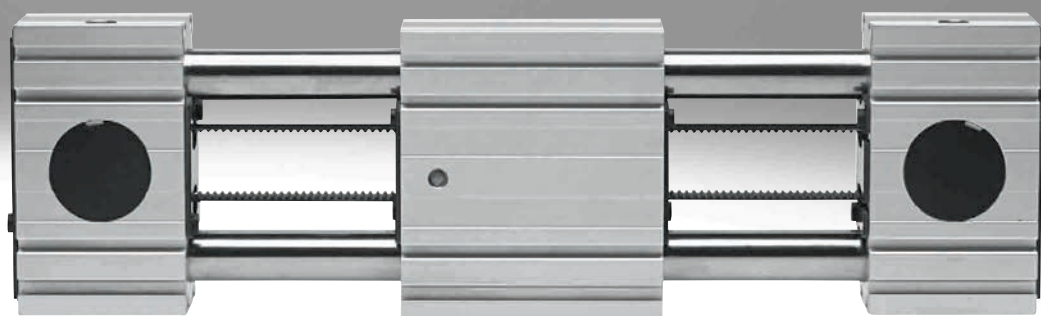


## Toothed belt axes ELGR

**FESTO**



## Key features

### At a glance

#### General

- Optimum price/performance ratio
- Ready-to-install unit for quick and easy design
- High reliability thanks to tested service life of 5000 km
- Complete module for a simple and space-saving solution for end-position sensing

#### Properties

- Plain-bearing guide
  - For small loads
  - Restricted operating behaviour with torque load
  - Guide not backlash-free
- Recirculating ball bearing guide
  - For medium loads
  - Very good operating behaviour with torque load
  - Backlash-free guide (preloaded guide elements)

#### Range of applications

- Pick & place with payloads of up to 15 kg
- Positioning and handling with low process forces
- Actuation of guard doors in processing machines

### Modular axis system with open motor interface → page 6

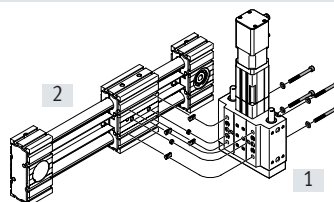
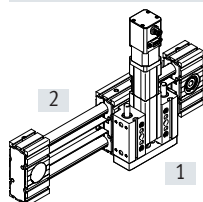
- Variable strokes
- Two guide variants
- Axial kits for servo and stepper motors
- The motor position can be freely selected on 4 sides and can be changed at any time



## Key features

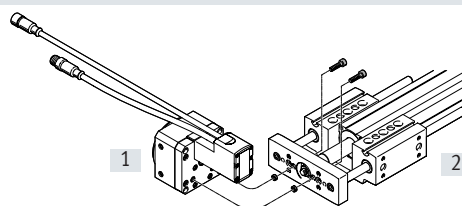
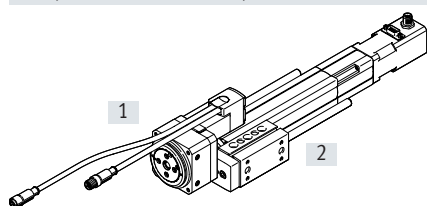
## Combination options within the Optimised Motion Series (OMS)

Electric cylinder EPCO on toothed belt axis ELGR



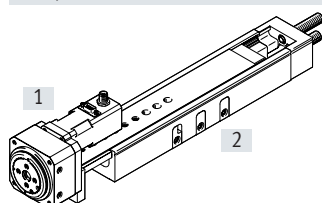
Size		Accessories			
[1] EPCO	[2] ELGR	Slot nut	Centring sleeve	Screw	Washer
16	35	NST-3-M3 (x4)	ZBH-7 (x2)	M3x10 (x4)	–
25	45	NST-5-M5 (x4)	ZBH-7 (x2)	M5x50 (x4)	DIN125-A5.3 (x4)
40	55	NST-5-M5 (x4)	ZBH-7 (x2)	M5x65 (x4)	DIN125-A5.3 (x4)

## Rotary drive ERMO on electric cylinder EPCO

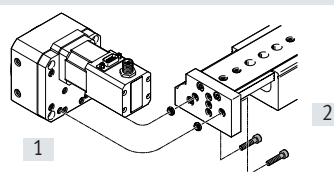


Size		Accessories	
[1] ERMO	[2] EPCO	Centring sleeve	Screw
12	16	ZBH-7 (x2)	M4x16 (x2)
16	25	ZBH-7 (x2)	M5x18 (x2)
25	40	ZBH-7 (x2)	M5x20 (x2)

## Rotary drive ERMO on mini slide DGSL

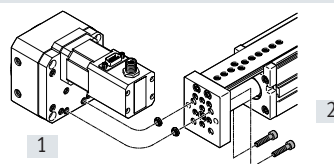
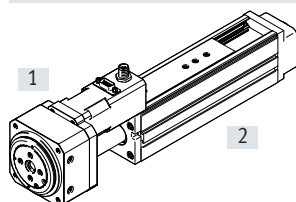


When combining ERMO-12 with DGSL-12, the proximity sensor SIEN cannot be used as a homing sensor for ERMO.



Size		Accessories	
[1] ERMO	[2] DGSL	Centring sleeve	Screw
12	12	ZBH-7 (x2)	M4x18 (x2)
25	20	ZBH-9-7 (x2)	M5x22 (x2)
25	25	ZBH-9-7 (x2)	M5x22 (x2)

## Rotary drive ERMO on mini slide EGSL

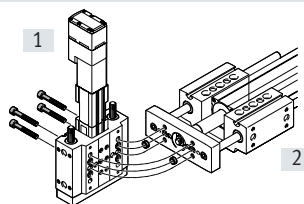
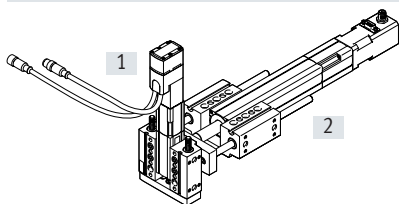


Size		Accessories	
[1] ERMO	[2] EGSL	Centring sleeve	Screw
12	35	ZBH-7 (x2)	M4x12 (x2)
16	45	ZBH-7 (x2)	M5x12 (x2)
25	55	ZBH-7 (x2)	M5x14 (x2)
32	55	ZBH-7 (x2)	M5x14 (x2)

## Key features

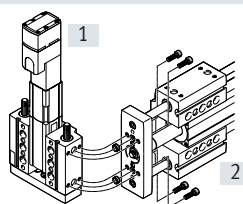
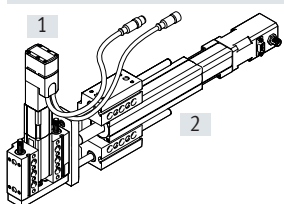
### Combination options within the Optimised Motion Series (OMS)

Electric cylinder EPCO on electric cylinder EPCO, horizontal



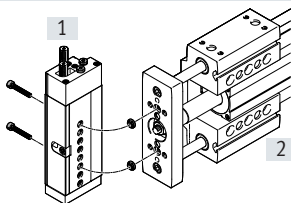
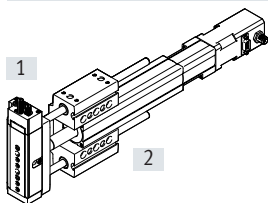
Size		Accessories	
[1] EPCO	[2] EPCO	Centring sleeve	Screw
16	25	ZBH-9 (x2)	M6x40 (x4)
25	40	ZBH-9 (x2)	M6x55 (x4)

Electric cylinder EPCO on electric cylinder EPCO, vertical



Size		Accessories	
[1] EPCO	[2] EPCO	Centring sleeve	Screw
16	25	ZBH-9 (x2)	M5x18 (x4)
25	40	ZBH-9 (x2)	M5x22 (x4)

Mini slide DGSL on electric cylinder EPCO



Size		Accessories	
[1] DGSL	[2] EPCO	Centring sleeve	Screw
8 (40 mm) <sup>1)</sup>	16	ZBV-9-7 (x2)	M4x16 (x2)
10 (30mm) <sup>1)</sup>	25	ZBV-9-7 (x2)	M4x20 (x2)
12 (40mm) <sup>1)</sup>	40	ZBV-9-7 (x2)	M5x20 (x2)

1) Minimum stroke

## Key features

## 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 data sheet.

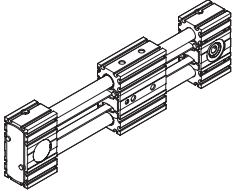


## Note

Engineering software

Electric Motion Sizing

[www.festo.com/x/electric-motion-sizing](http://www.festo.com/x/electric-motion-sizing)

Version	Size	Working stroke [mm]	Speed [m/s]	Repetition accuracy [mm]	Feed force [N]	Guide characteristics Forces and torques					→ Page
						Fy [N]	Fz [N]	Mx [Nm]	My [Nm]	Mz [Nm]	
<b>Toothed belt axis ELGR</b>											
	35	50 ... 800	3	±0.1	50	50	50	2.5	20	20	6
	45	50 ... 1000	3	±0.1	100	100	100	5	40	40	
	55	50 ... 1500	3	±0.1	350	300	300	15	124	124	

## Type codes

001	Series
ELGR	Linear axis

002	Drive system
TB	Toothed belt

003	Guide
	Recirculating ball bearing guide
GF	Plain bearing

004	Size
35	35
45	45
55	55

005	Stroke [mm]
100	100
200	200
300	300
400	400
500	500
600	600
800	800
1000	1000
1200	1200
1500	1500
...	100 ... 1500

006	Stroke reserve [mm]
...	0 ... 999

007	Slide design
	Standard
L	Slide, long

008	Additional slide
	None
ZL	1 slide left
ZR	1 slide right
ZB	Additional slide 1x left, 1x right

009	Motor type
	Without motor
ST	Stepper motor ST

010	Measuring unit
	None
E	Encoder

011	Brake
	None
B	With brake

012	Cable outlet direction
	None
AD	Bottom
AL	Left
AR	Right
AT	Top

013	Motor position
	Standard
FR	Front right
FL	Front left
RR	Rear right
RL	Rear left

014	Proximity sensor, inductive, slot 8, PNP, N/C contact, cable 7.5 m [units]
...	1 ... 6

015	Proximity sensor, inductive, slot 8, PNP, N/O contact, cable 7.5 m [units]
...	1 ... 6

016	Mounting slot cover, 2x, 500 mm [units]
...	1 ... 50

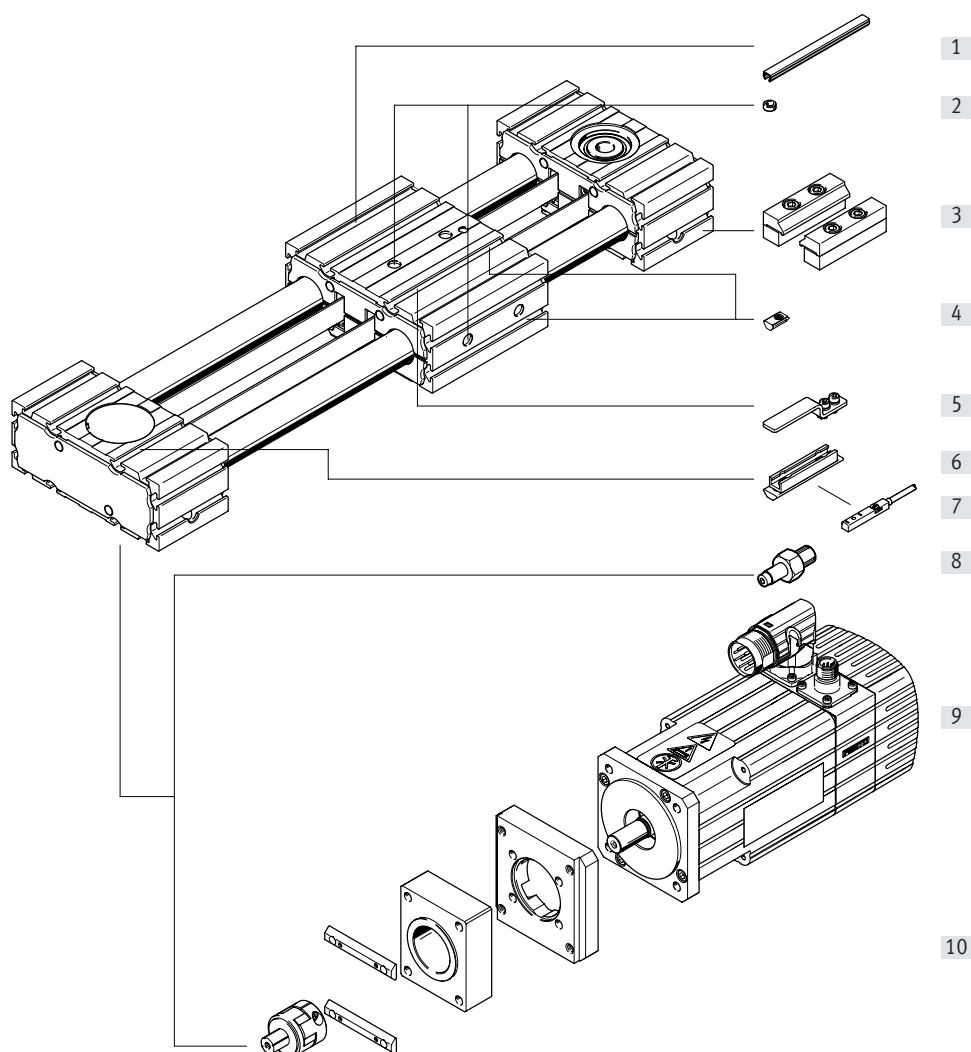
017	Slot nut for mounting slot [units]
...	1 ... 99

018	Drive shaft [units]
...	1 ... 4

019	Profile mounting
...	1 ... 2

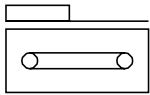
020	Operating instructions
	With operating instructions
DN	Without operating instructions




## Peripherals overview

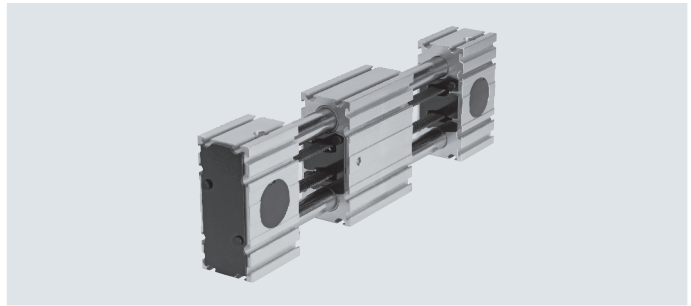


Accessories			
	Type/order code	Description	→ Page/Internet
[1]	Slot cover NC	<ul style="list-style-type: none"> <li>For protecting against contamination</li> </ul>	23
[2]	Centring sleeve ZBH	<ul style="list-style-type: none"> <li>For centring loads and attachments on the slide</li> <li>2 centring sleeves included in the scope of delivery of the axis</li> </ul>	23
[3]	Profile mounting MA	For mounting the axis on the bearing cap	22
[4]	Slot nut NM	For mounting attachments	23
[5]	Switch lug SA, SB	For sensing the slide position	22
[6]	Sensor bracket SA, SB	Adapter for mounting the inductive proximity sensors on the axis	22
[7]	Proximity sensor, T-slot SA, SB	<ul style="list-style-type: none"> <li>Inductive proximity sensor, for T-slot</li> <li>1 switch lug and 1 sensor bracket are included in the scope of delivery with the order code SA, SB</li> </ul>	24
[8]	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 → Page 18</li> </ul>	23
[9]	Motor EMME, EMMS	Motors specially matched to the axis, with or without brake	18
[10]	Axial kit EAMM	For axial motor mounting (comprises: coupling, coupling housing and motor flange)	18
-	Connecting cable NEBU	For proximity sensor (order code SA and SB)	24

Data sheet



-  Size  
35 ... 55
-  Stroke length  
50 ... 1500 mm
-  [www.festo.com](http://www.festo.com)



General technical data		35	45	55
Size		35	45	55
Design		Electromechanical linear axis with toothed belt		
Guide		Recirculating ball bearing guide		
		Plain-bearing guide		
Mounting position		Any		
Working stroke	[mm]	50 ... 800	50 ... 1000	50 ... 1500
Max. feed force $F_x$	[N]	50	100	350
Max. no-load torque	[Nm]	0.1	0.2	0.4
Max. driving torque	[Nm]	0.46	1.24	5
Max. no-load resistance to shifting	[N]	10.8	16.1	27.9
Max. speed				
Recirculating ball bearing guide	[m/s]	3		
Plain-bearing guide	[m/s]	1		
Max. acceleration <sup>1)</sup>	[m/s <sup>2</sup> ]	50		
Repetition accuracy	[mm]	±0.1		

1) The max. acceleration is dependent on the payload, the driving torque and the max. feed force → page 11

Operating and environmental conditions		
Ambient temperature		
Recirculating ball bearing guide	[°C]	-10 ... +50
Plain-bearing guide	[°C]	0 ... +40
Degree of protection		IP20
Duty cycle	[%]	100

Weight [kg]		35	45	55
<b>Recirculating ball bearing guide</b>				
Basic weight with 0 mm stroke <sup>1)</sup>				
Standard slide		1.5	3.2	5.4
Long slide		1.9	4.3	7.4
Additional weight per 1000 mm stroke		2.5	5.0	7.8
Moving mass		0.5	1.1	1.9
<b>Slide</b>				
Standard slide		0.5	1.0	1.8
Long slide		0.8	1.7	3.0
Additional slide		0.4	0.9	1.7

1) Incl. slide



## Data sheet

Weight [kg]			
Size	35	45	55
<b>Plain-bearing guide</b>			
Basic weight with 0 mm stroke <sup>1)</sup>			
Standard slide	1.4	3.1	5.1
Long slide	1.9	4.3	7.3
Additional weight per 1000 mm stroke	2.5	5.0	7.8
Moving mass	0.4	0.9	1.5
Slide			
Standard slide	0.4	0.9	1.5
Long slide	0.7	1.6	2.8
Additional slide	0.3	0.7	1.3

1) Incl. slide

Toothed belt			
Size	35	45	55
Pitch [mm]	2	3	3
Expansion <sup>1)</sup> [%]	0.094	0.08	0.21
Width [mm]	10	15	19.3
Effective diameter [mm]	18.46	24.83	28.65
Feed constant [mm/rev.]	58	78	90

1) At max. feed force

Mass moment of inertia			
Size	35	45	55
$J_0$			
Standard slide [kg mm <sup>2</sup> ]	40.26	155.13	360.48
Long slide [kg mm <sup>2</sup> ]	66.50	271.52	638.74
$J_S$ per metre stroke [kg mm <sup>2</sup> /m]	0.26	1.06	1.88
$J_L$ per kg payload [kg mm <sup>2</sup> /Kg]	85.19	154.13	205.21
$J_W$ additional slide [kg mm <sup>2</sup> ]	36.75	136.55	301.92

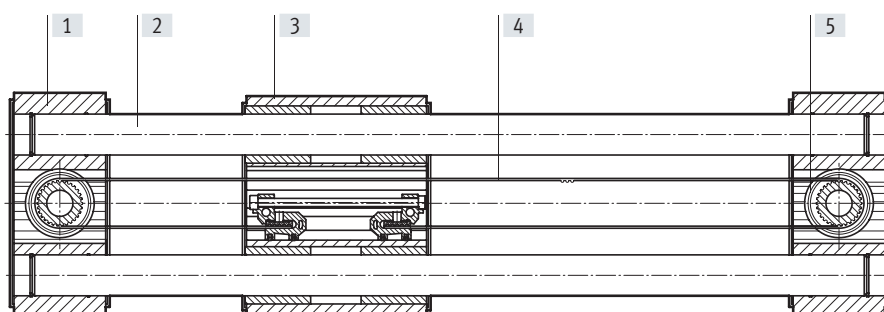
The mass moment of inertia  $J_A$  of the entire axis is calculated as follows:

$$J_A = J_0 + K \times J_W + J_S \times \text{working stroke [m]} + J_L \times m_{\text{payload [kg]}}$$

$K$  = Number of additional slides

## Materials

## Sectional view

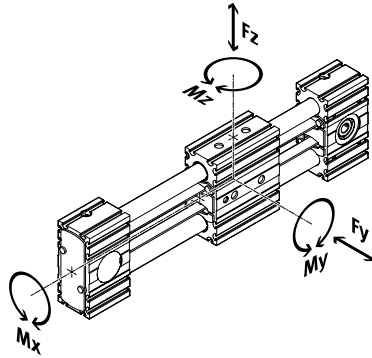


Axis	
[1] Bearing cap, profile	Anodised wrought aluminium alloy
[2] Guide rods	Hardened and hard-chromium plated tempered steel
[3] Slide, profile	Anodised wrought aluminium alloy
[4] Toothed belt	Polychloroprene with glass cord and nylon coating
[5] Belt pulley	High-alloy stainless steel
Note on materials	RoHS-compliant
	Contains paint-wetting impairment substances

## Data sheet

### Characteristic load values

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



If the axis is subjected to several 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:

$$f_v = \frac{|F_{y1}|}{F_{y2}} + \frac{|F_{z1}|}{F_{z2}} + \frac{|M_{x1}|}{M_{x2}} + \frac{|M_{y1}|}{M_{y2}} + \frac{|M_{z1}|}{M_{z2}} \leq 1$$

$F_1/M_1$  = dynamic value

$F_2/M_2$  = maximum value

### Permissible forces and torques for a service life of 5000 km

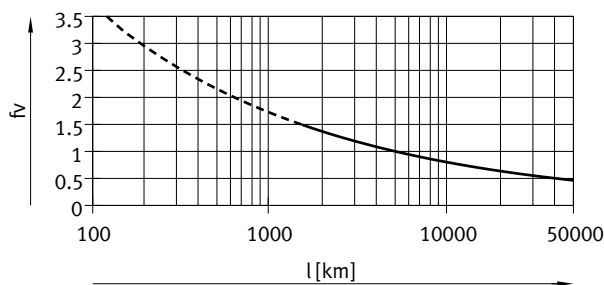
Guide Size	Plain-bearing guide			Recirculating ball bearing guide		
	35	45	55	35	45	55
$F_{y_{max}}, F_{z_{max}}$ [N]	50	100	300	50	100	300
Standard slide						
$M_{x_{max}}$ [Nm]	1	2.5	5	2.5	5	15
$M_{y_{max}}$ [Nm]	4	8	16	8	16	48
$M_{z_{max}}$ [Nm]	4	8	16	8	16	48
Long slide						
$M_{x_{max}}$ [Nm]	1	2.5	5	2.5	5	15
$M_{y_{max}}$ [Nm]	10	20	40	20	40	124
$M_{z_{max}}$ [Nm]	10	20	40	20	40	124

### Service life

The service life of the guide depends on the load. To provide a rough indication of the service life of the guide, the graph below plots the load comparison factor  $f_v$  against the service life.

These values are only theoretical. You must consult your local contact person at Festo for load comparison factors  $f_v$  greater than 1.5.

### Load comparison factor $f_v$ as a function of service life



Example:

A user wants to move an X kg load. Using the above formula gives a value of 1.5 for the load comparison factor  $f_v$ . According to the graph, the guide would have a service life of approx. 1500 km. Reducing the acceleration reduces the  $M_z$  and  $M_y$  values. A load comparison factor of 1 now gives a service life of 5000 km.

### Note

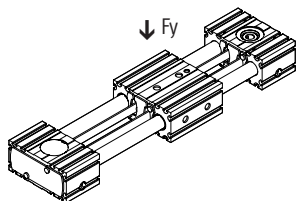
Engineering software

Electric Motion Sizing

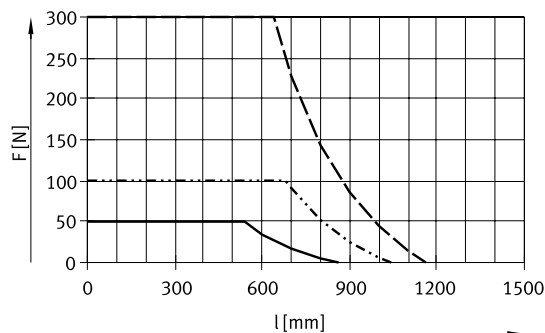
[www.festo.com/x/electric-motion-sizing](http://www.festo.com/x/electric-motion-sizing)

## Data sheet

### Max. load with flat mounting position



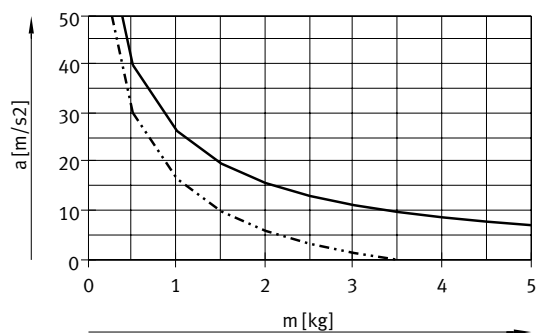
The characteristic curves in the graph correspond to the max. recommended deflection of 0.5 mm. In this case, the axis can no longer support the maximum load past a certain stroke length.



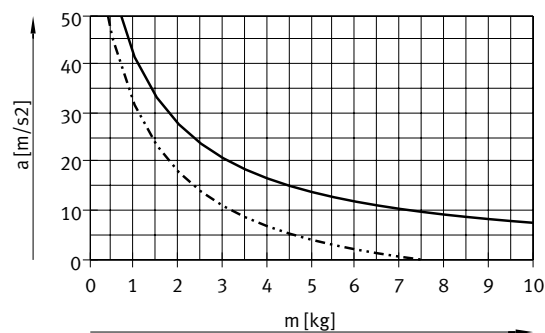
— ELGR-TB-35  
 - - - ELGR-TB-45  
 - - - ELGR-TB-55

### Max. acceleration a as a function of payload m

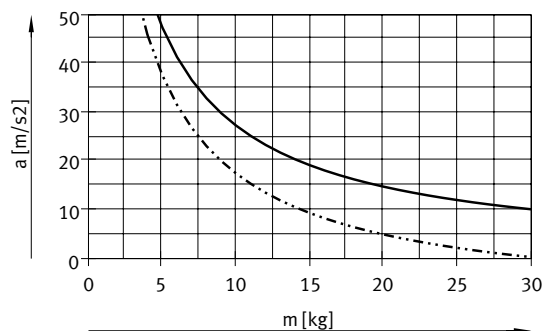
ELGR-35



ELGR-45



ELGR-55

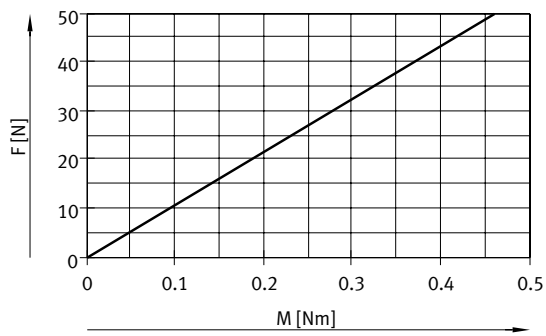


— Horizontal  
 - - - Vertical

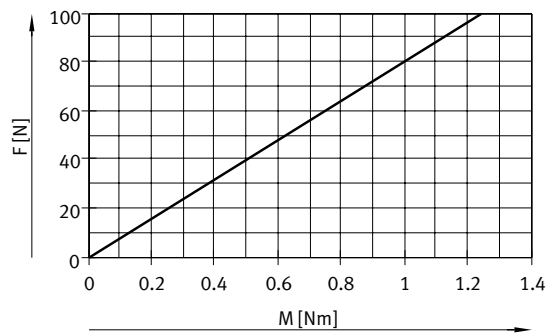
Data sheet

Feed force  $F_x$  as a function of input torque  $M$

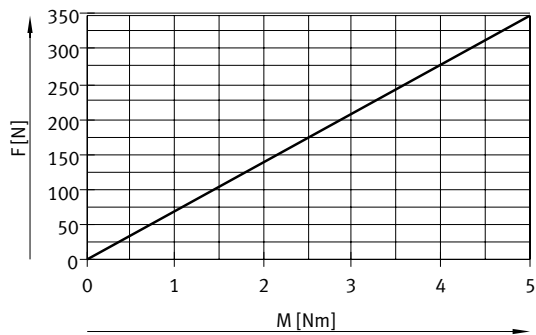
ELGR-35



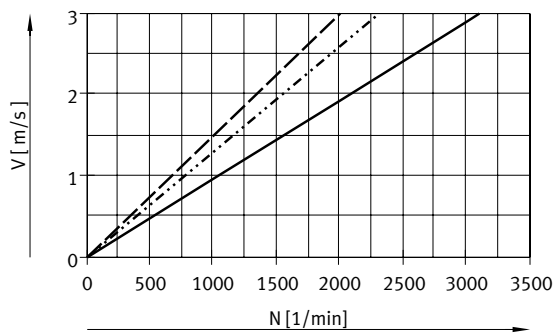
ELGR-45



ELGR-55



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



- ELGR-TB-35
- ELGR-TB-45
- - - ELGR-TB-55

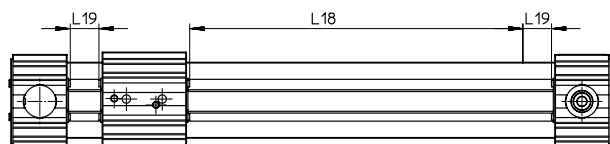
## Data sheet

## Minimum nominal stroke

For variant with additional slide ELGR-...-ZR/ZL-ZB

Size	35		45		55		
ELGR-	ZR/ZL	ZB	ZR/ZL	ZB	ZR/ZL	ZB	
Min. nominal stroke	[mm]	126	202	146	242	166	282

## Stroke reserve



L18 = Nominal stroke

L19 = Stroke reserve

- The stroke reserve is a safety distance from the mechanical end position and is not used in normal operation
- The sum of the nominal stroke and 2x stroke reserve must not exceed the maximum permissible working stroke
- The stroke reserve length can be freely selected
- The stroke reserve is defined via the "stroke reserve" characteristic in the modular product system.

## Example:

Type ELGR-TB-45-500-20H-...

Nominal stroke = 500 mm

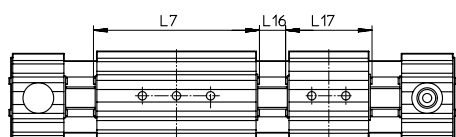
2x stroke reserve = 40 mm

Working stroke = 540 mm

(540 mm = 500 mm + 2 x 20 mm)

## Working stroke reduction

For standard slide or long slide with additional slide ELGR-...-ZR/ZL/ZB



L7 = Slide length

L16 = Distance between the two slides

L17 = Additional slide length

- For a toothed belt axis with additional slide, the working stroke is reduced by the length of the additional slide and the distance between the two slides
- If the long slide variant L is ordered, the additional slide is not extended

## Example:

Type ELGR-TB-35-500-...-ZR

Working stroke = 500 mm

Working stroke with

additional slide = 414 mm  
(500 mm - 10 mm - 76 mm)

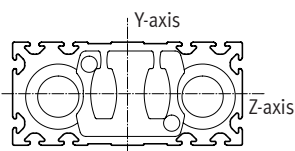
L16 = 10 mm

L7, L17 = 76 mm

## Dimensions – Additional slide

Size	35		45		55	
Length L17	[mm]	76	96	116		
Distance between the slides L16	[mm]	≥ 0				

## 2nd moment of area



Size	35		45		55	
$I_y$	[mm <sup>4</sup> ]	$4.19 \times 10^3$	$17.95 \times 10^3$	$41.18 \times 10^3$		
$I_z$	[mm <sup>4</sup> ]	$3.77 \times 10^3$	$15.71 \times 10^3$	$38.35 \times 10^3$		

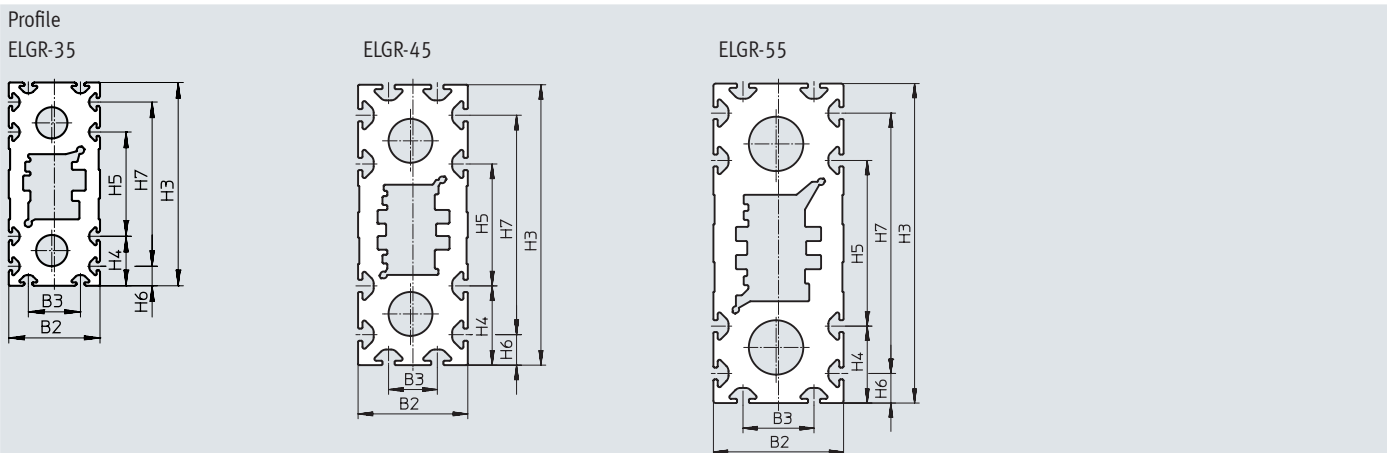
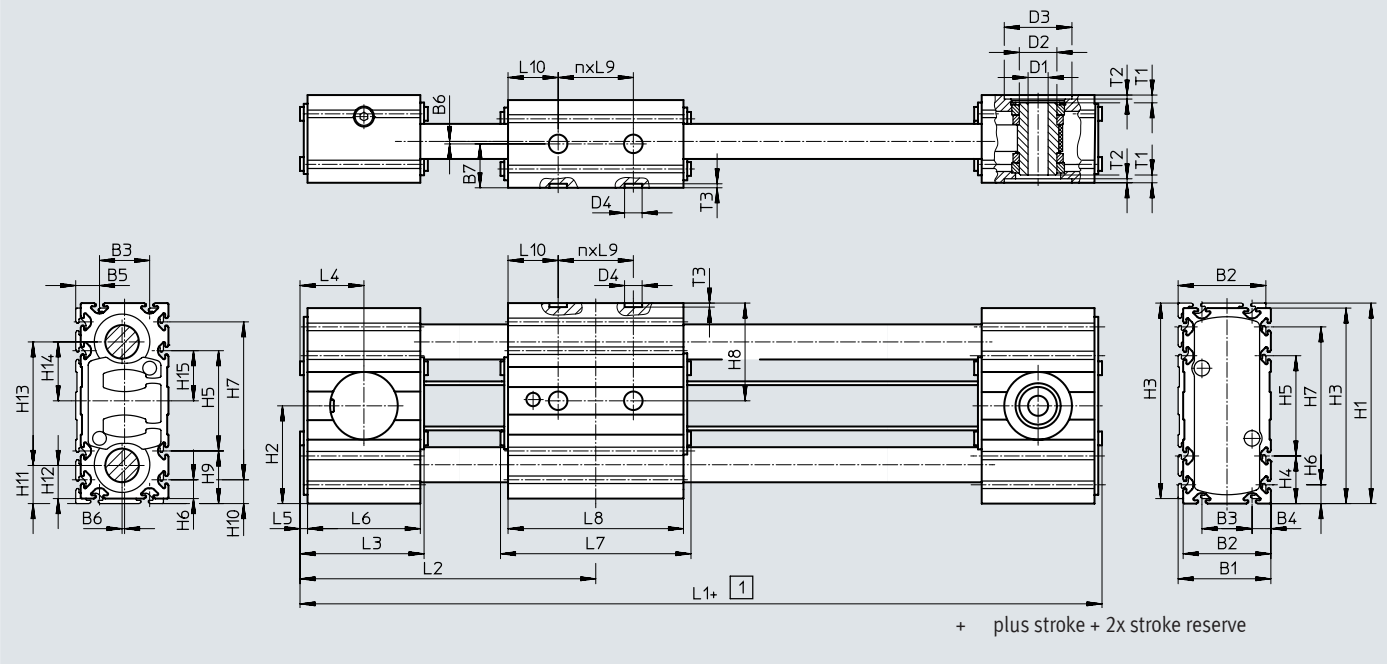
## Recommended deflection limits

Adherence to a maximum deflection of 0.5 mm 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.

Data sheet

Dimensions

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



Size	B1	B2	B3	B4	B5	B6	B7	D1 ∅	D2 ∅	D3 ∅	D4 ∅	H1	H2	H3	H4	H5	H6
35	37	35	20	7.5	9.5	1	17.5	8	15	27	7	80	39	78	19	40	7.5
45	47	45	20	12.5	14.5		22.5	10	20	38		117	57.5	115	32.5	50	12.5
55	57	55	30	12.5	14.5		27.5	16	25	48		137	67.5	135	32.5	70	12.5

Size	H7	H8	H9	H10	H11	H12	H13	H14	H15	L3	L4	L5	L6	L9	T1	T2	T3 +0.1
35	63	39	21	9.5	15.5	13.5	49	23.5	20	51	25.5	3	45	30	3.1	1.6	1.6
45	90	57.5	34.5	14.5	23	21	71	34.5	25	60	30		54	40	3	1.7	
55	110	67.5	34.5	14.5	25.5	23.5	86	42	35	62	31		56	40	4.5	2	

Size ELGR...	L1		L2		L7		L8		L10		n	
		-L		-L		-L		-L		-L		-L
35	178	248	89	124	76	146	70	140	20	40	1	2
45	219	309	108	153	96	186	90	180	25	50	1	2
55	243	353	120	175	116	226	110	220	35	70	1	2

## Data sheet

## Ordering data – Standard version

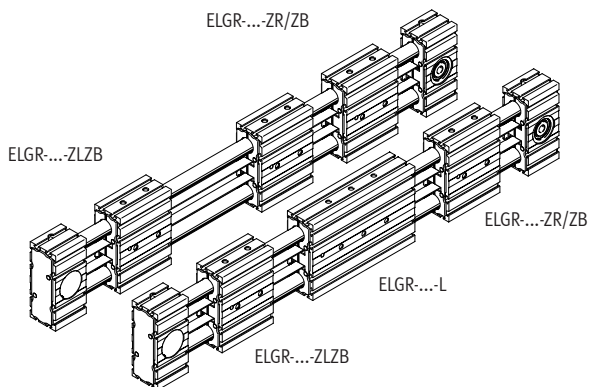
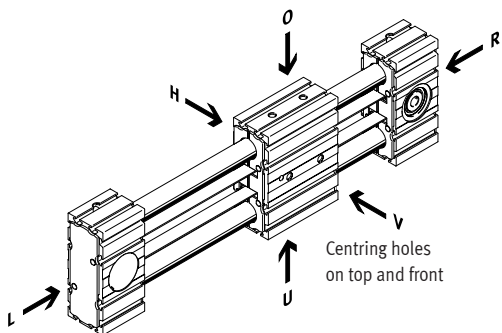
Key features:

- Stroke reserve: 0 mm
- Standard slide

Size	Stroke [mm]	Part no.	Type
35	100	8083770	ELGR-TB-35-100-0H
	200	8083771	ELGR-TB-35-200-0H
	300	8083772	ELGR-TB-35-300-0H
	400	8083773	ELGR-TB-35-400-0H
	500	8083774	ELGR-TB-35-500-0H
	600	8083775	ELGR-TB-35-600-0H
45	100	8083776	ELGR-TB-45-100-0H
	200	8083777	ELGR-TB-45-200-0H
	300	8083778	ELGR-TB-45-300-0H
	400	8083779	ELGR-TB-45-400-0H
	500	8083780	ELGR-TB-45-500-0H
	600	8083781	ELGR-TB-45-600-0H
	800	8083782	ELGR-TB-45-800-0H
	1000	8083783	ELGR-TB-45-1000-0H
55	100	8083784	ELGR-TB-55-100-0H
	200	8083785	ELGR-TB-55-200-0H
	300	8083786	ELGR-TB-55-300-0H
	400	8083787	ELGR-TB-55-400-0H
	500	8083788	ELGR-TB-55-500-0H
	600	8083789	ELGR-TB-55-600-0H
	800	8083790	ELGR-TB-55-800-0H
	1000	8083791	ELGR-TB-55-1000-0H
	1200	8083792	ELGR-TB-55-1200-0H
	1500	8083793	ELGR-TB-55-1500-0H

## Ordering data – Modular product system

### Orientation guide

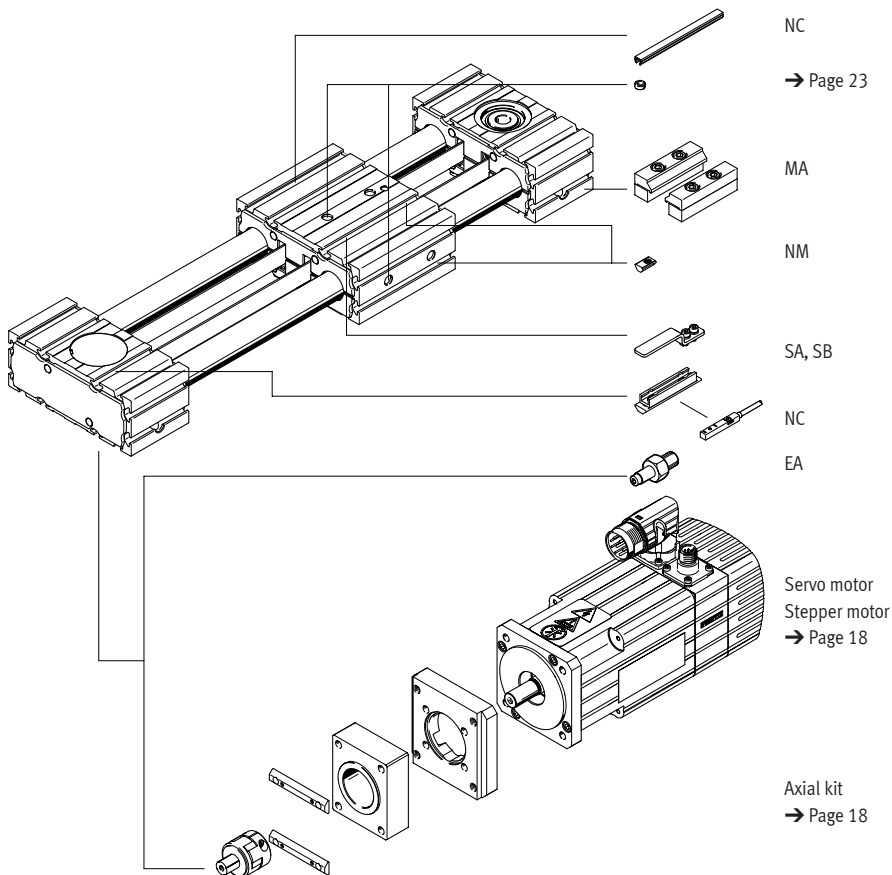


- O top
- U underneath
- R right
- L left
- V front
- H rear

Minimum order stroke in combination with additional slide ELGR-...-ZR/ZL/ZB

Size	35		45		55	
ELGR-...	-ZR/ZL	-ZB	-ZR/ZL	-ZB	-ZR/ZL	-ZB
Min. nominal stroke	[mm] 126	202	146	242	166	282

### Accessories



NC

→ Page 23

MA

NM

SA, SB

NC

EA

Servo motor  
Stepper motor  
→ Page 18

Axial kit  
→ Page 18




## Ordering data – Modular product system

Ordering table	35	45	55	Conditions	Code	Enter code
Module no.	<b>560505</b>	<b>560506</b>	<b>560507</b>			
Design	Linear axis				<b>ELGR</b>	ELGR
Drive system	Toothed belt				<b>-TB</b>	-TB
Guide	Recirculating ball bearing guide					
	Plain-bearing guide				<b>-GF</b>	
Sizes	<b>35</b>	<b>45</b>	<b>55</b>		<b>-...</b>	
Stroke length [mm]	1 ... 800	1 ... 1000	1 ... 1500	[1]	<b>-...</b>	
Stroke reserve [mm]	0 ... 999 (0 = no stroke reserve)			[1]	<b>-...H</b>	
Slide design	Standard slide					
	Long slide				<b>-L</b>	
Additional slide	No additional slide					
	1 slide right			[2]	<b>-ZR</b>	
	1 slide left			[2]	<b>-ZL</b>	
	1 slide right, 1 slide left			[2]	<b>-ZB</b>	
Accessories	Accessories enclosed separately				<b>+</b>	+
Proximity sensor (SIES), inductive, slot type 8, PNP, N/O contact, cable 7.5 m, incl. switch lug and sensor bracket	1 ... 6				<b>...SA</b>	
Proximity sensor (SIES), inductive, slot type 8, PNP, N/C contact, cable 7.5 m, incl. switch lug and sensor bracket	1 ... 6				<b>...SB</b>	
Mounting slot cover	-	1 ... 50 (1=2 pcs. 500 mm long)			<b>...NC</b>	
Slot nut for mounting slot	1 ... 99				<b>...NM</b>	
Drive shaft	1 ... 4				<b>...EA</b>	
Profile mounting	1 ... 2				<b>...MA</b>	
Operating instructions	With operating instructions					
	Without operating instructions				<b>+DN</b>	

[1] ... The sum of the stroke length and 2x the stroke reserve must not exceed the maximum stroke length or be less than the minimum stroke length of 50 mm

[2] ZR, ZL, ZB Working stroke reduction → page 13

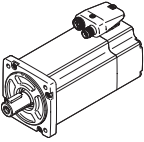
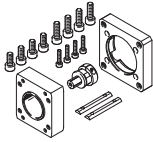
## Accessories

-  - Note

Depending on the combination of motor and drive, it may not be possible to reach the maximum feed force of the drive.

## Permissible axis/motor combinations with axial kit

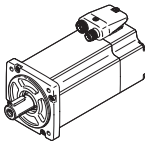
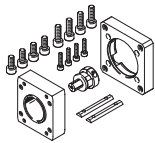
Data sheets → Internet: eamm-a

Motor/gear unit <sup>1)</sup>	Axial kit	
		• Kits for third-party motors → Internet: eamm-a
Type	Part no.	Type
<b>ELGR-35</b>		
<b>With servo motor and gear unit</b>		
EMME-AS-40-... EMGA-40-P-G...-EAS-40	1456622	EAMM-A-R27-40G
<b>With servo motor and angled gear unit</b>		
EMME-AS-40-... EMGA-40-A-G...-40P	1456622	EAMM-A-R27-40G
<b>With stepper motor</b>		
EMMS-ST-57-... <sup>2)</sup>	1133403	EAMM-A-R27-57A
<b>With stepper motor and gear unit</b>		
EMMS-ST-42-... EMGA-40-P-G...-SST-42	1456622	EAMM-A-R27-40G
<b>With integrated drive</b>		
EMCA-EC-67-...	1456619	EAMM-A-R27-67A
<b>With integrated drive and gear unit</b>		
EMCA-EC-67-... EMGC-40-...	1456622	EAMM-A-R27-40G

1) The input torque must not exceed the maximum permissible transferable torque of the axial kit

2) Motors used in combination with Optimised Motion Series (OMS)

## Accessories

Permissible axis/motor combinations with axial kit		Data sheets → Internet: eamm-a	
Motor/gear unit <sup>1)</sup>	Axial kit		
	 <ul style="list-style-type: none"> <li>Kits for third-party motors → Internet: eamm-a</li> </ul>		
Type	Part no.	Type	
<b>ELGR-45</b>			
EMMT-AS-60-...	2224996	EAMM-A-R38-60P	
EMME-AS-60-...	2224996	EAMM-A-R38-60P	
<b>With servo motor and gear unit</b>			
EMME-AS-40-...	1456623	EAMM-A-R38-40G	
EMGA-40-P-G...-EAS-40			
EMMT-AS-60-..., EMME-AS-60-... EMGA-60-P-G...-EAS-60	1456630	EAMM-A-R38-60H	
<b>With stepper motor</b>			
EMMS-ST-57-...	1578138	EAMM-A-R38-57A	
EMMS-ST-87-... <sup>2)</sup>	1133404	EAMM-A-R38-87A	
<b>With stepper motor and gear unit</b>			
EMMS-ST-42-...	1456623	EAMM-A-R38-40G	
EMGA-40-P-G...-SST-42			
EMMS-ST-57-... EMGA-60-P-G...-SST-57	2310075	EAMM-A-R38-60G	
<b>With integrated drive and gear unit</b>			
EMCA-EC-67-... EMGC-40-...	1456623	EAMM-A-R38-40G	
EMCA-EC-67-... EMGC-60-...	1456630	EAMM-A-R38-60H	

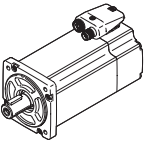
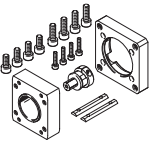
1) The input torque must not exceed the maximum permissible transferable torque of the axial kit

2) Motors used in combination with Optimised Motion Series (OMS)

Accessories

Data sheets → Internet: eamm-a

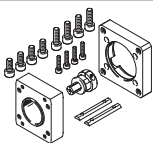
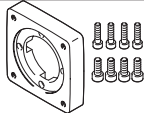
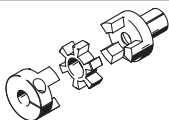
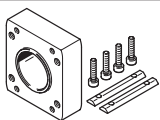
Permissible axis/motor combinations with axial kit

Motor/gear unit <sup>1)</sup>	Axial kit	
	 <ul style="list-style-type: none"> <li>• Kits for third-party motors → Internet: eamm-a</li> </ul>	
Type	Part no.	Type
<b>ELGR-55</b>		
<b>With servo motor</b>		
EMMT-AS-80-..., EMME-AS-80-...	2225090	EAMM-A-R48-80P
EMMT-AS-100-..., EMME-AS-100-...	1133402	EAMM-A-R48-100A
<b>With servo motor and gear unit</b>		
EMMT-AS-60-..., EMME-AS-60-... EMGA-60-P-G...-EAS-60	1456633	EAMM-A-R48-60H
<b>With stepper motor</b>		
EMMS-ST-87-... <sup>2)</sup>	1133405	EAMM-A-R48-87A
<b>With stepper motor and gear unit</b>		
EMMS-ST-57-... EMGA-60-P-G...-SST-57	2374780	EAMM-A-R48-60G
<b>With integrated drive and gear unit</b>		
EMCA-EC-67-... EMGC-60-...	1456633	EAMM-A-R48-60H

1) The input torque must not exceed the maximum permissible transferable torque of the axial kit

2) Motors used in combination with Optimised Motion Series (OMS)

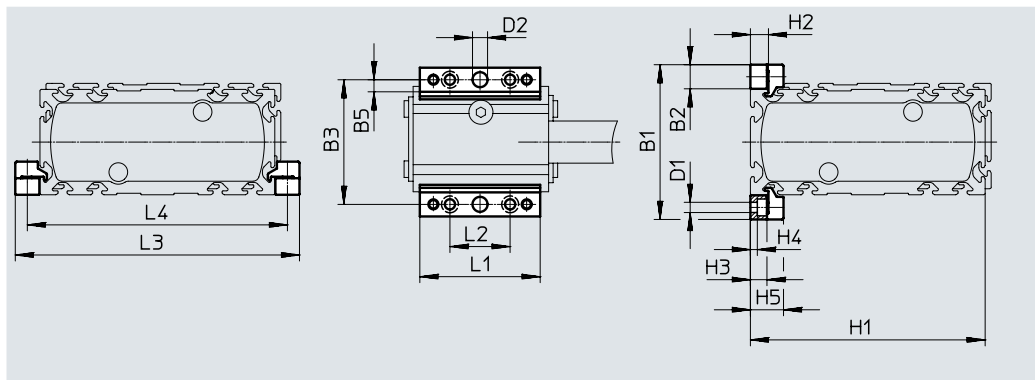
## Accessories

Permissible axis/motor combinations with axial kit			
Axial kit	Comprising: Motor flange	Coupling	Coupling housing
			
Part no. Type	Part no. Type	Part no. Type	Part no. Type
<b>ELGR-35</b>			
1456622 EAMM-A-R27-40G	1460097 EAMF-A-38A-40G	557998 EAMD-19-15-10-8X10	1133397 EAMK-A-R27-38A
1133400 EAMM-A-R27-55A	558176 EAMF-A-38A-55A	557999 EAMD-19-15-9-8X10	1133397 EAMK-A-R27-38A
1133403 EAMM-A-R27-57A	560692 EAMF-A-38A-57A	561292 EAMD-16-15-6.35-8X10	1133397 EAMK-A-R27-38A
1456619 EAMM-A-R27-67A	1490100 EAMF-A-38A-67A	557999 EAMD-19-15-9-8X10	1133397 EAMK-A-R27-38A
<b>ELGR-45</b>			
1456623 EAMM-A-R38-40G	1460097 EAMF-A-38A-40G	1453860 EAMD-25-22-10-10X12	1133398 EAMK-A-R38-38A
1578138 EAMM-A-R38-57A	560692 EAMF-A-38A-57A	561293 EAMD-25-22-6.35-10X12	1133398 EAMK-A-R38-38A
2310075 EAMM-A-R38-60G	558017 EAMF-A-38A-60G/H	558000 EAMD-25-22-11-10X12	1133398 EAMK-A-R38-38A
1456630 EAMM-A-R38-60H	558017 EAMF-A-38A-60G/H	1453861 EAMD-28-22-14-10X12	1133398 EAMK-A-R38-38A
2224996 EAMM-A-R38-60P	1987412 EAMF-A-38A-60P	1453861 EAMD-28-22-14-10X12	1133398 EAMK-A-R38-38A
1133401 EAMM-A-R38-70A	558018 EAMF-A-38A-70A	558000 EAMD-25-22-11-10X12	1133398 EAMK-A-R38-38A
1133404 EAMM-A-R38-87A	560693 EAMF-A-38A-87A	558000 EAMD-25-22-11-10X12	1133398 EAMK-A-R38-38A
<b>ELGR-55</b>			
2374780 EAMM-A-R48-60G	558019 EAMF-A-48A-60G/H	558001 EAMD-32-32-11-16X20	1133399 EAMK-A-R48-48A
1456633 EAMM-A-R48-60H	558019 EAMF-A-48A-60G/H	1377840 EAMD-32-32-14-16X20	1133399 EAMK-A-R48-48A
1578139 EAMM-A-R48-70A	558025 EAMF-A-48A-70A	558001 EAMD-32-32-11-16X20	1133399 EAMK-A-R48-48A
2225090 EAMM-A-R48-80P	2043427 EAMF-A-48A-80P	558002 EAMD-42-40-19-16X25	1133399 EAMK-A-R48-48A
1133405 EAMM-A-R48-87A	560695 EAMF-A-48A-87A	558001 EAMD-32-32-11-16X20	1133399 EAMK-A-R48-48A
1133402 EAMM-A-R48-100A	558020 EAMF-A-48A-100A	558002 EAMD-42-40-19-16X25	1133399 EAMK-A-R48-48A

## Accessories

### Profile mounting MUE (order code MA)

Material:  
Anodised aluminium  
RoHS-compliant



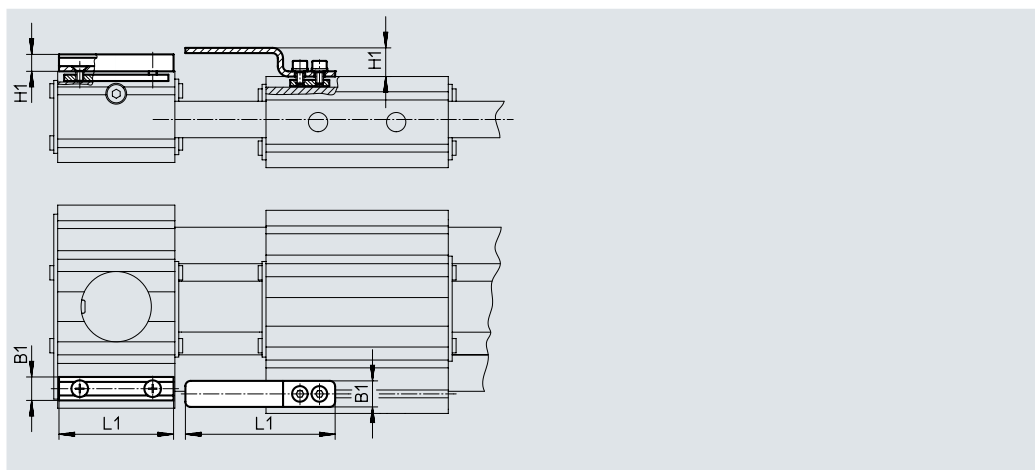
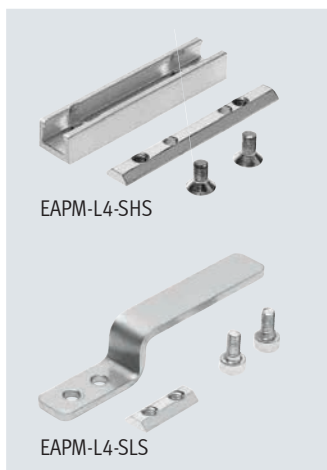
#### Dimensions and ordering data

For size	B1	B2	B3	B5	D1 ∅	D2 ∅ H7	H1	H2	H3	H4
35	51	8	43	4	3.4	5	78	6	5.5	2.3
45	69	12	57	4	5.5	5	115	10	9	3.2
55	79	12	67	4	5.5	5	135	10	9	3.2

For size	H5	L1	L2	L3	L4	Weight [g]	Part no.	Type
35	11	40	20	94	86	20	558042	MUE-50
45	17.5	52	40	139	127	32	562238	MUE-45
55	17.5	52	40	159	147	32	562238	MUE-45

### Sensor bracket EAPM-...-SHS, Switch lug EAPM-...-SLS (order code SA/SB)

Material:  
Switch lug: Galvanised steel  
Sensor bracket: Anodised wrought  
aluminium alloy  
RoHS-compliant

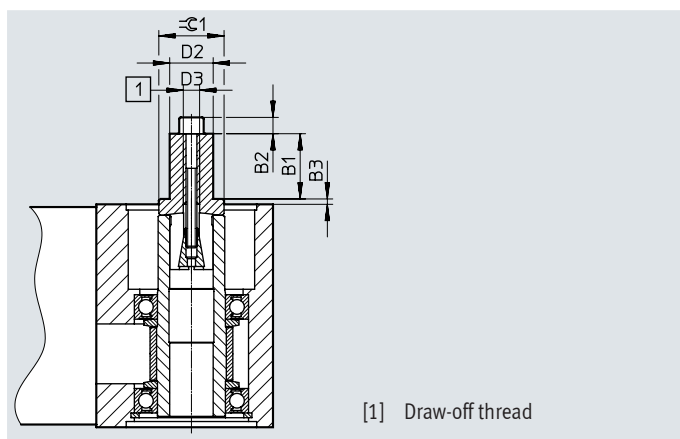
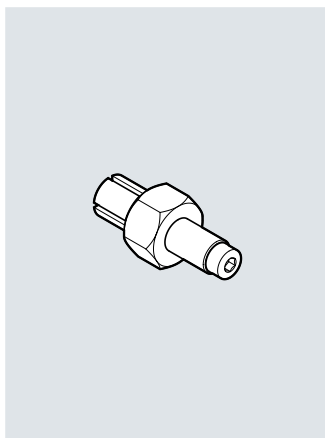


#### Dimensions and ordering data

For size	B1	H1	L1	Weight [g]	Part no.	Type
<b>Sensor bracket</b>						
35, 45, 55	9	6.5	44	20	567537	EAPM-L4-SHS
<b>Switch lug</b>						
35, 45, 55	10	11	57.5	15	567538	EAPM-L4-SLS

## Accessories

**Drive shaft EAMB**  
Alternative interface  
(order code EA)




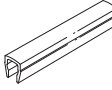


[1] Draw-off thread

#### Dimensions and ordering data

For size	B1	B2	B3	D2 ∅	D3	$\approx C1$	Weight [g]	Part no.	Type
35	12	3	3.9	8	M4	12	20	558034	EAMB-16-7-8X15-8X10
45	12	4	6	8	M5	15	29	558035	EAMB-18-9-8X16-10X12
55	21	–	1.5	15	M6	21	70	558036	EAMB-24-6-15X21-16X20

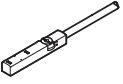
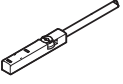
#### Ordering data



	For size	Comment	Order code	Part no.	Type	PE <sup>1)</sup>
<b>Slot nut NST</b>						
	35	For mounting slot	NM	558045	NST-3-M3	1
	45, 55			150914	NST-5-M5	
			–	8047843	NST-5-M5-10	10
				8047878	NST-5-M5-50	50
<b>Centring sleeve ZBH<sup>2)</sup></b>						
	35, 45, 55	For slide	–	8146544	ZBH-7-B	10
<b>Slot cover ABP</b>						
	45, 55	For mounting slot Every 0.5 m	NC	151681	ABP-5	2

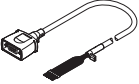
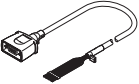

1) Packaging unit

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

## Accessories

Ordering data – Proximity sensors for T-slot, inductive							Data sheets → 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 – Connecting cables						Data sheets → 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	
			5.0	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	
			5.0	541341	NEBU-M8W3-K-5-LE3	

Ordering data – Cables <sup>1)</sup>					
	For size	Description	Cable length [m]	Part no.	Type
<b>Motor cable</b>					
	35	<b>Straight plug</b> • Min. bending radius: 62 mm • Suitable for energy chains • Ambient temperature: –40 ... +80°C	1.5	1450368	NEBM-S1G9-E-1.5-Q5-LE6
			2.5	1450369	NEBM-S1G9-E-2.5-Q5-LE6
			5.0	1450370	NEBM-S1G9-E-5-Q5-LE6
			7.0	1450371	NEBM-S1G9-E-7-Q5-LE6
			10.0	1450372	NEBM-S1G9-E-10-Q5-LE6
	45, 55	<b>Straight plug</b> • Min. bending radius: 80 mm • Suitable for energy chains • Ambient temperature: –40 ... +80°C	1.5	1450834	NEBM-S1G15-E-1.5-Q7-LE6
			2.5	1450835	NEBM-S1G15-E-2.5-Q7-LE6
			5.0	1450836	NEBM-S1G15-E-5-Q7-LE6
			7.0	1450837	NEBM-S1G15-E-7-Q7-LE6
			10.0	1450838	NEBM-S1G15-E-10-Q7-LE6
<b>Encoder cable</b>					
	35, 45, 55	<b>Straight plug</b> • Min. bending radius: 68 mm • Suitable for energy chains • Ambient temperature: –40 ... +80°C	1.5	1451586	NEBM-M12G8-E-1.5-LE8
			2.5	1451587	NEBM-M12G8-E-2.5-LE8
			5.0	1451588	NEBM-M12G8-E-5-LE8
			7.0	1451589	NEBM-M12G8-E-7-LE8
			10.0	1451590	NEBM-M12G8-E-10-LE8

1) Other cable lengths on request.



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