

## Toothed belt axes EGC-TB-KF, with recirculating ball bearing guide

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## Selection aid

## Overview of toothed belt and spindle axes

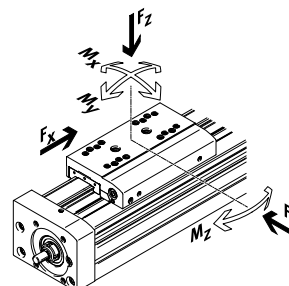
## Toothed belt axes

- Speeds of up to 10 m/s
- Acceleration of up to 50 m/s<sup>2</sup>
- Repetition accuracy of up to ±0.08 mm
- Strokes of up to 8500 mm (longer strokes on request)
- Flexible motor mountings

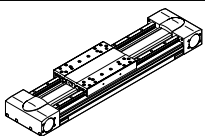
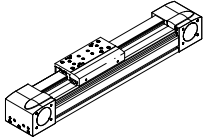
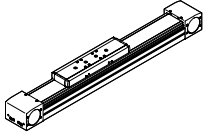
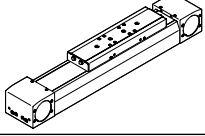
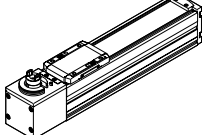
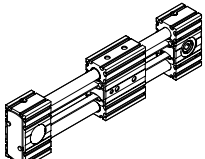
## Spindle axes

- Speeds of up to 2 m/s
- Acceleration of up to 20 m/s<sup>2</sup>
- Repetition accuracy of up to ±0.003 mm
- Strokes of up to 3000 mm

## Coordinate system



## Toothed belt axes

| Type                                                                                | F <sub>x</sub><br>[N] | v<br>[m/s] | M <sub>x</sub><br>[Nm] | M <sub>y</sub><br>[Nm] | M <sub>z</sub><br>[Nm] | Characteristics                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------|-----------------------|------------|------------------------|------------------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Heavy-duty recirculating ball bearing guide                                         |                       |            |                        |                        |                        |                                                                                                                                                                                                                                                                                                       |
| EGC-HD-TB                                                                           |                       |            |                        |                        |                        |                                                                                                                                                                                                                                                                                                       |
|    | 450                   | 3          | 140                    | 275                    | 275                    | <ul style="list-style-type: none"><li>• Flat drive unit with rigid, closed profile</li><li>• Precision DUO guide rail with high load capacity</li><li>• Ideal as a base axis for linear gantries and cantilever axes</li></ul>                                                                        |
|                                                                                     | 1000                  | 5          | 300                    | 500                    | 500                    |                                                                                                                                                                                                                                                                                                       |
|                                                                                     | 1800                  | 5          | 900                    | 1450                   | 1450                   |                                                                                                                                                                                                                                                                                                       |
| Recirculating ball bearing guide                                                    |                       |            |                        |                        |                        |                                                                                                                                                                                                                                                                                                       |
| EGC-TB-KF                                                                           |                       |            |                        |                        |                        |                                                                                                                                                                                                                                                                                                       |
|  | 50                    | 3          | 3.5                    | 10                     | 10                     | <ul style="list-style-type: none"><li>• Rigid, closed profile</li><li>• Precision guide rail with high load capacity</li><li>• Small drive pinions reduce required driving torque</li><li>• Space-saving position sensing</li></ul>                                                                   |
|                                                                                     | 100                   | 5          | 16                     | 132                    | 132                    |                                                                                                                                                                                                                                                                                                       |
|                                                                                     | 350                   | 5          | 36                     | 228                    | 228                    |                                                                                                                                                                                                                                                                                                       |
|                                                                                     | 800                   | 5          | 144                    | 680                    | 680                    |                                                                                                                                                                                                                                                                                                       |
|                                                                                     | 2500                  | 5          | 529                    | 1820                   | 1820                   |                                                                                                                                                                                                                                                                                                       |
| ELGA-TB-KF                                                                          |                       |            |                        |                        |                        |                                                                                                                                                                                                                                                                                                       |
|  | 350                   | 5          | 16                     | 132                    | 132                    | <ul style="list-style-type: none"><li>• Internal guide and toothed belt</li><li>• Precision guide rail with high load capacity</li><li>• Guide and toothed belt protected by cover strip</li><li>• High feed forces</li></ul>                                                                         |
|                                                                                     | 800                   | 5          | 36                     | 228                    | 228                    |                                                                                                                                                                                                                                                                                                       |
|                                                                                     | 1300                  | 5          | 104                    | 680                    | 680                    |                                                                                                                                                                                                                                                                                                       |
|                                                                                     | 2000                  | 5          | 167                    | 1150                   | 1150                   |                                                                                                                                                                                                                                                                                                       |
| ELGA-TB-KF-F1                                                                       |                       |            |                        |                        |                        |                                                                                                                                                                                                                                                                                                       |
|  | 260                   | 5          | 16                     | 132                    | 132                    | <ul style="list-style-type: none"><li>• Suitable for use in the food zone</li><li>• "Clean look": smooth, easy-to-clean surfaces</li><li>• Internal guide and toothed belt</li><li>• Precision guide rail with high load capacity</li><li>• Guide and toothed belt protected by cover strip</li></ul> |
|                                                                                     | 600                   | 5          | 36                     | 228                    | 228                    |                                                                                                                                                                                                                                                                                                       |
|                                                                                     | 1000                  | 5          | 104                    | 680                    | 680                    |                                                                                                                                                                                                                                                                                                       |
| ELGC-TB-KF                                                                          |                       |            |                        |                        |                        |                                                                                                                                                                                                                                                                                                       |
|  | 75                    | 1.2        | 5.5                    | 4.7                    | 4.7                    | <ul style="list-style-type: none"><li>• Internal guide and toothed belt</li><li>• Precision guide rail with high load capacity</li><li>• Guide and toothed belt protected by cover strip</li></ul>                                                                                                    |
|                                                                                     | 120                   | 1.5        | 29.1                   | 31.8                   | 31.8                   |                                                                                                                                                                                                                                                                                                       |
|                                                                                     | 250                   | 1.5        | 59.8                   | 56.2                   | 56.2                   |                                                                                                                                                                                                                                                                                                       |
| ELGR-TB                                                                             |                       |            |                        |                        |                        |                                                                                                                                                                                                                                                                                                       |
|  | 50                    | 3          | 2.5                    | 20                     | 20                     | <ul style="list-style-type: none"><li>• Cost-optimised rod guide</li><li>• Ready-to-install unit</li><li>• Linear ball bearings with high load capacity for dynamic operation</li></ul>                                                                                                               |
|                                                                                     | 100                   | 3          | 5                      | 40                     | 40                     |                                                                                                                                                                                                                                                                                                       |
|                                                                                     | 350                   | 3          | 15                     | 124                    | 124                    |                                                                                                                                                                                                                                                                                                       |

## Selection aid

## Overview of toothed belt and spindle axes

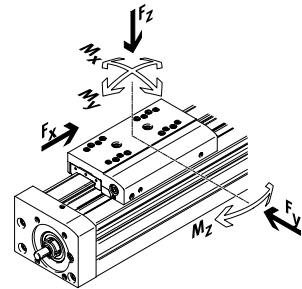
## Toothed belt axes

- Speeds of up to 10 m/s
- Acceleration of up to 50 m/s<sup>2</sup>
- Repetition accuracy of up to ±0.08 mm
- Strokes of up to 8500 mm (longer strokes on request)
- Flexible motor mountings

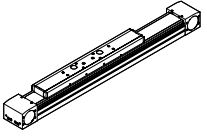
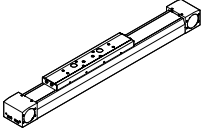
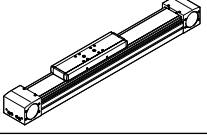
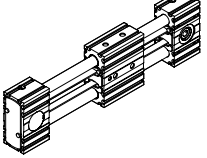
## Spindle axes

- Speeds of up to 2 m/s
- Acceleration of up to 20 m/s<sup>2</sup>
- Repetition accuracy of up to ±0.003 mm
- Strokes of up to 3000 mm

## Coordinate system



## Toothed belt axes

| Type                                                                                | F <sub>x</sub><br>[N] | v<br>[m/s] | M <sub>x</sub><br>[Nm] | M <sub>y</sub><br>[Nm] | M <sub>z</sub><br>[Nm] | Characteristics                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------|-----------------------|------------|------------------------|------------------------|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Roller bearing guide                                                                |                       |            |                        |                        |                        |                                                                                                                                                                                                                                                                                                  |
| ELGA-TB-RF                                                                          |                       |            |                        |                        |                        |                                                                                                                                                                                                                                                                                                  |
|    | 350                   | 10         | 11                     | 40                     | 40                     | <ul style="list-style-type: none"><li>• Heavy-duty roller bearing guide</li><li>• Guide and toothed belt protected by cover strip</li><li>• Speeds of up to 10 m/s</li><li>• Lower weight than axes with guide rails</li></ul>                                                                   |
|                                                                                     | 800                   | 10         | 30                     | 180                    | 180                    |                                                                                                                                                                                                                                                                                                  |
|                                                                                     | 1300                  | 10         | 100                    | 640                    | 640                    |                                                                                                                                                                                                                                                                                                  |
| ELGA-TB-RF-F1                                                                       |                       |            |                        |                        |                        |                                                                                                                                                                                                                                                                                                  |
|  | 260                   | 10         | 8.8                    | 32                     | 32                     | <ul style="list-style-type: none"><li>• Suitable for use in the food zone</li><li>• "Clean look": smooth, easy-to-clean surfaces</li><li>• Heavy-duty roller bearing guide</li><li>• Guide and toothed belt protected by cover strip</li><li>• Lower weight than axes with guide rails</li></ul> |
|                                                                                     | 600                   | 10         | 24                     | 144                    | 144                    |                                                                                                                                                                                                                                                                                                  |
|                                                                                     | 1000                  | 10         | 80                     | 512                    | 512                    |                                                                                                                                                                                                                                                                                                  |
| Plain-bearing guide                                                                 |                       |            |                        |                        |                        |                                                                                                                                                                                                                                                                                                  |
| ELGA-TB-G                                                                           |                       |            |                        |                        |                        |                                                                                                                                                                                                                                                                                                  |
|  | 350                   | 5          | 5                      | 30                     | 10                     | <ul style="list-style-type: none"><li>• Guide and toothed belt protected by cover strip</li><li>• For simple handling tasks</li><li>• As a drive component for external guides</li><li>• Insensitive to harsh ambient conditions</li></ul>                                                       |
|                                                                                     | 800                   | 5          | 10                     | 60                     | 20                     |                                                                                                                                                                                                                                                                                                  |
|                                                                                     | 1300                  | 5          | 120                    | 120                    | 40                     |                                                                                                                                                                                                                                                                                                  |
| ELGR-TB-GF                                                                          |                       |            |                        |                        |                        |                                                                                                                                                                                                                                                                                                  |
|  | 50                    | 1          | 1                      | 10                     | 10                     | <ul style="list-style-type: none"><li>• Cost-optimised rod guide</li><li>• Ready-to-install unit</li><li>• Heavy-duty plain bearings for use in harsh ambient conditions</li></ul>                                                                                                               |
|                                                                                     | 100                   | 1          | 2.5                    | 20                     | 20                     |                                                                                                                                                                                                                                                                                                  |
|                                                                                     | 350                   | 1          | 1                      | 40                     | 40                     |                                                                                                                                                                                                                                                                                                  |

## Selection aid

## Overview of toothed belt and spindle axes

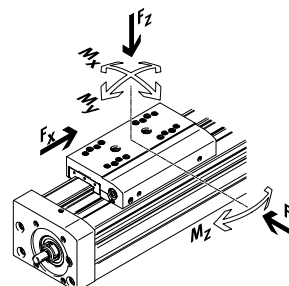
## Toothed belt axes

- Speeds of up to 10 m/s
- Acceleration of up to 50 m/s<sup>2</sup>
- Repetition accuracy of up to ±0.08 mm
- Strokes of up to 8500 mm (longer strokes on request)
- Flexible motor mountings

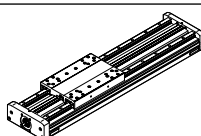
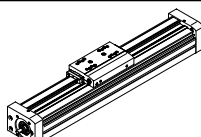
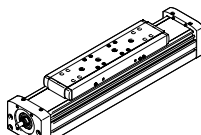
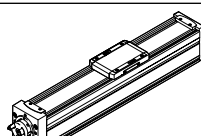
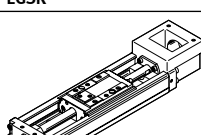
## Spindle axes

- Speeds of up to 2 m/s
- Acceleration of up to 20 m/s<sup>2</sup>
- Repetition accuracy of up to ±0.003 mm
- Strokes of up to 3000 mm

## Coordinate system



## Spindle axes

| Type                                                                                | F <sub>x</sub><br>[N] | v<br>[m/s] | M <sub>x</sub><br>[Nm] | M <sub>y</sub><br>[Nm] | M <sub>z</sub><br>[Nm] | Characteristics                                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------------------------------------|-----------------------|------------|------------------------|------------------------|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Heavy-duty recirculating ball bearing guide                                         |                       |            |                        |                        |                        |                                                                                                                                                                                                                                                                                                                   |
| EGC-HD-BS                                                                           |                       |            |                        |                        |                        |                                                                                                                                                                                                                                                                                                                   |
|    | 400                   | 0.5        | 140                    | 275                    | 275                    | <ul style="list-style-type: none"><li>• Flat drive unit with rigid, closed profile</li><li>• Precision DUO guide rail with high load capacity</li><li>• Ideal as a base axis for linear gantries and cantilever axes</li></ul>                                                                                    |
|                                                                                     | 650                   | 1.0        | 300                    | 500                    | 500                    |                                                                                                                                                                                                                                                                                                                   |
|                                                                                     | 1500                  | 1.5        | 900                    | 1450                   | 1450                   |                                                                                                                                                                                                                                                                                                                   |
| Recirculating ball bearing guide                                                    |                       |            |                        |                        |                        |                                                                                                                                                                                                                                                                                                                   |
| EGC-BS-KF                                                                           |                       |            |                        |                        |                        |                                                                                                                                                                                                                                                                                                                   |
|  | 400                   | 0.5        | 16                     | 132                    | 132                    | <ul style="list-style-type: none"><li>• Rigid, closed profile</li><li>• Precision guide rail with high load capacity</li><li>• For the highest requirements in terms of feed force and accuracy</li><li>• Space-saving position sensing</li></ul>                                                                 |
|                                                                                     | 650                   | 1.0        | 36                     | 228                    | 228                    |                                                                                                                                                                                                                                                                                                                   |
|                                                                                     | 1500                  | 1.5        | 144                    | 680                    | 680                    |                                                                                                                                                                                                                                                                                                                   |
|                                                                                     | 3000                  | 2.0        | 529                    | 1820                   | 1820                   |                                                                                                                                                                                                                                                                                                                   |
| ELGA-BS-KF                                                                          |                       |            |                        |                        |                        |                                                                                                                                                                                                                                                                                                                   |
|  | 650                   | 0.5        | 16                     | 132                    | 132                    | <ul style="list-style-type: none"><li>• Internal guide and ball screw</li><li>• Precision guide rail with high load capacity</li><li>• For the highest requirements in terms of feed force and accuracy</li><li>• Guide and ball screw protected by cover strip</li><li>• Space-saving position sensing</li></ul> |
|                                                                                     | 1600                  | 1.0        | 36                     | 228                    | 228                    |                                                                                                                                                                                                                                                                                                                   |
|                                                                                     | 3400                  | 1.5        | 104                    | 680                    | 680                    |                                                                                                                                                                                                                                                                                                                   |
|                                                                                     | 6400                  | 2.0        | 167                    | 1150                   | 1150                   |                                                                                                                                                                                                                                                                                                                   |
| ELGC-BS-KF                                                                          |                       |            |                        |                        |                        |                                                                                                                                                                                                                                                                                                                   |
|  | 40                    | 0.6        | 1.3                    | 1.1                    | 1.1                    | <ul style="list-style-type: none"><li>• Internal guide and ball screw</li><li>• Guide and ball screw protected by cover strip</li><li>• Space-saving position sensing</li></ul>                                                                                                                                   |
|                                                                                     | 100                   | 0.6        | 5.5                    | 4.7                    | 4.7                    |                                                                                                                                                                                                                                                                                                                   |
|                                                                                     | 200                   | 0.8        | 29.1                   | 31.8                   | 31.8                   |                                                                                                                                                                                                                                                                                                                   |
|                                                                                     | 350                   | 1.0        | 59.8                   | 56.2                   | 56.2                   |                                                                                                                                                                                                                                                                                                                   |
| EGSK                                                                                |                       |            |                        |                        |                        |                                                                                                                                                                                                                                                                                                                   |
|  | 57                    | 0.33       | 13                     | 3.7                    | 3.7                    | <ul style="list-style-type: none"><li>• Spindle axes with maximum precision, compactness and rigidity</li><li>• Recirculating ball bearing guide and ball screw without caged ball bearings</li><li>• Standard designs in stock</li></ul>                                                                         |
|                                                                                     | 133                   | 1.10       | 28.7                   | 9.2                    | 9.2                    |                                                                                                                                                                                                                                                                                                                   |
|                                                                                     | 184                   | 0.83       | 60                     | 20.4                   | 20.4                   |                                                                                                                                                                                                                                                                                                                   |
|                                                                                     | 239                   | 1.10       | 79.5                   | 26                     | 26                     |                                                                                                                                                                                                                                                                                                                   |
|                                                                                     | 392                   | 1.48       | 231                    | 77.3                   | 77.3                   |                                                                                                                                                                                                                                                                                                                   |

## Key features

### At a glance

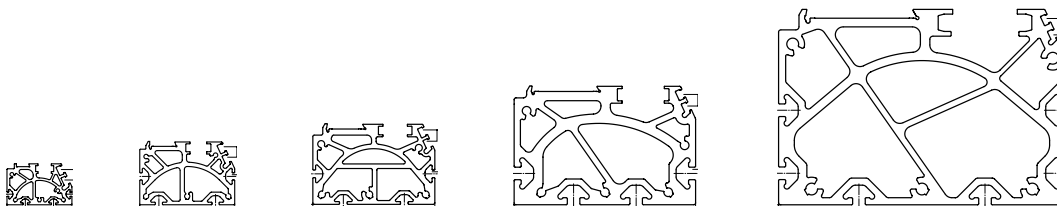
- Generously sized profiles with an optimised cross section enable maximum rigidity and load capacity
- Speed, acceleration and torque resistance set a new standard
- Numerous sizes and variants such as protected guides open up a broad range of applications
- Due to the EGC's high performance it is often possible to use a smaller size
- Space-saving position sensing with proximity switch in the profile slot is possible
- Toothed belt material can be selected from:
  - Chloroprene rubber for long service life
  - Coated PU with steel reinforcement cords for long service life and resistance to certain cooling lubricants
- Wide range of options for mounting on drives
- Comprehensive range of mounting accessories for multi-axis combinations
- EX3: for use in potentially explosive areas

### Flexible motor mounting

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



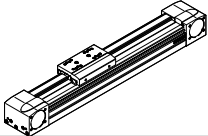
### Comprehensive range for the most varied load conditions



### 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 in the catalogue.

| Design                                                                              | Size | Working stroke<br>[mm] | Speed<br>[m/s] | Repetition accuracy<br>[mm] | Feed force<br>[N] | Guide characteristics |                       |                        |                        |                        |
|-------------------------------------------------------------------------------------|------|------------------------|----------------|-----------------------------|-------------------|-----------------------|-----------------------|------------------------|------------------------|------------------------|
|                                                                                     |      |                        |                |                             |                   | Forces and torques    |                       |                        |                        |                        |
|                                                                                     |      |                        |                |                             |                   | F <sub>y</sub><br>[N] | F <sub>z</sub><br>[N] | M <sub>x</sub><br>[Nm] | M <sub>y</sub><br>[Nm] | M <sub>z</sub><br>[Nm] |
| <b>Recirculating ball bearing guide</b>                                             |      |                        |                |                             |                   |                       |                       |                        |                        |                        |
|  | 50   | 50 ... 1900            | 3              | ±0.08                       | 50                | 650                   | 650                   | 3.5                    | 10                     | 10                     |
|                                                                                     | 70   | 50 ... 5000            | 5              | ±0.08                       | 100               | 1850                  | 1850                  | 16                     | 132                    | 132                    |
|                                                                                     | 80   | 50 ... 8500            | 5              | ±0.08                       | 350               | 3050                  | 3050                  | 36                     | 228                    | 228                    |
|                                                                                     | 120  | 50 ... 8500            | 5              | ±0.08                       | 800               | 6890                  | 6890                  | 144                    | 680                    | 680                    |
|                                                                                     | 185  | 50 ... 8500            | 5              | ±0.1                        | 2500              | 15200                 | 15200                 | 529                    | 1820                   | 1820                   |

 **Note**  
Engineering software  
PositioningDrives  
[www.festo.com](http://www.festo.com)

## Key features

### Slide variants

Standard slide



Extended slide

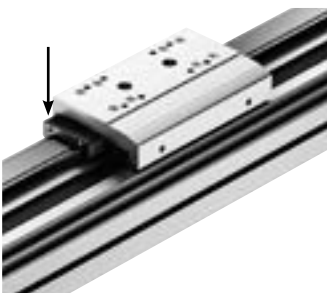


Additional slide



### Guide options

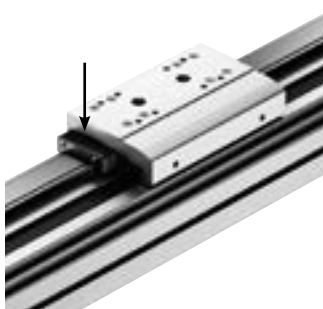
Protected version



- The protected guide cleans the guide rail and protects the recirculating ball bearing guide with the aid of an additional wiper

With central lubrication

→ Page 23



- The lubrication adapters enable the guide to be permanently lubricated using semi or fully automatic relubrication devices
- The adapters are suitable for oils and greases
- All lubrication connections must be connected

Displacement encoder

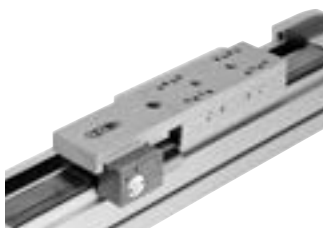
→ Page 14



- The position of the slide can be sensed directly when using the incremental displacement encoder. This means that all elasticities of the drivetrain can be detected and corrected by the motor controller.

Clamping unit

→ Page 15



- 1- or 2-channel design, for holding loads
- Reliable holding is guaranteed since the forces act directly on the slide
- A limited number of emergency braking operations are permissible with sizes 120 and 185

## Key features

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

Toothed belt axis with recirculating ball bearing guide



#### Motor

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Servo motor:  
EMMT-AS, EMME-AS, EMMS-AS  
Stepper motor:  
EMMS-ST



#### Note

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

#### Servo drives



Servo drive:  
CMMT-AS  
Servo drive for extra-low voltage:  
CMMT-ST

#### Motor mounting kit

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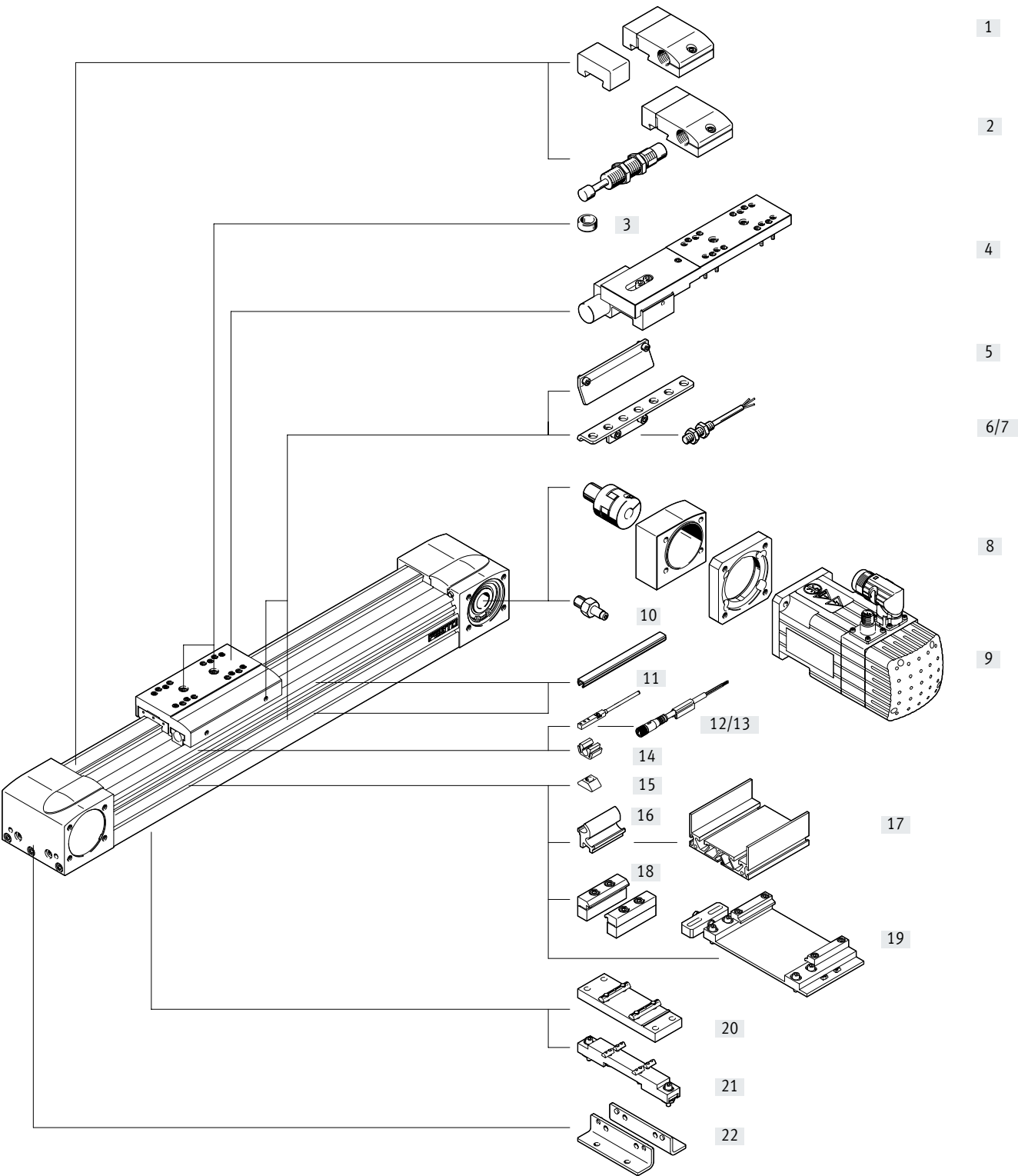
##### Axial kit



##### Kit comprising:

- Motor flange
- Coupling housing
- Coupling
- Screws

Peripherals overview





## Peripherals overview

| Variants and accessories                      |                                                                                                                                                                                                                                                                       |                 |  |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--|
| Type/order code                               | Description                                                                                                                                                                                                                                                           | → Page/Internet |  |
| [1] Emergency buffer with retaining bracket A | For avoiding damage at the end stop in the event of a malfunction                                                                                                                                                                                                     | 61              |  |
| [2] Shock absorber with retaining bracket C   | For avoiding damage at the end stop in the event of a malfunction                                                                                                                                                                                                     | 61              |  |
| [3] Centring pin/sleeve ZBS, ZBH              | <ul style="list-style-type: none"> <li>For centring loads and attachments on the slide</li> <li>Included in the scope of delivery: <ul style="list-style-type: none"> <li>With size 50, 70: 2x ZBS-5</li> <li>With size 80, 120, 185: 2x ZBH-9</li> </ul> </li> </ul> | 61              |  |
| [4] Clamping unit 1H...PN, 2H-PN              | For holding loads                                                                                                                                                                                                                                                     | 15              |  |
| [5] Switch lug X, Z, O, P, W, R               | For sensing the slide position                                                                                                                                                                                                                                        | 58              |  |
| [6] Sensor bracket O, P, W, R                 | Adapter for mounting the inductive proximity switches (round design) on the axis                                                                                                                                                                                      | 59              |  |
| [7] Proximity switch, M8 O, P, W, R           | <ul style="list-style-type: none"> <li>Inductive proximity switch, round design</li> <li>The order code O, P, W, R includes 1 switch lug and max. 2 sensor brackets in the scope of delivery</li> </ul>                                                               | 62              |  |
| [8] Axial kit EAMM                            | For axial motor mounting (comprising: coupling, coupling housing and motor flange)                                                                                                                                                                                    | 48              |  |
| [9] Motor EMME, EMMS                          | Motors specially matched to the axis, with or without gear unit, with or without brake                                                                                                                                                                                | 48              |  |
| [10] Drive shaft K                            | <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 46 onwards</li> </ul>                                                                         | 60              |  |
| [11] Slot cover B, S                          | <ul style="list-style-type: none"> <li>For protection against contamination</li> </ul>                                                                                                                                                                                | 61              |  |
| [12] Proximity switch, T-slot X, Z            | <ul style="list-style-type: none"> <li>Inductive proximity switch, for T-slot</li> <li>The order code X, Z includes 1 switch lug in the scope of delivery</li> </ul>                                                                                                  | 62              |  |
| [13] Connecting cable V                       | For proximity switch (order code W and R)                                                                                                                                                                                                                             | 63              |  |
| [14] Clip CL                                  | For mounting the proximity switch cable in the slot                                                                                                                                                                                                                   | 61              |  |
| [15] Slot nut Y                               | For mounting attachments                                                                                                                                                                                                                                              | 61              |  |
| [16] Adapter kit DHAM                         | For mounting the support profile on the axis                                                                                                                                                                                                                          | 62              |  |
| [17] Support profile HMIA                     | For mounting and guiding an energy chain                                                                                                                                                                                                                              | 62              |  |
| [18] Profile mounting M                       | For mounting the axis on the side of the profile                                                                                                                                                                                                                      | 54              |  |
| [19] Adjusting kit EADC-E16                   | For mounting the axis on a vertical surface. Once mounted, the axis can be aligned horizontally                                                                                                                                                                       | 57              |  |
| [20] Central support EAHF-L5                  | For mounting the axis on the profile from underneath                                                                                                                                                                                                                  | 55              |  |
| [21] Adjusting kit EADC-E15                   | Height-adjustable. Can be used to easily compensate for any unevenness in the bearing surface                                                                                                                                                                         | 56              |  |
| [22] Foot mounting F                          | For mounting the axis on the end cap                                                                                                                                                                                                                                  | 53              |  |
| – Guide axis EGC-FA                           | Axis without drive                                                                                                                                                                                                                                                    | egc-fa          |  |
| – Connecting shaft KSK                        | For connecting two toothed belt axes EGC-TB in three-dimensional gantries                                                                                                                                                                                             | ksk             |  |

## Type codes

|            |                      |  |
|------------|----------------------|--|
| <b>001</b> | <b>Series</b>        |  |
| <b>EGC</b> | Electric linear axis |  |

|            |             |  |
|------------|-------------|--|
| <b>002</b> | <b>Size</b> |  |
| <b>50</b>  | 50          |  |
| <b>70</b>  | 70          |  |
| <b>80</b>  | 80          |  |
| <b>120</b> | 120         |  |
| <b>185</b> | 185         |  |

|             |               |  |
|-------------|---------------|--|
| <b>003</b>  | <b>Stroke</b> |  |
| <b>300</b>  | 300           |  |
| <b>400</b>  | 400           |  |
| <b>500</b>  | 500           |  |
| <b>600</b>  | 600           |  |
| <b>800</b>  | 800           |  |
| <b>1000</b> | 1000          |  |
| <b>1200</b> | 1200          |  |
| <b>1500</b> | 1500          |  |
| <b>...</b>  | 50 ... 8500   |  |

|            |                     |  |
|------------|---------------------|--|
| <b>004</b> | <b>Drive system</b> |  |
| <b>TB</b>  | Toothed belt        |  |

|            |                                  |  |
|------------|----------------------------------|--|
| <b>005</b> | <b>Guide</b>                     |  |
| <b>KF</b>  | Recirculating ball bearing guide |  |

|             |                            |  |
|-------------|----------------------------|--|
| <b>006</b>  | <b>Stroke reserve [mm]</b> |  |
| <b>...H</b> | 0 ... 999                  |  |

|            |                           |  |
|------------|---------------------------|--|
| <b>007</b> | <b>Slide</b>              |  |
| <b>GK</b>  | Standard slide            |  |
| <b>GP</b>  | Standard slide, protected |  |
| <b>GV</b>  | Extended slide            |  |
| <b>GQ</b>  | Extended slide, protected |  |

|            |                                  |  |
|------------|----------------------------------|--|
| <b>008</b> | <b>Additional slide left</b>     |  |
|            | None                             |  |
| <b>KL</b>  | Additional slide, standard, left |  |

|            |                                  |  |
|------------|----------------------------------|--|
| <b>009</b> | <b>Additional slide, right</b>   |  |
|            | None                             |  |
| <b>KR</b>  | Additional slide standard, right |  |

|            |                             |  |
|------------|-----------------------------|--|
| <b>010</b> | <b>Lubrication function</b> |  |
|            | None                        |  |
| <b>C</b>   | Lubrication adapter         |  |

|            |                                                           |  |
|------------|-----------------------------------------------------------|--|
| <b>011</b> | <b>Displacement encoder</b>                               |  |
|            | None                                                      |  |
| <b>M1</b>  | With displacement encoder, incremental, resolution 2.5 µm |  |
| <b>M2</b>  | With displacement encoder, incremental, resolution 10 µm  |  |

|            |                                        |  |
|------------|----------------------------------------|--|
| <b>012</b> | <b>Clamping unit</b>                   |  |
|            | None                                   |  |
| <b>1HL</b> | Holding function, 1-channel, left      |  |
| <b>1HR</b> | Single-channel holding function, right |  |
| <b>2H</b>  | Holding function, 2-channel            |  |

|            |                        |  |
|------------|------------------------|--|
| <b>013</b> | <b>Actuation type</b>  |  |
|            | None                   |  |
| <b>PN</b>  | Pneumatically actuated |  |

|            |                              |  |
|------------|------------------------------|--|
| <b>014</b> | <b>Toothed belt material</b> |  |
|            | Standard                     |  |
| <b>PU2</b> | Coated PU                    |  |

|            |                         |  |
|------------|-------------------------|--|
| <b>015</b> | <b>EU certification</b> |  |
|            | None                    |  |
| <b>EX3</b> | II 2G                   |  |

|            |                              |  |
|------------|------------------------------|--|
| <b>016</b> | <b>Foot mounting [units]</b> |  |
|            | None                         |  |
| <b>F</b>   | 1                            |  |

|             |                         |  |
|-------------|-------------------------|--|
| <b>017</b>  | <b>Profile mounting</b> |  |
|             | None                    |  |
| <b>...M</b> | 1 ... 50                |  |

|             |                                                |  |
|-------------|------------------------------------------------|--|
| <b>018</b>  | <b>Mounting slot cover, 2x, 500 mm [units]</b> |  |
|             | None                                           |  |
| <b>...B</b> | 1 ... 50                                       |  |

|             |                                   |  |
|-------------|-----------------------------------|--|
| <b>019</b>  | <b>Cover, sensor slot [units]</b> |  |
|             | None                              |  |
| <b>...S</b> | 1 ... 50                          |  |

|             |                                           |  |
|-------------|-------------------------------------------|--|
| <b>020</b>  | <b>Slot nut for mounting slot [units]</b> |  |
|             | None                                      |  |
| <b>...Y</b> | 1 ... 99                                  |  |

|             |                                                                                   |  |
|-------------|-----------------------------------------------------------------------------------|--|
| <b>021</b>  | <b>Proximity sensor, inductive, slot 8, PNP, N/O contact, cable 7.5 m [units]</b> |  |
|             | None                                                                              |  |
| <b>...X</b> | 1 ... 6                                                                           |  |

|             |                                                                                   |  |
|-------------|-----------------------------------------------------------------------------------|--|
| <b>022</b>  | <b>Proximity sensor, inductive, slot 8, PNP, N/C contact, cable 7.5 m [units]</b> |  |
|             | None                                                                              |  |
| <b>...Z</b> | 1 ... 6                                                                           |  |

|             |                                                        |  |
|-------------|--------------------------------------------------------|--|
| <b>023</b>  | <b>Emergency buffer with retaining bracket [units]</b> |  |
|             | None                                                   |  |
| <b>...A</b> | 1 ... 2                                                |  |

|             |                                                      |  |
|-------------|------------------------------------------------------|--|
| <b>024</b>  | <b>Shock absorber with retaining bracket [units]</b> |  |
|             | None                                                 |  |
| <b>...C</b> | 1 ... 2                                              |  |

|             |                                                                               |  |
|-------------|-------------------------------------------------------------------------------|--|
| <b>025</b>  | <b>Proximity sensor, inductive, M8, PNP, N/O contact, cable 2.5 m [units]</b> |  |
|             | None                                                                          |  |
| <b>...O</b> | 1 ... 99                                                                      |  |

|             |                                                                               |  |
|-------------|-------------------------------------------------------------------------------|--|
| <b>026</b>  | <b>Proximity sensor, inductive, M8, PNP, N/C contact, cable 2.5 m [units]</b> |  |
|             | None                                                                          |  |
| <b>...P</b> | 1 ... 99                                                                      |  |

|             |                                                                           |  |
|-------------|---------------------------------------------------------------------------|--|
| <b>027</b>  | <b>Proximity sensor, inductive, M8, PNP, N/C contact, plug M8 [units]</b> |  |
|             | None                                                                      |  |
| <b>...W</b> | 1 ... 99                                                                  |  |

|             |                                                                           |  |
|-------------|---------------------------------------------------------------------------|--|
| <b>028</b>  | <b>Proximity sensor, inductive, M8, PNP, N/O contact, plug M8 [units]</b> |  |
|             | None                                                                      |  |
| <b>...R</b> | 1 ... 99                                                                  |  |

## Type codes

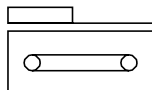
|      |                                     |  |
|------|-------------------------------------|--|
| 029  | Connecting cable, M8, 2.5 m [units] |  |
|      | None                                |  |
| ...V | 1 ... 99                            |  |

|      |                     |  |
|------|---------------------|--|
| 030  | Drive shaft [units] |  |
|      | None                |  |
| ...K | 1 ... 4             |  |

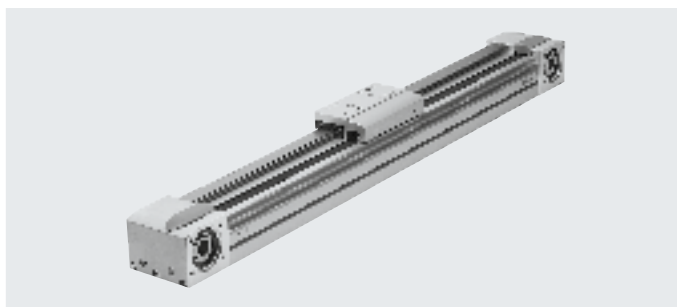
|       |                                    |  |
|-------|------------------------------------|--|
| 031   | Cable clip [units]                 |  |
|       | None                               |  |
| ...CL | 10, 20, 30, 40, 50, 60, 70, 80, 90 |  |

|     |                                |  |
|-----|--------------------------------|--|
| 032 | Operating instructions         |  |
|     | With operating instructions    |  |
| DN  | Without operating instructions |  |

# Data sheet



-  Size  
50 ... 185
-  Stroke length  
50 ... 8500 mm
-  [www.festo.com](http://www.festo.com)



| General technical data                            |        |                                          |             |             |             |             |
|---------------------------------------------------|--------|------------------------------------------|-------------|-------------|-------------|-------------|
| Size                                              |        | 50                                       | 70          | 80          | 120         | 185         |
| Design                                            |        | Electromechanical axis with toothed belt |             |             |             |             |
| Guide                                             |        | Recirculating ball bearing guide         |             |             |             |             |
| Mounting position                                 |        | Any                                      |             |             |             |             |
| Working stroke                                    |        |                                          |             |             |             |             |
| EGC-...-GK/-GP                                    | [mm]   | 50 ... 1900                              | 50 ... 5000 | 50 ... 8500 | 50 ... 8500 | 50 ... 8500 |
| EGC-...-GV/-GQ                                    | [mm]   | 50 ... 1900                              | 50 ... 5000 | 50 ... 8500 | 50 ... 8400 | 50 ... 8400 |
| Max. feed force $F_x$                             | [N]    | 50                                       | 100         | 350         | 800         | 2500        |
| Max. no-load torque <sup>1)</sup>                 | [Nm]   | 0.072                                    | 0.18        | 0.4         | 1.4         | 4.05        |
| Max. no-load resistance to shifting <sup>1)</sup> | [N]    | 8                                        | 14.5        | 28          | 70          | 110         |
| Max. driving torque                               | [Nm]   | 0.46                                     | 1.24        | 5           | 16          | 93          |
| Max. speed                                        | [m/s]  | 3                                        | 5           |             |             |             |
| Max. acceleration                                 | [m/s²] | 50                                       |             |             |             |             |
| Repetition accuracy                               | [mm]   | ±0.08                                    |             |             |             | ±0.1        |

1) At 0.2 m/s, with variant GK or GV

| Operating and environmental conditions |      |             |
|----------------------------------------|------|-------------|
| Ambient temperature                    | [°C] | -10 ... +60 |
| Degree of protection                   |      | IP40        |
| Duty cycle                             | [%]  | 100         |

| Weight [g]                                  |  |     |      |      |       |       |
|---------------------------------------------|--|-----|------|------|-------|-------|
| Size                                        |  | 50  | 70   | 80   | 120   | 185   |
| Basic weight with 0 mm stroke <sup>1)</sup> |  |     |      |      |       |       |
| EGC-...-GK/-GP                              |  | 620 | 1850 | 3000 | 10500 | 32600 |
| EGC-...-GV/-GQ                              |  | –   | 2470 | 3900 | 12600 | 36800 |
| Additional weight per 10 mm stroke          |  | 19  | 44   | 62   | 150   | 300   |
| Moving mass                                 |  |     |      |      |       |       |
| EGC-...-GK/-GP                              |  | 130 | 370  | 620  | 2180  | 6500  |
| EGC-...-GV/-GQ                              |  | –   | 550  | 900  | 2730  | 7720  |
| Additional slide                            |  |     |      |      |       |       |
| EGC-...-KL/-KR                              |  | 80  | 300  | 550  | 2000  | 6000  |
| Clamping unit                               |  |     |      |      |       |       |
| EGC-...-1H...-PN                            |  | –   | –    | 700  | 2300  | 4900  |
| EGC-...-2H-PN                               |  | –   | –    | 1300 | 4000  | 8300  |

1) Incl. slide

## Data sheet

| ATEX <sup>1)</sup>                         |                                             |    |    |     |  |
|--------------------------------------------|---------------------------------------------|----|----|-----|--|
| Size                                       | 50                                          | 70 | 80 | 120 |  |
| ATEX category gas                          | II 2G                                       |    |    |     |  |
| Type of ignition protection for gas        | c IIB T4 X                                  |    |    |     |  |
| Explosion-proof ambient temperature        | -10°C ≤ Ta ≤ +60°C                          |    |    |     |  |
| CE marking (see declaration of conformity) | To EU Explosion Protection Directive (ATEX) |    |    |     |  |

1) Note the ATEX certification of the accessories.

| Toothed belt             |       |       |       |       |       |  |
|--------------------------|-------|-------|-------|-------|-------|--|
| Size                     | 50    | 70    | 80    | 120   | 185   |  |
| Pitch [mm]               | 2     | 3     | 3     | 5     | 8     |  |
| Elongation <sup>1)</sup> |       |       |       |       |       |  |
| EGC-... [mm]             | 0.125 | 0.08  | 0.213 | 0.168 | 0.24  |  |
| EGC-...-PU2 [mm]         | —     | 0.041 | 0.105 | 0.1   | 0.095 |  |
| Width [mm]               | 10    | 15    | 19.3  | 30.3  | 50.5  |  |
| Effective diameter [mm]  | 18.46 | 24.83 | 28.65 | 39.79 | 73.85 |  |
| Feed constant [mm/rev]   | 58    | 78    | 90    | 125   | 232   |  |

1) At max. feed force

| Mass moment of inertia                                  |       |       |        |      |        |  |
|---------------------------------------------------------|-------|-------|--------|------|--------|--|
| Size                                                    | 50    | 70    | 80     | 120  | 185    |  |
| J <sub>0</sub>                                          |       |       |        |      |        |  |
| EGC-...-GK [kg mm <sup>2</sup> ]                        | 16.94 | 83.34 | 205.9  | 1241 | 17976  |  |
| EGC-...-GV [kg mm <sup>2</sup> ]                        | —     | 110   | 265    | 1465 | 19690  |  |
| J <sub>H</sub> per metre stroke [kg mm <sup>2</sup> /m] | 2.6   | 10.6  | 18.8   | 93   | 760    |  |
| J <sub>L</sub> per kg payload [kg mm <sup>2</sup> /kg]  | 85    | 154   | 205    | 396  | 1363.5 |  |
| J <sub>W</sub> Additional slide [kg mm <sup>2</sup> ]   | 3.56  | 56.32 | 126.73 | 861  | 8846   |  |
| J <sub>F</sub> Clamping unit                            |       |       |        |      |        |  |
| EGC-...-1H-...-PN [kg mm <sup>2</sup> ]                 | —     | —     | 143.5  | 911  | 6681   |  |
| EGC-...-2H-...-PN [kg mm <sup>2</sup> ]                 | —     | —     | 266.5  | 1584 | 11317  |  |

The mass moment of inertia J<sub>A</sub> of the entire axis is calculated as follows:

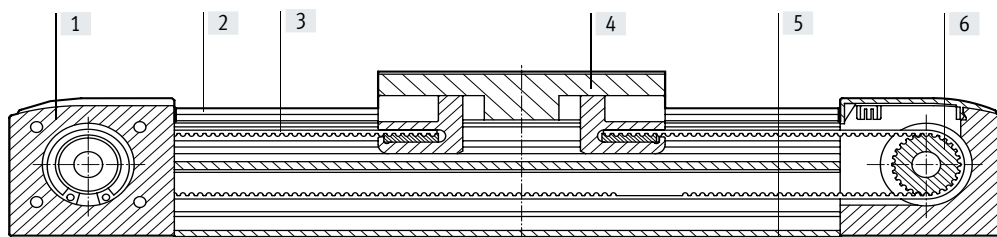
$$J_A = J_0 + K \times J_W + J_H \times \text{working stroke [m]} + J_L \times m_{\text{payload [kg]}} + J_F$$

K= Number of additional slides

## Data sheet

## Materials

Sectional view



| Size                    | 50                                                | 70 | 80 | 120 | 185                             |
|-------------------------|---------------------------------------------------|----|----|-----|---------------------------------|
| [1] Drive cover         | Anodised wrought aluminium alloy                  |    |    |     | Painted wrought aluminium alloy |
| [2] Guide rail          | High-alloy steel                                  |    |    |     |                                 |
| [3] Toothed belt        |                                                   |    |    |     |                                 |
| EGC...                  | Polychloroprene with glass cord and nylon coating |    |    |     |                                 |
| EGC...-PU2              | Polyurethane with steel cord and nylon cover      |    |    |     |                                 |
| [4] Slide               | Anodised wrought aluminium alloy                  |    |    |     |                                 |
| [5] Profile             | Anodised wrought aluminium alloy                  |    |    |     |                                 |
| [6] Toothed belt pulley | High-alloy stainless steel                        |    |    |     |                                 |
| Note on materials       | RoHS-compliant                                    |    |    |     |                                 |
|                         | Contains paint-wetting impairment substances      |    |    |     |                                 |

## Technical data – Displacement encoder

Dimensions → page 42

| Type                                        | EGC...-M1                                                                    | EGC...-M2 |
|---------------------------------------------|------------------------------------------------------------------------------|-----------|
| Resolution                                  | [μm] 2.5                                                                     | 10        |
| Max. travel speed with displacement encoder | [m/s] 4                                                                      | 4         |
| Encoder signal                              | 5 V TTL; A/A, B/B; reference signal (N/N) cyclically every 5 mm (zero pulse) |           |
| Signal output                               | Line driver, alternating, resistant to sustained short circuit               |           |
| Electrical connection                       | 8-pin plug, round design, M12                                                |           |
| Cable length                                | [mm] 160                                                                     |           |

## Operating and environmental conditions – Displacement encoder system

|                                            |                                   |
|--------------------------------------------|-----------------------------------|
| Ambient temperature                        | [°C] -10 ... +70                  |
| Degree of protection                       | IP64                              |
| CE marking (see declaration of conformity) | To EU EMC Directive <sup>1)</sup> |

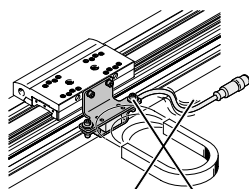
1) For information about the area of use, see the EC declaration of conformity at: [www.festo.com/sp](http://www.festo.com/sp) → Certificates.

If the devices are subject to usage restrictions in residential, commercial or light-industrial environments, further measures for the reduction of the emitted interference may be necessary.

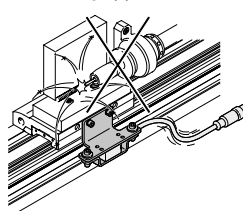
## Application information

The toothed belt axis with displacement encoder is not designed for the following application examples

- Magnetic field



- Welding application



## Data sheet

| Technical data – Clamping unit                                                   |                                   | Dimensions → page 38                                 |           |           |
|----------------------------------------------------------------------------------|-----------------------------------|------------------------------------------------------|-----------|-----------|
| Size                                                                             |                                   | 80                                                   | 120       | 185       |
| Pneumatic connection                                                             |                                   | M5                                                   | M5        | M5        |
| Clamping type                                                                    |                                   | Clamping via spring force, compressed air to release |           |           |
| Static holding force                                                             |                                   |                                                      |           |           |
| EGC-...-1H-...-PN                                                                | [N]                               | 320                                                  | 1200      | 1500      |
| EGC-...-2H-PN                                                                    | [N]                               | 640                                                  | 2400      | 3000      |
| Max. number of emergency braking operations <sup>1)</sup><br>at reference energy | [J]                               | –                                                    | 750<br>35 | 750<br>70 |
| Number of clamping operations under rated load                                   | [millions of<br>switching cycles] | 0.45                                                 | 0.05      | > 1.4     |

1) Emergency braking refers to braking the payload if the drive axis loses power.

| Operating and environmental conditions – Clamping unit |       |                                           |
|--------------------------------------------------------|-------|-------------------------------------------|
| Operating medium                                       |       | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Operating pressure                                     |       |                                           |
| Clamping unit open                                     | [bar] | 4.5 ... 8                                 |
| Clamping unit closed                                   | [bar] | Unpressurised                             |
| Ambient temperature                                    | [°C]  | –10 ... +60                               |

**Note**

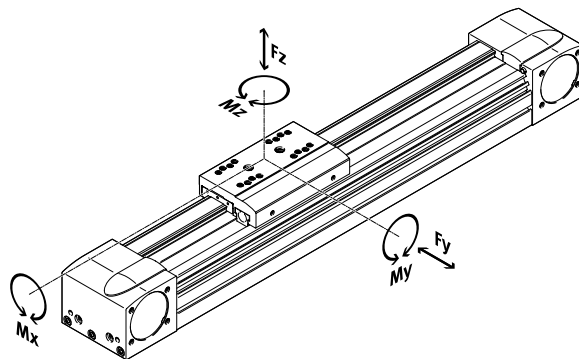
The axis can only be relubricated with the lubrication adapter (EGC-...-C) when used in combination with the clamping unit.

## Data sheet

## Characteristic load values

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

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



Max. permissible forces and torques for a service life of 5000 km

| Size                    |      | 50  | 70   | 80   | 120  | 185   |
|-------------------------|------|-----|------|------|------|-------|
| $F_{y\max.}$            | [N]  | 650 | 1850 | 3050 | 6890 | 15200 |
| $F_{z\max.}$            | [N]  | 650 | 1850 | 3050 | 6890 | 15200 |
| $M_{x\max.}$            | [Nm] | 3.5 | 16   | 36   | 144  | 529   |
| $M_{y\max.}/M_{z\max.}$ |      |     |      |      |      |       |
| EGC-...-GK/-GP          | [Nm] | 10  | 51   | 97   | 380  | 1157  |
| $M_{y\max.}/M_{z\max.}$ |      |     |      |      |      |       |
| EGC-...-GV/-GQ          | [Nm] | –   | 132  | 228  | 680  | 1820  |

 **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.

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



## Data sheet

### Calculating the service life

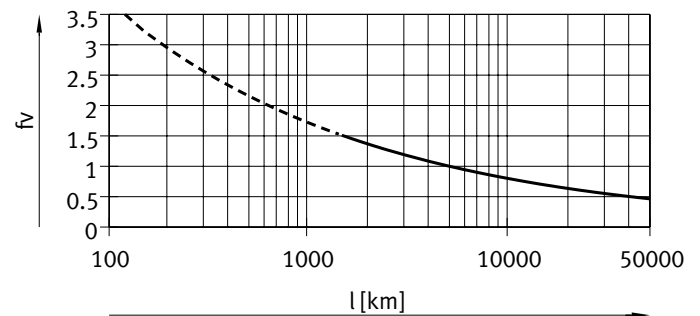
The service life of the guide depends on the load. To be able to make a statement as to the service life of the guide, the graph below plots the load comparison factor  $f_v$  against the service life.

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

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

Example:

A user wants to move an X kg load. Using the formula (→ page 16) 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  $f_v$  of 1 now gives a service life of 5000 km.



#### Note

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

The engineering software can be used to calculate the guide workload for a service life of 5000 km.

$f_v > 1.5$  are only theoretical comparison values for the recirculating ball bearing guide.

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

The characteristic load values of 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 EGC 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.

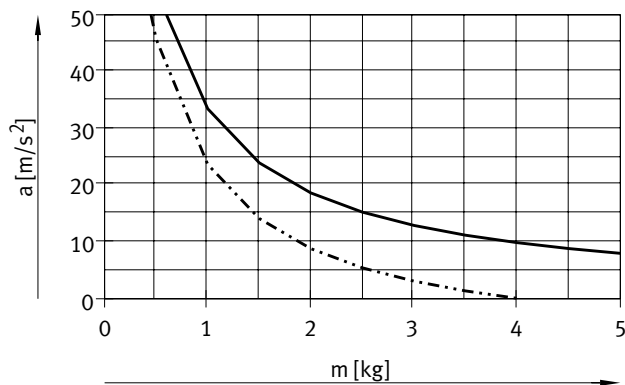
#### Max. permissible forces and torques for a theoretical service life of 100 km (from a guide perspective only)

| Size                      |      | 50   | 70   | 80    | 120   | 185   |
|---------------------------|------|------|------|-------|-------|-------|
| $F_{y_{max}}$             | [N]  | 2395 | 6815 | 11236 | 25383 | 55997 |
| $F_{z_{max}}$             | [N]  | 2395 | 6815 | 11236 | 25383 | 55997 |
| $M_{x_{max}}$             | [Nm] | 13   | 59   | 133   | 531   | 1949  |
| $M_{y_{max}}/M_{z_{max}}$ |      |      |      |       |       |       |
| EGC...-GK/-GP             | [Nm] | 37   | 188  | 357   | 1400  | 4262  |
| $M_{y_{max}}/M_{z_{max}}$ |      |      |      |       |       |       |
| EGC...-GV/-GQ             | [Nm] | –    | 486  | 840   | 2505  | 6705  |

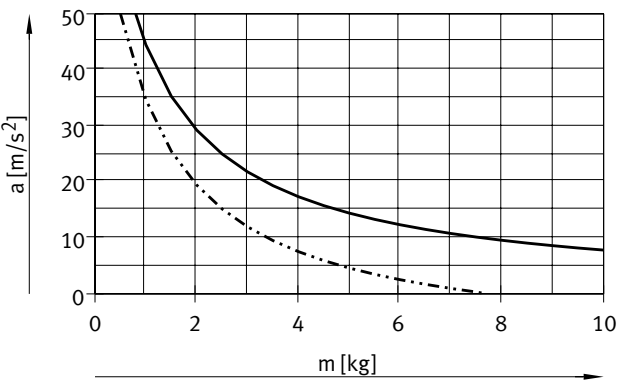
Data sheet

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

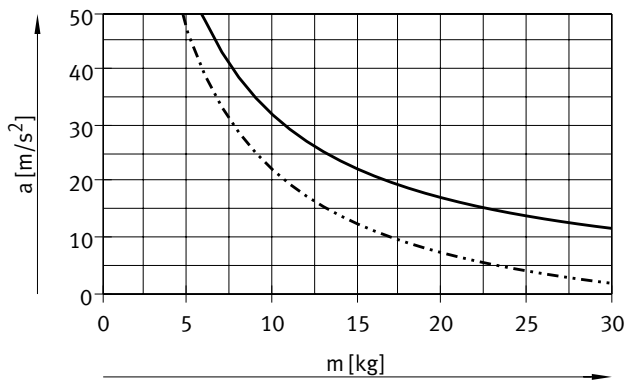
Size 50



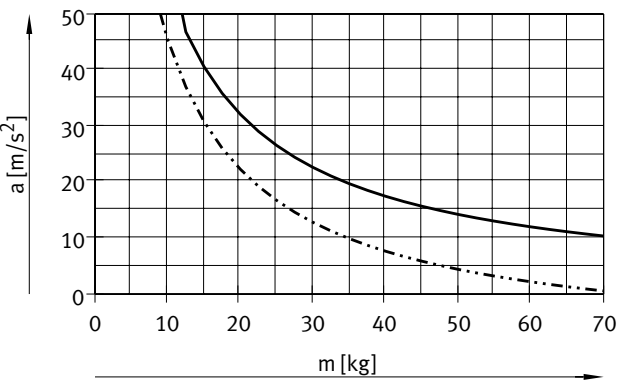
Size 70



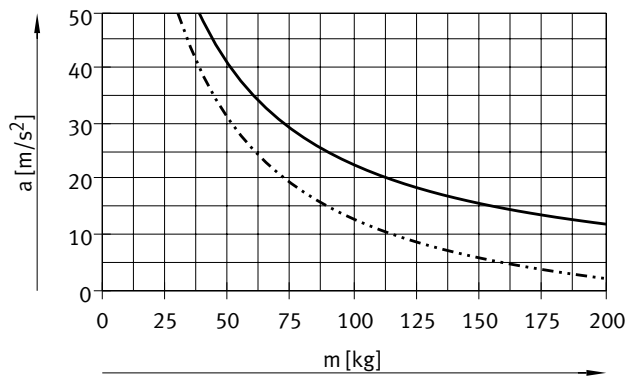
Size 80



Size 120

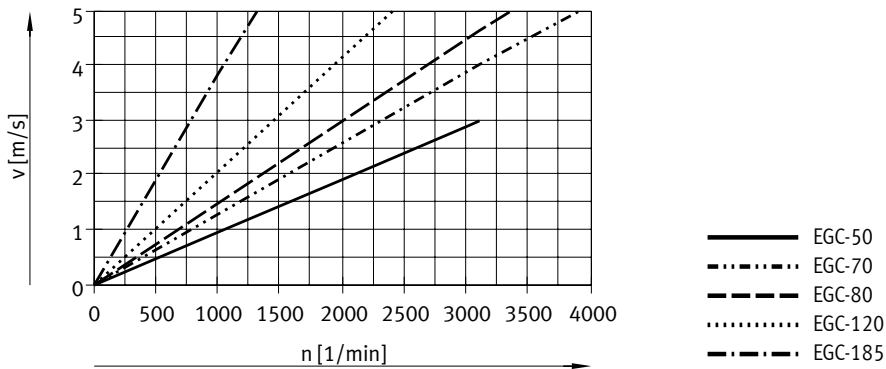


Size 185

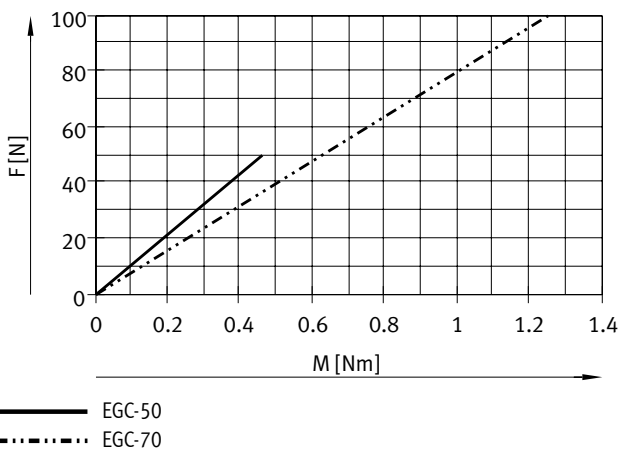


— Horizontal mounting position  
- - - Vertical mounting position

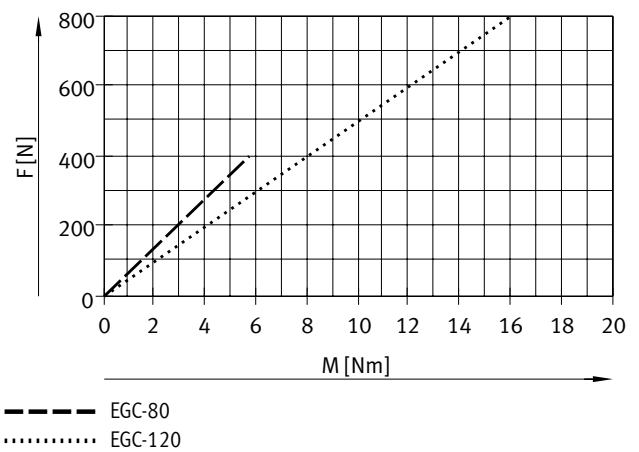
## Data sheet

Velocity  $v$  as a function of rotational speed  $n$ Theoretical feed force  $F$  as a function of input torque  $M$ 

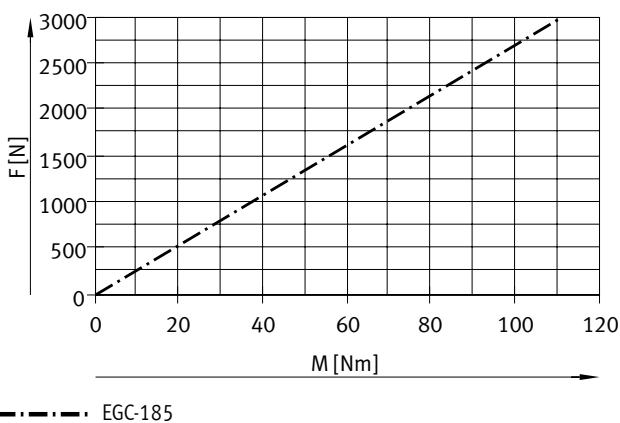
Size 50/70



Size 80/120



Size 185



## Data sheet

## Stroke reserve

## Stroke length

## Stroke reserve

The selected stroke corresponds in principle to the required working stroke. The variants GK/GV do not have a wiper seal on the guide. These variants therefore have an additional safety distance between the drive cover and slide that is not designated as part of the working stroke.

A safety distance (similar to GK/GV) between the drive cap and slide can be defined for the variants GP/GQ and GK-C/GV-C using the modular product system via the "stroke reserve" feature. With the variants GK/GV, the stroke reserve and safety distance are added for each end position.

- The stroke reserve length can be freely selected
- The sum of the stroke length and 2x stroke reserve must not exceed the maximum working stroke

## Example:

EGC-70-500-TB-KF-20H-...

Working stroke = 500 mm

2x stroke reserve = 40 mm

Total stroke = 540 mm

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

| Size                                                    | 50 | 70   | 80 | 120 | 185 |
|---------------------------------------------------------|----|------|----|-----|-----|
| L9 = safety distance with GK/GV [mm] (per end position) | –  | 10.5 | 13 | 18  | 21  |

## Working stroke reduction

With standard slide GK/GP / extended slide GV/GQ with additional slide KL/KR

- 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 variant GP/GQ is ordered, the additional slide is also protected
- If the variant GV/GQ is ordered, the additional slide is not extended
- If the variant GK-C/GV-C is ordered, the additional slide is also supplied with lubrication adapters

L16 = Slide length

L18 = Distance between

L17 = Additional slide length

the two slides

[1] Additional slide

## Example:

Type EGC-70-500-TB-...-GK-KL/KR

Working stroke without

additional slide = 500 mm

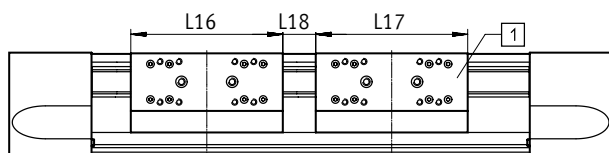
L18 = 20 mm

L16, L17 = 100 mm

Working stroke with

additional slide = 380 mm

(500 mm – 20 mm – 100 mm)



## Dimensions – Additional slide

| Size            | 50    | 70    | 80                     | 120   | 185                   |       |                       |       |           |
|-----------------|-------|-------|------------------------|-------|-----------------------|-------|-----------------------|-------|-----------|
| Variant         | GK/GV | GK/GV | GP/GQ or GK-C/<br>GV-C | GK/GV | GP/GQ or<br>GK-C/GV-C | GK/GV | GP/GQ or<br>GK-C/GV-C | GK/GV | GK-C/GV-C |
| Length L17 [mm] | 65    | 100   | 125                    | 120   | 146                   | 200   | 236                   | 280   | 322       |

## Data sheet

**Working stroke reduction per side**

With integrated emergency buffer NPE/shock absorber YSRW with shock absorber retainer KYE

- The working stroke is reduced by the total dimension of the emergency buffer/shock absorber and shock absorber retainer.
- The rubber buffer in the cap must be removed.
- Shock absorbers must not be used in combination with lubrication adapters.

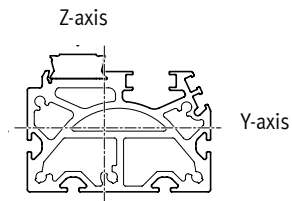
| Size                  |      | 50 | 70 | 80 | 120 | 185 |
|-----------------------|------|----|----|----|-----|-----|
| With emergency buffer | [mm] | 30 | 43 | 68 | 98  | 133 |
| With shock absorber   | [mm] | 26 | 42 | 63 | 84  | 107 |

**Working stroke reduction**

With integrated clamping unit

- The working stroke is reduced by the length of the clamping unit.
- With 1-channel clamping units, the stroke is reduced on one side with respect to the mounting surface
- With 2-channel clamping units, the stroke is reduced symmetrically with respect to the mounting surface of the load
- Shock absorbers must not be used in combination with the clamping unit.

| Size             |      | 80  | 120 | 185 |
|------------------|------|-----|-----|-----|
| EGC-...-1H...-PN | [mm] | 87  | 124 | 131 |
| EGC-...-2H...-PN | [mm] | 174 | 248 | 262 |

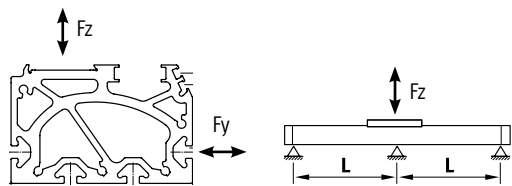
**2nd moments of area**

| Size           |                    | 50                   | 70                   | 80                   | 120                  | 185                  |
|----------------|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| I <sub>y</sub> | [mm <sup>4</sup> ] | 8.4x10 <sup>4</sup>  | 3.95x10 <sup>5</sup> | 8.44x10 <sup>5</sup> | 4.62x10 <sup>6</sup> | 2.34x10 <sup>7</sup> |
| I <sub>z</sub> | [mm <sup>4</sup> ] | 1.14x10 <sup>5</sup> | 5.77x10 <sup>5</sup> | 1.16x10 <sup>6</sup> | 5.65x10 <sup>6</sup> | 2.74x10 <sup>7</sup> |

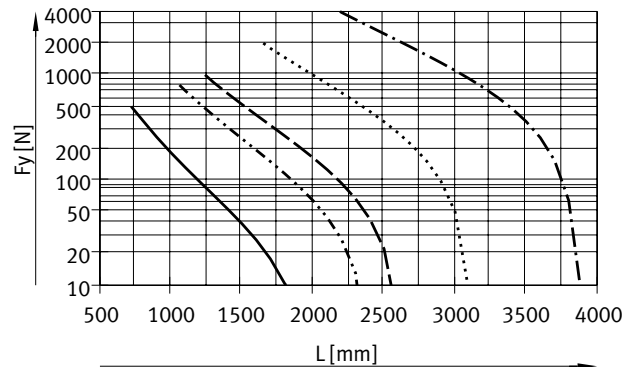
Data sheet

Maximum permissible support spacing L (without profile mounting MUE/central support EAHF) as a function of force F

In order to limit deflection in the case of large strokes, the axis may need to be supported.  
The following graphs can be used to determine the maximum permissible support span l as a function of force F acting on the axis. The deflection is  $f = 0.5\text{ mm}$ .

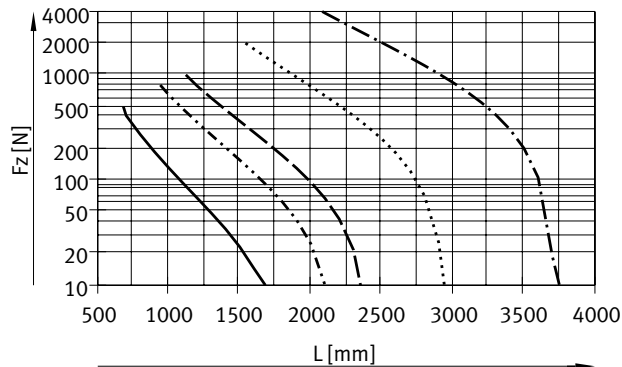


Force Fy



- EGC-50
- EGC-70
- EGC-80
- EGC-120
- EGC-185

Force Fz



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<br>(moving load)   | Static deflection<br>(stationary load) |
|------------|---------------------------------------|----------------------------------------|
| 50 ... 185 | 0.05% of the axis length, max. 0.5 mm | 0.1% of the axis length                |

## Data sheet

### Central lubrication

The lubrication adapters enable the guide of the toothed belt axis EGC-TB to be permanently lubricated in applications in humid or wet ambient conditions using semi or fully automatic relubrication devices.

- For size 70, 80, 120, 185
- The modules are suitable for oils and greases.
- The dimensions of the toothed belt axis EGC-TB are the same with and without central lubrication modules.
- All lubrication connections must be connected
- There are three connection options on each side
- Can be used in combination with:
  - Standard slide GK
  - Additional slide KL, KR
- Cannot be used in combination with:
  - Protected recirculating ball bearing guide GP

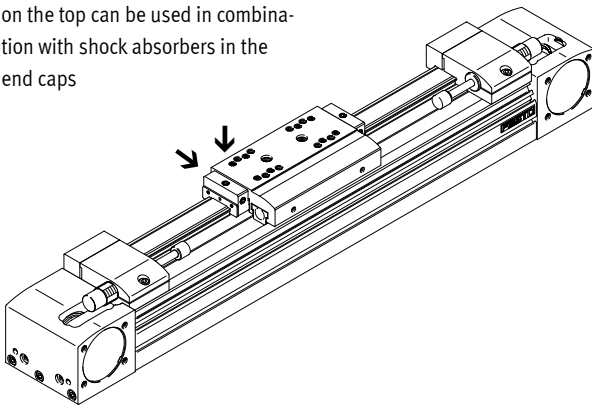
Slide dimensions

→ page 32

Order code C in the modular product system → page 46

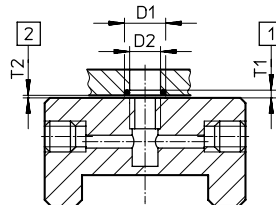
### Connection options

Only the connection at the rear or on the top can be used in combination with shock absorbers in the end caps



### Connection option for customer design

The drawing on the right shows the connection option on the top lubrication interface using a customer design.



- D1  $8^{+0.2}$  mm  
 D2 6 mm  
 T1  $0.6_{-0.05}$  mm  
 T2  $0.1^{+0.2}$  mm  
 O-ring  $\varnothing 6 \times 1$  mm (DIN 3771)

[1] Slot depth for O-ring

[2] Required air gap

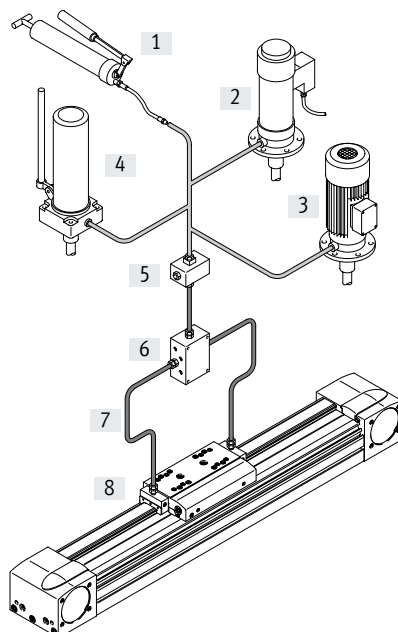
Additional dimensions → page 32

### Design of a central lubrication system

A central lubrication system requires various additional components. The illustration shows different options (using a hand pump, pneumatic container pump or electric container pump) required as a minimum for designing a central lubrication system. Festo does not sell these additional components; however, they can be obtained from the following companies:

- Lincoln
- Bielomatik
- SKF (Vogel)

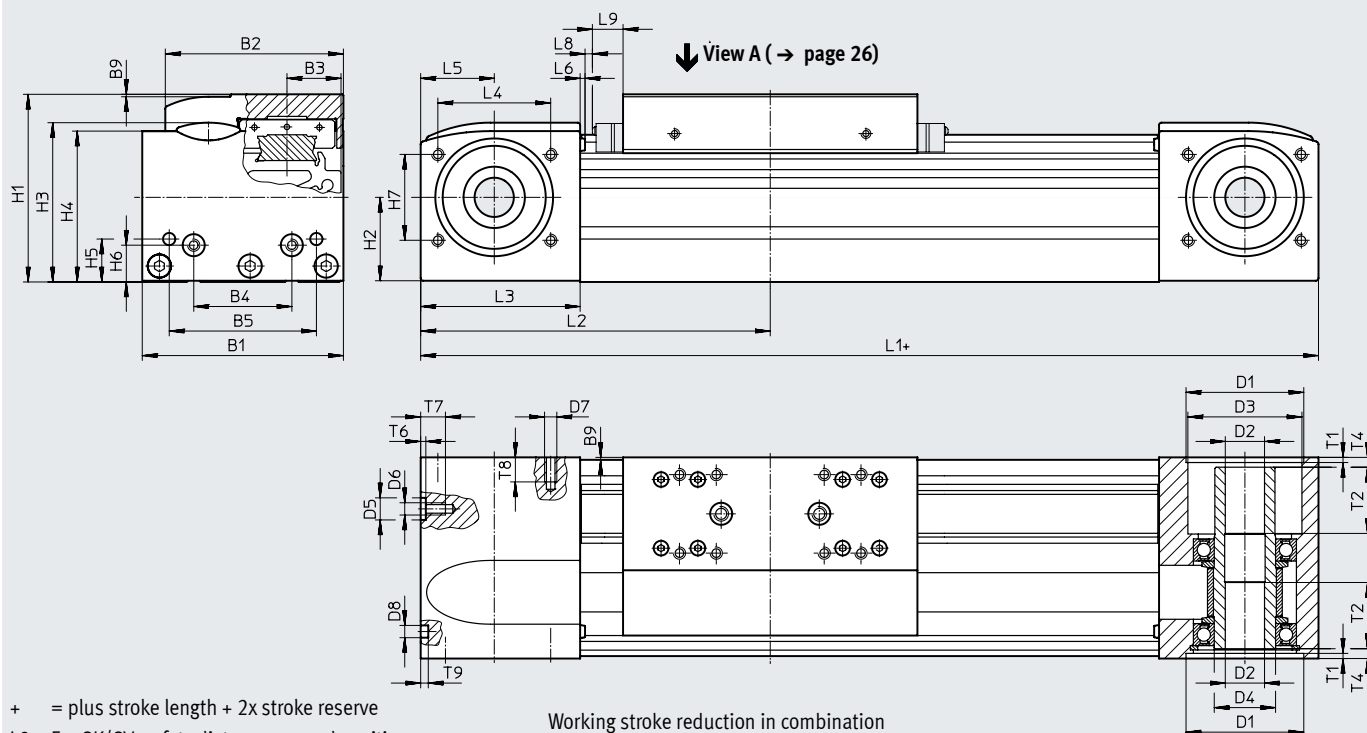
Festo recommends these companies because they can supply all the necessary components.



- [1] Hand pump  
 [2] Pneumatic container pump  
 [3] Electric container pump  
 [4] Manually operated container pump  
 [5] Nipple block  
 [6] Distributor block  
 [7] Tubing or piping  
 [8] Fittings

## Data sheet

## Dimensions

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

+ = plus stroke length + 2x stroke reserve

L9 For GK/GV: safety distance per end position

For GP/GQ: dimension for wiper seal → page 20

For GK-C/GV-C: dimension for adapter → page 32

Working stroke reduction in combination  
with additional slide → page 20

| Size | B1  | B2   | B3   | B4  | B5 | B9 | D1<br>H7 | D2<br>ø<br>H7 | D3<br>ø | D4<br>ø | D5<br>ø<br>H7 | D6  |
|------|-----|------|------|-----|----|----|----------|---------------|---------|---------|---------------|-----|
| 50   | 48  | 39   | 11.5 | 20  | 35 | 1  | 27       | 8             | 20      | 15      | –             | M4  |
| 70   | 69  | 58.6 | 16.5 | 30  | 45 | 1  | 38       | 10            | 28      | 20      | –             | M5  |
| 80   | 82  | 72.6 | 22   | 40  | 60 | 1  | 48       | 16            | 46.5    | 25      | 9             | M5  |
| 120  | 120 | 107  | 33   | 80  | 40 | 1  | 62       | 23            | 59      | 35      | –             | M8  |
| 185  | 186 | 169  | 53   | 120 | 80 | 1  | 95       | 32            | 90      | 60      | –             | M10 |

| Size | D7 | D8<br>ø<br>H7 | H1    | H2   | H3    | H4   | H5   | H6   | H7 | L1  |     | L2   |     |
|------|----|---------------|-------|------|-------|------|------|------|----|-----|-----|------|-----|
|      |    |               |       |      |       |      |      |      |    | GK  | GV  | GK   | GV  |
| 50   | M3 | 5             | 42.5  | 16.5 | 37.6  | 35.5 | 10.5 | 10.5 | 18 | 155 | –   | 77.5 | –   |
| 70   | M5 | 5             | 64    | 28   | 53.7  | 50.8 | 13   | 13   | 29 | 246 | 346 | 123  | 173 |
| 80   | M5 | 5             | 76.5  | 34.5 | 65    | 61.5 | 17.5 | 15   | 35 | 286 | 386 | 143  | 193 |
| 120  | M6 | 9             | 111.5 | 51.6 | 95.9  | 91.1 | 22   | 22   | 54 | 446 | 546 | 223  | 273 |
| 185  | M8 | 9             | 172.5 | 80.5 | 152.6 | 143  | 25   | 25   | 80 | 612 | 712 | 306  | 356 |

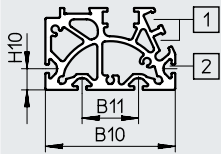
| Size | L3   | L4 | L5   | L6  | L8 | L9   | T1  | T2   | T4   | T6  | T7 | T8 | T9  |
|------|------|----|------|-----|----|------|-----|------|------|-----|----|----|-----|
| 50   | 40   | 26 | 20   | 1.8 | 3  | –    | 1.5 | –    | 5.9  | –   | 7  | 8  | 3.1 |
| 70   | 57.5 | 36 | 27.5 | 1.8 | 3  | 10.5 | 2.1 | 18   | 7.15 | –   | 10 | 12 | 3.1 |
| 80   | 65   | 46 | 30   | 2   | 3  | 13   | 2.1 | 27   | 4    | 2.1 | 10 | 10 | 3.1 |
| 120  | 100  | 64 | 50   | 2   | 3  | 18   | 3.1 | 29.5 | 4    | –   | 16 | 14 | 2.1 |
| 185  | 140  | 80 | 70   | 2   | 3  | 21   | 2.8 | 34.5 | 4    | –   | 20 | 17 | 2.1 |



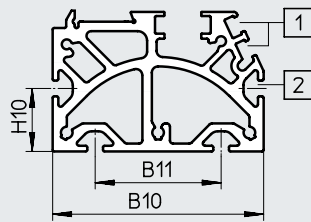
## Data sheet

## Profile

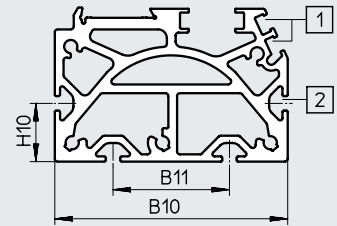
Size 50



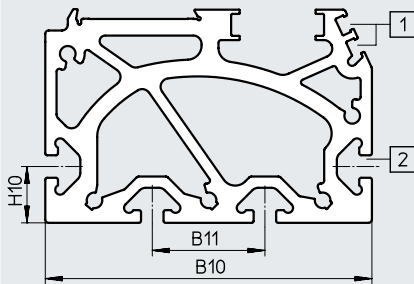
Size 70



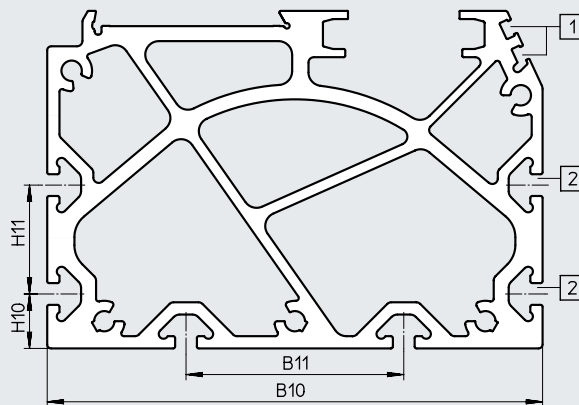
Size 80



Size 120



Size 185



- [1] Sensor slot for proximity switch  
[2] Mounting slot for slot nut

| Size | B10 | B11 | H10 | H11 |
|------|-----|-----|-----|-----|
| 50   | 46  | 20  | 7.5 | –   |
| 70   | 67  | 40  | 20  | –   |
| 80   | 80  | 40  | 20  | –   |
| 120  | 116 | 40  | 20  | –   |
| 185  | 182 | 80  | 20  | 40  |

**Note**

Requirements for the flatness of the bearing surface and of attachments as well as for use in parallel structures can be found at [www.festo.com/sp](http://www.festo.com/sp) → User documentation

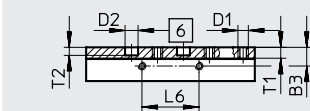
## Data sheet

### Dimensions

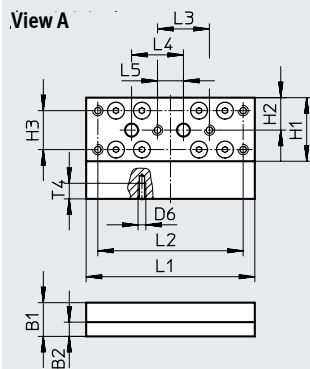
Download CAD data → [www.festo.com](http://www.festo.com)

GK – Standard slide / GP – Standard slide, protected

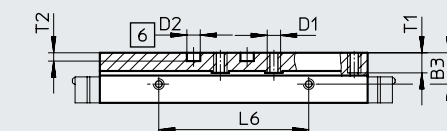
#### Size 50



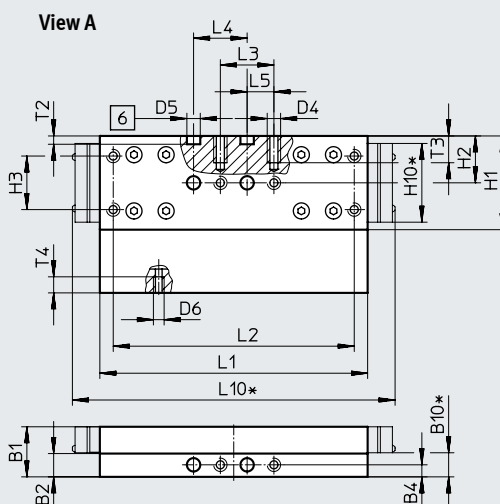
#### View A



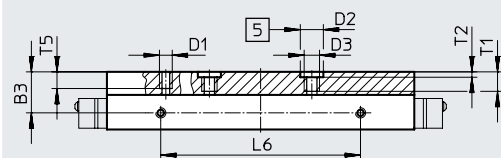
#### Size 70



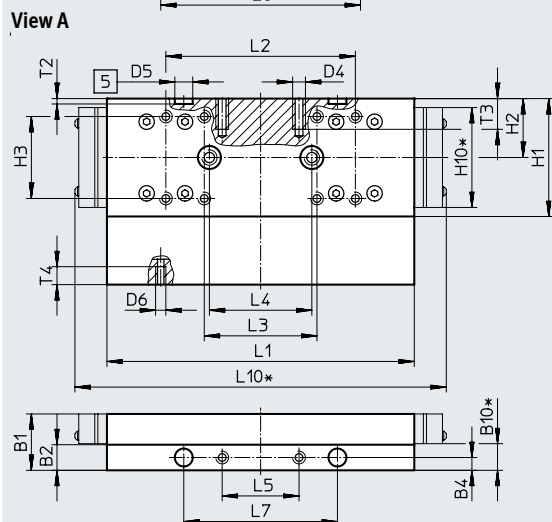
#### View A



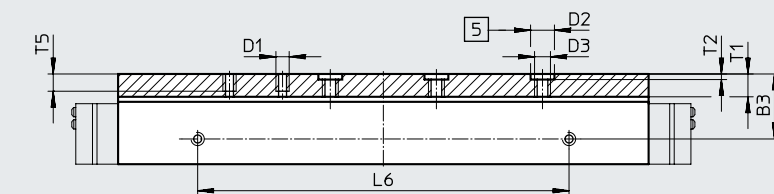
#### Size 80



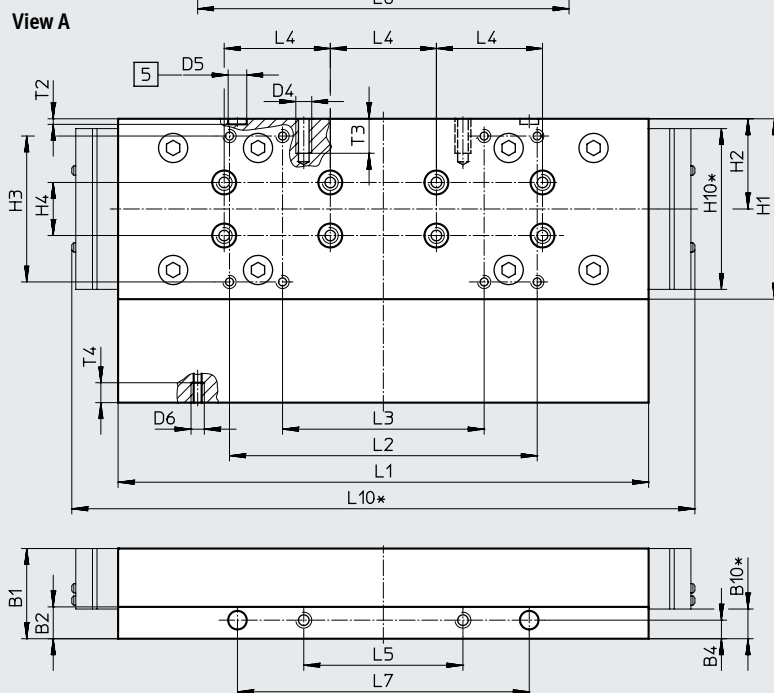
#### View A



#### Size 120



#### View A



[5] Drill hole for centring sleeve

[6] Drill hole for centring pin

\* Protected version

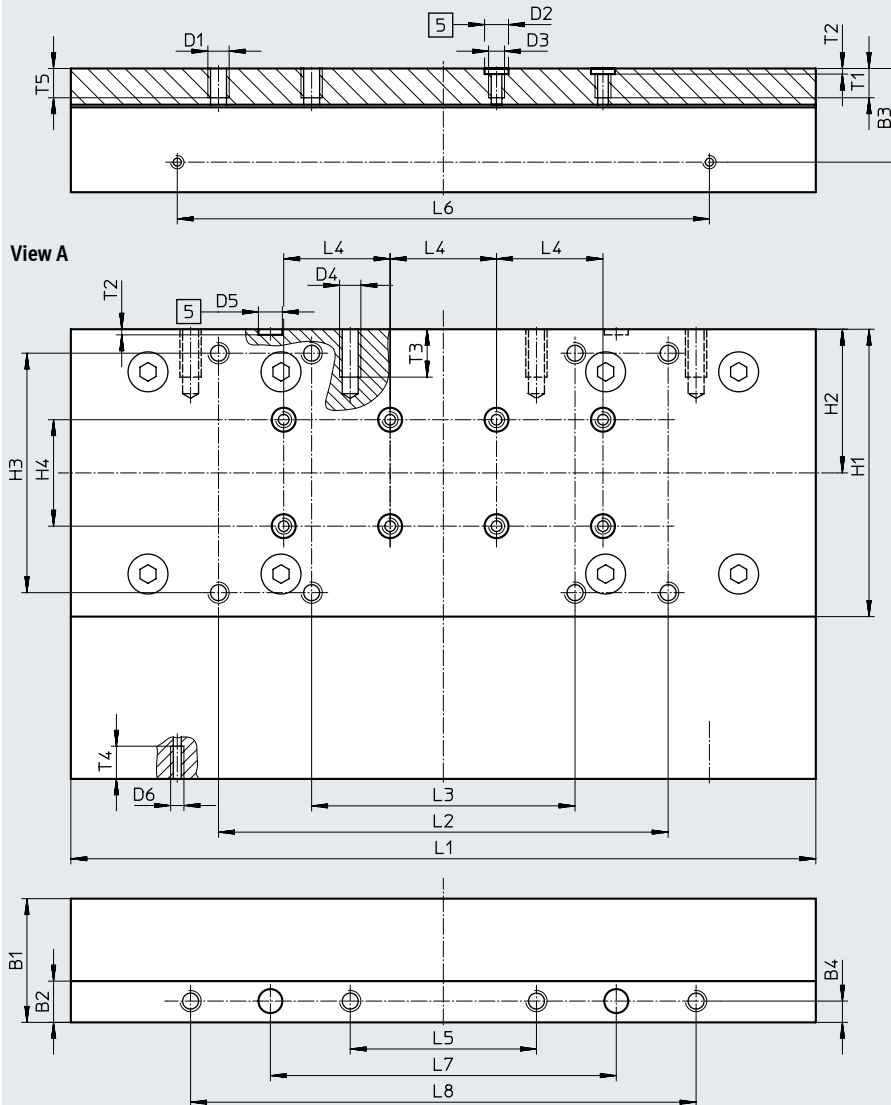
## Data sheet

## Dimensions

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

GK – Standard slide

## Size 185



[5] Drill hole for centring sleeve

| Size | B1   | B2   | B3   | B4  | B10* | D1 | D2<br>Ø<br>H7 | D3 | D4 | D5<br>Ø<br>H7 | D6 | H1   | H2   | H3      | H4<br>±0.03 |
|------|------|------|------|-----|------|----|---------------|----|----|---------------|----|------|------|---------|-------------|
| 50   | 13   | 5.5  | 7.2  | –   | –    | M4 | 5             | –  | –  | –             | M3 | 24.5 | 12.5 | 15 ±0.1 | –           |
| 70   | 18.7 | 8.7  | 11.7 | 4.5 | 9    | M5 | 5             | –  | M5 | 5             | M4 | 35   | 17.5 | 20 ±0.1 | –           |
| 80   | 22   | 10   | 16   | 5   | 10.4 | M5 | 9             | M6 | M5 | 7             | M4 | 46   | 23   | 32 ±0.2 | –           |
| 120  | 34   | 12   | 24.5 | 7   | 11.2 | M5 | 9             | M6 | M6 | 7             | M5 | 68   | 34   | 55 ±0.2 | 20          |
| 185  | 46.5 | 15.5 | 35.2 | 8   | –    | M8 | 9             | M6 | M8 | 9             | M5 | 108  | 54   | 90 ±0.2 | 40          |

| Size | H10* | L1    | L2       | L3      | L4<br>±0.03 | L5      | L6<br>±0.1 | L7<br>±0.05 | L8<br>±0.2 | L10* | T1  | T2<br>+0.1 | T3 | T4   | T5  |
|------|------|-------|----------|---------|-------------|---------|------------|-------------|------------|------|-----|------------|----|------|-----|
| 50   | –    | 65    | 56 ±0.1  | 20 ±0.1 | 20          | 10 ±0.1 | 22         | –           | –          | –    | 4.2 | 3.1        | –  | 6    | –   |
| 70   | 29.4 | 100   | 90 ±0.1  | 20 ±0.1 | 20          | 10 ±0.1 | 56         | –           | –          | 121  | 7.5 | 3.1        | 10 | 6    | –   |
| 80   | 39   | 120   | 74 ±0.2  | 44 ±0.2 | 40          | 30 ±0.1 | 78         | 60          | –          | 145  | 8.6 | 2.1        | 12 | 7    | 7.5 |
| 120  | 60.6 | 203.3 | 116 ±0.2 | 76 ±0.2 | 40          | 60 ±0.1 | 140        | 110         | –          | 235  | 8.6 | 2.1        | 13 | 7.5  | 7.5 |
| 185  | –    | 282.8 | 169 ±0.2 | 99 ±0.2 | 40          | 70 ±0.2 | 200        | 130         | 190        | –    | 11  | 2.1        | 18 | 12.3 | 12  |

\* Protected version

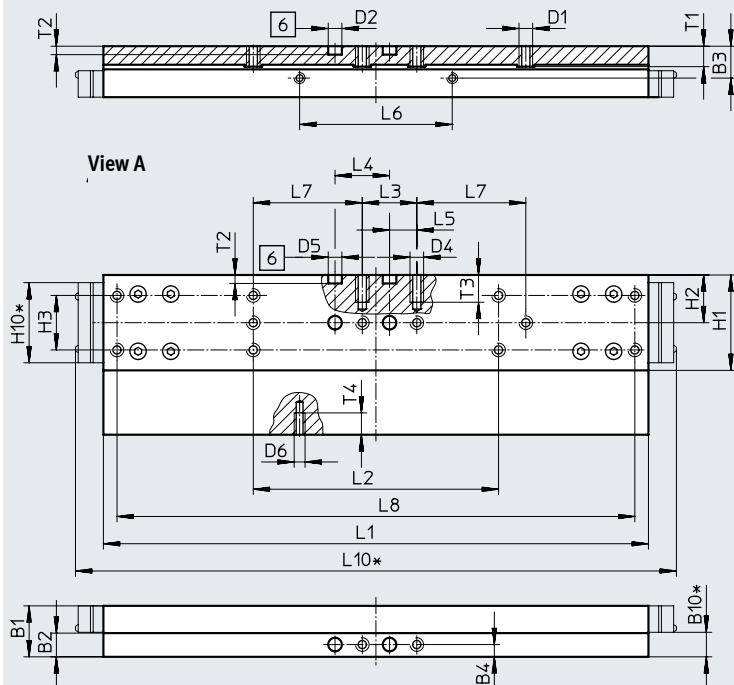
Data sheet

Dimensions

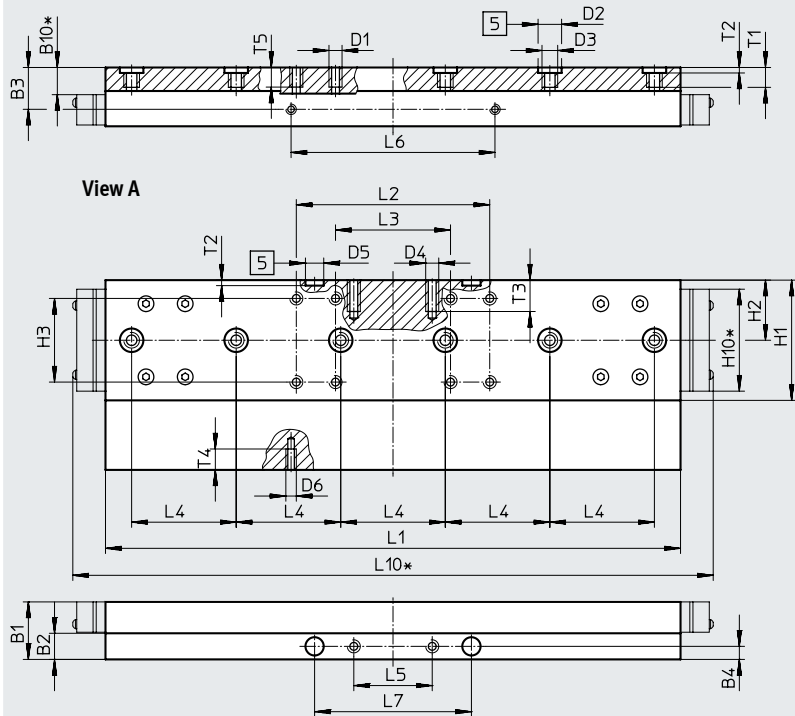
Download CAD data → [www.festo.com](http://www.festo.com)

GV – Extended slide / GQ – Extended slide, protected

Size 70



Size 80



- [5] Drill hole for centring sleeve
- [6] Drill hole for centring pin
- \* Protected version

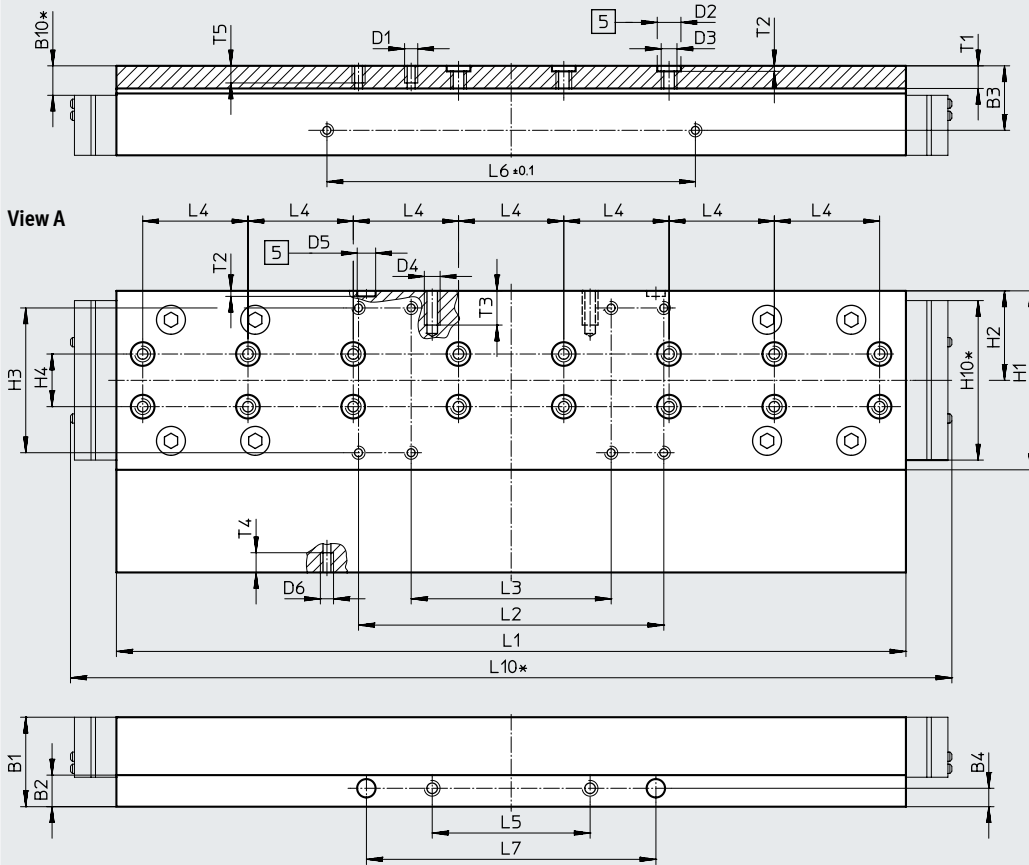
## Data sheet

## Dimensions

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

GV – Extended slide / GQ – Extended slide, protected

## Size 120



[5] Drill hole for centring sleeve  
\* Protected version

| Size | B1   | B2  | B3   | B4  | B10* | D1 | D2<br>Ø<br>H7 | D3 | D4 | D5<br>Ø<br>H7 |
|------|------|-----|------|-----|------|----|---------------|----|----|---------------|
| 70   | 18.7 | 8.7 | 11.7 | 4.5 | 9    | M5 | 5             | –  | M5 | 5             |
| 80   | 22   | 10  | 16   | 5   | 10.4 | M5 | 9             | M6 | M5 | 7             |
| 120  | 34   | 12  | 24.5 | 7   | 11.2 | M5 | 9             | M6 | M6 | 7             |

| Size | D6 | H1 | H2   | H3      | H4<br>±0.03 | H10* | L1<br>±0.1 | L2       | L3      | L4<br>±0.03 |
|------|----|----|------|---------|-------------|------|------------|----------|---------|-------------|
| 70   | M4 | 35 | 17.5 | 20 ±0.1 | –           | 29.4 | 200        | 90 ±0.1  | 20 ±0.1 | 20          |
| 80   | M4 | 46 | 23   | 32 ±0.2 | –           | 39   | 220        | 74 ±0.2  | 44 ±0.2 | 40          |
| 120  | M5 | 68 | 34   | 55 ±0.2 | 20          | 60.6 | 303.3      | 116 ±0.2 | 76 ±0.2 | 40          |

| Size | L5<br>±0.1 | L6<br>±0.1 | L7        | L8<br>±0.2 | L10* | T1  | T2<br>+0.1 | T3 | T4  | T5  |
|------|------------|------------|-----------|------------|------|-----|------------|----|-----|-----|
| 70   | 10         | 56         | 40 ±0.1   | 190        | 221  | 7.5 | 3.1        | 10 | 6   | –   |
| 80   | 30         | 78         | 60 ±0.05  | –          | 245  | 8.6 | 2.1        | 12 | 7   | 7.5 |
| 120  | 60         | 140        | 110 ±0.05 | –          | 335  | 8.6 | 2.1        | 13 | 7.5 | 7.5 |

\* Protected version

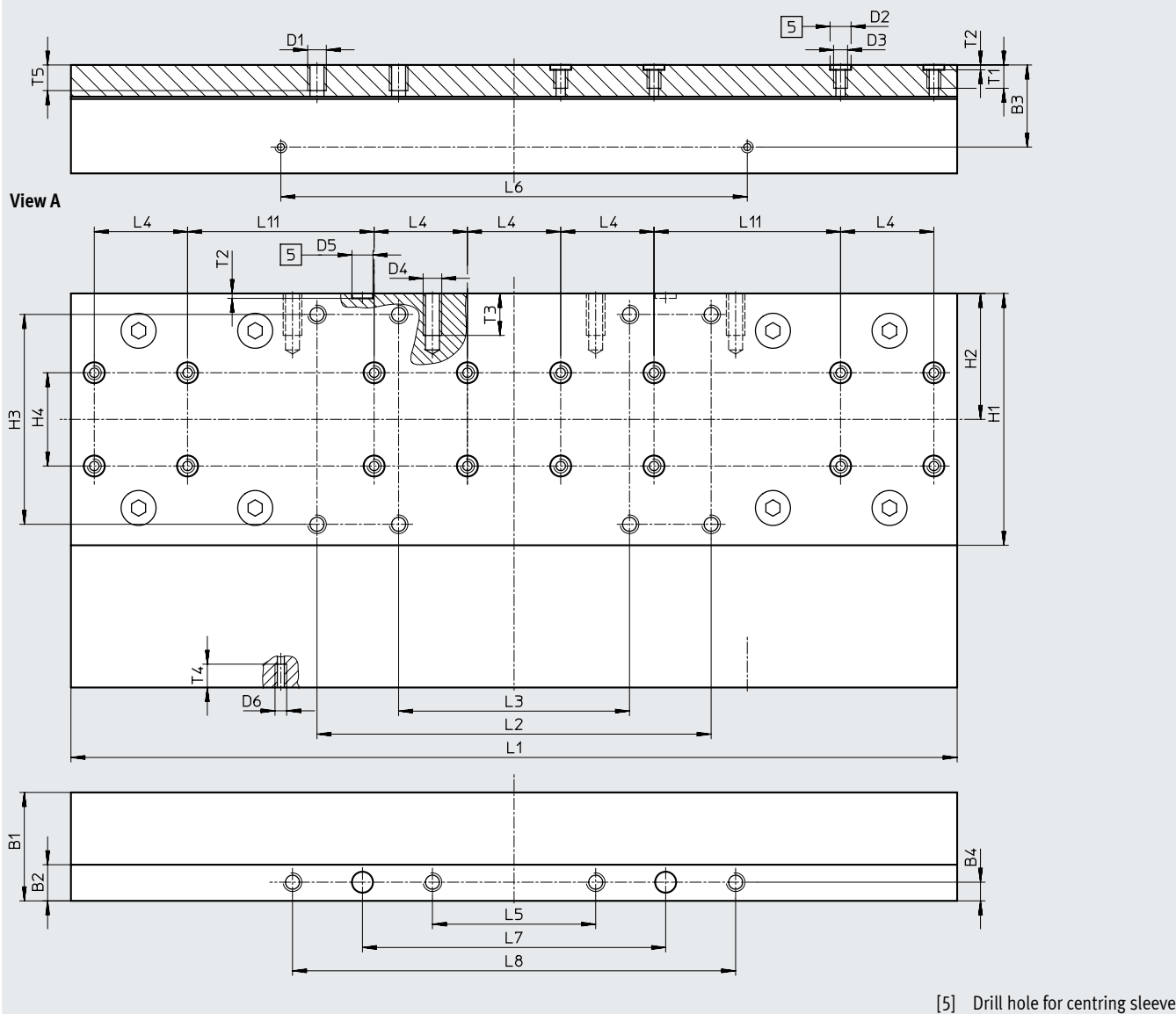
## Data sheet

## Dimensions

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

GV – Extended slide

## Size 185



|      |      |      |      |    |    |               |    |    |               |
|------|------|------|------|----|----|---------------|----|----|---------------|
| Size | B1   | B2   | B3   | B4 | D1 | D2<br>Ø<br>H7 | D3 | D4 | D5<br>Ø<br>H7 |
| 185  | 46.5 | 15.5 | 35.2 | 8  | M8 | 9             | M6 | M8 | 9             |

|      |    |     |    |      |       |       |      |      |       |
|------|----|-----|----|------|-------|-------|------|------|-------|
| Size | D6 | H1  | H2 | H3   | H4    | L1    | L2   | L3   | L4    |
|      |    |     |    | ±0.2 | ±0.03 | ±0.1  | ±0.2 | ±0.2 | ±0.03 |
| 185  | M5 | 108 | 54 | 90   | 40    | 382.8 | 169  | 99   | 40    |

|      |      |      |       |      |       |    |      |    |    |    |
|------|------|------|-------|------|-------|----|------|----|----|----|
| Size | L5   | L6   | L7    | L8   | L11   | T1 | T2   | T3 | T4 | T5 |
|      | ±0.2 | ±0.1 | ±0.05 | ±0.2 | ±0.03 |    | +0.1 |    |    |    |
| 185  | 70   | 200  | 130   | 190  | 80    | 11 | 2.1  | 18 | 10 | 12 |

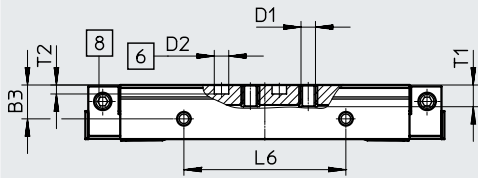
## Data sheet

## Dimensions

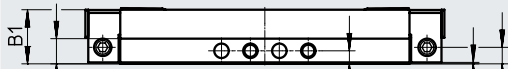
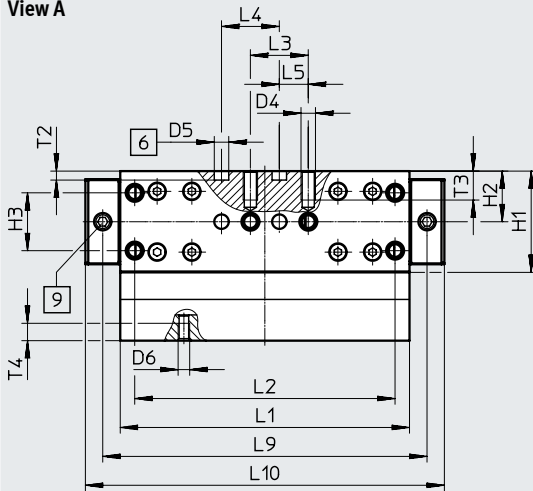
Download CAD data → [www.festo.com](http://www.festo.com)

GK-C – Standard slide with lubrication adapter

## Size 70



## View A



- [6] Drill hole for centring pin  
 [8] Lubricating hole for lubrication adapter  
 M6 threaded connection, 6 mm deep  
 [9] Lubricating hole for lubrication adapter  
 M6 threaded connection, 5.5 mm deep

| Size | B1   | B2  | B3   | B4  | B5  | B6  | D1 | D2<br>Ø<br>H7 | D4 |
|------|------|-----|------|-----|-----|-----|----|---------------|----|
| 70   | 18.7 | 8.7 | 11.7 | 4.5 | 0.5 | 5.7 | M5 | 5             | M5 |

| Size | D5<br>Ø<br>H7 | D6 | H1 | H2   | H3 | L1  | L2 | L3 | L4 |
|------|---------------|----|----|------|----|-----|----|----|----|
| 70   | 5             | M4 | 35 | 17.5 | 20 | 100 | 90 | 20 | 20 |

| Size | L5 | L6   | L9    | L10   | L11 | T1  | T2  | T3 | T4 |
|------|----|------|-------|-------|-----|-----|-----|----|----|
| 70   | 10 | ±0.1 | 112.1 | 124.1 | 30  | 7.5 | 3.1 | 10 | 6  |

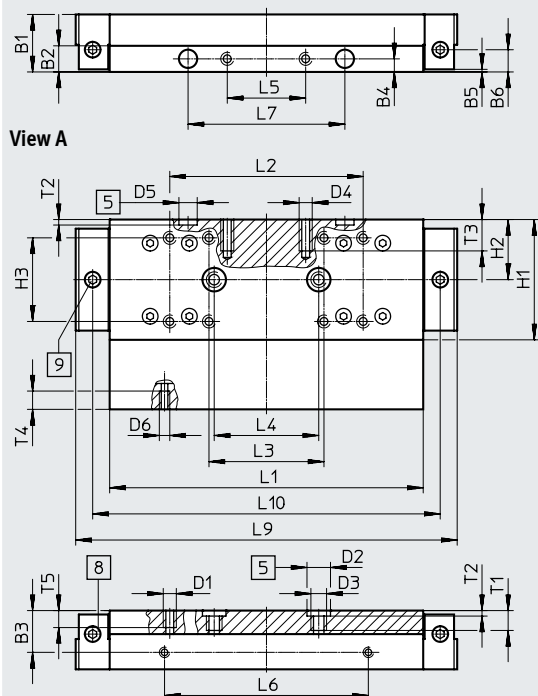
## Data sheet

## Dimensions

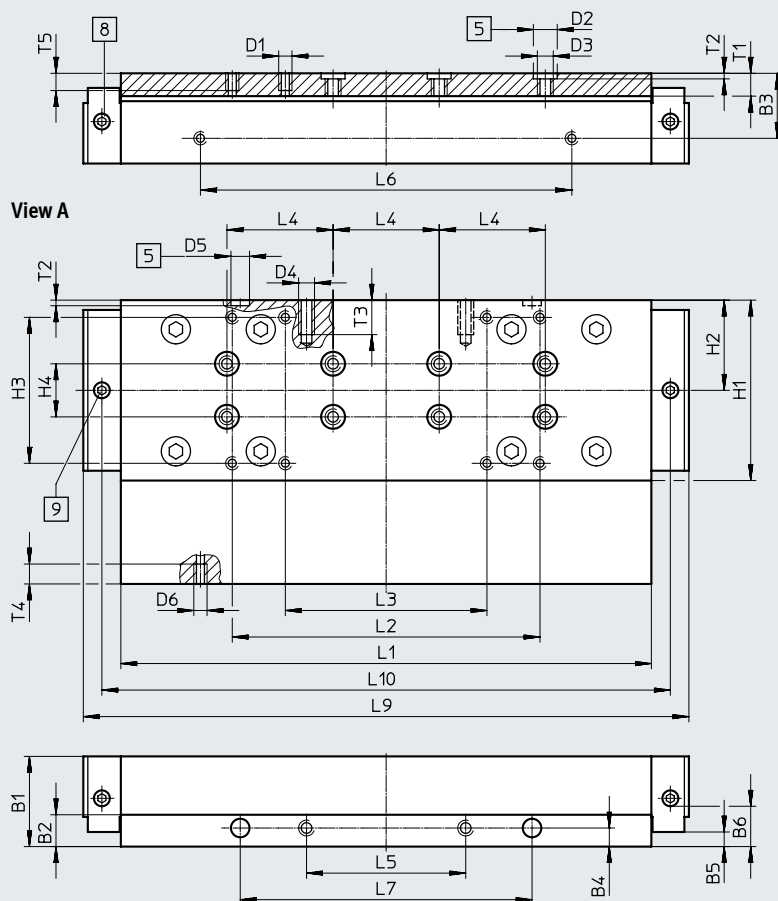
Download CAD data → [www.festo.com](http://www.festo.com)

GK-C – Standard slide with lubrication adapter

## Size 80



## Size 120



- [5] Drill hole for centring sleeve  
 [8] Lubricating hole for lubrication adapter  
 M6 threaded connection, 6 mm deep  
 [9] Lubricating hole for lubrication adapter  
 M6 threaded connection, 5.5 mm deep

| Size | B1 | B2 | B3   | B4 | B5        | B6   | D1 | D2<br>Ø<br>H7 | D3 | D4 |
|------|----|----|------|----|-----------|------|----|---------------|----|----|
| 80   | 22 | 10 | 16   | 5  | 1<br>±0.1 | 8.5  | M5 | 9             | M6 | M5 |
| 120  | 34 | 12 | 24.5 | 7  | 5.5       | 18.2 | M5 | 9             | M6 | M6 |

| Size | D5<br>Ø<br>H7 | D6 | H1 | H2 | H3         | H4          | L1            | L2          | L3         | L4          |
|------|---------------|----|----|----|------------|-------------|---------------|-------------|------------|-------------|
| 80   | 7             | M4 | 46 | 23 | 32<br>±0.2 | –           | 120<br>±0.1   | 74<br>±0.2  | 44<br>±0.2 | 40<br>±0.03 |
| 120  | 7             | M5 | 68 | 34 | 55         | 20<br>±0.03 | 203.3<br>±0.1 | 116<br>±0.2 | 76<br>±0.2 | 40<br>±0.03 |

| Size | L5         | L6         | L7          | L9    | L10   | T1  | T2          | T3 | T4  | T5  |
|------|------------|------------|-------------|-------|-------|-----|-------------|----|-----|-----|
| 80   | 30<br>±0.1 | 78<br>±0.1 | 60<br>±0.05 | 146   | 133   | 8.6 | 2.1<br>+0.1 | 12 | 7   | 7.5 |
| 120  | 60         | 140        | 110         | 228.3 | 214.3 | 8.6 | 2.1         | 13 | 7.5 | 7.5 |



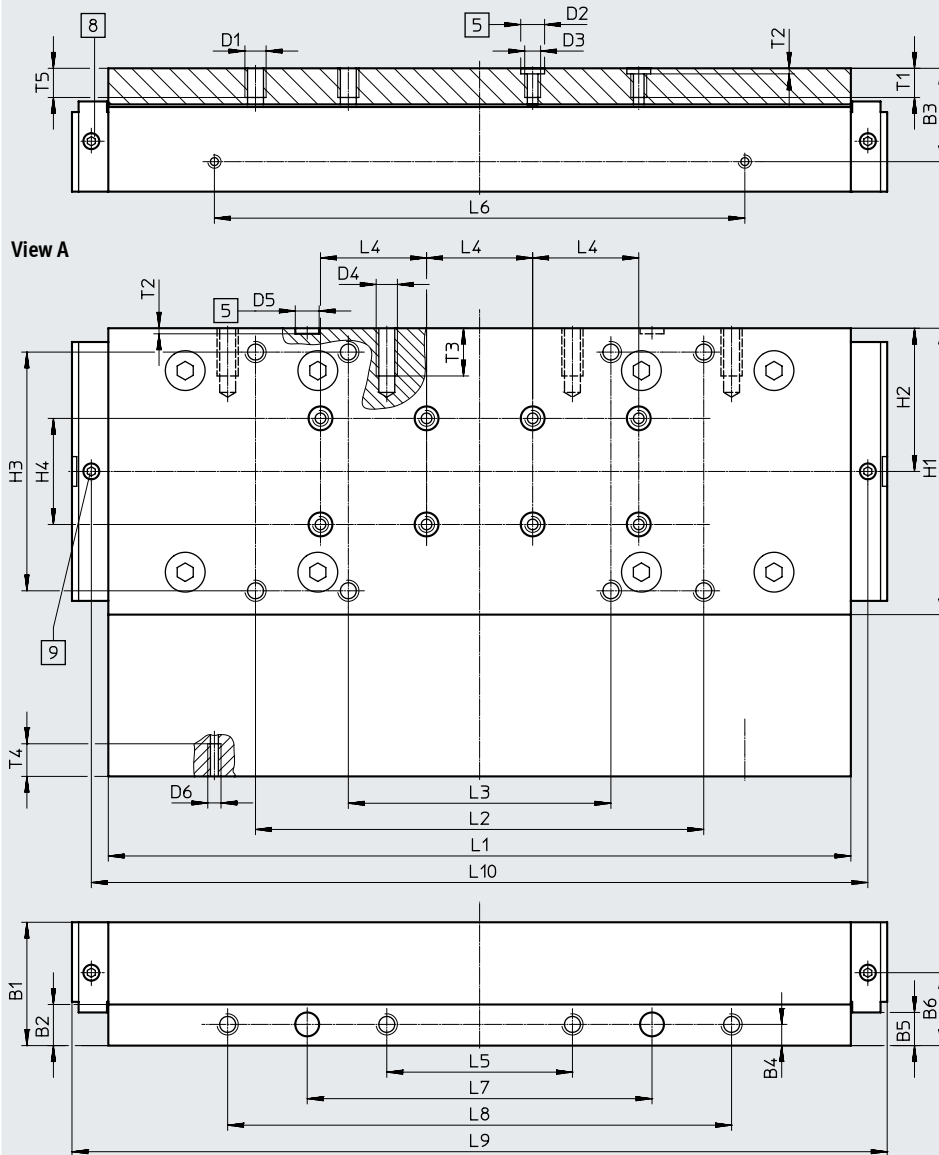
## Data sheet

## Dimensions

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GK-C – Standard slide with lubrication adapter

## Size 185



[5] Drill hole for centring sleeve

[9] Lubricating hole for lubrication adapter

[8] Lubricating hole for lubrication adapter

M6 threaded connection, 5.5 mm deep

M6 threaded connection, 6 mm deep

| Size | B1   | B2   | B3   | B4 | B5           | B6   | D1 | D2<br>Ø<br>H7 | D3 | D4 |
|------|------|------|------|----|--------------|------|----|---------------|----|----|
| 185  | 46.5 | 15.5 | 35.2 | 8  | ±0.1<br>12.5 | 27.5 | M8 | 9             | M6 | M8 |

| Size | D5<br>Ø<br>H7 | D6 | H1  | H2 | H3         | H4          | L1            | L2          | L3         | L4          |
|------|---------------|----|-----|----|------------|-------------|---------------|-------------|------------|-------------|
| 185  | 9             | M5 | 108 | 54 | ±0.2<br>90 | ±0.03<br>40 | ±0.1<br>282.8 | ±0.2<br>169 | ±0.2<br>99 | ±0.03<br>40 |

| Size | L5         | L6          | L7           | L8          | L9    | L10   | T1 | T2          | T3 | T4   | T5 |
|------|------------|-------------|--------------|-------------|-------|-------|----|-------------|----|------|----|
| 185  | ±0.2<br>70 | ±0.1<br>200 | ±0.05<br>130 | ±0.2<br>190 | 307.4 | 292.8 | 11 | +0.1<br>2.1 | 18 | 12.3 | 12 |

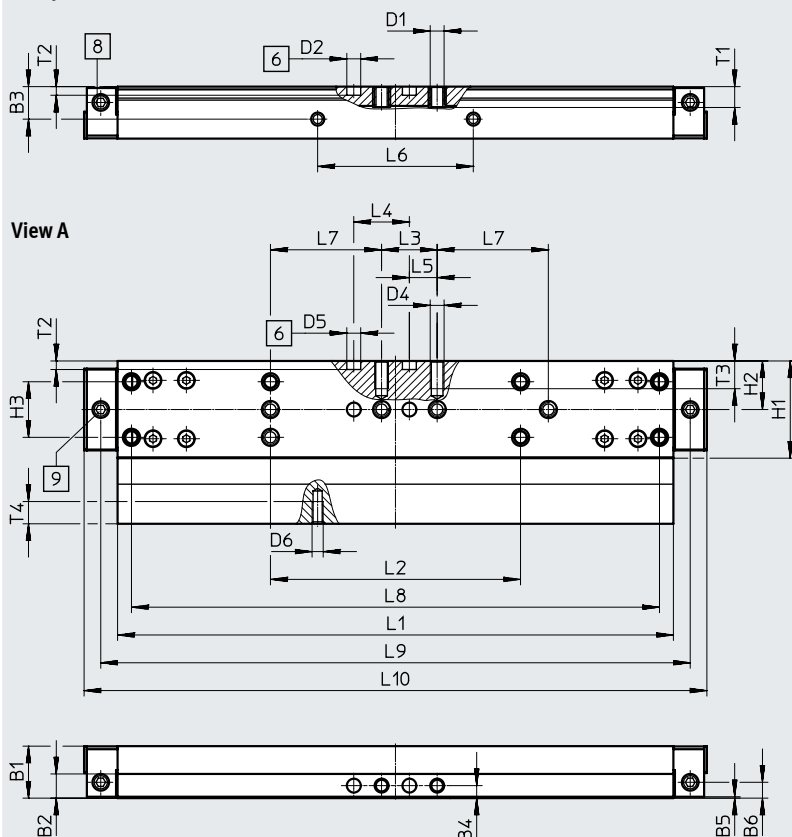
## Data sheet

## Dimensions

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GV-C – Extended slide with lubrication adapter

## Size 70



- [6] Drill hole for centring pin  
 [8] Lubricating hole for lubrication adapter  
 M6 threaded connection, 6 mm deep  
 [9] Lubricating hole for lubrication adapter  
 M6 threaded connection, 5.5 mm deep

| Size | B1   | B2  | B3   | B4  | B5  | B6  | D1 | D2<br>Ø<br>H7 | D4 | D5<br>Ø<br>H7 |
|------|------|-----|------|-----|-----|-----|----|---------------|----|---------------|
| 70   | 18.7 | 8.7 | 11.7 | 4.5 | 0.5 | 5.7 | M5 | 5             | M5 | 5             |

| Size | D6 | H1 | H2   | H3   | L1   | L2   | L3   | L4    | L5 | L6   |
|------|----|----|------|------|------|------|------|-------|----|------|
|      |    |    |      | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.03 |    | ±0.1 |
| 70   | M4 | 35 | 17.5 | 20   | 200  | 90   | 20   | 20    | 10 | 56   |

| Size | L7   | L8   | L9    | L10   | L11 | T1  | T2   | T3 | T4 |
|------|------|------|-------|-------|-----|-----|------|----|----|
|      | ±0.1 | ±0.2 |       |       |     |     | +0.1 |    |    |
| 70   | 40   | 190  | 212.1 | 224.1 | 30  | 7.5 | 3.1  | 10 | 6  |

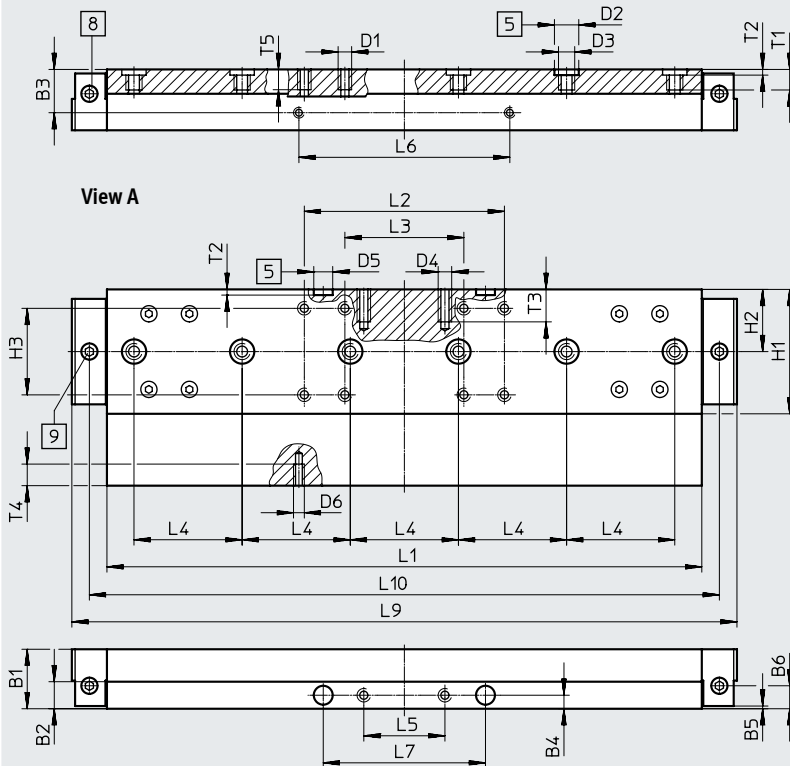
## Data sheet

## Dimensions

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GV-C – Extended slide with lubrication adapter

## Size 80



[5] Drill hole for centring sleeve

[8] Lubricating hole for lubrication adapter  
M6 threaded connection, 6 mm deep[9] Lubricating hole for lubrication adapter  
M6 threaded connection, 5.5 mm deep

| Size | B1 | B2 | B3 | B4 | B5        | B6  | D1 | D2<br>Ø<br>H7 | D3 | D4 |
|------|----|----|----|----|-----------|-----|----|---------------|----|----|
| 80   | 22 | 10 | 16 | 5  | 1<br>±0.1 | 8.5 | M5 | 9             | M6 | M5 |

| Size | D5<br>Ø<br>H7 | D6 | H1 | H2 | H3         | L1          | L2         | L3         | L4          | L5         |
|------|---------------|----|----|----|------------|-------------|------------|------------|-------------|------------|
| 80   | 7             | M4 | 46 | 23 | 32<br>±0.2 | 220<br>±0.1 | 74<br>±0.2 | 44<br>±0.2 | 40<br>±0.03 | 30<br>±0.1 |

| Size | L6         | L7          | L9  | L10 | T1  | T2          | T3 | T4 | T5  |
|------|------------|-------------|-----|-----|-----|-------------|----|----|-----|
| 80   | 78<br>±0.1 | 60<br>±0.05 | 246 | 233 | 8.6 | 2.1<br>+0.1 | 12 | 7  | 7.5 |

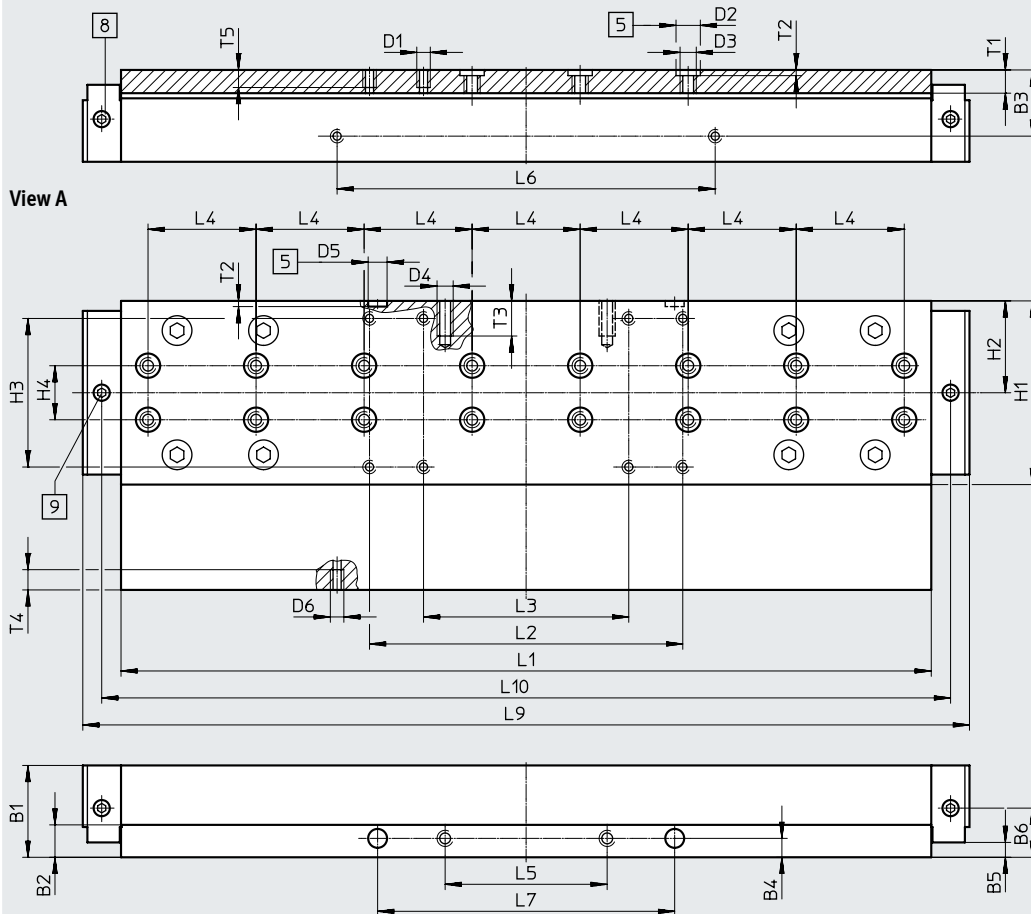
## Data sheet

## Dimensions

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GV-C – Extended slide with lubrication adapter

## Size 120



- [5] Drill hole for centring sleeve  
 [8] Lubricating hole for lubrication adapter  
 M6 threaded connection, 6 mm deep  
 [9] Lubricating hole for lubrication adapter  
 M6 threaded connection, 5.5 mm deep

| Size | B1            | B2          | B3           | B4    | B5          | B6          | D1            | D2<br>Ø<br>H7 | D3         | D4          |
|------|---------------|-------------|--------------|-------|-------------|-------------|---------------|---------------|------------|-------------|
| 120  | 34            | 12          | 24.5         | 7     | 5.5<br>±0.1 | 18.2        | M5            | 9             | M6         | M6          |
| Size | D5<br>Ø<br>H7 | D6          | H1           | H2    | H3          | H4          | L1            | L2            | L3         | L4          |
| 120  | 7             | M5          | 68           | 34    | 55<br>±0.2  | 20<br>±0.03 | 303.3<br>±0.1 | 116<br>±0.2   | 76<br>±0.2 | 40<br>±0.03 |
| Size | L5            | L6          | L7           | L9    | L10         | T1          | T2            | T3            | T4         | T5          |
| 120  | 60<br>±0.1    | 140<br>±0.1 | 110<br>±0.05 | 328.3 | 314.3       | 8.6         | 2.1<br>±0.1   | 13            | 7.5        | 7.5         |

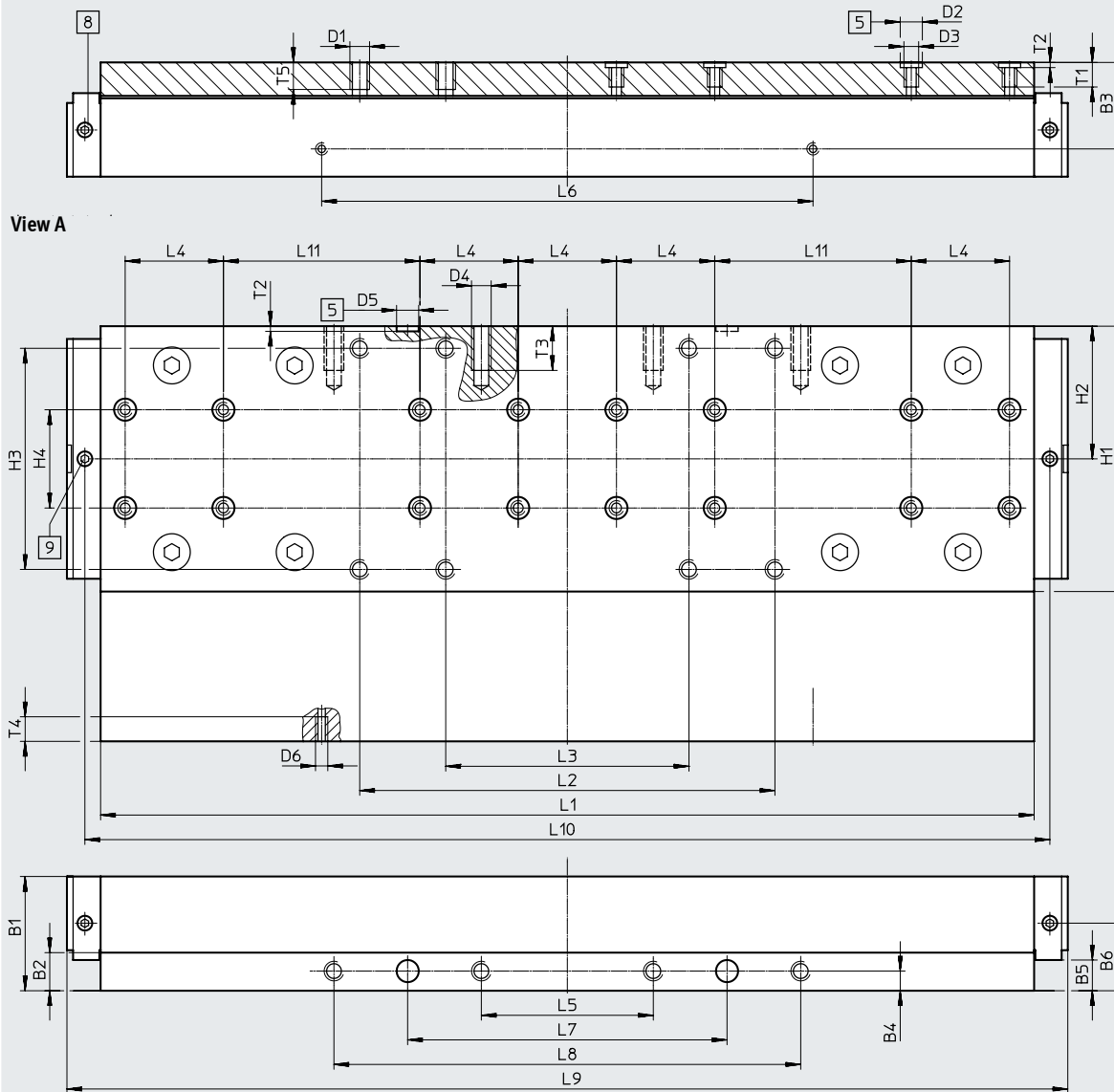
## Data sheet

## Dimensions

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GV-C – Extended slide with lubrication adapter

## Size 185



[5] Drill hole for centring sleeve

[9] Lubricating hole for lubrication adapter

[8] Lubricating hole for lubrication adapter

M6 threaded connection, 5.5 mm deep

M6 threaded connection, 6 mm deep

| Size | B1   | B2   | B3   | B4 | B5           | B6   | D1 | D2<br>Ø<br>H7 | D3 | D4 |
|------|------|------|------|----|--------------|------|----|---------------|----|----|
| 185  | 46.5 | 15.5 | 35.2 | 8  | ±0.1<br>12.5 | 27.5 | M8 | 9             | M6 | M8 |

| Size | D5<br>Ø<br>H7 | D6 | H1  | H2 | H3         | H4          | L1            | L2          | L3         | L4          | L5         |
|------|---------------|----|-----|----|------------|-------------|---------------|-------------|------------|-------------|------------|
| 185  | 9             | M5 | 108 | 54 | ±0.2<br>90 | ±0.03<br>40 | ±0.1<br>382.8 | ±0.2<br>169 | ±0.2<br>99 | ±0.03<br>40 | ±0.2<br>70 |

| Size | L6          | L7           | L8          | L9    | L10   | L11         | T1 | T2          | T3 | T4 | T5 |
|------|-------------|--------------|-------------|-------|-------|-------------|----|-------------|----|----|----|
| 185  | ±0.1<br>200 | ±0.05<br>130 | ±0.2<br>190 | 407.4 | 392.8 | ±0.03<br>80 | 11 | ±0.1<br>2.1 | 18 | 10 | 12 |

## Data sheet

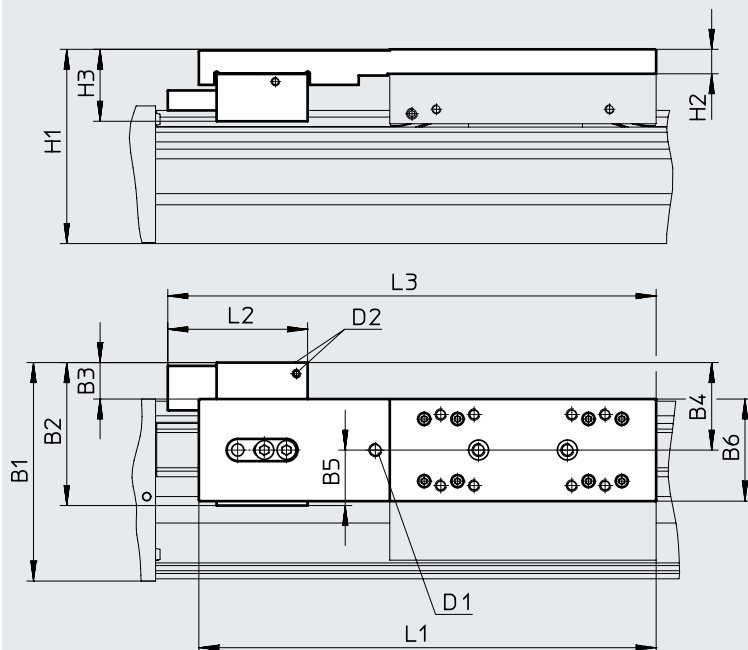
### Dimensions

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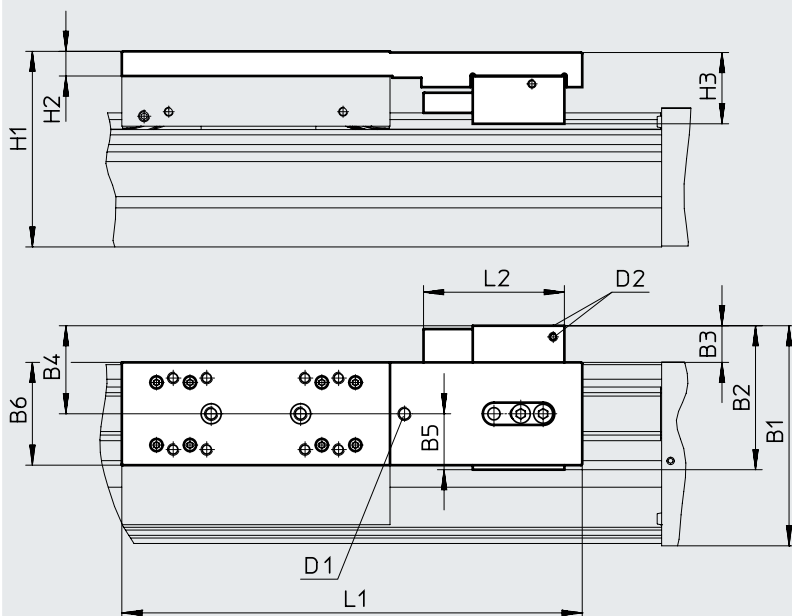
1HL/1HR – With clamping unit

Size 80

1-channel, left



1-channel, right



D1 Optional: threaded connection for lubrication adapter

D2 Compressed air supply ports

Working stroke reduction in combination with clamping unit → page 21

## Data sheet

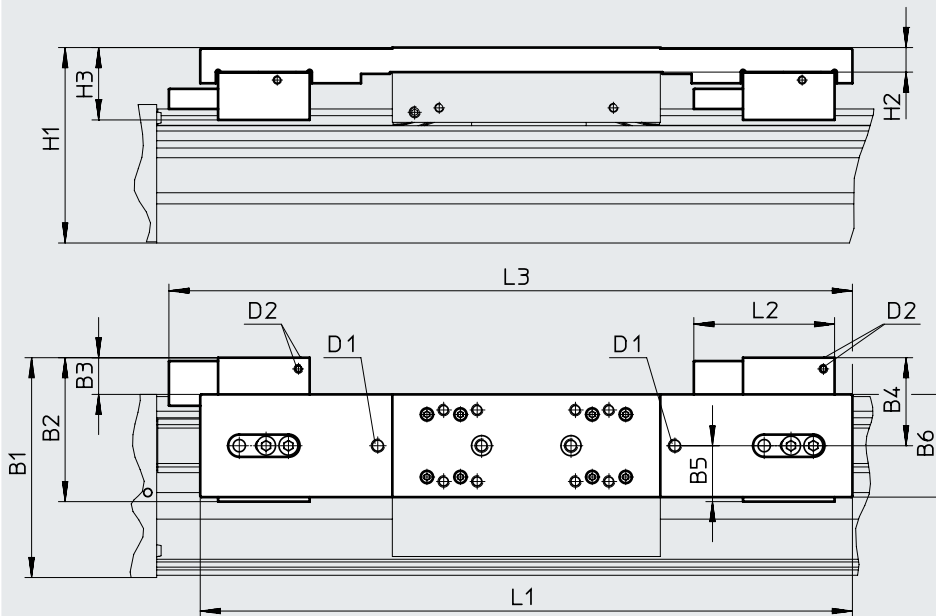
## Dimensions

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

2H – With clamping unit

Size 80

2-channel



D1 Optional: threaded connection for lubrication adapter  
 D2 Compressed air supply ports

Working stroke reduction in combination with clamping unit → page 21

| Type                | B1   | B2   | B3   | B4   | B5 | B6 | H1   | H2 | H3   | D1 | D2 | L1  | L2 | L3  |
|---------------------|------|------|------|------|----|----|------|----|------|----|----|-----|----|-----|
| EGC-80-...-1HL-PN   | 98.4 | 64.4 | 17.4 | 39.4 | 25 | 46 | 87.5 | 11 | 32.4 | M6 | M5 | 206 | 63 | 220 |
| EGC-80-...-1HR-PN   |      |      |      |      |    |    |      |    |      |    |    |     |    | –   |
| EGC-80-...-C-1HL-PN |      |      |      |      |    |    |      |    |      |    |    |     |    | 220 |
| EGC-80-...-C-1HR-PN |      |      |      |      |    |    |      |    |      |    |    |     |    | –   |
| EGC-80-...-2H-PN    |      |      |      |      |    |    |      |    |      |    |    | 292 |    | 306 |
| EGC-80-...-C-2H-PN  |      |      |      |      |    |    |      |    |      |    |    |     |    |     |

## Data sheet

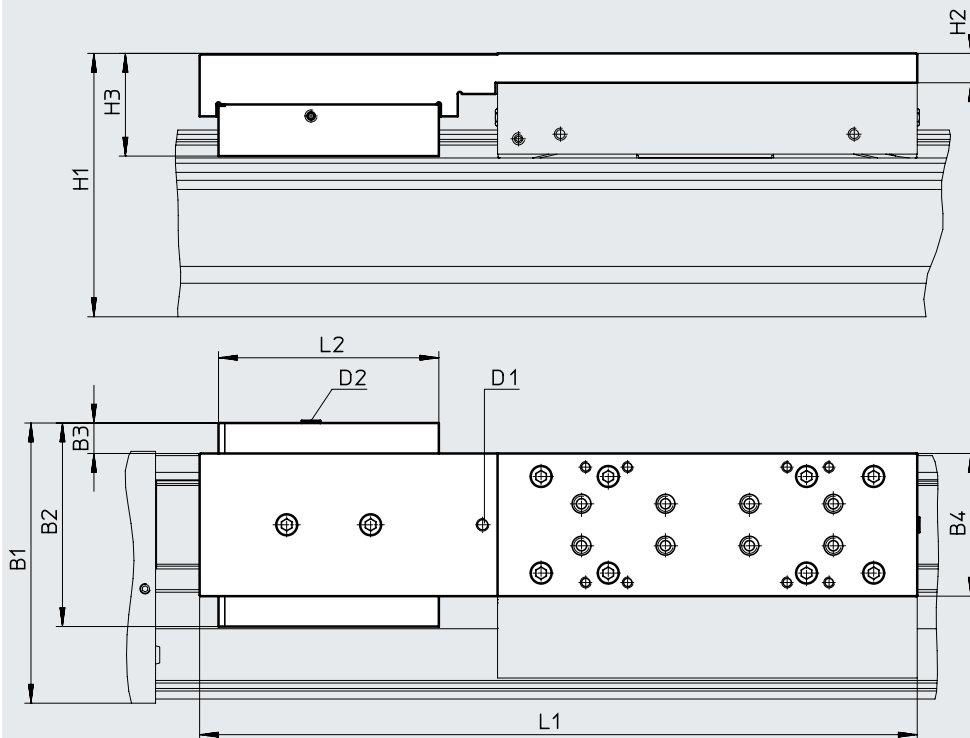
### Dimensions

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

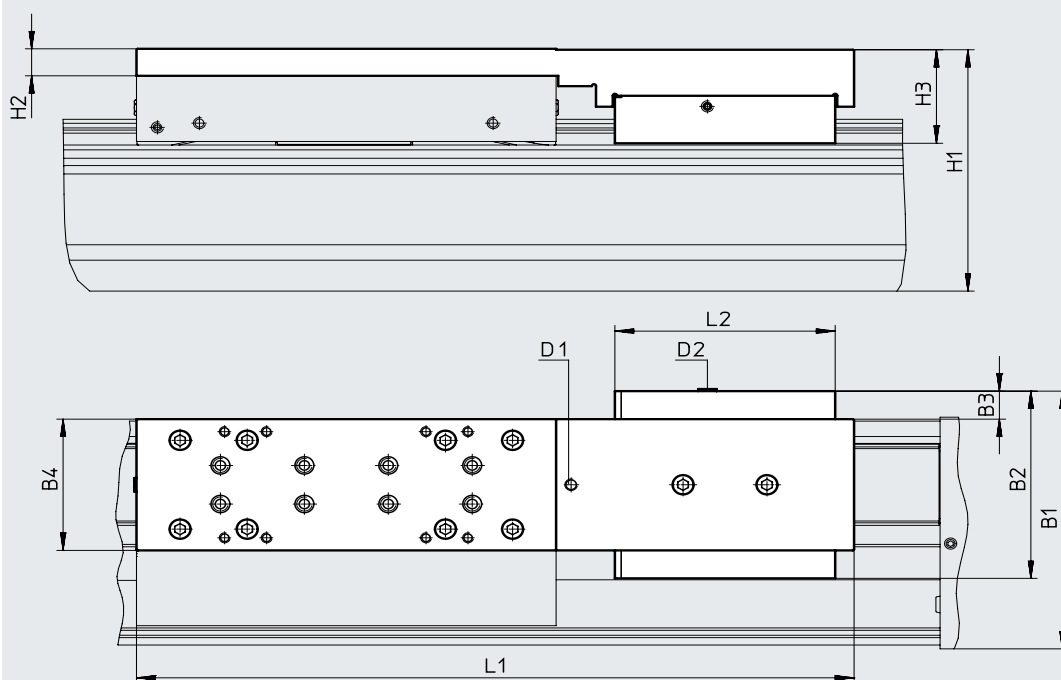
1HL/1HR – With clamping unit

Size 120/185

1-channel, left



1-channel, right



D1 Optional: threaded connection for lubrication adapter

D2 Compressed air supply port

Working stroke reduction in combination with clamping unit → page 21



## Data sheet

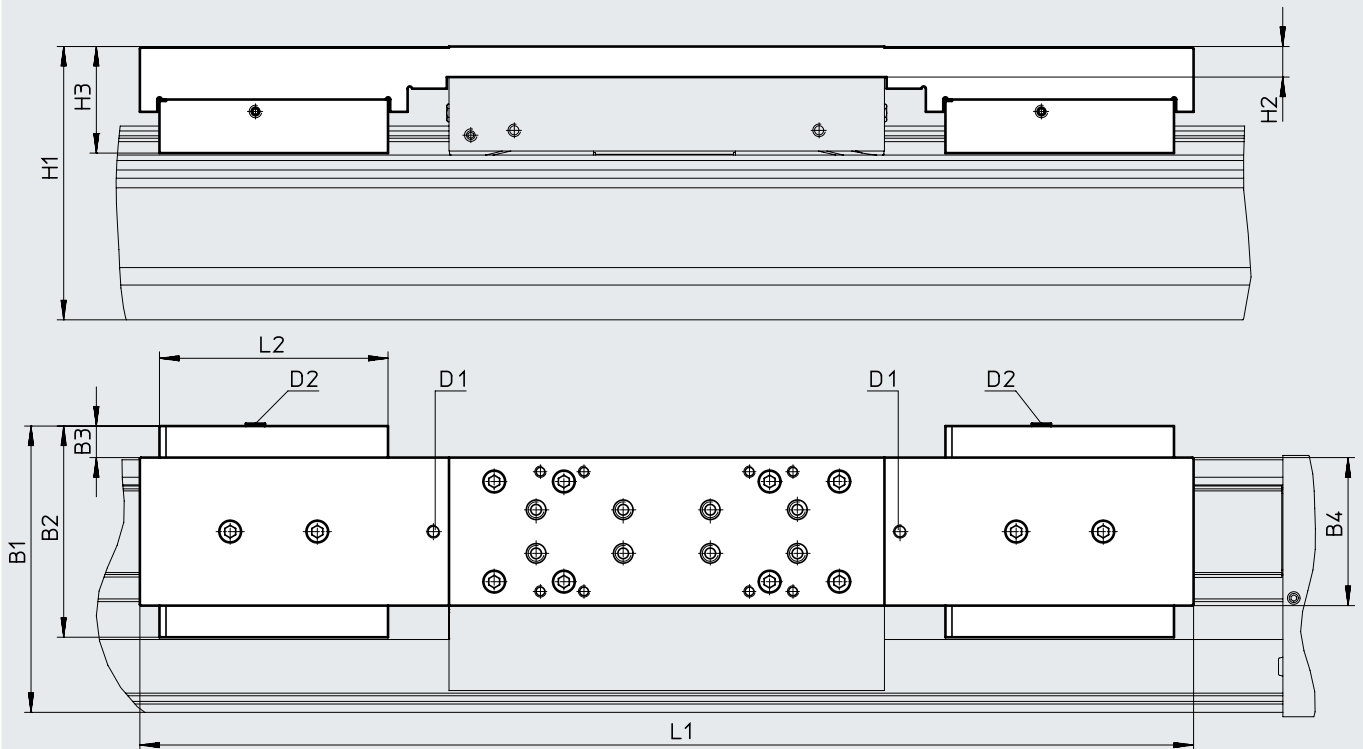
## Dimensions

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

2H – With clamping unit

Size 120/185

2-channel



D1 Optional: threaded connection for lubrication adapter

D2 Compressed air supply ports

Working stroke reduction in combination with clamping unit → page 21

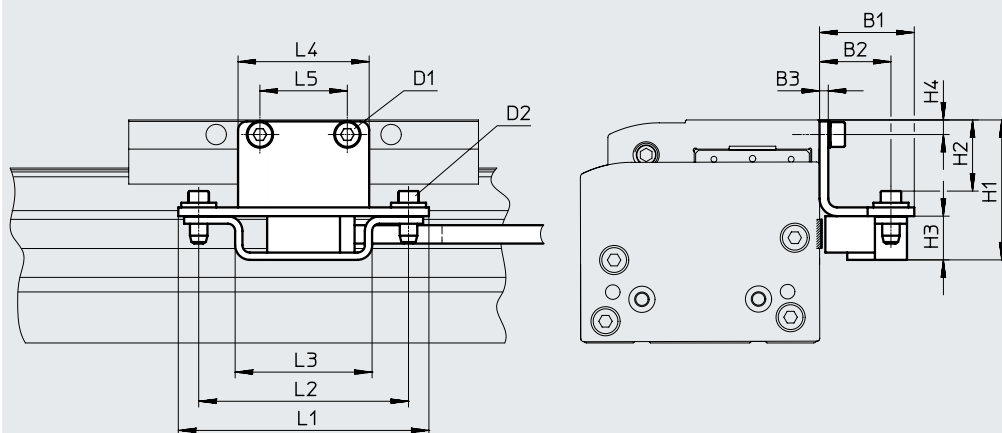
| Type                 | B1    | B2  | B3   | B4  | H1    | H2 | H3   | D1 | D2 | L1  | L2  |
|----------------------|-------|-----|------|-----|-------|----|------|----|----|-----|-----|
| Size 120             |       |     |      |     |       |    |      |    |    |     |     |
| EGC-120-...-1HL-PN   | 133.5 | 97  | 15.5 | 68  | 125.5 | 14 | 48.9 | M6 | M5 | 342 | 105 |
| EGC-120-...-1HR-PN   |       |     |      |     |       |    |      |    |    |     |     |
| EGC-120-...-C-1HL-PN |       |     |      |     |       |    |      |    |    |     |     |
| EGC-120-...-C-1HR-PN |       |     |      |     |       |    |      |    |    |     |     |
| EGC-120-...-2H-PN    |       |     |      |     |       |    |      |    |    | 484 |     |
| EGC-120-...-C-2H-PN  |       |     |      |     |       |    |      |    |    |     |     |
| Size 185             |       |     |      |     |       |    |      |    |    |     |     |
| EGC-185-...-1HL-PN   | 196.5 | 131 | 12.5 | 108 | 189.5 | 17 | 64.1 | M6 | M5 | 432 | 109 |
| EGC-185-...-1HR-PN   |       |     |      |     |       |    |      |    |    |     |     |
| EGC-185-...-C-1HL-PN |       |     |      |     |       |    |      |    |    |     |     |
| EGC-185-...-C-1HR-PN |       |     |      |     |       |    |      |    |    |     |     |
| EGC-185-...-2H-PN    |       |     |      |     |       |    |      |    |    | 584 |     |
| EGC-185-...-C-2H-PN  |       |     |      |     |       |    |      |    |    |     |     |

## Data sheet

## Dimensions

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

M1/M2 – With incremental displacement encoder



| Type           | B1   | B2   | B3 | H1   | H2   | H3 | H4  |
|----------------|------|------|----|------|------|----|-----|
| EGC-70-...-M1  | 32.5 | 24.5 | 3  | 39   | 18.4 | 15 | 4.5 |
| EGC-70-...-M2  |      |      |    | 39   | 18.4 |    | 4.5 |
| EGC-80-...-M1  |      |      |    | 48   | 24.4 |    | 5   |
| EGC-80-...-M2  |      |      |    | 48   | 24.4 |    | 5   |
| EGC-120-...-M1 |      |      |    | 60   | 36.4 |    | 7   |
| EGC-120-...-M2 |      |      |    | 60   | 36.4 |    | 7   |
| EGC-185-...-M1 |      |      |    | 78.5 | 54.9 |    | 8   |
| EGC-185-...-M2 |      |      |    | 78.5 | 54.9 |    | 8   |

| Type           | D1    | D2    | L1 | L2 | L3 | L4 | L5 |
|----------------|-------|-------|----|----|----|----|----|
| EGC-70-...-M1  | M5x8  | M4x14 | 86 | 72 | 47 | 35 | 20 |
| EGC-70-...-M2  | M5x8  |       |    |    |    | 35 | 20 |
| EGC-80-...-M1  | M5x8  |       |    |    |    | 45 | 30 |
| EGC-80-...-M2  | M5x8  |       |    |    |    | 45 | 30 |
| EGC-120-...-M1 | M6x10 |       |    |    |    | 86 | 60 |
| EGC-120-...-M2 | M6x10 |       |    |    |    | 86 | 60 |
| EGC-185-...-M1 | M8x12 |       |    |    |    | 86 | 70 |
| EGC-185-...-M2 | M8x12 |       |    |    |    | 86 | 70 |

## Data sheet

## Ordering data

Key features:

- Stroke reserve: 0 mm
- Standard slide

| Size | Stroke<br>[mm] | Part no.  | Type                     |
|------|----------------|-----------|--------------------------|
| 70   | 300            | ★ 3012492 | EGC-70-300-TB-KF-0H-GK   |
|      | 400            | ★ 3012493 | EGC-70-400-TB-KF-0H-GK   |
|      | 500            | ★ 3012494 | EGC-70-500-TB-KF-0H-GK   |
|      | 600            | ★ 3012495 | EGC-70-600-TB-KF-0H-GK   |
|      | 800            | ★ 3012496 | EGC-70-800-TB-KF-0H-GK   |
|      | 1000           | ★ 3012497 | EGC-70-1000-TB-KF-0H-GK  |
|      | 1200           | ★ 3012498 | EGC-70-1200-TB-KF-0H-GK  |
| 80   | 400            | ★ 575832  | EGC-80-400-TB-KF-0H-GK   |
|      | 500            | ★ 3013354 | EGC-80-500-TB-KF-0H-GK   |
|      | 600            | ★ 3013355 | EGC-80-600-TB-KF-0H-GK   |
|      | 800            | ★ 3013356 | EGC-80-800-TB-KF-0H-GK   |
|      | 1000           | ★ 3013357 | EGC-80-1000-TB-KF-0H-GK  |
|      | 1200           | ★ 3013359 | EGC-80-1200-TB-KF-0H-GK  |
| 120  | 400            | ★ 3013364 | EGC-120-400-TB-KF-0H-GK  |
|      | 500            | ★ 3013365 | EGC-120-500-TB-KF-0H-GK  |
|      | 600            | ★ 3013366 | EGC-120-600-TB-KF-0H-GK  |
|      | 800            | ★ 3013367 | EGC-120-800-TB-KF-0H-GK  |
|      | 1000           | ★ 3013368 | EGC-120-1000-TB-KF-0H-GK |
|      | 1200           | ★ 3013369 | EGC-120-1200-TB-KF-0H-GK |
|      | 1500           | ★ 3013370 | EGC-120-1500-TB-KF-0H-GK |

Festo core product range

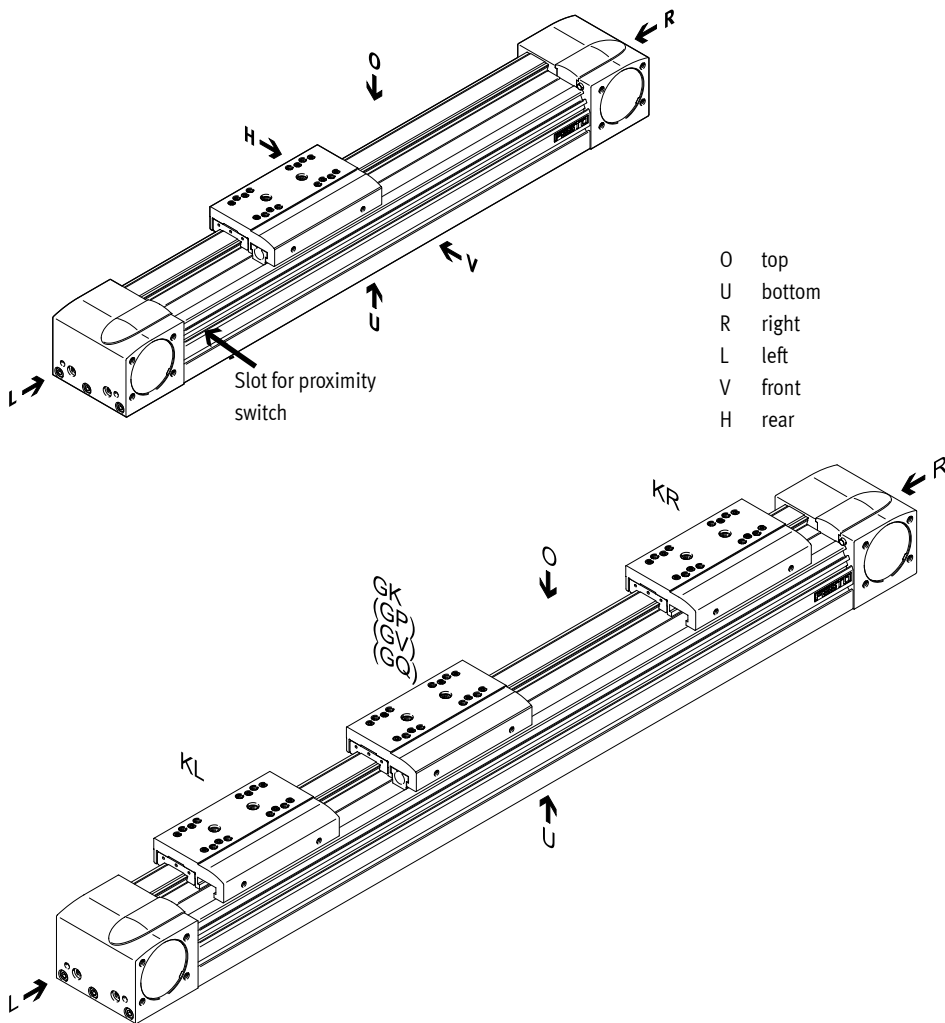


Generally ready for shipping ex works in 24 hours

Generally ready for shipping ex works in 5 days

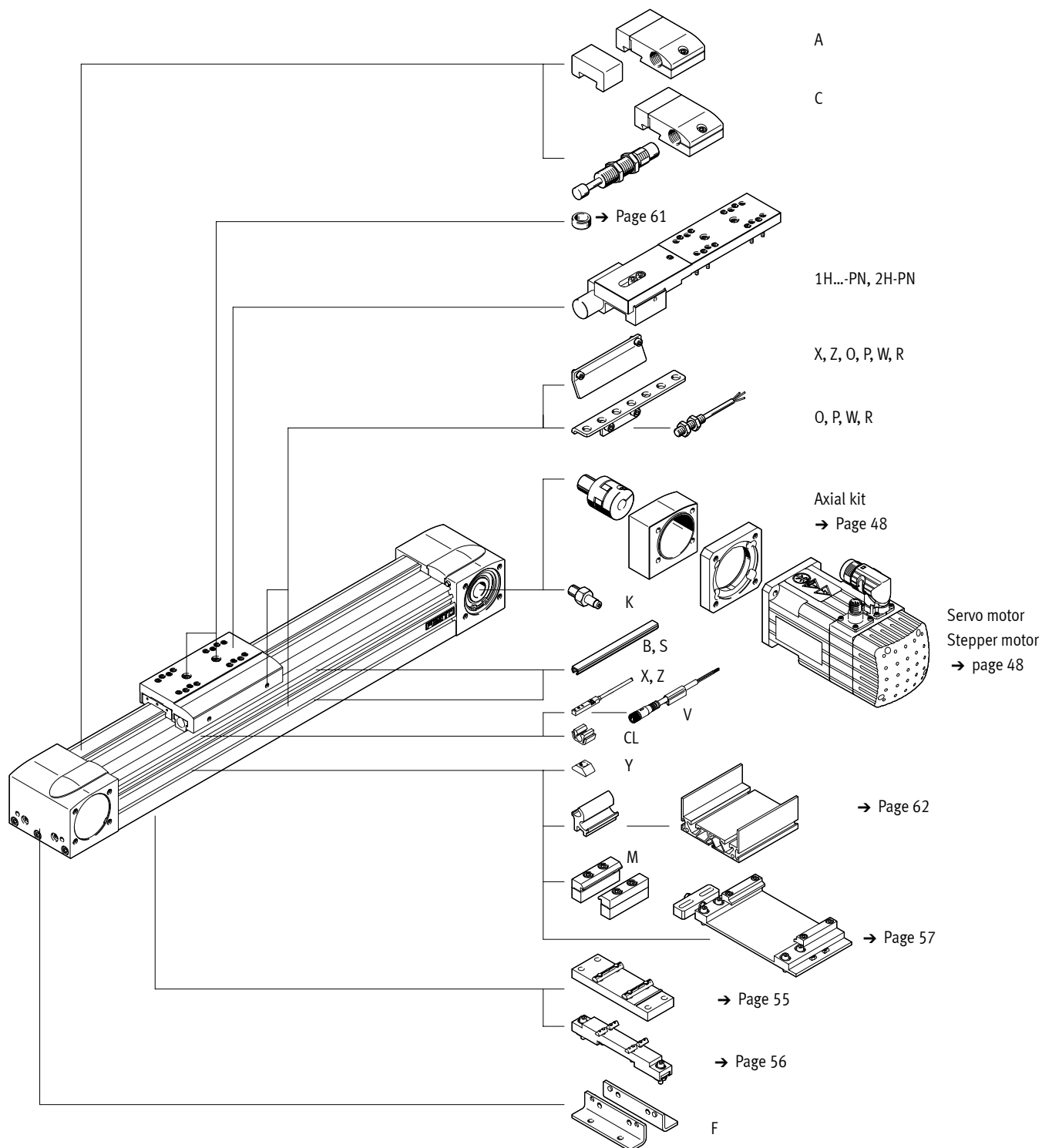
## Ordering data – Modular product system

## Orientation guide



## Ordering data – Modular product system

### Accessories



## Ordering data – Modular product system

| Ordering table                    |                                        |                                   |             |                                             |                                             |                 |         |  |               |
|-----------------------------------|----------------------------------------|-----------------------------------|-------------|---------------------------------------------|---------------------------------------------|-----------------|---------|--|---------------|
| Size                              | 50                                     | 70                                | 80          | 120                                         | 185                                         | Condi-<br>tions | Code    |  | Enter<br>code |
| Module no.                        | 556812                                 | 556813                            | 556814      | 556815                                      | 556817                                      |                 |         |  |               |
| Design                            | Linear axis                            |                                   |             |                                             |                                             |                 | EGC     |  | EGC           |
| Size                              | 50                                     | 70                                | 80          | 120                                         | 185                                         |                 | ☆ -...  |  | -...          |
| Stroke length                     | [mm] 50 ... 1900                       | 50 ... 5000                       | 50 ... 8500 | 50 ... 8500<br>(50 ... 8400<br>with GV, GQ) | 50 ... 8500<br>(50 ... 8400<br>with GV, GQ) | [1]             | ☆ -...  |  | -...          |
| Function                          | Toothed belt                           |                                   |             |                                             |                                             |                 | ☆ -TB   |  | -TB           |
| Guide                             | Recirculating ball bearing guide       |                                   |             |                                             |                                             |                 | ☆ -KF   |  | -KF           |
| Stroke reserve                    | [mm] 0 ... 999 (0 = no stroke reserve) |                                   |             |                                             |                                             | [1]             | ☆ -...H |  |               |
| Slide                             | Standard slide                         |                                   |             |                                             |                                             |                 | ☆ -GK   |  |               |
|                                   | -                                      | Extended slide, protected         |             |                                             | -                                           |                 | ☆ -GQ   |  |               |
|                                   | -                                      | Standard slide, protected         |             |                                             | -                                           |                 | ☆ -GP   |  |               |
|                                   | -                                      | Extended slide                    |             |                                             | -                                           |                 | ☆ -GV   |  |               |
| Additional slide                  | Left                                   | Additional slide, standard, left  |             |                                             |                                             | [2]             | ☆ -KL   |  |               |
|                                   | Right                                  | Additional slide, standard, right |             |                                             |                                             | [2]             | ☆ -KR   |  |               |
| Lubrication function              | Standard                               |                                   |             |                                             |                                             |                 |         |  |               |
| Displacement encoder, incremental | -                                      | Lubrication adapter               |             |                                             | -                                           | [3]             | ☆ -C    |  |               |
|                                   | -                                      | None                              |             |                                             | -                                           |                 |         |  |               |
|                                   | -                                      | Resolution: 2.5 ìm                |             |                                             | -                                           |                 | -M1     |  |               |
| Clamping unit                     | -                                      | Resolution: 10 ìm                 |             |                                             | -                                           |                 | -M2     |  |               |
|                                   | -                                      |                                   |             | None                                        |                                             | -               |         |  |               |
|                                   | -                                      |                                   |             | 1-channel, left                             |                                             | [4]             | -1HL    |  |               |
|                                   | -                                      |                                   |             | 1-channel, right                            |                                             | [4]             | -1HR    |  |               |
| Actuation type                    | -                                      |                                   |             | 2-channel                                   |                                             | [4]             | -2H     |  |               |
|                                   | -                                      |                                   |             | None                                        |                                             | -               |         |  |               |
|                                   | -                                      |                                   |             | Pneumatic                                   |                                             | -               | -PN     |  |               |
| Material of toothed belt          | Chloroprene rubber                     |                                   |             |                                             |                                             |                 |         |  |               |
|                                   | -                                      | Coated PU                         |             |                                             | -                                           |                 | -PU2    |  |               |
| EU certification                  | II 2G                                  |                                   |             |                                             | -                                           | [5]             | -EX3    |  |               |

- [1] -... The sum of the nominal stroke and 2x stroke reserve must not exceed the maximum stroke length
- [2] **KL, KR** If the protected slide variant (GQ, GP) is selected, the additional slide (KL, KR) is also protected  
If the extended slide variant (GQ, GV) is selected, the additional slide (KL, KR) is not extended  
If the slide with lubrication adapter (GK-C) is selected, the additional slide (KL, KR) is also supplied with lubrication adapter  
Working stroke reduction in combination with additional slide (KL, KR) → page 20
- [3] **C** Not with standard slide, protected GP and extended slide, protected GQ
- [4] **1HL, 1HR, 2H** Not with slide GQ, GV or with additional slide KL, KR  
Only with PN  
Working stroke reduction in combination with clamping unit (1HL, 1HR, 2H) → page 21
- [5] **EX3** Not with M1, M2, 1HL, 1HR, 2H, PN, Z, ...X, ...Z, ...O, ...P, ...W, ...R, ...V, ...CL



## Ordering data – Modular product system

|                                                                                         |                          | 50                                                                                                                                                                                                                              | 70 | 80 | 120 | 185 | Conditions | Code         | Enter code |
|-----------------------------------------------------------------------------------------|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|-----|-----|------------|--------------|------------|
| Accessories                                                                             |                          | Accessories enclosed separately                                                                                                                                                                                                 |    |    |     |     |            | <b>ZUB-</b>  | ZUB-       |
| Foot mounting                                                                           |                          | 1                                                                                                                                                                                                                               |    |    |     |     |            | <b>F</b>     |            |
| Profile mounting                                                                        |                          | 1 ... 50                                                                                                                                                                                                                        |    |    |     |     |            | <b>...M</b>  |            |
| Cover                                                                                   | Mounting slot            | –                                                                                                                                                                                                                               |    |    |     |     |            | <b>...B</b>  |            |
|                                                                                         | Sensor slot              | 1 ... 50 (1 = 2 units, 500 mm long)                                                                                                                                                                                             |    |    |     |     |            | <b>...S</b>  |            |
| Slot nut for mounting slot                                                              |                          | 1 ... 99                                                                                                                                                                                                                        |    |    |     |     |            | <b>...Y</b>  |            |
| Proximity switch (SIES),<br>inductive, slot type 8, PNP, incl.<br>switch lug            | N/O contact, 7.5 m cable | 1 ... 6                                                                                                                                                                                                                         |    |    |     |     |            | <b>...X</b>  |            |
|                                                                                         | N/C contact, 7.5 m cable | 1 ... 6                                                                                                                                                                                                                         |    |    |     |     |            | <b>...Z</b>  |            |
| Emergency buffer with retaining bracket                                                 |                          | –                                                                                                                                                                                                                               |    |    |     |     | [6]        | <b>...A</b>  |            |
| Shock absorber with retaining bracket                                                   |                          | 1 ... 2                                                                                                                                                                                                                         |    |    |     |     | [7]        | <b>...C</b>  |            |
| Proximity switch (SIEN),<br>inductive, M8, PNP, incl. switch<br>lug with sensor bracket | N/O contact, 2.5 m cable | –                                                                                                                                                                                                                               |    |    |     |     |            | <b>...O</b>  |            |
|                                                                                         | N/C contact, 2.5 m cable | –                                                                                                                                                                                                                               |    |    |     |     |            | <b>...P</b>  |            |
|                                                                                         | N/O contact, M8 plug     | –                                                                                                                                                                                                                               |    |    |     |     |            | <b>...W</b>  |            |
|                                                                                         | N/C contact, M8 plug     | –                                                                                                                                                                                                                               |    |    |     |     |            | <b>...R</b>  |            |
| Connecting cable 2.5 m M8, 3-wire                                                       |                          | 1 ... 99                                                                                                                                                                                                                        |    |    |     |     |            | <b>...V</b>  |            |
| Drive shaft                                                                             |                          | 1 ... 4                                                                                                                                                                                                                         |    |    |     |     | [8]        | <b>...K</b>  |            |
| Cable clip                                                                              |                          | 10, 20, 30, 40, 50, 60, 70, 80, 90                                                                                                                                                                                              |    |    |     |     |            | <b>...CL</b> |            |
| Operating instructions                                                                  |                          | Express waiver – no user documentation to be included (already available)<br>(operating instructions in PDF format are available free of charge on the<br>Internet at <a href="http://www.festo.com">http://www.festo.com</a> ) |    |    |     |     |            | <b>-DN</b>   |            |

[6] ... **A** Emergency buffer with retaining bracket A cannot be combined with slide GP, GQ, GK-C, GV-C, shock absorber with retaining bracket C and clamping unit 1H...-PN, 2H-PN

[7] ... **C** Shock absorber with retaining bracket C cannot be combined with slide GP, GQ, GK-C, GV-C, emergency buffer with retaining bracket A and clamping unit 1H...-PN, 2H-PN

[8] ... **K** No drive shaft is required for the axis/motor combinations → page 48 onwards.

**Note**

The code X, Z includes a switch lug in the scope of delivery.

The code O, P, W, R includes one switch lug and max. two sensor brackets in the scope of delivery.

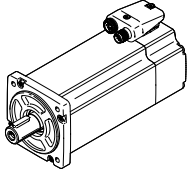
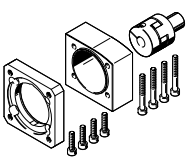


## Accessories

**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**

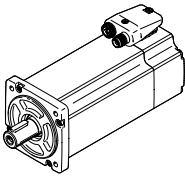
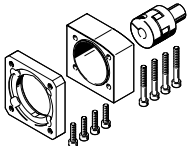
| Motor/gear unit <sup>1)</sup>                                                     | Axial kit                                                                         |                                                                                                  |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
|  |  | <ul style="list-style-type: none"> <li>Kits for third-party motors → Internet: eamm-a</li> </ul> |
| Type                                                                              | Part no.                                                                          | Type                                                                                             |
| <b>EGC-50</b>                                                                     |                                                                                   |                                                                                                  |
| <b>With servo motor and gear unit</b>                                             |                                                                                   |                                                                                                  |
| EMME-AS-40-...<br>EMGA-40-P-G-...-EAS-40                                          | ★ 557974                                                                          | EAMM-A-L27-40G                                                                                   |
| <b>With stepper motor</b>                                                         |                                                                                   |                                                                                                  |
| EMMS-ST-57-...                                                                    | ★ 560678                                                                          | EAMM-A-L27-57A                                                                                   |
| <b>With stepper motor and gear unit</b>                                           |                                                                                   |                                                                                                  |
| EMMS-ST-42-...<br>EMGA-40-P-G-...-SST-42                                          | ★ 557974                                                                          | EAMM-A-L27-40G                                                                                   |
| <b>With integrated drive</b>                                                      |                                                                                   |                                                                                                  |
| EMCA-EC-67-...                                                                    | 1454261                                                                           | EAMM-A-L27-67A                                                                                   |
| <b>With integrated drive and gear unit</b>                                        |                                                                                   |                                                                                                  |
| EMCA-EC-67-...<br>EMGC-40                                                         | ★ 557974                                                                          | EAMM-A-L27-40G                                                                                   |
| <b>EGC-70</b>                                                                     |                                                                                   |                                                                                                  |
| <b>With servo motor</b>                                                           |                                                                                   |                                                                                                  |
| EMMT-AS-60-..., EMME-AS-60-...                                                    | ★ 2037246                                                                         | EAMM-A-L38-60P                                                                                   |
| <b>With servo motor and gear unit</b>                                             |                                                                                   |                                                                                                  |
| EMMT-AS-60-..., EMME-AS-60-...<br>EMGA-60-P-G-...-EAS-60                          | 1456610                                                                           | EAMM-A-L38-60H                                                                                   |

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





## Accessories

| 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>EGC-70</b>                                                                     |                                                                                                                                                                                    |                 |
| <b>With stepper motor</b>                                                         |                                                                                                                                                                                    |                 |
| EMMS-ST-57-...                                                                    | ★ 560679                                                                                                                                                                           | EAMM-A-L38-57A  |
| EMMS-ST-87-...                                                                    | ★ 560680                                                                                                                                                                           | EAMM-A-L38-87A  |
| <b>With stepper motor and gear unit</b>                                           |                                                                                                                                                                                    |                 |
| EMMS-ST-57-...                                                                    | ★ 557978                                                                                                                                                                           | EAMM-A-L38-60G  |
| EMGA-60-P-G-...-SST-57                                                            |                                                                                                                                                                                    |                 |
| <b>With integrated drive and gear unit</b>                                        |                                                                                                                                                                                    |                 |
| EMCA-EC-67-...                                                                    | 1456610                                                                                                                                                                            | EAMM-A-L38-60H  |
| EMGC-60-...                                                                       |                                                                                                                                                                                    |                 |
| <b>EGC-80</b>                                                                     |                                                                                                                                                                                    |                 |
| <b>With servo motor</b>                                                           |                                                                                                                                                                                    |                 |
| EMMT-AS-80-..., EMME-AS-80-...                                                    | ★ 2042616                                                                                                                                                                          | EAMM-A-L48-80P  |
| EMMT-AS-100-..., EMME-AS-100-...                                                  | 557984                                                                                                                                                                             | EAMM-A-L48-100A |
| <b>With servo motor and gear unit</b>                                             |                                                                                                                                                                                    |                 |
| EMMT-AS-60-..., EMME-AS-60-...                                                    | 1456611                                                                                                                                                                            | EAMM-A-L48-60H  |
| EMGA-60-P-G-...-EAS-60                                                            |                                                                                                                                                                                    |                 |
| <b>With stepper motor</b>                                                         |                                                                                                                                                                                    |                 |
| EMMS-ST-87-...                                                                    | ★ 560683                                                                                                                                                                           | EAMM-A-L48-87A  |
| <b>With stepper motor and gear unit</b>                                           |                                                                                                                                                                                    |                 |
| EMMS-ST-57-...                                                                    | ★ 557983                                                                                                                                                                           | EAMM-A-L48-60G  |
| EMGA-60-P-G-...-SST-57                                                            |                                                                                                                                                                                    |                 |
| <b>With integrated drive and gear unit</b>                                        |                                                                                                                                                                                    |                 |
| EMCA-EC-67-...                                                                    | 1456611                                                                                                                                                                            | EAMM-A-L48-60H  |
| EMGC-60-...                                                                       |                                                                                                                                                                                    |                 |

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

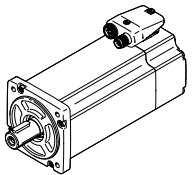
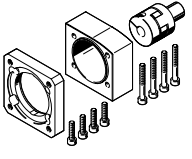
Festo core product range



Generally ready for shipping ex works in 24 hours

Generally ready for shipping ex works in 5 days

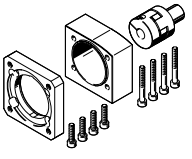
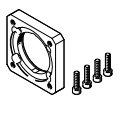
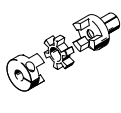
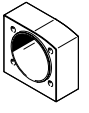
## Accessories

| 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>EGC-120</b>                                                                    |                                                                                                                                                                                    |                    |
| <b>With servo motor</b>                                                           |                                                                                                                                                                                    |                    |
| EMMT-AS-100-..., EMME-AS-100-...                                                  | ★ 557988                                                                                                                                                                           | EAMM-A-L62-100A    |
| EMMS-AS-140-...                                                                   | 557990                                                                                                                                                                             | EAMM-A-L62-140A    |
| <b>With servo motor and gear unit</b>                                             |                                                                                                                                                                                    |                    |
| EMMT-AS-80-..., EMME-AS-80-...<br>EMGA-80-P-G...-EAS-80                           | ★ 557989                                                                                                                                                                           | EAMM-A-L62-80G     |
| EMMT-AS-100-..., EMME-AS-100-...<br>EMGA-80-P-G...-SAS-100                        | ★ 557989                                                                                                                                                                           | EAMM-A-L62-80G     |
| <b>With stepper motor and gear unit</b>                                           |                                                                                                                                                                                    |                    |
| EMMS-ST-87-...<br>EMGA-80-P-G...-SST-87                                           | ★ 557989                                                                                                                                                                           | EAMM-A-L62-80G     |
| <b>EGC-185</b>                                                                    |                                                                                                                                                                                    |                    |
| <b>With servo motor</b>                                                           |                                                                                                                                                                                    |                    |
| EMMS-AS-140-...                                                                   | 3657226                                                                                                                                                                            | EAMM-A-L95-140A-G2 |
| EMMS-AS-190-...                                                                   | 3659562                                                                                                                                                                            | EAMM-A-L95-190A-G2 |
| <b>With servo motor and gear unit</b>                                             |                                                                                                                                                                                    |                    |
| EMMT-AS-80-..., EMME-AS-80-...<br>EMGA-80-P-G...-EAS-80                           | 3660191                                                                                                                                                                            | EAMM-A-L95-80G-G2  |
| EMMT-AS-100-..., EMME-AS-100-...<br>EMGA-80-P-G...-SAS-100                        | 3660191                                                                                                                                                                            | EAMM-A-L95-80G-G2  |
| EMMT-AS-100-..., EMME-AS-100-...<br>EMGA-120-P-G...-SAS-100                       | ★ 3659941                                                                                                                                                                          | EAMM-A-L95-120G-G2 |
| EMMS-AS-140-...<br>EMGA-120-P-G...-SAS-140                                        | ★ 3659941                                                                                                                                                                          | EAMM-A-L95-120G-G2 |

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



## Accessories

| Individual components of the axial kit                                            |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Axial kit                                                                         | Comprising:                                                                       |                                                                                   |                                                                                     |                                                                                     |
|                                                                                   | Motor flange                                                                      | Coupling                                                                          | Coupling housing                                                                    | Screw set                                                                           |
|  |  |  |  |  |
| Part no.<br>Type                                                                  | Part no.<br>Type                                                                  | Part no.<br>Type                                                                  | Part no.<br>Type                                                                    | Part no.<br>Type                                                                    |
| <b>EGC-50</b>                                                                     |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| ★ 557974<br>EAMM-A-L27-40G                                                        | 558015<br>EAMF-A-L27-40G                                                          | 557998<br>EAMD-19-15-10-8X10                                                      | –                                                                                   | –                                                                                   |
| 557975<br>EAMM-A-L27-55A                                                          | 558016<br>EAMF-A-L27-55A                                                          | 557999<br>EAMD-19-15-9-8X10                                                       | –                                                                                   | –                                                                                   |
| ★ 560678<br>EAMM-A-L27-57A                                                        | 560690<br>EAMF-A-L27-57A                                                          | 561292<br>EAMD-16-15-6.35-8X10                                                    | –                                                                                   | –                                                                                   |
| 1454261<br>EAMM-A-L27-67A                                                         | 1460087<br>EAMF-A-L27-67A                                                         | 557999<br>EAMD-19-15-9-8X10                                                       | –                                                                                   | –                                                                                   |
| <b>EGC-70</b>                                                                     |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| 3683331<br>EAMM-A-L38-55A                                                         | 558176<br>EAMF-A-38A-55A                                                          | 3717923<br>EAMD-25-22-9-10X12                                                     | 558011<br>EAMK-A-L38-38A                                                            | 567484<br>EAHM-L2-M5-30                                                             |
| ★ 560679<br>EAMM-A-L38-57A                                                        | 560692<br>EAMF-A-38A-57A                                                          | 561293<br>EAMD-25-22-6.35-10X12                                                   | 558011<br>EAMK-A-L38-38A                                                            | 567484<br>EAHM-L2-M5-30                                                             |
| ★ 557978<br>EAMM-A-L38-60G                                                        | 558017<br>EAMF-A-38A-60G/H                                                        | 558000<br>EAMD-25-22-11-10X12                                                     | 558011<br>EAMK-A-L38-38A                                                            | 567485<br>EAHM-L2-M5-35                                                             |
| 1456610<br>EAMM-A-L38-60H                                                         | 558017<br>EAMF-A-38A-60G/H                                                        | 1453861<br>EAMD-28-22-14-10X12                                                    | 558011<br>EAMK-A-L38-38A                                                            | 567485<br>EAHM-L2-M5-35                                                             |
| ★ 2037246<br>EAMM-A-L38-60P                                                       | 1987412<br>EAMF-A-38A-60P                                                         | 1453861<br>EAMD-28-22-14-10X12                                                    | 558011<br>EAMK-A-L38-38A                                                            | 567485<br>EAHM-L2-M5-35                                                             |
| 557979<br>EAMM-A-L38-70A                                                          | 558018<br>EAMF-A-38A-70A                                                          | 558000<br>EAMD-25-22-11-10X12                                                     | 558011<br>EAMK-A-L38-38A                                                            | 567484<br>EAHM-L2-M5-30                                                             |
| ★ 560680<br>EAMM-A-L38-87A                                                        | 560693<br>EAMF-A-38A-87A                                                          | 558000<br>EAMD-25-22-11-10X12                                                     | 558011<br>EAMK-A-L38-38A                                                            | 567485<br>EAHM-L2-M5-35                                                             |
| <b>EGC-80</b>                                                                     |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| ★ 557983<br>EAMM-A-L48-60G                                                        | 558019<br>EAMF-A-48A-60G/H                                                        | 558001<br>EAMD-32-32-11-16X20                                                     | 558012<br>EAMK-A-L48-48A                                                            | 567487<br>EAHM-L2-M5-45                                                             |
| 1456611<br>EAMM-A-L48-60H                                                         | 558019<br>EAMF-A-48A-60G/H                                                        | 1377840<br>EAMD-32-32-14-16X20                                                    | 558012<br>EAMK-A-L48-48A                                                            | 567487<br>EAHM-L2-M5-45                                                             |
| 557982<br>EAMM-A-L48-70A                                                          | 558025<br>EAMF-A-48A-70A                                                          | 558001<br>EAMD-32-32-11-16X20                                                     | 558012<br>EAMK-A-L48-48A                                                            | 567486<br>EAHM-L2-M5-40                                                             |
| ★ 2042616<br>EAMM-A-L48-80P                                                       | 2043427<br>EAMF-A-48A-80P                                                         | 558002<br>EAMD-42-40-19-16X25                                                     | 558012<br>EAMK-A-L48-48A                                                            | 567489<br>EAHM-L2-M5-55                                                             |
| ★ 560683<br>EAMM-A-L48-87A                                                        | 560695<br>EAMF-A-48A-87A                                                          | 558001<br>EAMD-32-32-11-16X20                                                     | 558012<br>EAMK-A-L48-48A                                                            | 567487<br>EAHM-L2-M5-45                                                             |
| 557984<br>EAMM-A-L48-100A                                                         | 558020<br>EAMF-A-48A-100A                                                         | 558002<br>EAMD-42-40-19-16X25                                                     | 558012<br>EAMK-A-L48-48A                                                            | 567489<br>EAHM-L2-M5-55                                                             |

Festo core product range

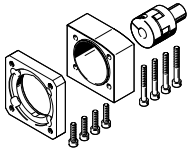
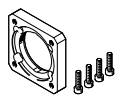
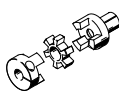
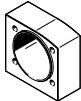


Generally ready for shipping ex works in 24 hours



Generally ready for shipping ex works in 5 days

## Accessories

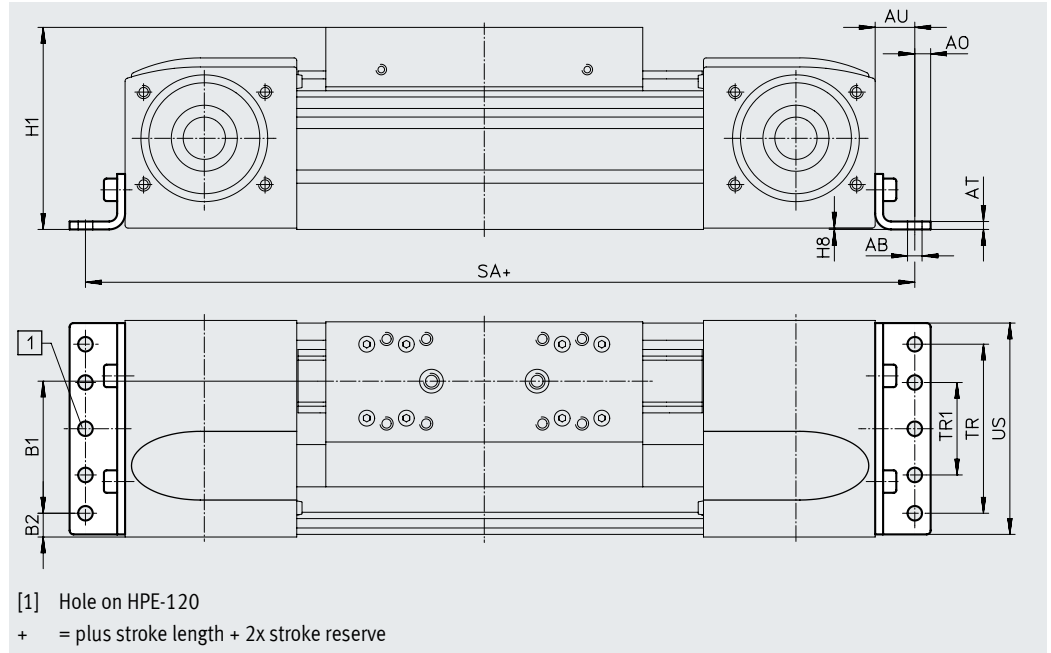
| Individual components of the axial kit                                            |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Axial kit                                                                         | Comprising:                                                                       |                                                                                   |                                                                                     |                                                                                     |
|  |  |  |  |  |
| Part no.<br>Type                                                                  | Part no.<br>Type                                                                  | Part no.<br>Type                                                                  | Part no.<br>Type                                                                    | Part no.<br>Type                                                                    |
| <b>EGC-120</b>                                                                    |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| ★ 557989<br>EAMM-A-L62-80G                                                        | 558021<br>EAMF-A-62A-80G                                                          | 558004<br>EAMD-56-46-20-23X27                                                     | 558013<br>EAMK-A-L62-62A                                                            | 567492<br>EAHM-L2-M6-65-L                                                           |
| ★ 557988<br>EAMM-A-L62-100A                                                       | 558026<br>EAMF-A-62A-100A                                                         | 558003<br>EAMD-56-46-19-23X27                                                     | 558013<br>EAMK-A-L62-62A                                                            | 567491<br>EAHM-L2-M6-65                                                             |
| 557990<br>EAMM-A-L62-140A                                                         | 558022<br>EAMF-A-62A-140A                                                         | 558005<br>EAMD-56-46-24-23X27                                                     | 558013<br>EAMK-A-L62-62A                                                            | 567493<br>EAHM-L2-M6-70                                                             |
| <b>EGC-185</b>                                                                    |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
| 3660191<br>EAMM-A-L95-80G-G2                                                      | 3305700<br>EAMF-A-95B-80G                                                         | 3717812<br>EAMD-67-51-20-32X32-U                                                  | 3712650<br>EAMK-A-L95-95A/B-G2                                                      | –                                                                                   |
| ★ 3659941<br>EAMM-A-L95-120G-G2                                                   | 3659724<br>EAMF-A-95A-120G-G2                                                     | 558006<br>EAMD-67-51-25-32X32-U                                                   | 3712650<br>EAMK-A-L95-95A/B-G2                                                      | 567496<br>EAHM-L2-M8-70                                                             |
| 3657226<br>EAMM-A-L95-140A-G2                                                     | 558023<br>EAMF-A-95A-140A                                                         | 558008<br>EAMD-67-51-24-32X32-U                                                   | 3712650<br>EAMK-A-L95-95A/B-G2                                                      | 567497<br>EAHM-L2-M8-80                                                             |
| 3659562<br>EAMM-A-L95-190A-G2                                                     | 1378473<br>EAMF-A-95A-190A                                                        | 1379269<br>EAMD-67-51-32-32X32-U                                                  | 3712650<br>EAMK-A-L95-95A/B-G2                                                      | 567497<br>EAHM-L2-M8-80                                                             |



## Accessories

### Foot mounting HPE (order code F)

Material:  
Galvanised steel  
RoHS-compliant



#### Dimensions and ordering data

| For size | AB<br>Ø | A0  | AT | AU   | B1   | B2   | H1    | H8  |
|----------|---------|-----|----|------|------|------|-------|-----|
| 50       | 4.5     | 4.5 | 2  | 10.5 | 21.5 | 14   | 42.5  | 0.5 |
| 70       | 5.5     | 6   | 3  | 13   | 37   | 14.5 | 64    | 0.5 |
| 80       | 5.5     | 6   | 3  | 15   | 38   | 21   | 76.5  | 0.5 |
| 120      | 9       | 8   | 6  | 22   | 65   | 20   | 111.5 | 0.6 |
| 185      | 9       | 12  | 8  | 25   | 118  | 13   | 172.5 | 0.5 |

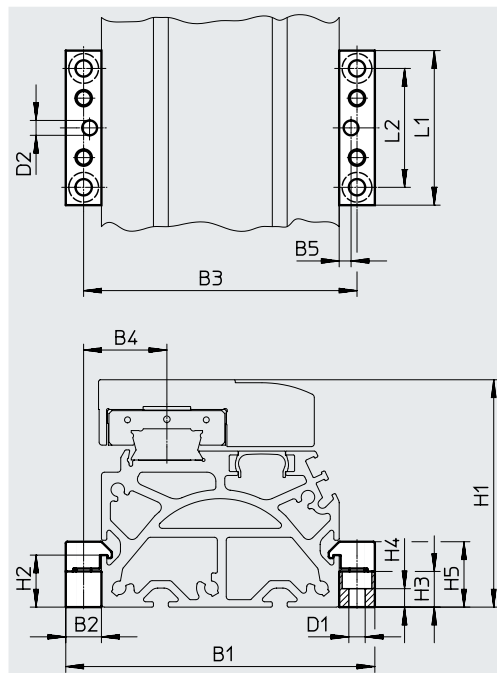
| For size | SA        |           | TR  | TR1 | Us  | Weight<br>[g] | Part no. | Type <sup>1)</sup> |
|----------|-----------|-----------|-----|-----|-----|---------------|----------|--------------------|
|          | EGC...-GK | EGC...-GV |     |     |     |               |          |                    |
| 50       | 176       | –         | 20  | –   | 46  | 44            | 558320   | HPE-50             |
| 70       | 272       | 372       | 40  | –   | 67  | 115           | 558321   | HPE-70             |
| 80       | 316       | 416       | 40  | –   | 80  | 150           | 558322   | HPE-80             |
| 120      | 490       | 590       | 80  | –   | 116 | 578           | 558323   | HPE-120            |
| 185      | 662       | 762       | 160 | 80  | 182 | 1438          | 558325   | HPE-185            |

1) Suitable for ATEX

## Accessories

### Profile mounting MUE (order code M)

Material:  
Anodised aluminium  
RoHS-compliant



#### Dimensions and ordering data

| For size | B1  | B2 | B3  | B4   | B5 | D1<br>ø | D2<br>ø<br>H7 | H1    | H2   |
|----------|-----|----|-----|------|----|---------|---------------|-------|------|
| 50       | 62  | 8  | 54  | 15.5 | 4  | 3.4     | 5             | 42.5  | 6    |
| 70       | 91  | 12 | 79  | 22.5 | 4  | 5.5     | 5             | 64    | 17.5 |
| 80       | 104 | 12 | 92  | 28   | 4  | 5.5     | 5             | 76.5  | 17.5 |
| 120      | 154 | 19 | 135 | 42.5 | 4  | 9       | 5             | 111.5 | 16   |
| 185      | 220 | 19 | 201 | 62.5 | 4  | 9       | 5             | 172.5 | 16   |

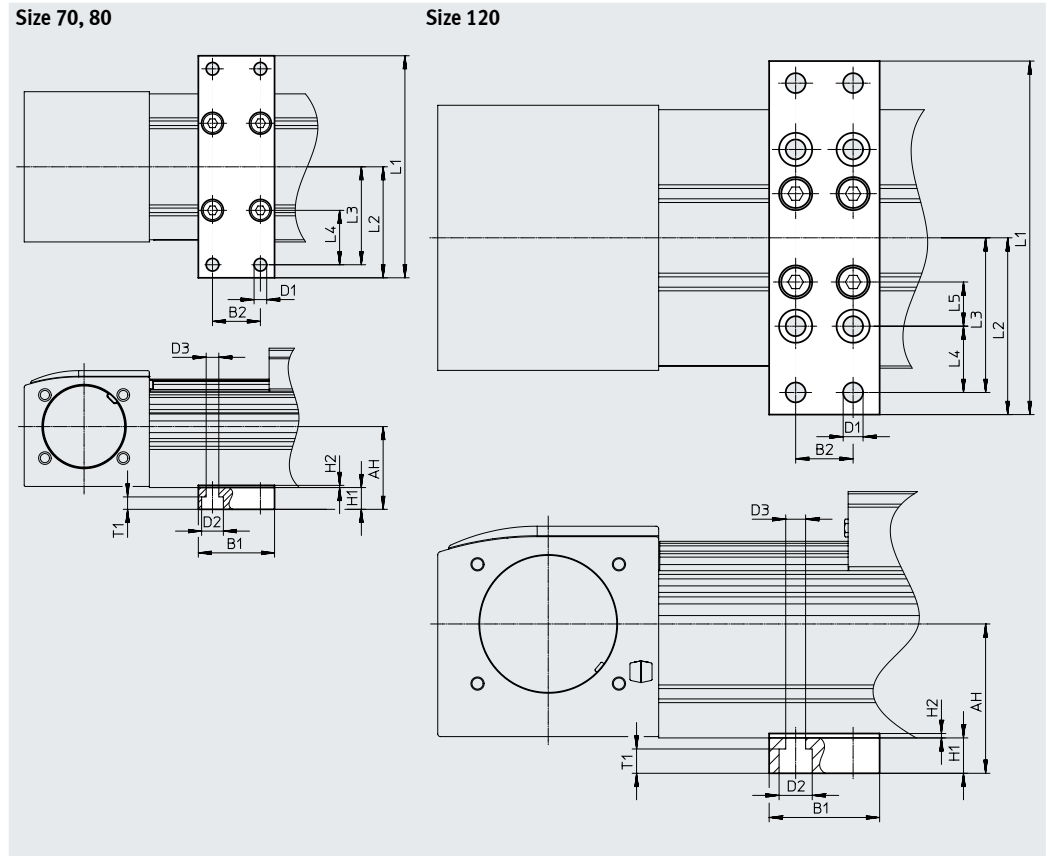
| For size | H3  | H4  | H5   | L1 | L2 | Weight<br>[g] | Part no. | Type <sup>1)</sup> |
|----------|-----|-----|------|----|----|---------------|----------|--------------------|
| 50       | 5.5 | 2.3 | 11   | 40 | 20 | 20            | ☆ 558042 | MUE-50             |
| 70       | 12  | 6.2 | 22   | 52 | 40 | 80            | ☆ 558043 | MUE-70/80          |
| 80       | 12  | 6.2 | 22   | 52 | 40 | 80            | ☆ 558043 | MUE-70/80          |
| 120      | 14  | 5.5 | 29.5 | 90 | 40 | 290           | ☆ 558044 | MUE-120/185        |
| 185      | 14  | 5.5 | 29.5 | 90 | 40 | 290           | ☆ 558044 | MUE-120/185        |

1) Suitable for ATEX

## Accessories

### Central support EAHF

Material:  
Anodised aluminium  
RoHS-compliant



#### Dimensions and ordering data

| For size | AH   | B1 | B2 | D1<br>Ø | D2<br>Ø | D3<br>Ø | H1 | L1  |
|----------|------|----|----|---------|---------|---------|----|-----|
| 70       | 38   | 35 | 22 | 5.8     | 10      | 5.8     | 10 | 102 |
| 80       | 44.5 |    |    |         |         |         |    | 112 |
| 120      | 67.6 | 50 | 26 | 9       | 15      | 9       | 16 | 160 |

| For size | L2 | L3 | L4 | L5 | T1  | Weight<br>[g] | Part no. | Type                       |
|----------|----|----|----|----|-----|---------------|----------|----------------------------|
| 70       | 51 | 45 | 25 | –  | 5.7 | 113           | 2349256  | EAHF-L5-70-P <sup>1)</sup> |
| 80       | 56 | 50 | 30 |    |     | 123           | 3535188  | EAHF-L5-80-P <sup>1)</sup> |
| 120      | 80 | 70 | 30 | 20 | 11  | 384           | 2410274  | EAHF-L5-120-P              |

1) Suitable for ATEX

## Accessories

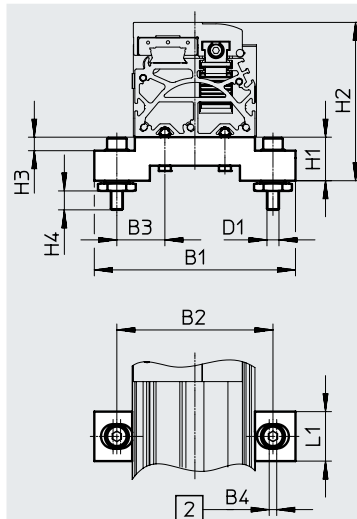
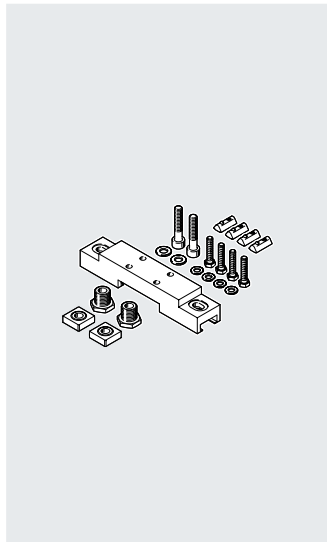
### Adjusting kit EADC-E15

Material:

EADC-E15-50/80/120: Wrought aluminium alloy

EADC-E15-185: Steel

RoHS-compliant



[2] Width of elongated hole

#### Dimensions and ordering data

| For size | B1  | B2  | B3   | B4 | D1 | H1 |
|----------|-----|-----|------|----|----|----|
| 50       | 84  | 62  | 21   | 5  | M5 | 20 |
| 70       | 134 | 104 | 32   | 5  | M8 | 29 |
| 80       | 134 | 104 | 32   | 5  | M8 | 29 |
| 120      | 170 | 140 | 50   | 5  | M8 | 29 |
| 185      | 236 | 209 | 64.5 | 5  | M8 | 29 |

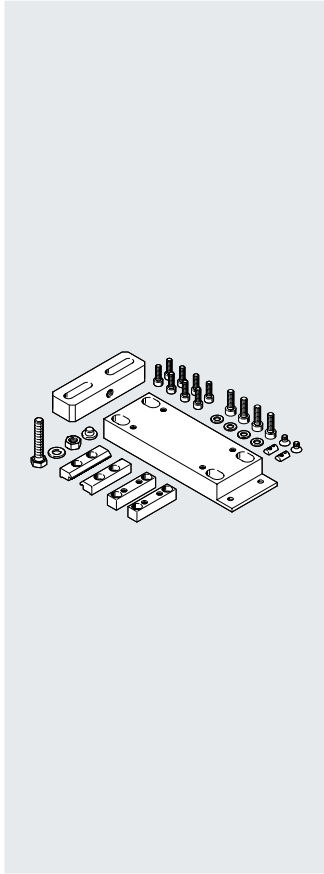
| For size | H2    | H3 | H4   | L1 | Weight<br>[g] | Part no. | Type            |
|----------|-------|----|------|----|---------------|----------|-----------------|
| 50       | 62.5  | 5  | 9.6  | 25 | 126           | 8047565  | EADC-E15-50-E7  |
| 70       | 93    | 9  | 12.6 | 33 | 386           | 8047566  | EADC-E15-80-E7  |
| 80       | 105.5 | 9  | 12.6 | 33 | 386           | 8047566  | EADC-E15-80-E7  |
| 120      | 140.5 | 9  | 12.6 | 33 | 388           | 8047567  | EADC-E15-120-E7 |
| 185      | 201.5 | 9  | 12.6 | 33 | 569           | 8047568  | EADC-E15-185-E7 |



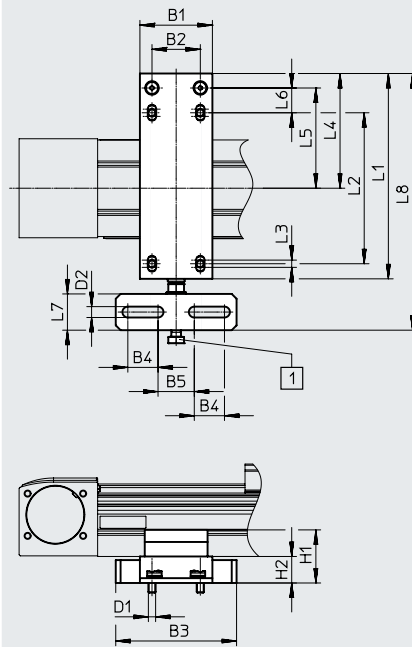
## Accessories

## Adjusting kit EADC-E16

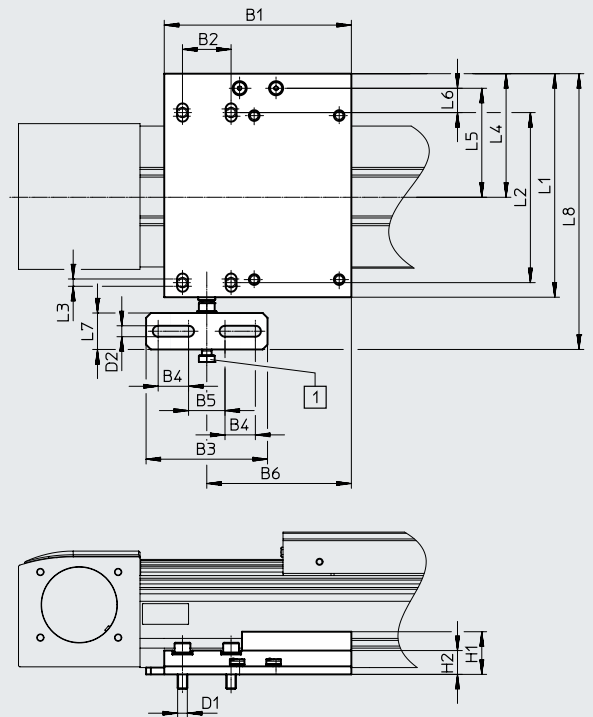
Material:  
Wrought aluminium alloy  
RoHS-compliant



Size 50, 80



Size 120, 185



[1] M8 screw

## Dimensions and ordering data

| For size | B1  | B2 | B3  | B4 | B5 | B6  | D1 | D2 | H1   | H2   | L1  | L2  |
|----------|-----|----|-----|----|----|-----|----|----|------|------|-----|-----|
| 50       | 60  | 40 | 100 | 25 | 30 | –   | M4 | 9  | 25.1 | 19.6 | 130 | 80  |
| 80       | 60  | 40 | 100 | 25 | 30 | –   | M6 | 9  | 44   | 22   | 170 | 125 |
| 120      | 154 | 40 | 100 | 25 | 30 | 119 | M8 | 9  | 35.1 | 19.6 | 184 | 140 |
| 185      | 150 | 40 | 100 | 25 | 30 | 119 | M8 | 9  | 35.1 | 19.6 | 272 | 220 |

| For size | L3 | L4    | L5   | L6   | L7 | L8    | Weight<br>[g] | Part no. | Type            |
|----------|----|-------|------|------|----|-------|---------------|----------|-----------------|
| 50       | 6  | 78    | 66   | 26   | 30 | 173   | 498           | 8047576  | EADC-E16-50-E7  |
| 80       | 6  | 95    | 83   | 20.5 | 30 | 212.5 | 828           | 8047577  | EADC-E16-80-E7  |
| 120      | 6  | 101.7 | 89.7 | 20   | 30 | 227   | 1134          | 8047578  | EADC-E16-120-E7 |
| 185      | 6  | 150   | 138  | 28   | 30 | 315   | 1457          | 8047579  | EADC-E16-185-E7 |

## Accessories

**Shock absorber retainer KYE**

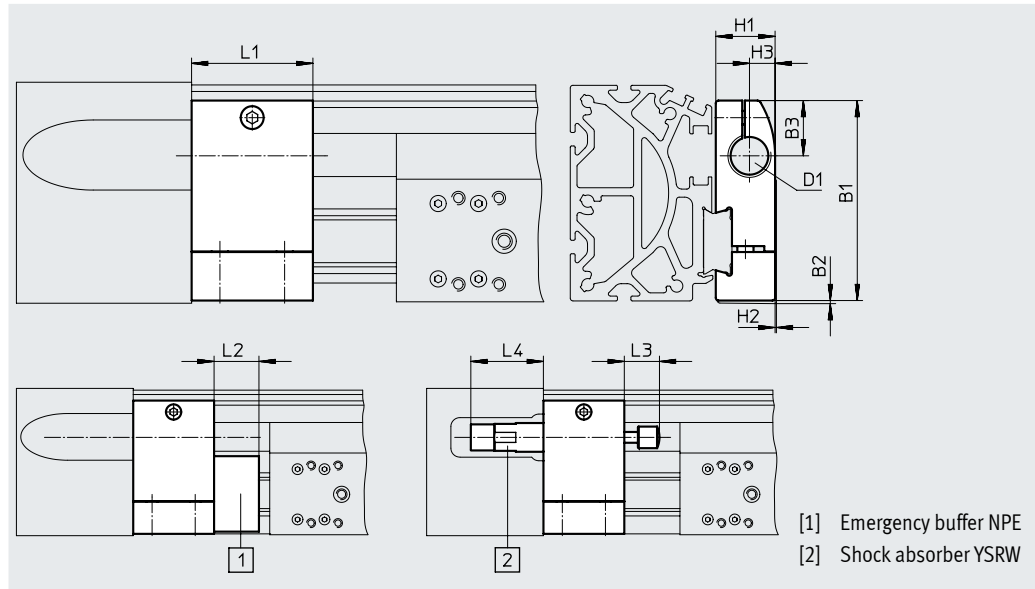
Emergency buffer NPE → page 61

Shock absorber YSRW → page 61  
(order code A or C)

Material:

Anodised aluminium

RoHS-compliant

**Cannot be used in combination with****the variants GP and GQ or GK-C and****GV-C and 1H...-PN, 2H-PN.****Dimensions and ordering data**

| For size | B1    | B2 | B3   | D1      | H1   | H2  | H3  | L1 | L2 | L3 | L4<br>min. | Weight<br>[g] | Part no. | Type <sup>1)</sup> |
|----------|-------|----|------|---------|------|-----|-----|----|----|----|------------|---------------|----------|--------------------|
| 50       | 38    | 1  | 13.5 | M8X1    | 12   | 0.4 | 5   | 20 | 12 | 8  | 20         | 20            | 557583   | KYE-50             |
| 70       | 57.5  | 1  | 16.5 | M12X1   | 18.2 | 0.5 | 7.5 | 30 | 15 | 14 | 32         | 75            | 557584   | KYE-70             |
| 80       | 74.2  | 1  | 20.5 | M16X1   | 22   | 0.5 | 9.5 | 45 | 25 | 20 | 41         | 170           | 557585   | KYE-80             |
| 120      | 108.5 | 1  | 26   | M22X1.5 | 31   | 1   | 14  | 60 | 40 | 26 | 48.5       | 680           | 557586   | KYE-120            |
| 185      | 168   | 1  | 37   | M26X1.5 | 42   | 4   | 18  | 75 | 60 | 34 | 58.5       | 1075          | 557587   | KYE-185            |

1) Suitable for ATEX

**Switch lug SF-EGC-1**

For sensing via proximity switch

SIES-8M

(order code X or Z)

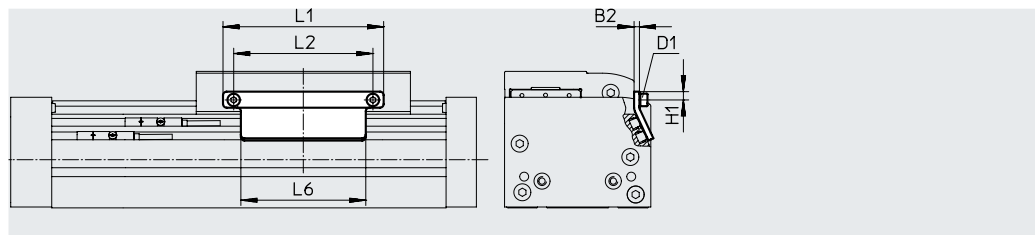
Material:

Galvanised steel

RoHS-compliant

- With size 50, max. 3 proximity switches can be supported when sensing both end positions.

For additional proximity switches, a stroke reserve of 25 mm is required.

**Dimensions and ordering data**

| For size | B2 | D1 | H1   | L1  | L2  | L6  | Weight<br>[g] | Part no. | Type <sup>1)</sup> |
|----------|----|----|------|-----|-----|-----|---------------|----------|--------------------|
| 50       | 2  | M3 | 3.5  | 45  | 22  | 45  | 20            | ★ 558046 | SF-EGC-1-50        |
| 70       | 3  | M4 | 4.65 | 70  | 56  | 50  | 50            | ★ 558047 | SF-EGC-1-70        |
| 80       | 3  | M4 | 4.65 | 90  | 78  | 70  | 63            | ★ 558048 | SF-EGC-1-80        |
| 120      | 3  | M5 | 8    | 170 | 140 | 170 | 147           | ★ 558049 | SF-EGC-1-120       |
| 185      | 3  | M5 | 10   | 230 | 200 | 230 | 246           | ★ 558051 | SF-EGC-1-185       |

1) Suitable for ATEX

Festo core product range



Generally ready for shipping ex works in 24 hours

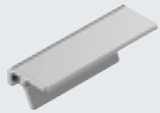
Generally ready for shipping ex works in 5 days

## Accessories

### Switch lug SF-EGC-2

For sensing via proximity switch  
SIEN-M8B (order code O, P, W or R) or  
SIES-8M (order code X or Z)

Switch lug SF-EGC-2



Material:

Galvanised steel  
RoHS-compliant

### Sensor bracket HWS-EGC

For proximity switch SIEN-M8B (order  
code O, P, W or R)

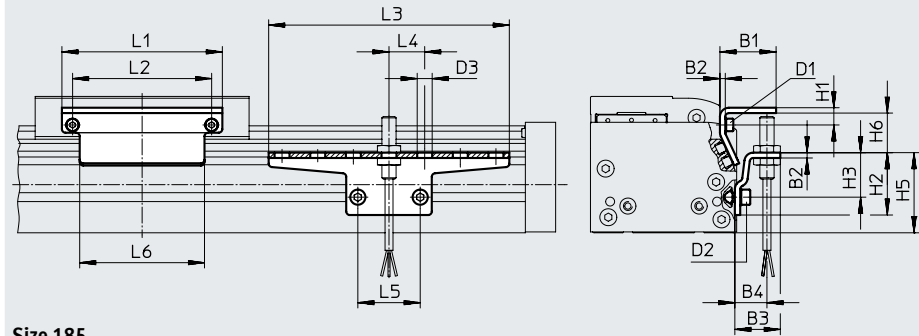
Material:

Galvanised steel  
RoHS-compliant

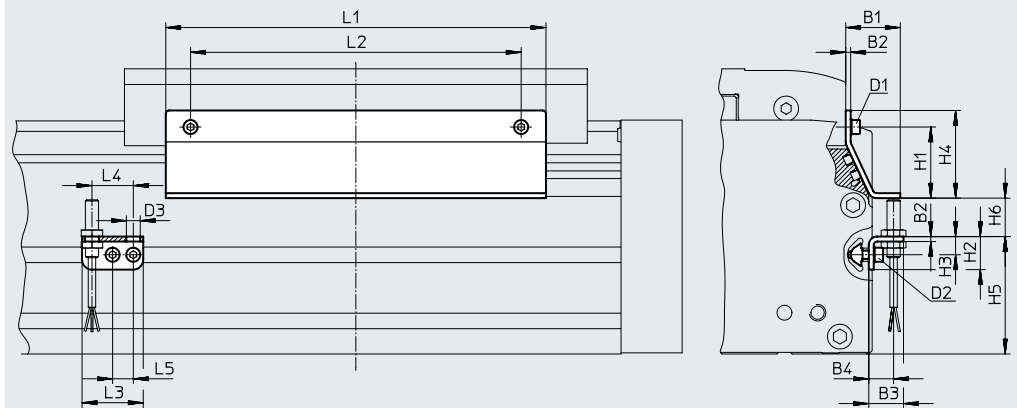
Sensor bracket HWS-EGC



Size 70 ... 120



Size 185



#### Dimensions and ordering data

| For size | B1   | B2 | B3   | B4 | D1 | D2 | D3<br>Ø | H1   | H2 |
|----------|------|----|------|----|----|----|---------|------|----|
| 70       | 31.5 | 3  | 25.5 | 18 | M4 | M5 | 8.4     | 9.5  | 35 |
| 80       | 31.5 | 3  | 25.5 | 18 | M4 | M5 | 8.4     | 9.5  | 35 |
| 120      | 32   | 3  | 25.5 | 18 | M5 | M5 | 8.4     | 13.2 | 65 |
| 185      | 33   | 3  | 25.5 | 15 | M5 | M5 | 8.4     | 43   | 20 |

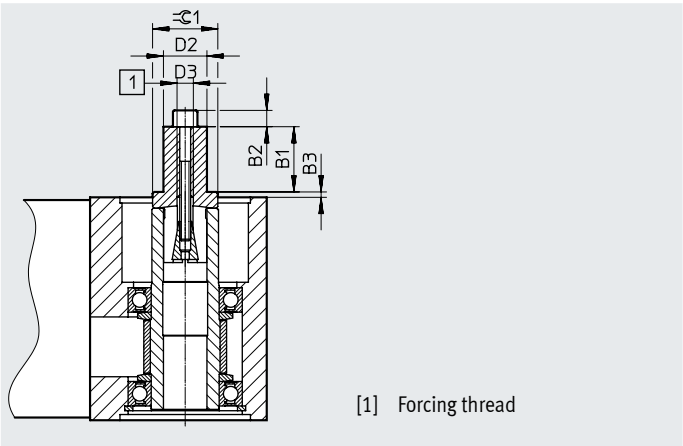
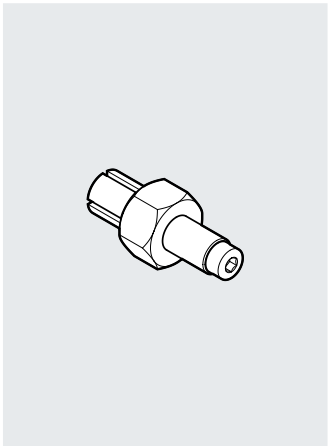
| For size | H3 | H4 | H5 | H6<br>max. | L1  | L2  | L3  | L4 | L5   | L6  |
|----------|----|----|----|------------|-----|-----|-----|----|------|-----|
| 70       | 25 | –  | 45 | 13.5       | 70  | 56  | 135 | 20 | 35   | 50  |
| 80       | 25 | –  | 45 | 23.5       | 90  | 78  | 135 | 20 | 35   | 70  |
| 120      | 55 | –  | 75 | 24         | 170 | 140 | 215 | 20 | 35   | 170 |
| 185      | 11 | 53 | 71 | 25.5       | 230 | 200 | 37  | 25 | 12.5 | 230 |

| For size   | Weight<br>[g] | Part no. | Type         |
|------------|---------------|----------|--------------|
| Switch lug |               |          |              |
| 70         | 100           | 558052   | SF-EGC-2-70  |
| 80         | 130           | 558053   | SF-EGC-2-80  |
| 120        | 277           | 558054   | SF-EGC-2-120 |
| 185        | 390           | 558056   | SF-EGC-2-185 |

| For size       | Weight<br>[g] | Part no. | Type                    |
|----------------|---------------|----------|-------------------------|
| Sensor bracket |               |          |                         |
| 70             | 110           | 558057   | HWS-EGC-M5              |
| 80             | 110           | 558057   | HWS-EGC-M5              |
| 120            | 217           | 570365   | HWS-EGC-M8-B            |
| 185            | 58            | 560517   | HWS-EGC-M8:KURZ (SHORT) |

Accessories

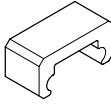
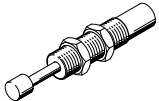
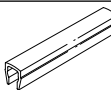
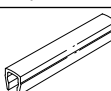
Drive shaft EAMB  
Alternative interface  
(order code K)



| Dimensions and ordering data |    |    |      |         |     |     |               |          |                       |
|------------------------------|----|----|------|---------|-----|-----|---------------|----------|-----------------------|
| For size                     | B1 | B2 | B3   | D2<br>ø | D3  | ≅D1 | Weight<br>[g] | Part no. | Type <sup>1)</sup>    |
| 50                           | 12 | 3  | 1.1  | 8       | M4  | 12  | 20            | 558034   | EAMB-16-7-8X15-8X10   |
| 70                           | 12 | 4  | 1.85 | 8       | M5  | 15  | 29            | 558035   | EAMB-18-9-8X16-10X12  |
| 80                           | 21 | –  | 2    | 15      | M6  | 21  | 70            | 558036   | EAMB-24-6-15X21-16X20 |
| 120                          | 26 | –  | 2    | 25      | M10 | 30  | 201           | 558037   | EAMB-34-6-25X26-23X27 |
| 185                          | 30 | –  | 3    | 35      | M12 | 36  | 463           | 558038   | EAMB-44-7-35X30-32X32 |

1) Suitable for ATEX

## Accessories

| Ordering data                                                                       |              | For size                                                | Description | Order code                   | Part no.          | Type <sup>2)</sup> | PU <sup>1)</sup> |
|-------------------------------------------------------------------------------------|--------------|---------------------------------------------------------|-------------|------------------------------|-------------------|--------------------|------------------|
| Emergency buffer NPE                                                                |              |                                                         |             |                              |                   |                    |                  |
|    | 50           | For use in combination with shock absorber retainer KYE | A           | 564897                       | NPE-50            | 1                  |                  |
|                                                                                     | 70           |                                                         |             | 562581                       | NPE-70            |                    |                  |
|                                                                                     | 80           |                                                         |             | 562582                       | NPE-80            |                    |                  |
|                                                                                     | 120          |                                                         |             | 562583                       | NPE-120           |                    |                  |
|                                                                                     | 185          |                                                         |             | 562584                       | NPE-185           |                    |                  |
| Shock absorber YSRW                                                                 |              |                                                         |             | Data sheets → Internet: ysrw |                   |                    |                  |
|    | 50           | For use in combination with shock absorber retainer KYE | C           | 191192                       | YSRW-5-8          | 1                  |                  |
|                                                                                     | 70           |                                                         |             | 191194                       | YSRW-8-14         |                    |                  |
|                                                                                     | 80           |                                                         |             | 191196                       | YSRW-12-20        |                    |                  |
|                                                                                     | 120          |                                                         |             | 191197                       | YSRW-16-26        |                    |                  |
|                                                                                     | 185          |                                                         |             | 191198                       | YSRW-20-34        |                    |                  |
| Slot nut NST                                                                        |              |                                                         |             |                              |                   |                    |                  |
|    | 50           | For mounting slot                                       | Y           | 558045                       | NST-3-M3          | 1                  |                  |
|                                                                                     |              |                                                         |             |                              |                   |                    |                  |
|    | 70, 80       | For mounting slot                                       | Y           | 150914                       | NST-5-M5          | 1                  |                  |
|                                                                                     |              |                                                         |             | 8047843                      | NST-5-M5-10       | 10                 |                  |
|                                                                                     |              |                                                         |             | 8047878                      | NST-5-M5-50       | 50                 |                  |
|                                                                                     |              |                                                         |             | 120, 185                     | For mounting slot | Y                  | 150915           |
|                                                                                     |              |                                                         |             | 8047868                      | NST-8-M6-10       | 10                 |                  |
| 8047869                                                                             |              |                                                         |             | NST-8-M6-50                  | 50                |                    |                  |
| Centring pin/sleeve ZBS/ZBH                                                         |              |                                                         |             |                              |                   |                    |                  |
|  | 50, 70       | For slide                                               | –           | 150928                       | ZBS-5             | 10                 |                  |
|                                                                                     | 80, 120, 185 |                                                         |             | 8137184                      | ZBH-9-B           |                    |                  |
| Slot cover ABP                                                                      |              |                                                         |             |                              |                   |                    |                  |
|  | 70, 80       | For mounting slot                                       | B           | 151681                       | ABP-5             | 2                  |                  |
|                                                                                     | 120, 185     | Each 0.5 m                                              |             | 151682                       | ABP-8             |                    |                  |
| Slot cover ABP-S                                                                    |              |                                                         |             |                              |                   |                    |                  |
|  | 50 ... 185   | For sensor slot<br>Each 0.5 m                           | S           | 563360                       | ABP-5-S1          | 2                  |                  |

1) Packaging unit

2) Suitable for ATEX

| Ordering data                                                                       |            |                                                           |            |          |        |                  |
|-------------------------------------------------------------------------------------|------------|-----------------------------------------------------------|------------|----------|--------|------------------|
|                                                                                     | For size   | Description                                               | Order code | Part no. | Type   | PU <sup>1)</sup> |
| Clip SMBK                                                                           |            |                                                           |            |          |        |                  |
|  | 50 ... 185 | For sensor slot, for mounting the proximity switch cables | CL         | 534254   | SMBK-8 | 10               |

1) Packaging unit

## Accessories

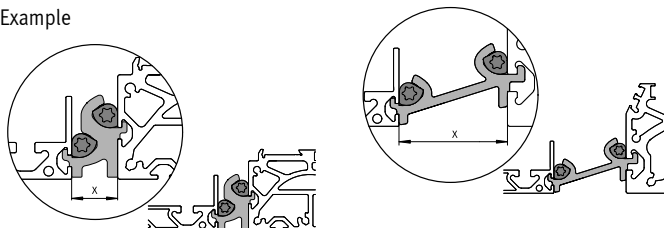
## Mounting options between axis and support profile

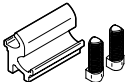
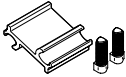
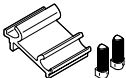
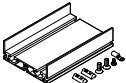
Depending on the adapter kit, the spacing between the axis and the support profile is:

$x = 20 \text{ mm}$  or  $50 \text{ mm}$

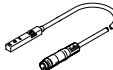
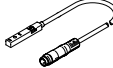
The support profile must be mounted using at least 2 adapter kits. For longer strokes, an adapter kit must be used every 500 mm.

Example



| Ordering data                                                                      |            |                                                                                                                                                |          |                  |                  |
|------------------------------------------------------------------------------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------|----------|------------------|------------------|
|                                                                                    | For size   | Description                                                                                                                                    | Part no. | Type             | PU <sup>1)</sup> |
| Adapter kit DHAM                                                                   |            |                                                                                                                                                |          |                  |                  |
|    | 70, 80     | <ul style="list-style-type: none"><li>For mounting the support profile on the axis</li><li>Spacing between axis and profile is 20 mm</li></ul> | 562241   | DHAM-ME-N1-CL    | 1                |
|                                                                                    | 120, 185   |                                                                                                                                                | 562242   | DHAM-ME-N2-CL    |                  |
|    | 70, 80     | <ul style="list-style-type: none"><li>For mounting the support profile on the axis</li><li>Spacing between axis and profile is 50 mm</li></ul> | 574560   | DHAM-ME-N1-50-CL |                  |
|                                                                                    | 120, 185   |                                                                                                                                                | 574561   | DHAM-ME-N2-50-CL |                  |
|    |            |                                                                                                                                                |          |                  |                  |
|                                                                                    |            |                                                                                                                                                |          |                  |                  |
| Support profile HMIA                                                               |            |                                                                                                                                                |          |                  |                  |
|  | 70 ... 185 | <ul style="list-style-type: none"><li>For guiding an energy chain</li></ul>                                                                    | 539379   | HMIA-E07-        | 1                |

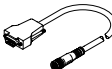
1) Packaging unit

| Ordering data – Proximity switches for T-slot, inductive                           |                                                                  |                       |                  |                  |            |          | Data sheets → Internet: <a href="#">sies</a> |
|------------------------------------------------------------------------------------|------------------------------------------------------------------|-----------------------|------------------|------------------|------------|----------|----------------------------------------------|
|                                                                                    | Type of mounting                                                 | Electrical connection | Switching output | Cable length [m] | Order code | Part no. | Type                                         |
| N/O contact                                                                        |                                                                  |                       |                  |                  |            |          |                                              |
|  | Inserted in the slot from above, flush with the cylinder profile | Cable, 3-wire         | PNP              | 7.5              | X          | 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                     |
| N/C contact                                                                        |                                                                  |                       |                  |                  |            |          |                                              |
|  | Inserted in the slot from above, flush with the cylinder profile | Cable, 3-wire         | PNP              | 7.5              | Z          | 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                     |

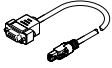
## Accessories

| Ordering data – Proximity switch M8 (round design), inductive                     |                       |     |                  |                  |            |          | Data sheets → Internet: sien |
|-----------------------------------------------------------------------------------|-----------------------|-----|------------------|------------------|------------|----------|------------------------------|
|                                                                                   | Electrical connection | LED | Switching output | Cable length [m] | Order code | Part no. | Type                         |
| N/O contact                                                                       |                       |     |                  |                  |            |          |                              |
|  | Cable, 3-wire         | ■   | PNP              | 2.5              | 0          | ★ 150386 | SIEN-M8B-PS-K-L              |
|                                                                                   |                       |     | NPN              | 2.5              | –          | ★ 150384 | SIEN-M8B-NS-K-L              |
|  | Plug M8x1, 3-pin      | ■   | PNP              | –                | W          | ★ 150387 | SIEN-M8B-PS-S-L              |
|                                                                                   |                       |     | NPN              | –                | –          | ★ 150385 | SIEN-M8B-NS-S-L              |
| N/C contact                                                                       |                       |     |                  |                  |            |          |                              |
|  | Cable, 3-wire         | ■   | PNP              | 2.5              | P          | 150390   | SIEN-M8B-PO-K-L              |
|                                                                                   |                       |     | NPN              | 2.5              | –          | 150388   | SIEN-M8B-NO-K-L              |
|  | Plug M8x1, 3-pin      | ■   | PNP              | –                | R          | 150391   | SIEN-M8B-PO-S-L              |
|                                                                                   |                       |     | NPN              | –                | –          | 150389   | SIEN-M8B-NO-S-L              |

| 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              | 159420   | SIM-M8-3GD-2.5-PU   |                              |
|                                                                                    |                              |                              | 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 – Encoder cables for displacement encoder, EGC-...-M1/-M2             |                                     |                                       |                  |          |                          | Data sheets → Internet: nebm |
|-------------------------------------------------------------------------------------|-------------------------------------|---------------------------------------|------------------|----------|--------------------------|------------------------------|
|                                                                                     | Electrical connection, left         | Electrical connection, right          | Cable length [m] | Part no. | Type                     |                              |
|  | Displacement encoder EGC-...-M1/-M2 | Motor controllers CMMP-AS and CMMT-AS | 5.0              | 1599105  | NEBM-M12G8-E-5-S1G9-V3   |                              |
|                                                                                     |                                     |                                       | 10               | 1599106  | NEBM-M12G8-E-10-S1G9-V3  |                              |
|                                                                                     |                                     |                                       | 15               | 1599107  | NEBM-M12G8-E-15-S1G9-V3  |                              |
|                                                                                     |                                     |                                       | X <sup>1)</sup>  | 1599108  | NEBM-M12G8-E-...-S1G9-V3 |                              |

1) Max. cable length 25 m.

| Ordering data – Adapter                                                             |                                                                                                                                               |          |                      |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------|
|                                                                                     | Description                                                                                                                                   | Part no. | Type                 |
|  | Required in combination with the servo drive CMMT-AS as adapter between encoder cable NEBM-M12G8-...-V3 and interface X3 (position encoder 2) | 8106112  | NEFM-S1G9-K-0.5-R3G8 |

