



Key features

General

- Piston Ø 8, 12 and 18
- Stroke lengths from 100 ... 900 mm
- Choice of two cushioning types:
 - Elastic cushioning
 - Shock absorber
- Direct mounting via centring holes
- Extremely flat design

The technology in detail

- Integrated 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



[1] End stops:

Finely-adjustable end stops over entire stroke range

[2] Guide rail:

Very accurate, precise and rigid guide unit: stainless steel roller track pressed into aluminium profile with ball guide

[3] Slide:

Interface for attachments. Very flexible thanks to wide choice of mounting and attachment options

[4] Cushioning:

With rubber buffer or with shock absorber. The cushioning elements are inserted into the slide and fixed.

- [5] Supply port:
- Option on three sides
- [6] Slot for integrated proximity switches SME-/SMT-10

Design

The flat linear drive SLG

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



Piston Ø	Width (W)	х	Height (H)
8 mm	53.5	х	15 mm
12 mm	64.5	х	18.5 mm
18 mm	85.5	х	25.5 mm

Key features

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 profile rail. This also simplifies retrofitting.
- Precision adjustment of the intermediate position is carried out 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 the right or left once mounted

Completely assembled with two intermediate positions

- It can be activated and sensed before the movement starts
- The intermediate position (activated or initial position) can be sensed contactlessly using integrated proximity switches in the module housing
- Up to 4 modules can be ordered via the SLG modular product system
- The slide must be retracted once the intermediate position is reached. The stop on the module can then swivel back into its initial position

- 3 4 5
- [1] Linear drive
- [2] End stop
- [3] Intermediate-position module SLG-Z: The stop with buffer screw is retracted and advanced by a 90° swivel motion based on a double-acting semi-rotary drive (rack and pinion principle). The module is fastened to the mounting rail using screws and slot nuts.
- [4] Cushioning mount SLG-D: The mount holds the rubber buffers or shock absorbers and is attached to the slide of the SLG. The use of shock absorbers YSRG (Accessories → page 25) is recommended to ensure accurate positioning of stops and in the case of the vertical mounting positions.
- [5] Mounting rail SLG-S: The rail is used for mounting the intermediate-position modules. It can also accommodate the end stops of the linear drive SLG. The gear teeth on the rail and module permit rough pre-adjustment with respect to the drive SLG.

- 🖡 - Note

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The intermediate-position module can also be used independently of the linear drive SLG. In this case, the module is simply mounted on any flat surface using retaining screws and dowel pins and can then be used universally as an autonomous intermediate-position module in numerous applications.

Peripherals overview



Peripherals overview

Variant	Variants and accessories					
	Туре	Description	→ Page/Internet			
[1]	Linear drive	Drive without accessories	6			
	SLG					
[2]	Centring pin	For centring loads and attachments on the slide	25			
	ZBS					
[3]	Cushioning mount	For fastening the rubber buffers or shock absorbers in combination with the intermediate-position	23			
	SLG-D	module				
[4]	Rubber buffer	Non-adjustable, elastic cushioning. Only used for low speeds	25			
	SLG					
[5]	Shock absorber	Self-adjusting, hydraulic shock absorber with spring return and linear cushioning characteristics	25			
	YSRG					
[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	16			
	SLG-Z					
[8]	One-way flow control valve	The small distance between the supply ports means that only certain one-way flow control valves can	26			
	GRLA	be used				
[9]	Proximity switch	The proximity switches are fitted in the profile slot. so that they do not protrude	26			
	SME-/SMT-10					

Type codes

001	Series	0
SLG	Linear drive	P
002	Piston diameter	Y
8	8	00
12	12	A
18	18	
003	Stroke	Z1
	100 900	Z
		73

004	Cushioning	
Р	Elastic cushioning rings/plates on both sides	
YSR	Self-adjusting shock absorber	
005	Position sensing	
Α	For proximity sensor	
006	Intermediate position	
Z1	1 intermediate position	
Z2	2 intermediate positions	
Z3	3 intermediate positions	
Z4	4 intermediate positions	

Data sheet



100 ... 900 mm



General technical data

Piston Ø	8	12	18	
Stroke ¹⁾ [mm]	100 500	100 700	100 900	
Pneumatic connection	M3		M5	
Mode of operation	Double-acting		·	
Operating medium	Compressed air to ISO 8573-1:2010 [7:-:-]			
Note on operating/	Lubricated operation possible (in which case	lubricated operation will always be required)		
pilot medium				
Design	Rodless drive			
Cushioning	Elastic cushioning rings/pads at both ends			
→ Page 10	Self-adjusting at both ends			
Position sensing	Via proximity switch			
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	

1) Intermediate strokes are infinitely adjustable with stops

Operating and environmental conditions

	· · · · · · · · · · · · · · · · · · ·						
Piston Ø		8	12	18			
Operating pressure	[bar]	2.5 8	28	18			
Ambient temperature ¹⁾ [°C]		-10 +60					

1) Note operating range of proximity switches

Forces [N]

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

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Data sheet

Weight [g]				
Piston Ø	8	12	18	
Basic weight per 0 mm stroke	215	410	965	
With cushioning P				
Basic weight per 0 mm stroke	225	420	995	
With cushioning YSR				
Additional weight per 10 mm stroke	11.5	17.5	29.5	
Moving mass	80	160	440	
With cushioning P				
Moving mass	90	170	470	
With cushioning YSR				

Materials

Sectional view



Linear drives

Linea	Linear drives				
[1]	Profile barrel	Anodised aluminium			
[2]	Guide	High-alloy steel			
[3]	Slide	High-alloy steel			
[4]	Stop housing	Anodised aluminium			
-	Seals	Polyurethane			
	Note on materials	Free of copper and PTFE			

Characteristic load values

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



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:

$f_{v} = \frac{\left|F_{y1}\right|}{F_{y2}} + \frac{\left|F_{z1}\right|}{F_{z2}} + \frac{\left|M_{x1}\right|}{M_{x2}} + \frac{\left|M_{y1}\right|}{M_{y2}} + \frac{\left|M_{z1}\right|}{M_{z2}} \le 1$

Permissible forces [N] and torques [Nm]

Piston Ø		8	12	18
Fy _{max.}	[N]	255	565	930
Fz _{max.}	[N]	255	565	930
Mx _{max.}	[Nm]	1	3	7
My _{max.}	[Nm]	3.5	9	23
Mz _{max.}	[Nm]	3.5	9	23

Torsional backlash [°] at the respective torques

Piston Ø	8	12	18
At Mx _{max.}	±0.03	±0.04	±0.05
At My _{max.}	±0.005	±0.007	±0.007
At Mz _{max.}	±0.005	±0.007	±0.007

_ Note

Engineering software ProDrive

→ www.festo.com

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

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

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



Cushioning P



Cushioning YSR



Determining the required points of support as a function of the weight force F

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



Flatness of the bearing surface

The contact points between the surface supporting the linear drive SLG and the linear drive should not be more than 100 mm apart or should provide support over its entire length, and should be flat to within at least 0.1 mm. The support surface for the payload on the slide should be flat to within at least 0.05 mm.

Data sheet

Minimum clearances between thear unves 50			Minimum clearances in [mm]	
		Slot	х	у
□ vtu	SLG-8	1	5	-
		2	5	-
	SLG-12	1	6	-
		2	5	-
	SLG-18	1	5	-
		2	5	-
NTY 🗌	SLG-8	1	5	-
		2	10	-
	SLG-12	1	5	_
		2	6	_
	SLG-18	1	5	-
		2	5	-
П Ņ Т И П	SLG-8	1	7	-
		2	10	-
	SLG-12	1	10	-
		2	10	-
	SLG-18	1	5	-
		2	5	-
T RS#7A	SLG-8	1	14	-
		2	12	-
	SLG-12	1	16	-
⁽ ®) (∃		2	1	-
	SLG-18	1	2	-
		2	2	-
R STOR	SLG-8	1	7	-
A A A A A A A A A A A A A A A A A A A		2	17	-
	SLG-12	1	1	-
(♥ k]		2	17	-
	SLG-18	1	1	-
		2	12	-
	SLG-8	1	11	17
		2	15	17
	SLG-12	1	7	16
		2	10	16
	SLG-18	1	5	12
		2	5	12

Minimum clearances between linear drives SLG and ferritic materials for reliable functioning of the proximity switches

Permissible spanner widths for the compressed air fittings		
In general		
The following spanner widths can be used on the side and end face:	SLG-8: SLG-12: SLG-18:	=© 5.5 8 =© 5.5 8 =© 8 10
Restrictions on the end face		
With supply ports at both ends, the fittings protrude from the top or bottom of the profile. With the supply port at one end only, the connector threads are too close to one another for the fittings. The following spanner widths can therefore only be used in certain conditions:	SLG-8: SLG-12: SLG-18:	=€ 8 =€ 8 =€ 10

Dimensions

SLG-8/-12/-18

Download CAD data → <u>www.festo.com</u>



Slide SLG-18



- [1] Supply port on the side
- [2] Supply port on the end face
- [3] Slot for proximity switch SME/SMT-10
- [4] Stop
- [5] Shock absorber YSR or rubber buffer (cushioning P)

Data sheet

SLG-12-600

SLG-12-700

SLG-18-100

SLG-18-200

SLG-18-300

SLG-18-400

SLG-18-500

SLG-18-600

SLG-18-700

SLG-18-800

SLG-18-900

	B1	B2	B3	B4	B5	B6	B7	D1 ¹⁾ Ø H7	D2 Ø	D3 ¹⁾ Ø H7	D4	EE	H1	H2
SLG-8	15	2.5	6.6	4.4	7.5	0.65	3.5	2	3.4	3	M4	M3	53.5	0.5
SLG-12	18.5	2.6	7.9	5.2	8.5	0.5	4.75	2	3.4	3	M4	M3	64.5	0.5
SLG-18	25.5	3.5	13.3	8	13.2	1.6	5.4	5	4.5	5	M5	M5	85.5	0.5
	H3	H4	H5	H6	H7	H8	H9	L2	L4	L5	L6	L7	L8	L9 min
SLG-8	13	13.6	8.8	3.9	25	4.4	31	43.5	10	5	10	20	62	20
SLG-12	15.9	16.5	9.5	4.3	30	5.25	36.7	56.5	10	5	10	20	80	23.5
SLG-18	19.8	21.7	11.5	4.1	40	8	48.5	75.5	12	6	13	24	105	29
	L10	L11	L12	L13 ±0.1	L14 ±0.02	L15 ±0.1	L16 ±0.1	L17	T1	T2 min.	T3	=©1	=©2	-© 3
SLG-8	100	40	20	10	20	30	-	2	2.5	4	4.5	5.5	1.5	1.5
SLG-12	100	40	20	10	20	30	-	2	2.5	4	4.5	7	2	2
SLG-18	100	40	20	10	20	30	50	3	3	5	6	8	2.5	2.5
1) Locating hole for	r centring pins ZB	S	n				l	.1				L3		
SLG-8-100			0				2	07		127				
SLG-8-200			1				3	07				227		
SLG-8-300	2				407					327				
SLG-8-400	3					5	07				427			
SLG-8-500	4					6	07				527			
SLG-12-100			0				2	33				153		
SLG-12-200			1				3	33				253		
SLG-12-300			2				4	33				353		
SLG-12-400			3				5	33				453		
SLG-12-500	4					633				553				

Data sheet - Intermediate-position module SLG-Z







General technical data

Piston Ø		8	12	18			
Pneumatic connection		M3	M3				
Mode of operation		Double-acting					
Operating medium		Compressed air to ISO 8573-1:2010 [7:-:-]					
Note on operating/		Lubricated operation possible (in which case l	ubricated operation will always be required)				
pilot medium							
Design		Rack-and-pinion rotary drive system as stop					
Precision adjustment of the	[mm]	1.7					
intermediate position							
Cushioning ¹⁾		→ Page 10					
Position sensing		Via proximity switch					
Type of mounting		Direct mounting					
Mounting position ²⁾		Any					
Min. swivel time	[ms]	30		50			
at 6 bar							
Max. frequency	[1/s]	16		10			
at 6 bar							
Max. permissible impact velocity [m/s]		1 1.5					
Max. permissible end-stop [N]		320 600					
impact force ³⁾							

1) 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.

2) Shock absorbers YSRG-... must be used for high repetition accuracy as well as in non-horizontal movements. In the case of vertical mounting (stop pivoting out upwards), care must be taken to ensure that foreign matter cannot get into the pivoting range of the stop.

The max. stop force must act on the centre of the buffer screw disc. Lateral forces on the buffer screw are not permissible. 3)

Operating and environmental conditions

Operating and environmental conditions					
Piston Ø		8	12	18	
Operating pressure	[bar]	18			
Ambient temperature ¹⁾	[°C]	-10 +60			
Ambient temperature ¹⁾	[°C]	-10 +60			

Max. permissible energy in the intermediate position

Piston Ø		8	12	18
With cushioning P	[Nm]	0.1		0.6
With cushioning YSR	[Nm]	1		3

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Weight [g]					
Pistonø	8	12	18		
Basic weight	33.5		75		
Moving mass	6		14.5		

Materials

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Intern	nediate-position module	
[1]	Housing	Hard-anodised alumini

[1]	Housing	Hard-anodised aluminium
[2]	Stop	Nickel-plated steel
[3]	Buffer screw	High-alloy steel
-	Seals	Polyurethane

Mounting options on the linear drive

Piston Ø		8	12	18
Through-holes for direct mounting with screws	Intermediate-position module	M2.5		M3
to DIN 912	Cushioning mount	M4		M5
	Mounting rail	M3		M4
Centring pins	Intermediate-position module	Ø 4H7		Ø 5H7
	Cushioning mount	Ø 2H7		Ø 5H7
	Mounting rail	Ø 3H7		Ø 5H7

- 🖣 - Note

The module's symmetrical design makes it suitable for travel in both directions. Dimensions

Data sheet - Intermediate-position module SLG-Z

Download CAD data → <u>www.festo.com</u>



[2] Mounting rail SLG-S

[3] Cushioning mount SLG-D

Intermediate position module SLG-Z [4]

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



Piston Ø	L1
	min.
8	20
12	
18	

Dimensions

Ξ

In different mounting planes



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 cushioning mount must travel from the intermediate position to ensure safe inward or outward swivelling of the stop (\rightarrow page 21).

Piston Ø	H1	L7			
		Cushioning P	Cushioning YSR		
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 modular product system in combination with the linear drive SLG is restricted to max. 4. If additional intermediate positions are required, further modules can be ordered separately (\rightarrow page 23) and fitted in another mounting plane.

Piston Ø	Stroke length of th	ne mounting rail [m	ım]						
	100	200	300	400	500	600	700	800	900
8	2	2	3		4	-	-	-	-
12						1	4	-	-
18									4

Download CAD data → <u>www.festo.com</u>

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

- Flat positioning
- End stops mounted on mounting rail



Ordering data – Modular product system

Ordering table							
Size		8	12	18	Conditions	Code	Enter code
Module no.		187857	187855	187853			
Function		Rodless linear drive unit				SLG	SLG
Size	[mm]	8	12	18			
Stroke	[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		Elastic cushioning rings in the	end positions			-P	
		Shock absorbers in the end po	sitions			-YSR	
Position sensing		Via proximity switch				-A	-A
Intermediate position		1 intermediate position				-Z1	
		2 intermediate positions				-Z2	
		3 intermediate positions				-Z3	
		4 intermediate positions				-Z4	

100, 200 Max. 2 intermediate positions.
 300 Max. 3 intermediate positions.

Accessories

Intermediate-position module SLG-Z

Technical data → Seite 16



Cushioning mount SLG-D

Material: Hard-anodised aluminium



	-1
E)

[1] Rubber buffer or shock absorber

Dimensions a	and ordering data									
For Ø	B1	B2	D1		D2	D3	H1	H2		H3
			ø			ø				
			H7/h8	3						-0.1
8	11.5	5	2		M4	7.5 _{+0.05}	10	5.4		4.1
12										
18	17	8	5		M5	10+0.02	15	7.5		7.75
				i i		i.		·		
For Ø	H4	H5	L1	L2	L3	T1	Weight	Part no.	Туре	
For Ø	H4	H5	L1	L2	L3	T1	Weight	Part no.	Туре	
For Ø	H4	H5	L1	L2 ±0.02	L3	T1	Weight [g]	Part no.	Туре	
For Ø 8	H4 2.25	H5 4.8	L1 62	L2 ±0.02 20	L3 3	T1 26	Weight [g] 17/27.5 ²⁾	Part no. 525703	Type	8 ¹⁾
For Ø 8 12	H4 2.25	H5 4.8	L1 62 80	L2 ±0.02 20	L3	T1	Weight [g] 17/27.5 ²⁾ 22.5/33 ²⁾	Part no. 525703 525704	Type SLG-D- SLG-D-	8 ¹⁾ 12 ¹⁾

1) Shock absorber elements are not included in the scope of delivery.

2) With P cushioning/with YSR cushioning

Accessories

Mounting rail SLG-S

Material: Hard-anodised aluminium





Dimensions and ordering data

For Ø	Stroke	B1	B2	B3	D1 Ø H7	D2 Ø	D3 Ø	H1	H2	H3	n	L1	L2	L3	Weight [g]	Part no.	Туре
8	100	39.6	32	3.4	3	3.4	6	4.8	3.5	0.9	0	207	127	43.5	73.5	525682	SLG-S-8-100
	200										1	307	227		109	525683	SLG-S-8-200
	300	1									2	407	327		144.5	525684	SLG-S-8-300
	400	1									3	507	427	1	180	525685	SLG-S-8-400
	500										4	607	527		215.5	525686	SLG-S-8-500
12	100	39.6	32	3.5	3	3.4	6	7.2	1.9	1.9	0	233	153	56.5	110.4	525687	SLG-S-12-100
	200	1									1	333	253		157.8	525688	SLG-S-12-200
	300										2	433	353		205.2	525689	SLG-S-12-300
	400										3	533	453		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	50	40	4.75	5	4.5	7.5	10.3	9	2.5	0	271	191	75.5	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										4	671	591		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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Accessories

Rubber buffer SLG



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

Shock absorber YSRG



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

Centring pin ZBS

Material: Stainless steel



Dimensions	and	ordering	data
		······································	

Dimensions and	ordering data					
For Ø	B1	D1	Weight	Part no.	Туре	PU ¹⁾
		Ø				
[mm]	-0.2	h8	[g]			
8,12	5	2	1	525273	ZBS-2	10
18	5	5	1	150928	ZBS-5	10

1) Packaging unit

Accessories

Ordering data	- Proximity switch for C-slot, mag	gneto-resistiv	e				Data sheets → Internet: smt
	Type of mounting	Switching	Electrical connection,		Cable length	Part no.	Туре
		output	outlet direction of conr	ection	[m]		
N/O contact							
	Inserted in the slot from above	PNP	Cable, 3-wire, lengthwi	ise	2.5	551373	SMT-10M-PS-24V-E-2.5-L-OE
T BE			Plug M8x1, 3-pin, in-li	ne	0.3	551375	SMT-10M-PS-24V-E-0.3-L-M8D
U			Plug M8x1, 3-pin, later	al	0.3	551376	SMT-10M-PS-24V-E-0.3-Q-M8D
Ordering data	- Proximity switch for C-slot, mag	gnetic reed	1			la .	Data sheets \rightarrow Internet: sme
	lype of mounting	Switching	Electrical connection,		Cable length	Part no.	Туре
		output	outlet direction of conf	lection	[m]		
N/O contact							
	Inserted in the slot from above	Contacting	Plug M8x1, 3-pin, in-li	ne	0.3	551367	SME-10M-DS-24V-E-0.3-L-M8D
A BE			Cable, 3-wire, lengthwi	ise	2.5	551365	SME-10M-DS-24V-E-2.5-L-OE
0			Cable, 2-wire, lengthwi	ise	2.5	551369	SME-10M-ZS-24V-E-2.5-L-OE
Ordering data	– Connecting cables						Data sheets → Internet: nebu
Ordering data	– Connecting cables		Electrical connection, rig	ht	Cable length	Part no.	Data sheets → Internet: nebu Type
Ordering data	– Connecting cables Electrical connection, left		Electrical connection, rig	ht	Cable length [m]	Part no.	Data sheets → Internet: nebu Type
Ordering data	 Connecting cables Electrical connection, left Straight socket, M8x1, 3-pin 		Electrical connection, rig	ht	Cable length [m] 2.5	Part no. 541333	Data sheets → Internet: nebu Type NEBU-M8G3-K-2.5-LE3
Ordering data	- Connecting cables Electrical connection, left Straight socket, M8x1, 3-pin		Electrical connection, rig	ht	Cable length [m] 2.5 5	Part no. 541333 541334	Data sheets → Internet: nebu Type NEBU-M8G3-K-2.5-LE3 NEBU-M8G3-K-5-LE3
Ordering data	 Connecting cables Electrical connection, left Straight socket, M8x1, 3-pin Angled socket, M8x1, 3-pin 		Electrical connection, rig Cable, open end, 3-wire Cable, open end, 3-wire	ht	Cable length [m] 2.5 5 2.5	Part no. 541333 541334 541338	Data sheets → Internet: nebu Type NEBU-M8G3-K-2.5-LE3 NEBU-M8G3-K-5-LE3 NEBU-M8W3-K-2.5-LE3
Ordering data	 Connecting cables Electrical connection, left Straight socket, M8x1, 3-pin Angled socket, M8x1, 3-pin 		Electrical connection, rig Cable, open end, 3-wire Cable, open end, 3-wire	ht	Cable length [m] 2.5 5 2.5 5 5	Part no. 541333 541334 541338 541341	Data sheets → Internet: nebu Type NEBU-M8G3-K-2.5-LE3 NEBU-M8G3-K-5-LE3 NEBU-M8W3-K-2.5-LE3 NEBU-M8W3-K-5-LE3
Ordering data	 Connecting cables Electrical connection, left Straight socket, M8x1, 3-pin Angled socket, M8x1, 3-pin 		Electrical connection, rig Cable, open end, 3-wire Cable, open end, 3-wire	ht	Cable length [m] 2.5 5 2.5 5 5	Part no. 541333 541334 541338 541341	Data sheets → Internet: nebu Type NEBU-M8G3-K-2.5-LE3 NEBU-M8G3-K-5-LE3 NEBU-M8W3-K-2.5-LE3 NEBU-M8W3-K-5-LE3
Ordering data	 Connecting cables Electrical connection, left Straight socket, M8x1, 3-pin Angled socket, M8x1, 3-pin One-way flow control valves 		Electrical connection, rig Cable, open end, 3-wire Cable, open end, 3-wire	ht	Cable length [m] 2.5 5 2.5 5 5	Part no. 541333 541334 541338 541341	Data sheets → Internet: nebu Type NEBU-M8G3-K-2.5-LE3 NEBU-M8G3-K-2.5-LE3 NEBU-M8W3-K-2.5-LE3 Data sheets → Internet: grla
Ordering data	 Connecting cables Electrical connection, left Straight socket, M8x1, 3-pin Angled socket, M8x1, 3-pin One-way flow control valves Connection 		Electrical connection, rig Cable, open end, 3-wire Cable, open end, 3-wire	ht	Cable length [m] 2.5 5 2.5 5 5	Part no. 541333 541334 541338 541341 Part no.	Data sheets → Internet: nebu Type NEBU-M8G3-K-2.5-LE3 NEBU-M8G3-K-5-LE3 NEBU-M8W3-K-2.5-LE3 NEBU-M8W3-K-5-LE3 Data sheets → Internet: grla Type
Ordering data	 Connecting cables Electrical connection, left Straight socket, M8x1, 3-pin Angled socket, M8x1, 3-pin One-way flow control valves Connection Thread 	For tub	Electrical connection, rig Cable, open end, 3-wire Cable, open end, 3-wire Dable, open end, 3-wire	ht Material	Cable length [m] 2.5 5 2.5 5 5	Part no. 541333 541334 541338 541341 Part no.	Data sheets → Internet: nebu Type NEBU-M8G3-K-2.5-LE3 NEBU-M8G3-K-5-LE3 NEBU-M8W3-K-2.5-LE3 NEBU-M8W3-K-5-LE3 Data sheets → Internet: grla Type
Ordering data	 Connecting cables Electrical connection, left Straight socket, M8x1, 3-pin Angled socket, M8x1, 3-pin One-way flow control valves Connection Thread M3 	For tub	Electrical connection, rig Cable, open end, 3-wire Cable, open end, 3-wire ing O.D.	ht Material Metal design	Cable length [m] 2.5 5 2.5 5 5	Part no. 541333 541334 541338 541341 Part no. 175041	Data sheets → Internet: nebu Type NEBU-M8G3-K-2.5-LE3 NEBU-M8G3-K-5-LE3 NEBU-M8W3-K-2.5-LE3 NEBU-M8W3-K-5-LE3 Data sheets → Internet: grla Type GRLA-M3-QS-3
Ordering data	 Connecting cables Electrical connection, left Straight socket, M8x1, 3-pin Angled socket, M8x1, 3-pin One-way flow control valves Connection Thread M3 M5 	For tub	Electrical connection, rig Cable, open end, 3-wire Cable, open end, 3-wire oing O.D.	ht Material Metal design	Cable length [m] 2.5 5 2.5 5 5	Part no. 541333 541334 541338 541341 Part no. 175041 193138	Data sheets → Internet: nebu Type NEBU-M8G3-K-2.5-LE3 NEBU-M8G3-K-5-LE3 NEBU-M8W3-K-2.5-LE3 Data sheets → Internet: grla Type GRLA-M3-QS-3 GRLA-M5-QS-4-D