

# 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



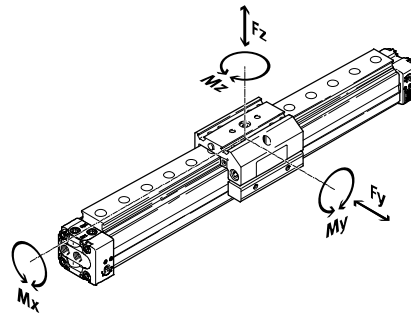
# Linear drives DGPL

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 <sup>1)</sup> [mm]	Theoretical force at 6 bar [N]	Forces and torques					→ Page/Internet
				Fy [N]	Fz [N]	Mx [Nm]	My [Nm]	Mz [Nm]	
<b>With recirculating ball bearing guide DGPL-KF</b>									
	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

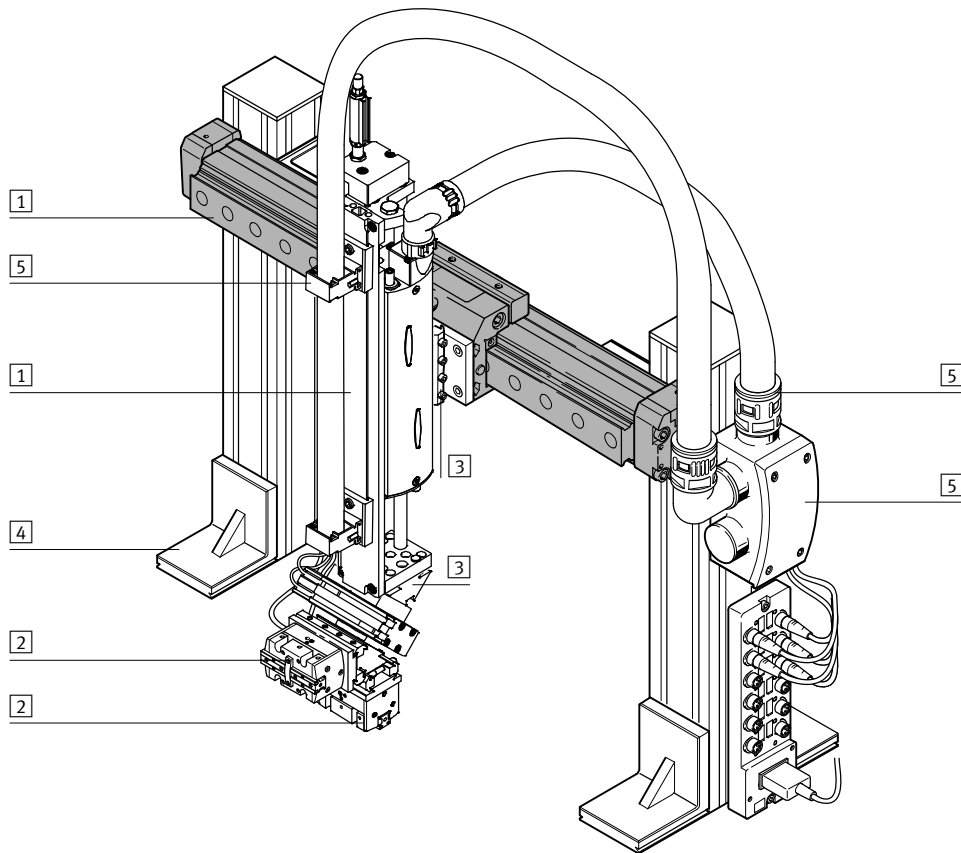
Alternatives to DGP: linear drives DGC-K → Internet: dgc

# Linear drives DGPL

Feature

FESTO

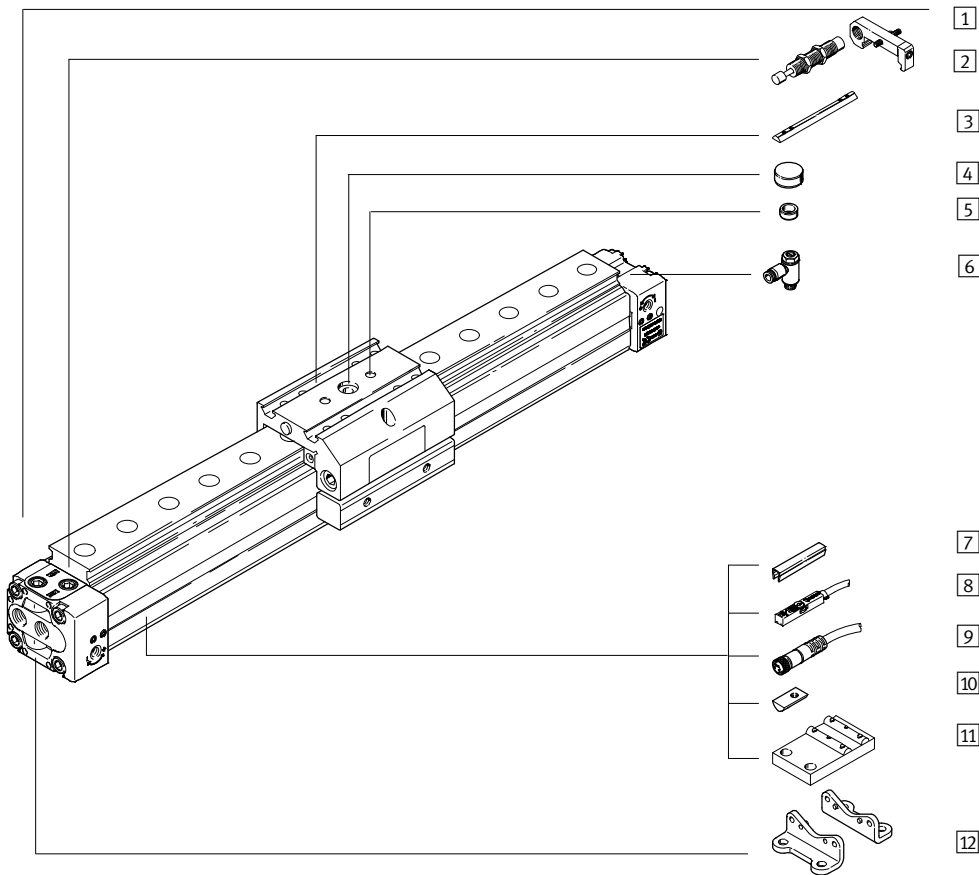
System product for handling and assembly technology



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

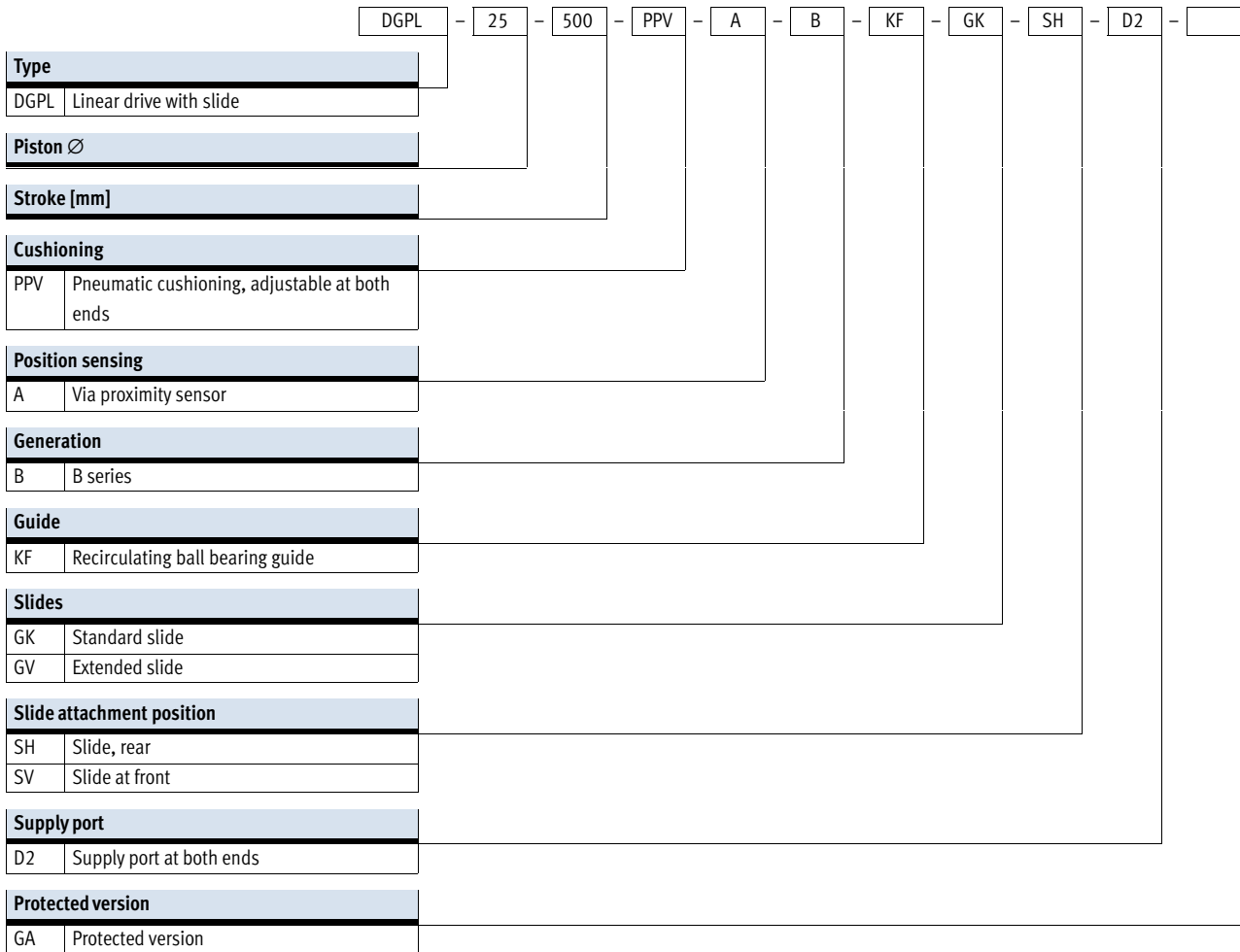
Peripherals overview



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

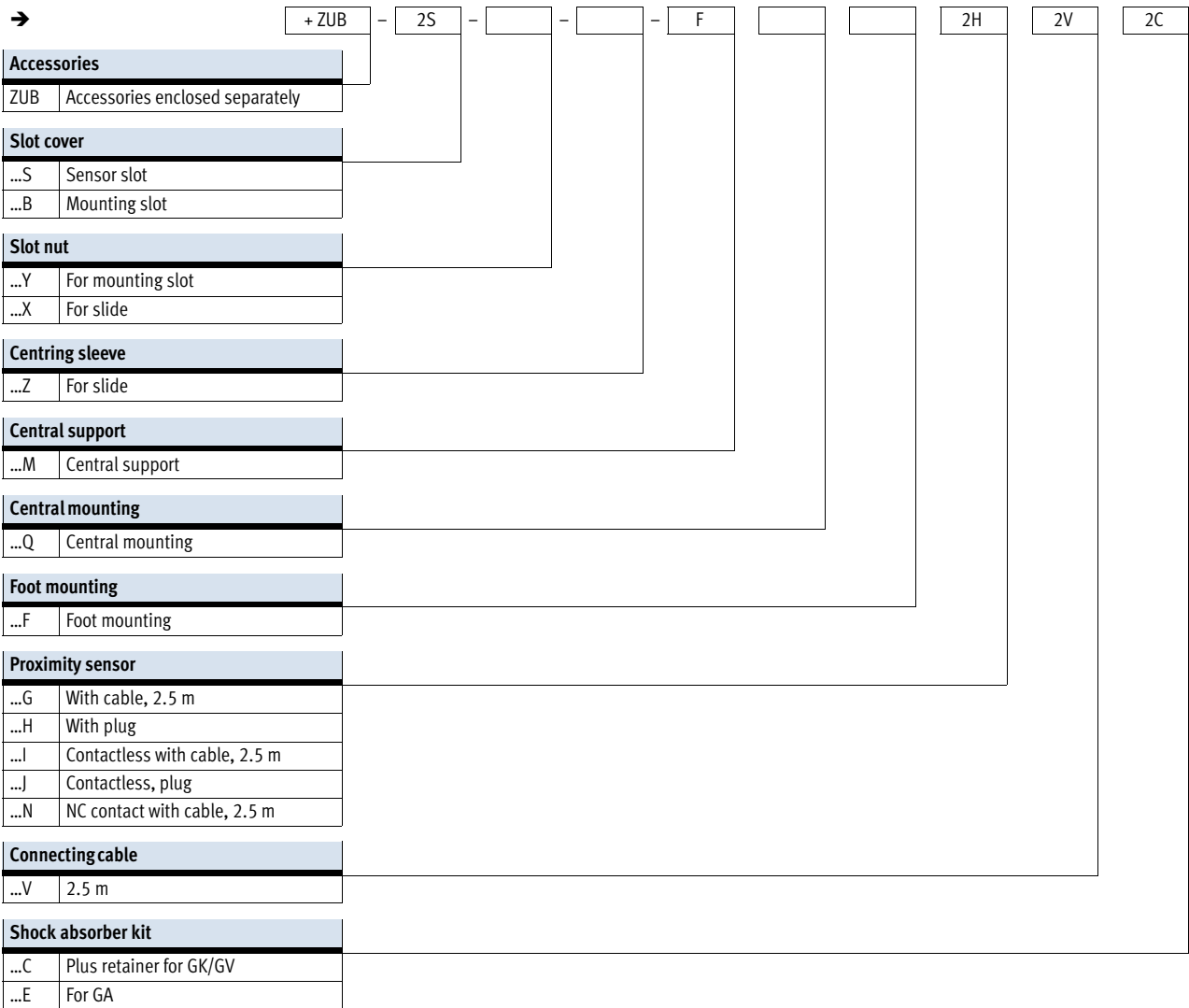
# Linear drives DGPL, with guide

Type codes



# Linear drives DGPL, with guide

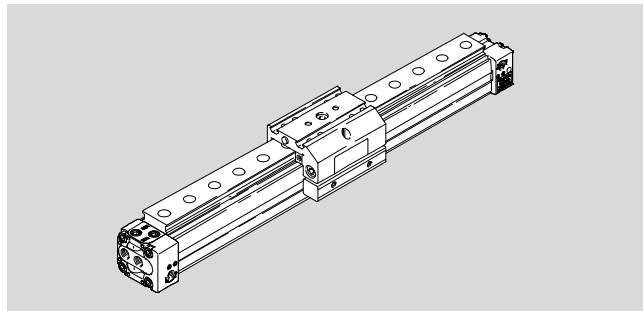
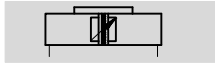
Type code



# Linear drives DGPL, with guide

Technical data

Function



- $\varnothing$  - 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 <sup>1)</sup>						
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 <sup>1)</sup> [°C]	-10 ... +60						
Corrosion resistance class CRC <sup>2)</sup>	0						
ATEX	Specified types → <a href="http://www.festo.com">www.festo.com</a>						

- 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	→ page 11						



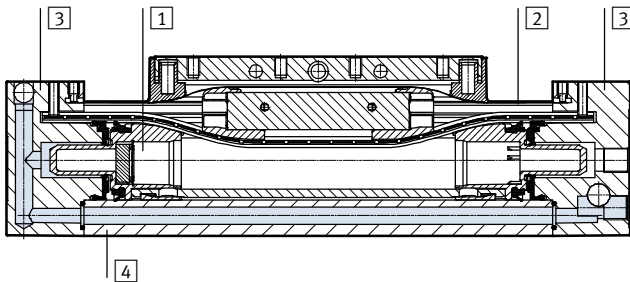
# Linear drives DGPL, with guide

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

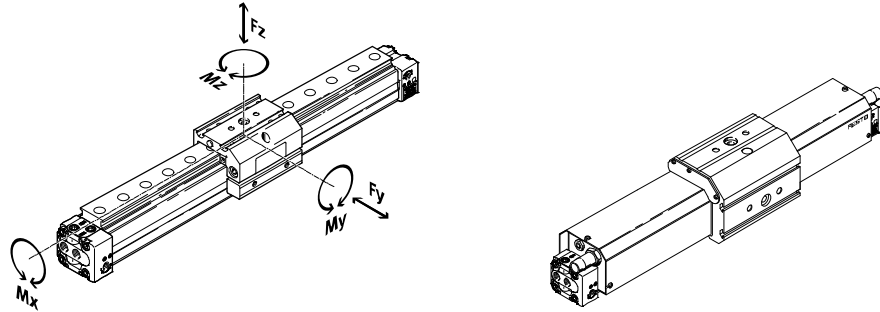
# Linear drives DGPL, with guide

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:

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

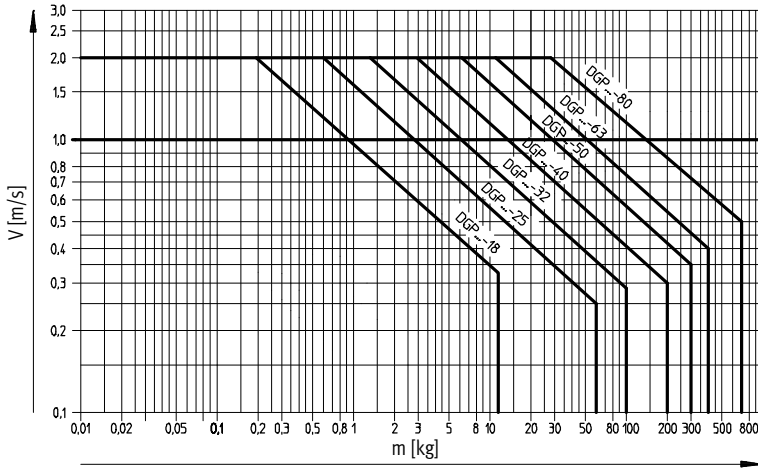
Permissible forces and torques								
Piston Ø		18	25	32	40	50	63	80
DGPL-GK/-GA (standard slide, protected)								
F <sub>y</sub> <sub>max.</sub>	[N]	930	3080	3080	7300	7300	14050	14050
F <sub>z</sub> <sub>max.</sub>	[N]	930	3080	3080	7300	7300	14050	14050
M <sub>x</sub> <sub>max.</sub>	[Nm]	7	45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

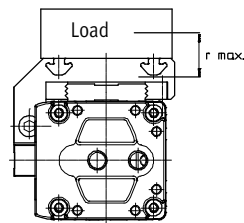


-  - Note  
 The data applies to a horizontal mounting position, applied load on top.  
  
 $m$  = Applied load + moving mass  
 → page 9  
 The following diagram refers to  $r_{max}$ .

## 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.

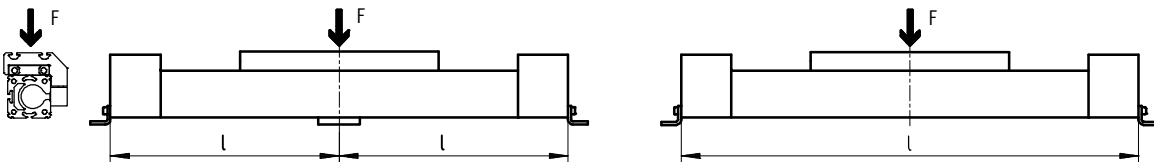
## Maximum permissible support span $l$ as a function of the force $F$

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

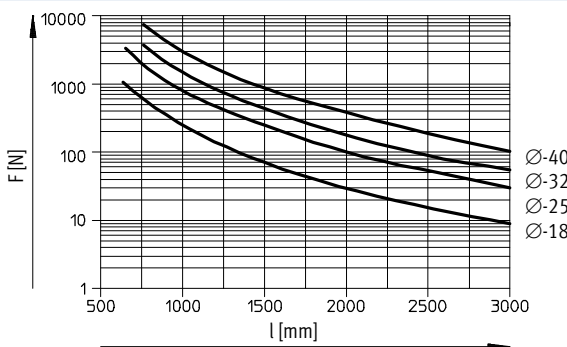
strokes. The following graphs can be used to determine the maximum

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

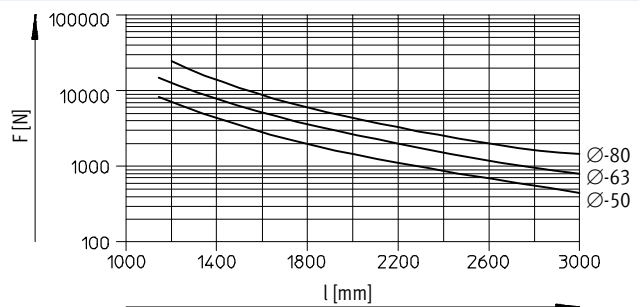
### Force on the surface of the slide



### Piston $\varnothing 18 \dots 40$



### Piston $\varnothing 50 \dots 80$



# Linear drives DGPL, with guide

Technical data

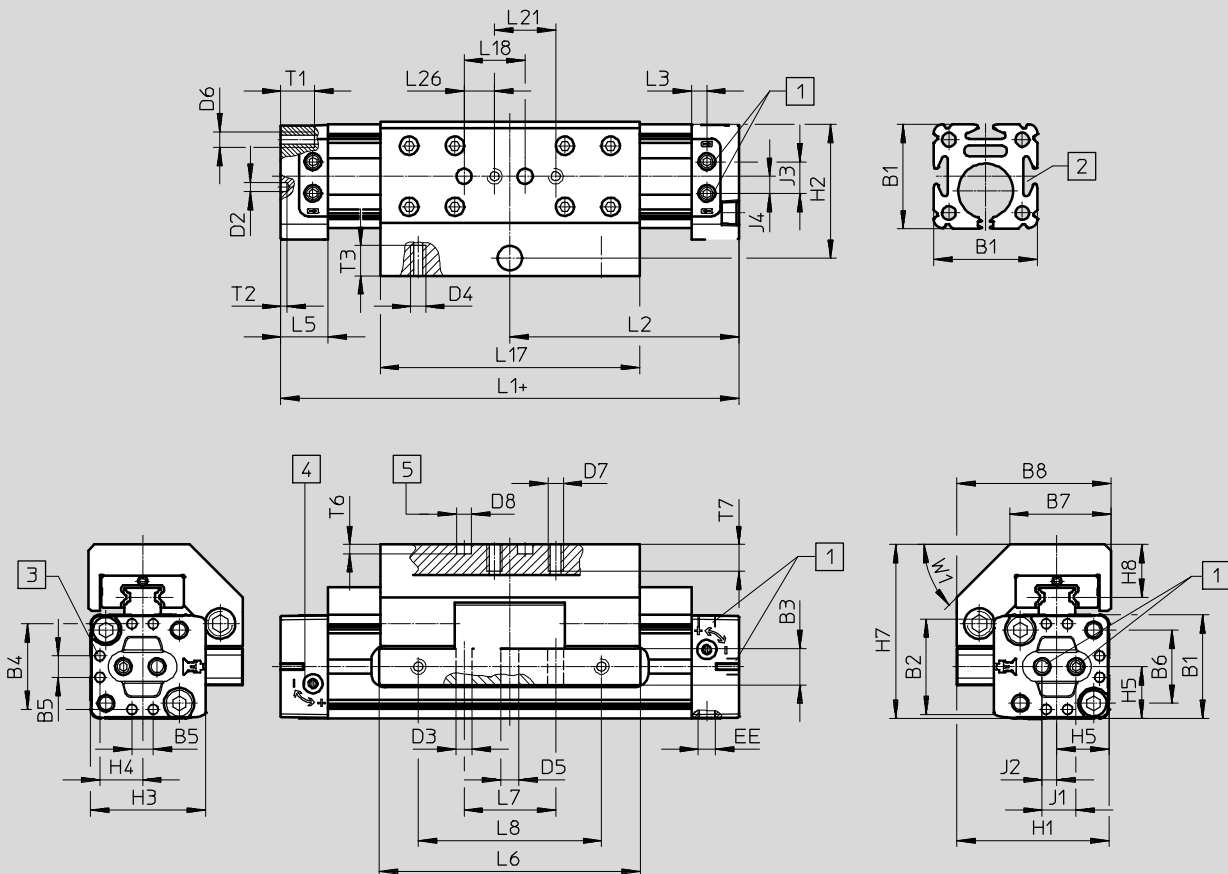
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## Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

Standard slide GK

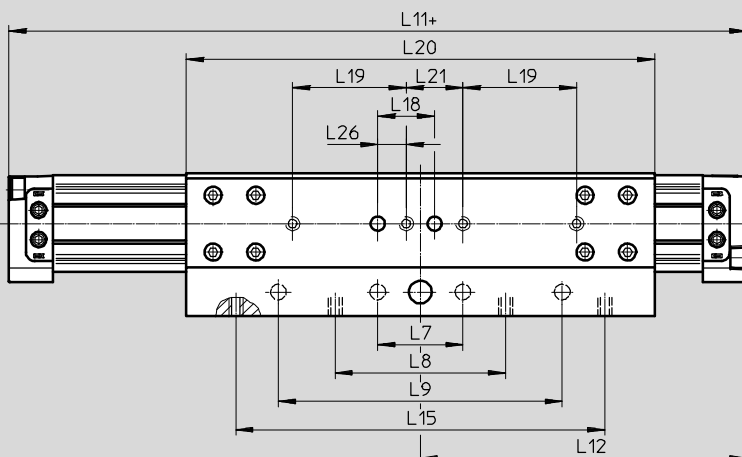
Piston Ø 18



- |   |  |  |                               |
|---|--|--|-------------------------------|
| <p>1 DGPL-...: Supply ports on one end cap, freely selectable on 3 sides<br/>DGPL-...-D2: Supply ports at both ends, freely selectable on 3 sides</p> | <p>2 Sensor slot for proximity sensor<br/>3 Centring hole for foot mounting HP-...</p> | <p>4 Regulating screw for adjustable end-position cushioning<br/>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

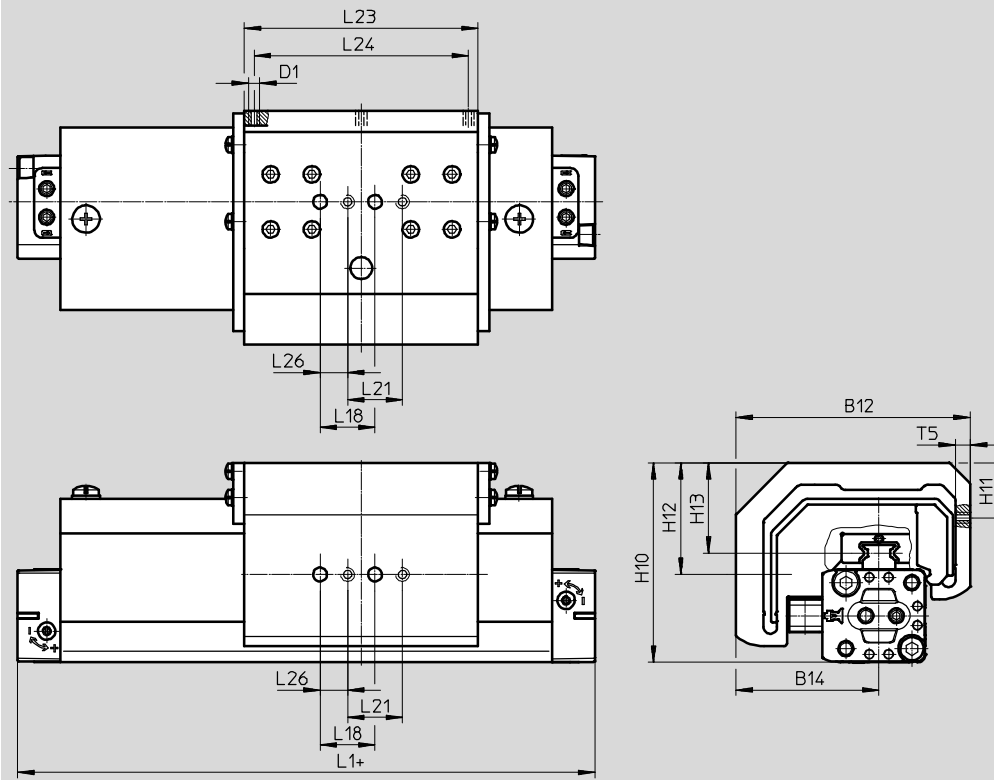
FESTO

## Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

Protected version GA

Piston  $\varnothing 18$



$\varnothing$	B1	B2	B3	B4	B5	B6	B7	B8	B12	B14	D1	D2
[mm]			$\pm 0.1$									$\varnothing$
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]				$\pm 0.1$	$\pm 0.1$	$\pm 0.1$	$+0.9/-0.2$	$+0.3/-0.6$	$\pm 0.1$	$\pm 1$	$\pm 0.03$
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]	$\pm 0.03$		$\pm 0.1$			$\pm 0.1$					$+0.2$	max.	
18	40	165	20	85	78	10	11	2	10	5.35	3	10	45°

# Linear drives DGPL, with guide

Technical data

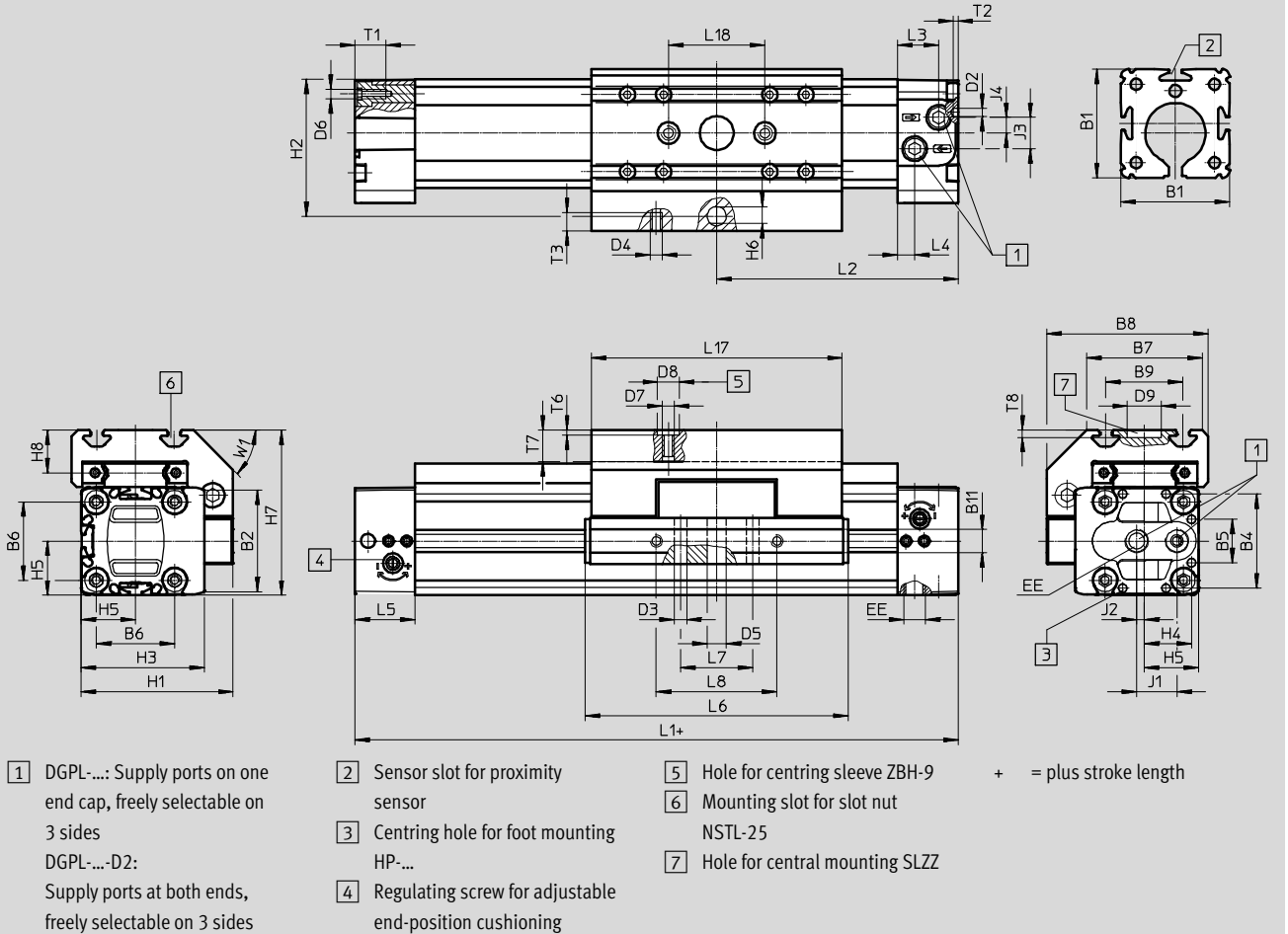


## Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

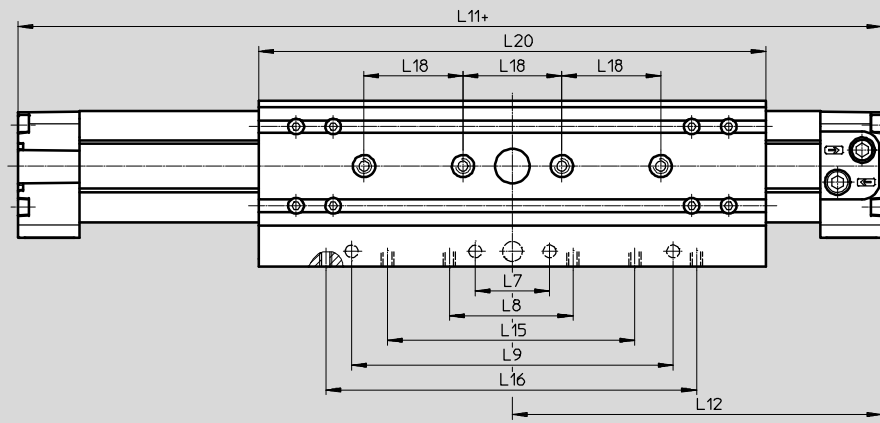
Standard slide GK

Piston  $\varnothing 25$



## Extended slide GV

Piston  $\varnothing 25$



# Linear drives DGPL, with guide

Technical data

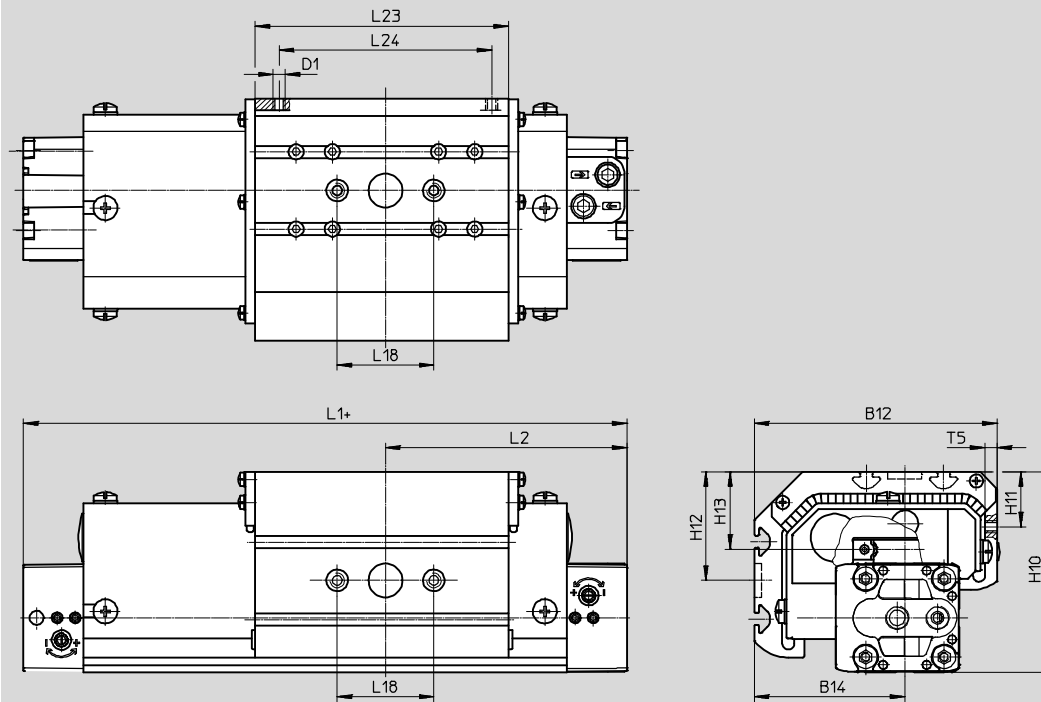
FESTO

## Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

Protected version GA

Piston Ø 25



Ø	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

Ø	D1	D2	D3	D4	D5	D6	D7	D8	D9	EE	H1	H2	H3
[mm]		Ø	+0.2		Ø			Ø	Ø				
25	M5	3.3	5.2	M5	8	M4	M6	9	14	G1/8	63	57	51

Ø	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

Ø	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

Ø	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

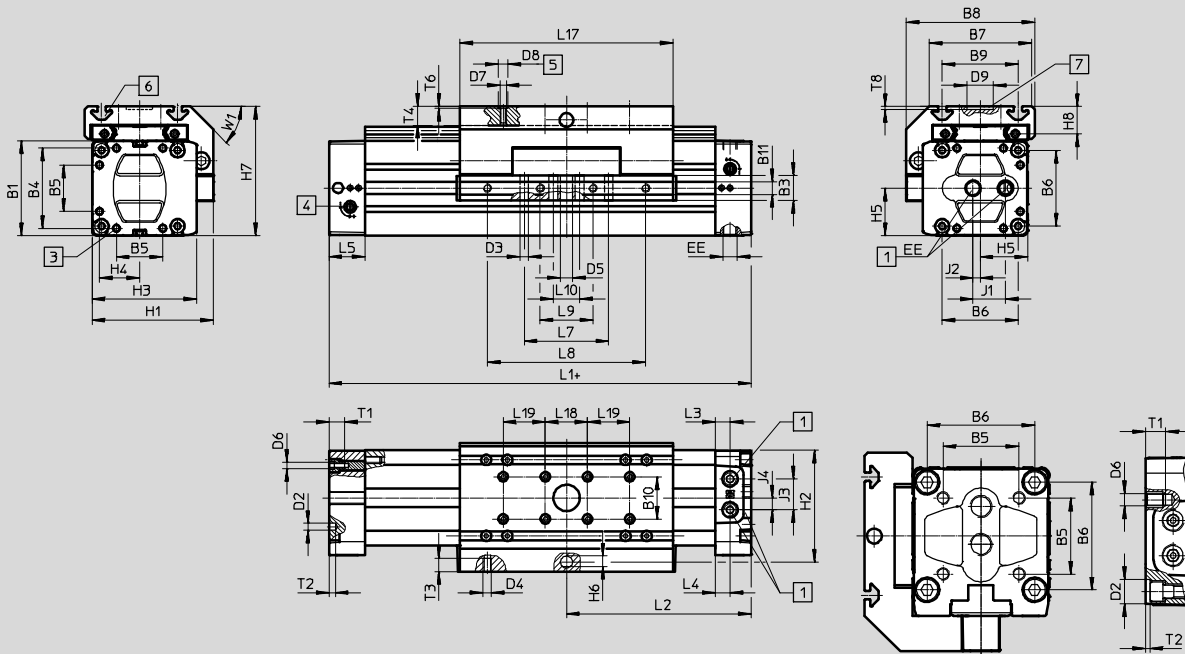


## Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

Standard slide GK

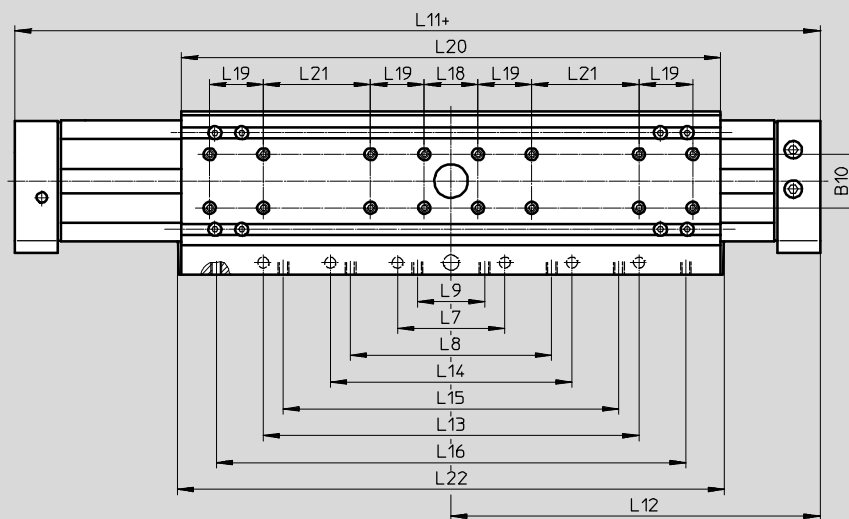
Piston  $\varnothing$  32 ... 80



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

## Extended slide GV

Piston  $\varnothing$  32 ... 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

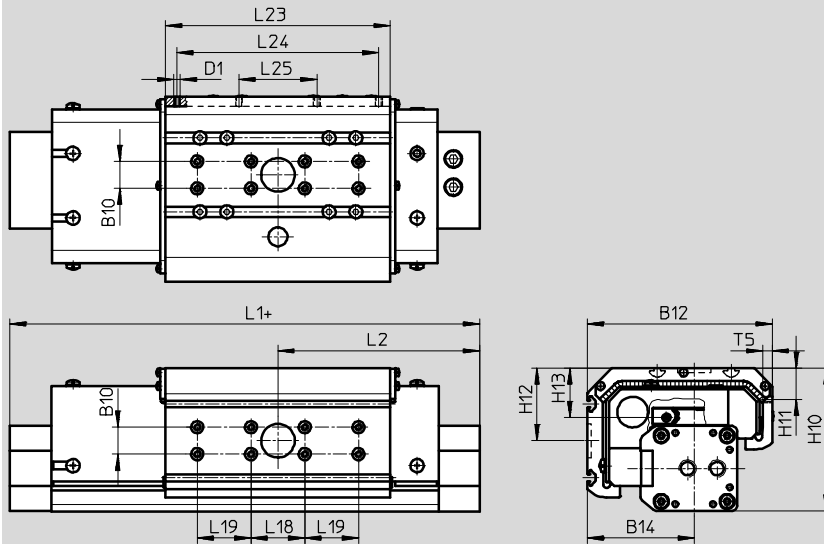
FESTO

## Dimensions

Download CAD data → [www.festo.com](http://www.festo.com)

Protected version GA

Piston  $\varnothing$  32 ... 40



$\varnothing$	B10	B12	B14	D1	H10	H11	H12	H13
[mm]	$\pm 0.03$							
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


$\varnothing$	L1	L2	L18	L19	L23	L24	L25	T5
[mm]	$+0.9/-0.2$	$+0.3/-0.6$	$\pm 0.03$	$\pm 0.03$				
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 $\varnothing$	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 $\varnothing$	Part No.	Type
18	161977	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  $\varnothing$  8 and 12  
 Linear drives DGC  
 → Internet: dgc

# Linear drives DGPL, with guide

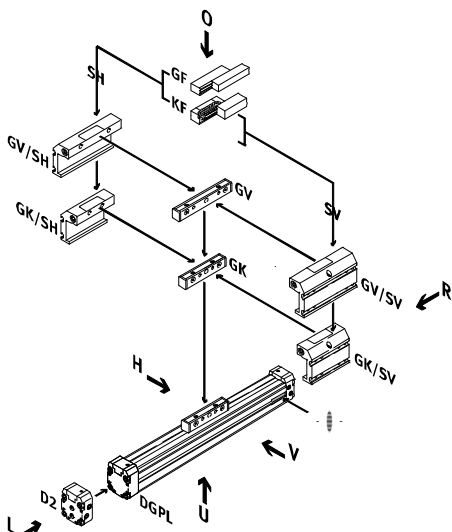
Ordering data – Modular product

## 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.

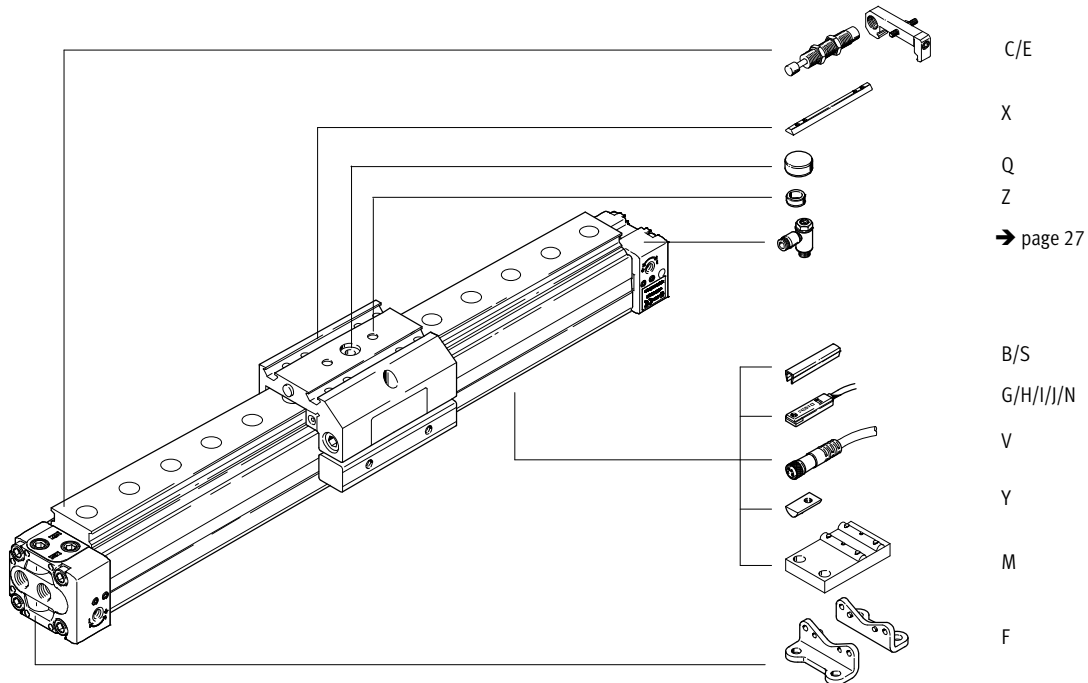
- O top
- U underneath
- R right
- L left
- V front
- H rear

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

<sup>1</sup> **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.

**M** Mandatory data

**○** Options

Transfer order code

-  : ZUB -

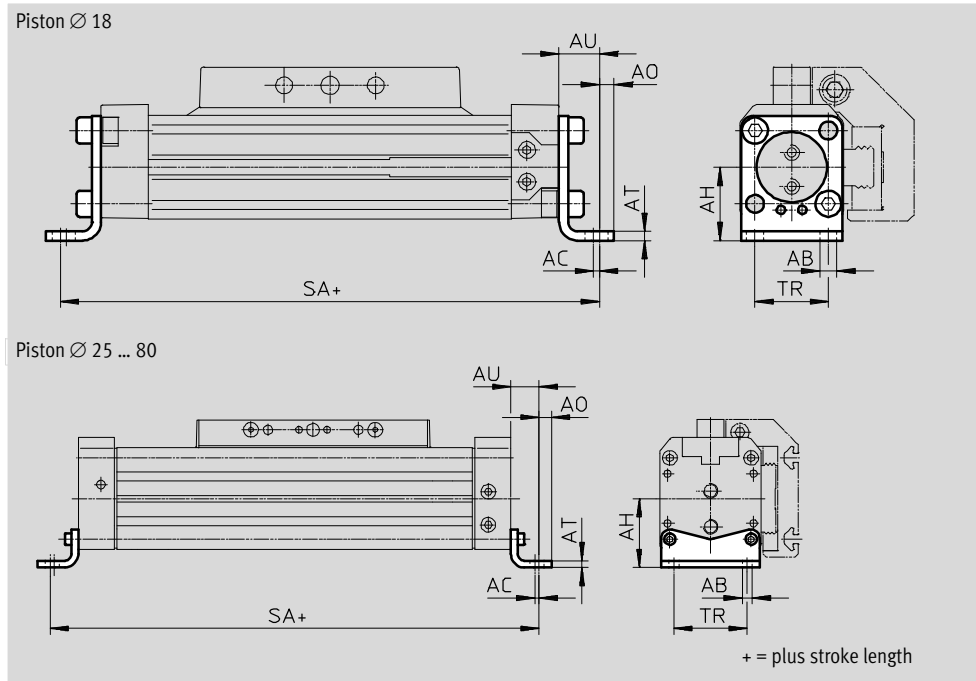
# Linear drives DGPL

Accessories

FESTO

**Foot mounting HP**  
(order code F)

Material:  
Galvanised steel  
Free of copper and PTFE



Dimensions and ordering data												
For Ø [mm]	AB Ø	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

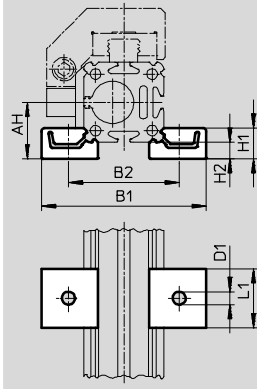
Accessories

**Central support MUP**  
(order code: M)

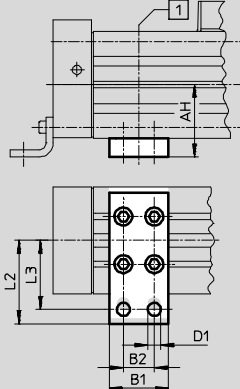
Material:  
Anodised aluminium  
Free of copper and PTFE



Piston Ø 18 and 25



Piston Ø 32 ... 63



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

Dimensions and ordering data												
For Ø	AH	B1	B2	D1	H1	H2	L1	L2	L3	Weight	Part No.	Type
[mm]				Ø						[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



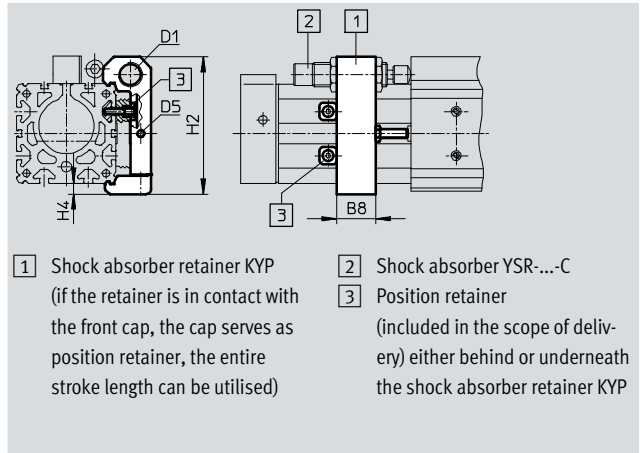
 Note  
Shock absorber YSRW with progressive characteristic curve  
→ Internet: ysrw

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.




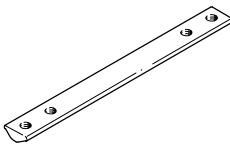


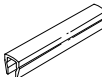
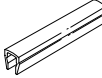
Ordering data			
For Ø	Weight [g]	Part No.	Type
25	70	192875	DG-GA-25-YSR
32	93	192876	DG-GA-32-YSR
40	140	192877	DG-GA-40-YSR

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

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

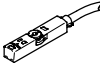
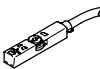
1) Packaging unit

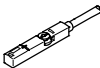
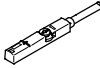
2) Piston Ø 18 and 25; cannot be used with DGPL...D2 (compressed air connection at both ends)



# 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
<b>N/O contact</b>						
	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
<b>N/C contact</b>						
	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
<b>N/O contact</b>						
	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
<b>N/C contact</b>						
	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

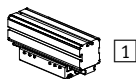
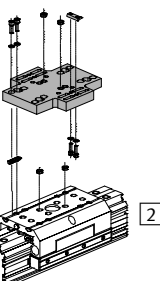
Accessories



## 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 → <a href="http://www.festo.com">www.festo.com</a>		
Combination	[1] Drive	[2] Drive	Adapter kit		
	Size	Size	CRC <sup>1)</sup>	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 <sup>2)</sup> , 25, 32 <sup>3)</sup>	40		196781	HMVK-DL32/40-DLA18-32
	25 <sup>2)</sup> , 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 <sup>3)</sup> , 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

# Festo - Your Partner in Automation



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

**Festo Customer Interaction Center**  
Tel: 1 877 463 3786  
Fax: 1 877 393 3786  
Email: [customer.service.ca@festo.com](mailto:customer.service.ca@festo.com)



**2 Festo Pneumatic**  
Av. Ceylán 3,  
Col. Tequesquináhuac  
54020 Tlalnepantla,  
Estado de México

**Multinational Contact Center**  
01 800 337 8669  
[ventas.mexico@festo.com](mailto:ventas.mexico@festo.com)



**3 Festo Corporation**  
1377 Motor Parkway  
Suite 310  
Islandia, NY 11749

**Festo Customer Interaction Center**  
1 800 993 3786  
1 800 963 3786  
[customer.service.us@festo.com](mailto:customer.service.us@festo.com)



**4 Regional Service Center**  
7777 Columbia Road  
Mason, OH 45040

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Subject to change