

Spindle axis units ELGS-BS-KF

FESTO



This product is also available as a modular mechanical system
Spindle axis ELGC-BS-KF



Key features

At a glance

Plug and work with the Simplified Motion Series



The simplicity of pneumatics is now combined for the first time with the advantages of electric automation thanks to the Simplified Motion Series. These integrated drives are the perfect solution for all users who are looking for an electric alternative for very simple movement and positioning tasks between two mechanical end positions, but don't want the commissioning process for traditional electric drive systems that can often be quite complex.



There is no need for any software since operation is simply based on the "plug and work" principle. Digital I/O (DIO) and IO-Link are always automatically included – a product with two types of control as standard.

Integrated

The integrated electronics in the drive are at the heart of the Simplified Motion Series.

Easy

For commissioning, simply set all relevant parameters directly on the drive:

- Speed and force
- Reference end position and cushioning
- Manual operation

Standardised

Electrical connection via M12 plug design

- Power (4-pin): power supply for the motor
- Logic (8-pin): control signal, sensor signal and power for the integrated electronics

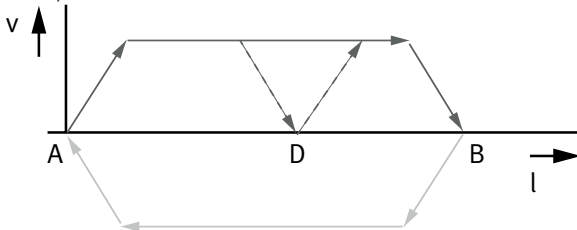
Connected

Use of extended functions possible via IO-Link:

- Remote configuration of motion parameters
- Copy and backup function for transferring parameters
- Read function for extended process parameters
- Freely definable intermediate position
- Firmware update

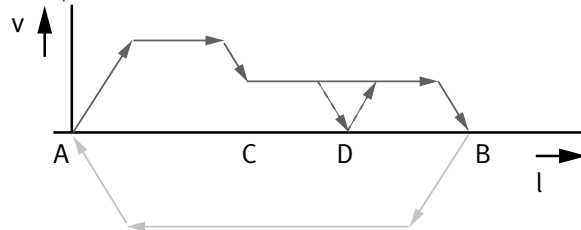
The functions of the Simplified Motion Series

Basic profile for movement between two end positions: with speed control



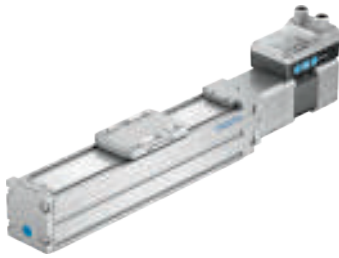
- These drives are designed for simple movements between two end positions.
- Proximity switches are required in order to implement any intermediate positions.
- With the intermediate position that can be freely configured via IO-Link, movements can be stopped at a freely defined point between the end positions, without the need for proximity switches or external stops

Extended motion profile for simplified press-fitting and clamping functions: with speed and force control



Key features

At a glance



- Without external servo drive: all the necessary electronic components are combined in the integrated drive
- Two control options integrated as standard: digital I/O and IO-Link
- Complete solution for simple movements between mechanical end positions
- Protected against external influences by internal guide
- Simplified commissioning: all parameters can be manually set directly on the drive
- No special expertise required for commissioning
- End-position feedback similar to that of a conventional proximity switch is integrated as standard
- Clean Look design: easy to clean and less prone to contamination

The products in the Simplified Motion Series

Electric cylinder unit
EPCE



Mini slide unit
EGSS-BS-KF



Toothed belt axis unit
ELGS-TB-KF



Electric cylinder unit
EPCS



Mini slide unit with parallel motor mounting
EGSS-BS-KF



Toothed belt axis unit
ELGE



Electric cylinder unit with parallel motor mounting
EPCS



Spindle axis unit
ELGS-BS-KF



Rotary drive unit
ERMS



Spindle axis unit with parallel motor mounting
ELGS-BS-KF



Modular and flexible with motor, motor mounting kit and servo drive

This product is also available as a modular mechanical system as spindle axis ELGC-BS-KF:



When compact dimensions and optimised installation space are important, e.g. for assembly systems, test and inspection systems, small parts handling, the electronics industry and desktop applications. Either as an individual axis or as a handling system.

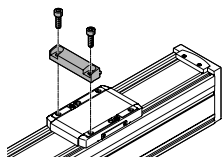
- Compact: optimum ratio of installation space to working space
- Unique: "one-size-down" mounting system
- Modular: individual combinations with motor, motor mounting kit and servo drive
- Flexible: wide range of mounting options for optimum machine integration

Key features

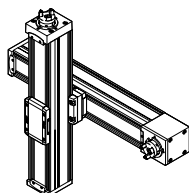
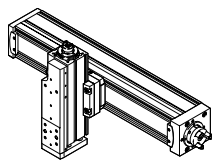
Combination matrix between axis ELGC-TB/ELGS-TB, ELGC-BS/ELGS-BS, mini slide EGSC-BS/EGSS-BS, electric cylinder EPCC-BS/EPCS-BS and guide axis ELFC
 Mounting options with profile mounting and with angle kit

| | Size | Assembly axis ELGC-BS/-TB; ELFC; EGSC-BS; EPCC-BS; ELGS-BS/-TB; EGSS-BS; EPCS-BS | | | |
|--------------------|------|--|----|----|----|
| | | 25 | 32 | 45 | 60 |
| Base axis | 32 | ■ | – | – | – |
| ELGC-BS/-TB; ELFC; | 45 | – | ■ | – | – |
| ELGS-BS/-TB | 60 | – | – | ■ | – |
| | 80 | – | – | – | ■ |

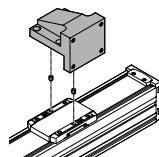
With profile mounting EAHF-L2-...-P-D...



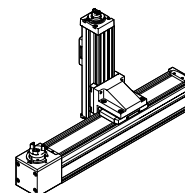
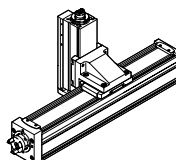
- Mounting option: base axis with one-size-down assembly axis



With angle kit EHAA-D-L2-...-AP



- Mounting option: base axis rotated through 90° with one-size-down assembly axis



Key features

Combination matrix between axis ELGC/ELGS-TB, ELGC/ELGS-BS, mini slide EGSC/EGSS-BS, electric cylinder EPCC/EPCS-BS and guide axis ELFC

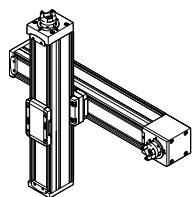
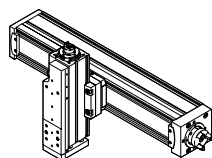
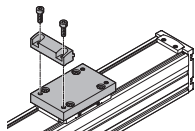
Mounting options with adapter kit or direct fastening

| | Size | Assembly axis ELGC-BS/-TB; ELFC; EGSC-BS; EPCC-BS; ELGS-BS/-TB; EGSS-BS, EPCS-BS | | | | |
|--------------------------------|------|--|----|----|----|----|
| | | 25 | 32 | 45 | 60 | 80 |
| Base axis | 32 | | ■ | - | - | - |
| ELGC-BS/-TB; ELFC; ELGS-BS/-TB | 45 | - | | ■ | - | - |
| | 60 | - | - | | ■ | - |
| | 80 | - | - | - | | ■ |

| | Size | Assembly axis EGSC-BS; EGSS-BS | | | |
|------------------|------|--------------------------------|----|----|----|
| | | 25 | 32 | 45 | 60 |
| Base axis | 25 | | ■ | - | - |
| EGSC-BS; EGSS-BS | 32 | - | | ■ | - |
| | 45 | - | - | | ■ |
| | 60 | - | - | - | |

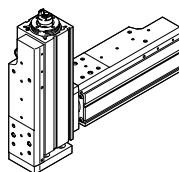
With adapter kit EHAA-D-L2

- Mounting option: base axis with the same size assembly axis
- Mounting option: base axis with height compensation for one-size-down assembly axis
- When motors are mounted using parallel kits, this may lead to interfering contours. In this case, the adapter plate is required for height compensation



With direct mounting

- Mounting option: base axis with the same size assembly axis

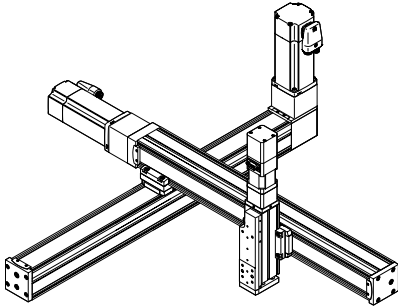


Key features

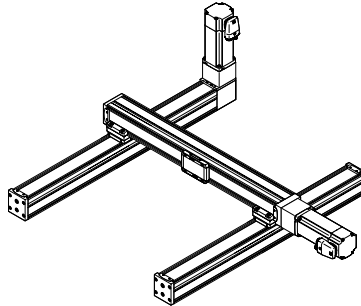
Typical handling systems

For applications where compact dimensions are essential, the axes ELGC can be combined into very space-saving handling systems that are suitable for assembly systems, test and inspection systems, small parts handling, the electronics industry and desktop applications. Combining the very compact linear axes ELGC, mini slide EGSC and electric cylinder EPCC offers an optimum ratio of installation space to working space. These feature a common system approach and platform architecture and the connections are largely adapterless.

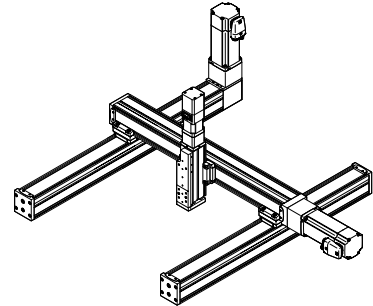
Cantilever system



Planar surface gantry



Three dimensional gantry

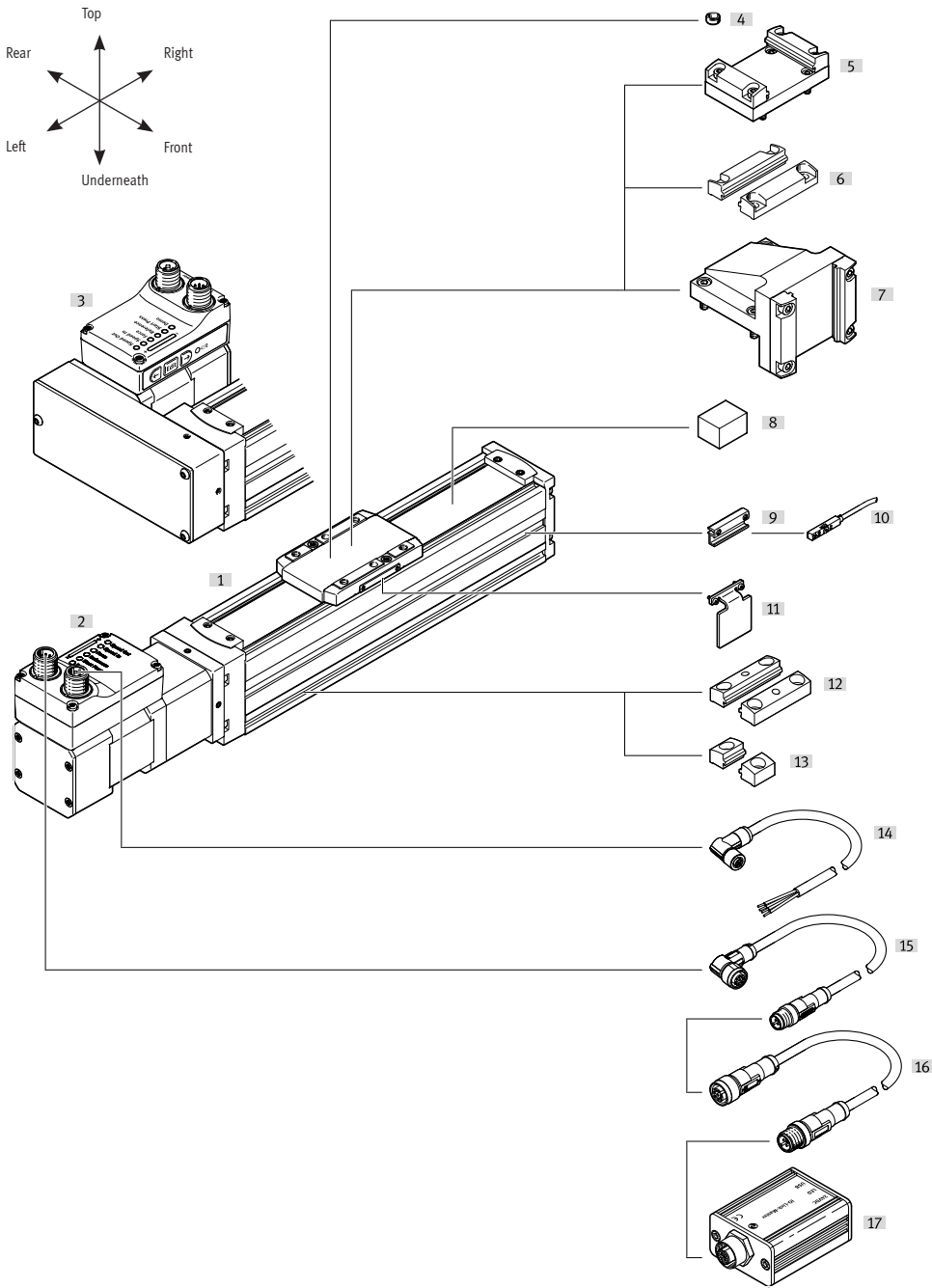


Type codes

| 001 | Series |
|------|----------------------------------|
| ELGS | Gantry axis |
| 002 | Drive system |
| BS | Ball screw drive |
| 003 | Guide |
| KF | Recirculating ball bearing guide |
| 004 | Size |
| 32 | 32 |
| 45 | 45 |
| 60 | 60 |
| 005 | Stroke [mm] |
| 100 | 100 |
| 200 | 200 |
| 300 | 300 |
| 400 | 400 |
| 500 | 500 |
| 600 | 600 |
| 800 | 800 |
| 006 | Spindle pitch |
| | Standard |
| 8P | 8 mm |
| 10P | 10 mm |
| 12P | 12 mm |
| 007 | Motor type |
| ST | Stepper motor ST |

| 008 | Controller |
|-----|--|
| M | Integrated |
| 009 | Control panel |
| H1 | Integrated |
| 010 | Bus protocol/activation |
| PLK | PNP and IO-Link® |
| NLK | NPN and IO-Link® |
| 011 | End-position sensing |
| AA | With integrated end-position sensing |
| 012 | Cable outlet direction |
| | Standard |
| D | Underneath |
| F | Front |
| B | Rear |
| 013 | Motor attachment position |
| | Standard |
| PB | Parallel, rear |
| PF | Parallel, front |
| PD | Parallel, bottom |
| 014 | Electrical accessories |
| | None |
| L1 | Adapter for operation as IO-Link® device |

Peripherals overview



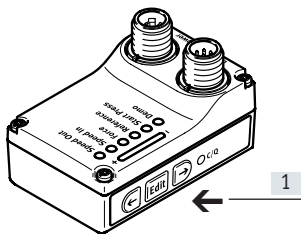
| Accessories | | | |
|---|---|--|-----------------|
| Type/order code | Description | | → Page/Internet |
| [1] Spindle axis unit ELGS-BS | Electric drive | | 8 |
| [2] Axial kit | For axial motor mounting (included in the scope of delivery) | | 9 |
| [3] Parallel kit | For parallel motor mounting (included in the scope of delivery) | | 9 |
| [4] Centring pin/sleeve ZBS, ZBH | For centring loads and attachments on the slide | | 36 |
| [5] Adapter kit EHAA-D-L2 | <ul style="list-style-type: none"> For axis/axis mounting with adapter plate Mounting option: base axis with the same size or one-size-down assembly axis When motors are mounted using parallel kits, this may lead to interfering contours. In this case, the adapter plate is required for height compensation (download CAD data → www.festo.com) | | 33 |
| [6] Profile mounting EAHF-L2-...-P-D | <ul style="list-style-type: none"> For axis/axis mounting without adapter plate Mounting option: base axis with one-size-down assembly axis | | 32 |

Peripherals overview

| Accessories | | | |
|--|---|--|-----------------|
| Type/order code | Description | | → Page/Internet |
| [7] Angle kit EHAA-D-L2-...-AP | <ul style="list-style-type: none"> For mounting one-size-down vertical axes (assembly axes) on base axes with mounting position "slide at top" | | 34 |
| [8] Clamping element EADT-S-L5-32 | <ul style="list-style-type: none"> Tool for retensioning the cover strip | | 36 |
| [9] Sensor bracket ¹⁾ EAPM-L2-SH | For mounting the proximity switches on the axis. The proximity switches can only be mounted using the sensor bracket | | 35 |
| [10] Proximity switches ¹⁾ SIES-8M | Inductive proximity switches, for T-slot | | 36 |
| Proximity switches ¹⁾ SMT-8M | Magnetic proximity switches, for T-slot | | 36 |
| [11] Switch lug ¹⁾ EAPM-...-SLS | For sensing the slide position in conjunction with inductive proximity switches SIES-8M | | 35 |
| [12] Profile mounting EAHF-L2-...-P | For mounting the axis on the side of the profile. The profile mounting can be attached to the mounting surface using the drill hole in the centre | | 31 |
| [13] Profile mounting EAHF-L2-...- | For mounting the axis on the side of the profile | | 30 |
| [14] Supply cable NEBL-T12 | For connecting load and logic supply | | 37 |
| [15] Connecting cable NEBC-M12 | For connection to a controller | | 37 |
| [16] Adapter NEFC-M12G8 | Connection between the motor and the IO-Link master | | 37 |
| [17] IO-Link master USB CDSU-1 | For straightforward use of the mini slide unit via IO-Link | | 37 |

1) Proximity switches are optional and only required in order to sense any intermediate positions.

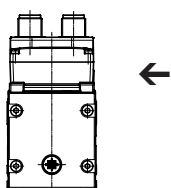
Control elements



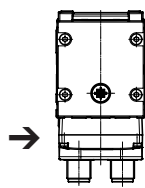
[1] Pushbutton actuators for parameterisation and control

Cable outlet direction

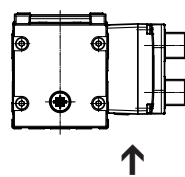
Standard



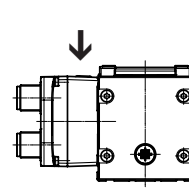
[D] Underneath



[B] Rear

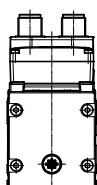


[F] Front

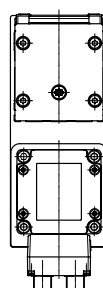


Motor attachment variants

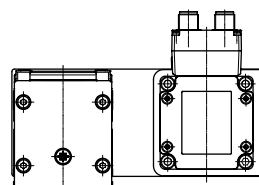
Standard



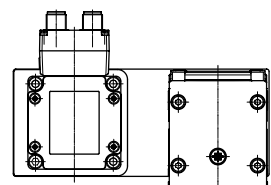
[PD] Underneath



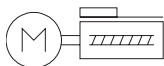
[PB] Rear





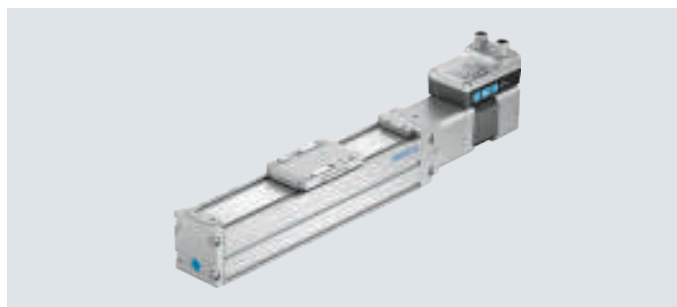
[PF] Front



Datasheet



-  - Size
32 ... 60
-  - Stroke length
100 ... 800 mm



| General technical data | | | | |
|------------------------|------|---|-----------------------------------|-----------------------------------|
| Size | | 32 | 45 | 60 |
| Design | | Electromechanical axis with ball screw and integrated drive | | |
| Motor type | | Stepper motor | | |
| Guide | | Recirculating ball bearing guide | | |
| Mounting position | | Any | | |
| Working stroke | [mm] | 100, 200, 300, 400, 500, 600, 800 | 100, 200, 300, 400, 500, 600, 800 | 100, 200, 300, 400, 500, 600, 800 |
| Stroke reserve | [mm] | 0 | | |
| Additional functions | | Built-in end-position sensing | | |
| | | User interface | | |
| Display | | LED | | |
| Homing | | Positive fixed stop block | | |
| | | Negative fixed stop block | | |
| Type of mounting | | With female thread | | |
| | | With accessories | | |
| | | With centring pin, centring sleeve | | |
| Max. cable length | | | | |
| Inputs/outputs | [m] | 15 | | |
| IO-Link operation | [m] | 20 | | |

| Mechanical data | | | | |
|-----------------------------------|---------------------|----------------------|--------|-------|
| Size | | 32 | 45 | 60 |
| Max. payload | | | | |
| Horizontal | [kg] | 2 | 10 | 20 |
| Vertical | [kg] | 2 | 5 | 13 |
| Max. feed force F_x | [N] | 40 | 100 | 200 |
| Repetition accuracy | [mm] | ±0.015 | ±0.015 | ±0.01 |
| Reversing backlash | [mm] | ≤ 0.15 | | |
| Position sensing | | Via proximity switch | | |
| | | Via IO-Link | | |
| With axial motor mounting | | | | |
| Max. speed ¹⁾ | [m/s] | 0.18 | 0.25 | 0.25 |
| Speed "Speed Press" ²⁾ | [m/s] | 0.01 | | |
| Max. acceleration ²⁾ | [m/s ²] | 5 | | |
| With parallel motor mounting | | | | |
| Max. speed ¹⁾ | [m/s] | 0.18 | 0.235 | 0.215 |
| Speed "Speed Press" ²⁾ | [m/s] | 0.01 | | |
| Max. acceleration ²⁾ | [m/s ²] | 3 | | |

1) Rotational speed and speed are stroke-dependent.
Adjustable in increments of 10%

2) Unchangeable parameter

| Spindle | | | | |
|----------|----------|----|----|----|
| Size | | 32 | 45 | 60 |
| Diameter | [mm] | 8 | 10 | 12 |
| Pitch | [mm/rev] | 8 | 10 | 12 |

Datasheet

| Electrical data | | | |
|---|-------|-------------------------------|---------|
| Size | | 32 | 45 60 |
| Motor | | | |
| Nominal voltage DC | [V] | 24 ($\pm 15\%$) | |
| Nominal current | [A] | 3 | 3 5.3 |
| Max. current consumption (load) | [A] | 3 | 3 5.3 |
| Max. current consumption (logic) | [mA] | 300 | |
| Encoder | | | |
| Rotor position sensor | | Absolute encoder, single turn | |
| Rotor position sensor measuring principle | | Magnetic | |
| Rotor position encoder resolution | [bit] | 16 | |
| Interfaces | | | |
| Size | | 32 | 45 60 |
| Parameterisation interface | | | |
| IO-Link | | Yes | |
| User interface | | Yes | |
| Digital inputs | | | |
| Number | | 2 | |
| Switching logic | | PNP | |
| | | NPN | |
| Characteristics | | Not galvanically isolated | |
| | | Configurable | |
| Specification | | Based on IEC 61131-2, type 1 | |
| Operating range | [V] | 24 | |
| Digital outputs | | | |
| Number | | 2 | |
| Switching logic | | PNP | |
| | | NPN | |
| Rotor position sensor | | Absolute encoder, single turn | |
| Characteristics | | Not galvanically isolated | |
| | | Configurable | |
| Max. current | [mA] | 100 | |

Datasheet

| Technical data – IO-Link | | | | |
|--------------------------|------------|------------------------|----|----|
| Size | | 32 | 45 | 60 |
| SIO mode support | | Yes | | |
| Communication mode | | COM3 (230.4 kBd) | | |
| Connection technology | | Plug | | |
| Port class | | A | | |
| No. of ports | | 1 | | |
| Process data width OUT | [byte] | 2 | | |
| Process data content OUT | [bit] | 1 (Move in) | | |
| | [bit] | 1 (Move out) | | |
| | [bit] | 1 (Move Intermediate) | | |
| | [bit] | 1 (Quit Error) | | |
| Process data width IN | [byte] | 2 | | |
| Process data content IN | [bit] | 1 (State Device) | | |
| | [bit] | 1 (State Move) | | |
| | [bit] | 1 (State in) | | |
| | [bit] | 1 (State out) | | |
| | [bit] | 1 (State Intermediate) | | |
| Service data content IN | [bit] | 32 (Force) | | |
| | [bit] | 32 (Position) | | |
| | [bit] | 32 (Speed) | | |
| Minimum cycle time | [ms] | 1 | | |
| Data memory required | [kilobyte] | 0.5 | | |
| Protocol version | | Device V 1.1 | | |

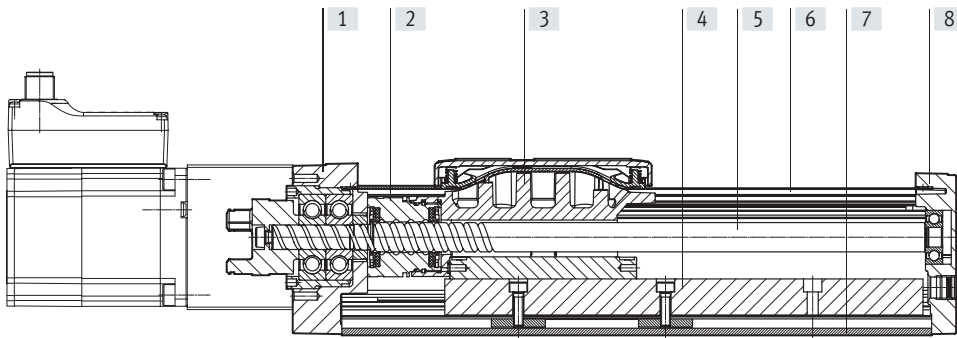
| Operating and environmental conditions | | | | |
|--|------|---|----|----|
| Size | | 32 | 45 | 60 |
| Insulation class | | B | | |
| Ambient temperature | [°C] | 0 ... +50 | | |
| Storage temperature | [°C] | -20 ... +60 | | |
| Note on ambient temperature | | Above an ambient temperature of 30°C, the power must be reduced by 2% per K | | |
| Temperature monitoring | | Switch-off for excessive temperature | | |
| | | Integrated precise CMOS temperature sensor with analogue output | | |
| Relative humidity | [%] | 0 ... 90 | | |
| Protection class | | III | | |
| Degree of protection | | IP40 | | |
| Duty cycle | [%] | 100 | | |
| CE marking (see declaration of conformity) | | To EU EMC Directive for EMCS-ST → festo.com/sp | | |
| | | To EU RoHS Directive | | |
| UKCA marking (see declaration of conformity) | | To UK instructions for EMC | | |
| | | To UK RoHS instructions | | |
| KC mark | | KC EMC | | |
| Certification | | RCM | | |
| Vibration resistance | | Transport application test with severity level 1 to FN 942017-4 and EN 61800-2 and EN 61800-5-1 | | |
| Shock resistance | | Shock test with severity level 1 to FN 942017-5 and EN 61800-2 | | |
| Cleanroom class | | Class 7 according to ISO 14644-1 | | |
| Maintenance interval | | Lifetime lubrication | | |

| Weight | | | | |
|------------------------------------|-----|------|------|------|
| Size | | 32 | 45 | 60 |
| With axial motor mounting | | | | |
| Basic weight at 0 mm stroke | [g] | 889 | 1354 | 2862 |
| Additional weight per 10 mm stroke | [g] | 18 | 36 | 51 |
| Moving mass with 0 mm stroke | [g] | 83 | 220 | 525 |
| With parallel motor mounting | | | | |
| Basic weight at 0 mm stroke | [g] | 1053 | 1477 | 3126 |
| Additional weight per 10 mm stroke | [g] | 18 | 36 | 51 |
| Moving mass with 0 mm stroke | [g] | 83 | 220 | 525 |

Datasheet

Materials

Sectional view



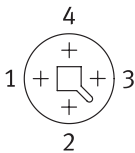
| Axis | | |
|------|-------------------|----------------------------------|
| [1] | Drive cover | Painted die-cast aluminium |
| [2] | Spindle nut | Steel |
| [3] | Slide | Die-cast aluminium |
| [4] | Guide | Steel |
| [5] | Spindle | Steel |
| [6] | Cover strip | High-alloy stainless steel |
| [7] | Profile | Anodised wrought aluminium alloy |
| [8] | End cap | Painted die-cast aluminium |
| | PWIS conformity | VDMA24364 zone III |
| | Note on materials | RoHS-compliant |

Pin allocation

Power supply

Plug

M12x1, 4-pin, T-coded to EN 61076-2-111

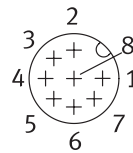


| Pin | Function |
|-----|---|
| 1 | Power voltage supply (24 V DC) |
| 2 | Reference potential, power voltage supply (GND) |
| 3 | Reserved, do not connect |
| 4 | Functional earth (FE) |

Logic interface

Plug

M12x1, 8-pin, A-coded to EN 61076-2-101



When used with digital I/O

| Pin | Function |
|-----|---|
| 1 | Logic voltage supply (24 V DC) |
| 2 | Digital output 1 (State "In") |
| 3 | Digital output 2 (State "Out") |
| 4 | Reference potential, logic voltage supply (GND) |
| 5 | Digital input 1 (Move "In") |
| 6 | Digital input 2 (Move "Out") |
| 7 | Reserved, do not connect |
| 8 | Reference potential, logic voltage supply (GND) |

When used with IO-Link

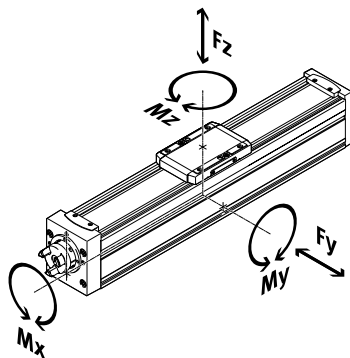
| Pin | Function |
|-----|---|
| 1 | L+ IO-Link power supply (24 V DC) |
| 2 | Reserved, do not connect |
| 3 | C/Q communication with the IO-Link master |
| 4 | L – Reference potential, IO-Link power supply (0 V) |
| 5 | Reserved, do not connect |
| 6 | Reserved, do not connect |
| 7 | Reserved, do not connect |
| 8 | L – Reference potential, IO-Link power supply (0 V) |

Datasheet

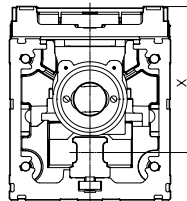
Load values

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.



Distance from the slide surface to the centre of the guide



Max. permissible forces and torques on the slide (strength limits)

| Size | | 32 | 45 | 60 |
|---------------|------|-----|-----|------|
| $F_{y_{max}}$ | [N] | 150 | 300 | 600 |
| $F_{z_{max}}$ | [N] | 300 | 600 | 1800 |
| $M_{x_{max}}$ | [Nm] | 1.3 | 5.5 | 29.1 |
| $M_{y_{max}}$ | [Nm] | 1.1 | 4.7 | 31.8 |
| $M_{z_{max}}$ | [Nm] | 1.1 | 4.7 | 31.8 |

Distance from the slide surface to the centre of the guide

| Size | | 32 | 45 | 60 |
|-------------|------|------|------|------|
| Dimension x | [mm] | 31.4 | 42.8 | 54.6 |

Max. permissible forces and torques for the guide calculation, for a service life of 5000 km or 5×10^6 cycles

| Size | | 32 | 45 | 60 |
|---------------|------|-----|-----|------|
| $F_{y_{max}}$ | [N] | 356 | 880 | 3641 |
| $F_{z_{max}}$ | [N] | 356 | 880 | 3641 |
| $M_{x_{max}}$ | [Nm] | 1.3 | 5.5 | 29.1 |
| $M_{y_{max}}$ | [Nm] | 1.1 | 4.7 | 31.8 |
| $M_{z_{max}}$ | [Nm] | 1.1 | 4.7 | 31.8 |

-  - Note

For a guide system to have a service life of 5000 km, the load comparison factor must have a value of $f_v \leq 1$, based on the maximum permissible forces and torques for a service life of 5000 km.

This formula can be used to calculate a guide value.

The engineering software "Electric Motion Sizing" is available for more precise calculations → www.festo.com

If the axis is subjected to two or more 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

Datasheet

Calculating the service life

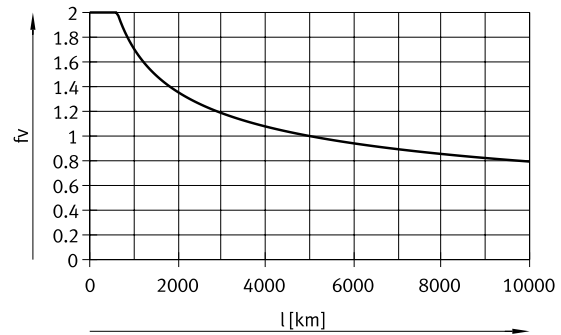
The service life of the guide depends on the load. To be able to make a statement as to the service life of the guide, the graph below plots the load comparison factor f_v against the service life.

These values are only theoretical. You must consult your local Festo contact for a load comparison factor f_v greater than 1.

Load comparison factor f_v as a function of service life l

Example:

A user wants to move an x kg load. Using the formula (→ page 14) 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. 1 500 km. Reducing the acceleration reduces the M_y and M_z values. A load comparison factor f_v of 1 now gives a service life of 5000 km.



Comparison of the characteristic load values for 5000 km with dynamic forces and torques of recirculating ball bearing guides

The characteristic load values of the bearing guides are standardised to ISO and JIS using dynamic and static forces and torques. These forces and torques are based on an expected service life of the guide system of 100 km to ISO or 50 km to JIS.

As the characteristic load values are dependent on the service life, the maximum permissible forces and torques for a 5000 km service life cannot be compared with the dynamic forces and torques of bearing guides to ISO/JIS.

To make it easier to compare the guide capacity of linear axes ELGS with bearing guides, the table below lists the theoretically permissible forces and torques for a calculated service life of 100 km. This corresponds to the dynamic forces and torques to ISO.

These 100 km values have been calculated mathematically and are only to be used for comparing with dynamic forces and torques to ISO. The drives must not be loaded with these characteristic values as this could damage the axes.

Max. permissible forces and torques for a theoretical service life of 100 km (from a guide perspective only)

| Size | | 32 | 45 | 60 |
|---------------|------|------|------|-------|
| $F_{y_{max}}$ | [N] | 1310 | 3240 | 13400 |
| $F_{z_{max}}$ | [N] | 1310 | 3240 | 13400 |
| $M_{x_{max}}$ | [Nm] | 5 | 20 | 107 |
| $M_{y_{max}}$ | [Nm] | 4 | 17 | 117 |
| $M_{z_{max}}$ | [Nm] | 4 | 17 | 117 |

Service life of the motor

The service life of the motor at nominal power is 20000 h.

Datasheet

Sizing example

Application data:

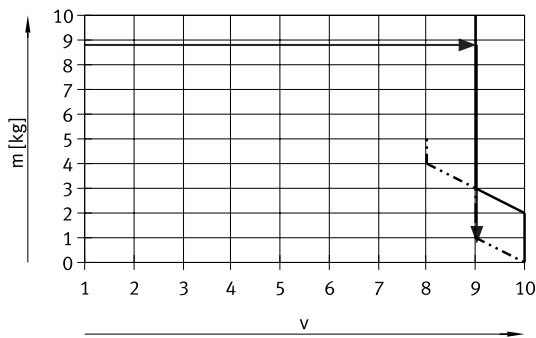
- Payload: 8 kg
- Mounting position: horizontal
- Motor mounting position: axial
- Stroke: 400 mm
- Max. permissible positioning time: 4 s (one direction)

Step 1: Selecting the possible size from the table → page 10

| Mechanical data | | | | |
|-----------------|------|----|----|----|
| Size | | 32 | 45 | 60 |
| Max. payload | | | | |
| Horizontal | [kg] | 2 | 10 | 20 |
| Vertical | [kg] | 2 | 5 | 13 |

→ Smallest possible size: ELGS-BS-KF-45

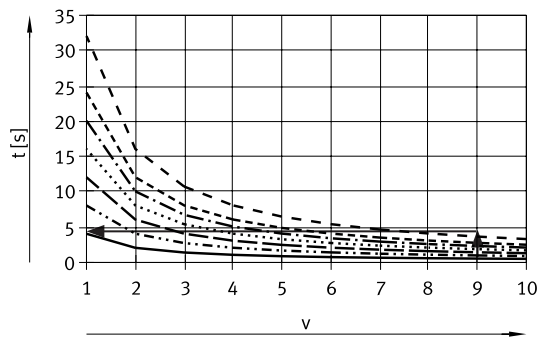
Step 2: Selecting the max. speed level v for payload m



— Horizontal
- - - Vertical

→ Max. speed level for payload: level 9

Step 3: Reading off the min. positioning time t for stroke l



— l = 100 mm
- - - l = 200 mm
- - - l = 300 mm
- - - l = 400 mm
- - - l = 500 mm
- - - l = 600 mm
- - - l = 800 mm

→ Min. positioning time for 400 mm at level 9: 2 s

Result

The application can be implemented using ELGS-BS-KF-45-400. A minimum positioning time (one direction) of 2 s is achieved. Longer positioning times can be selected at any time using a lower speed level.

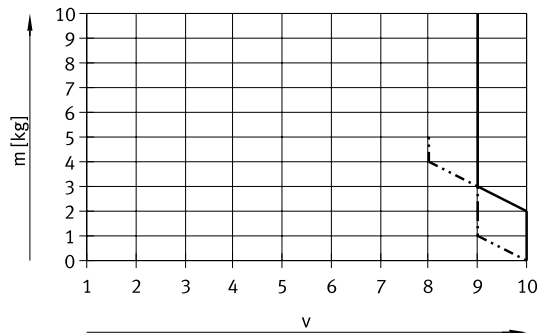
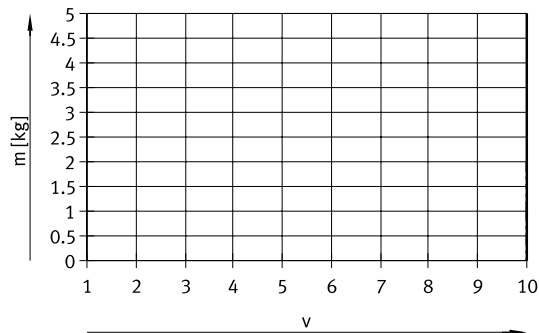
Datasheet

Mass m as a function of speed level v

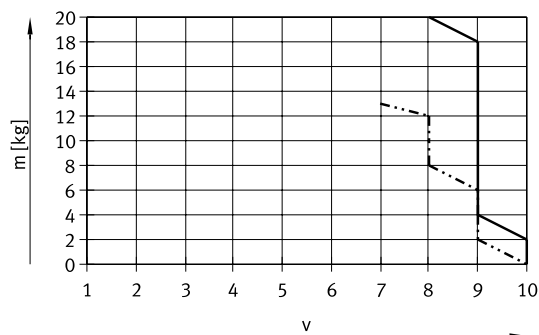
With axial kit

Size 32

Size 45



Size 60



Note:

The lines represent the maximum values. The lower speed levels can be set at any time.

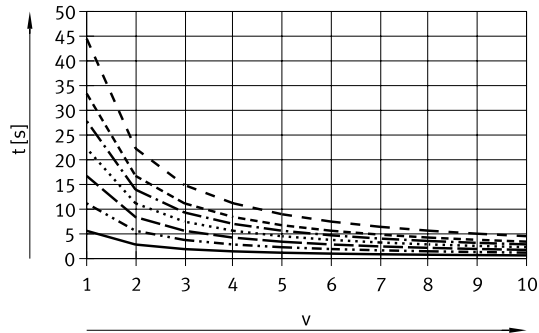
— Horizontal
 - - - - - Vertical

Datasheet

Positioning time t as a function of speed level v and stroke l

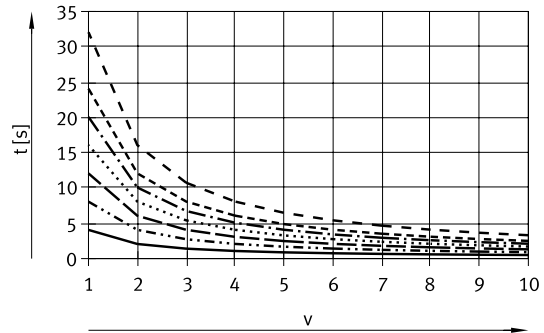
With axial kit

Size 32



- $l = 100$ mm
- · - · - $l = 200$ mm
- - - $l = 300$ mm
- · · · · $l = 400$ mm
- · - · - $l = 500$ mm
- - - $l = 600$ mm
- - - $l = 800$ mm

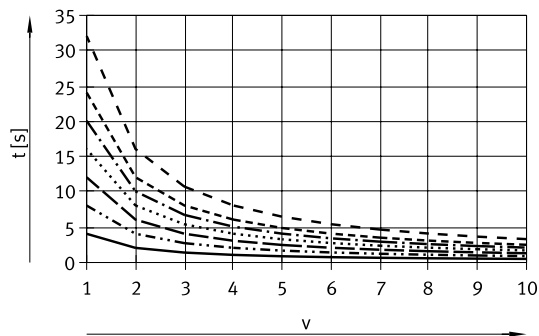
Size 45



- $l = 100$ mm
- · - · - $l = 200$ mm
- - - $l = 300$ mm
- · · · · $l = 400$ mm
- · - · - $l = 500$ mm
- - - $l = 600$ mm
- - - $l = 800$ mm

Positioning time t as a function of speed level v and stroke l

Size 60



- $l = 100$ mm
- · - · - $l = 200$ mm
- - - $l = 300$ mm
- · · · · $l = 400$ mm
- · - · - $l = 500$ mm
- - - $l = 600$ mm
- - - $l = 800$ mm

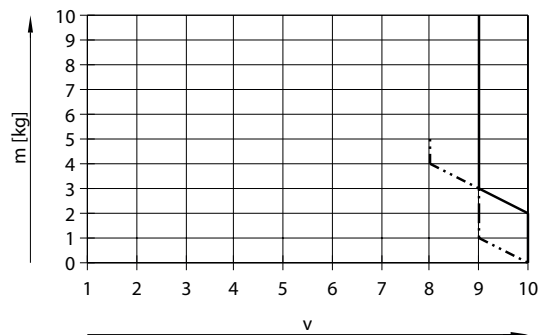
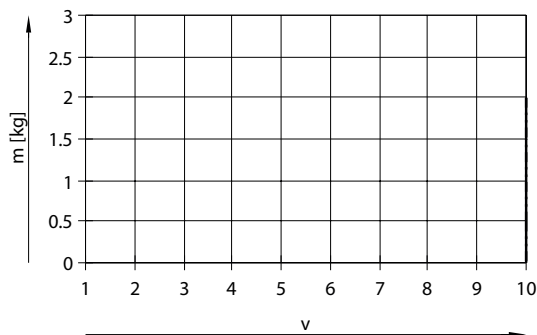
Datasheet

Mass m as a function of speed level v

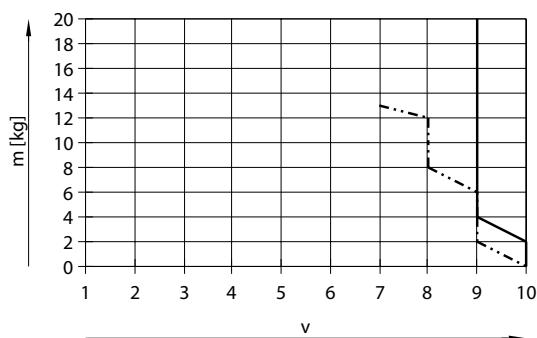
With parallel kit

Size 32

Size 45



Size 60



Note:

The lines represent the maximum values. The lower speed levels can be set at any time.

— Horizontal
 - - - - Vertical

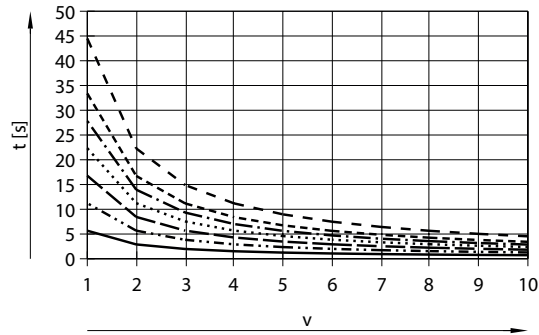
Datasheet

Positioning time t as a function of speed level v and stroke l

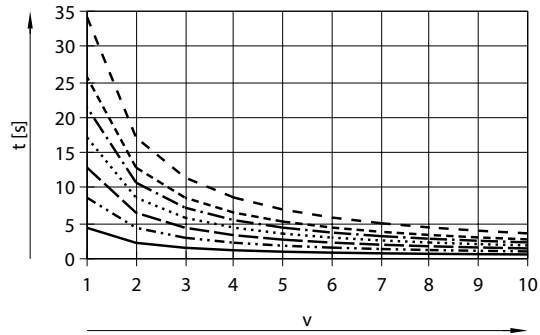
With parallel kit

Size 32

Size 45



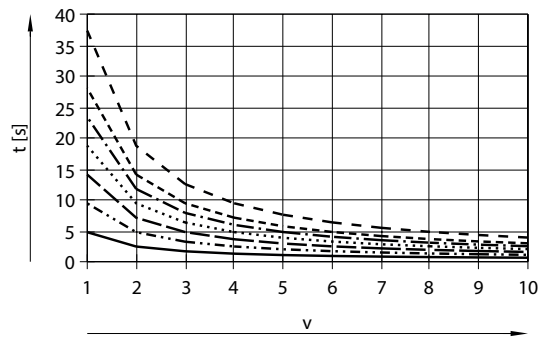
- $l = 100$ mm
- $l = 200$ mm
- - - $l = 300$ mm
- · - · $l = 400$ mm
- · - · - $l = 500$ mm
- - - - $l = 600$ mm
- - - - $l = 800$ mm



- $l = 100$ mm
- $l = 200$ mm
- - - $l = 300$ mm
- · - · $l = 400$ mm
- · - · - $l = 500$ mm
- - - - $l = 600$ mm
- - - - $l = 800$ mm

Positioning time t as a function of speed level v and stroke l

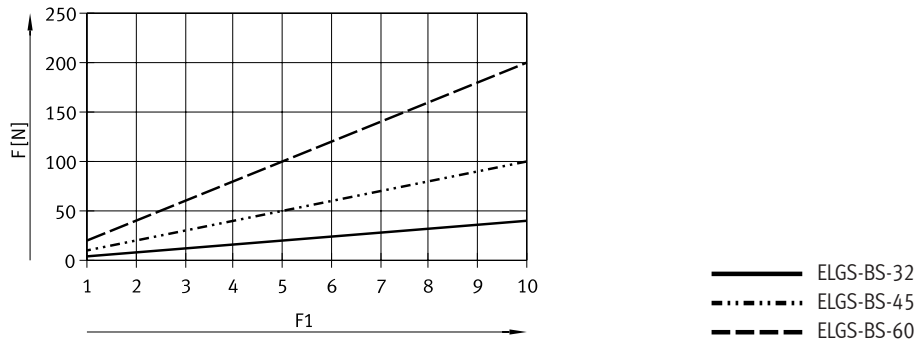
Size 60



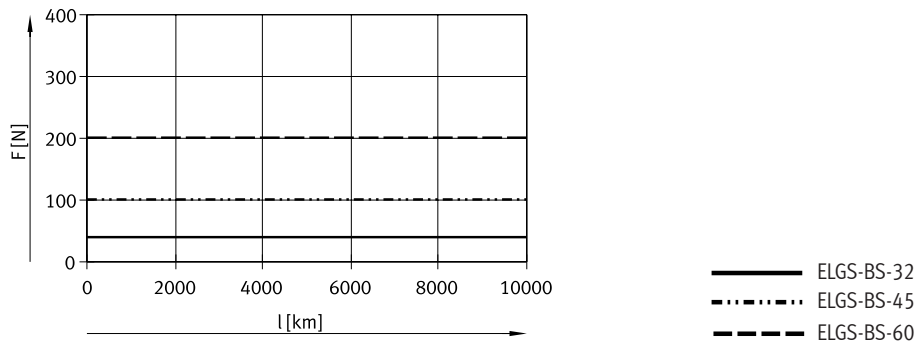
- $l = 100$ mm
- $l = 200$ mm
- - - $l = 300$ mm
- · - · $l = 400$ mm
- · - · - $l = 500$ mm
- - - - $l = 600$ mm
- - - - $l = 800$ mm

Datasheet

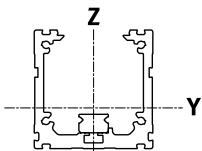
Feed force F as a function of force level F1



Feed force F as a function of service life l



2nd moments of area



| Size | | 32 | 45 | 60 |
|------|--------------------|--------------------|---------------------|---------------------|
| ly | [mm ⁴] | 38x10 ³ | 140x10 ³ | 441x10 ³ |
| lz | [mm ⁴] | 45x10 ³ | 170x10 ³ | 542x10 ³ |

Recommended deflection limits

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

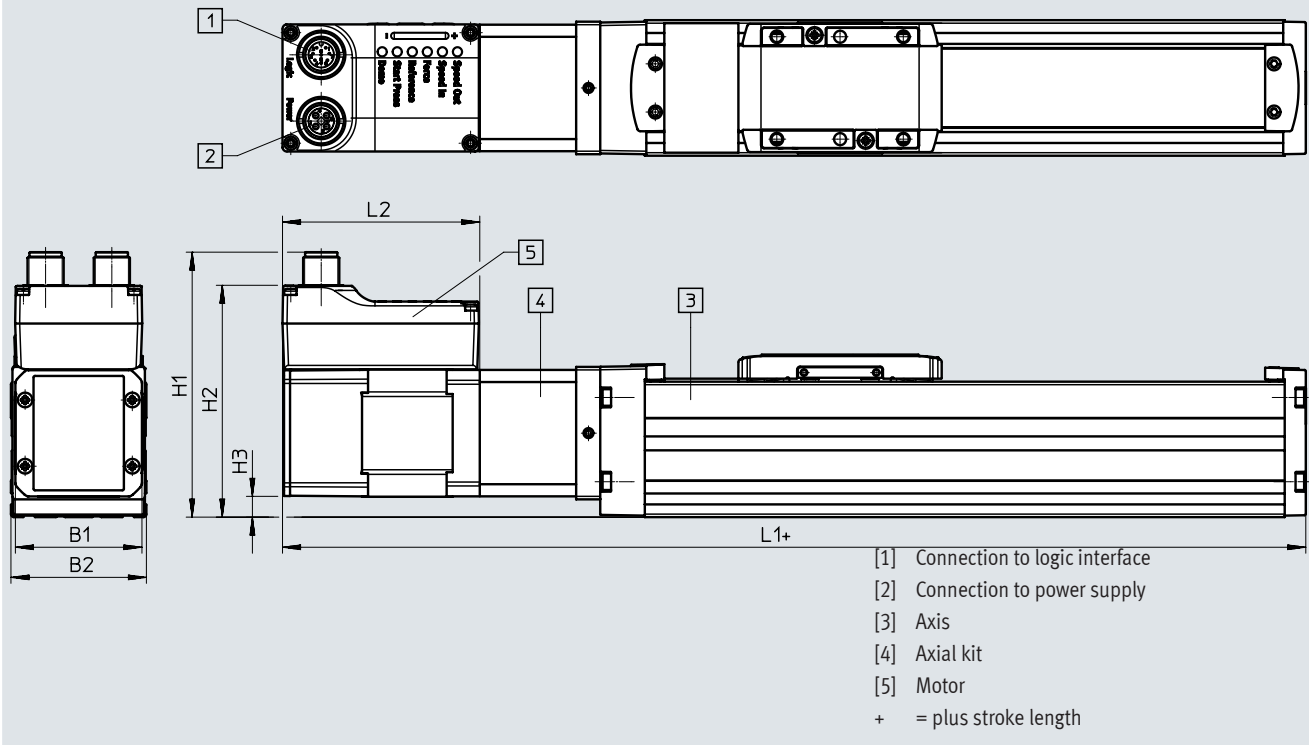
| Size | Dynamic deflection (moving load) | Static deflection (stationary load) |
|-----------|---------------------------------------|-------------------------------------|
| 32 ... 60 | 0.05% of the axis length, max. 0.5 mm | 0.1% of the axis length |

Datasheet

Dimensions – With axial motor mounting

Download CAD data → www.festo.com

Size 32/45/60



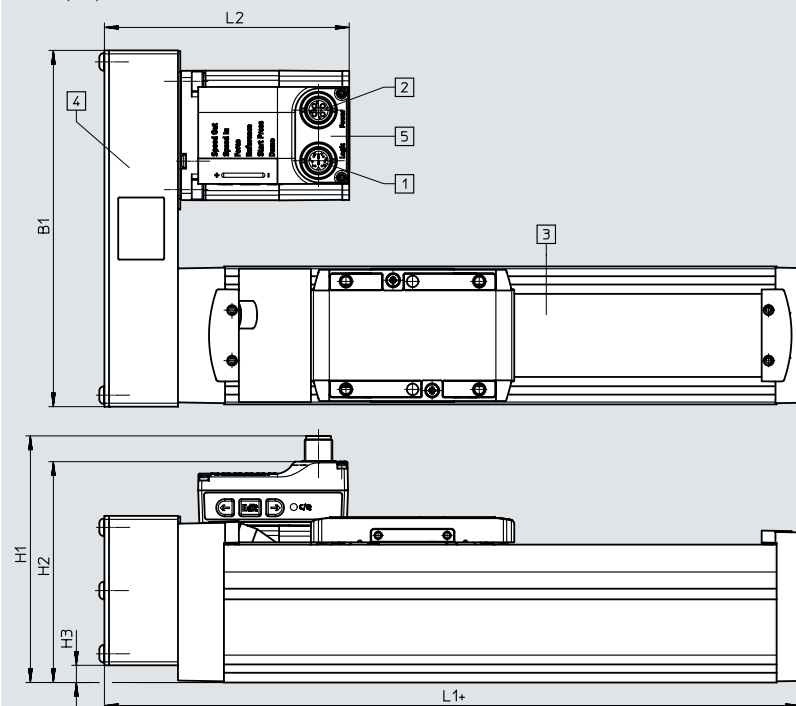
| Size | B1 | B2 | H1 | H2 | H3 | L1 | L2 |
|------|------|----|-------|------|------|-------|------|
| 32 | 42.3 | 32 | 81.2 | 70 | 1.2 | 209.5 | 65 |
| 45 | 42.3 | 45 | 88 | 76.8 | 6.8 | 239.3 | 65 |
| 60 | 56.6 | 60 | 107.3 | 96.1 | 10.5 | 287 | 73.5 |

Datasheet

Dimensions – With parallel motor mounting

Download CAD data → www.festo.com

Size 32/45/60



- [1] Connection to logic interface
- [2] Connection to power supply
- [3] Axis
- [4] Parallel kit
- [5] Motor
- + = plus stroke length

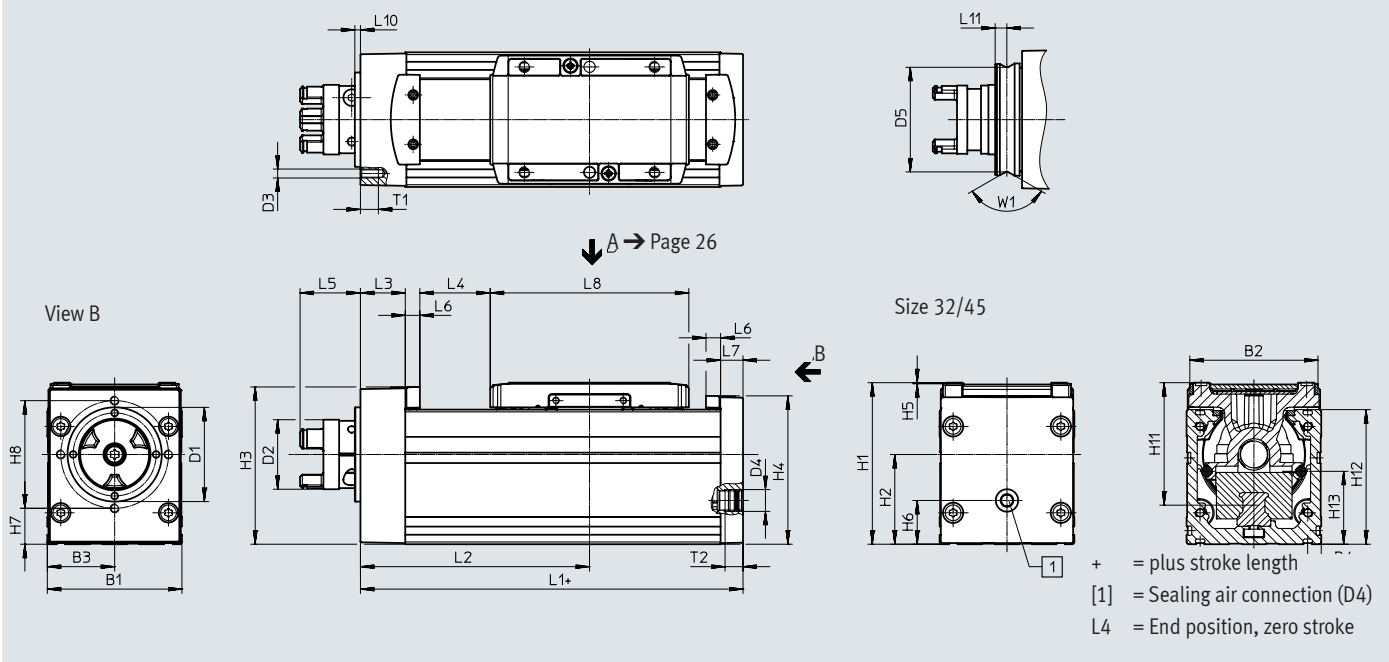
Dimensions for other motor mounting variants → CAD data.

| Size | B1 | H1 | H2 | H3 | L1 | L2 |
|------|-----|-----|----|------|-------|-------|
| 32 | 111 | 80 | 69 | -2.5 | 128.5 | 93 |
| 45 | 111 | 88 | 76 | 5.4 | 158.3 | 93 |
| 60 | 155 | 107 | 96 | 7.5 | 202.5 | 106.5 |

Datasheet

Dimensions

Download CAD data → www.festo.com



| Size | B1 | B2 | B3 | B4 | D1 ∅ | D2 ∅ | D3 | D4 | D5 ∅ | H1 | H2 |
|------|----|------|------|-----|---------|---------|----|------|---------|------|------|
| 32 | 32 | 29.6 | 16 | 4.9 | 25 | 16.5 | - | M5 | 23 | 38.5 | 20 |
| 45 | 45 | 42.6 | 22.5 | 6.1 | 32 | 16.5 | - | G1/8 | 29.6 | 54 | 27.9 |
| 60 | 60 | 57.1 | 30 | 6.1 | 42 | 31 | M4 | G1/8 | - | 72 | 40 |

| Size | H3 | H4 | H5 | H6 | H7 | H8 | H11 | H12 | H13 | L1 | L2 min. |
|------|------|------|-----|------|----|----|------|-----|------|-------|------------|
| 32 | 36.3 | 35.6 | 0.3 | 8 | - | - | 31.4 | 32 | 13.7 | 104.5 | 57.9 |
| 45 | 50.8 | 49.6 | 0.5 | 12.5 | - | - | 42.8 | 45 | 18.5 | 134.3 | 79.7 |
| 60 | 70.1 | 66.1 | 0.5 | 19.5 | 16 | 48 | 54.6 | 60 | 32.5 | 170.5 | 102.1 |

| Size | L3 | L4 | L5 | L6 | L7 | L8 | L10 | L11 | T1 | T2 | W1 |
|------|------|------|------|-----|----|------|-----|-----|----|-----|------|
| 32 | 10.5 | 13.4 | 19.9 | 4.5 | 5 | 59 | 6 | 2.6 | - | 5.5 | 120° |
| 45 | 14.8 | 24.6 | 19.9 | 6.5 | 7 | 67.5 | 6 | 2.9 | - | 8 | 90° |
| 60 | 20 | 31.4 | 26.9 | 6.5 | 10 | 88.5 | 2.5 | - | 8 | 8 | - |

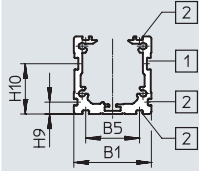
Datasheet

Dimensions

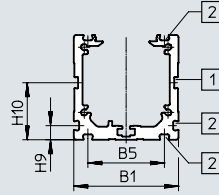
Download CAD data → www.festo.com

Profile

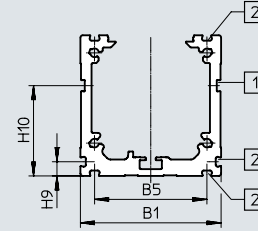
Size 32



Size 45



Size 60



- [1] = Slot for sensor bracket
- [2] = Mounting slot

| Size | B1 | B5 | H9 | H10 |
|------|----|------|-----|------|
| 32 | 32 | 22.2 | 4.9 | 20.8 |
| 45 | 45 | 32.9 | 6.1 | 24.5 |
| 60 | 60 | 47.9 | 6.1 | 38.5 |

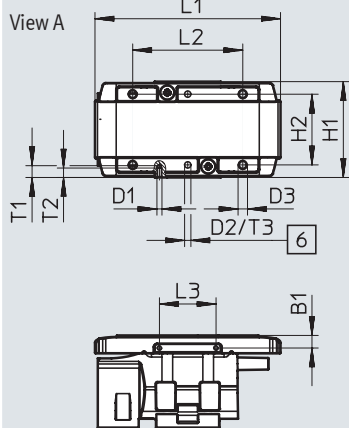
Datasheet

Dimensions

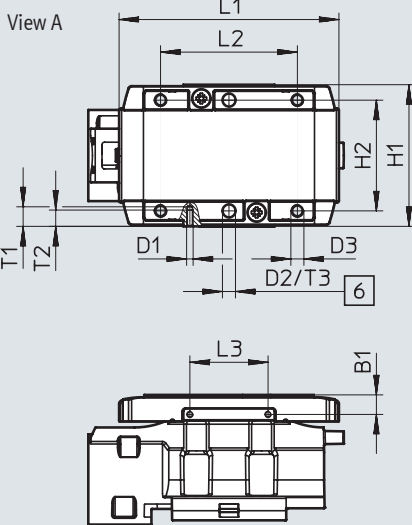
Download CAD data → www.festo.com

Slide

Size 32



Size 45



[6] Drilled hole for centring pin ZBS

| Size | B1 | D1 | D2 ∅ H8 | D3 | H1 | H2 ±0.1 For D2 ±0.03 |
|------|-----------|------|---------------|----|------|----------------------------|
| 32 | 4 ±0.1 | M1.6 | 2 | M3 | 30.5 | 22.5 |
| 45 | 6 | M2 | 4 | M4 | 43.5 | 34 |

| Size | L1 | L2 | L3 | T1 | T2 | T3 | T4 ¹⁾ |
|------|------|------|------|-----|----|------|------------------|
| | | ±0.1 | ±0.1 | | | +0.1 | |
| 32 | 59 | 35 | 18 | 3.8 | 3 | 3.1 | 4 ... 5 |
| 45 | 67.5 | 42 | 24 | 6 | 5 | 3.1 | 6 ... 7.5 |

1) Recommended screw-in depth

Datasheet

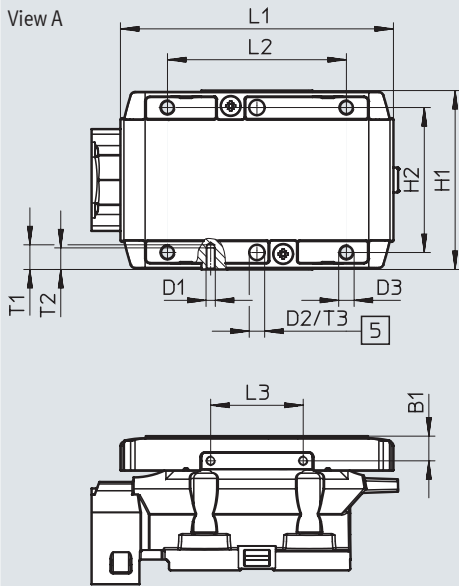
Dimensions

Download CAD data → www.festo.com

Slide

Size 60

View A



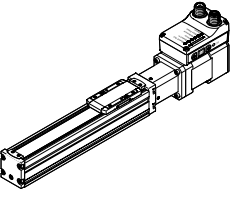
[5] Drilled hole for centring pin ZBH

| Size | B1 | D1 | D2 ∅ H8 | D3 | H1 | H2 ±0.1 For D2 ±0.03 |
|------|-----------|----|---------------|----|------------|----------------------------|
| 60 | 8 ±0.1 | M3 | 5 | M5 | 58 ±0.1 | 47 |

| Size | L1 | L2 ±0.1 | L3 ±0.1 | T1 | T2 | T3 +0.1 | T4 ¹⁾ |
|------|------|------------|------------|----|----|------------|------------------|
| 60 | 88.5 | 58 | 30 | 9 | 7 | 1.3 | 8.5 ... 10 |

1) Recommended screw-in depth

Datasheet

| Ordering data | Size | Spindle pitch | Stroke | Part no. | Type |
|--|------|---------------|--------|----------|--------------------------------------|
|  | 32 | 8 | 100 | 8083424 | ELGS-BS-KF-32-100-8P-ST-M-H1-PLK-AA |
| | | | 200 | 8083425 | ELGS-BS-KF-32-200-8P-ST-M-H1-PLK-AA |
| | | | 300 | 8083426 | ELGS-BS-KF-32-300-8P-ST-M-H1-PLK-AA |
| | | | 400 | 8083427 | ELGS-BS-KF-32-400-8P-ST-M-H1-PLK-AA |
| | | | 500 | 8083428 | ELGS-BS-KF-32-500-8P-ST-M-H1-PLK-AA |
| | | | 600 | 8083429 | ELGS-BS-KF-32-600-8P-ST-M-H1-PLK-AA |
| | | | 800 | 8083430 | ELGS-BS-KF-32-800-8P-ST-M-H1-PLK-AA |
| | 45 | 10 | 100 | 8083470 | ELGS-BS-KF-45-100-10P-ST-M-H1-PLK-AA |
| | | | 200 | 8083471 | ELGS-BS-KF-45-200-10P-ST-M-H1-PLK-AA |
| | | | 300 | 8083472 | ELGS-BS-KF-45-300-10P-ST-M-H1-PLK-AA |
| | | | 400 | 8083473 | ELGS-BS-KF-45-400-10P-ST-M-H1-PLK-AA |
| | | | 500 | 8083474 | ELGS-BS-KF-45-500-10P-ST-M-H1-PLK-AA |
| | | | 600 | 8083475 | ELGS-BS-KF-45-600-10P-ST-M-H1-PLK-AA |
| | | | 800 | 8083476 | ELGS-BS-KF-45-800-10P-ST-M-H1-PLK-AA |
| | 60 | 12 | 100 | 8083383 | ELGS-BS-KF-60-100-12P-ST-M-H1-PLK-AA |
| | | | 200 | 8083384 | ELGS-BS-KF-60-200-12P-ST-M-H1-PLK-AA |
| | | | 300 | 8083385 | ELGS-BS-KF-60-300-12P-ST-M-H1-PLK-AA |
| | | | 400 | 8083386 | ELGS-BS-KF-60-400-12P-ST-M-H1-PLK-AA |
| | | | 500 | 8083387 | ELGS-BS-KF-60-500-12P-ST-M-H1-PLK-AA |
| | | | 600 | 8083388 | ELGS-BS-KF-60-600-12P-ST-M-H1-PLK-AA |
| | | | 800 | 8083389 | ELGS-BS-KF-60-800-12P-ST-M-H1-PLK-AA |

Ordering data – Modular product system

| Ordering table | | | | | | |
|---------------------------|--------------------------------------|-----------------------------------|-----------------------------------|------------|------|------------|
| Size | 32 | 45 | 60 | Conditions | Code | Enter code |
| Module no. | 8083433 | 8083493 | 8083398 | | | |
| Series | ELGS | | | | ELGS | ELGS |
| Drive system | Ball screw | | | | -BS | -BS |
| Guide | Recirculating ball bearing guide | | | | -KF | -KF |
| Size | 32 | 45 | 60 | | -... | |
| Stroke [mm] | 100, 200, 300, 400, 500, 600, 800 | 100, 200, 300, 400, 500, 600, 800 | 100, 200, 300, 400, 500, 600, 800 | | -... | |
| Spindle pitch [mm] | 8P | 10P | 12P | | -... | |
| Motor type | Stepper motor ST | | | | -ST | -ST |
| Controller | Integrated | | | | -M | -M |
| Operator panel | Integrated | | | | -H1 | -H1 |
| Bus protocol/control | NPN and IO-Link | | | | -NLK | |
| | PNP and IO-Link | | | | -PLK | |
| End-position sensing | With integrated end-position sensing | | | | -AA | -AA |
| Cable outlet direction | Standard | | | [1] | | |
| | Underneath | | | [2] | -D | |
| | Rear | | | [2] | -B | |
| | Front | | | [3] | -F | |
| Motor attachment position | Axial (standard) | | | | | |
| | Parallel, rear | | | [4] | -PB | |
| | Parallel, front | | | [5] | -PF | |
| | Parallel, underneath | | | [6] | -PD | |
| Electrical accessories | None | | | | | |
| | Adapter for operation as IO device | | | | +L1 | |

[1] Not with motor mounting position PB; PD

[2] Not with motor mounting position PF

[3] Not with motor mounting position PB

[4] Not in combination with cable outlet direction standard or F

[5] Not in combination with cable outlet direction B; D

[6] Only in combination with cable outlet direction standard

Accessories

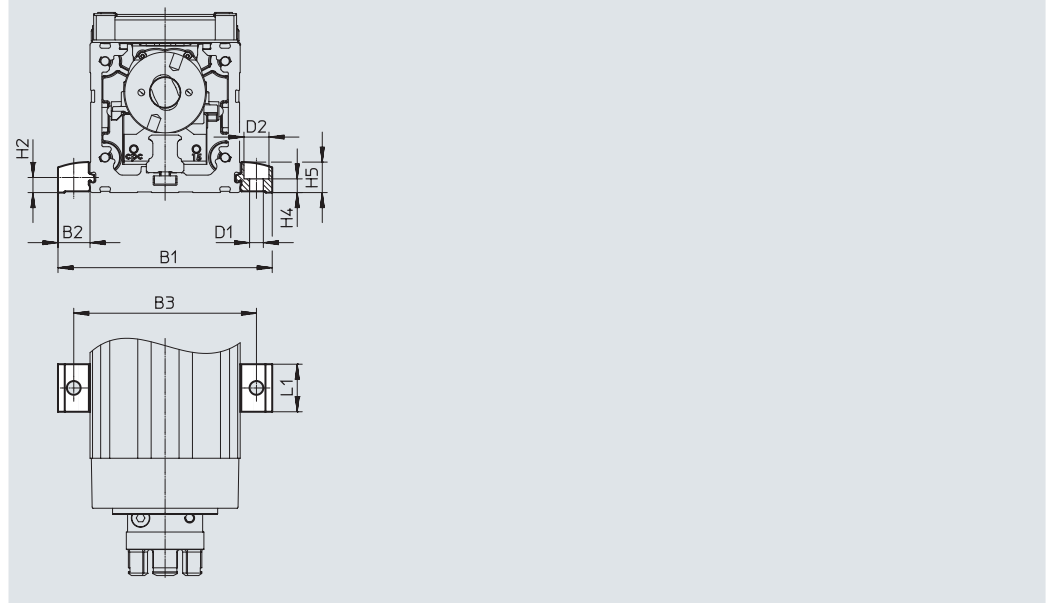
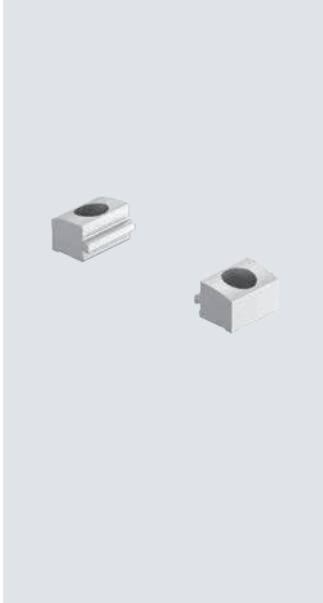
Profile mounting EAHF-L2-...-P-S

Material:

Anodised wrought aluminium alloy

RoHS-compliant

- For mounting the axis on the side of the profile



Dimensions and ordering data

| For size | B1 | B2 | B3 | D1 ∅ H13 | D2 ∅ H13 | H2 |
|----------|------|------|----|----------------|----------------|-----|
| 32 | 51.4 | 9.7 | 42 | 4.5 | 8 | 4.9 |
| 45 | 70.6 | 12.8 | 58 | 5.5 | 10 | 6.1 |
| 60 | 85.6 | 12.8 | 73 | 5.5 | 10 | 6.1 |

| For size | H4 ±0.1 | H5 | L1 | Weight [g] | Part no. | Type |
|----------|------------|------|----|---------------|----------|----------------|
| 32 | 4.2 | 9 | 19 | 4 | 5183153 | EAHF-L2-25-P-S |
| 45 | 5.5 | 12.2 | 19 | 6 | 5184133 | EAHF-L2-45-P-S |
| 60 | 5.5 | 12.2 | 19 | 6 | 5184133 | EAHF-L2-45-P-S |

Accessories

Profile mounting EAHF-L2-...-P

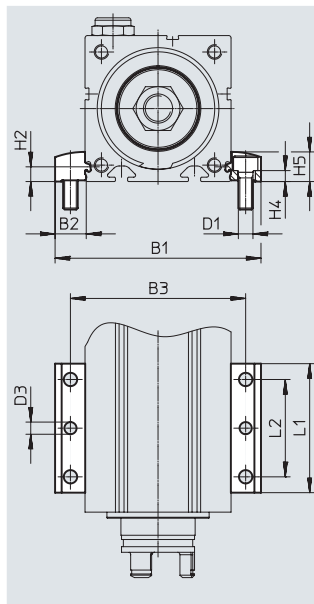
Material:

Anodised wrought aluminium alloy

RoHS-compliant

- For mounting the axis on the side of the profile.

The profile mounting can be attached to the mounting surface using the drilled hole in the centre.



Dimensions and ordering data

| For size | B1 | B2 | B3 | D1 ∅ H13 | D2 ∅ H13 | D3 ∅ | H2 |
|----------|------|------|----|----------------|----------------|---------|-----|
| 32 | 51.4 | 9.7 | 42 | 4.5 | 8 | 4 | 4.9 |
| 45 | 70.6 | 12.8 | 58 | 5.5 | 10 | 5 | 6.1 |
| 60 | 85.6 | 12.8 | 73 | 5.5 | 10 | 5 | 6.1 |

| For size | H4 ±0.1 | H5 | L1 | L2 | Weight [g] | Part no. | Type |
|----------|------------|------|----|----|---------------|----------|--------------|
| 32 | 4.2 | 9 | 53 | 40 | 19 | 4835684 | EAHF-L2-25-P |
| 45 | 5.5 | 12.2 | 53 | 40 | 35 | 4835728 | EAHF-L2-45-P |
| 60 | 5.5 | 12.2 | 53 | 40 | 35 | 4835728 | EAHF-L2-45-P |

Accessories

Profile mounting EAHF-L2-...-P-D...

Material:

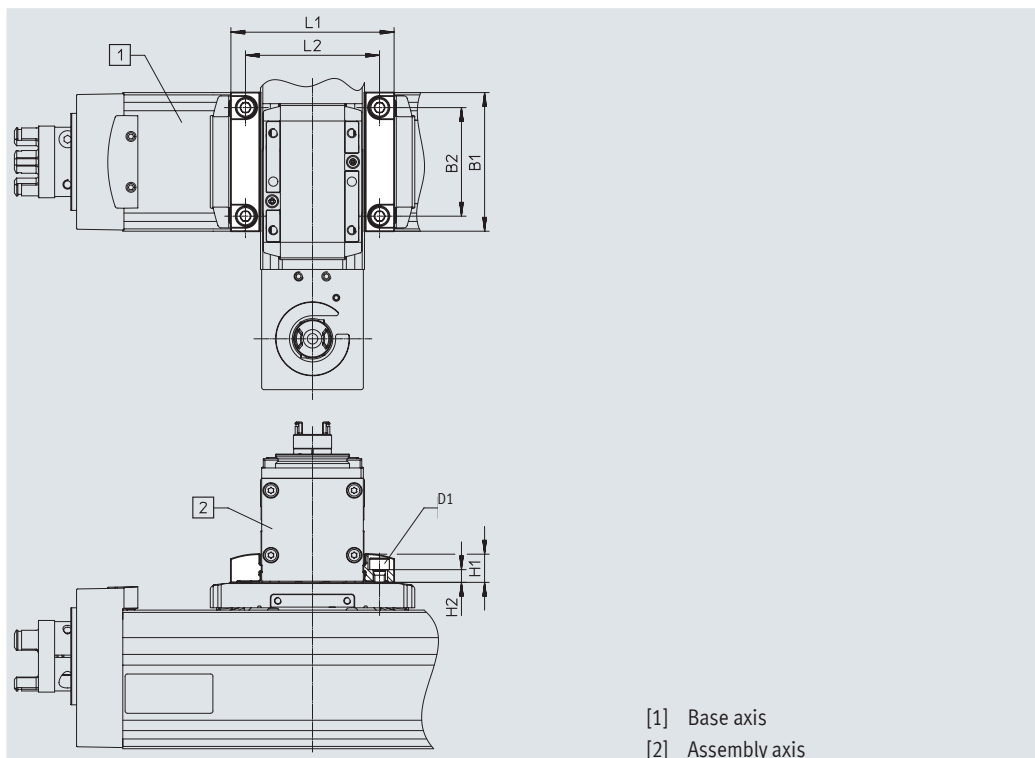
Anodised wrought aluminium alloy

RoHS-compliant

- For axis/axis mounting without adapter plate
- Mounting option: base axis with one-size-down assembly axis (→ page 4)

Combination matrix

| | | [2] Assembly axis ELGC-BS/-TB; ELFC; EGSC-BS | | | |
|------------------------------------|----|--|---------|---------|----|
| Size | | 25 | 32 | 45 | 60 |
| [1] Base axis ELGC-BS/-TB; ELFC | 32 | 4759753 | - | - | - |
| | 45 | - | 4759748 | - | - |
| | 60 | - | - | 4759739 | - |



[1] Base axis
[2] Assembly axis

Dimensions and ordering data

| For combination (size) | B1 | B2 | D1 | H1 |
|------------------------|----|----|----|------|
| 45/32 | 45 | 34 | M4 | 9 |
| 60/45 | 60 | 47 | M5 | 12.2 |

| For combination (size) | H2 ±0.1 | L1 | L2 | Weight [g] | Part no. | Type |
|------------------------|------------|------|----|------------|----------|-----------------|
| 45/32 | 3.7 | 51.4 | 42 | 24 | 4759748 | EAHF-L2-25-P-D2 |
| 60/45 | 5.5 | 70.6 | 58 | 56 | 4759739 | EAHF-L2-45-P-D3 |

Accessories

Adapter kit EHAA-D-L2

Material:

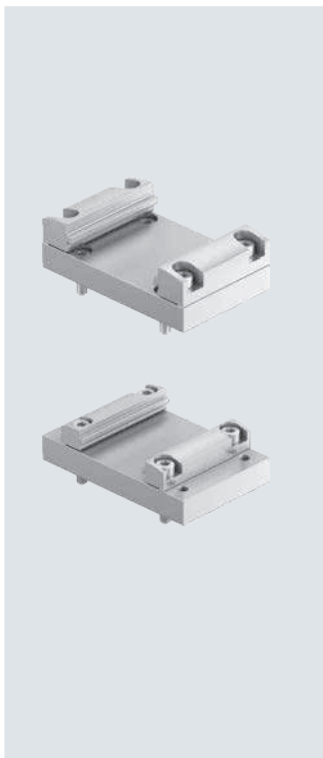
Anodised wrought aluminium alloy

RoHS-compliant

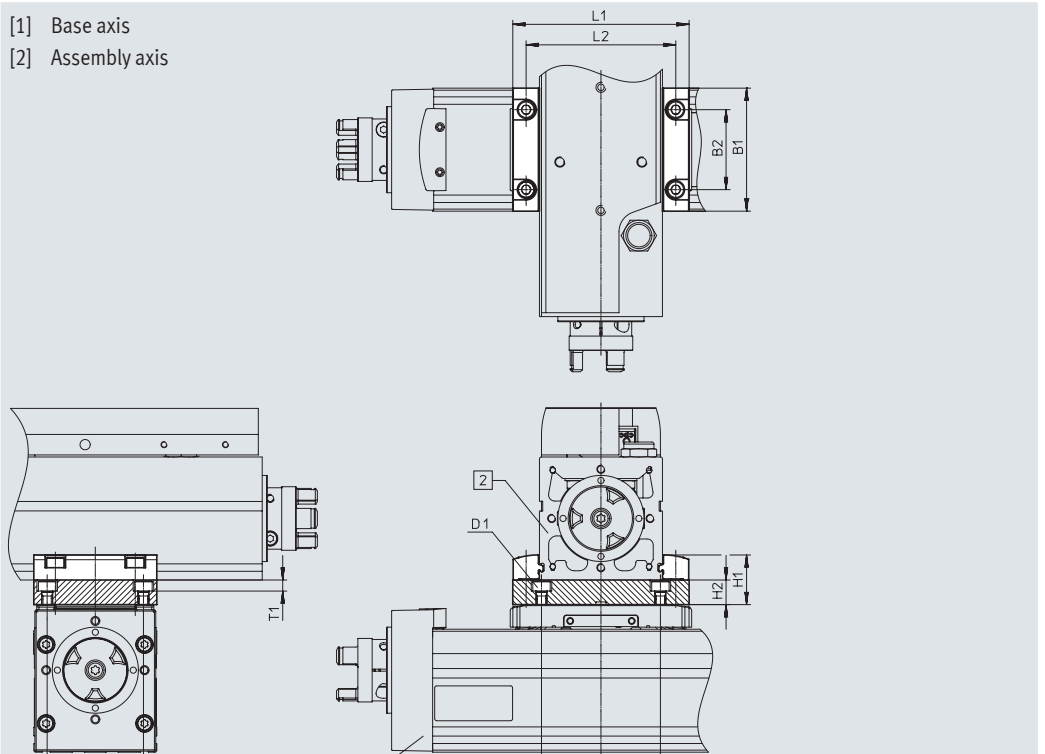
- For axis/axis mounting with adapter plate
- Mounting option: base axis with same size or one-size-down assembly axis (→ page 4)

Combination matrix

| | | [2] Assembly axis ELGC-BS/-TB; ELFC; EGSC-BS | | | | |
|------------------------------------|----|--|---------|---------|----|----|
| Size | | 25 | 32 | 45 | 60 | 80 |
| [1] Base axis ELGC-BS/-TB; ELFC | 32 | 8066713 | | - | - | - |
| | 45 | - | 8066714 | | - | - |
| | 60 | - | - | 8066715 | | - |



- [1] Base axis
- [2] Assembly axis



Dimensions and ordering data

| For combination (size) | B1 | B3 ±0.05 | D1 | H1 | H2 | L1 | L2 | L3 | T1 | Weight [g] | Part no. | Type |
|------------------------|----|----------|----|------|----|------|----|----|-----|------------|----------------|---------------------------|
| 45/32 | 45 | 34 | M4 | 19 | 10 | 51.4 | 42 | 42 | 5.4 | 136 | 8066714 | EHAA-D-L2-45-L2-45 |
| 60/45 | 60 | 47 | M5 | 24.2 | 12 | 70.6 | 58 | 58 | 5.4 | 205 | 8066715 | EHAA-D-L2-60-L2-60 |

| For combination (size) | B1 | B2 | B3 ±0.05 | D1 | H1 | H2 | L1 | L2 | L3 | T1 | Weight [g] | Part no. | Type |
|------------------------|----|----|----------|----|------|----|----|----|----|-----|------------|----------------|---------------------------|
| 45/45 | 45 | 32 | 34 | M4 | 22.2 | 10 | 71 | 58 | 42 | 5.4 | 136 | 8066714 | EHAA-D-L2-45-L2-45 |
| 60/60 | 60 | 39 | 47 | M5 | 24.2 | 12 | 86 | 73 | 58 | 5.4 | 205 | 8066715 | EHAA-D-L2-60-L2-60 |

Accessories

Angle kit EHAA-D-L2-...-AP

Material:

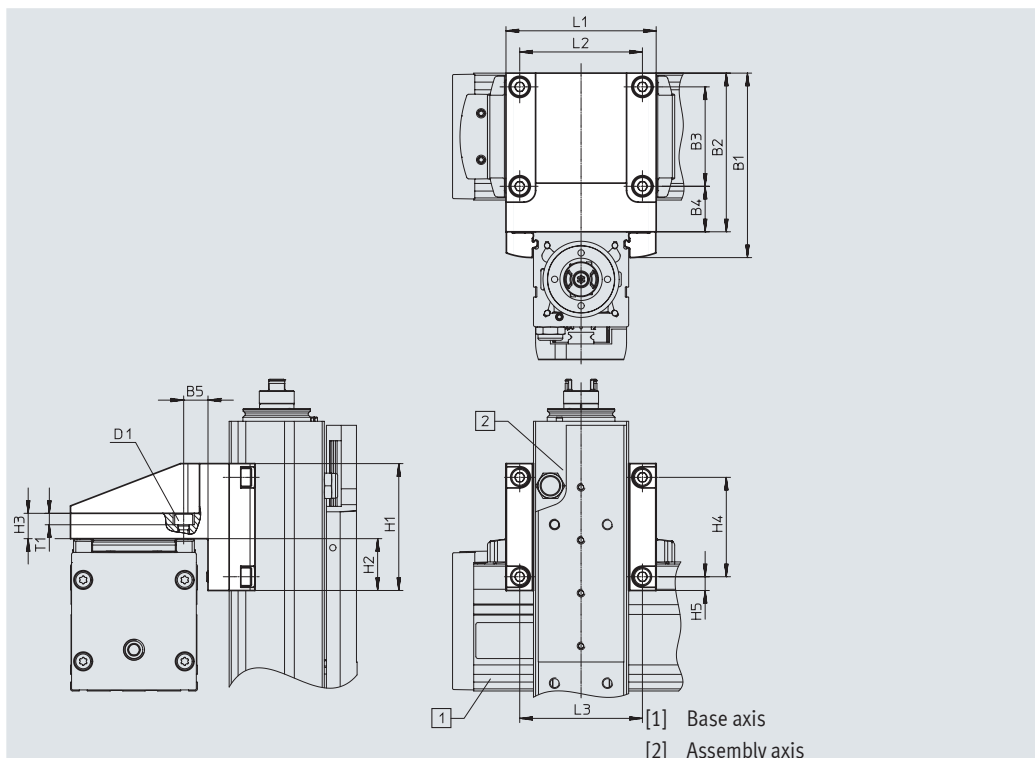
Anodised wrought aluminium alloy

RoHS-compliant

- For mounting one-size-down vertical axes (assembly axes) on base axes with mounting position "slide at top" (→ page 4)

Combination matrix

| [1] Base axis ELGC-BS/-TB; ELFC | Size | [2] Assembly axis ELGC-BS/-TB; ELFC; EGSC-BS | | | |
|------------------------------------|---------|--|---------|---------|----|
| | | 25 | 32 | 45 | 60 |
| 32 | 8066717 | - | - | - | - |
| 45 | - | - | 8066718 | - | - |
| 60 | - | - | - | 8066719 | - |



Dimensions and ordering data

| For combination (size) | B1 | B2 | B3 | B4 | B5 | D1 | H1 | H2 | H3 | H4 |
|------------------------|------|----|----|------|------|----|----|------|----|----|
| 45/32 | 69 | 60 | 34 | 20.5 | 11.5 | M4 | 45 | 17.5 | 10 | 34 |
| 60/45 | 87.2 | 75 | 47 | 21.5 | 11.5 | M5 | 60 | 24.5 | 12 | 47 |

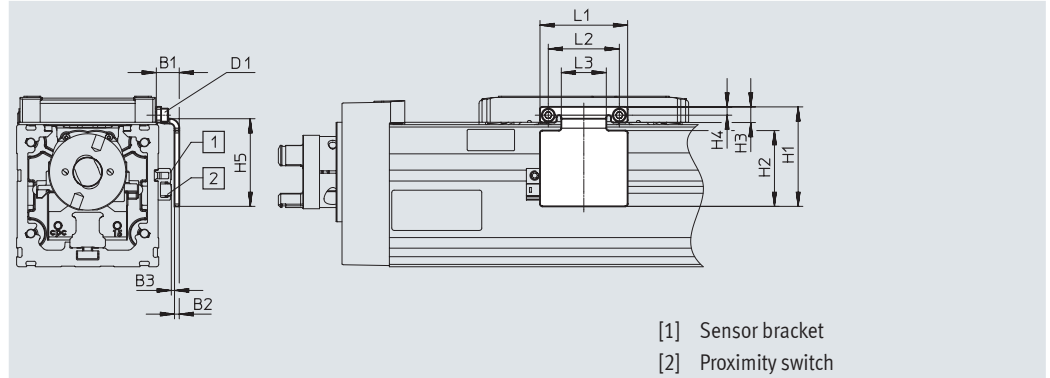
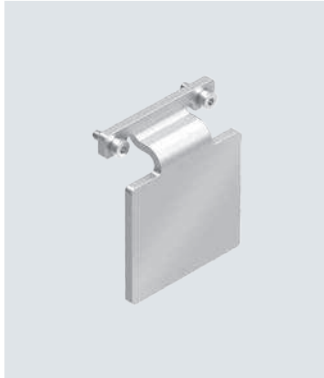
| For combination (size) | H5 | L1 | L2 | L3 | T1 | Weight [g] | Part no. | Type |
|------------------------|-----|----|----|----|-----|------------|----------------|------------------------------|
| 45/32 | 5.5 | 52 | 42 | 42 | 5.4 | 222 | 8066718 | EHAA-D-L2-45-L2-32-AP |
| 60/45 | 6.5 | 71 | 58 | 58 | 5.4 | 433 | 8066719 | EHAA-D-L2-60-L2-45-AP |

Accessories

Switch lug EAPM-L2-SLS

For sensing using inductive proximity switches SIES-8M

Material:
Galvanised steel
RoHS-compliant

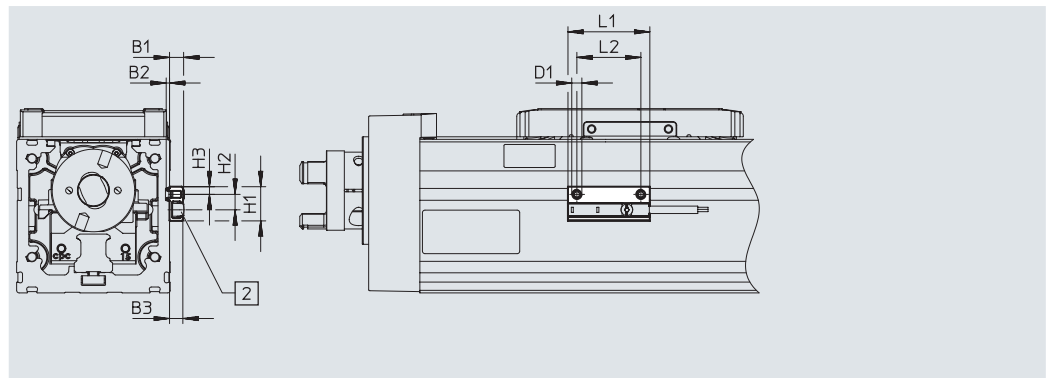
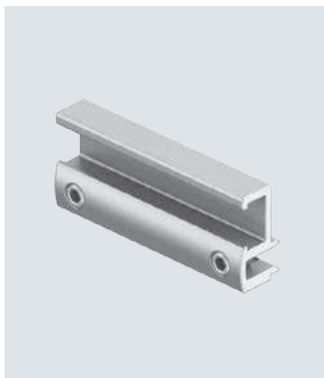


| Dimensions and ordering data | | | | | | | | |
|------------------------------|-----|----|----------|------|------------|----|-----|-----|
| For size | B1 | B2 | B3 | D1 | H1 ±0.2 | H2 | H3 | H4 |
| 32 | 9.2 | 2 | 1.0±0.31 | M1.6 | 27 | 19 | 4.3 | 2.5 |
| 45 | 9.4 | 2 | 1.2±0.31 | M2 | 37 | 28 | 5.5 | 3.3 |
| 60 | 9.7 | 2 | 1.3±0.31 | M3 | 37 | 32 | 6.6 | 3.5 |

| For size | H5 ±0.2 | L1 ±0.2 | L2 ±0.15 | L3 | Weight [g] | Part no. | Type |
|----------|------------|------------|-------------|----|---------------|----------|----------------|
| 32 | 24 | 22 | 18 | 10 | 10 | 8067259 | EAPM-L2-32-SLS |
| 45 | 33 | 30 | 24 | 14 | 18 | 8067260 | EAPM-L2-45-SLS |
| 60 | 37 | 42 | 30 | 19 | 27 | 8067261 | EAPM-L2-60-SLS |

Sensor bracket EAPM-L2-SH




Material:
Anodised wrought aluminium alloy
RoHS-compliant



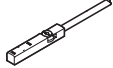
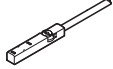
| Dimensions and ordering data | | | | | | |
|------------------------------|-----|-----|----|------|----|--|
| For size | B1 | B2 | D1 | H1 | H2 | |
| 32, 45, 60 | 5.5 | 1.3 | M4 | 13.4 | 6 | |

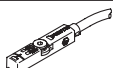
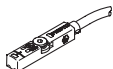
| For size | H3 | L1 | L2 | Weight [g] | Part no. | Type |
|------------|----|----|----|---------------|----------|------------|
| 32, 45, 60 | 3 | 32 | 25 | 4 | 4759852 | EAPM-L2-SH |



Accessories


| Ordering data | | For size | Description | Part no. | Type | PU ¹⁾ |
|--|--------|---------------------------------------|-------------|----------|--------------|------------------|
| Centring pin ZBS/centring sleeve ZBH | | | | | | |
|  | 32 | For slide | | 525273 | ZBS-2 | 10 |
| | 45 | | | 562959 | ZBS-4 | |
| | 60 | | | 8146543 | ZBH-5-B | |
| Clamping element EADT | | | | | | |
|  | 32, 45 | Tool for retensioning the cover strip | | 8065818 | EADT-S-L5-32 | 1 |
| | 60 | | | 8058451 | EADT-S-L5-70 | |
| Push-in fitting | | | | | | |
|  | 32 | for sealing air connection | | 133003 | QSM-M5-3-I-R | 10 |
| | 45, 60 | | | 133004 | QSM-M5-4-I-R | |
| | | | | 186266 | QSM-G1/8-4-I | |
| | | | | 186267 | QSM-G1/8-6-I | |

1) Packaging unit

| Ordering data – Proximity switches for T-slot, inductive | | Switching output | Electrical connection | Cable length [m] | Part no. | Type | Datasheets → Internet: sies |
|--|--|------------------|-----------------------|------------------|----------|--------------------------|-----------------------------|
| N/O | | | | | | | |
|  | Inserted in the slot from above, flush with the cylinder profile | PNP | Cable, 3-wire | 7.5 | 551386 | SIES-8M-PS-24V-K-7.5-OE | |
| | | | Plug M8x1, 3-pin | 0.3 | 551387 | SIES-8M-PS-24V-K-0.3-M8D | |
| | | NPN | Cable, 3-wire | 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 | |
| N/C | | | | | | | |
|  | Inserted in the slot from above, flush with the cylinder profile | PNP | Cable, 3-wire | 7.5 | 551391 | SIES-8M-PO-24V-K-7.5-OE | |
| | | | Plug M8x1, 3-pin | 0.3 | 551392 | SIES-8M-PO-24V-K-0.3-M8D | |
| | | NPN | Cable, 3-wire | 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 | |


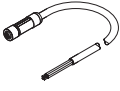
| Ordering data – Proximity switch for T-slot, magneto-resistive | | Switching output | Electrical connection | Cable length [m] | Part no. | Type | Datasheets → Internet: smt |
|--|--|------------------|-----------------------|------------------|----------|---------------------------|----------------------------|
| N/O | | | | | | | |
|  | Inserted in the slot from above, flush with the cylinder profile, short design | PNP | Cable, 3-wire | 2.5 | 574335 | SMT-8M-A-PS-24V-E-2.5-OE | |
| | | | Plug M8x1, 3-pin | 0.3 | 574334 | SMT-8M-A-PS-24V-E-0.3-M8D | |
| N/C | | | | | | | |
|  | Inserted in the slot from above, flush with the cylinder profile, short design | PNP | Cable, 3-wire | 7.5 | 574340 | SMT-8M-A-PO-24V-E-7.5-OE | |



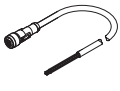
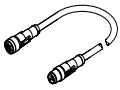
| Ordering data – Connecting cables | | Electrical connection, left | Electrical connection, right | Cable length [m] | Part no. | Type | Datasheets → Internet: nebu |
|--|------------------------------|-----------------------------|------------------------------|------------------|----------|---------------------|-----------------------------|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

 **Note**

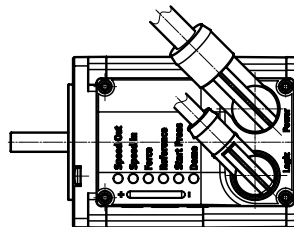
Proximity switches are optional and only required in order to sense any intermediate positions.


Accessories


| Ordering data – Supply cables | | | | | Datasheets → Internet: nebl |
|---|-------------------------------|------------------------------|------------------|----------|-----------------------------|
| | Electrical connection, left | Electrical connection, right | Cable length [m] | Part no. | Type |
|  | Angled socket, M12x1, 4-pin | Cable, open end, 4-wire | 2 | 8080778 | NEBL-T12W4-E-2-N-LE4 |
| | | | 5 | 8080779 | NEBL-T12W4-E-5-N-LE4 |
| | | | 10 | 8080780 | NEBL-T12W4-E-10-N-LE4 |
| | | | 15 | 8080781 | NEBL-T12W4-E-15-N-LE4 |
|  | Straight socket, M12x1, 4-pin | Cable, open end, 4-wire | 2 | 8080790 | NEBL-T12G4-E-2-N-LE4 |
| | | | 5 | 8080791 | NEBL-T12G4-E-5-N-LE4 |
| | | | 10 | 8080792 | NEBL-T12G4-E-10-N-LE4 |
| | | | 15 | 8080793 | NEBL-T12G4-E-15-N-LE4 |

| Ordering data – Connecting cables | | | | | Datasheets → Internet: nebc |
|---|-------------------------------|------------------------------|------------------|----------|-----------------------------|
| | Electrical connection, left | Electrical connection, right | Cable length [m] | Part no. | Type |
|  | Angled socket, M12x1, 8-pin | Cable, open end, 8-wire | 2 | 8094476 | NEBC-M12W8-E-2-N-B-LE8 |
| | | | 5 | 8094478 | NEBC-M12W8-E-5-N-B-LE8 |
| | | | 10 | 8094481 | NEBC-M12W8-E-10-N-B-LE8 |
| | | | 15 | 8094479 | NEBC-M12W8-E-15-N-B-LE8 |
|  | Straight plug, M12x1, 8-pin | Cable, open end, 8-wire | 2 | 8080786 | NEBC-M12W8-E-2-N-M12G8 |
| | | | 5 | 8080787 | NEBC-M12W8-E-5-N-M12G8 |
| | | | 10 | 8080788 | NEBC-M12W8-E-10-N-M12G8 |
| | | | 15 | 8080789 | NEBC-M12W8-E-15-N-M12G8 |
|  | Straight socket, M12x1, 8-pin | Cable, open end, 8-wire | 2 | 8094480 | NEBC-M12G8-E-2-N-B-LE8 |
| | | | 5 | 8094477 | NEBC-M12G8-E-5-N-B-LE8 |
| | | | 10 | 8094482 | NEBC-M12G8-E-10-N-B-LE8 |
| | | | 15 | 8094475 | NEBC-M12G8-E-15-N-B-LE8 |
|  | Straight plug, M12x1, 8-pin | Cable, open end, 8-wire | 2 | 8080782 | NEBC-M12G8-E-2-N-M12G8 |
| | | | 5 | 8080783 | NEBC-M12G8-E-5-N-M12G8 |
| | | | 10 | 8080784 | NEBC-M12G8-E-10-N-M12G8 |
| | | | 15 | 8080785 | NEBC-M12G8-E-15-N-M12G8 |

Note
The cables are positioned at a 45° angle to the axis.



| Ordering data – IO-Link master USB | | | | Datasheets → Internet: cdsu |
|---|---|------------------|----------|-----------------------------|
| | Description | Cable length [m] | Part no. | Type |
|  | <ul style="list-style-type: none"> For using the unit with IO-Link An external power supply plug is also required (not included in the scope of delivery) | 0.3 | 8091509 | CDSU-1 |

| Ordering data – Adapter | | | | | Datasheets → Internet: nefc |
|---|-------------------------------|------------------------------|------------------|----------|-----------------------------|
| | Electrical connection, left | Electrical connection, right | Cable length [m] | Part no. | Type |
|  | Straight socket, M12x1, 8-pin | Straight plug, M12x1, 5-pin | 0.3 | 8080777 | NEFC-M12G8-0.3-M12G5-LK |

Festo - Your Partner in Automation



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

Festo Customer Interaction Center
Tel: 1 877 463 3786
Fax: 1 877 393 3786
Email: customer.service.ca@festo.com



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

Multinational Contact Center
01 800 337 8669
ventas.mexico@festo.com



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

Festo Customer Interaction Center
1 800 993 3786
1 800 963 3786
customer.service.us@festo.com



4 Regional Service Center
7777 Columbia Road
Mason, OH 45040

Connect with us



www.festo.com/socialmedia



www.festo.com

Subject to change