

## Toothed belt axes ELGA-TB-G

**FESTO**



# Toothed belt axes ELGA-TB-G

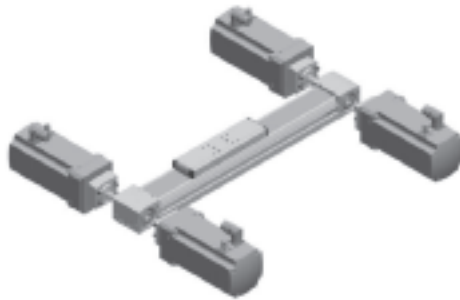
Key features

## At a glance

Powerful	Economical	Versatile
<ul style="list-style-type: none"> <li>• Toothed belt axis with high feed forces, plain-bearing guide and flexible motor attachment</li> <li>• Toothed belt covered by steel band</li> </ul>	<ul style="list-style-type: none"> <li>• In addition to the technical data, the toothed belt axis is a winner with its excellent price/performance ratio</li> </ul>	<ul style="list-style-type: none"> <li>• Drive axis for applications with external guides or simple handling tasks</li> <li>• Space-saving position sensing with proximity sensor in the profile slot is possible</li> <li>• Wide range of options for mounting on drives</li> </ul>

## Flexible motor attachment

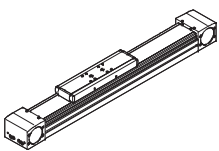
The motor position can be freely selected on 4 sides and can be changed at any time.



## Characteristic values of the axes

The specifications shown in the table are maximum values.

The precise values for each of the variants can be found in the relevant technical data in the catalogue.

Version	Size	Working stroke [mm]	Speed [m/s]	Repetition accuracy [mm]	Feed force [N]	Guide characteristics				
						Forces and torques				
						Fy [N]	Fz [N]	Mx [Nm]	My [Nm]	Mz [Nm]
	70	50 ... 8,500	5	±0.08	350	80	400	5	30	10
	80	50 ... 8,500	5	±0.08	800	200	800	10	60	20
	120	50 ... 8,500	5	±0.08	1,300	380	1,600	20	120	40

## Note

PositioningDrives  
sizing software  
[www.festo.com](http://www.festo.com)

# Toothed belt axes ELGA-TB-G

Key features

Complete system comprising toothed belt axis, motor, motor controller and motor mounting kit



## Motor

→ 18



1 Servo motor EMMS-AS

**Note**

A range of specially adapted complete solutions is available for the toothed belt axis ELGA and the motors.

## Motor controller

Technical data → Internet: motor controller



1 Servo motor controller CMMP-AS, CMMS-AS

## Motor mounting kit

→ 20

### Axial kit

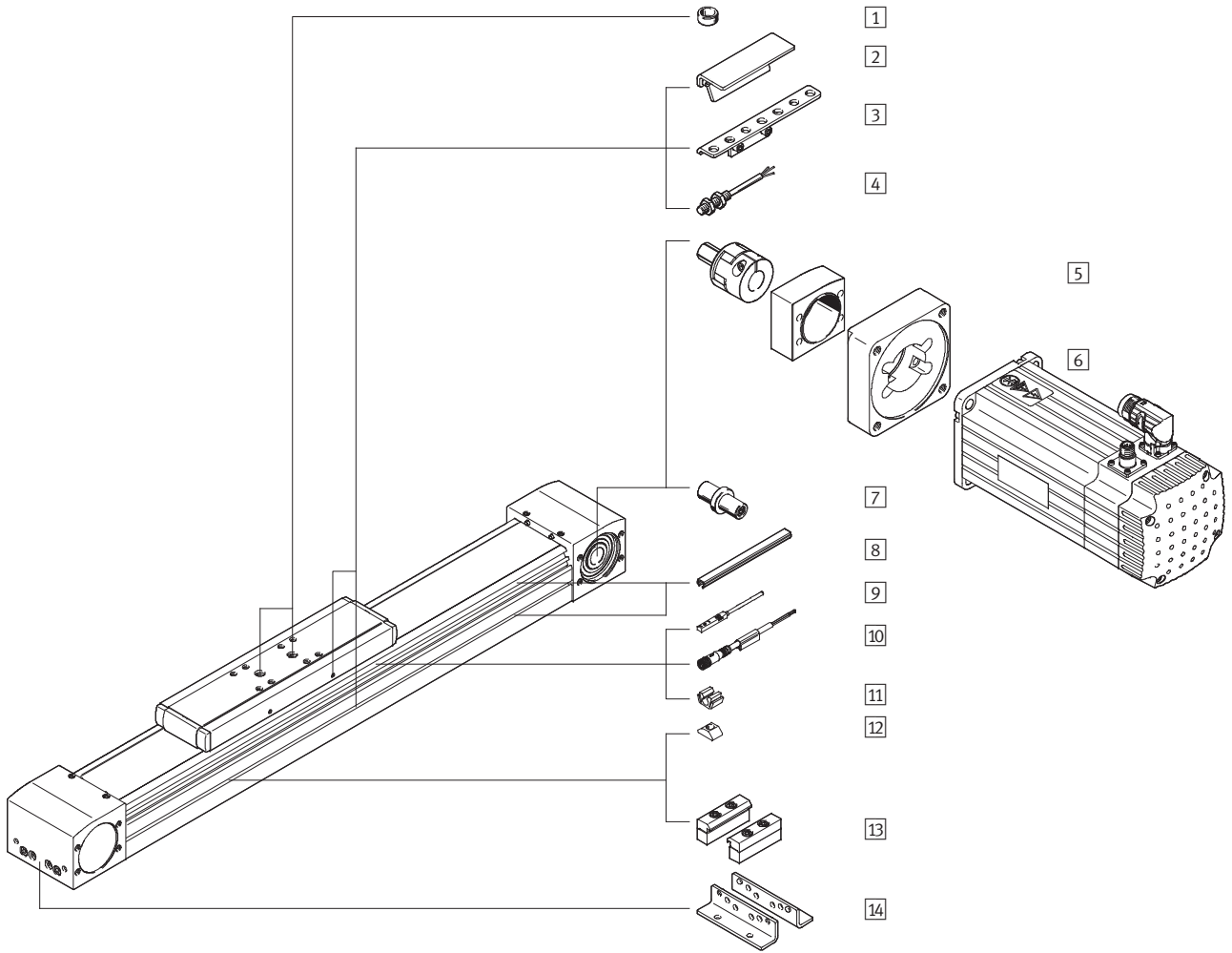


Kit comprising:

- Motor flange
- Coupling housing
- Coupling
- Screws

# Toothed belt axes ELGA-TB-G

Peripherals overview



## Toothed belt axes ELGA-TB-G

Peripherals overview

Variants and accessories		
Type	Brief description	→ Page/Internet
1 Centring pin/sleeve ZBS, ZBH	<ul style="list-style-type: none"> <li>For centring loads and attachments on the slide</li> <li>2 centring pins/sleeves included in the scope of delivery of the axis</li> </ul>	25
2 Switch lug SA, SB, SC, SD, SE, SF	For sensing the slide position	23
3 Sensor bracket SC, SD, SE, SF	Adapter for mounting the inductive proximity sensors (round design) on the axis	24
4 Proximity sensor, M8 SC, SD, SE, SF	<ul style="list-style-type: none"> <li>Inductive proximity sensor, round design</li> <li>The order code SC, SD, SE, SF includes 1 switch lug and max. 2 sensor brackets in the scope of delivery</li> </ul>	26
5 Axial kit EAMM	For axial motor mounting (comprising: coupling, coupling housing and motor flange)	20
6 Motor EMMS	Motors specially matched to the axis, with or without gear unit, with or without brake	20
7 Drive shaft EA	<ul style="list-style-type: none"> <li>Can, if required, be used as an alternative interface</li> <li>No drive shaft is required for the axis/motor combinations → 20</li> </ul>	25
8 Slot cover NS, NC	For protecting against ingress of dirt	25
9 Proximity sensor, T-slot SA, SB	<ul style="list-style-type: none"> <li>Inductive proximity sensor, for T-slot</li> <li>The order code SA, SB includes 1 switch lug in the scope of delivery</li> </ul>	26
10 Connecting cable CA	For proximity sensor (order code SE and SF)	26
11 Clip CM	For mounting the proximity sensor cable in the slot	25
12 Slot nut NM	For mounting attachments	25
13 Profile mounting MA	For mounting the axis on the profile	23
14 Foot mounting MF	<ul style="list-style-type: none"> <li>For mounting the axis on the end cap</li> <li>With higher forces and torques, the axis should be mounted using the profile</li> </ul>	22

## Toothed belt axes ELGA-TB-G

Type codes

	ELGA	-	TB	-	G	-	70	-	800	-	20H
<b>Type</b>											
ELGA	Toothed belt axis										
<b>Drive function</b>											
TB	Toothed belt										
<b>Guide</b>											
G	Plain-bearing guide										
<b>Size</b>											
<b>Stroke [mm]</b>											
<b>Stroke reserve</b>											

# Toothed belt axes ELGA-TB-G

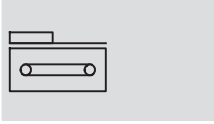
Type codes

→	+	MF2SA	-	DN
<b>Accessories enclosed separately</b>				
MF	Foot mounting			
...MA	Profile mounting			
...SA	Proximity sensor (SIES), inductive, T-slot, PNP, N/O contact, 7.5 m cable			
...SB	Proximity sensor (SIES), inductive, T-slot, PNP, N/C contact, 7.5 m cable			
...SC	Proximity sensor (SIEN), inductive, M8, PNP, N/O contact, 2.5 m cable			
...SD	Proximity sensor (SIEN), inductive, M8, PNP, N/C contact, 2.5 m cable			
...SE	Proximity sensor (SIEN), inductive, M8, PNP, N/O contact, plug M8			
...SF	Proximity sensor (SIEN), inductive, M8, PNP, N/C contact, plug M8			
...CA	Connecting cable			
...NS	Sensor slot cover			
...NC	Mounting slot cover			
...NM	Slot nut for mounting slot			
...CM	Cable clip			
...EA	Drive shaft			
<b>Operating instructions</b>				
DN	None			

# Toothed belt axes ELGA-TB-G

Technical data

Function



-N- Size  
70 ... 120  
-T- Stroke length  
50 ... 8,500 mm

[www.festo.com/en/Spare\\_parts\\_service](http://www.festo.com/en/Spare_parts_service)



General technical data				
Size		70	80	120
Design		Electromechanical axis with toothed belt		
Guide		Plain-bearing guide		
Mounting position		Any		
Working stroke	[mm]	50 ... 8,500	50 ... 8,500	50 ... 8,500
Max. feed force $F_x$	[N]	350	800	1,300
Max. no-load torque <sup>1)</sup>	[Nm]	0.5	1	3
Max. no-load resistance to shifting <sup>1)</sup>	[N]	35	50	114
Max. driving torque	[Nm]	5	15.9	34.2
Max. speed	[m/s]	5		
Max. acceleration	[m/s <sup>2</sup> ]	50		
Repetition accuracy	[mm]	±0.08		

1) At 0.2 m/s

Operating and environmental conditions		
Ambient temperature	[°C]	-10 ... +60
Protection class		IP40
Duty cycle	[%]	100

Weight [kg]				
Size		70	80	120
Basic weight with 0 mm stroke <sup>1)</sup>		2.16	4	11.8
Additional weight per 1,000 mm stroke		2.64	3.56	7.45
Moving load		0.57	1.1	3.06

1) Incl. slide

Toothed belt				
Size		70	80	120
Pitch	[mm]	3	5	5
Expansion <sup>1)</sup>	[%]	0.31	0.19	0.23
Effective diameter	[mm]	28.65	39.79	52.52
Feed constant	[mm/rev.]	90	125	165

1) At max. feed force



# Toothed belt axes ELGA-TB-G

Technical data

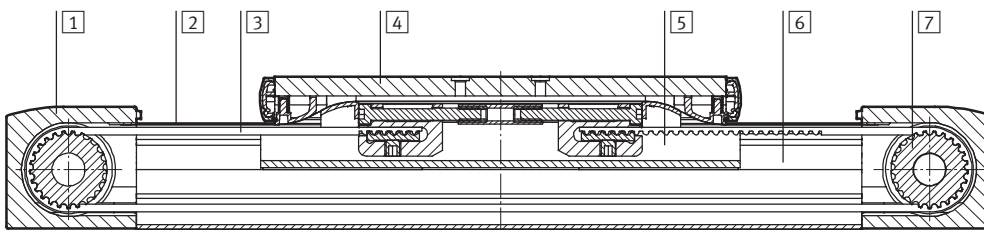
Mass moment of inertia				
Size		70	80	120
$J_0$	[kg mm <sup>2</sup> ]	175	666	3,201
$J_S$ per metre stroke	[kg mm <sup>2</sup> /m]	19	93	215
$J_L$ per kg effective load	[kg mm <sup>2</sup> /kg]	205	396	690

The mass moment of inertia  $J_A$  of the entire axis is calculated as follows:

$$J_A = J_0 + J_S \times \text{working stroke [m]} + J_L \times m_{\text{effective load [kg]}}$$

## Materials

Sectional view



Axis		
1	Drive cover	Anodised wrought aluminium alloy
2	Cover band	Steel
3	Toothed belt	Polychloroprene with glass cord and nylon coating
4	Slide	Anodised wrought aluminium alloy
5	Slide elements	Polyacetal
6	Profile with integrated guide	Anodised wrought aluminium alloy
7	Toothed belt disc	High-alloy stainless steel
Note on materials		RoHS-compliant
		Contains PWIS (paint-wetting impairment substances)

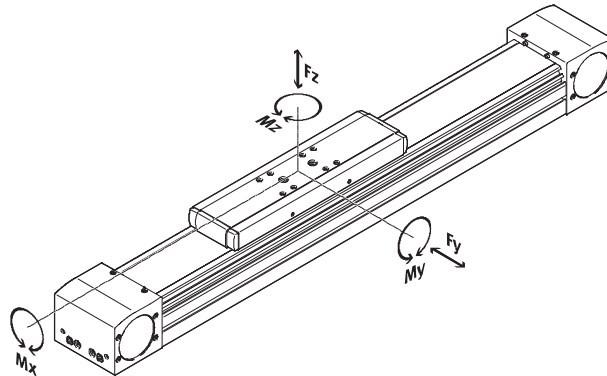
# Toothed belt axes ELGA-TB-G

Technical data

## Characteristic load values

The indicated forces and torques refer to the slide surface. The point of application of force is the point where the centre of the guide and the longitudinal centre of the slide intersect.

These values must not be exceeded during dynamic operation. Special attention must be paid to the cushioning phase.



If the axis is subjected to more than two of the indicated forces and torques simultaneously, the following equation must be satisfied in addition to the indicated maximum loads:

Calculating the load comparison factor:

$$\frac{|F_{y,dyn}|}{F_{y,max}} + \frac{|F_{z,dyn}|}{F_{z,max}} + \frac{|M_{x,dyn}|}{M_{x,max}} + \frac{|M_{y,dyn}|}{M_{y,max}} + \frac{|M_{z,dyn}|}{M_{z,max}} \leq 1$$

Permissible forces and torques				
Size		70	80	120
F <sub>y,max.</sub>	[N]	80	200	380
F <sub>z,max.</sub>	[N]	400	800	1,600
M <sub>x,max.</sub>	[Nm]	5	10	20
M <sub>y,max.</sub>	[Nm]	30	60	120
M <sub>z,max.</sub>	[Nm]	10	20	40

### Note

The plain-bearing guide is not backlash-free. The toothed belt axis EGC-TB-KF is recommended for applications that require freedom from backlash or applications involving high torque loads.

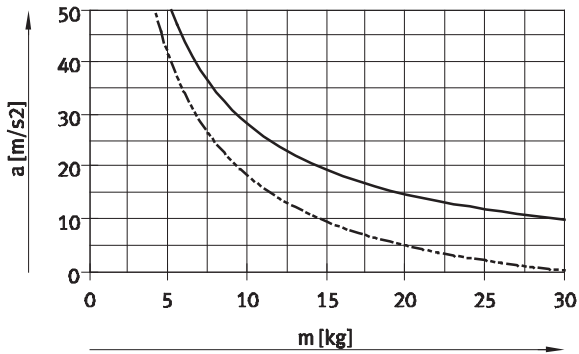
PositioningDrives  
sizing software  
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# Toothed belt axes ELGA-TB-G

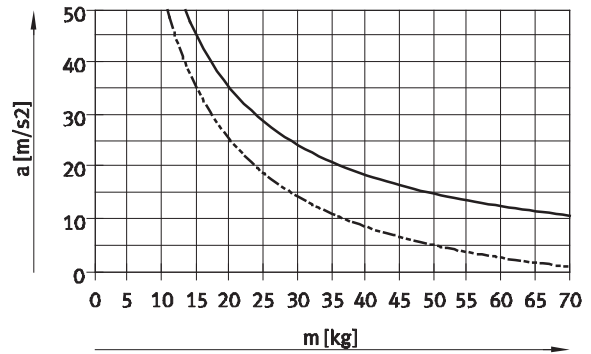
Technical data

## Maximum acceleration $a$ as a function of applied load $m$

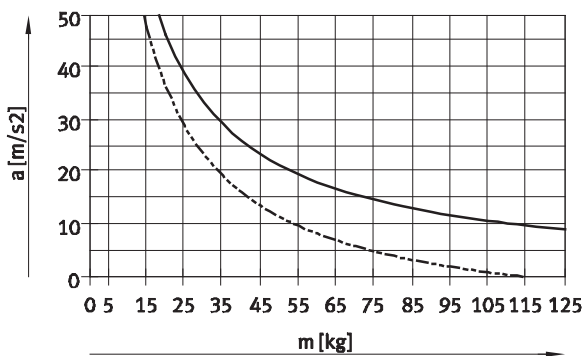
ELGA-TB-G-70



ELGA-TB-G-80

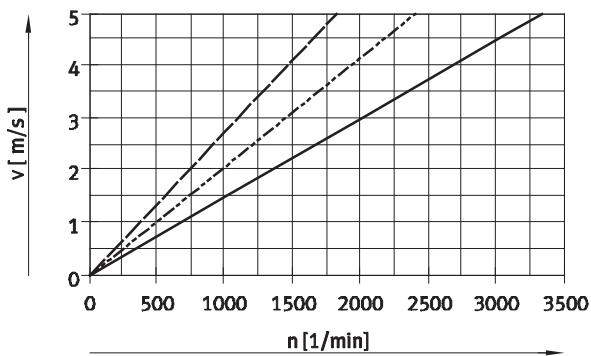


ELGA-TB-G-120



— Horizontal  
- - - Vertical

## Speed $v$ as a function of rotational speed $n$



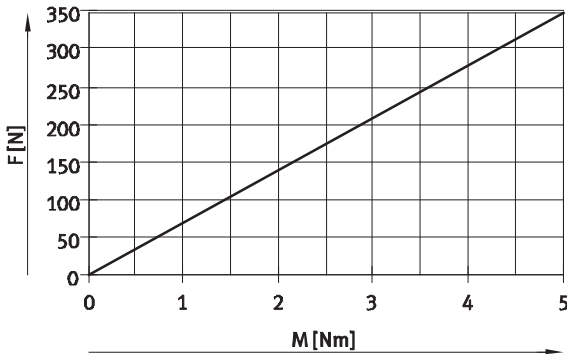
— ELGA-TB-G-70  
- - - ELGA-TB-G-80  
- - - ELGA-TB-G-120

# Toothed belt axes ELGA-TB-G

Technical data

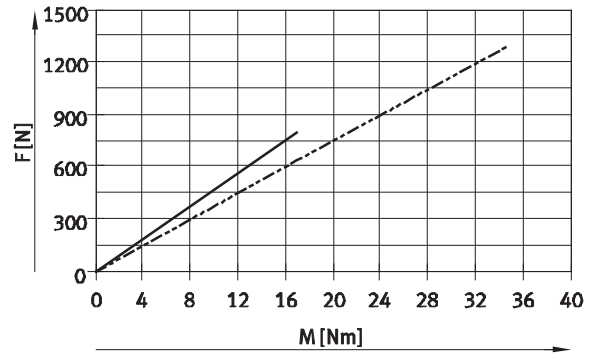
## Theoretical feed force F as a function of input torque M

ELGA-TB-G-70



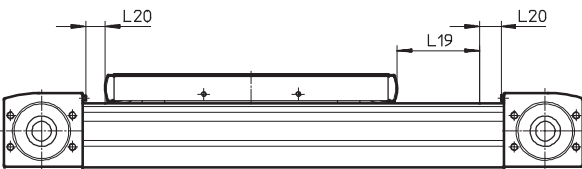
ELGA-TB-G-70

ELGA-TB-G-80/120



ELGA-TB-G-80  
ELGA-TB-G-120

## Stroke reserve



L19 = Nominal stroke  
L20 = Stroke reserve

- The stroke reserve is a safety distance that can be available on both sides of the axis in addition to the nominal stroke

- The sum of the nominal stroke and 2x stroke reserve must not exceed the maximum working stroke

- The stroke reserve length can be freely selected
- The stroke reserve is defined via the "stroke reserve" attribute in the modular product system

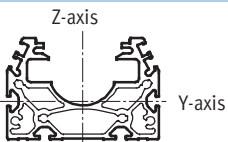
**Example:**

Type ELGA-TB-G-70-500-20H-...  
 Nominal stroke = 500 mm  
 2x stroke reserve = 40 mm  
 Working stroke = 540 mm  
 (540 mm = 500 mm + 2x 20 mm)

The toothed belt axis ELGA features a safety distance to the end positions as standard.

Size	70	80	120
Safety distance per end position [mm]	4.5	5	5

## 2nd moment of area



Size	70	80	120
ly [mm <sup>4</sup> ]	1.47x10 <sup>5</sup>	2.77x10 <sup>5</sup>	1.23x10 <sup>6</sup>
lz [mm <sup>4</sup> ]	4.25x10 <sup>5</sup>	9.07x10 <sup>5</sup>	4.03x10 <sup>6</sup>

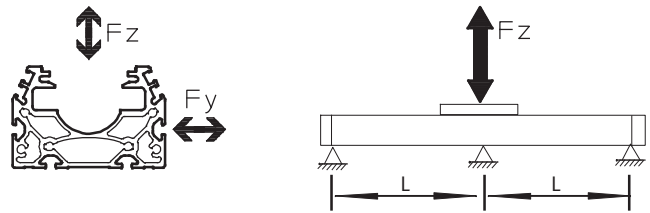
# Toothed belt axes ELGA-TB-G

Technical data

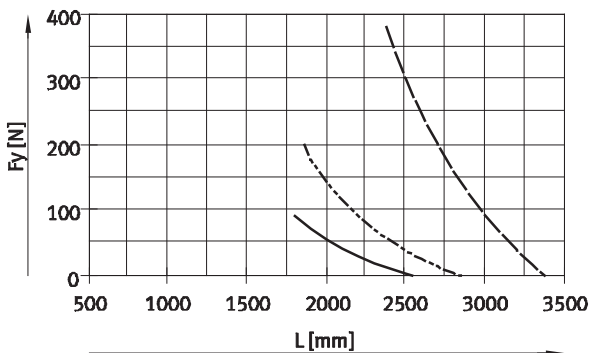
## Maximum permissible support span L (without profile mounting) as a function of force F

In order to limit deflection in the case of large strokes, the axis may need to be supported.

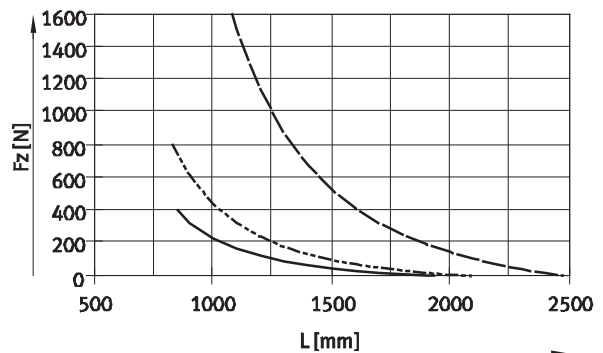
The following graphs serve to determine the maximum permissible support span L as a function of force F acting on the axis. The deflection is  $f = 0.5$  mm.



Force Fy



Force Fz



- ELGA-TB-G-70
- - - ELGA-TB-G-80
- · - ELGA-TB-G-120

## Recommended deflection limits

Adherence to the following deflection limits is recommended so as not to impair the functional performance of the axes. Greater deformation can result in increased friction, greater wear and reduced service life.

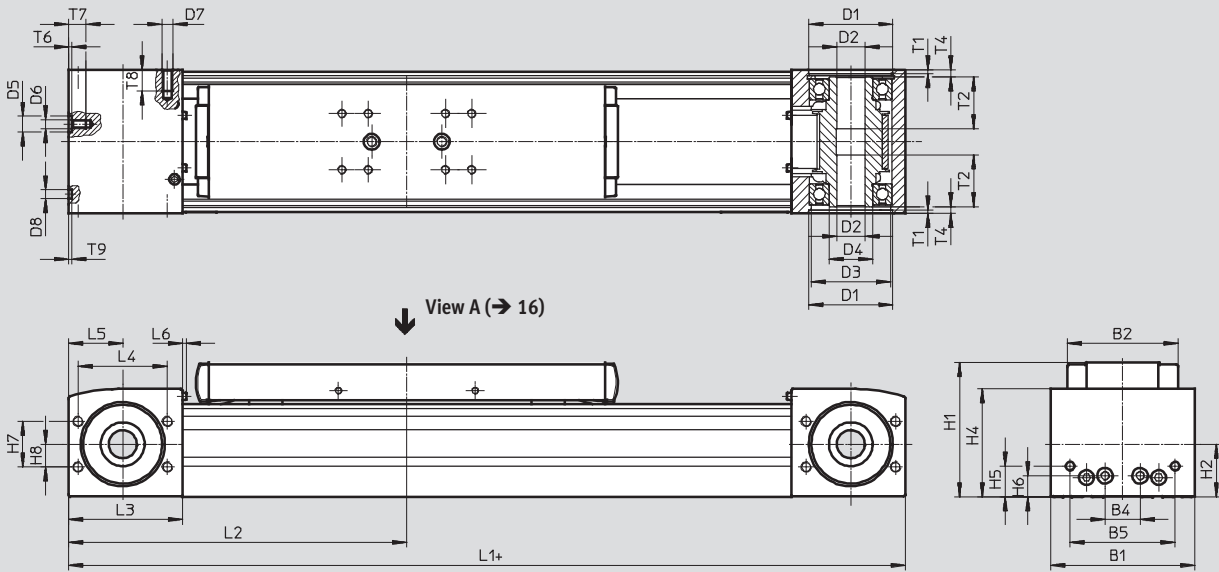
Size	Dyn. deflection (load moving)	Stat. deflection (load stationary)
70 ... 120	0.05% of the axis length, max. 0.5 mm	0.1% of the axis length

# Toothed belt axes ELGA-TB-G

Technical data

**Dimensions**

Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)



Size	B1	B2	B4	B5	D1 H7	D2 Ø H7	D3 Ø	D4 Ø	D5 Ø H7	D6
70	69	48.2	30	45	38	16	34	25	-	M5
80	82	63.2	20	60	48	16	45	25	9	M5
120	120	95	80	40	80	23	72	45	-	M8

Size	D7	D8 Ø H7	H1	H2	H4	H5	H6	H7	L1	L2 min.	L3
70	M6	5	64	26.5	50.8	13	13	24	346	173	57.5
80	M6	5	76.5	30	61.5	17.5	12	26	386	193	65
120	M8	9	111.5	45	91	22	22	59	546	273	100

Size	L4	L5	L6	T1	T2	T4	T6	T7	T8	T9
70	42	27.5	2.3	2.1	18	7.15	-	10	12	3.1
80	51	31	2.3	2.1	29.5	4	2.1	10	12	2
120	76	50	2.5	3.1	29.5	4	-	16	16	2.1

# Toothed belt axes ELGA-TB-G

Technical data

**Dimensions**

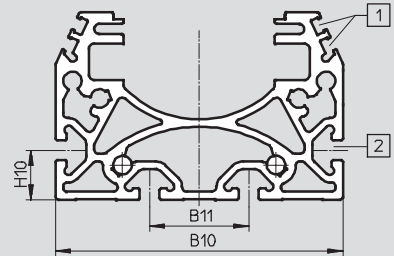
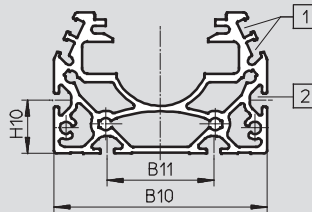
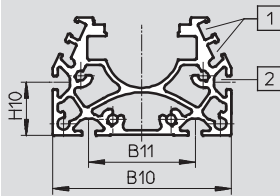
Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

Profile

Size 70

Size 80

Size 120



- 1 Sensor slot for proximity sensor
- 2 Mounting slot for slot nut:  
for size 70, 80: slot nut NST-5-M5  
for size 120: slot nut NST-8-M6

Size	B10	B11	H10
70	67	40	20
80	80	40	20
120	116	40	20

**Note**

To avoid distortions in the slide, the bearing surfaces of the attachments must maintain a flatness of at least 0.03 mm.

# Toothed belt axes ELGA-TB-G

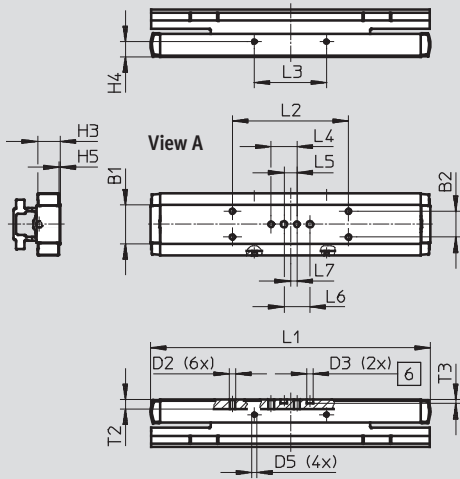
Technical data

**Dimensions**

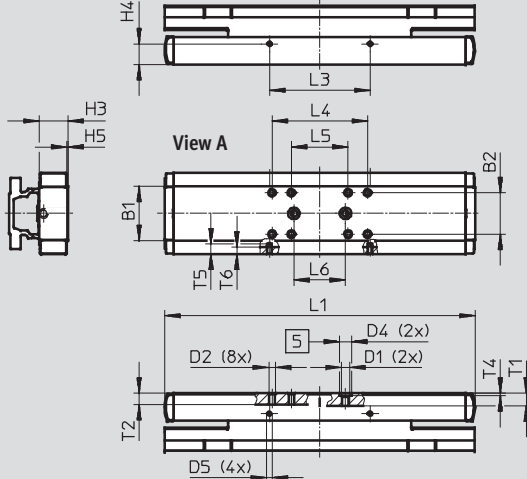
Download CAD Data → [www.festo.com/us/cad](http://www.festo.com/us/cad)

Slides

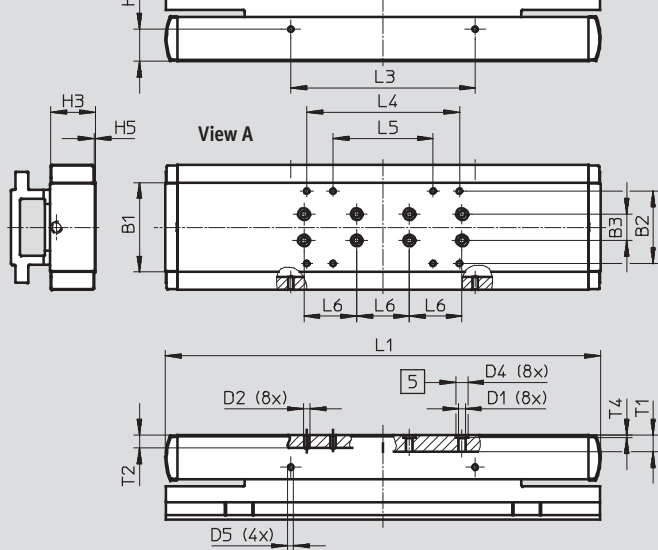
**Size 70**



**Size 80**



**Size 120**



- 5 Hole for centring sleeve
- 6 Hole for centring pin



## Toothed belt axes ELGA-TB-G

Technical data

Size	B1	B2	B3	D1	D2	D3 ∅	D4 ∅	D5
70	30	20±0.1	–	–	M5	5 <sup>H7</sup>	–	M4
80	42	32±0.2	–	M6	M5	–	9 <sup>H7</sup>	M4
120	68	55±0.2	20±0.03	M6	M5	–	9 <sup>H7</sup>	M5

Size	H3	H4 ±0.1	H5	L1	L2 ±0.1	L3 ±0.1	L4	L5
70	17.7	11.7	1	216.6	90	56	20±0.1	10±0.1
80	22.2	16	1	240.6	–	78	74±0.2	44±0.2
120	33.8	24.5	1	330.4	–	140	116±0.2	76±0.2

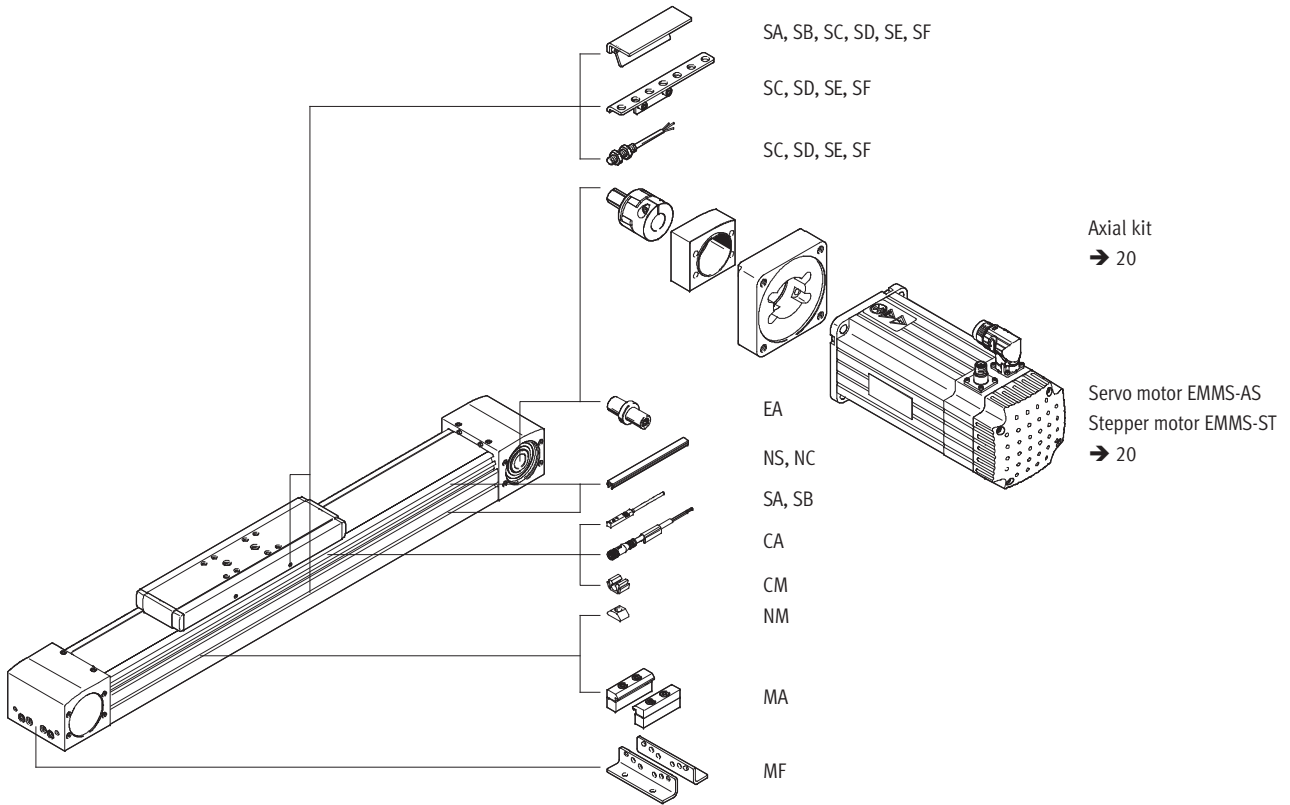
Size	L6 ±0.03	L7	T1	T2	T3 +0.1	T4 +0.1	T5	T6
70	20	5	–	7.5	3.1	–	–	–
80	40	–	9.7	9	–	2.1	8	6
120	40	–	12.8	10	–	2.1	–	–

# Toothed belt axes ELGA-TB-G

Ordering data – Modular products

**Order code**

Accessories



## Toothed belt axes ELGA-TB-G

Ordering data – Modular products

Ordering table		70	80	120	Condition s	Code	Enter code
<b>M</b>	Module No.	<b>570502</b>	<b>570503</b>	<b>570504</b>			
	Design	Linear axis				<b>ELGA</b>	ELGA
	Function	Toothed belt				<b>-TB</b>	-TB
	Guide	Plain-bearing guide				<b>-G</b>	-G
	Size [mm]	70	80	120		-...	-...
	Stroke length [mm]	1 ... 8,500				-...	-...
	Stroke reserve	0 ... 999 (0 = no stroke reserve)			<b>1</b>	<b>-...H</b>	
	Accessories	Accessories enclosed separately				<b>+</b>	<b>+</b>
	Foot mounting	1				<b>MF</b>	
	Profile mounting	1 ... 50				<b>...MA</b>	
	Proximity sensor (SIES), inductive, T-slot, PNP, incl. switch lug	N/O contact, 7.5 m cable	1 ... 6			<b>...SA</b>	
		N/C contact, 7.5 m cable	1 ... 6			<b>...SB</b>	
	Proximity sensor (SIEN), inductive, M8, PNP, incl. switch lug with sensor bracket	N/O contact, 2.5 m cable	1 ... 99			<b>...SC</b>	
		N/C contact, 2.5 m cable	1 ... 99			<b>...SD</b>	
		N/O contact, plug M8	1 ... 99			<b>...SE</b>	
		N/C contact, plug M8	1 ... 99			<b>...SF</b>	
	Connecting cable 2.5 m, M8, 3-wire	1 ... 99				<b>...CA</b>	
	Sensor slot cover	1 ...50 (1 = 2 units, 500 mm length)				<b>...NS</b>	
	Mounting slot cover	1 ...50 (1 = 2 units, 500 mm length)				<b>...NC</b>	
	Slot nut for mounting slot	1 ... 99				<b>...NM</b>	
	Clip for sensor slot	1 ... 99				<b>...CM</b>	
	Drive shaft	1 ... 4				<b>...EA</b>	
	Operating instructions	Express waiver - no operating instructions to be included (already available) (operating instructions in PDF format are available free of charge on our website at <a href="http://www.festo.com">http://www.festo.com</a> )				<b>-DN</b>	

**1** The sum of the nominal stroke and 2x stroke reserve must be at least 50 mm and must not exceed the maximum stroke length.

The code SA, SB includes a switch lug in the scope of delivery.

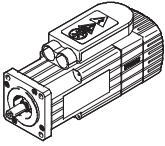
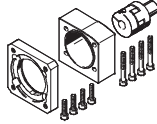
The code SC, SD, SE, SF includes one switch lug and max. two sensor brackets in the scope of delivery.

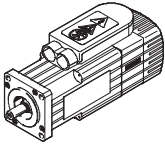
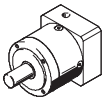
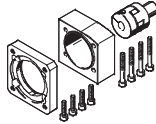
### Transfer order code

**ELGA** -  **TB** -  **G** -  -  -  +  -

# Toothed belt axes ELGA-TB-G

Accessories

Permissible axis/motor combinations with axial kit – Without gear unit		
Motor	Axial kit	
		
Type	Part No.	Type
<b>ELGA-TB-...-70</b>		
With servo motor		
<b>EMMS-AS-70-M-...</b>	<b>1202331</b>	<b>EAMM-A-N38-70A</b>
<b>ELGA-TB-...-80</b>		
With servo motor		
<b>EMMS-AS-100-M-...</b>	<b>1201894</b>	<b>EAMM-A-N48-100A</b>
<b>ELGA-TB-...-120</b>		
With servo motor		
<b>EMMS-AS-140-M-...</b>	<b>1201691</b>	<b>EAMM-A-N80-140A</b>

Permissible axis/motor combinations with axial kit – With gear unit				
Motor	Gear unit		Axial kit	
				
Type	Part No.	Type	Part No.	Type
<b>ELGA-TB-...-70</b>				
With servo motor				
<b>EMMS-AS-70-S-...</b>	<b>552190</b>	<b>EMGA-60-P-G3-SAS-70</b>	<b>1202253</b>	<b>EAMM-A-N38-60G</b>
<b>ELGA-TB-...-80</b>				
With servo motor				
<b>EMMS-AS-70-M-...</b>	<b>552192</b>	<b>EMGA-80-P-G3-SAS-70</b>	<b>1258793</b>	<b>EAMM-A-N48-80G</b>
<b>EMMS-AS-100-S-...</b>	<b>552194</b>	<b>EMGA-80-P-G3-SAS-100</b>	<b>1258793</b>	<b>EAMM-A-N48-80G</b>
<b>ELGA-TB-...-120</b>				
With servo motor				
<b>EMMS-AS-140-S-...</b>	<b>552198</b>	<b>EMGA-120-P-G3-SAS-140</b>	<b>1201695</b>	<b>EAMM-A-N80-120G</b>

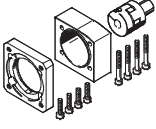




**Note**

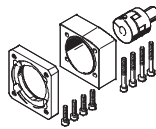




For the optimum selection of axis/motor combinations →

PositioningDrives  
sizing software  
[www.festo.com](http://www.festo.com)

## Toothed belt axes ELGA-TB-G

Accessories

Component parts in the axial kit – Without gear unit				
Axial kit	Comprising:			
	Motor flange	Coupling	Coupling housing	Screw kit
				
Part No. Type	Part No. Type	Part No. Type	Part No. Type	
<b>ELGA-TB-...-70</b>				
1202331 EAMM-A-N38-70A	1202337 EAMF-A-38D-70A	558001 EAMD-32-32-11-16X20	1345947 EAMK-A-N38-38D	1202288 EAHM-L5-M6-35
<b>ELGA-TB-...-80</b>				
1201894 EAMM-A-N48-100A	1201924 EAMF-A-48C-100A	558002 EAMD-42-40-19-16X25	1345949 EAMK-A-N48-48C	1201874 EAHM-L5-M6-50
<b>ELGA-TB-...-120</b>				
1201691 EAMM-A-N80-140A	1190796 EAMF-A-80A-140A	558005 EAMD-56-46-24-23X27	1345953 EAMK-A-N80-80A	1201751 EAHM-L5-M8-75

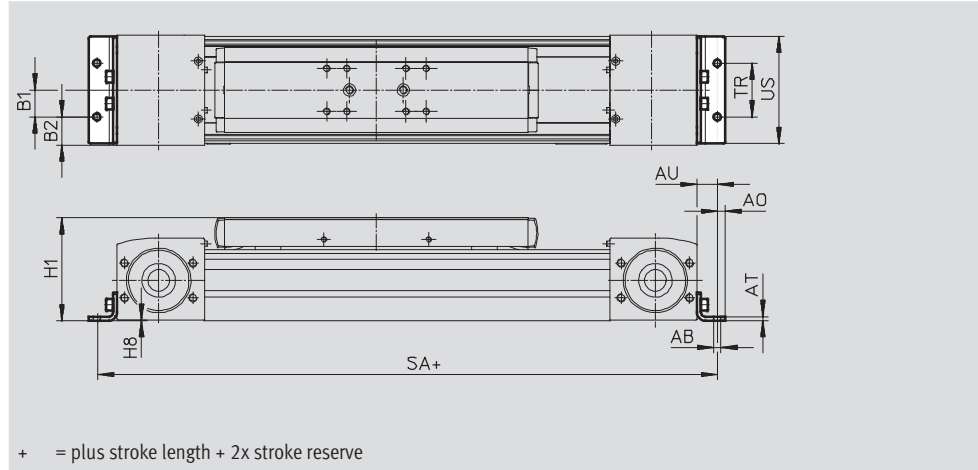
Component parts in the axial kit – With gear unit				
Axial kit	Comprising:			
	Motor flange	Coupling	Coupling housing	Screw kit
				
Part No. Type	Part No. Type	Part No. Type	Part No. Type	
<b>ELGA-TB-...-70</b>				
1202253 EAMM-A-N38-60G	1190015 EAMF-A-38D-60G	558001 EAMD-32-32-11-16X20	1345947 EAMK-A-N38-38D	1202262 EAHM-L5-M6-40
<b>ELGA-TB-...-80</b>				
1258793 EAMM-A-N48-80G	1190375 EAMF-A-48C-80G	1188350 EAMD-42-40-20-16X25	1345949 EAMK-A-N48-48C	1201874 EAHM-L5-M6-50
<b>ELGA-TB-...-120</b>				
1201695 EAMM-A-N80-120G	1190702 EAMF-A-80A-120G	1188801 EAMD-56-46-25-23X27	1345953 EAMK-A-N80-80A	1201712 EAHM-L5-M8-60

# Toothed belt axes ELGA-TB-G

Accessories

**Foot mounting HPE**  
(order code MF)

Material:  
Galvanised steel  
RoHS-compliant



Dimensions and ordering data							
For size	AB Ø	A0	AT	AU	B1	B2	H1
70	5.5	6	3	13	20	14.5	64
80	5.5	6	3	15	20	21	76.5
120	9	8	6	22	40	20	111.5

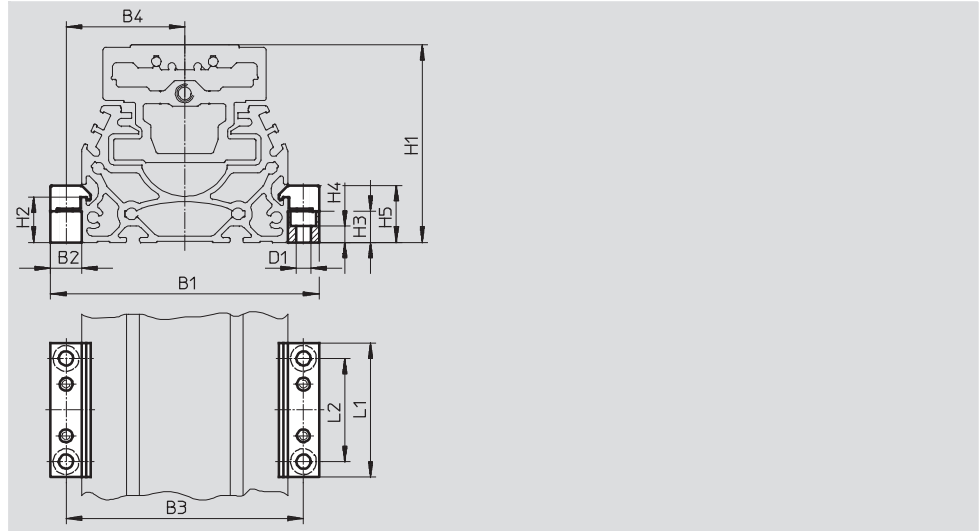
For size	H8	SA	TR	US	Weight [g]	Part No.	Type
70	0.5	372	40	67	115	<b>558321</b>	<b>HPE-70</b>
80	0.5	416	40	80	150	<b>558322</b>	<b>HPE-80</b>
120	0.5	590	80	116	578	<b>558323</b>	<b>HPE-120</b>

# Toothed belt axes ELGA-TB-G

Accessories

**Profile mounting MUE**  
(order code MA)

Material:  
Anodised aluminium  
RoHS-compliant

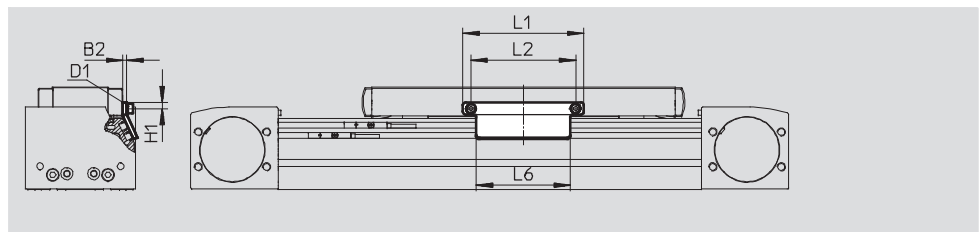


Dimensions and ordering data								
For size	B1	B2	B3	B4	D1 Ø	H1	H2	H3
70	91	12	79	39.5	5.5	64	17.5	12
80	104	12	92	46	5.5	76.5	17.5	12
120	154	19	135	67.5	9	111.5	16	14

For size	H4	H5	L1	L2	Weight [g]	Part No.	Type
70	6.2	22	52	40	80	558043	MUE-70/80
80	6.2	22	52	40	80	558043	MUE-70/80
120	5.5	29.5	90	40	290	558044	MUE-120/185

**Switch lug SF-EGC-1**  
for sensing via proximity sensor  
SIES-8M  
(order code SA or SB)

Material:  
Galvanised steel  
RoHS-compliant



Dimensions and ordering data								
For size	B2	D1	H1	L1	L2	L6	Weight [g]	Part No. Type
70	3	M4	4.65	70	56	50	50	558047 SF-EGC-1-70
80	3	M4	4.65	90	78	70	60	558048 SF-EGC-1-80
120	3	M5	8	170	140	170	150	558049 SF-EGC-1-120

# Toothed belt axes ELGA-TB-G

Accessories

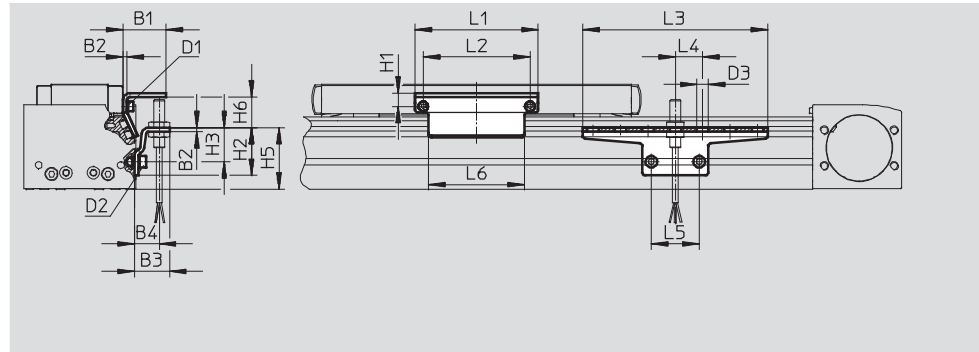
## Switch lug SF-EGC-2

for sensing via proximity sensor  
SIEN-M8B (order code SC, SD, SE or SF) or SIES-8M (order code SA or SB)

Material:  
Galvanised steel  
RoHS-compliant

**Sensor bracket HWS-EGC**  
for proximity sensor SIEN-M8B  
(order code SC, SD, SE or SF)

Material:  
Galvanised steel  
RoHS-compliant



Dimensions and ordering data									
For size	B1	B2	B3	B4	D1	D2	D3 Ø	H1	H2
70	31.5	3	25.5	18	M4	M5	8.4	9.5	35
80	31.5	3	25.5	18	M4	M5	8.4	9.5	35
120	32	3	25.5	18	M5	M5	8.4	13.2	65

For size	H3	H5	H6 max.	L1	L2	L3	L4	L5	L6
70	25	45	13.5	70	56	135	20	35	50
80	25	45	23.5	90	78	135	20	35	70
120	55	75	24	170	140	215	20	35	170




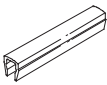
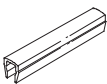

For size	Weight [g]	Part No.	Type
Switch lug			
70	100	<b>558052</b>	<b>SF-EGC-2-70</b>
80	130	<b>558053</b>	<b>SF-EGC-2-80</b>
120	280	<b>558054</b>	<b>SF-EGC-2-120</b>

For size	Weight [g]	Part No.	Type
Sensor bracket			
70	110	<b>558057</b>	<b>HWS-EGC-M5</b>
80	110	<b>558057</b>	<b>HWS-EGC-M5</b>
120	200	<b>558058</b>	<b>HWS-EGC-M8</b>



## Toothed belt axes ELGA-TB-G

Accessories

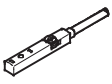
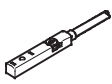
Ordering data						
	For size	Comment	Order code	Part No.	Type	PU <sup>1)</sup>
<b>Drive shaft EAMB</b>						
	70	Alternative interface	EA	<b>1344642</b>	<b>EAMB-24-9-15X21-16X20</b>	1
	80			<b>558036</b>	<b>EAMB-24-6-15X21-16X20</b>	
	120			<b>558037</b>	<b>EAMB-34-6-25X26-23X27</b>	
<b>Slot nut NST</b>						
	70, 80	For mounting slot	NM	<b>150914</b>	<b>NST-5-M5</b>	1
	120			<b>150915</b>	<b>NST-8-M6</b>	
<b>Centring pin/sleeve ZBS/ZBH<sup>2)</sup></b>						
	70	For slide	-	<b>150928</b>	<b>ZBS-5</b>	10
	80, 120			<b>150927</b>	<b>ZBH-9</b>	
<b>Slot cover ABP</b>						
	70, 80	For mounting slot, every 0.5 m	NC	<b>151681</b>	<b>ABP-5</b>	2
	120			<b>151682</b>	<b>ABP-8</b>	
<b>Slot cover ABP-S</b>						
	70 ... 120	For sensor slot, every 0.5 m	NS	<b>563360</b>	<b>ABP-5-S1</b>	2
<b>Clip SMBK</b>						
	70 ... 120	For sensor slot, for securing the proximity sensor cable	CM	<b>534254</b>	<b>SMBK-8</b>	10





1) Packaging unit



2) 2 centring pins/sleeves included in the scope of delivery of the axis

## Toothed belt axes ELGA-TB-G

Accessories

Ordering data – Proximity sensors for T-slot, inductive						Technical data → Internet: sies	
	Type of mounting	Electrical connection	Switching output	Cable length [m]	Order code	Part No.	Type
<b>N/O contact</b>							
	Insertable in the slot from above, flush with the cylinder profile	Cable, 3-wire	PNP	7.5	SA	551386	SIES-8M-PS-24V-K-7,5-OE
		Plug M8x1, 3-pin		0.3	–	551387	SIES-8M-PS-24V-K-0,3-M8D
		Cable, 3-wire	NPN	7.5	–	551396	SIES-8M-NS-24V-K-7,5-OE
		Plug M8x1, 3-pin		0.3	–	551397	SIES-8M-NS-24V-K-0,3-M8D
<b>N/C contact</b>							
	Insertable in the slot from above, flush with the cylinder profile	Cable, 3-wire	PNP	7.5	SB	551391	SIES-8M-PO-24V-K-7,5-OE
		Plug M8x1, 3-pin		0.3	–	551392	SIES-8M-PO-24V-K-0,3-M8D
		Cable, 3-wire	NPN	7.5	–	551401	SIES-8M-NO-24V-K-7,5-OE
		Plug M8x1, 3-pin		0.3	–	551402	SIES-8M-NO-24V-K-0,3-M8D

Ordering data – Proximity sensors M8 (round design), inductive						Technical data → Internet: sien	
	Electrical connection	LED	Switching output	Cable length [m]	Order code	Part No.	Type
<b>N/O contact</b>							
	Cable, 3-wire	■	PNP	2.5	SC	150386	SIEN-M8B-PS-K-L
	Plug M8x1, 3-pin	■	PNP	–	SE	150387	SIEN-M8B-PS-S-L
<b>N/C contact</b>							
	Cable, 3-wire	■	PNP	2.5	SD	150390	SIEN-M8B-PO-K-L
	Plug M8x1, 3-pin	■	PNP	–	SF	150391	SIEN-M8B-PO-S-L

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	159420	SIM-M8-3GD-2,5-PU	
			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	

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