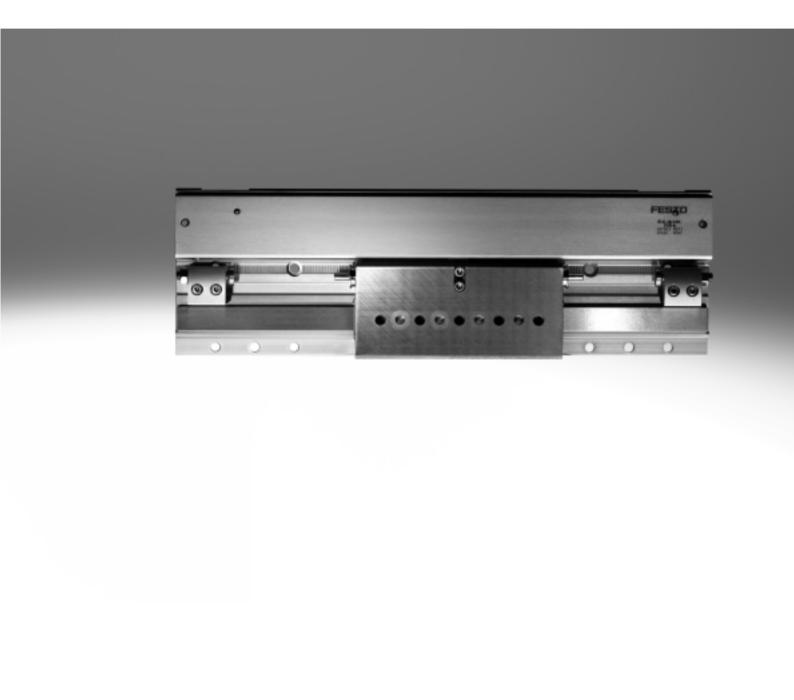
# **FESTO**



Features

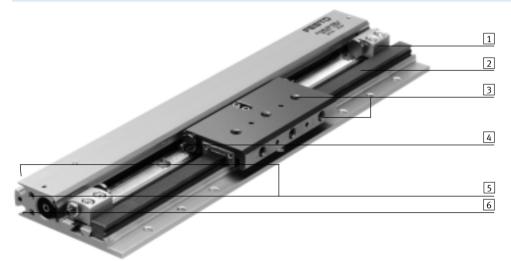
### **FESTO**

#### General information

- Piston Ø 8, 12 and 18
- Stroke lengths of 100 ... 900 mm
- Two cushioning types selectable:
  - Elastic cushioning
  - Shock absorbers
- Direct mounting via centering holes
- Extremely flat design
- Built-in precision guide
- Slide with polished surface
- High load capacity
- Adjustable end stops
- Versatile supply port options
- Suitable for multiple-axis applications with other mini slides

### The technology in detail



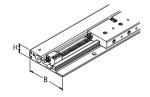


- 1 End stop Finely-adjustable end stops over entire stroke range
- 2 Guide rail
  Highly accurate, rigid precision
  guide unit: stainless steel roller
  track pressed into aluminum
- profile with ball bearing guide
  3 Slide
  - Interface for attachments. Highly adaptable, thanks to wide choice of mounting and attachment options
- 4 Cushioning
  With rubber buffers or with shock absorbers. The cushioning elements are inserted into the slide and fixed.
- 5 Supply port
  Possible on three sides
- 6 Slot for integrateable proximity sensors SME-/SMT-10

## Design

The flat linear drive SLG

The height H remains the same even if the intermediate position module is used.



Piston $\varnothing$	Width (B)	x Height (H)
8 mm	53.5	x 15 mm
12 mm	64.5	x 18.5 mm
18 mm	85.5	x 25.5 mm

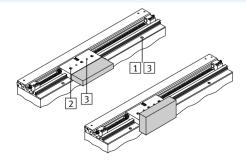
### Mounting and assembly options

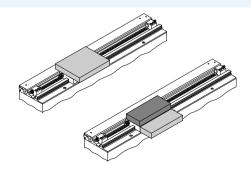
#### Drive

- 1 Through-holes
- 3 Locating hole for centering pin ZBS

### Slide

- 2 Threaded holes
- 3 Locating hole for centering pin ZBS





Features

### **FESTO**

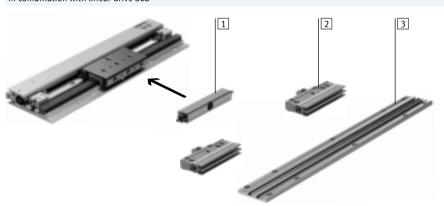
### Intermediate positions - simple and inexpensive

- The intermediate position module can be used for advancing to one or more intermediate positions
- It is mounted parallel to the linear drive SLG via an additional mounting rail. This means that it can also be easily retrofitted.
- Fine adjustment of the intermediate position is effected via a stop screw with lock nut
- With two modules the same position can be approached from either direction
- The intermediate positions can be freely selected across the entire stroke range (observe minimum distances)
- The module's symmetry means that it can advance to its right or left once mounted
- It can be activated and sensed before the movement starts
- Integratable proximity switches in the module housing mean that the intermediate position (activated or initial position) can be sensed contactlessly
- Up to 4 modules can be ordered via the SLG modular product system

## **→** page 16

• The slide must be retracted once the intermediate position is reached. The stop on the module can then swivel back into its initial position

#### In combination with linear drive SLG



1 Shock absorber retainer SLG-D

The retainer accepts rubber buffers or shock absorbers and is attached to the slide of the SLG. The use of shock absorber YSRG (Accessories

→ page 25) is recommended to ensure accurate positioning of stops and in the case of vertical assembly positions.

2 Intermediate position module SIG-7

The stop with cushioning screw is retracted and extended by means of a 90° swivel motion based on a double-acting rotary drive (rack and pinion principle). The module is fastened to the mounting rail using screws and slot nuts.

3 Mounting rail SLG-S

The rail is used for mounting the intermediate position modules. It can also accept the end stops of the linear drive SLG. The gear teeth on the rail and module permit rough preadjustment with respect to the drive part of the SLG.



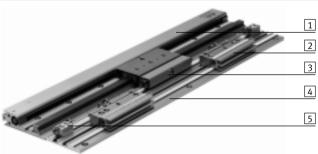
#### Note

The intermediate position module can also be used independently of the linear drive SLG. It is simply mounted on any even surface using mounting screws and locating pins and can then be used universally as an autonomous intermediate position module in numerous applications.



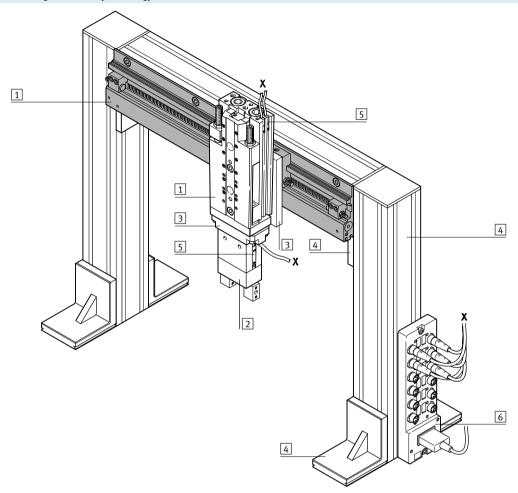


## Completely assembled with two intermediate positions



- 1 Linear drive SLG
- 2 Intermediate position module
- 3 Shock absorber retainer
- 4 Mounting rail
- 5 End stop

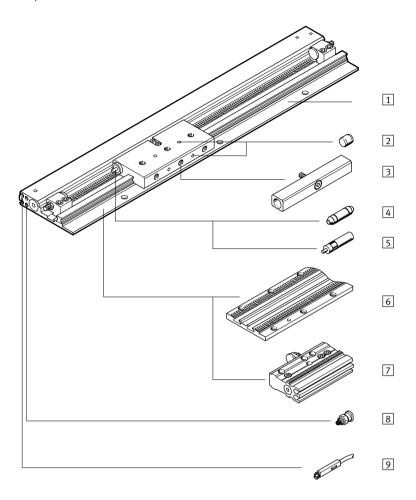
## System product for handling and assembly technology



Syste	System elements and accessories				
	Туре	Description	→ Page/Internet		
1	Drives	Diverse possible combinations in handling and assembly technology	drive		
2	Grippers	Diverse variation options in handling and assembly technology	gripper		
3	Adapters	For drive-drive and drive-gripper connections	adapter kit		
4	Basic components	Profiles and profile connections	basic component		
5	Proximity sensors	For position sensing	proximity sensor		
6	Multi-pin plug distributor	For bundling individual cables to form a multi-pin cable	multi-pin plug distributor		

# Linear drives SLG, flat design Peripherals overview



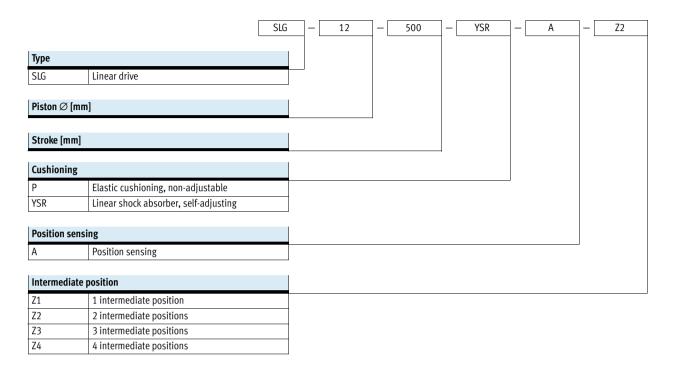


Variants and accessories				
	Type/Order code	Description	→ Page/Internet	
1	Linear drive	Drive without accessories	7	
	SLG			
2	Centering pin	For centering loads and attachments on the slide	25	
	ZBS			
3	Shock absorber retainer	For fastening the rubber buffers or shock absorbers in combination	23	
	SLG-D	with the intermediate position		
4	Rubber buffer	Non-adjustable, elastic cushioning. Used only at low speeds	25	
	SLG			
5	Shock absorber	Self-adjusting hydraulic shock absorber with return spring and linear cushioning	25	
	YSRG	characteristic		
6	Mounting rail	For fastening the intermediate position modules and end stops	24	
	SLG-S			
7	Intermediate position module	Fixed stop for the intermediate position	23	
	SLG-Z			
8	One-way flow control valve	The small distance between the supply ports means that only certain one-way flow	26	
	GRLA	control valves can be used		
9	Proximity sensors	The proximity switches are fitted in the profile slot. The switches therefore do not project	26	
	SME-/SMT-10			

# **Linear drives SLG, flat design** Type codes

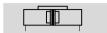


6



**FESTO** 

### Function

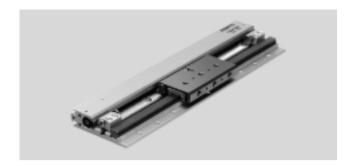




- **D** - Diameter 8 ... 18 mm



Stroke length 100 ... 900 mm



General technical data					
Piston ∅	8	12	18		
Stroke <sup>1)</sup> [mm]	100 500	100 700	100 900		
Pneumatic connection	M3		M5		
Mode of operation	Double-acting				
Operating medium	Compressed air in accordance with ISO	8573-1:2010 [7:-:-]			
Note on operating/pilot medium	Operation with lubricated medium possible (in which case lubricated operation will always be required)				
Constructional design	Rodless drive				
Cushioning	Flexible cushioning rings/plates at both ends				
→page 10	Self-adjusting at both ends				
Position sensing	For proximity sensing				
Type of mounting	Direct mounting				
Mounting position	Any				
Driver principle	Slotted cylinder, mechanically coupled				
Guide	Guide rail with slide				
Max. speed [m/s]	1		1.5		

<sup>1)</sup> Intermediate strokes are infinitely adjustable with stops.

Operating and environmental conditions					
Piston ∅		8	12	18	
Operating pressure	[bar]	2.5 8	2 8	1 8	
Ambient temperature <sup>1)</sup>	[°C]	-10 +60			

<sup>1)</sup> Note operating range of proximity switches.

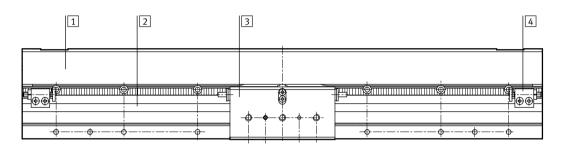
Forces [N]			
Piston $\varnothing$	8	12	18
Theoretical force at 6 bar	30	68	153



Weights [g]				
Piston $\varnothing$	8	12	18	
Basic weight per 0 mm stroke with P cushioning	215	410	965	
Basic weight per 0 mm stroke with YSR cushioning	225	420	995	
Additional weight per 10mm stroke	11.5	17.5	29.5	
Moving load with P cushioning	80	160	440	
Moving load with YSR cushioning	90	170	470	

### Materials

Sectional view

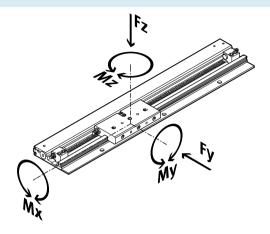


Line	Linear drives			
1	Profile barrel	Anodized aluminum		
2	Guide	High-alloy steel		
3	Slide	High-alloy steel		
4	Stop sleeve	Anodized aluminum		
-	Seals	Polyurethane		
	Material note	Free of copper and PTFE		

**FESTO** 

### Characteristic load values

The forces and torques specified refer to the centre of the guide rail.



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

$$\frac{Fy}{Fy_{max.}} + \frac{Fz}{Fz_{max.}} + \frac{Mx}{Mx_{max.}} + \frac{My}{My_{max.}} + \frac{Mz}{Mz_{max.}} \leq 1$$

Permissible forces [N] and torques [Nm]					
Piston ∅		8	12	18	
Fy <sub>max</sub> .	[N]	255	565	930	
Fz <sub>max</sub> .	[N]	255	565	930	
Mx <sub>max</sub> .	[Nm]	1	3	7	
My <sub>max</sub> .	[Nm]	3.5	9	23	
Mz <sub>max</sub> .	[Nm]	3.5	9	23	

Torsional backlash [°] at the respective torques					
Piston ∅	8	12	18		
at Mx <sub>max</sub> .	±0.03	±0.04	±0.05		
at My <sub>max</sub> .	±0.005	±0.007	±0.007		
at Mz <sub>max</sub> .	±0.005	±0.007	±0.007		

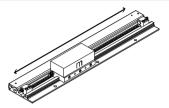




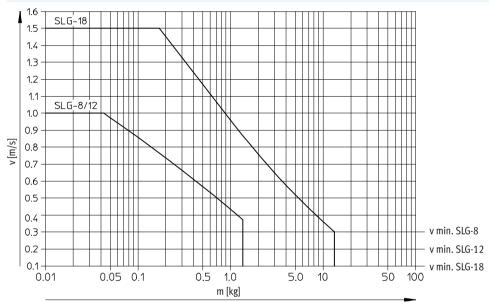
### Maximum permissible piston speed v as a function of useful load m when the unit is operated horizontally

As a function of operating pressure and end-position cushioning system

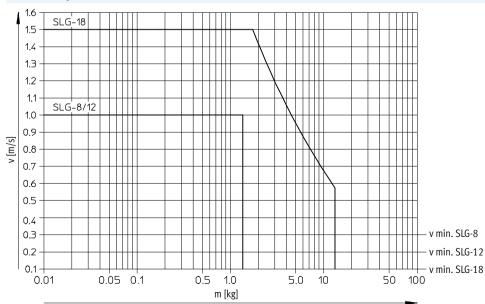
A linear drive SLG with YSR cushioning (YSRG shock absorbers) must be used in applications requiring very high repetition accuracy.



## Cushioning P



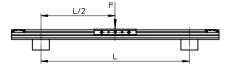
### YSR cushioning

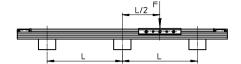


**FESTO** 

Technical data

### Determination of required points of support as a function of applied load F





f = 0.5 mm

f = 0.1 mm

f = 0.05 mm

f = 0.5 mm

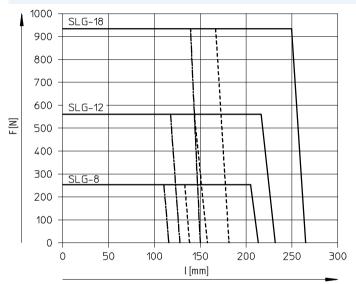
f = 0.1 mm

f = 0.05 mm



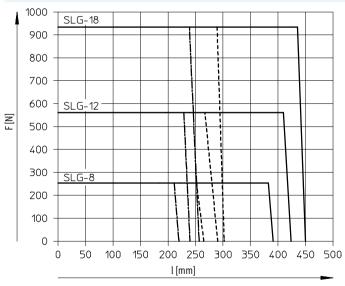
The support spacings L must be laid out in such a way that the mounting profile for the intermediate position module will exhibit less deflection than the drive itself.

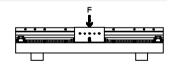
### Deflection around the X axis





### Deflection around the Y axis





### Flatness of the bearing surface

Contact surfaces which support the linear drive SLG should be no farther than 100 mm apart, or over its entire length and should be flat to within at

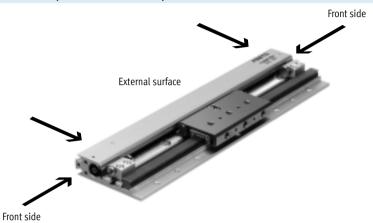
least 0.1 mm. The support surface for the load on the slide should be flat to within at least 0.05 mm.



Minimum clearances for linear drives SLG to ferrite materials for reliable proximity switch functioning					
		Slot 1 Slot 2	Minimum clearances in mm		
		Slot	X	у	
	SLG-8	1	5	-	
		2	5	-	
	SLG-12	1	6	-	
	-	2	5	-	
	SLG-18	1	5	-	
X		2	5	-	
N <del>†</del> U □	SLG-8	1	5	-	
		2	10	_	
	SLG-12	1	5	_	
		2	6	_	
	SLG-18	1	5	_	
x		2	5	-	
□ र्म्य □	SLG-8	1	7	-	
🐞		2	10	-	
	SLG-12	1	10	-	
│		2	10	-	
	SLG-18	1	5	-	
		2	5	-	
T N±U	SLG-8	1	14	-	
×		2	12	-	
	SLG-12	1	16	-	
		2	1	-	
	SLG-18	1	2	-	
_ <b>_</b> -		2	2	-	
	SLG-8	1	7	-	
		2	17	-	
	SLG-12	1	1	-	
		2	17	-	
	SLG-18	1	1	-	
		2	12	-	
	SLG-8	1	11	17	
<del>                                  </del>		2	15	17	
	SLG-12	1	7	16	
		2	10	16	
	SLG-18	1	5	12	
<del>- ^ -</del>		2	5	12	

**FESTO** 

## Permissible spanner widths for the compressed air connectors



### In general

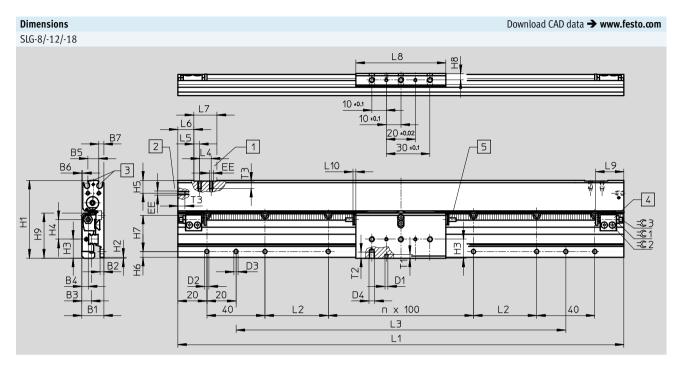
The following spanner widths can be	SLG-8:	<b>=</b> © 5.5 8
used on the external surface and	SLG-12:	<b>=</b> © 5.5 8
front side:	SLG-18:	=© 8 10

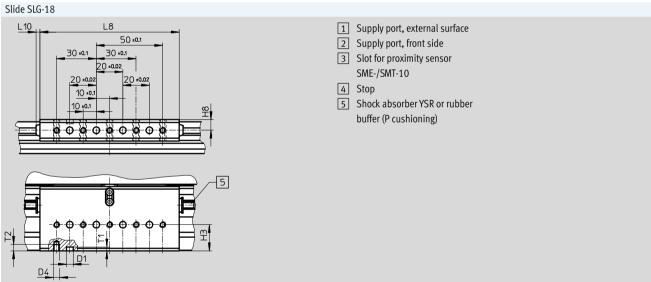
### Restrictions on the front sides

The threaded connectors protrude from the top or bottom of the profile with compressed air connections at both ends. The connector threads are too close to one another for the threaded fittings with compressed air connections at one end only.

For this reason, the following	SLG-8:	=© 8
spanner widths can only be used in	SLG-12:	=© 8
certain conditions:	SLG-18:	=© 10









	B1	B2	В3	B4	B5	В6	В7	D1 <sup>1)</sup>	D2	D3 <sup>1)</sup>	D4	EE	H1	H2	Н3	H4	H5	Н6	H7
								Ø	Ø	Ø									
								H7		H7									
SLG-8	15	2.5	6.6	4.4	7.5	0.65	3.5	2	3.4	3	M4	М3	53.5	0.5	13	13.6	8.8	3.9	25
SLG-12	18.5	2.6	7.9	5.2	8.5	0.5	4.75	2	3.4	3	M4	М3	64.5	0.5	15.9	16.5	9.5	4.3	30
							5.4		4.5		M5	M5	85.5	0.5	19.8	21.7	11 5	4.1	40

	Н8	Н9	n	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	T1	T2	T3	=©1	=©2	=©3
												min.			min.				
SLG-8-100			0	207		127													
SLG-8-200			1	307		227													
SLG-8-300	4.4	31	2	407	43.5	327	10	5	10	20	62	20	2	2.5	4	4.5	5.5	1.5	1.5
SLG-8-400			3	507		427													
SLG-8-500			4	607		527													
SLG-12-100			0	233		153													
SLG-12-200			1	333		253													
SLG-12-300			2	433		353													
SLG-12-400	5.25	36.7	3	533	56.5	453	10	5	10	20	80	23.5	2	2.5	4	4.5	7	2	2
SLG-12-500			4	633		553													
SLG-12-600			5	733		653													
SLG-12-700			6	833		753													
SLG-18-100			0	271		191													
SLG-18-200			1	371		291													
SLG-18-300			2	471		391													
SLG-18-400			3	571		491													
SLG-18-500	8	48.5	4	671	75.5	591	12	6	13	24	105	29	3	3	5	6	8	2.5	2.5
SLG-18-600			5	771		691													
SLG-18-700			6	871		791													
SLG-18-800			7	971		891													
SLG-18-900			8	1071		991													

<sup>1)</sup> Locating hole for ZBS centering pins

**FESTO** 

Function







General technical data							
Piston ∅		8	12	18			
Pneumatic connection		M3					
Mode of operation		Double-acting					
Operating medium		Compressed air in accordance with ISO 8	3573-1:2010 [7:-:-]				
Note on operating/pilot media	um	Operation with lubricated medium possi	ble (in which case lubricated operation w	ill always be required)			
Constructional design		Stop in the form of a semi-rotary device i	n accordance with the rack and pinion pr	inciple			
Fine adjustment of the	[mm]	1.7					
intermediate position							
Cushioning <sup>1)</sup>		→page 10					
Position sensing		For proximity sensor					
Type of mounting		Direct mounting					
Assembly position <sup>2)</sup>		Any					
Min. swivel time	[ms]	30		50			
at 6 bar							
Max. frequency	[1/s]	16		10			
at 6 bar							
Max. permissible impact	[m/s]	1		1.5			
velocity							
Max. perm. end-stop impact	[N]	320		600			
force <sup>3)</sup>							

The end position of the slide or another drive is not exactly defined when rubber buffers are used. Shock absorbers YSRG-... must be used for high repetition accuracy.
 Shock absorbers YSRG-... must be used for high repetition accuracy as well as in non-horizontal movements.
 With vertical installation (where the stop moves upwards), it must be ensured that no foreign objects enter the swivel range of the stop.

<sup>3)</sup> The max. stop force must act on the centre of the cushioning screw disk. Lateral forces on the cushioning screw are not permissible.

Operating and environmental conditions								
Piston ∅		8	12	18				
Operating pressure	[bar]	1 8						
Ambient temperature <sup>1)</sup>	[°C]	-10 +60						

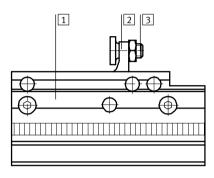
Max. permissible energy in the intermediate position								
$Piston\varnothing$		8	12	18				
With P cushioning	[Nm]	0.1		0.6				
With YSR cushioning	[Nm]	1		3				



Weights [g]							
Piston ∅	8	12	18				
Basic weight	33.5		75				
Moving load	6		14.5				

## Materials

Sectional view



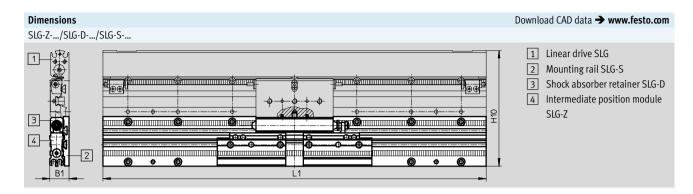
Inter	Intermediate position module						
1	Housing	Hard anodized aluminum					
2	Stop	Nickel plated steel					
3	Cushioning screw	High-alloy steel					
-	Seals	Polyurethane					

Mounting options on linear drive				
$Piston\varnothing$		8	12	18
Through-holes for direct mounting with screws to DIN 912	Intermediate position module	M2.5	M3	
	Shock absorber retainer	M4		M5
	Mounting rail	M3		M4
Centering pins	Intermediate position module	Ø 4H7		Ø 5H7
	Shock absorber retainer	Ø 2H7		Ø 5H7
	Mounting rail	Ø 3H7		Ø 5H7

Note

The module's symmetric design makes it suitable for both approach directions.

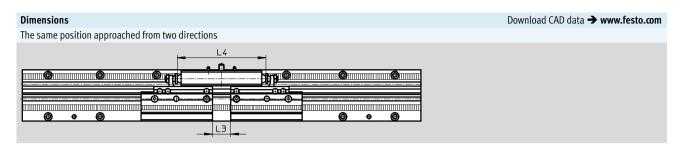
**FESTO** 



Туре	B1	H10	L1
SLG-8-100			207
SLG-8-200			307
SLG-8-300	15	93.1	407
SLG-8-400			507
SLG-8-500			607
SLG-12-100			233
SLG-12-200			333
SLG-12-300			433
SLG-12-400	18.5	104.1	533
SLG-12-500			633
SLG-12-600			733
SLG-12-700			833
SLG-18-100			271
SLG-18-200			371
SLG-18-300			471
SLG-18-400			571
SLG-18-500	25.5	135.5	671
SLG-18-600			771
SLG-18-700			871
SLG-18-800			971
SLG-18-900			1071

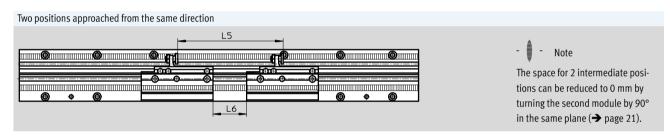


Technical data – Intermediate position module SLG-Z



Piston ∅	L3	L4	
	min.	max.	
82)	21	27	68
12	39	45	86
18	50	56.5	111

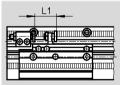
- 1) Depends on the fine adjustment
- Due to the narrowness of the space L3 only the following threaded connectors can be used for the compressed air connections: 30 491 LCN-M3-PK-2-B



Piston $\varnothing$	L5	L6 <sup>3)</sup>
	min.	
8	90	32
12	90	
18	97	

- 3) The space between the modules is such that the following threaded connectors can be used for the compressed air connections:
  - 153 330 QSML-M3-3
  - 153 332 QSML-M3-4
  - 30 491 LCN-M3-PK-2-B
  - 30 984 LCN-M3-PK-2

### Space between end stop and intermediate position module



Piston $\varnothing$	L1
	min.
8	20
12	
18	

**FESTO** 

### Download CAD data → www.festo.com **Dimensions** In different mounting planes Note Care must be taken to ensure that each intermediate position module has sufficient space for the swivel movement in the specified range (both outwards and inwards) while it is swivelling. This corresponds to the distance (stroke) that the shock absorber retainer must travel from the intermediate position to ensure safe inward or outward swivelling of the stop (→ page 21).

Piston $\varnothing$	H1	L7					
		Cushioning P	YSR cushioning				
8	11	18	23				
12	11	18	23				
18	16	23	31				

### Maximum number of intermediate position modules on one mounting rail

The number of intermediate position modules that can be ordered via the linear drive SLG modular product system is restricted to max. 4.

If additional intermediate positions are required, further modules can be ordered separately (→ page 23) and fitted in another mounting plane.

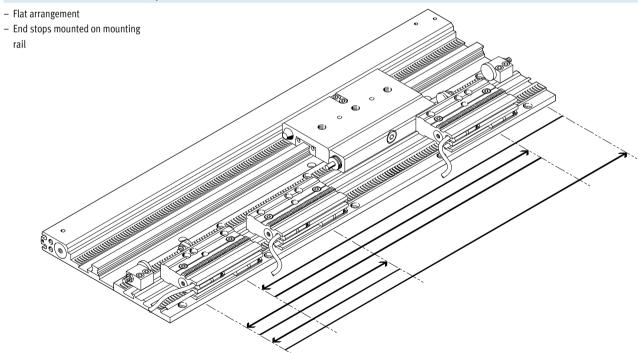
Piston $\varnothing$	Stroke length of the mounting rail [mm]										
	100	200	300	400	500	600	700	800	900		
8	2		3	4		-	-	-	-		
12						4		-	-		
18								4			

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## Linear drive SLG with 2 intermediate positions

- Modules in different mounting planes - End stops mounted on mounting rail

## Linear drive SLG with 3 intermediate positions



# **Linear drives SLG, flat design** Ordering data – Modular product system



Or	dering table							
Siz	re		8	12	18	Condi- tions	Code	Enter code
M	Module No.		187857	187855	187853			
	Drive function		Rodless linear drive unit				SLG	SLG
	Size [r	mm]	8	12	18			
	Stroke [r	mm]	100	100	100	1	-100	
			200	200	200	1	-200	
			300	300	300	2	-300	
			400	400	400		-400	
			500	500	500		-500	
			-	600	600		-600	
			-	700	700		-700	
			-	-	800		-800	
			-	-	900		-900	
	Cushioning		Flexible cushioning rings in the	he end positions	·		-P	
			Shock absorbers in the end p	ositions			-YSR	
	Position sensing		For proximity sensing				-A	-A
0	Intermediate position		1 intermediate position				-Z1	
			2 intermediate positions				-Z2	
			3 intermediate positions				-Z3	
			4 intermediate positions				-Z4	

1 100, 200 2 300 Max. 2 intermediate positions.

Max. 3 intermediate positions.

M	Mand	latory	data
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O Options

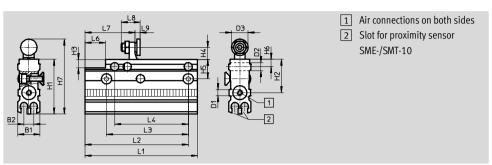
Transfer order coo								
	SLG	-	-	-	-	A	-	

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### Intermediate position module SLG-Z

Technical data → page 16





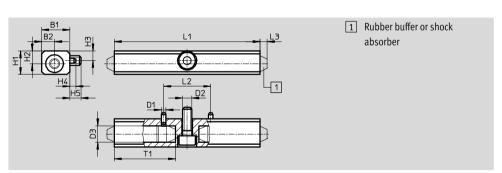
Dimensions a	Dimensions and ordering data												
For Ø	B1	B2	D1	D2 ∅ H7	D3 Ø	H1	H2	Н3	H4	H5	Н6	H7	L1 +0.3
8, 12	10.8	4.8	M3	4	8	26.6	16.2	4	6	9.5	3.5	36.6	55
18	15.6	4.8	M3	5	10	29.6	19.2	-	9.6	11.5	4.3	44.2	62

For $\varnothing$	L2	L3	L4	L6	L7	L8	L9		Weights	Part No.	Туре
	±0.1	±0.1	±0.02				min.	max.	[g]		
8, 12	50.5	40	36	10	24.4	9.25	2.5	4.2	39.5	525680	SLG-Z-8/12-A
18	57.5	50	50	1	21.6	12	3.7	5.4	89.5	525681	SLG-Z-18-A

### Shock absorber retainer SLG-D

Material: Hard anodized aluminum





Dimensions ar	nd ordering data							
For ∅	B1	B2	D1	D2	D3	H1	H2	Н3
			Ø		Ø			
			H7/h8					-0.1
8	11.5	5	2	M4	7.5	10	5.4	4.1
12	11.5	5	2	1414	7.5+0.05	10	5.4	4.1
18	17	8	5	M5	10+0.02	15	7.5	7.75

For Ø	H4	H5	L1	L2	L3	T1	Weights	Part No.	Туре
				±0.02			[g]		
8	2.25	4.8	62	20	2	26	17/27.5 <sup>2)</sup>	525703	SLG-D-8 <sup>1)</sup>
12	2.25	4.0	80	20	)	20	22.5/33 <sup>2)</sup>	525704	SLG-D-12 <sup>1)</sup>
18	2	4.7	105	60	3	43	60/104 <sup>2)</sup>	525705	SLG-D-18 <sup>1)</sup>

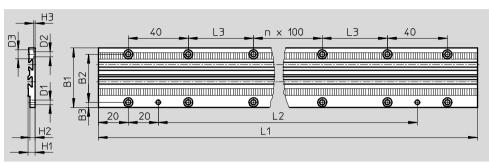
Shock absorber elements are not included in the scope of delivery
 With P cushioning/with YSR cushioning



## Mounting rail SLG-S

Material: Hard anodized aluminum





Dimensions	Dimensions and ordering data																
For Ø	Stroke	B1	B2	В3	D1 Ø	D2 Ø	D3 Ø	H1	H2	Н3	n	L1	L2	L3	Weights	Part No.	Туре
	[mm]				H7										[g]		
8	100										0	207	127		73.5	525682	SLG-S-8-100
	200										1	307	227		109	525683	SLG-S-8-200
	300	39.6	32	3.4	3	3.4	6	4.8	3.5	0.9	2	407	327	43.5	144.5	525684	SLG-S-8-300
	400										3	507	427		180	525685	SLG-S-8-400
	500										4	607	527		215.5	525686	SLG-S-8-500
12	100										0	233	153		110.4	525687	SLG-S-12-100
	200										1	333	253		157.8	525688	SLG-S-12-200
	300										2	433	353		205.2	525689	SLG-S-12-300
	400	39.6	32	3.5	3	3.4	6	7.2	1.9	1.9	3	533	453	56.5	252.6	525690	SLG-S-12-400
	500										4	633	553		300	525691	SLG-S-12-500
	600										5	733	653		347.4	525692	SLG-S-12-600
	700										6	833	753		394.8	525693	SLG-S-12-700
18	100										0	271	191		245.6	525694	SLG-S-18-100
	200										1	371	291		336.2	525695	SLG-S-18-200
	300										2	471	391		426.8	525696	SLG-S-18-300
	400										3	571	491		517.4	525697	SLG-S-18-400
	500	50	40	4.75	5	4.5	7.5	10.3	9	2.5	4	671	591	75.5	608	525698	SLG-S-18-500
	600										5	771	691		698.6	525699	SLG-S-18-600
	700										6	871	791		789.2	525700	SLG-S-18-700
	800										7	971	891		879.8	525701	SLG-S-18-800
	900										8	1071	991		970.4	525702	SLG-S-18-900

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### Rubber buffer SLG



Ordering data			
For Ø	Weights [g]	Part No.	Туре
8, 12	1.5	379802	SLG-8/12
18	6	381219	SLG-18

### Shock absorber YSRG

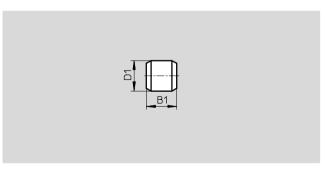


Ordering data						
For Ø	Weights	Part No.	Туре			
	[g]					
8, 12	7	381042	YSRG-5-5-C			
18	27	384581	YSRG-8-8-C			

### Centering pin ZBS

Material: Stainless steel





Dimensions and ordering data									
For Ø	B1	D1	Weights	Part No.	Туре	PE <sup>1)</sup>			
		Ø							
[mm]	-0.2	h8	[g]						
8, 12	5	2	1	525273	ZBS-2	10			
18	5	5	1	150928	ZBS-5	10			

<sup>1)</sup> Packaging unit quantity



Ordering data – Proximity sensors for C-slot, magneto-resistive						Technical data → Internet: smt		
	Type of mounting	Switch	Electrical connection,	Cable length	Part No.	Туре		
		output	connection direction	[m]				
N/O contact								
	Insertable in the slot from	PNP	Cable, 3-wire, in-line	2.5	551373	SMT-10M-PS-24V-E-2,5-L-0E		
	above		Plug M8x1, 3-pin, in-line	0.3	551375	SMT-10M-PS-24V-E-0,3-L-M8D		
-			Plug M8x1, 3-pin, lateral	0.3	551376	SMT-10M-PS-24V-E-0,3-Q-M8D		

Ordering data	– Proximity sensors for C-sl	Technical data → Internet: sme					
	Type of mounting	Switch output	Electrical connection, connection direction	Cable length [m]	Part No.	Type	
N/O contact							
	Insertable in the slot from	Contacting	Plug M8x1, 3-pin, in-line	0.3	551367	SME-10M-DS-24V-E-0,3-L-M8D	
	above		Cable, 3-wire, in-line	2.5	551365	SME-10M-DS-24V-E-2,5-L-OE	
			Cable, 2-wire, in-line	2.5	551369	SME-10M-ZS-24V-E-2,5-L-0E	
	Insertable in the slot	Contacting	Plug M8x1, 3-pin, in-line	0.3	173212	SME-10-SL-LED-24	
	lengthwise		Cable, 3-wire, in-line	2.5	173210	SME-10-KL-LED-24	

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

Ordering data	- One-way flow control valves				Technical data → Internet: grla
Connection			Material	Part No.	Туре
	Thread	For tubing OD			
	M3	3	Metal design	175041	GRLA-M3-QS-3
	M5	4		193138	GRLA-M5-QS-4-D