ordering data			
For Ø	Weight [g]	Part No.	Type
25	70	192875	DG-GA-25-YSR
32	93	192876	DG-GA-32-YSR
40	140	192877	DG-GA-40-YSR

Ordering data – One-way flow control valves				Technical data → Internet: grla	
	Port		Material	Part No.	Type
	Thread	For tubing O.D.			
	M5	3	Metal design	193137	GRLA-M5-QS-3-D
		4		193138	GRLA-M5-QS-4-D
	G1/8	4		193143	GRLA-1/8-QS-4-D
		6		193144	GRLA-1/8-QS-6-D
	G1/4	6		193146	GRLA-1/4-QS-6-D
		8		193147	GRLA-1/4-QS-8-D
	G3/8	8		193150	GRLA-3/8-QS-8-D
		10		193151	GRLA-3/8-QS-10-D
	G1/2	12		193152	GRLA-1/2-QS-12-D

Linear drives DGPL

Accessories

FESTO

Ordering data for DGPL				Technical data → Internet: mounting component		
	For Ø [mm]	Comment	Order code	Part No.	Type	PU ¹⁾
Slot nut ABAN/NST						
	18, 25	For mounting slot	Y	8003032	ABAN-1M4-5	4
	18, 25			526091	NST-HMV-M4²⁾	10
	32, 40			150914	NST-5-M5	1
	50, 63, 80			150915	NST-8-M6	
Slot nut NSTL						
	25	For slide	X	158410	NSTL-25	1
	32			158411	NSTL-32	
	40			158412	NSTL-40	
	50			158413	NSTL-50	
	63			158414	NSTL-63	
	80			161356	NSTL-80	
Centring pin/sleeve ZBS/ZBH						
	18	For slide	Z	150928	ZBS-5	10
	25 ... 80			150927	ZBH-9	
Central mounting SLZZ						
	25	For slide	Q	150900	SLZZ-16/10	1
	32, 40			150901	SLZZ-25/16	
	50 ... 80			150904	SLZZ-50/40	
Slot cover ABP						
	32, 40	For mounting slot	B	151681	ABP-5	2
	50, 63, 80	Every 0.5 m		151682	ABP-8	
Slot cover ABP-S						
	18 ... 80	For sensor slot Every 0.5 m	S	563360	ABP-5-S1	2

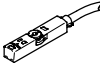
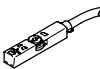
1) Packaging unit

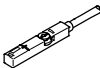
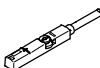
2) Piston Ø 18 and 25; cannot be used with DGPL...D2 (compressed air connection at both ends)



Linear drives DGPL

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						
	Inserted 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						
	Inserted 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						
	Inserted 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						
	Inserted 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


Linear drives DGPL

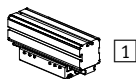
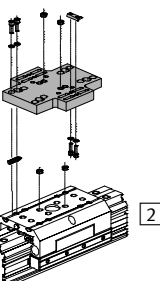
Accessories



Adapter kit HMVK

Materials:
Wrought aluminium alloy
Free of copper and PTFE
RoHS-compliant

 Note
The kit includes the individual mounting interface as well as the necessary mounting material.

Permissible drive/drive combinations with adapter kit			Download CAD data → www.festo.com		
Combination	[1] Drive	[2] Drive	Adapter kit		
	Size	Size	CRC ¹⁾	Part No.	Type
DGPL, DGE, DGEA/DGPL	DG...	DGPL	HMVK		
 	Direct slide/slide mounting				
	18, 25	25	2	196779	HMVK-DL25-DL18/25
	25	32		196781	HMVK-DL32/40-DLA18-32
	18 ²⁾ , 25, 32 ³⁾	40		196781	HMVK-DL32/40-DLA18-32
	25 ²⁾ , 40	63		196783	HMVK-DL63-DLA25/40
	Direct slide/profile mounting				
	18	18	2	196780	HMVK-DL18/25-DL-18/25
	25	25		196780	HMVK-DL18/25-DL-18/25
	25	32, 40		196782	HMVK-DL32/40-DL-18/25
	32 ³⁾ , 40	40		196781	HMVK-DL32/40-DLA18-32

- 1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.
- 2) Only for DGEA-...
- 3) Only for DGPL

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
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 & drivers



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 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.

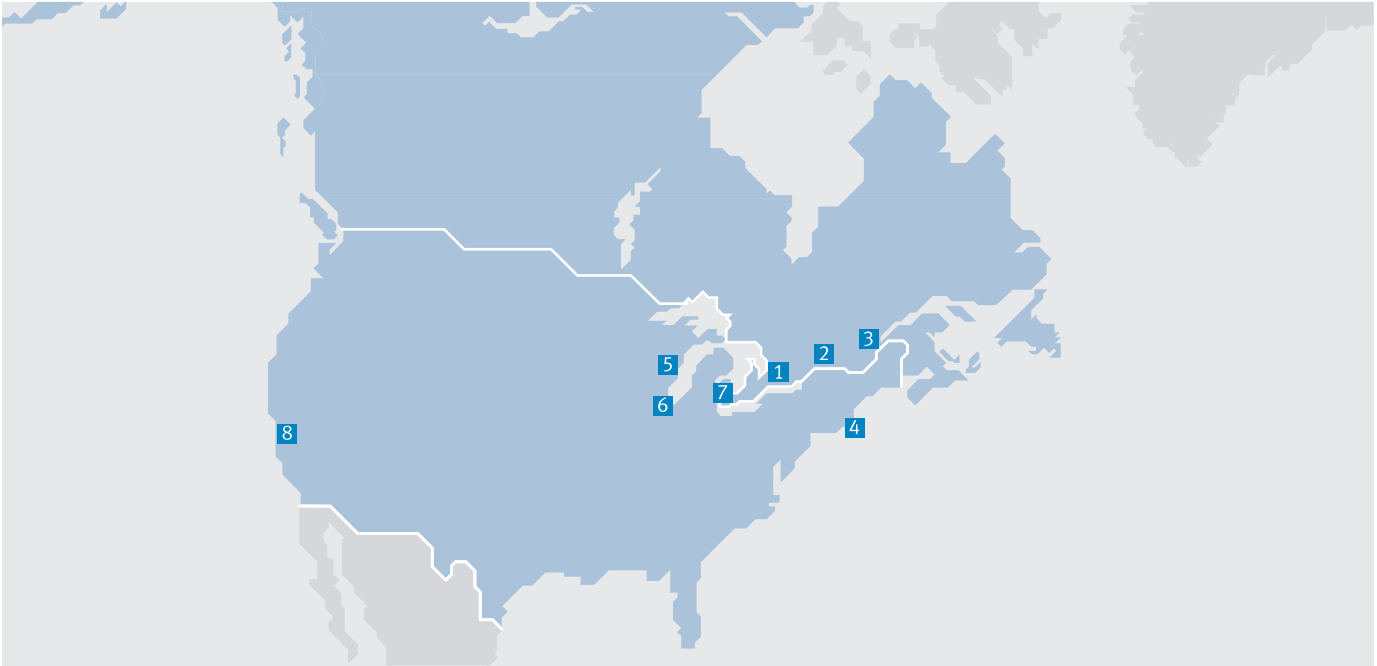


© Copyright 2013, Festo Corporation. While every effort is made to ensure that all dimensions and specifications are correct, Festo cannot guarantee that publications are completely free of any error, in particular typing or printing errors. Accordingly, Festo cannot be held responsible for the same. For Liability and Warranty conditions, refer to our "Terms and Conditions of Sale", available from your local Festo office. All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise, without the prior written permission of Festo. All technical data subject to change according to technical update.



Printed on recycled paper at New Horizon Graphic, Inc., FSC certified as an environmental friendly printing plant.

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

7 Detroit
1441 West Long Lake Road
Troy, MI
48098

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

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: 1 800 96 FESTO (1 800 963 3786)
Email: product.support@us.festo.com