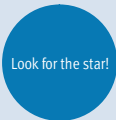


# Linear drives DGC



|            |                                                                 |                                                                                                                                     |
|------------|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| ★ / ☆      | Festo core product range<br>Covers 80% of your automation tasks | ★ Ready for dispatch from the Festo factory in 24 hours<br>Held in stock in 13 service centres worldwide<br>More than 2200 products |
| Worldwide: | Always in stock                                                 | ★ Ready for dispatch in 5 days maximum from stock                                                                                   |
| Superb:    | Festo quality at an attractive price                            | Assembled for you in 4 service centres worldwide                                                                                    |
| Easy:      | Reduces procurement and storing complexity                      | Up to 6 x 10 <sup>12</sup> variants per product series                                                                              |



# Linear drives DGC

Key features

FESTO

## General information

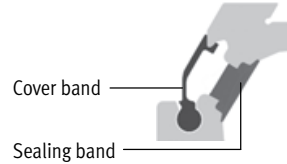
- Compact – fitting length relative to stroke
- Loads and devices can be directly mounted on the slide
- Three types of cushioning available:
  - Elastic cushioning
  - Pneumatic cushioning
  - Hydraulic cushioning
- All settings accessible from one side:
  - Precision end-position adjustment
  - Position of proximity sensors
  - Mounting of drive
  - Speed regulation
  - Pneumatic end-position cushioning
- Optional: NSF-H1 lubricant for the food industry

The linear drive is of limited food-safe. Additional information [www.festo.com/sp](http://www.festo.com/sp) → Certificates.

Not approved for use in the food industry are:

- DGC-...-GP (protected version)
- DGC-... with integrated shock absorbers

- Sealing system



Advantages of the sealing system:

- Long strokes with no restrictions
- Virtually no leakage

## Wide choice of variants

### Compact design DGC-K



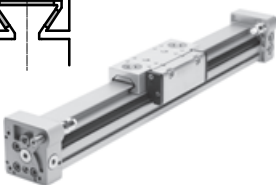
- Piston Ø 18 ... 80 mm
- Stroke lengths from 1 ... 8500 mm
- 30% narrower than the DGC-G
- Low moving dead weight
- Symmetrical design

### Basic design DGC-G



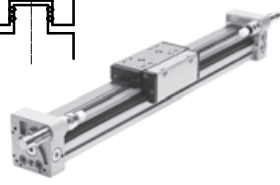
- Piston Ø 8 ... 63 mm
- Stroke lengths from 1 ... 8500 mm
- Guide backlash = 0.2 mm
- For small loads
- Operating behaviour with torque load = average

### Plain-bearing guide DGC-GF



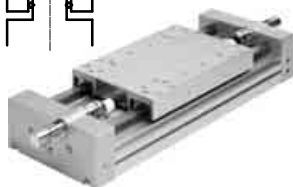
- Piston Ø 18 ... 63 mm
- Stroke lengths from 1 ... 8500 mm
- Guide backlash = 0.05 mm
- For small and medium loads
- Operating behaviour with torque load = average

### Recirculating ball bearing guide DGC-KF



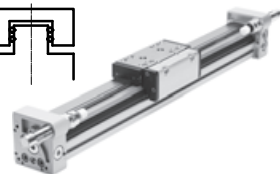
- Piston Ø 8 ... 63 mm
- Stroke lengths from 1 ... 8500 mm
- Guide backlash = 0 mm
- For medium and large loads
- Precision mounting interface with stainless steel slide
- Operating behaviour under torque load = very good

### Heavy-duty guide DGC-HD



- Piston Ø 18, 25, 40 mm
- Stroke lengths from 10 ... 5000 mm
- Guide backlash = 0 mm
- For large loads
- Operating behaviour under torque load = very good

### Passive guide axis DGC-FA



- Without drive
- Piston Ø 8 ... 63 mm
- Stroke lengths from 1 ... 8500 mm
- Guide backlash = 0 mm
- Precision guide, suitable for the DGC-KF. Can be used as a machine component or as a twin guide with the DGC-KF

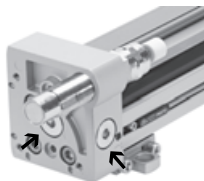
# Linear drives DGC

Key features

FESTO

## Versatile

### 1 Supply ports



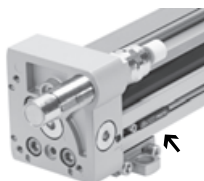
- Options on two sides (on the end face or at the front)
- For DGC-G/DGC-GF/DGC-KF

### DL – Supply port at the left end or at both ends

The linear drive is actuated at the right end or at both ends by default. The linear drive can be actuated at the left end or at both ends by specifying the order code DL in the modular product system.

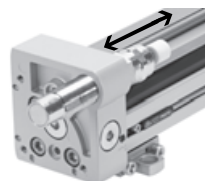
- For piston Ø 18, 25, 32, 40, 50, 63 mm
- For DGC-G, DGC-GF, DGC-KF

### 2 Proximity sensor G/H/I/J



- Proximity sensors can be integrated, which means there is no projection. Cable can be guided through the slot behind a second sensor
- For DGC-G/DGC-GF/DGC-KF

### 3 Precision end-position adjustment



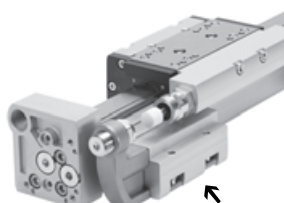
- Between 0 ... 25 mm per side
- For DGC-GF/DGC-KF/DGC-FA

### 4 Profile mounting M



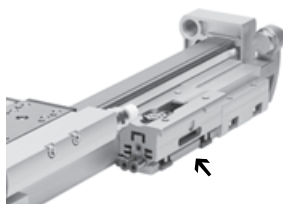
- Profile mounting remains on the base plate after the drive is dismantled. This means faster assembly and removal without repeat adjustment
- For DGC-G/DGC-GF/DGC-KF/DGC-FA

### 5 Mechanical end-position limiter YWZ



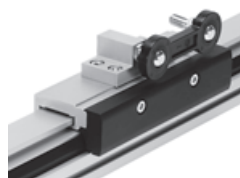
- For variable stroke adjustment, e.g. for format adjustments
- The end stop can be mounted at any position along the stroke
- For DGC-GF/DGC-KF/DGC-FA

### 6 Intermediate position module Z1/Z2/Z3



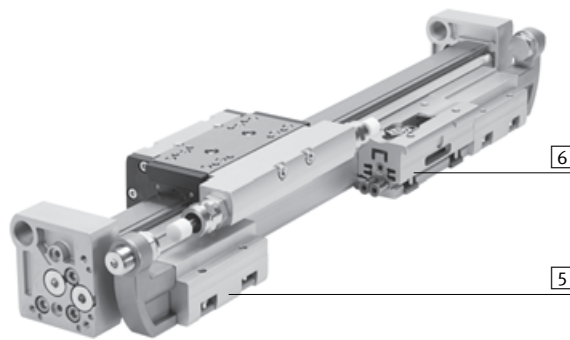
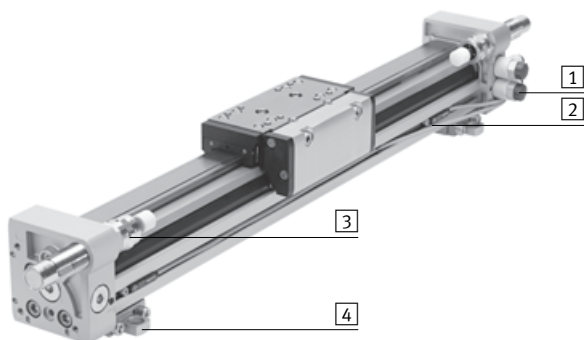
- Enables variable intermediate positions
- The intermediate position module can be mounted at any position along the stroke
- Precision repetition accuracy (0.02 mm) with high dynamic response
- For DGC-KF

### Moment compensator FK



- Compensates for inaccuracies during mounting of the linear drive and external guide
- Max. offset 2.5 mm
- For DGC-G

## Example



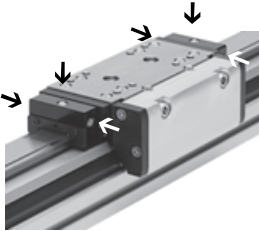
# Linear drives DGC

Key features

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## Options

### C – Central lubrication



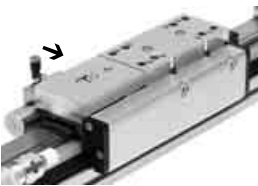
The lubrication adapter enables the guide of the linear drive DGC-KF to be permanently lubricated in applications in humid or wet ambient conditions using semi or fully automatic relubrication devices.

The adapters are suitable for oils and greases.

- For piston  $\varnothing$  25, 32, 40, 63 mm
- For DGC-KF
- Connections:
  - On both sides of the slide
  - In three places (front, top, rear) on each side

Technical data → page 52

### 1H-PN – Clamping unit



- 1-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 the sizes 40 and 50

- For piston  $\varnothing$  25, 32, 40, 50 mm
- For DGC-KF

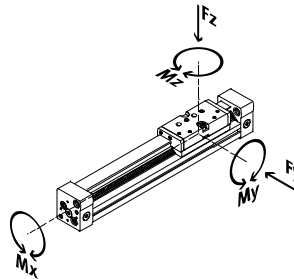
Technical data → page 49

# Linear drives DGC

Key features

FESTO

## Product variants

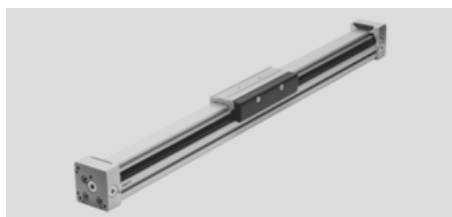


|                                                                                     | Piston Ø | Theoretical force<br>at 6 bar | Guide characteristics |           |            |            |            | → Page/<br>Internet |
|-------------------------------------------------------------------------------------|----------|-------------------------------|-----------------------|-----------|------------|------------|------------|---------------------|
|                                                                                     | [mm]     | [N]                           | Fy<br>[N]             | Fz<br>[N] | Mx<br>[Nm] | My<br>[Nm] | Mz<br>[Nm] |                     |
| Compact design DGC-K                                                                |          |                               |                       |           |            |            |            |                     |
|    | 18       | 153                           | –                     | 120       | 0.8        | 11         | 1          | dgc-k               |
|                                                                                     | 25       | 295                           | –                     | 330       | 1.2        | 20         | 3          |                     |
|                                                                                     | 32       | 483                           | –                     | 480       | 1.9        | 40         | 5          |                     |
|                                                                                     | 40       | 754                           | –                     | 800       | 3.8        | 60         | 8          |                     |
|                                                                                     | 50       | 1178                          | –                     | 1200      | 6          | 120        | 15         |                     |
|                                                                                     | 63       | 1870                          | –                     | 1600      | 5.7        | 150        | 24         |                     |
|                                                                                     | 80       | 3016                          | –                     | 2500      | 30.6       | 400        | 100        |                     |
| Basic design DGC-G                                                                  |          |                               |                       |           |            |            |            |                     |
|  | 8        | 30                            | 150                   | 150       | 0.5        | 2          | 2          | 6                   |
|                                                                                     | 12       | 68                            | 300                   | 300       | 1.3        | 5          | 5          |                     |
|                                                                                     | 18       | 153                           | 70                    | 340       | 1.9        | 12         | 4          |                     |
|                                                                                     | 25       | 295                           | 180                   | 540       | 4          | 20         | 5          |                     |
|                                                                                     | 32       | 483                           | 250                   | 800       | 9          | 40         | 12         |                     |
|                                                                                     | 40       | 754                           | 370                   | 1100      | 12         | 60         | 25         |                     |
|                                                                                     | 50       | 1178                          | 480                   | 1600      | 20         | 150        | 37         |                     |
|                                                                                     | 63       | 1870                          | 650                   | 2000      | 26         | 150        | 48         |                     |
| Plain-bearing guide DGC-GF                                                          |          |                               |                       |           |            |            |            |                     |
|  | 18       | 153                           | 440                   | 540       | 3.4        | 20         | 8.5        | 22                  |
|                                                                                     | 25       | 295                           | 640                   | 1300      | 8.5        | 40         | 20         |                     |
|                                                                                     | 32       | 483                           | 900                   | 1800      | 15         | 70         | 33         |                     |
|                                                                                     | 40       | 754                           | 1380                  | 2000      | 28         | 110        | 54         |                     |
|                                                                                     | 50       | 1178                          | 1500                  | 2870      | 54         | 270        | 103        |                     |
|                                                                                     | 63       | 1870                          | 2300                  | 4460      | 96         | 450        | 187        |                     |
| Recirculating ball bearing guide DGC-KF                                             |          |                               |                       |           |            |            |            |                     |
|  | 8        | 30                            | 300                   | 300       | 1.7        | 4.5        | 4.5        | 42                  |
|                                                                                     | 12       | 68                            | 650                   | 650       | 3.5        | 10         | 10         |                     |
|                                                                                     | 18       | 153                           | 1850                  | 1850      | 16         | 51         | 51         |                     |
|                                                                                     | 25       | 295                           | 3050                  | 3050      | 36         | 97         | 97         |                     |
|                                                                                     | 32       | 483                           | 3310                  | 3310      | 54         | 150        | 150        |                     |
|                                                                                     | 40       | 754                           | 6890                  | 6890      | 144        | 380        | 380        |                     |
|                                                                                     | 50       | 1178                          | 6890                  | 6890      | 144        | 634        | 634        |                     |
|                                                                                     | 63       | 1870                          | 15200                 | 15200     | 529        | 1157       | 1157       |                     |
| Heavy-duty guide DGC-HD                                                             |          |                               |                       |           |            |            |            |                     |
|  | 18       | 153                           | 3650                  | 3650      | 140        | 275        | 275        | dgc-hd              |
|                                                                                     | 25       | 295                           | 5600                  | 5600      | 300        | 500        | 500        |                     |
|                                                                                     | 40       | 754                           | 13000                 | 13000     | 900        | 1450       | 1450       |                     |

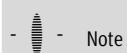
# Linear drives DGC-G

Peripherals overview

FESTO

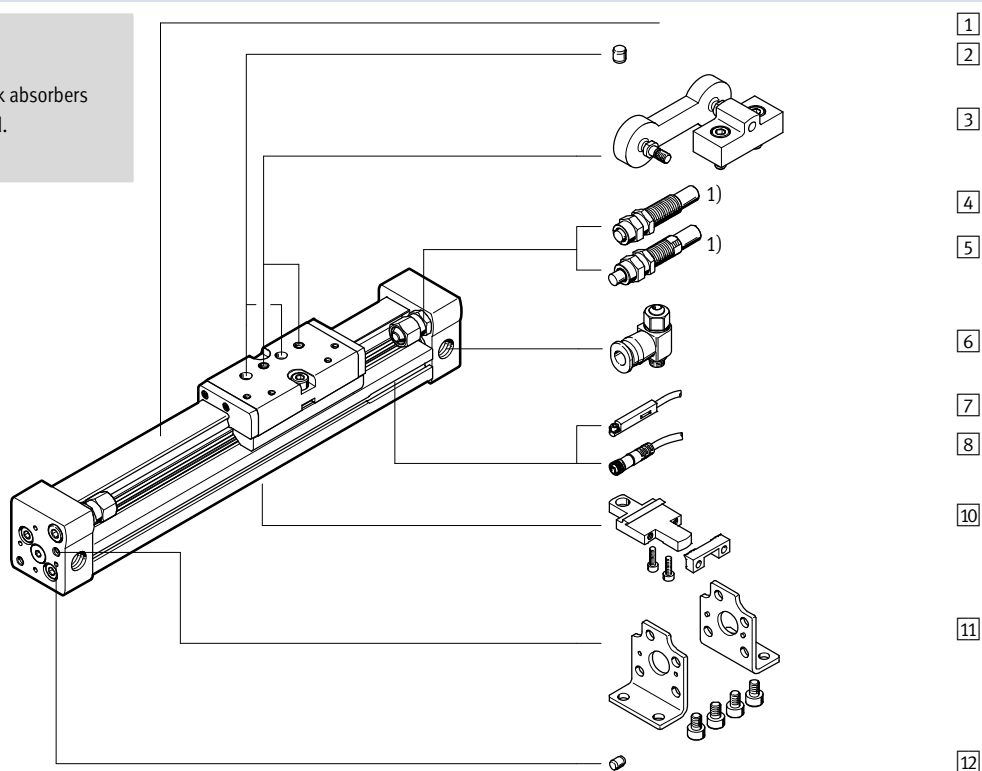


## DGC-8/-12

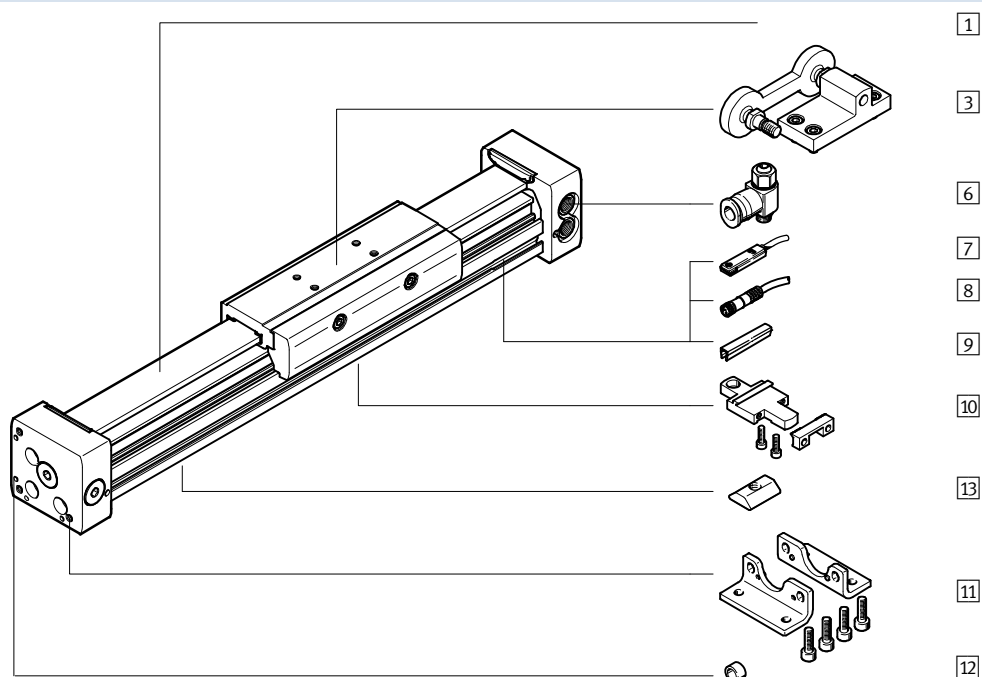


Note

1) End stops or shock absorbers must not be removed.



## DGC-18 ... 63



# Linear drives DGC-G

Peripherals overview



| Variants and accessories |                                    |               |                                                                                                      |                 |
|--------------------------|------------------------------------|---------------|------------------------------------------------------------------------------------------------------|-----------------|
| Type/Order code          |                                    | For piston Ø  | Description                                                                                          | → Page/Internet |
| 1                        | Linear drive<br>DGC-G              | 8 ... 63      | Linear drive without accessories, basic design                                                       | 10              |
| 2                        | Centring pin <sup>1)</sup><br>ZBS  | 8, 12         | For centring loads and attachments on the slide                                                      | 78              |
| 3                        | Driver<br>FK                       | 8 ... 63      | Compensates inaccuracies in the mounting of the linear drive and external guide                      | 72              |
| –                        | Cushioning<br>P                    | 8, 12         | Non-adjustable, flexible cushioning. Used only at low speeds                                         | 21              |
| –                        | Cushioning<br>PPV                  | 18 ... 63     | Adjustable pneumatic end position cushioning. Used at medium speeds                                  | 21              |
| 4                        | Shock absorber<br>YSR              | 8, 12         | Self-adjusting hydraulic shock absorber with spring return and linear cushioning characteristic      | 21              |
| 5                        | Shock absorber<br>YSRW             | 8, 12         | Self-adjusting hydraulic shock absorber with spring return and progressive cushioning characteristic | 21              |
| 6                        | One-way flow control valve<br>GRLA | 8 ... 63      | For regulating speed                                                                                 | 78              |
| 7                        | Proximity sensor<br>G/H/I/J        | 8 ... 63      | For sensing the slide position                                                                       | 79              |
| 8                        | Cable with socket<br>V             | 8 ... 63      | For proximity sensor                                                                                 | 79              |
| 9                        | Slot cover<br>L                    | 18 ... 63     | For protecting against ingress of dirt and securing proximity sensor cables                          | 78              |
| 10                       | Profile mounting<br>M              | 8 ... 63      | Simple and precise mounting option via dovetail connection                                           | 70              |
| 11                       | Foot mounting<br>F                 | 8 ... 63      | For mounting on end cap                                                                              | 68              |
| 12                       | Centring pin/sleeve<br>ZBS/ZBH     | 8, 12, 50, 63 | For centring the drive without foot mountings (user-specific)                                        | 78              |
| 13                       | Slot nut<br>B                      | 25 ... 63     | For mounting attachments                                                                             | 78              |

1) Included in the scope of delivery of the drive

# Linear drives DGC-G

Type codes

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|                              |                                             |     |   |    |   |      |   |   |   |     |   |   |   |  |   |  |   |  |
|------------------------------|---------------------------------------------|-----|---|----|---|------|---|---|---|-----|---|---|---|--|---|--|---|--|
|                              |                                             | DGC | - | 25 | - | 1000 | - | G | - | PPV | - | A | - |  | - |  | - |  |
| <b>Type</b>                  |                                             |     |   |    |   |      |   |   |   |     |   |   |   |  |   |  |   |  |
| DGC                          | Linear drive                                |     |   |    |   |      |   |   |   |     |   |   |   |  |   |  |   |  |
| <b>Piston Ø [mm]</b>         |                                             |     |   |    |   |      |   |   |   |     |   |   |   |  |   |  |   |  |
| <b>Stroke [mm]</b>           |                                             |     |   |    |   |      |   |   |   |     |   |   |   |  |   |  |   |  |
| <b>Guide</b>                 |                                             |     |   |    |   |      |   |   |   |     |   |   |   |  |   |  |   |  |
| G                            | Basic design                                |     |   |    |   |      |   |   |   |     |   |   |   |  |   |  |   |  |
| <b>Cushioning</b>            |                                             |     |   |    |   |      |   |   |   |     |   |   |   |  |   |  |   |  |
| P                            | Flexible cushioning, non-adjustable         |     |   |    |   |      |   |   |   |     |   |   |   |  |   |  |   |  |
| PPV                          | Adjustable end position cushioning          |     |   |    |   |      |   |   |   |     |   |   |   |  |   |  |   |  |
| YSR                          | Linear shock absorber, self-adjusting       |     |   |    |   |      |   |   |   |     |   |   |   |  |   |  |   |  |
| YSRW                         | Shock absorber, progressive, self-adjusting |     |   |    |   |      |   |   |   |     |   |   |   |  |   |  |   |  |
| <b>Position sensing</b>      |                                             |     |   |    |   |      |   |   |   |     |   |   |   |  |   |  |   |  |
| A                            | For proximity sensor                        |     |   |    |   |      |   |   |   |     |   |   |   |  |   |  |   |  |
| <b>Compressed air supply</b> |                                             |     |   |    |   |      |   |   |   |     |   |   |   |  |   |  |   |  |
| -                            | At right side only or at both ends          |     |   |    |   |      |   |   |   |     |   |   |   |  |   |  |   |  |
| DL                           | At left side only or at both ends           |     |   |    |   |      |   |   |   |     |   |   |   |  |   |  |   |  |
| <b>Lubrication</b>           |                                             |     |   |    |   |      |   |   |   |     |   |   |   |  |   |  |   |  |
| -                            | Standard                                    |     |   |    |   |      |   |   |   |     |   |   |   |  |   |  |   |  |
| H1                           | For food industry                           |     |   |    |   |      |   |   |   |     |   |   |   |  |   |  |   |  |
| <b>EU certification</b>      |                                             |     |   |    |   |      |   |   |   |     |   |   |   |  |   |  |   |  |
| EX2                          | II 3GD                                      |     |   |    |   |      |   |   |   |     |   |   |   |  |   |  |   |  |
| EX3                          | II 2G                                       |     |   |    |   |      |   |   |   |     |   |   |   |  |   |  |   |  |



# Linear drives DGC-G

Type codes

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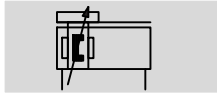
|                          |                                                           | + ZUB | - | F |  |  | 2B | 2G |  | 2L |  |
|--------------------------|-----------------------------------------------------------|-------|---|---|--|--|----|----|--|----|--|
| <b>Accessories</b>       |                                                           |       |   |   |  |  |    |    |  |    |  |
| ZUB                      | Accessories supplied loose                                |       |   |   |  |  |    |    |  |    |  |
| <b>Foot mounting</b>     |                                                           |       |   |   |  |  |    |    |  |    |  |
| F                        | Foot mounting                                             |       |   |   |  |  |    |    |  |    |  |
| <b>Profile mounting</b>  |                                                           |       |   |   |  |  |    |    |  |    |  |
| ...M                     | Profile mounting                                          |       |   |   |  |  |    |    |  |    |  |
| <b>Driver</b>            |                                                           |       |   |   |  |  |    |    |  |    |  |
| FK                       | Moment compensator                                        |       |   |   |  |  |    |    |  |    |  |
| <b>Slot nut</b>          |                                                           |       |   |   |  |  |    |    |  |    |  |
| ...B                     | For mounting slot                                         |       |   |   |  |  |    |    |  |    |  |
| <b>Proximity sensor</b>  |                                                           |       |   |   |  |  |    |    |  |    |  |
| ...G                     | With cable, 2.5 m                                         |       |   |   |  |  |    |    |  |    |  |
| ...H                     | With plug                                                 |       |   |   |  |  |    |    |  |    |  |
| ...I                     | Contactless with cable, 2.5 m                             |       |   |   |  |  |    |    |  |    |  |
| ...J                     | Contactless, with plug                                    |       |   |   |  |  |    |    |  |    |  |
| <b>Cable with socket</b> |                                                           |       |   |   |  |  |    |    |  |    |  |
| ...V                     | 2.5 m                                                     |       |   |   |  |  |    |    |  |    |  |
| <b>Slot cover</b>        |                                                           |       |   |   |  |  |    |    |  |    |  |
| ...L                     | For sensor slot                                           |       |   |   |  |  |    |    |  |    |  |
| <b>User manual</b>       |                                                           |       |   |   |  |  |    |    |  |    |  |
| 0                        | Express waiver – no operating instructions to be included |       |   |   |  |  |    |    |  |    |  |

# Linear drives DGC-G

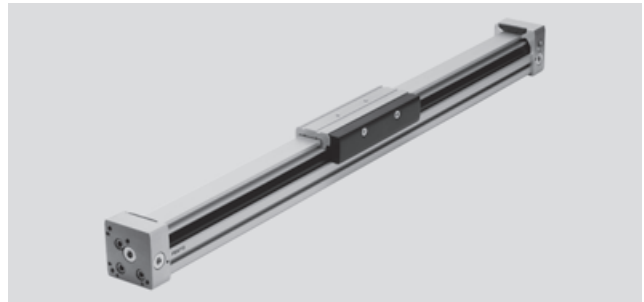
Technical data

FESTO

Function



www.festo.com



-  Diameter  
8 ... 63 mm
-  Stroke length  
1 ... 8500 mm

| General technical data                     |                                        |            |            |                         |      |      |            |      |
|--------------------------------------------|----------------------------------------|------------|------------|-------------------------|------|------|------------|------|
| Piston Ø                                   | 8                                      | 12         | 18         | 25                      | 32   | 40   | 50         | 63   |
| Stroke [mm]                                | 1 ... 1500                             | 1 ... 2000 | 1 ... 3000 | 1 ... 8500              |      |      | 1 ... 5000 |      |
| Pneumatic connection                       | M5                                     |            |            | G1/8                    |      | G1/4 |            | G3/8 |
| Mode of operation                          | Double-acting                          |            |            |                         |      |      |            |      |
| Design                                     | Rodless drive                          |            |            |                         |      |      |            |      |
| Moment compensator principle               | Slotted cylinder, mechanically coupled |            |            |                         |      |      |            |      |
| Guide                                      | Basic design                           |            |            |                         |      |      |            |      |
| Mounting position                          | Any                                    |            |            |                         |      |      |            |      |
| Cushioning ➔ page 13                       |                                        |            |            |                         |      |      |            |      |
| DGC-...-P                                  | Non-adjustable at both ends            |            |            | –                       |      |      |            |      |
| DGC-...-PPV                                | –                                      |            |            | Adjustable at both ends |      |      |            |      |
| DGC-...-YSR...                             | Self-adjusting at both ends            |            |            | –                       |      |      |            |      |
| Cushioning length with PPV cushioning [mm] | –                                      |            | 16.5       | 15.5                    | 17.5 | 29.5 | 29.8       | 31.1 |
| Position sensing                           | Via proximity sensor                   |            |            |                         |      |      |            |      |
| Type of mounting                           | Profile mounting                       |            |            |                         |      |      |            |      |
|                                            | Foot mounting                          |            |            |                         |      |      |            |      |
|                                            | Direct mounting                        |            |            |                         |      |      |            |      |
| Max. speed [m/s]                           | 1                                      | 1.2        | 3          |                         |      |      |            |      |

–  Note: This product conforms to ISO 1179-1 and to ISO 228-1

| Operating and environmental conditions       |                                                                                                        |             |         |    |    |           |    |    |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------|-------------|---------|----|----|-----------|----|----|
| Piston Ø                                     | 8                                                                                                      | 12          | 18      | 25 | 32 | 40        | 50 | 63 |
| Operating pressure [bar]                     | 2.5 ... 8                                                                                              |             | 2 ... 8 |    |    | 1.5 ... 8 |    |    |
| Operating medium                             | Compressed air in accordance with ISO 8573-1:2010 [7:--:]                                              |             |         |    |    |           |    |    |
| Note on operating/pilot medium               | Operation with lubricated medium possible (in which case lubricated operation will always be required) |             |         |    |    |           |    |    |
| Ambient temperature <sup>1)</sup> [°C]       | +5 ... +60                                                                                             | -10 ... +60 |         |    |    |           |    |    |
| Food-safety <sup>2)</sup>                    | See supplementary material information                                                                 |             |         |    |    |           |    |    |
| Corrosion resistance class CRC <sup>3)</sup> | 2                                                                                                      |             |         |    |    |           |    |    |

1) Note operating range of proximity sensors

2) Additional information [www.festo.com/sp](http://www.festo.com/sp) → Certificates.

3) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

| Forces [N] and impact energy [J]   |           |    |     |     |     |     |      |      |
|------------------------------------|-----------|----|-----|-----|-----|-----|------|------|
| Piston Ø                           | 8         | 12 | 18  | 25  | 32  | 40  | 50   | 63   |
| Theoretical force at 6 bar         | 30        | 68 | 153 | 295 | 483 | 754 | 1178 | 1870 |
| Impact energy in the end positions | → page 13 |    |     |     |     |     |      |      |

# Linear drives DGC-G

Technical data

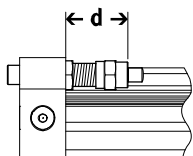
**FESTO**

| ATEX <sup>1)</sup>                          |                                                 |                    |
|---------------------------------------------|-------------------------------------------------|--------------------|
| Size                                        | 8                                               | 12 ... 63          |
| Explosion-proof temperature rating          | +5°C ≤ Ta ≤ +60°C                               | −10°C ≤ Ta ≤ +60°C |
| CE marking (see declaration of conformity)  | As per EU Explosion Protection Directive (ATEX) |                    |
| EX2 certification                           |                                                 |                    |
| ATEX category for gas                       | II 3G                                           |                    |
| Explosion ignition protection type for gas  | c T4 X                                          |                    |
| ATEX category for dust                      | II 3D                                           |                    |
| Explosion ignition protection type for dust | c T120°C X                                      |                    |
| EX3 certification                           |                                                 |                    |
| ATEX category for gas                       | II 2G                                           |                    |
| Explosion ignition protection type for gas  | c T4 X                                          |                    |

1) Note the ATEX certification of the accessories.

| Weight [g]                         |     |     |     |      |      |      |      |       |
|------------------------------------|-----|-----|-----|------|------|------|------|-------|
| Piston Ø                           | 8   | 12  | 18  | 25   | 32   | 40   | 50   | 63    |
| Basic weight with 0 mm stroke      | 170 | 290 | 546 | 1004 | 2126 | 4121 | 9050 | 14040 |
| Additional weight per 10 mm stroke | 9   | 12  | 22  | 34   | 54   | 77   | 116  | 150   |
| Moving load                        | 36  | 65  | 178 | 287  | 508  | 1312 | 2850 | 4330  |

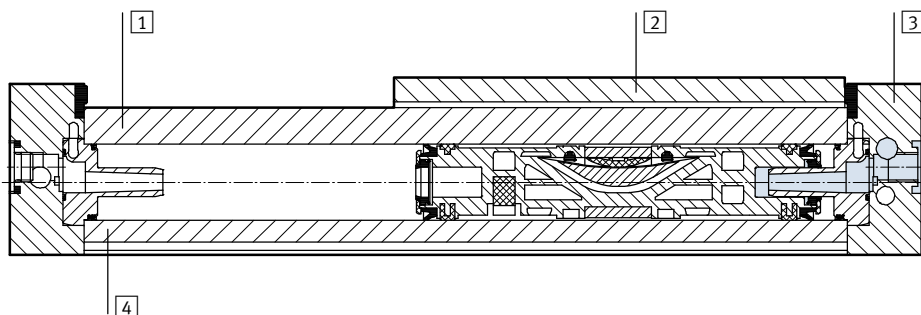
## Adjustable end-position range d [mm]



|                  |               |           |
|------------------|---------------|-----------|
| Piston Ø         | 8             | 12        |
| Cushioning       |               |           |
| DGC-...-YSR/YSRW | 12.8 ... 22.8 | 14 ... 24 |

## Materials

Sectional view



| Linear drives |                         |                    |
|---------------|-------------------------|--------------------|
| 1             | Guide rail              | Anodised aluminium |
| 2             | Slide                   | Anodised aluminium |
| 3             | End cap                 | Anodised aluminium |
| 4             | Cylinder barrel         | Anodised aluminium |
| -             | Piston seal             | Polyurethane       |
| -             | Sealing band/cover band | Polyurethane       |
| -             | Slide elements          | Polyacetal         |
| -             | Note on materials       | RoHS compliant     |

# Linear drives DGC-G

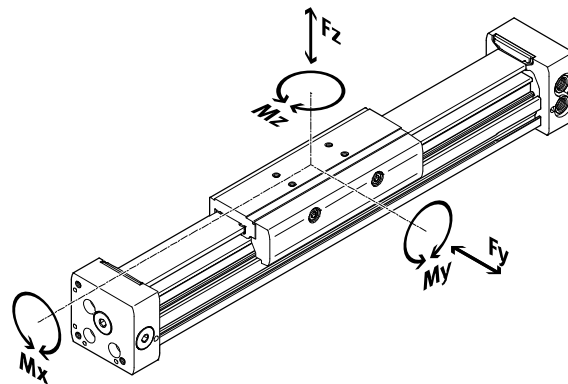
Technical data

FESTO

## Characteristic load values

The indicated forces and torques refer to the centre of the slide surface.

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



 Note

In order to avoid frictional restraint of the guide in the case of the basic drive DGC-G when used in vertical mode and with a high torque load, the variant with the recirculating ball bearing guide DGC-KF → page 42 is recommended.

If the drive is simultaneously subjected to several of the indicated forces and torques, the following equation must be satisfied in addition to the indicated maximum loads:

$$\frac{F_y}{F_{y_{\max}}} + \frac{F_z}{F_{z_{\max}}} + \frac{M_x}{M_{x_{\max}}} + \frac{M_y}{M_{y_{\max}}} + \frac{M_z}{M_{z_{\max}}} \leq 1$$

## Permissible forces and torques

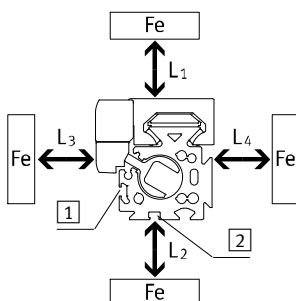
| Piston Ø                            | 8   | 12  | 18  | 25  | 32  | 40   | 50   | 63   |
|-------------------------------------|-----|-----|-----|-----|-----|------|------|------|
| F <sub>y</sub> <sub>max.</sub> [N]  | 150 | 300 | 70  | 180 | 250 | 370  | 480  | 650  |
| F <sub>z</sub> <sub>max.</sub> [N]  | 150 | 300 | 340 | 540 | 800 | 1100 | 1600 | 2000 |
| M <sub>x</sub> <sub>max.</sub> [Nm] | 0.5 | 1.3 | 1.9 | 4   | 9   | 12   | 20   | 26   |
| M <sub>y</sub> <sub>max.</sub> [Nm] | 2   | 5   | 12  | 20  | 40  | 60   | 150  | 150  |
| M <sub>z</sub> <sub>max.</sub> [Nm] | 2   | 5   | 4   | 5   | 12  | 25   | 37   | 48   |

## Influence of ferritic materials on proximity sensors

Ferritic materials (steel parts or panels) directly next to the proximity sensors can cause sensing malfunctions.

The following safety distances must be observed.

The distance depends on the position of the proximity sensor (see **1** and **2**).



| Piston Ø    | 8             | 12 | 18 | 25 | 32 | 40 | 50 | 63 |
|-------------|---------------|----|----|----|----|----|----|----|
| Distance L1 | <b>1</b> [mm] | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
|             | <b>2</b> [mm] | –  | –  | 0  | 0  | 0  | 0  | 0  |
| Distance L2 | <b>1</b> [mm] | 20 | 10 | 10 | 10 | 0  | 0  | 0  |
|             | <b>2</b> [mm] | –  | –  | 25 | 25 | 25 | 25 | 25 |
| Distance L3 | <b>1</b> [mm] | 30 | 25 | 25 | 25 | 25 | 25 | 25 |
|             | <b>2</b> [mm] | –  | –  | 10 | 10 | 0  | 0  | 0  |
| Distance L4 | <b>1</b> [mm] | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
|             | <b>2</b> [mm] | –  | –  | 0  | 0  | 0  | 0  | 0  |

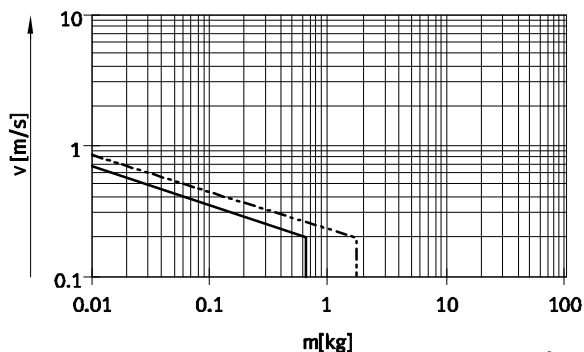
# Linear drives DGC-G

Technical data

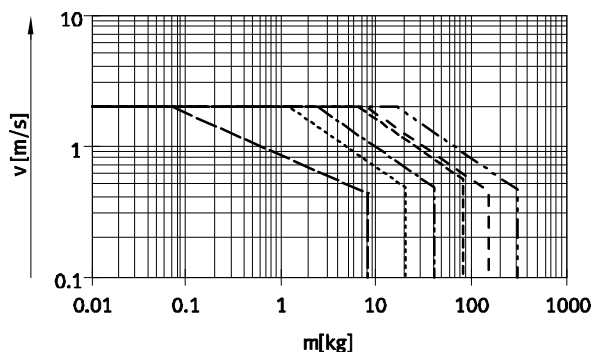
FESTO

## Maximum permissible piston speed $v$ as a function of effective load $m$ and distance $r_{\max}$ from centre of gravity of load

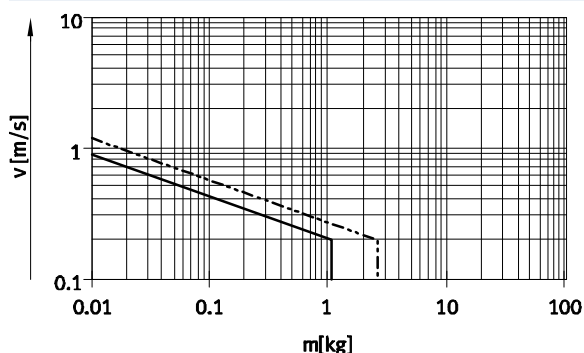
Piston  $\varnothing$  8/12 with P cushioning



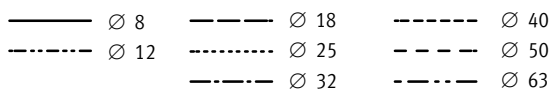
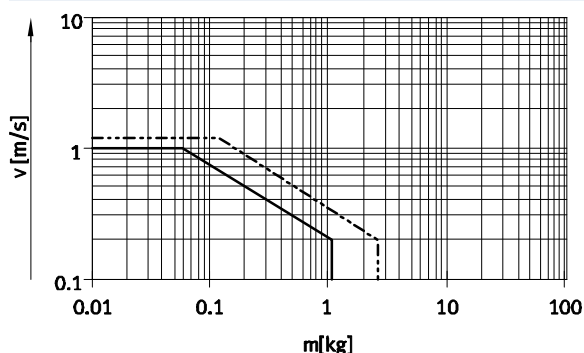
Piston  $\varnothing$  18 ... 63 with PPV cushioning



Piston  $\varnothing$  8/12 with YSR cushioning



Piston  $\varnothing$  8/12 with YSRW cushioning



Note

This data represents the maximum values that can be achieved. In practice, values fluctuate relative to

the position of the effective load and mounting position.

## Operating range of cushioning

The end-position cushioning must be adjusted to ensure jerk-free operation. If the operating conditions are outside the permissible range, the

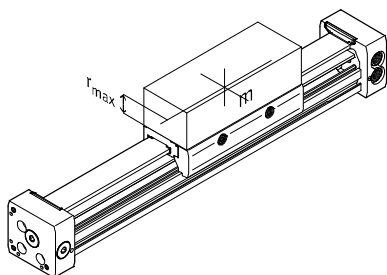
load to be moved must be cushioned using suitable equipment (external shock absorbers), preferably at the centre of gravity of the load.

Note

To avoid distortion in the slide, the must maintain a flatness of at least 0.03 mm.

Specifications for horizontal mounting position:

| Piston $\varnothing$     | 8  | 12 | 18 | 25 | 32 | 40 | 50 | 63 |
|--------------------------|----|----|----|----|----|----|----|----|
| Distance $r_{\max}$ [mm] | 25 | 35 | 35 | 50 | 50 | 50 | 50 | 50 |



# Linear drives DGC-G

Technical data

FESTO

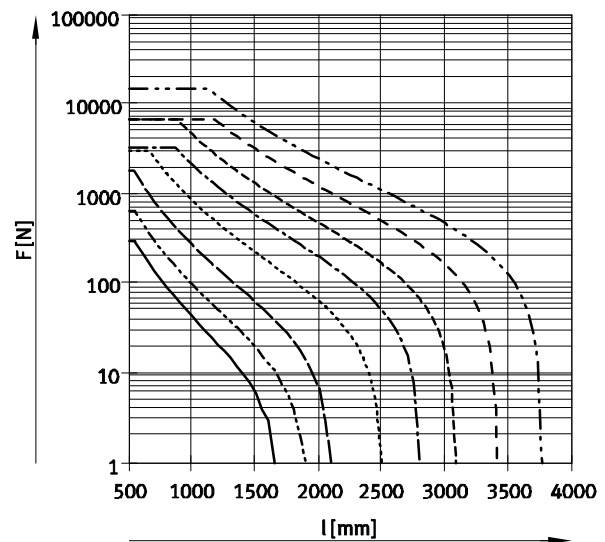
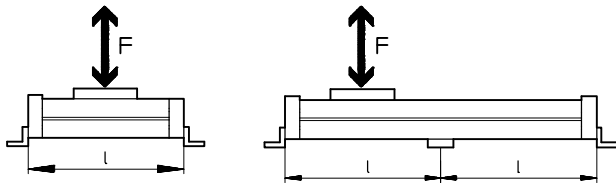
## Number of profile mountings MUC as a function of force due to weight F and support spacing l

In order to limit deflection in the case of large strokes, the drive may need to be supported. The following graphs

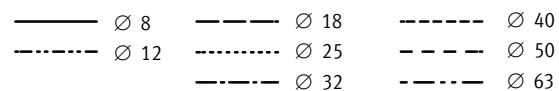
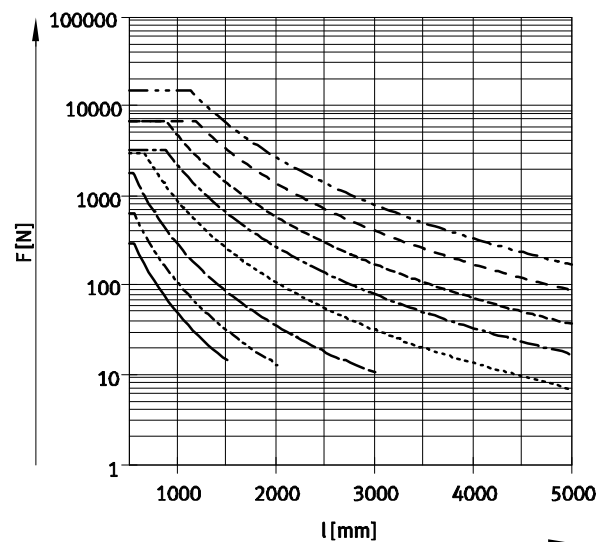
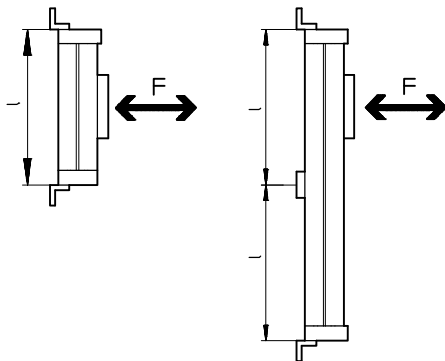
help to determine the maximum permissible support spacing as a function

tion of mounting position, force due to weight and normal force.

### Horizontal mounting position



### Vertical mounting position



### Example:

The drive DGC-25-1500 is subjected to a force of 300 N in a horizontal mounting position.

The drive has an overall length of:  
 $l = \text{stroke length} + L1$   
 (see dimensions)  
 $= 1500 \text{ mm} + 200 \text{ mm}$   
 $= 1700 \text{ mm}$

According to the graph, the max. support spacing for the drive DGC-25 with a force of 300 N is 1300 mm.

In this example, profile mountings are required as the max. support spacing (1300 mm) is smaller than the overall length of the drive (1700 mm).

# Linear drives DGC-G

Technical data

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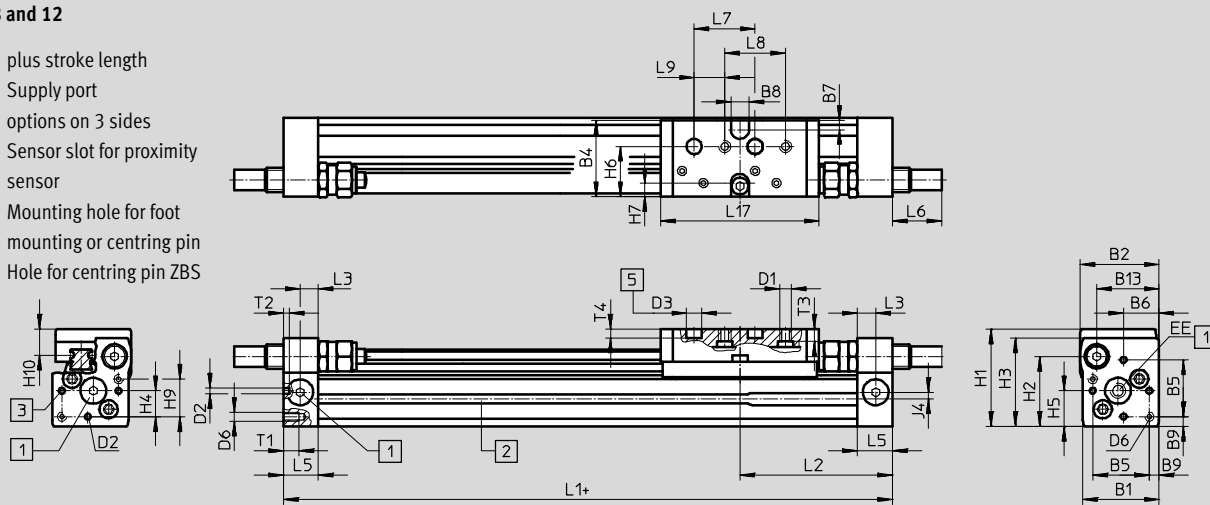
## Dimensions

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

### Ø 8 and 12

+ plus stroke length

- 1 Supply port  
options on 3 sides
- 2 Sensor slot for proximity  
sensor
- 3 Mounting hole for foot  
mounting or centring pin
- 5 Hole for centring pin ZBS



| Ø    | B1   | B2 | B4   | B5   | B6   | B7 | B8    | B9   | B13  | D1 | D2      | D3      | D6 |
|------|------|----|------|------|------|----|-------|------|------|----|---------|---------|----|
| [mm] |      |    |      |      |      |    | ±0.05 | ±0.1 |      |    | Ø<br>H8 | Ø<br>H7 |    |
| 8    | 25   | 26 | 25.5 | 18.6 | 11.7 | 3  | 6     | 3.2  | 20.5 | M4 | 2       | 5       | M3 |
| 12   | 30.2 | 31 | 30.5 | 20.6 | 13.5 | 3  | 8     | 4.8  | 25   | M4 | 2       | 5       | M4 |

| Ø    | EE | H1   | H2   | H3   | H4  | H5   | H6   | H7  | H9   | H10 | J4  | L1  | L2   |
|------|----|------|------|------|-----|------|------|-----|------|-----|-----|-----|------|
| [mm] |    |      |      |      |     |      |      |     |      |     |     |     |      |
| 8    | M5 | 32   | 23   | 29   | 8.5 | 11.7 | 16.5 | 4.5 | 12.3 | 8.7 | 2.2 | 100 | 50.1 |
| 12   | M5 | 37.5 | 28.5 | 34.5 | 8.7 | 13.5 | 20.5 | 5   | 14.7 | 9.8 | 3   | 125 | 62.4 |

| Ø    | L3 | L5   | L6 |      |      | L7    | L8   | L9   | L17 | T1 | T2 | T3 | T4   | Stroke tolerance |
|------|----|------|----|------|------|-------|------|------|-----|----|----|----|------|------------------|
| [mm] |    |      | P  | YSR  | YSRW | ±0.03 | ±0.1 | ±0.1 |     |    |    |    | +0.2 |                  |
| 8    | 6  | 11.4 | 0  | 16   | 16.2 | 20    | 20   | 10   | 52  | 5  | 2  | 4  | 3    | 0 ... 1.7        |
| 12   | 8  | 15.9 | 0  | 11.3 | 12.3 | 20    | 20   | 10   | 65  | 6  | 2  | 5  | 3    |                  |

### Length tolerance

For stroke [mm] ≤ 1000

≤ 2000

|         |       |       |
|---------|-------|-------|
| L1 [mm] | +0.90 | +1.10 |
|---------|-------|-------|

### Profile barrel

Ø 8

Ø 12



1 Sensor slot for proximity sensor

## Technical data

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

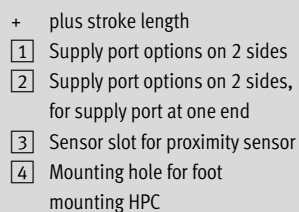
Ø 18 ... 40



Ø 25 ... 40

Ø 18 ... 40

Ø 50/63



-  - Note

The linear drive is actuated at the right end or at both ends by default. The linear drive can be actuated at the left end or at both ends by specifying the order code DL in the modular product system.



# Linear drives DGC-G

Technical data

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| Ø    | B1   | B2   | B3   | B4    | B5    | B6   | B7  | B8   | B9  | B10 |
|------|------|------|------|-------|-------|------|-----|------|-----|-----|
| [mm] |      |      |      |       | ±0.05 |      |     |      |     |     |
| 18   | 44.5 | 46.3 | 19.5 | 8.8   | 21    | 31   | 0.3 | 3.8  | 3.3 | 2.4 |
| 25   | 59.8 | 61.6 | 30   | 12.65 | 30    | 42   |     | 6.65 | 5.6 | 3.5 |
| 32   | 73   | 75.5 | 38.5 | 5.7   | 63.1  | 57.5 |     | 8.5  | 5   | 14  |
| 40   | 91   | 94.5 | 45   | 17.2  | 55    | 65   |     | 12.2 | 5.3 | 8   |
| 50   | 113  | 122  | 60   | 8     | 52.8  | 81.6 | –   | 12   | 0   | –   |
| 63   | 142  | 147  | 68   | 15.5  | 68    | 97   | –   | 19.5 | 6   | –   |

| Ø    | B11  | B12   | B13 | D1              | D2  | EE   | H1   | H2   | H3    | H4   |
|------|------|-------|-----|-----------------|-----|------|------|------|-------|------|
| [mm] |      |       |     | Ø               |     |      |      |      |       | ±0.2 |
| 18   | 5.5  | 19.3  | 20  | 2±0.05          | M4  | M5   | 49.8 | 23.1 | 48.3  | 10.3 |
| 25   | 9.3  | 20.15 | 30  | 3±0.05          | M5  | G1/8 | 58.5 | 29   | 56.5  | 13   |
| 32   | 14.9 | 20.5  | 35  | 3±0.05          | M6  | G1/8 | 73   | 30   | 71.5  | 5.7  |
| 40   | 16.5 | 19.8  | 45  | 4±0.05          | M6  | G1/4 | 88   | 41.5 | 85    | 17.2 |
| 50   | 21   | 24    | 64  | 9 <sup>H7</sup> | M8  | G1/4 | 120  | 38.5 | 116   | 52.8 |
| 63   | 21   | 30    | 64  | 9 <sup>H7</sup> | M10 | G3/8 | 140  | 48.5 | 137.5 | 68   |

| Ø    | H5   | H6   | H7   | H8   | H9   | H10 | J1   | J2   | J3   | L1  |
|------|------|------|------|------|------|-----|------|------|------|-----|
| [mm] |      |      |      |      |      |     |      |      |      |     |
| 18   | 13.4 | 20   | 5.3  | 2.4  | 25.2 | 0.4 | 20   | 16.5 | 11   | 150 |
| 25   | 15.8 | 24   | 7    | 4.5  | 29   |     | 26.1 | 18.6 | 17   | 200 |
| 32   | 17   | 27.7 | 8.5  | 14   | 35.2 |     | 30   | 22   | 18.5 | 250 |
| 40   | 25   | 36.5 | 12.2 | 8    | 44   |     | 35   | 26   | 26   | 300 |
| 50   | 29.3 | 36   | 12   | 8    | 53   | –   | 30.5 | 30.5 | 28   | 350 |
| 63   | 34.8 | 46   | 19.5 | 15.5 | 67   | –   | 41.5 | 39.5 | 31.5 | 400 |

| Ø    | L2    | L3   | L4   | L5   | L6   | T1   | T2                  | T6    | Stroke tolerance |
|------|-------|------|------|------|------|------|---------------------|-------|------------------|
| [mm] |       |      |      |      |      |      |                     |       |                  |
| 18   | 74.5  | 5.7  | 5.8  | 15   | 5.5  | 9    | 2                   | 10.7  | 0 ... 2.5        |
| 25   | 100   | 10.5 | 10.6 | 24.5 | 10.6 | 17.5 | 2                   | 12    |                  |
| 32   | 124.8 | 14.5 | 14.5 | 30.5 | 14.5 | 15   | 2                   | 13.8  |                  |
| 40   | 150   | 14.6 | 14.6 | 33.5 | 14.6 | 20   | 3                   | 16.8  |                  |
| 50   | 175   | 17   | –    | 41   | 17   | 24   | 2.1 <sup>+0.2</sup> | 20.75 |                  |
| 63   | 200   | 20   | –    | 44   | 20   | 27.5 | 2.1 <sup>+0.2</sup> | 20.75 |                  |

– Note: This product conforms to ISO 1179-1 and to ISO 228-1

| Length tolerance |      |        |        |        |        |        |        |        |        |        |
|------------------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| For stroke       | [mm] | ≤ 1000 | ≤ 2000 | ≤ 3000 | ≤ 4000 | ≤ 5000 | ≤ 6000 | ≤ 7000 | ≤ 8000 | ≤ 9000 |
| L1               | [mm] | +0.90  | +1.10  | +1.40  | +1.50  | +1.60  | +1.70  | +2.20  | +2.30  | +2.40  |

# Linear drives DGC-G

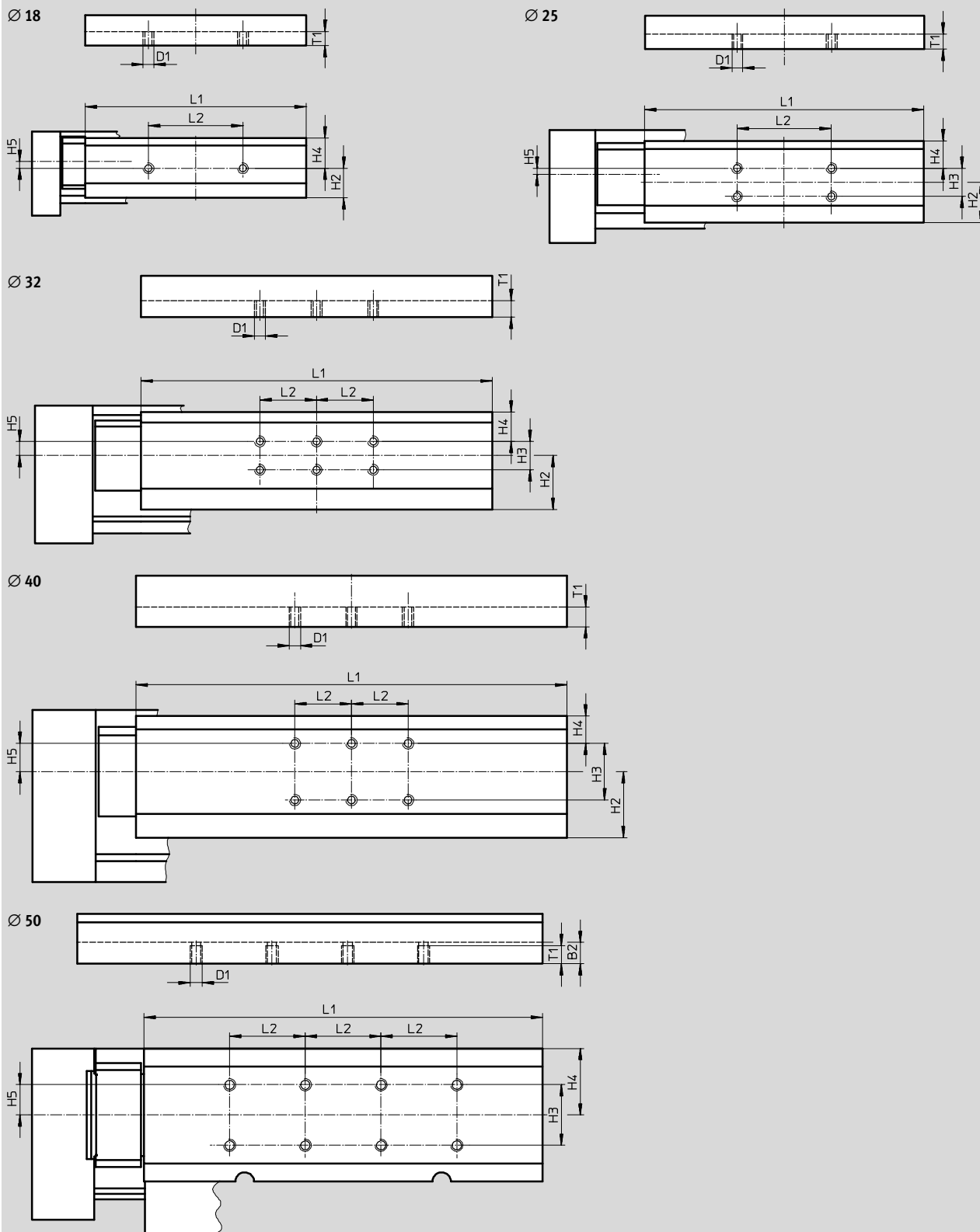
Technical data

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## Dimensions

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

Slide – View A



# Linear drives DGC-G

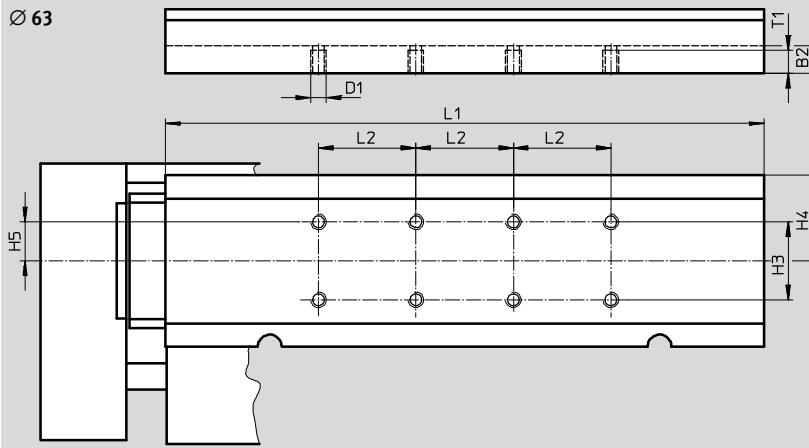
Technical data

FESTO

## Dimensions

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

Slide – View A



| Ø<br>[mm] | B2 | D1 | H2<br>±0.1 | H3<br>±0.1 | H4    | H5   | L1       | L2<br>±0.1 | T1   |
|-----------|----|----|------------|------------|-------|------|----------|------------|------|
| 18        | –  | M5 | 15.6       | –          | 16    | 2    | 117±0.05 | 50         | 7    |
| 25        | –  | M5 | 21.35      | 15         | 14.55 | 4.85 | 148±0.05 | 50         | 8    |
| 32        | –  | M5 | 28.5       | 15         | 15.5  | 7.5  | 186±0.05 | 30         | 8.6  |
| 40        | –  | M6 | 35         | 30         | 14.5  | 15   | 228±0.05 | 30         | 10.5 |
| 50        | 14 | M8 | –          | 40         | 44    | 20   | 263±0.1  | 50         | 13   |
| 63        | 14 | M8 | –          | 40         | 44    | 20   | 307±0.1  | 50         | 13   |

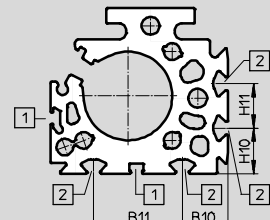
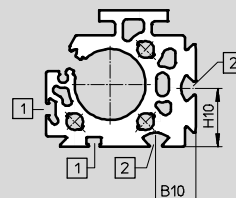
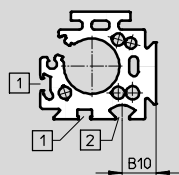
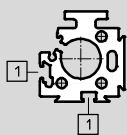
## Profile barrel

Ø 18

Ø 25

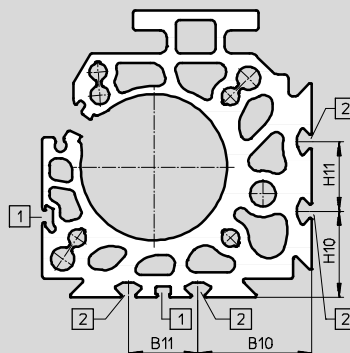
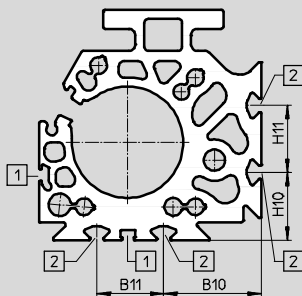
Ø 32

Ø 40



Ø 50

Ø 63



- 1 Sensor slot for proximity sensor
- 2 Mounting slot for slot nut

| Ø<br>[mm] | B10   | B11 | H10  | H11 |
|-----------|-------|-----|------|-----|
| 25        | 15.23 | –   | –    | –   |
| 32        | 18    | –   | 26.5 | –   |
| 40        | 20.5  | 40  | 20.5 | 20  |
| 50        | 43.8  | 30  | 30.5 | 30  |
| 63        | 49    | 30  | 37   | 30  |

# Linear drives DGC-G

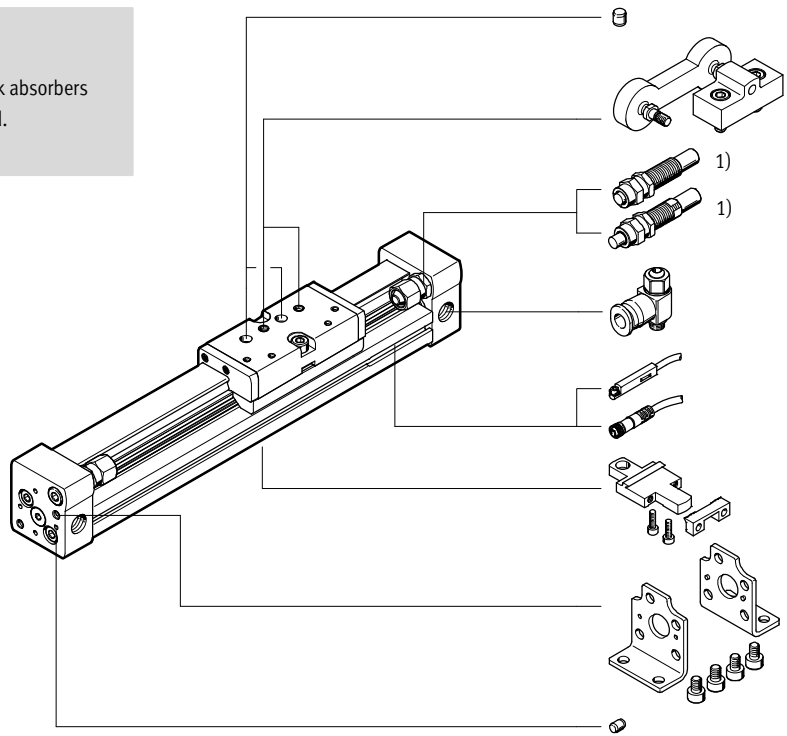
Ordering data – Modular products

FESTO

## Order code

### DGC-8/-12

-  - Note  
1) End stops or shock absorbers must not be removed.



→ page78

FK

P/YSR

YSRW

→ page 79

G/H/I/J

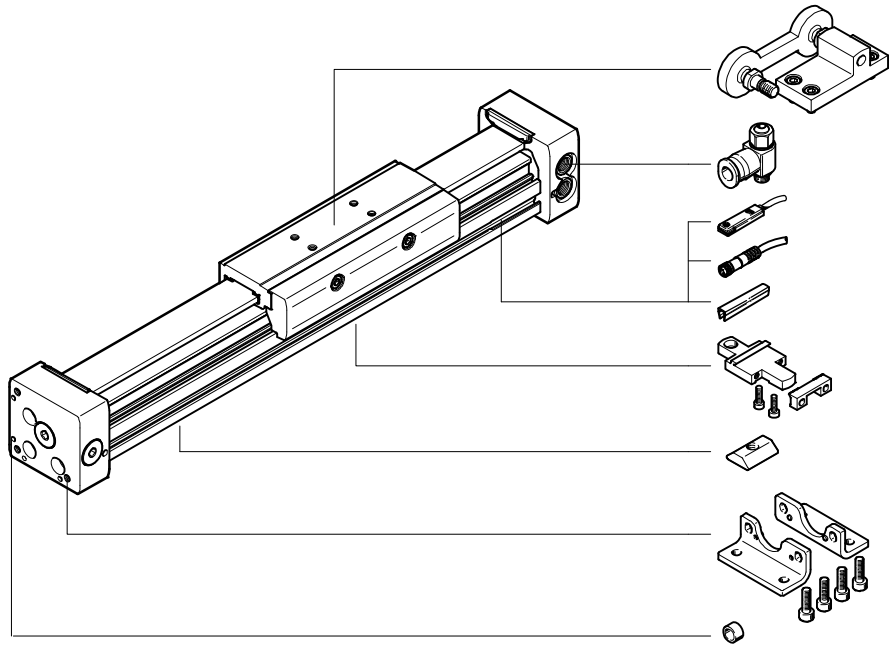
V

M

F

→ page 78

### DGC-18 ... 63



FK

→ page 79

G/H/I/J

V

L

M

B

F

→ page78

# Linear drives DGC-G

Ordering data – Modular products

FESTO

| Ordering table   |                                    |                                                                               |                                    |                                   |                      |        |        |            |                 |      |        |               |  |
|------------------|------------------------------------|-------------------------------------------------------------------------------|------------------------------------|-----------------------------------|----------------------|--------|--------|------------|-----------------|------|--------|---------------|--|
| Size             | 8                                  | 12                                                                            | 18                                 | 25                                | 32                   | 40     | 50     | 63         | Condi-<br>tions | Code |        | Enter<br>code |  |
| M                | Module No.                         | 530906                                                                        | 530907                             | 532446                            | 532447               | 532448 | 532449 | 532450     | 532451          |      |        |               |  |
|                  | Function                           | Linear drive                                                                  |                                    |                                   |                      |        |        |            |                 |      | DGC    | DGC           |  |
|                  | Piston Ø [mm]                      | 8                                                                             | 12                                 | 18                                | 25                   | 32     | 40     | 50         | 63              |      | ★ -... |               |  |
|                  | Stroke [mm]                        | 1 ... 1500                                                                    | 1 ... 2000                         | 1 ... 3000                        | 1 ... 8500           |        |        | 1 ... 5000 |                 |      | ★ -... |               |  |
|                  | Guide                              | Basic design                                                                  |                                    |                                   |                      |        |        |            |                 |      | ★ -G   | -G            |  |
|                  | Cushioning                         | At both ends                                                                  | Flexible cushioning rings/plates   |                                   | –                    | –      | –      | –          | –               | –    |        | ★ -P          |  |
|                  |                                    | Adjustable at both ends                                                       | –                                  | –                                 | Pneumatic cushioning |        |        |            |                 |      |        | ★ -PPV        |  |
|                  |                                    | Self-adjusting                                                                | Shock absorber                     |                                   | –                    | –      | –      | –          | –               | –    |        | -YSR          |  |
|                  |                                    |                                                                               | Shock absorber, progressive        |                                   | –                    | –      | –      | –          | –               | –    |        | ★ -YSRW       |  |
|                  | Position sensing                   | For proximity sensor                                                          |                                    |                                   |                      |        |        |            |                 |      | ★ -A   | -A            |  |
|                  | O                                  | Compressed air supply                                                         | At right side only or at both ends |                                   |                      |        |        |            |                 |      |        | ★             |  |
|                  |                                    | –                                                                             | –                                  | At left side only or at both ends |                      |        |        |            |                 |      | -DL    |               |  |
| Lubrication      |                                    | –                                                                             | –                                  | Standard                          |                      |        |        |            |                 |      | ★      |               |  |
|                  |                                    | –                                                                             | –                                  | For food industry                 |                      |        |        |            |                 |      | -H1    |               |  |
| EU certification |                                    | without                                                                       |                                    |                                   |                      |        |        |            |                 |      | ★      |               |  |
|                  |                                    | II 3GD                                                                        |                                    |                                   |                      |        |        |            |                 | 1    | -EX2   |               |  |
|                  | II 2G                              |                                                                               |                                    |                                   |                      |        |        |            | 1               | -EX3 |        |               |  |
| O                | Accessories                        | Supplied loose (can be retrofitted)                                           |                                    |                                   |                      |        |        |            |                 |      | ZUB-   | ZUB-          |  |
|                  | Foot mounting                      | 1                                                                             |                                    |                                   |                      |        |        |            |                 |      | F      |               |  |
|                  | Profile mounting                   | 1 ... 9                                                                       |                                    |                                   |                      |        |        |            |                 |      | ...M   |               |  |
|                  | Driver                             | without                                                                       |                                    |                                   |                      |        |        |            |                 |      |        |               |  |
|                  |                                    | Moment compensator                                                            |                                    |                                   |                      |        |        |            |                 |      | FK     |               |  |
|                  | Slot nut for mounting slot         | –                                                                             | –                                  | –                                 | 1 ... 9              |        |        |            |                 |      | ...B   |               |  |
|                  | Proximity sensor                   | Cable, 2.5 m                                                                  | 1 ... 9                            |                                   |                      |        |        |            |                 |      | ...G   |               |  |
|                  |                                    | M8 plug                                                                       | 1 ... 9                            |                                   |                      |        |        |            |                 |      | ...H   |               |  |
|                  | Proximity sensor, contactless, PNP | Cable, 2.5 m                                                                  | 1 ... 9                            |                                   |                      |        |        |            |                 |      | ...I   |               |  |
|                  |                                    | M8 plug                                                                       | 1 ... 9                            |                                   |                      |        |        |            |                 |      | ...J   |               |  |
|                  | Cable with socket                  | M8, 2.5 m                                                                     | 1 ... 9                            |                                   |                      |        |        |            |                 |      | ...V   |               |  |
|                  | Slot cover for sensor slot         | –                                                                             | –                                  | 1 ... 9                           |                      |        |        |            |                 | ...L |        |               |  |
|                  | User manual                        | Express waiver – no operating instructions to be included (already available) |                                    |                                   |                      |        |        |            |                 |      | -O     |               |  |

**1 EX2, EX3** Not with driver FK, proximity sensor G, H, I, J, or connecting cable V

- M** Mandatory data
- O** Options

## Transfer order code

**DGC** -  -  - **G** -  - **A** -  -  -  **ZUB** -  -

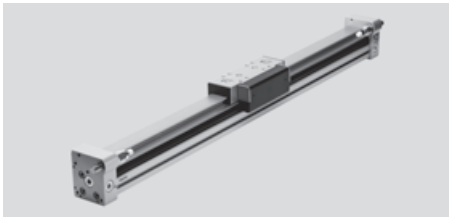
Festo core product range

- ★ Ready for dispatch from the Festo factory in 24 hours
- ★ Ready for dispatch in 5 days maximum from stock

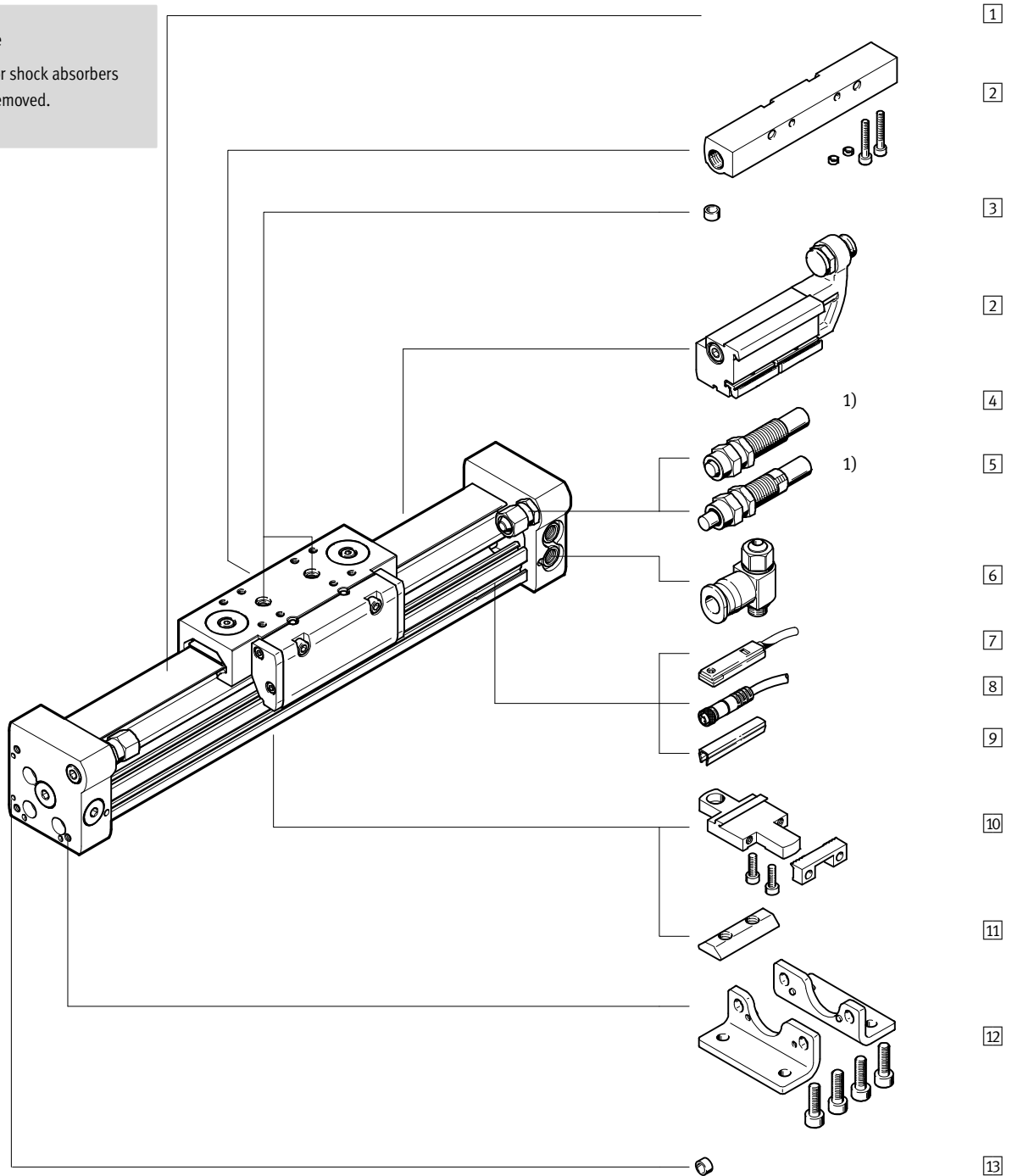
# Linear drives DGC-GF, with plain-bearing guide

Peripherals overview

FESTO



-  - Note  
1) End stops or shock absorbers must not be removed.



# Linear drives DGC-GF, with plain-bearing guide

Peripherals overview

| Variants and accessories                       |              |                                                                                                      |                 |
|------------------------------------------------|--------------|------------------------------------------------------------------------------------------------------|-----------------|
| Type/Order code                                | For piston Ø | Description                                                                                          | → Page/Internet |
| 1 Linear drive<br>DGC-GF                       | 18 ... 63    | Linear drive without accessories, plain-bearing guide                                                | 26              |
| 2 Mechanical end position<br>limiter YWZ       | 18 ... 63    | For variable end position adjustment, e.g. for format adjustments                                    | 74              |
| 3 Centring pin/sleeve <sup>1)</sup><br>ZBS/ZBH | 18 ... 63    | For centring loads and attachments on the slide                                                      | 78              |
| – Cushioning<br>PPV                            | 18 ... 63    | Adjustable pneumatic end position cushioning. Used at medium speeds                                  | 41              |
| 4 Shock absorber<br>YSR                        | 18 ... 63    | Self-adjusting hydraulic shock absorber with spring return and linear cushioning characteristic      | 41              |
| 5 Shock absorber<br>YSRW                       | 18 ... 63    | Self-adjusting hydraulic shock absorber with spring return and progressive cushioning characteristic | 41              |
| 6 One-way flow control valve<br>GRLA           | 18 ... 63    | For regulating speed                                                                                 | 78              |
| 7 Proximity sensor<br>G/H/I/J                  | 18 ... 63    | For sensing the slide position                                                                       | 79              |
| 8 Cable with socket<br>V                       | 18 ... 63    | For proximity sensor                                                                                 | 79              |
| 9 Slot cover<br>L                              | 18 ... 63    | For protecting against ingress of dirt and securing proximity sensor cables                          | 78              |
| 10 Profile mounting<br>M                       | 18 ... 63    | Simple and precise mounting option via dovetail connection                                           | 70              |
| 11 Slot nut<br>B                               | 25 ... 63    | For mounting attachments                                                                             | 78              |
| 12 Foot mounting<br>F                          | 18 ... 63    | For mounting on end cap                                                                              | 68              |
| 13 Centring sleeve<br>ZBH                      | 50, 63       | For centring the drive without foot mountings (user-specific)                                        | 78              |

1) Included in the scope of delivery of the drive

# Linear drives DGC-GF, with plain-bearing guide

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Type codes

|                              |                                             |     |   |    |   |      |   |    |   |     |   |   |   |  |   |  |   |  |
|------------------------------|---------------------------------------------|-----|---|----|---|------|---|----|---|-----|---|---|---|--|---|--|---|--|
|                              |                                             | DGC | - | 25 | - | 1000 | - | GF | - | YSR | - | A | - |  | - |  | - |  |
| <b>Type</b>                  |                                             |     |   |    |   |      |   |    |   |     |   |   |   |  |   |  |   |  |
| DGC                          | Linear drive                                |     |   |    |   |      |   |    |   |     |   |   |   |  |   |  |   |  |
| <b>Piston Ø [mm]</b>         |                                             |     |   |    |   |      |   |    |   |     |   |   |   |  |   |  |   |  |
| <b>Stroke [mm]</b>           |                                             |     |   |    |   |      |   |    |   |     |   |   |   |  |   |  |   |  |
| <b>Guide</b>                 |                                             |     |   |    |   |      |   |    |   |     |   |   |   |  |   |  |   |  |
| GF                           | Plain-bearing guide                         |     |   |    |   |      |   |    |   |     |   |   |   |  |   |  |   |  |
| <b>Cushioning</b>            |                                             |     |   |    |   |      |   |    |   |     |   |   |   |  |   |  |   |  |
| PPV                          | Adjustable end position cushioning          |     |   |    |   |      |   |    |   |     |   |   |   |  |   |  |   |  |
| YSR                          | Linear shock absorber, self-adjusting       |     |   |    |   |      |   |    |   |     |   |   |   |  |   |  |   |  |
| YSRW                         | Shock absorber, progressive, self-adjusting |     |   |    |   |      |   |    |   |     |   |   |   |  |   |  |   |  |
| <b>Position sensing</b>      |                                             |     |   |    |   |      |   |    |   |     |   |   |   |  |   |  |   |  |
| A                            | For proximity sensor                        |     |   |    |   |      |   |    |   |     |   |   |   |  |   |  |   |  |
| <b>Compressed air supply</b> |                                             |     |   |    |   |      |   |    |   |     |   |   |   |  |   |  |   |  |
| -                            | At right side only or at both ends          |     |   |    |   |      |   |    |   |     |   |   |   |  |   |  |   |  |
| DL                           | At left side only or at both ends           |     |   |    |   |      |   |    |   |     |   |   |   |  |   |  |   |  |
| <b>Lubrication</b>           |                                             |     |   |    |   |      |   |    |   |     |   |   |   |  |   |  |   |  |
| -                            | Standard                                    |     |   |    |   |      |   |    |   |     |   |   |   |  |   |  |   |  |
| H1                           | For food industry                           |     |   |    |   |      |   |    |   |     |   |   |   |  |   |  |   |  |
| <b>EU certification</b>      |                                             |     |   |    |   |      |   |    |   |     |   |   |   |  |   |  |   |  |
| EX2                          | II 3GD                                      |     |   |    |   |      |   |    |   |     |   |   |   |  |   |  |   |  |
| EX3                          | II 2G                                       |     |   |    |   |      |   |    |   |     |   |   |   |  |   |  |   |  |



# Linear drives DGC-GF, with plain-bearing guide

Type codes

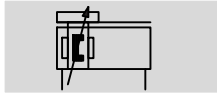
|                                        |                                                           | + ZUB | - | F |  | 2B | 2G |  | 2L |  |  |  |
|----------------------------------------|-----------------------------------------------------------|-------|---|---|--|----|----|--|----|--|--|--|
| <b>Accessories</b>                     |                                                           |       |   |   |  |    |    |  |    |  |  |  |
| ZUB                                    | Accessories supplied loose                                |       |   |   |  |    |    |  |    |  |  |  |
| <b>Foot mounting</b>                   |                                                           |       |   |   |  |    |    |  |    |  |  |  |
| F                                      | Foot mounting                                             |       |   |   |  |    |    |  |    |  |  |  |
| <b>Profile mounting</b>                |                                                           |       |   |   |  |    |    |  |    |  |  |  |
| ...M                                   | Profile mounting                                          |       |   |   |  |    |    |  |    |  |  |  |
| <b>Slot nut</b>                        |                                                           |       |   |   |  |    |    |  |    |  |  |  |
| ...B                                   | For mounting slot                                         |       |   |   |  |    |    |  |    |  |  |  |
| <b>Proximity sensor</b>                |                                                           |       |   |   |  |    |    |  |    |  |  |  |
| ...G                                   | With cable, 2.5 m                                         |       |   |   |  |    |    |  |    |  |  |  |
| ...H                                   | With plug                                                 |       |   |   |  |    |    |  |    |  |  |  |
| ...I                                   | Contactless with cable, 2.5 m                             |       |   |   |  |    |    |  |    |  |  |  |
| ...J                                   | Contactless, with plug                                    |       |   |   |  |    |    |  |    |  |  |  |
| <b>Cable with socket</b>               |                                                           |       |   |   |  |    |    |  |    |  |  |  |
| ...V                                   | 2.5 m                                                     |       |   |   |  |    |    |  |    |  |  |  |
| <b>Slot cover</b>                      |                                                           |       |   |   |  |    |    |  |    |  |  |  |
| ...L                                   | For sensor slot                                           |       |   |   |  |    |    |  |    |  |  |  |
| <b>Mechanical end position limiter</b> |                                                           |       |   |   |  |    |    |  |    |  |  |  |
| YWZ1                                   | Variable end position, at one end                         |       |   |   |  |    |    |  |    |  |  |  |
| YWZ2                                   | Variable end position, at both ends                       |       |   |   |  |    |    |  |    |  |  |  |
| <b>User manual</b>                     |                                                           |       |   |   |  |    |    |  |    |  |  |  |
| 0                                      | Express waiver – no operating instructions to be included |       |   |   |  |    |    |  |    |  |  |  |

# Linear drives DGC-GF, with plain-bearing guide

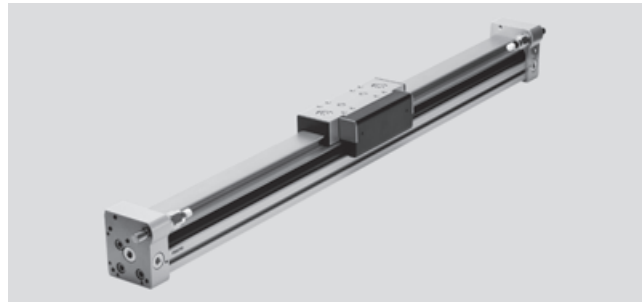
FESTO

Technical data

Function



www.festo.com



-  - Diameter  
18 ... 63 mm
-  - Stroke length  
1 ... 8500 mm

| General technical data                     |                                        |            |      |      |            |      |
|--------------------------------------------|----------------------------------------|------------|------|------|------------|------|
| Piston Ø                                   | 18                                     | 25         | 32   | 40   | 50         | 63   |
| Stroke [mm]                                | 1 ... 3000                             | 1 ... 8500 |      |      | 1 ... 5000 |      |
| Pneumatic connection                       | M5                                     | G1/8       |      | G1/4 | G3/8       |      |
| Mode of operation                          | Double-acting                          |            |      |      |            |      |
| Design                                     | Rodless drive                          |            |      |      |            |      |
| Moment compensator principle               | Slotted cylinder, mechanically coupled |            |      |      |            |      |
| Guide                                      | Plain-bearing guide                    |            |      |      |            |      |
| Mounting position                          | Any                                    |            |      |      |            |      |
| Cushioning ➔ page 29                       |                                        |            |      |      |            |      |
| DGC-...-PPV                                | Adjustable at both ends                |            |      |      |            |      |
| DGC-...-YSR...                             | Self-adjusting at both ends            |            |      |      |            |      |
| Cushioning length with PPV cushioning [mm] | 16.5                                   | 15.5       | 17.5 | 29.5 | 29.8       | 31.1 |
| Position sensing                           | Via proximity sensor                   |            |      |      |            |      |
| Type of mounting                           | Profile mounting                       |            |      |      |            |      |
|                                            | Foot mounting                          |            |      |      |            |      |
|                                            | Direct mounting                        |            |      |      |            |      |
| Max. speed [m/s]                           | 3                                      |            |      |      |            |      |

• Note: This product conforms to ISO 1179-1 and to ISO 228-1

| Operating and environmental conditions       |                                                                                                        |    |    |           |    |    |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------|----|----|-----------|----|----|
| Piston Ø                                     | 18                                                                                                     | 25 | 32 | 40        | 50 | 63 |
| Operating pressure [bar]                     | 2 ... 8                                                                                                |    |    | 1.5 ... 8 |    |    |
| Operating medium                             | Compressed air in accordance with ISO 8573-1:2010 [7:-:-]                                              |    |    |           |    |    |
| Note on operating/pilot medium               | Operation with lubricated medium possible (in which case lubricated operation will always be required) |    |    |           |    |    |
| Ambient temperature <sup>1)</sup> [°C]       | -10 ... +60                                                                                            |    |    |           |    |    |
| Food-safe <sup>2)</sup>                      | See supplementary material information                                                                 |    |    |           |    |    |
| Corrosion resistance class CRC <sup>3)</sup> | 2                                                                                                      |    |    |           |    |    |

1) Note operating range of proximity sensors

2) Additional information [www.festo.com/sp](http://www.festo.com/sp) → Certificates.

3) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

| Forces [N] and impact energy [J]   |           |     |     |     |      |      |
|------------------------------------|-----------|-----|-----|-----|------|------|
| Piston Ø                           | 18        | 25  | 32  | 40  | 50   | 63   |
| Theoretical force at 6 bar         | 153       | 295 | 483 | 754 | 1178 | 1870 |
| Impact energy in the end positions | → page 29 |     |     |     |      |      |

# Linear drives DGC-GF, with plain-bearing guide

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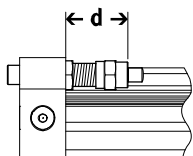
Technical data

| ATEX <sup>1)</sup>                          |                                                         |
|---------------------------------------------|---------------------------------------------------------|
| Explosion-proof temperature rating          | $-10^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$ |
| CE marking (see declaration of conformity)  | As per EU Explosion Protection Directive (ATEX)         |
| EX2 certification                           |                                                         |
| ATEX category for gas                       | II 3G                                                   |
| Explosion ignition protection type for gas  | c T4 X                                                  |
| ATEX category for dust                      | II 3D                                                   |
| Explosion ignition protection type for dust | c T120°C X                                              |
| EX3 certification                           |                                                         |
| ATEX category for gas                       | II 2G                                                   |
| Explosion ignition protection type for gas  | c T4 X                                                  |

1) Note the ATEX certification of the accessories.

| Weight [g]                         |     |      |      |      |       |       |
|------------------------------------|-----|------|------|------|-------|-------|
| Piston Ø                           | 18  | 25   | 32   | 40   | 50    | 63    |
| Basic weight with 0 mm stroke      | 763 | 1609 | 2532 | 5252 | 10065 | 16308 |
| Additional weight per 10 mm stroke | 23  | 35   | 55   | 76   | 117   | 180   |
| Moving load                        | 267 | 526  | 824  | 1725 | 3319  | 5226  |

## Adjustable end-position range d [mm]



Note

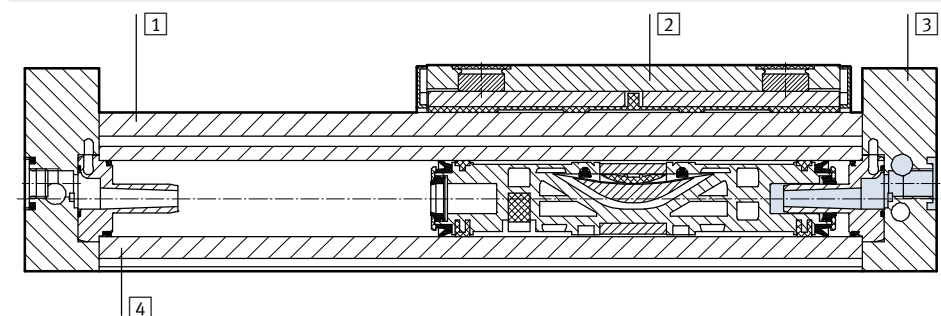
The permissible kinetic energy decreases if the stroke is reduced

with PPV adjustable cushioning at both ends.

| Piston Ø         | 18            | 25            | 32            | 40            | 50            | 63            |
|------------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Cushioning       |               |               |               |               |               |               |
| DGC-...-PPV      | 13.8 ... 15.8 | 21.1 ... 25.1 | 25.2 ... 30.2 | 28.7 ... 33.7 | 28.7 ... 33.7 | 38.8 ... 43.8 |
| DGC-...-YSR/YSRW | 14.5 ... 24.5 | 22.5 ... 32.5 | 27.3 ... 37.3 | 31 ... 41     | 31 ... 56     | 41 ... 76     |

## Materials

Sectional view



| Linear drives     |                         |                    |
|-------------------|-------------------------|--------------------|
| 1                 | Guide rail              | Anodised aluminium |
| 2                 | Slide                   | Anodised aluminium |
| 3                 | End cap                 | Anodised aluminium |
| 4                 | Cylinder barrel         | Anodised aluminium |
| -                 | Piston seal             | Polyurethane       |
| -                 | Sealing band/cover band | Polyurethane       |
| -                 | Slide elements          | Polyacetal         |
| Note on materials |                         | RoHS compliant     |

# Linear drives DGC-GF, with plain-bearing guide

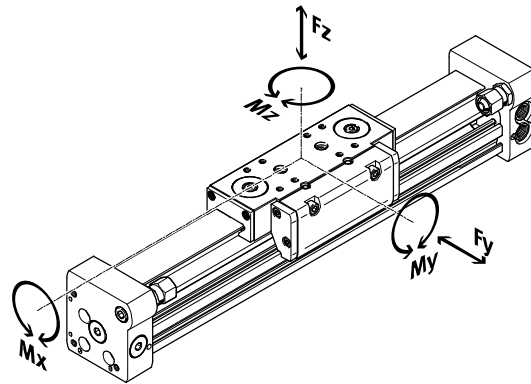
Technical data

FESTO

## Characteristic load values

The indicated forces and torques refer to the centre of the slide surface.

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



 Note

In order to avoid frictional restraint of the guide in the case of the drive DGC-GF with plain-bearing guide when used in vertical mode and with a high torque load, the variant with the recirculating ball bearing guide DGC-KF → page 42 is recommended.

If the drive is simultaneously subjected to several of the indicated forces and torques, the following equation must be satisfied in addition to the indicated maximum loads:

$$\frac{F_y}{F_{y_{max}}} + \frac{F_z}{F_{z_{max}}} + \frac{M_x}{M_{x_{max}}} + \frac{M_y}{M_{y_{max}}} + \frac{M_z}{M_{z_{max}}} \leq 1$$

## Permissible forces and torques in relation to a travel speed of 0.2 m/s

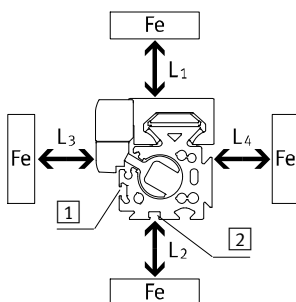
| Piston Ø                       |      | 18  | 25   | 32   | 40   | 50   | 63   |
|--------------------------------|------|-----|------|------|------|------|------|
| F <sub>y</sub> <sub>max.</sub> | [N]  | 440 | 640  | 900  | 1380 | 1500 | 2300 |
| F <sub>z</sub> <sub>max.</sub> | [N]  | 540 | 1300 | 1800 | 2000 | 2870 | 4460 |
| M <sub>x</sub> <sub>max.</sub> | [Nm] | 3.4 | 8.5  | 15   | 28   | 54   | 96   |
| M <sub>y</sub> <sub>max.</sub> | [Nm] | 20  | 40   | 70   | 110  | 270  | 450  |
| M <sub>z</sub> <sub>max.</sub> | [Nm] | 8.5 | 20   | 33   | 54   | 103  | 187  |

## Influence of ferritic materials on proximity sensors

Ferritic materials (steel parts or panels) directly next to the proximity sensors can cause sensing malfunctions.

The following safety distances must be observed.

The distance depends on the position of the proximity sensor (see **1** and **2**).



| Piston Ø    |          | 8    | 12 | 18 | 25 | 32 | 40 | 50 | 63 |
|-------------|----------|------|----|----|----|----|----|----|----|
| Distance L1 | <b>1</b> | [mm] | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
|             | <b>2</b> | [mm] | –  | –  | 0  | 0  | 0  | 0  | 0  |
| Distance L2 | <b>1</b> | [mm] | 20 | 10 | 10 | 10 | 0  | 0  | 0  |
|             | <b>2</b> | [mm] | –  | –  | 25 | 25 | 25 | 25 | 25 |
| Distance L3 | <b>1</b> | [mm] | 30 | 25 | 25 | 25 | 25 | 25 | 25 |
|             | <b>2</b> | [mm] | –  | –  | 10 | 10 | 0  | 0  | 0  |
| Distance L4 | <b>1</b> | [mm] | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
|             | <b>2</b> | [mm] | –  | –  | 0  | 0  | 0  | 0  | 0  |

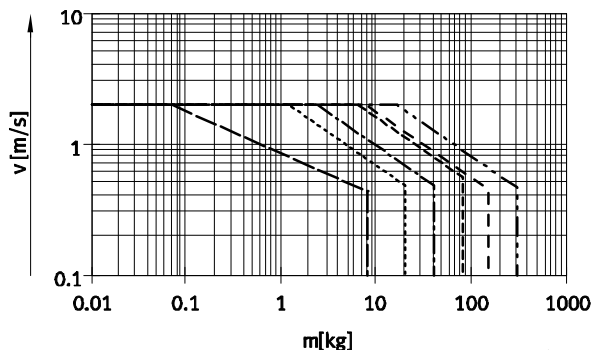
# Linear drives DGC-GF, with plain-bearing guide

FESTO

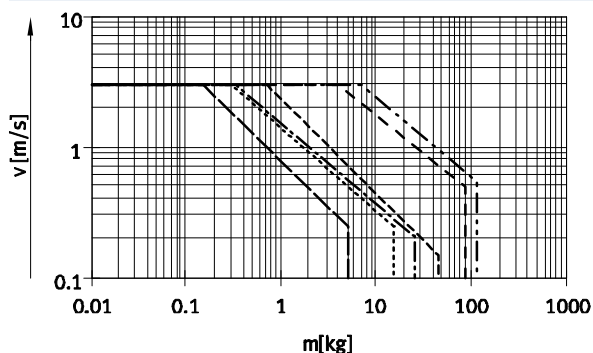
Technical data

## Maximum permissible piston speed $v$ as a function of effective load $m$ and distance $r_{\max}$ from centre of gravity of load

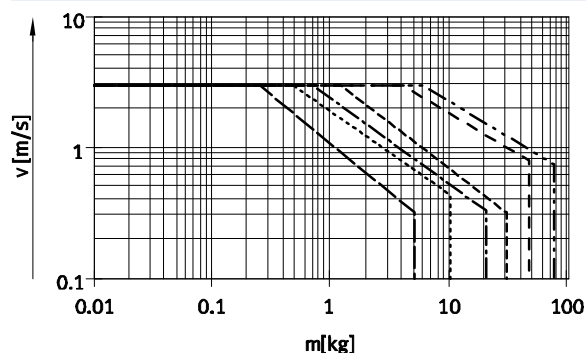
With PPV cushioning



With YSR cushioning



With YSRW cushioning



- Ø 18      - - - - - Ø 40
- · - · - · Ø 25      - - - - - Ø 50
- · - · - · Ø 32      - - - - - Ø 63



Note

This data represents the maximum values that can be achieved. In practice, values fluctuate relative to

the position of the effective load and mounting position.

## Operating range of cushioning

The end-position cushioning must be adjusted to ensure jerk-free operation. If the operating conditions are outside the permissible range, the

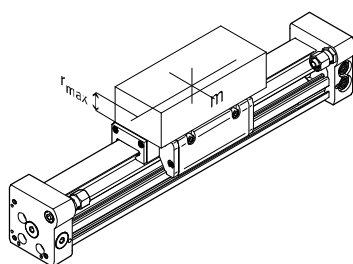
load to be moved must be cushioned using suitable equipment (external shock absorbers), preferably at the centre of gravity of the load.



Note

To avoid distortion in the slide, the bearing surfaces of the attachments

must maintain a flatness of at least 0.03 mm.



| Piston Ø                 | 8  | 12 | 18 | 25 | 32 | 40 | 50 | 63 |
|--------------------------|----|----|----|----|----|----|----|----|
| Distance $r_{\max}$ [mm] | 25 | 35 | 35 | 50 | 50 | 50 | 50 | 50 |

# Linear drives DGC-GF, with plain-bearing guide

Technical data

FESTO

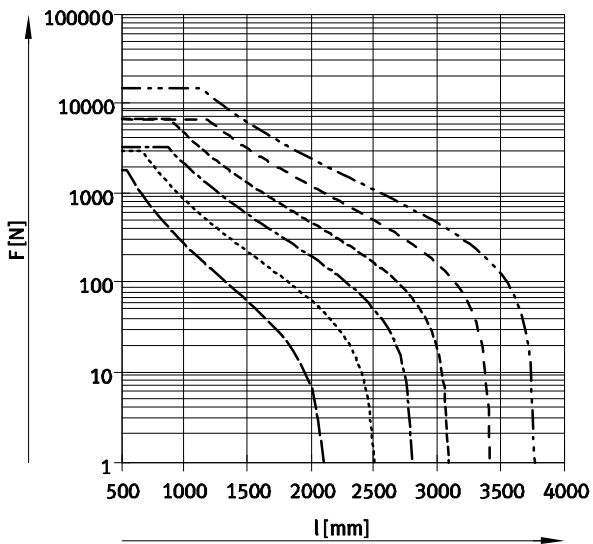
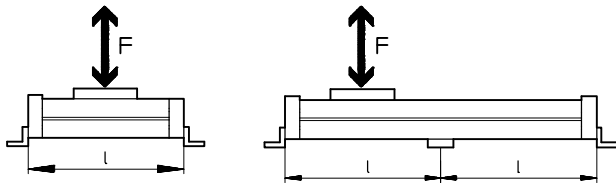
## Number of profile mountings MUC as a function of force due to weight F and support spacing l

In order to limit deflection in the case of large strokes, the drive may need to be supported. The following graphs

help to determine the maximum permissible support spacing as a

function of mounting position, force due to weight and normal force.

### Horizontal mounting position



|           |      |           |      |
|-----------|------|-----------|------|
| —         | Ø 18 | ----      | Ø 40 |
| .....     | Ø 25 | - - - -   | Ø 50 |
| - · - · - | Ø 32 | - · - · - | Ø 63 |

# Linear drives DGC-GF, with plain-bearing guide

FESTO

Technical data

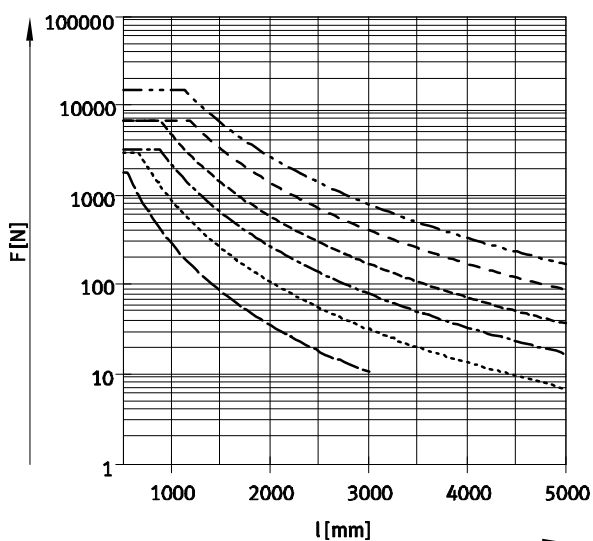
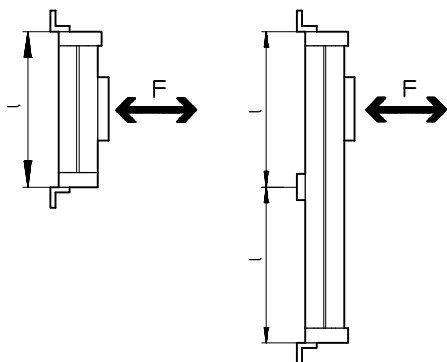
## Number of profile mountings MUC as a function of force due to weight F and support spacing l

In order to limit deflection in the case of large strokes, the drive may need to be supported. The following graphs

help to determine the maximum permissible support spacing as a function of mounting position, force

due to weight and normal force.

### Vertical mounting position



——— Ø 18      - - - - - Ø 40  
 - - - - - Ø 25      - - - - - Ø 50  
 - · - · - Ø 32      - · - · - Ø 63

### Example:

The drive DGC-25-1500 is subjected to a force of 300 N in a horizontal mounting position.

The drive has an overall length of:  
 $l = \text{stroke length} + L1$   
 (see dimensions)  
 $= 1500 \text{ mm} + 200 \text{ mm}$   
 $= 1700 \text{ mm}$

According to the graph, the max. support spacing for the drive DGC-25 with a force of 300 N is 1300 mm.

In this example, profile mountings are required as the max. support spacing (1300 mm) is smaller than the overall length of the drive (1700 mm).

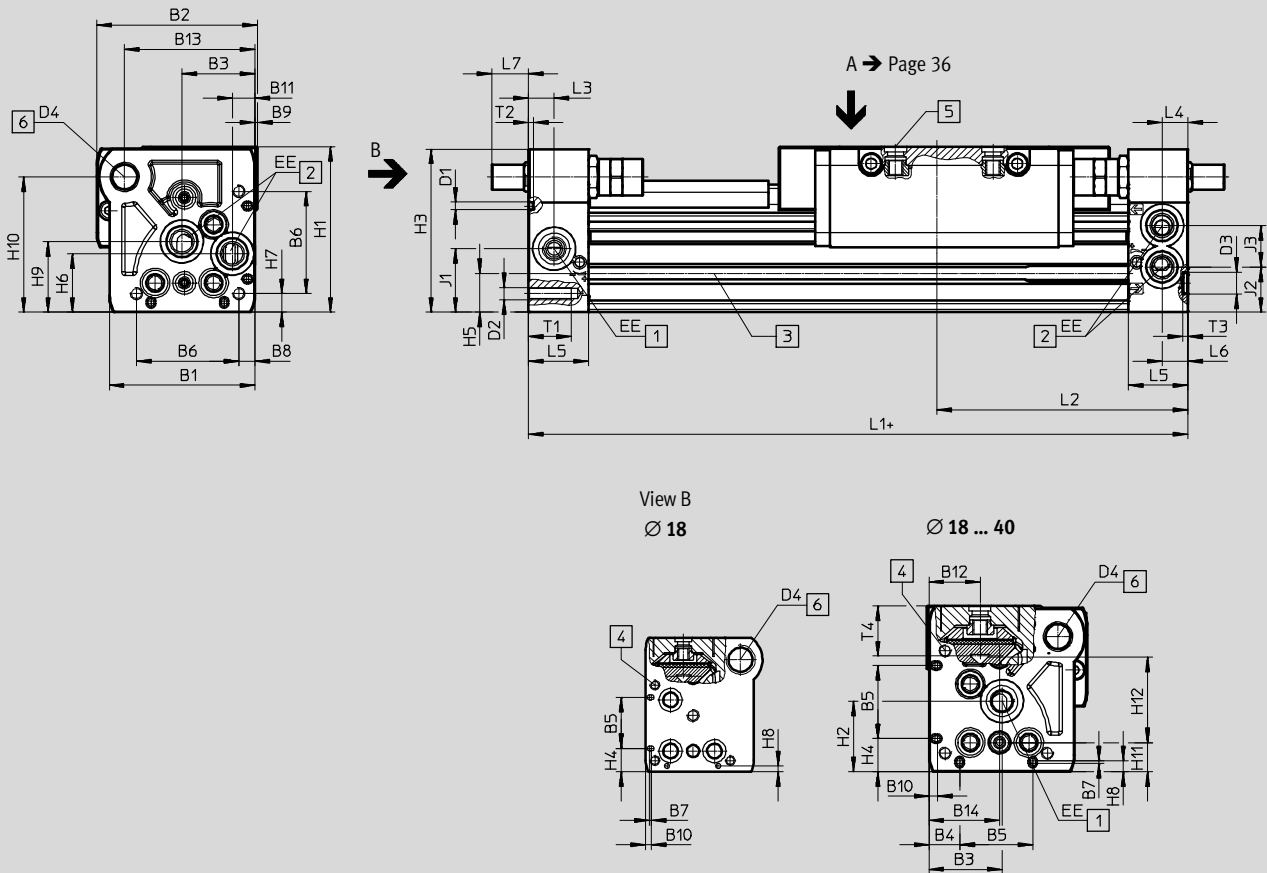
# Linear drives DGC-GF, with plain-bearing guide

Technical data

FESTO

## Dimensions

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+ plus stroke length

- 1 Supply port options on 2 sides
- 2 Supply port options on 2 sides, for supply port at one end
- 3 Sensor slot for proximity sensor
- 4 Mounting hole for foot mounting HPC
- 5 Hole for centring pin / centring sleeve
- 6 Thread for end stop

- Note

The linear drive is actuated at the right end or at both ends by default.  
The linear drive can be actuated at the left end or at both ends by specifying the order code DL in the modular product system.



# Linear drives DGC-GF, with plain-bearing guide

FESTO

Technical data

| Ø<br>[mm] | B1   | B2   | B3   | B4    | B5<br>±0.05 | B6   | B7  | B8   | B9  | B10 | B11  | B12  |
|-----------|------|------|------|-------|-------------|------|-----|------|-----|-----|------|------|
| 18        | 44.5 | 49.9 | 19.5 | 8.8   | 21          | 31   | 0.8 | 3.8  | 1   | 2.4 | 5.5  | 15.5 |
| 25        | 59.8 | 66   | 30   | 12.65 | 30          | 42   | 1   | 6.65 | 1   | 3.5 | 9.3  | 21   |
| 32        | 73   | 79   | 38.5 | 5.7   | 63.1        | 57.5 | –   | 8.5  | 1.5 | 14  | 14.9 | 18   |
| 40        | 91   | 98.5 | 45   | 17.2  | 55          | 65   | –   | 12.2 | 2   | 8   | 16.5 | 24.8 |

| Ø<br>[mm] | B13  | B14  | D1<br>Ø<br>±0.05 | D2 | D3<br>Ø<br>H7 | D4    | EE   | H1   | H2   | H3   | H4<br>±0.2 | H5   |
|-----------|------|------|------------------|----|---------------|-------|------|------|------|------|------------|------|
| 18        | 39   | 19.5 | 2                | M4 | 5             | M10x1 | M5   | 56.3 | 23.1 | 55   | 9.6        | 13.4 |
| 25        | 53.5 | 30   | 3                | M5 | 9             | M12x1 | G1/8 | 68   | 29   | 67   | 13.65      | 15.8 |
| 32        | 66.5 | 38.5 | 3                | M6 | 9             | M14x1 | G1/8 | 78.5 | 30   | 77   | 5.7        | 17   |
| 40        | 80.5 | 45   | 4                | M6 | 9             | M16x1 | G1/4 | 99.5 | 41.5 | 97.5 | 17.2       | 25   |

| Ø<br>[mm] | H6   | H7   | H8  | H9   | H10  | H11<br>±0.15 | H12<br>±0.05 | J1   | J2   | J3   | L1  | L2    | L3   |
|-----------|------|------|-----|------|------|--------------|--------------|------|------|------|-----|-------|------|
| 18        | 20   | 4.6  | 2.4 | 25.2 | 46   | 8.5          | 30           | 20   | 16.5 | 11   | 150 | 74.5  | 5.7  |
| 25        | 24   | 7.65 | 4.5 | 29   | 55.5 | 12           | 35           | 26.1 | 18.6 | 17   | 200 | 100   | 10.5 |
| 32        | 27.7 | 8.5  | 14  | 35.2 | 63.8 | 11.45        | 50           | 30   | 22   | 18.5 | 250 | 124.8 | 14.5 |
| 40        | 36.5 | 12.2 | 8   | 44   | 81.5 | 15           | 60           | 35   | 26   | 26   | 300 | 150   | 14.6 |

| Ø<br>[mm] | L4   | L5   | L6   | L7  |      |      | T1   | T2 | T3<br>+0.2 | T4   | Stroke tolerance<br>0 ... 2.5 |
|-----------|------|------|------|-----|------|------|------|----|------------|------|-------------------------------|
|           |      |      |      | PPV | YSR  | YSRW |      |    |            |      |                               |
| 18        | 5.8  | 15   | 5.5  | 0   | 15.9 | 19.4 | 9    | 2  | 3.1        | 17.1 |                               |
| 25        | 10.6 | 24.5 | 10.6 | 0   | 12.5 | 15   | 17.5 | 2  | 2.1        | 20.5 |                               |
| 32        | 14.5 | 30.5 | 14.5 | 0   | 8.5  | 15.5 | 15   | 2  | 2.1        | 21.3 |                               |
| 40        | 14.6 | 33.5 | 14.6 | 0   | 12.8 | 21   | 20   | 3  | 2.1        | 30.7 |                               |

· || · Note: This product conforms to ISO 1179-1 and to ISO 228-1

| Length tolerance |      |        |        |        |        |        |        |        |        |        |
|------------------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| For stroke       | [mm] | ≤ 1000 | ≤ 2000 | ≤ 3000 | ≤ 4000 | ≤ 5000 | ≤ 6000 | ≤ 7000 | ≤ 8000 | ≤ 9000 |
| L1               | [mm] | +0.90  | +1.10  | +1.40  | +1.50  | +1.60  | +1.70  | +2.20  | +2.30  | +2.40  |

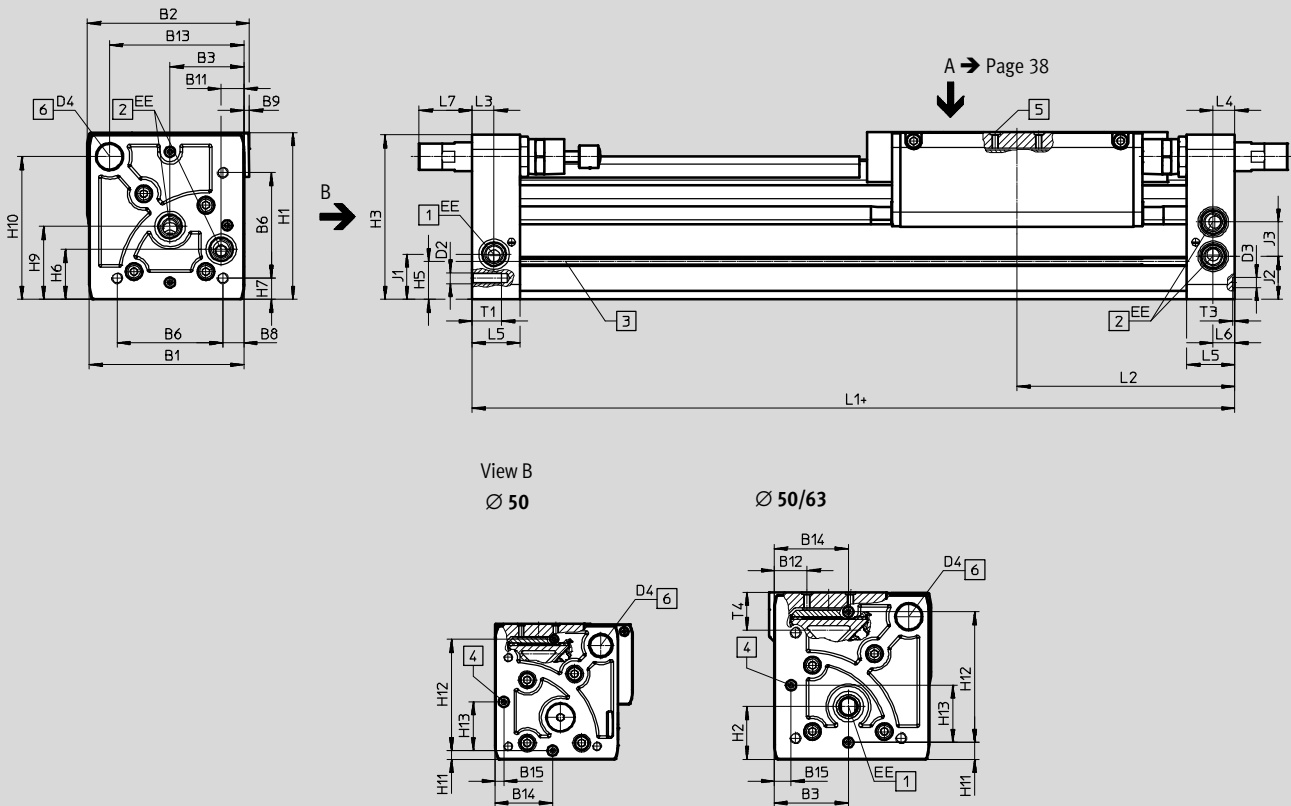
# Linear drives DGC-GF, with plain-bearing guide

Technical data

FESTO

## Dimensions

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



View B  
Ø 50

Ø 50/63

+ plus stroke length

- 1 Supply port options on 2 sides
- 2 Supply port options on 2 sides, for supply port at one end
- 3 Sensor slot for proximity sensor
- 4 Mounting hole for foot mounting HPC
- 5 Hole for centring pin / centring sleeve
- 6 Thread for end stop

- Note

The linear drive is actuated at the right end or at both ends by default.  
The linear drive can be actuated at the left end or at both ends by specifying the order code DL in the modular product system.

# Linear drives DGC-GF, with plain-bearing guide

FESTO

Technical data

| ∅    | B1  | B2    | B3 | B6   | B8   | B9 | B11 | B12 | B13   | B14   | B15  | D2  | D3<br>∅<br>H7 | D4      |
|------|-----|-------|----|------|------|----|-----|-----|-------|-------|------|-----|---------------|---------|
| [mm] |     |       |    |      |      |    |     |     |       | ±0.05 |      |     |               |         |
| 50   | 113 | 126.5 | 60 | 81.6 | 12   | –  | 21  | 24  | 97    | 52.8  | 8    | M8  | 9             | M22x1.5 |
| 63   | 142 | 149   | 68 | 97   | 19.5 | 5  | 21  | 30  | 123.5 | 68    | 15.5 | M10 | 9             | M26x1.5 |

| ∅    | EE   | H1    | H2   | H3    | H5   | H6 | H7   | H9 | H10   | H11  | H12   | H13  | J1   |
|------|------|-------|------|-------|------|----|------|----|-------|------|-------|------|------|
| [mm] |      |       |      |       |      |    |      |    |       | ±0.2 | ±0.05 |      |      |
| 50   | G1/4 | 124.5 | 38.5 | 122.5 | 29.3 | 36 | 12   | 53 | 104.5 | 8    | 100   | 52.8 | 30.5 |
| 63   | G3/8 | 153.5 | 48.5 | 151   | 34.8 | 46 | 19.5 | 67 | 131   | 15.5 | 120   | 68   | 41.5 |

| ∅    | J2   | J3   | L1  | L2  | L3 | L4 | L5 | L6 | L7  |      |      | T1   | T3   | T4   | Stroke tolerance |
|------|------|------|-----|-----|----|----|----|----|-----|------|------|------|------|------|------------------|
| [mm] |      |      |     |     |    |    |    |    | PPV | YSR  | YSRW |      | +0.2 |      |                  |
| 50   | 30.5 | 28   | 350 | 175 | 17 | 17 | 41 | 17 | 0   | 31   | 36.3 | 24   | 2.1  | 30.4 | 0 ... 2.5        |
| 63   | 39.5 | 31.5 | 400 | 200 | 20 | 20 | 44 | 20 | 0   | 38.3 | 48.3 | 27.5 | 2.1  | 36.2 |                  |

- || - Note: This product conforms to ISO 1179-1 and to ISO 228-1

| Length tolerance |      |        |        |        |        |        |
|------------------|------|--------|--------|--------|--------|--------|
| For stroke       | [mm] | ≤ 1000 | ≤ 2000 | ≤ 3000 | ≤ 4000 | ≤ 5000 |
| L1               | [mm] | +0.90  | +1.10  | +1.40  | +1.50  | +1.60  |

# Linear drives DGC-GF, with plain-bearing guide

Technical data

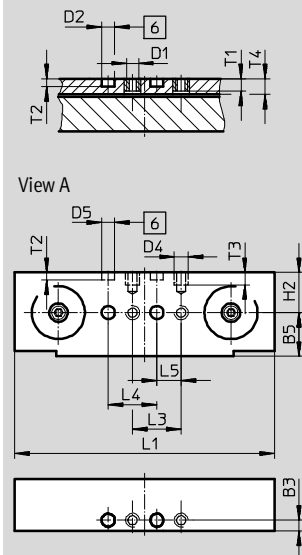
FESTO

## Dimensions

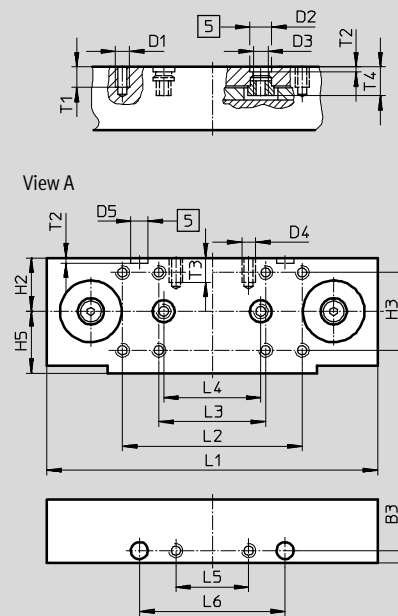
Download CAD data → [www.festo.com](http://www.festo.com)

### Slide

Ø 18



Ø 25



5 Hole for centring sleeve ZBH

6 Hole for centring pin ZBS

| Ø    | B3    | D1 | D2<br>Ø<br>H7 | D3 | D4 | D5<br>Ø<br>H7 | H2   | H3     | H4<br>±0.03 | H5<br>±0.1 | L1<br>±0.1 |
|------|-------|----|---------------|----|----|---------------|------|--------|-------------|------------|------------|
| [mm] | ±0.05 |    |               |    |    |               |      |        |             |            |            |
| 18   | 4.5   | M5 | 5             | –  | M5 | 5             | 16.5 | –      | –           | 18         | 107        |
| 25   | 5     | M5 | 9             | M6 | M5 | 7             | 22   | 32±0.2 | –           | 25.5       | 136        |

| Ø    | L2   | L3     | L4<br>±0.03 | L5<br>±0.1 | L6<br>±0.05 | L7<br>±0.1 | T1  | T2      | T3 | T4   |
|------|------|--------|-------------|------------|-------------|------------|-----|---------|----|------|
| [mm] | ±0.1 |        |             |            |             |            |     |         |    |      |
| 18   | –    | 20±0.1 | 20          | 10         | –           | –          | 5   | 3.1±0.1 | 5  | 6.3  |
| 25   | 74   | 44±0.2 | 40          | 30         | 60          | –          | 8.5 | 2.1±0.2 | 10 | 11.8 |

# Linear drives DGC-GF, with plain-bearing guide

Technical data

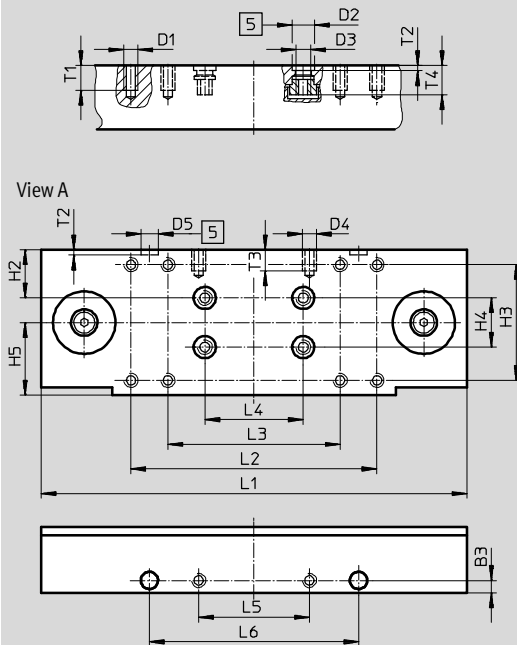
**FESTO**

## Dimensions

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

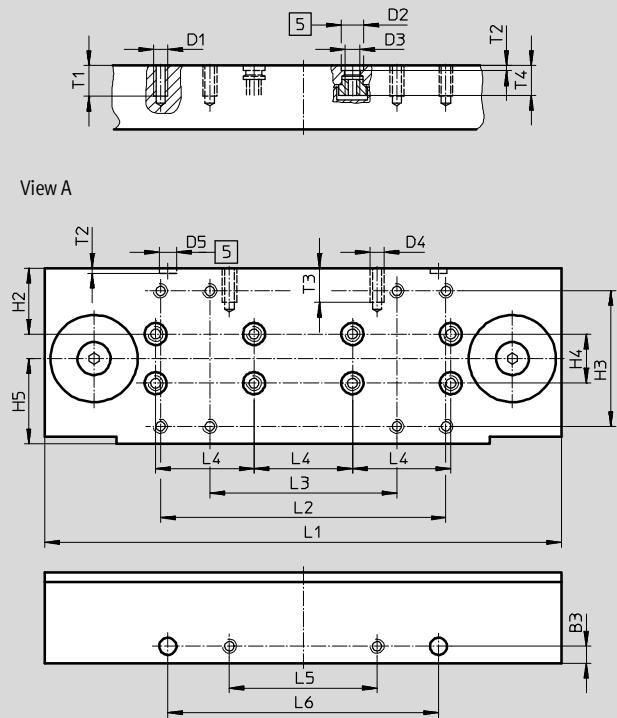
Slide

Ø 32



5 Hole for centring sleeve ZBH

Ø 40



| Ø    | B3    | D1 | D2<br>Ø<br>H7 | D3 | D4 | D5<br>Ø<br>H7 | H2   | H3     | H4<br>±0.03 | H5<br>±0.1 | L1<br>±0.1 |
|------|-------|----|---------------|----|----|---------------|------|--------|-------------|------------|------------|
| [mm] | ±0.05 |    |               |    |    |               |      |        |             |            |            |
| 32   | 5     | M5 | 9             | M6 | M5 | 7             | 19.5 | 47±0.2 | 20          | 29.5       | 173        |
| 40   | 7     | M5 | 9             | M6 | M6 | 7             | 26.8 | 55±0.2 | 20          | 34.7       | 210        |

| Ø    | L2   | L3     | L4<br>±0.03 | L5<br>±0.1 | L6<br>±0.05 | L7<br>±0.1 | T1   | T2      | T3  | T4   |
|------|------|--------|-------------|------------|-------------|------------|------|---------|-----|------|
| [mm] | ±0.1 |        |             |            |             |            |      |         |     |      |
| 32   | 100  | 70±0.2 | 40          | 45         | 85          | –          | 10   | 2.1±0.2 | 8.5 | 11.8 |
| 40   | 116  | 76±0.2 | 40          | 60         | 110         | –          | 12.5 | 2.1±0.2 | 14  | 12.1 |

# Linear drives DGC-GF, with plain-bearing guide

Technical data

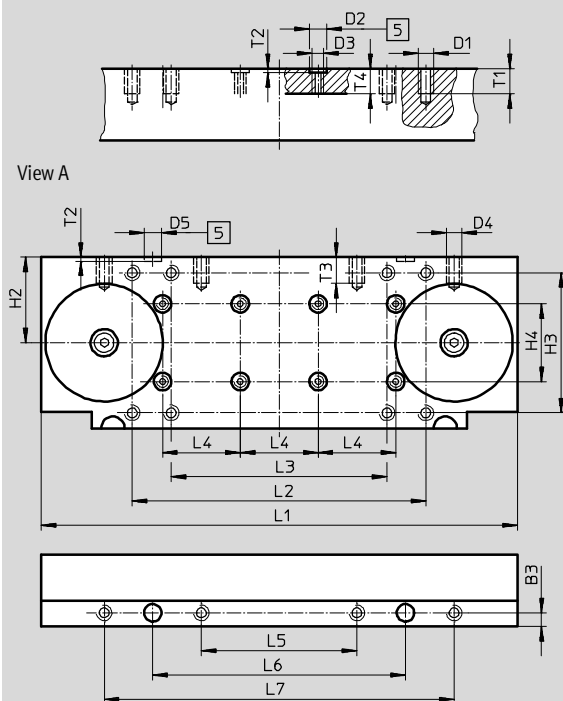
FESTO

## Dimensions

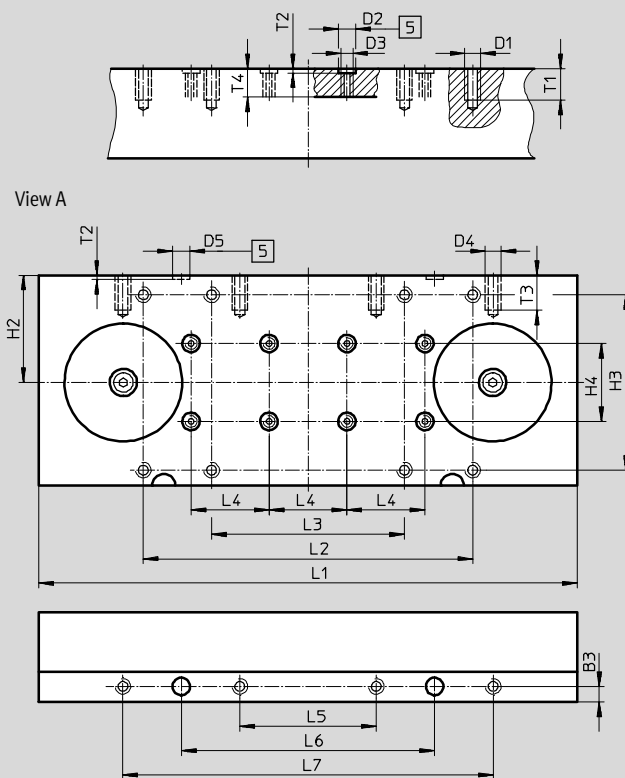
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Slide

Ø 50



Ø 63



[5] Hole for centring sleeve ZBH

| Ø    | B3    | D1 | D2      | D3 | D4 | D5      | H2 | H3     | H4    | H5   | L1   |
|------|-------|----|---------|----|----|---------|----|--------|-------|------|------|
| [mm] | ±0.05 |    | Ø<br>H7 |    |    | Ø<br>H7 |    |        | ±0.03 | ±0.1 | ±0.1 |
| 50   | 7     | M8 | 9       | M6 | M8 | 9       | 44 | 72±0.3 | 40    | –    | 245  |
| 63   | 8     | M8 | 9       | M6 | M8 | 9       | 55 | 90±0.3 | 40    | –    | 276  |

| Ø    | L2   | L3      | L4    | L5   | L6    | L7   | T1 | T2      | T3   | T4   |
|------|------|---------|-------|------|-------|------|----|---------|------|------|
| [mm] | ±0.1 |         | ±0.03 | ±0.1 | ±0.05 | ±0.1 |    |         |      |      |
| 50   | 151  | 111±0.2 | 40    | 80   | 130   | 180  | 13 | 2.1±0.2 | 13.5 | 13   |
| 63   | 169  | 99±0.2  | 40    | 70   | 130   | 190  | 16 | 2.1±0.2 | 18   | 14.5 |

# Linear drives DGC-GF, with plain-bearing guide

Technical data

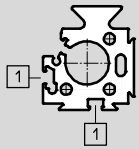
**FESTO**

## Dimensions

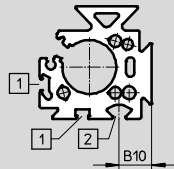
Download CAD data → [www.festo.com](http://www.festo.com)

Profile barrel

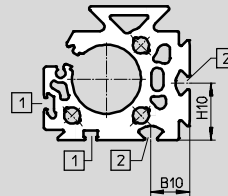
Ø 18



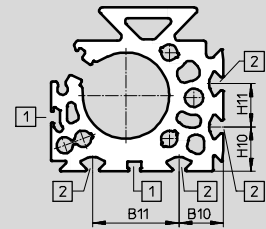
Ø 25



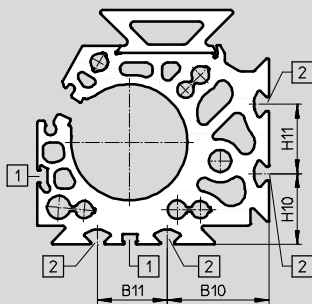
Ø 32



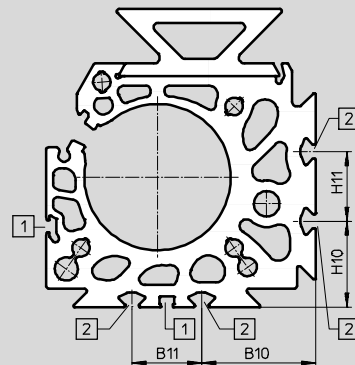
Ø 40



Ø 50



Ø 63



- 1 Sensor slot for proximity sensor
- 2 Mounting slot for slot nut

| Ø    | B10   | B11 | H10  | H11 |
|------|-------|-----|------|-----|
| [mm] |       |     |      |     |
| 25   | 15.23 | –   | –    | –   |
| 32   | 18    | –   | 26.5 | –   |
| 40   | 20.5  | 40  | 20.5 | 20  |
| 50   | 43.8  | 30  | 30.5 | 30  |
| 63   | 49    | 30  | 37   | 30  |

# Linear drives DGC-GF, with plain-bearing guide

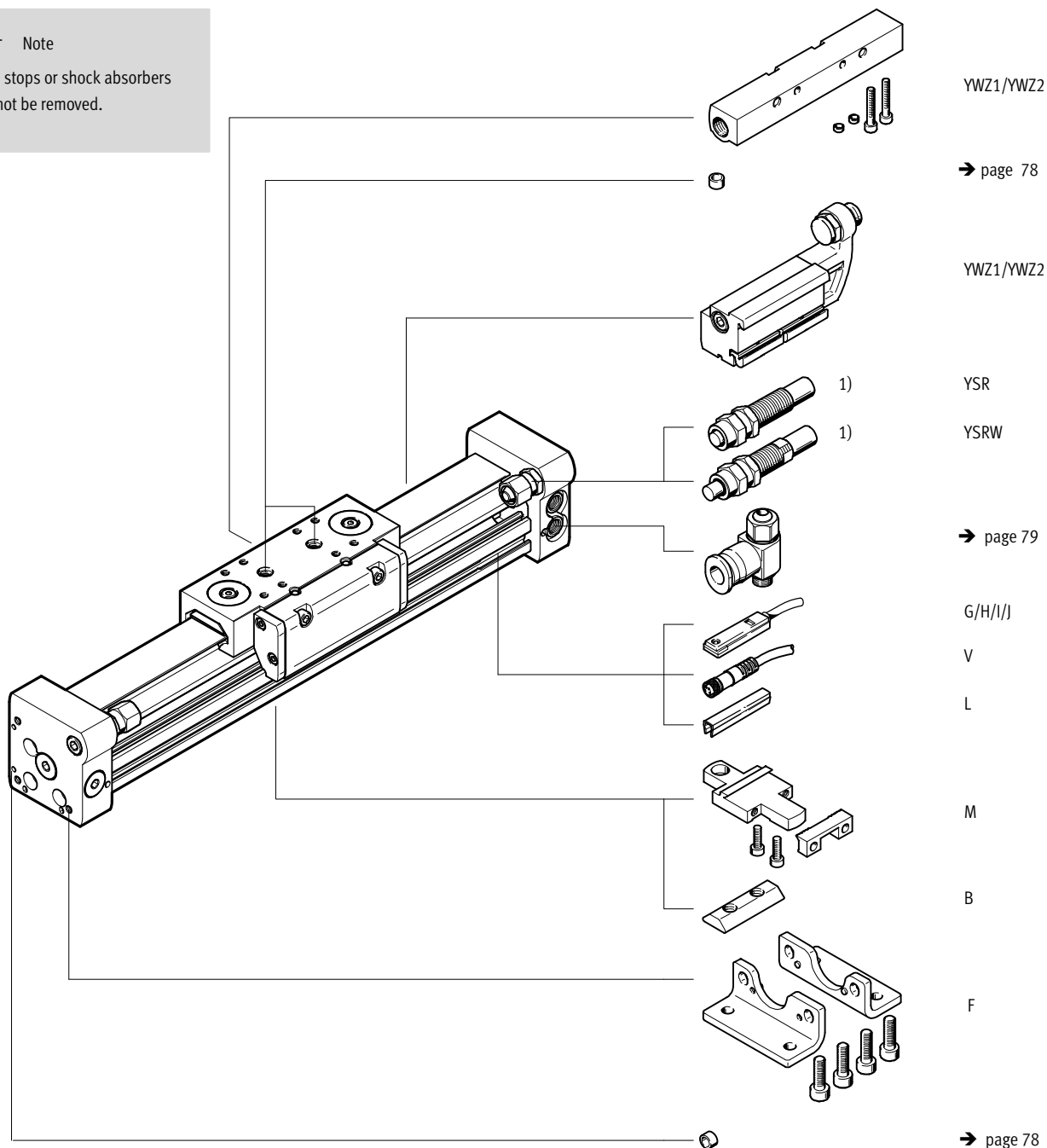
Ordering data – Modular products

FESTO

## Order code

-  - Note

1) End stops or shock absorbers must not be removed.





# Linear drives DGC-GF, with plain-bearing guide

FESTO

Ordering data – Modular products

| Ordering table                     |                                                                               |               |               |               |               |               |                 |             |               |
|------------------------------------|-------------------------------------------------------------------------------|---------------|---------------|---------------|---------------|---------------|-----------------|-------------|---------------|
| Size                               | 18                                                                            | 25            | 32            | 40            | 50            | 63            | Condi-<br>tions | Code        | Enter<br>code |
| <b>[M]</b> Module No.              | <b>532446</b>                                                                 | <b>532447</b> | <b>532448</b> | <b>532449</b> | <b>532450</b> | <b>532451</b> |                 |             |               |
| Function                           | Linear drive                                                                  |               |               |               |               |               |                 | <b>DGC</b>  | DGC           |
| Piston Ø [mm]                      | 18                                                                            | 25            | 32            | 40            | 50            | 63            |                 | ★ -...      |               |
| Stroke [mm]                        | 1 ... 3000                                                                    | 1 ... 8500    |               |               | 1 ... 5000    |               | 1               | ★ -...      |               |
| Guide                              | Plain-bearing guide                                                           |               |               |               |               |               |                 | ★ -GF       | -GF           |
| Cushioning                         | Pneumatic cushioning, adjustable at both ends                                 |               |               |               |               |               |                 | ★ -PPV      |               |
|                                    | Shock absorber, self-adjusting                                                |               |               |               |               |               |                 | -YSR        |               |
|                                    | Shock absorber, self-adjusting, progressive                                   |               |               |               |               |               |                 | ★ -YSRW     |               |
| Position sensing                   | For proximity sensor                                                          |               |               |               |               |               |                 | ★ -A        | -A            |
| <b>[O]</b> Compressed air supply   | At right side only or at both ends                                            |               |               |               |               |               |                 | ★           |               |
|                                    | At left side only or at both ends                                             |               |               |               |               |               |                 | -DL         |               |
| Lubrication                        | Standard                                                                      |               |               |               |               |               |                 | ★           |               |
|                                    | For food industry                                                             |               |               |               |               |               | 1               | -H1         |               |
| EU certification                   | without                                                                       |               |               |               |               |               |                 | ★           |               |
|                                    | II 3GD                                                                        |               |               |               |               |               | 2               | -EX2        |               |
|                                    | II 2G                                                                         |               |               |               |               |               | 2               | -EX3        |               |
| <b>[O]</b> Accessories             | Supplied loose (can be retrofitted)                                           |               |               |               |               |               |                 | <b>ZUB-</b> | ZUB-          |
| Foot mounting                      | 1                                                                             |               |               |               |               |               |                 | <b>F</b>    |               |
| Profile mounting                   | 1 ... 9                                                                       |               |               |               |               |               |                 | ...M        |               |
| Slot nut for mounting slot         | – 1 ... 9                                                                     |               |               |               |               |               |                 | ...B        |               |
| Proximity sensor                   | Cable, 2.5 m                                                                  |               |               |               |               |               |                 | ...G        |               |
|                                    | M8 plug                                                                       |               |               |               |               |               |                 | ...H        |               |
| Proximity sensor, contactless, PNP | Cable, 2.5 m                                                                  |               |               |               |               |               |                 | ...I        |               |
|                                    | M8 plug                                                                       |               |               |               |               |               |                 | ...J        |               |
| Cable with socket                  | M8, 2.5 m                                                                     |               |               |               |               |               |                 | ...V        |               |
| Slot cover for sensor slot         | 1 ... 9                                                                       |               |               |               |               |               |                 | ...L        |               |
| Mechanical end position limiter    | without                                                                       |               |               |               |               |               |                 |             |               |
|                                    | Variable end position, at one end                                             |               |               |               |               |               | 3               | <b>YWZ1</b> |               |
|                                    | Variable end position, at both ends                                           |               |               |               |               |               | 3               | <b>YWZ2</b> |               |
| User manual                        | Express waiver – no operating instructions to be included (already available) |               |               |               |               |               |                 | <b>-O</b>   |               |

- 1 H1** Not with cushioning YSR or YSRW  
**2 EX2, EX3** Not with proximity sensor G, H, I, J, or connecting cable V  
**3 YWZ1, YWZ2** Only with cushioning YSR or YSRW

- [M]** Mandatory data  
**[O]** Options

## Transfer order code

**DGC** -  -  - **GF** -  - **A** -  -  -  **ZUB** -  -

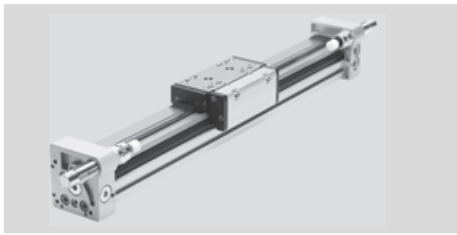
Festo core product range

- ★ Ready for dispatch from the Festo factory in 24 hours  
 ☆ Ready for dispatch in 5 days maximum from stock

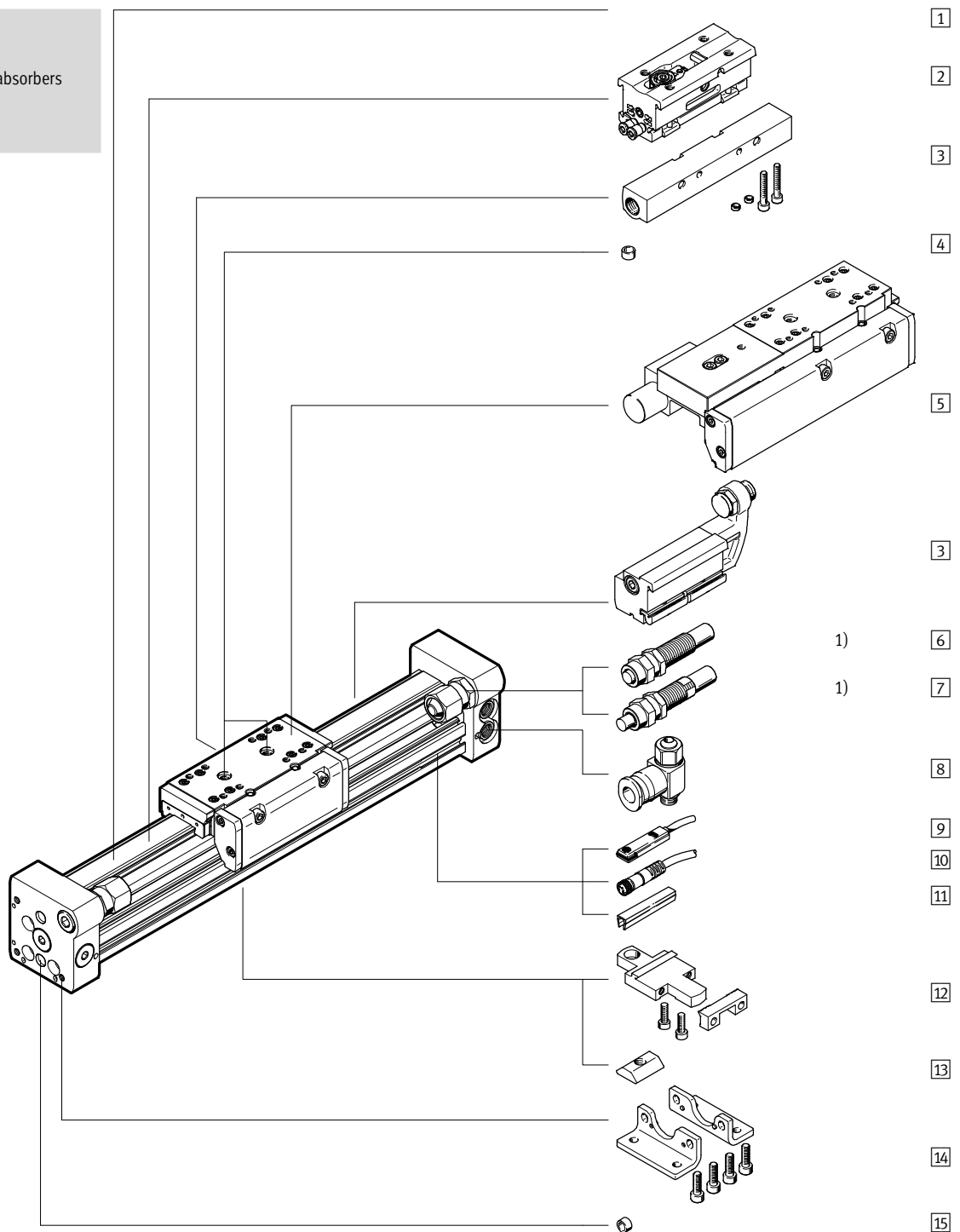
# Linear drives DGC-KF, with recirculating ball bearing guide

Peripherals overview

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-  - Note  
1) End stops or shock absorbers must not be removed.



# Linear drives DGC-KF, with recirculating ball bearing guide

Peripherals overview

| Variants and accessories                       |                |                                                                                                      |                 |
|------------------------------------------------|----------------|------------------------------------------------------------------------------------------------------|-----------------|
| Type/Order code                                | For piston Ø   | Description                                                                                          | → Page/Internet |
| 1 Linear drive<br>DGC-KF                       | 8 ... 63       | Linear drive without accessories, with recirculating ball bearing guide                              | 46              |
| 2 Intermediate position<br>Z1/Z2/Z3            | 25, 32, 40     | Enables up to three intermediate positions                                                           | 76              |
| 3 Mechanical end-position<br>limiter YWZ       | 18 ... 63      | For variable end-position adjustment, e.g. for format adjustments                                    | 74              |
| 4 Centring pin/sleeve <sup>1)</sup><br>ZBS/ZBH | 8 ... 63       | For centring loads and attachments on the slide                                                      | 78              |
| 5 Clamping unit<br>1H-PN                       | 25, 32, 40, 50 | For holding loads                                                                                    | 49              |
| – Cushioning<br>P                              | 8, 12          | Non-adjustable, elastic cushioning. Used only at low speeds                                          | 66              |
| – Cushioning<br>PPV                            | 18 ... 63      | Adjustable pneumatic end-position cushioning. Used at medium speeds                                  | 66              |
| 6 Shock absorber<br>YSR                        | 8 ... 63       | Self-adjusting hydraulic shock absorber with spring return and linear cushioning characteristic      | 66              |
| 7 Shock absorber<br>YSRW                       | 8 ... 63       | Self-adjusting hydraulic shock absorber with spring return and progressive cushioning characteristic | 66              |
| 8 One-way flow control valve<br>GRLA           | 8 ... 63       | For regulating speed                                                                                 | 78              |
| 9 Proximity sensor<br>G/H/I/J                  | 8 ... 63       | For sensing the slide position                                                                       | 79              |
| 10 Connecting cable<br>V                       | 8 ... 63       | For proximity sensor                                                                                 | 79              |
| 11 Slot cover<br>L                             | 18 ... 63      | For protecting against ingress of dirt and securing proximity sensor cables                          | 78              |
| 12 Profile mounting<br>M                       | 8 ... 63       | Simple and precise mounting option via dovetail connection                                           | 70              |
| 13 Slot nut<br>B                               | 25 ... 63      | For mounting attachments                                                                             | 78              |
| 14 Foot mounting<br>F                          | 8 ... 63       | For mounting on end cap                                                                              | 68              |
| 15 Centring pin/sleeve<br>ZBS/ZBH              | 8 ... 63       | For centring the drive without foot mountings (user-specific)                                        | 78              |

1) Included in the scope of delivery of the drive

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[illegible]

# Linear drives DGC-KF, with recirculating ball bearing guide

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Type codes



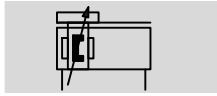
|                                        |                                                           |       |   |   |  |    |    |    |  |  |  |  |
|----------------------------------------|-----------------------------------------------------------|-------|---|---|--|----|----|----|--|--|--|--|
|                                        |                                                           | + ZUB | - | F |  | 2B | 2G | 2V |  |  |  |  |
| <b>Accessories</b>                     |                                                           |       |   |   |  |    |    |    |  |  |  |  |
| ZUB                                    | Accessories enclosed separately                           |       |   |   |  |    |    |    |  |  |  |  |
| <b>Foot mounting</b>                   |                                                           |       |   |   |  |    |    |    |  |  |  |  |
| F                                      | Foot mounting                                             |       |   |   |  |    |    |    |  |  |  |  |
| <b>Profile mounting</b>                |                                                           |       |   |   |  |    |    |    |  |  |  |  |
| ...M                                   | Profile mounting                                          |       |   |   |  |    |    |    |  |  |  |  |
| <b>Slot nut</b>                        |                                                           |       |   |   |  |    |    |    |  |  |  |  |
| ...B                                   | For mounting slot                                         |       |   |   |  |    |    |    |  |  |  |  |
| <b>Proximity sensor</b>                |                                                           |       |   |   |  |    |    |    |  |  |  |  |
| ...G                                   | With cable, 2.5 m                                         |       |   |   |  |    |    |    |  |  |  |  |
| ...H                                   | With plug                                                 |       |   |   |  |    |    |    |  |  |  |  |
| ...I                                   | Contactless with cable, 2.5 m                             |       |   |   |  |    |    |    |  |  |  |  |
| ...J                                   | Contactless with plug                                     |       |   |   |  |    |    |    |  |  |  |  |
| <b>Connecting cable</b>                |                                                           |       |   |   |  |    |    |    |  |  |  |  |
| ...V                                   | 2.5 m                                                     |       |   |   |  |    |    |    |  |  |  |  |
| <b>Slot cover</b>                      |                                                           |       |   |   |  |    |    |    |  |  |  |  |
| ...L                                   | For sensor slot                                           |       |   |   |  |    |    |    |  |  |  |  |
| <b>Mechanical end-position limiter</b> |                                                           |       |   |   |  |    |    |    |  |  |  |  |
| YWZ1                                   | Variable end position, at one end                         |       |   |   |  |    |    |    |  |  |  |  |
| YWZ2                                   | Variable end position, at both ends                       |       |   |   |  |    |    |    |  |  |  |  |
| <b>Intermediate position</b>           |                                                           |       |   |   |  |    |    |    |  |  |  |  |
| Z1                                     | 1 intermediate position                                   |       |   |   |  |    |    |    |  |  |  |  |
| Z2                                     | 2 intermediate positions                                  |       |   |   |  |    |    |    |  |  |  |  |
| Z3                                     | 3 intermediate positions                                  |       |   |   |  |    |    |    |  |  |  |  |
| <b>Manual</b>                          |                                                           |       |   |   |  |    |    |    |  |  |  |  |
| 0                                      | Express waiver – no operating instructions to be included |       |   |   |  |    |    |    |  |  |  |  |

# Linear drives DGC-KF, with recirculating ball bearing guide

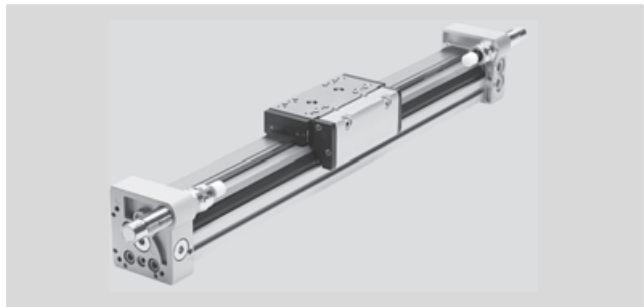
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Technical data

Function



www.festo.com



-  - Diameter  
8 ... 63 mm
-  - Stroke length  
1 ... 8500 mm

| General technical data                     |                                           |            |            |                         |      |      |            |      |
|--------------------------------------------|-------------------------------------------|------------|------------|-------------------------|------|------|------------|------|
| Piston Ø                                   | 8                                         | 12         | 18         | 25                      | 32   | 40   | 50         | 63   |
| Stroke [mm]                                | 1 ... 1300                                | 1 ... 1900 | 1 ... 3000 | 1 ... 8500              |      |      | 1 ... 5000 |      |
| Pneumatic connection                       | M5                                        |            |            | G1/8                    |      | G1/4 |            | G3/8 |
| Mode of operation                          | Double-acting                             |            |            |                         |      |      |            |      |
| Design                                     | Rodless drive                             |            |            |                         |      |      |            |      |
| Moment compensator principle               | Slotted cylinder, mechanically coupled    |            |            |                         |      |      |            |      |
| Guide                                      | External recirculating ball bearing guide |            |            |                         |      |      |            |      |
| Mounting position                          | Any                                       |            |            |                         |      |      |            |      |
| Cushioning ➔ page 50                       |                                           |            |            |                         |      |      |            |      |
| DGC-...-P                                  | Non-adjustable at both ends               |            |            | –                       |      |      |            |      |
| DGC-...-PPV                                | –                                         |            |            | Adjustable at both ends |      |      |            |      |
| DGC-...-YSR...                             | Self-adjusting at both ends               |            |            |                         |      |      |            |      |
| Cushioning length with PPV cushioning [mm] | –                                         |            | 16.5       | 15.5                    | 17.5 | 29.5 | 29.8       | 31.1 |
| Position sensing                           | Via proximity sensor                      |            |            |                         |      |      |            |      |
| Type of mounting                           | Profile mounting                          |            |            |                         |      |      |            |      |
|                                            | Foot mounting                             |            |            |                         |      |      |            |      |
|                                            | Direct mounting                           |            |            |                         |      |      |            |      |
| Max. speed [m/s]                           | 1                                         | 1.2        | 3          |                         |      |      |            |      |
| Repetition accuracy [mm]                   | 0.02 (with shock absorber YSR/YSRW)       |            |            |                         |      |      |            |      |

–  – Note: This product conforms to ISO 1179-1 and to ISO 228-1

| Operating and environmental conditions       |                                                                      |    |         |    |    |           |    |    |
|----------------------------------------------|----------------------------------------------------------------------|----|---------|----|----|-----------|----|----|
| Piston Ø                                     | 8                                                                    | 12 | 18      | 25 | 32 | 40        | 50 | 63 |
| Operating pressure [bar]                     | 2.5 ... 8                                                            |    | 2 ... 8 |    |    | 1.5 ... 8 |    |    |
| Operating medium                             | Compressed air in accordance with ISO 8573-1:2010 [7:--:-]           |    |         |    |    |           |    |    |
| Note on operating/pilot medium               | Lubricated operation possible (required during subsequent operation) |    |         |    |    |           |    |    |
| Ambient temperature <sup>1)</sup> [°C]       | -10 ... +60                                                          |    |         |    |    |           |    |    |
| Food-safe <sup>2)</sup>                      | See supplementary material information                               |    |         |    |    |           |    |    |
| Corrosion resistance class CRC <sup>3)</sup> | 1                                                                    |    |         |    |    |           |    |    |

1) Note operating range of proximity sensors

2) Additional information [www.festo.com/sp](http://www.festo.com/sp) → Certificates.

3) CRC1: Corrosion resistance class to Festo standard 940 070

Components with light corrosion exposure. Protection for transport and storage. Components without significant decorative function or surface, e.g. installed out of sight internally or behind covers.

# Linear drives DGC-KF, with recirculating ball bearing guide

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Technical data

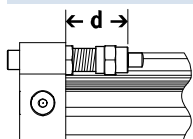
| Forces [N]                         |           |    |     |     |     |     |      |      |
|------------------------------------|-----------|----|-----|-----|-----|-----|------|------|
| Piston Ø                           | 8         | 12 | 18  | 25  | 32  | 40  | 50   | 63   |
| Theoretical force at 6 bar         | 30        | 68 | 153 | 295 | 483 | 754 | 1178 | 1870 |
| Impact energy in the end positions | → page 50 |    |     |     |     |     |      |      |

| ATEX <sup>1)</sup>                          |                                                 |
|---------------------------------------------|-------------------------------------------------|
| Explosion-proof temperature rating          | –10°C ≤ Ta ≤ +60°C                              |
| CE marking (see declaration of conformity)  | As per EU Explosion Protection Directive (ATEX) |
| EX2 certification                           |                                                 |
| ATEX category for gas                       | II 3G                                           |
| Explosion ignition protection type for gas  | c T4 X                                          |
| ATEX category for dust                      | II 3D                                           |
| Explosion ignition protection type for dust | c T120°C X                                      |
| EX3 certification                           |                                                 |
| ATEX category for gas                       | II 2G                                           |
| Explosion ignition protection type for gas  | c T4 X                                          |

1) Note the ATEX certification of the accessories.

| Weight [g]                         |     |     |     |      |      |       |       |       |
|------------------------------------|-----|-----|-----|------|------|-------|-------|-------|
| Piston Ø                           | 8   | 12  | 18  | 25   | 32   | 40    | 50    | 63    |
| DGC-...                            |     |     |     |      |      |       |       |       |
| Basic weight with 0 mm stroke      | 225 | 391 | 975 | 2113 | 2837 | 6996  | 13342 | 22220 |
| Additional weight per 10 mm stroke | 11  | 16  | 31  | 49   | 74   | 117   | 153   | 236   |
| Moving load                        | 77  | 149 | 331 | 732  | 1146 | 2330  | 4511  | 8225  |
| DGC-...-1H-PN – With clamping unit |     |     |     |      |      |       |       |       |
| Basic weight with 0 mm stroke      | –   | –   | –   | 3134 | 4272 | 12009 | 19394 | –     |
| Additional weight per 10 mm stroke | –   | –   | –   | 49   | 74   | 117   | 153   | –     |
| Moving load                        | –   | –   | –   | 1405 | 2059 | 5494  | 811   | –     |

## Adjustable end-position range d [mm]



Note

The permissible kinetic energy decreases if the stroke is reduced with PPV adjustable cushioning at both ends.

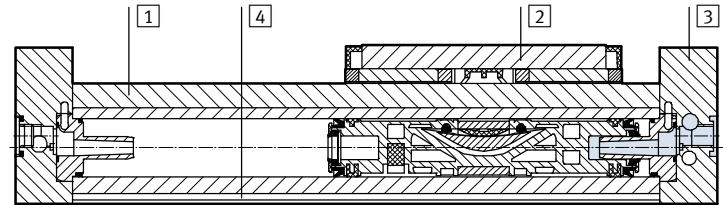
|                  |               |               |               |               |               |               |               |               |
|------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Piston Ø         | 8             | 12            | 18            | 25            | 32            | 40            | 50            | 63            |
| Cushioning       |               |               |               |               |               |               |               |               |
| DGC-...-P/PPV    | 11.3 ... 16.3 | 12.7 ... 17.7 | 13.8 ... 15.8 | 21.1 ... 25.1 | 25.2 ... 30.2 | 28.7 ... 33.7 | 28.7 ... 33.7 | 38.8 ... 43.8 |
| DGC-...-P/PPV-GP | –             | –             | 16.9 ... 18.9 | 23.6 ... 27.6 | 25.2 ... 30.2 | 34.7 ... 39.7 | –             | –             |
| DGC-...-YSR/YSRW | 12.8 ... 22.8 | 14 ... 24     | 14.5 ... 34.5 | 22.5 ... 47.5 | 27.3 ... 52.3 | 31 ... 56     | 31 ... 56     | 41 ... 76     |

# Linear drives DGC-KF, with recirculating ball bearing guide

Technical data

## Materials

Sectional view



## Linear drives

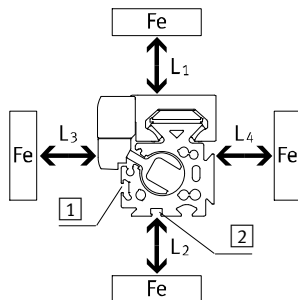
|                   |                         |                                         |
|-------------------|-------------------------|-----------------------------------------|
| 1                 | Guide rail              | High-alloy steel                        |
| 2                 | Slide                   | High-alloy steel                        |
| 3                 | End cap                 | Anodised aluminium                      |
| 4                 | Cylinder barrel         | Anodised aluminium                      |
| –                 | Piston seal             | Polyurethane                            |
| –                 | Sealing band/cover band | Polyurethane                            |
| Note on materials |                         | RoHS-compliant, free of copper and PTFE |

## Influence of ferritic materials on proximity sensors

Ferritic materials (steel parts or panels) directly next to the proximity sensors can cause sensing

malfunctions. The following safety distances must be observed.

The distance depends on the position of the proximity sensor (see 1 and 2).



| Piston Ø    |        | 8  | 12 | 18 | 25 | 32 | 40 | 50 | 63 |
|-------------|--------|----|----|----|----|----|----|----|----|
| Distance L1 | 1 [mm] | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
|             | 2 [mm] | –  | –  | 0  | 0  | 0  | 0  | 0  | 0  |
| Distance L2 | 1 [mm] | 20 | 10 | 10 | 10 | 0  | 0  | 0  | 0  |
|             | 2 [mm] | –  | –  | 25 | 25 | 25 | 25 | 25 | 25 |
| Distance L3 | 1 [mm] | 30 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
|             | 2 [mm] | –  | –  | 10 | 10 | 0  | 0  | 0  | 0  |
| Distance L4 | 1 [mm] | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
|             | 2 [mm] | –  | –  | 0  | 0  | 0  | 0  | 0  | 0  |



# Linear drives DGC-KF, with recirculating ball bearing guide

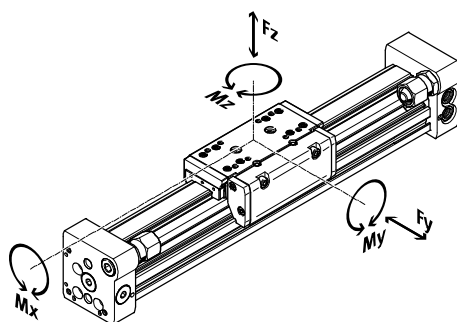
FESTO

Technical data

## Characteristic load values

The indicated forces and torques refer to the centre of the slide surface.

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



If the drive is simultaneously subjected to several of the indicated forces and torques, the following equation must be satisfied in addition to the indicated maximum loads:

$$\frac{F_y}{F_{y_{\max.}}} + \frac{F_z}{F_{z_{\max.}}} + \frac{M_x}{M_{x_{\max.}}} + \frac{M_y}{M_{y_{\max.}}} + \frac{M_z}{M_{z_{\max.}}} \leq 1$$

| Permissible forces and torques |      |     |     |      |      |      |      |      |       |
|--------------------------------|------|-----|-----|------|------|------|------|------|-------|
| Piston Ø                       |      | 8   | 12  | 18   | 25   | 32   | 40   | 50   | 63    |
| F <sub>y</sub> <sub>max.</sub> | [N]  | 300 | 650 | 1850 | 3050 | 3310 | 6890 | 6890 | 15200 |
| F <sub>z</sub> <sub>max.</sub> | [N]  | 300 | 650 | 1850 | 3050 | 3310 | 6890 | 6890 | 15200 |
| M <sub>x</sub> <sub>max.</sub> | [Nm] | 1.7 | 3.5 | 16   | 36   | 54   | 144  | 144  | 529   |
| M <sub>y</sub> <sub>max.</sub> | [Nm] | 4.5 | 10  | 51   | 97   | 150  | 380  | 634  | 1157  |
| M <sub>z</sub> <sub>max.</sub> | [Nm] | 4.5 | 10  | 51   | 97   | 150  | 380  | 634  | 1157  |

| Technical data – Clamping unit                                                |                            |                                                        |      |      | Dimensions → page 62 |
|-------------------------------------------------------------------------------|----------------------------|--------------------------------------------------------|------|------|----------------------|
| Size                                                                          |                            | 25                                                     | 32   | 40   | 50                   |
| Pneumatic connection                                                          |                            | M5                                                     | M5   | M5   | M5                   |
| Clamping type                                                                 |                            | Clamping via spring force, released via compressed air |      |      |                      |
| Static holding force                                                          | [N]                        | 320                                                    | 500  | 1200 | 1200                 |
| Max. number of emergency braking operations <sup>1)</sup> at reference energy | [J]                        | –                                                      | –    | 750  | 750                  |
| Number of clamping operations under nominal load                              | [million switching cycles] | 0.45                                                   | 0.55 | 0.05 | 0.05                 |

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

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

# Linear drives DGC-KF, with recirculating ball bearing guide

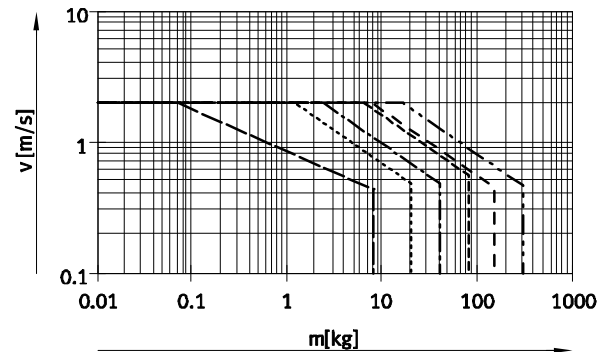
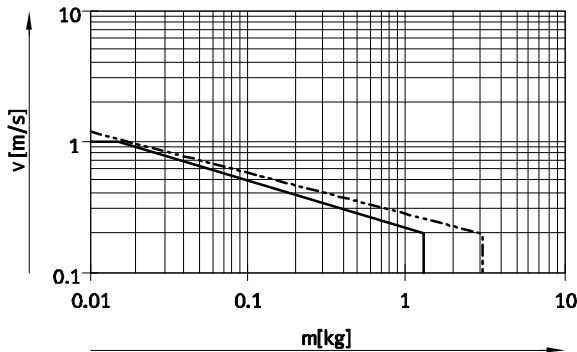
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Technical data

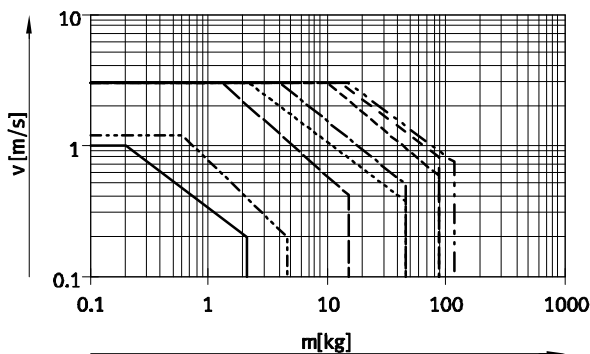
## Maximum permissible piston speed $v$ as a function of effective load $m$ and distance $r_{\max}$ from centre of gravity of load

Piston  $\varnothing 8/12$  with P cushioning

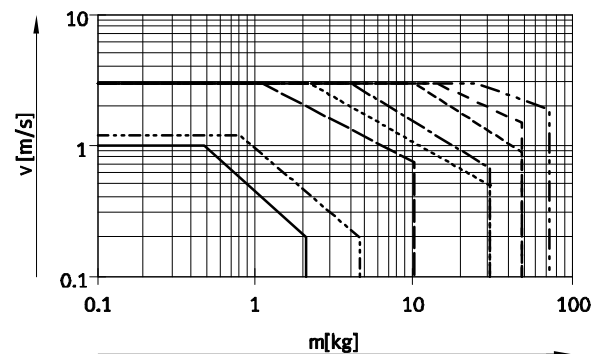
Piston  $\varnothing 18 \dots 63$  with PPV cushioning



Piston  $\varnothing 8 \dots 63$  with YSR cushioning



Piston  $\varnothing 8 \dots 63$  with YSRW cushioning



—  $\varnothing 8$       —  $\varnothing 18$       - - -  $\varnothing 40$   
 - - -  $\varnothing 12$       - - -  $\varnothing 25$       - - -  $\varnothing 50$   
 - - -  $\varnothing 32$       - - -  $\varnothing 63$

-  - Note

This data represents the maximum values that can be achieved. In practice, values fluctuate relative to

the position of the effective load and mounting position.

## Operating range of cushioning

The end-position cushioning must be adjusted to ensure jerk-free operation. If the operating conditions are outside the permissible range, the

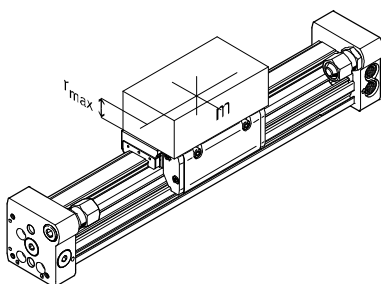
load to be moved must be cushioned using suitable equipment (shock absorbers, stops, etc.), preferably at the centre of gravity of the load.

-  - Note

To avoid distortion in the slide, the bearing surfaces of the attachments must maintain a flatness of at least 0.01 mm.

The specifications apply to a horizontal mounting position:

| Piston $\varnothing$     | 8  | 12 | 18 | 25 | 32 | 40 | 50 | 63 |
|--------------------------|----|----|----|----|----|----|----|----|
| Distance $r_{\max}$ [mm] | 25 | 35 | 35 | 50 | 50 | 50 | 50 | 50 |



# Linear drives DGC-KF, with recirculating ball bearing guide

FESTO

Technical data

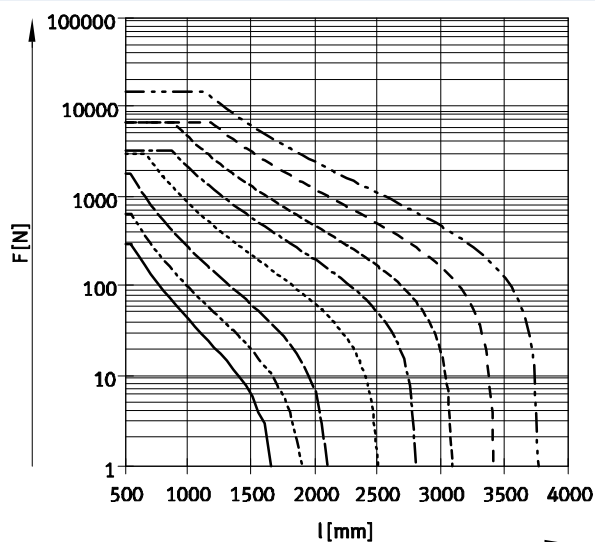
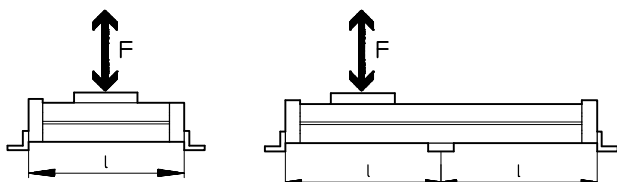
## Number of profile mountings MUC as a function of force due to weight $F$ and support spacing $l$

In order to limit deflection in the case of large strokes, the drive may need to be supported. The following graphs

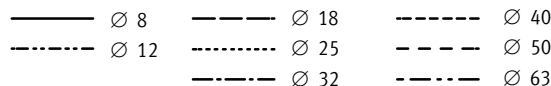
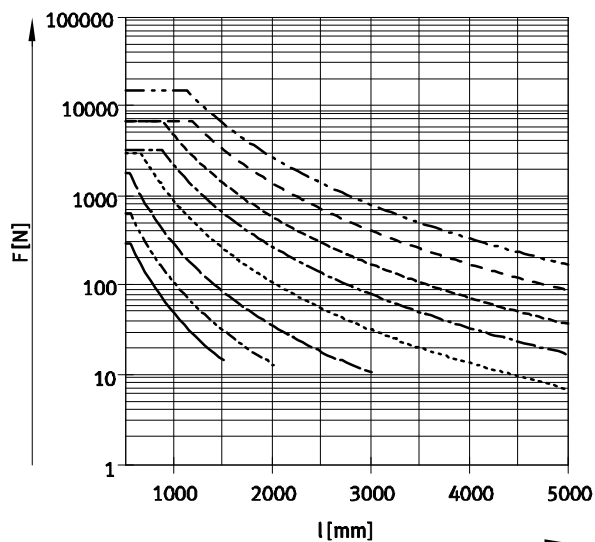
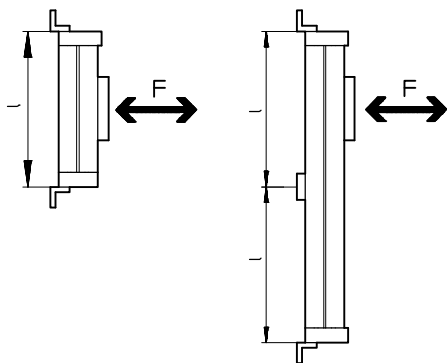
help to determine the maximum permissible support spacing as a function of mounting position, force

due to weight and normal force.

### Horizontal mounting position



### Vertical mounting position



### Example:

The drive DGC-25-1500 is subjected to a force of 300 N in a horizontal mounting position.

The drive has an overall length of:  
 $l = \text{stroke length} + L1$   
 (see dimensions)  
 $= 1500 \text{ mm} + 200 \text{ mm}$   
 $= 1700 \text{ mm}$

According to the graph, the max. support spacing for the drive DGC-25 with a force of 300 N is 1300 mm.

In this example, profile mountings are required as the max. support spacing (1300 mm) is smaller than the overall length of the drive (1700 mm).

# Linear drives DGC-KF, with recirculating ball bearing guide

FESTO

Technical data

## Central lubrication

The lubrication adapter enables the guide of the linear drive DGC-KF to be permanently lubricated in applications in humid or wet ambient conditions using semi or fully automatic relubrication devices.

- For piston  $\varnothing$  25, 32, 40, 63
- The modules are suitable for oils and greases
- The dimensions of the linear drive DGC-KF are the same with and without central lubrication modules
- Both lubrication adapters 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

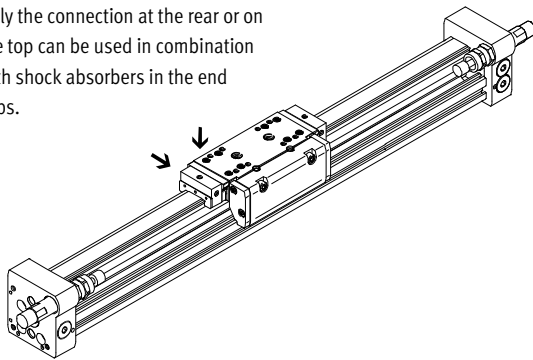
Slide dimensions

→ page 60

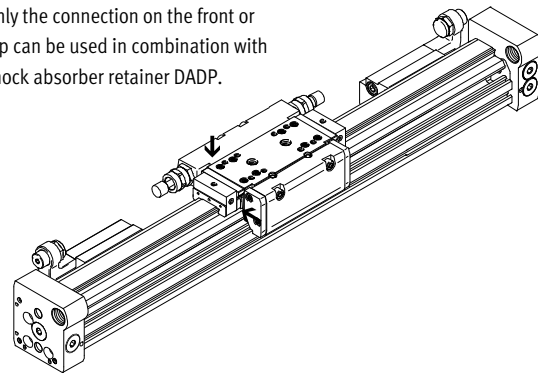
Order code C in the modular product system → page 67

## Connection options

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

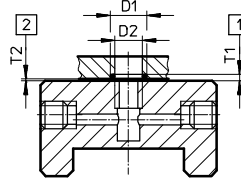


Only the connection on the front or top can be used in combination with shock absorber retainer DADP.



## Connection option for customer design

The drawing opposite 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  $\varnothing$  6x1 mm (DIN3771)

1 Slot depth for O-ring

2 Required air gap

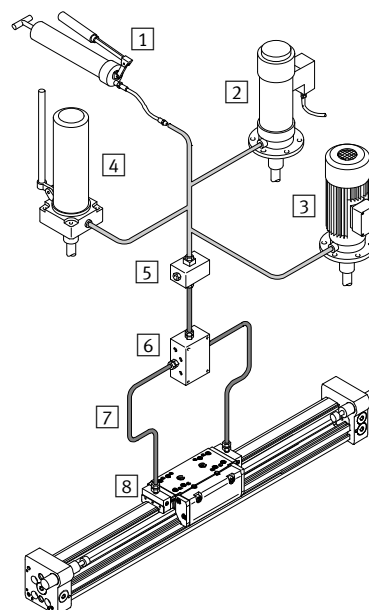
Additional dimensions → page 60

## Structure 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

# Linear drives DGC-KF, with recirculating ball bearing guide

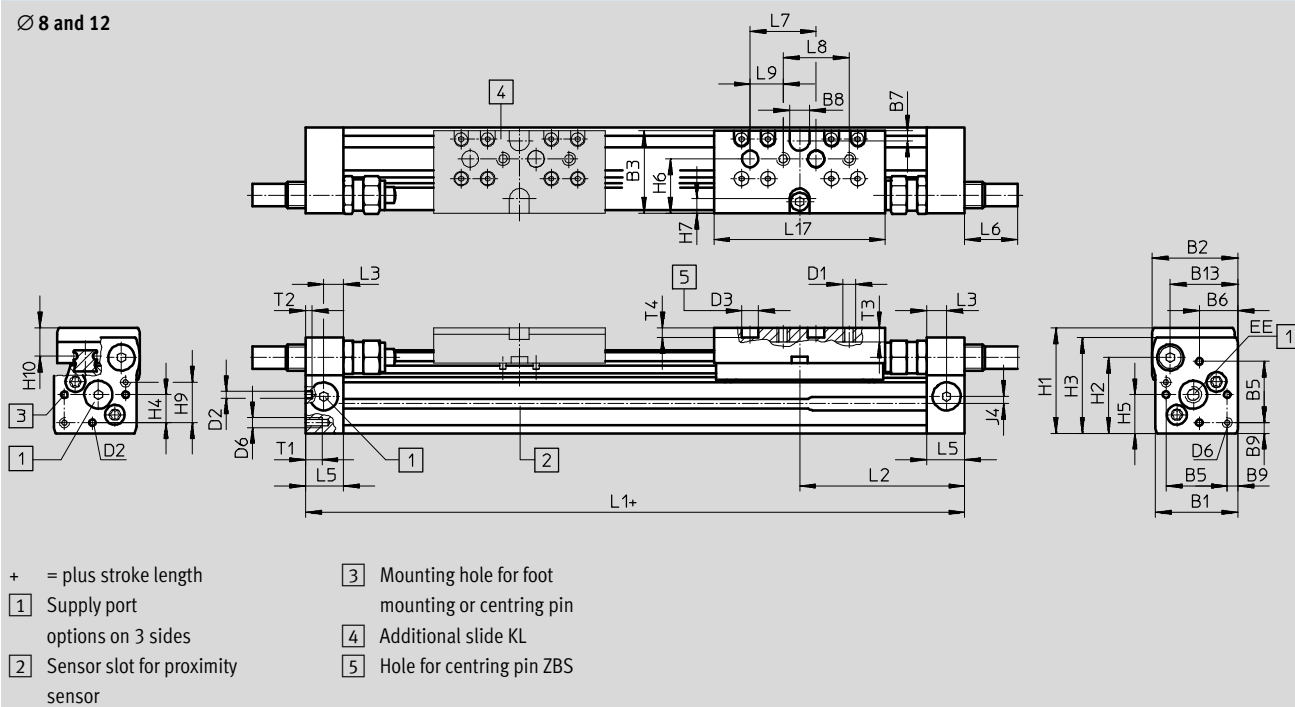
FESTO

Technical data

## Dimensions

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

Ø 8 and 12



| Ø    | B1   | B2 | B3 | B5   | B6   | B7 | B8    | B9   | B13  | D1 | D2   | D3   | D6 |
|------|------|----|----|------|------|----|-------|------|------|----|------|------|----|
| [mm] |      |    |    |      |      |    | ±0.05 | ±0.1 |      |    | Ø H8 | Ø H7 |    |
| 8    | 25   | 26 | 25 | 18.6 | 11.7 | 3  | 6     | 3.2  | 20.5 | M4 | 2    | 5    | M3 |
| 12   | 30.2 | 31 | 31 | 20.6 | 13.5 | 3  | 8     | 4.8  | 25   | M4 | 2    | 5    | M4 |

| Ø    | EE | H1   | H2   | H3   | H4  | H5   | H6   | H7  | H9   | H10 | J4  | L1  | L2   |
|------|----|------|------|------|-----|------|------|-----|------|-----|-----|-----|------|
| [mm] |    |      |      |      |     |      |      |     |      |     |     |     |      |
| 8    | M5 | 32   | 23   | 29   | 8.5 | 11.7 | 16.5 | 4.5 | 12.3 | 8.7 | 2.2 | 100 | 50.1 |
| 12   | M5 | 37.5 | 28.5 | 34.5 | 8.7 | 13.5 | 20.5 | 5   | 14.7 | 9.8 | 3   | 125 | 62.4 |

| Ø    | L3 | L5   | L6 |      |      | L7    | L8   | L9   | L17 | T1 | T2 | T3  | T4   | Stroke tolerance |
|------|----|------|----|------|------|-------|------|------|-----|----|----|-----|------|------------------|
| [mm] |    |      | P  | YSR  | YSRW | ±0.03 | ±0.1 | ±0.1 |     |    |    |     | +0.2 |                  |
| 8    | 6  | 11.4 | 0  | 16   | 16.2 | 20    | 20   | 10   | 52  | 5  | 2  | 4.3 | 3    | 0 ... 1.7        |
| 12   | 8  | 15.9 | 0  | 11.3 | 12.3 | 20    | 20   | 10   | 65  | 6  | 2  | 5   | 3    |                  |

## Length tolerance

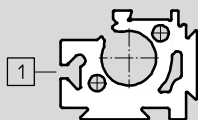
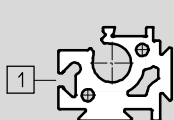
For stroke [mm] ≤ 1000 ≤ 2000

L1 [mm] +0.90 +1.10

## Profile barrel

Ø 8

Ø 12



1 Sensor slot for proximity sensor

# Linear drives DGC-KF, with recirculating ball bearing guide

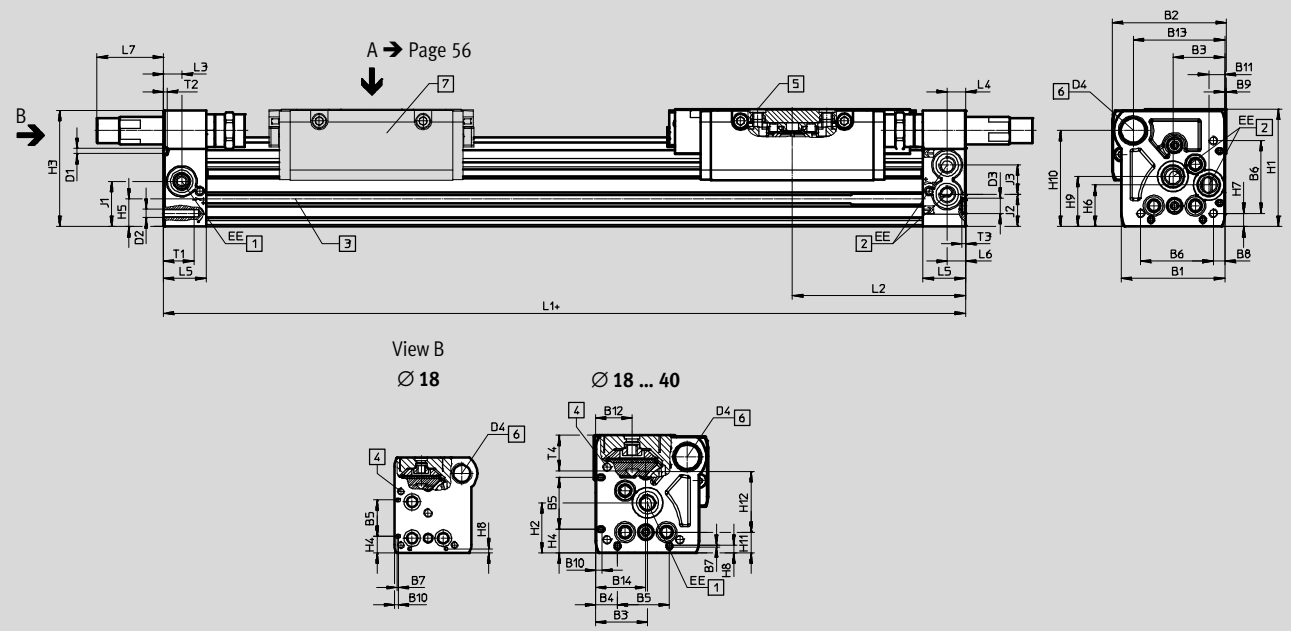
FESTO

Technical data

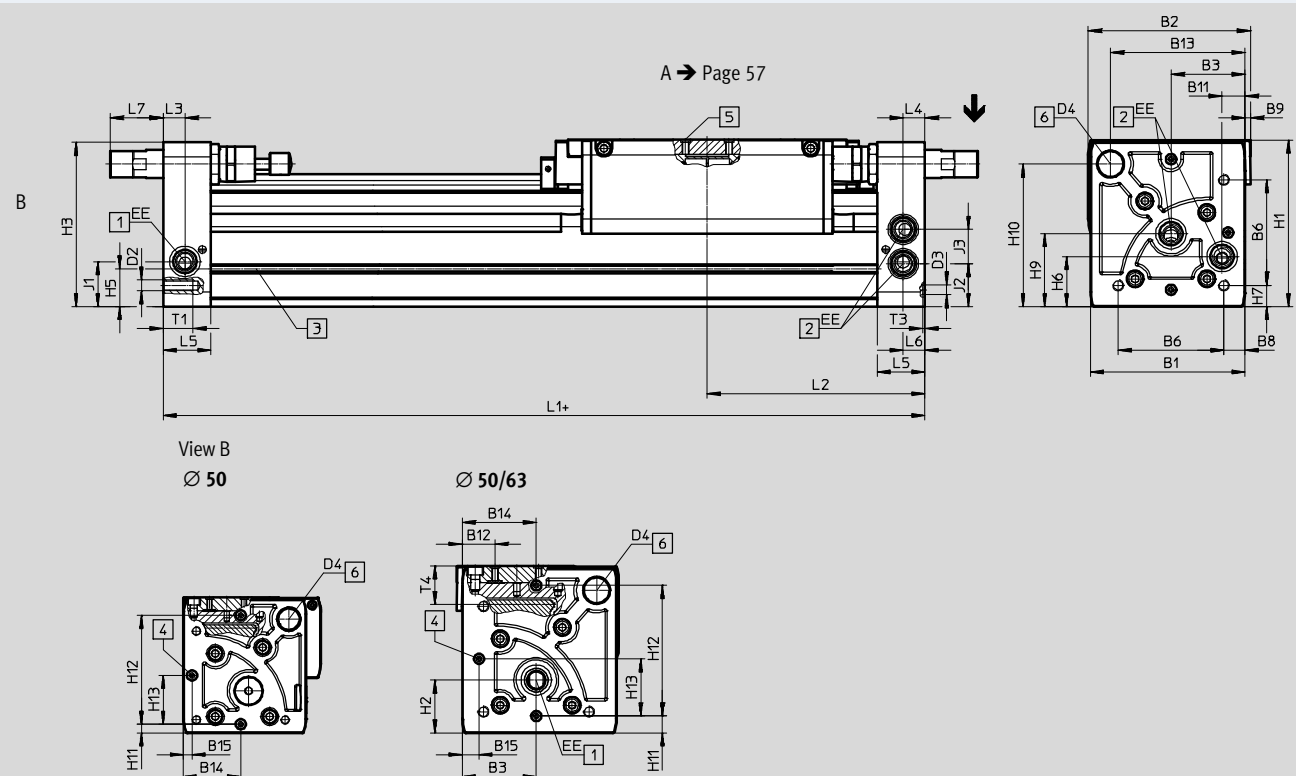
## Dimensions

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

Ø 18 ... 40



Ø 50/63



+ = plus stroke length

- 1 Supply port options on 2 sides
- 2 Supply port options on 2 sides, for supply port at one end
- 3 Sensor slot for proximity sensor
- 4 Mounting hole for foot mounting HPC
- 5 Hole for centring pin / centring sleeve
- 6 Thread for end stop
- 7 Additional slide

- Note

The linear drive is actuated at the right end or at both ends by default.  
The linear drive can be actuated at the left end or at both ends by specifying the order code DL in the modular product system.

# Linear drives DGC-KF, with recirculating ball bearing guide

FESTO

Technical data

| Ø    | B1   | B2    | B3    | B4    | B5    | B6   | B7  | B8   | B9  | B10 | B11  |
|------|------|-------|-------|-------|-------|------|-----|------|-----|-----|------|
| [mm] |      |       | ±0.05 | ±0.1  | ±0.05 |      |     | ±0.1 |     |     |      |
| 18   | 44.5 | 49.9  | 19.5  | 8.8   | 21    | 31   | 0.8 | 3.8  | 1   | 2.4 | 5.5  |
| 25   | 59.8 | 66    | 29    | 12.65 | 30    | 42   | 1   | 6.65 | 1   | 3.5 | 9.3  |
| 32   | 73   | 79    | 38.5  | 5.7   | 63.1  | 57.5 | –   | 8.5  | 1.5 | 14  | 14.9 |
| 40   | 91   | 98.5  | 45    | 17.2  | 55    | 65   | –   | 12.2 | 2   | 8   | 16.5 |
| 50   | 113  | 126.5 | 60    | –     | –     | 81.6 | –   | 12   | –   | –   | 21   |
| 63   | 142  | 149   | 68    | –     | –     | 97   | –   | 19.5 | 5   | –   | 21   |

| Ø    | B12  | B13   | B14  | B15  | D1<br>Ø<br>±0.05 | D2  | D3<br>Ø<br>H7 | D4      | EE   | H1    | H2   |
|------|------|-------|------|------|------------------|-----|---------------|---------|------|-------|------|
| [mm] |      |       |      |      |                  |     |               |         |      |       |      |
| 18   | 15.5 | 39    | 19.5 | –    | 2                | M4  | 5             | M12x1   | M5   | 56.3  | 23.1 |
| 25   | 21   | 53    | 30   | –    | 3                | M5  | 9             | M16x1   | G1/8 | 68    | 29   |
| 32   | 18   | 65    | 38.5 | –    | 3                | M6  | 9             | M16x1   | G1/8 | 78.5  | 30   |
| 40   | 24.5 | 80.5  | 45   | –    | 4                | M6  | 9             | M22x1.5 | G1/4 | 99.5  | 41.5 |
| 50   | 24   | 97    | 52.8 | 8    | –                | M8  | 9             | M22x1.5 | G1/4 | 124.5 | 38.5 |
| 63   | 30   | 123.5 | 68   | 15.5 | –                | M10 | 9             | M26x1.5 | G3/8 | 153.5 | 48.5 |

| Ø    | H3    | H4    | H5   | H6   | H7   | H8  | H9   | H10   | H11        | H12      | H13  |
|------|-------|-------|------|------|------|-----|------|-------|------------|----------|------|
| [mm] |       | ±0.2  |      |      |      |     |      |       |            | ±0.05    |      |
| 18   | 55    | 9.6   | 13.4 | 20   | 4.6  | 2.4 | 25.2 | 46    | 8.5±0.15   | 30       | –    |
| 25   | 67    | 13.65 | 15.8 | 24   | 7.65 | 4.5 | 29   | 55.5  | 12±0.15    | 35       | –    |
| 32   | 77    | 13.65 | 17   | 27.7 | 8.5  | 14  | 35.2 | 63.8  | 11.45±0.15 | 50       | –    |
| 40   | 97.5  | 17.2  | 25   | 36.5 | 12.2 | 8   | 44   | 81.5  | 15±0.15    | 60       | –    |
| 50   | 122.5 | –     | 29.3 | 36   | 12   | –   | 53   | 104.5 | 8±0.2      | 100±0.05 | 52.8 |
| 63   | 151   | –     | 34.8 | 46   | 19.5 | –   | 67   | 131   | 15.5±0.2   | 120±0.05 | 68   |

| Ø    | J1   | J2   | J3   | L1  |       |       | L2    |       |       | L3   | L4   |
|------|------|------|------|-----|-------|-------|-------|-------|-------|------|------|
| [mm] |      |      |      | KF  | KF-GP | 1H-PN | KF    | KF-GP | 1H-PN |      |      |
| 18   | 20   | 16.5 | 11   | 150 | 157   | –     | 74.5  | 78    | –     | 5.7  | 5.8  |
| 25   | 26.1 | 18.6 | 17   | 200 | 205   | 271   | 100   | 102.5 | 100   | 10.5 | 10.6 |
| 32   | 30   | 22   | 18.5 | 250 | 250   | 320.5 | 124.8 | 124.8 | 124.8 | 14.5 | 14.5 |
| 40   | 35   | 26   | 26   | 300 | 312   | 458   | 150   | 156   | 150   | 14.6 | 14.6 |
| 50   | 30.5 | 30.5 | 28   | 350 | –     | 555.8 | 175   | –     | –     | 17   | 17   |
| 63   | 41.5 | 39.5 | 31.5 | 400 | –     | –     | 200   | –     | –     | 20   | 20   |

| Ø    | L5   | L6   | L7  |      |      | T1   | T2 | T3   | T6    | Stroke tolerance |
|------|------|------|-----|------|------|------|----|------|-------|------------------|
| [mm] |      |      | PPV | YSR  | YSRW |      |    | +0.2 |       |                  |
| 18   | 15   | 5.5  | 0   | 29.9 | 32.4 | 9    | 2  | 3.1  | 15    | 0 ... 2.5        |
| 25   | 24.5 | 10.6 | 0   | 35.6 | 38.6 | 17.5 | 2  | 2.1  | 17.3  |                  |
| 32   | 30.5 | 14.5 | 0   | 19.5 | 28   | 15   | 2  | 2.1  | 20    |                  |
| 40   | 33.5 | 14.6 | 0   | 38.5 | 43.5 | 20   | 3  | 2.1  | 25.7  |                  |
| 50   | 41   | 17   | 0   | 31   | 36.3 | 24   | –  | 2.1  | 28.75 |                  |
| 63   | 44   | 20   | 0   | 38.3 | 48.3 | 27.5 | –  | 2.1  | 36.1  |                  |

– || – Note: This product conforms to ISO 1179-1 and to ISO 228-1

| Length tolerance |      |        |        |        |        |        |        |        |        |        |
|------------------|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| For stroke       | [mm] | ≤ 1000 | ≤ 2000 | ≤ 3000 | ≤ 4000 | ≤ 5000 | ≤ 6000 | ≤ 7000 | ≤ 8000 | ≤ 9000 |
| L1               | [mm] | +0.90  | +1.10  | +1.40  | +1.50  | +1.60  | +1.70  | +2.20  | +2.30  | +2.40  |

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# Linear drives DGC-KF, with recirculating ball bearing guide

FESTO

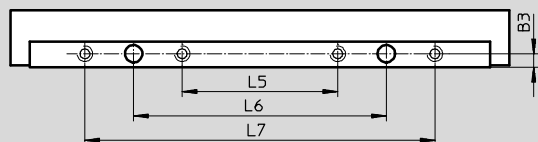
Technical data

## Dimensions

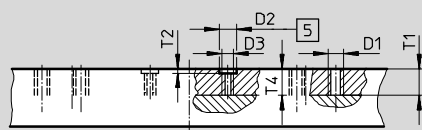
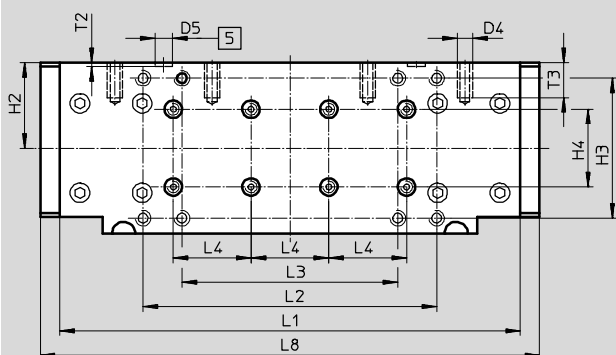
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Slide

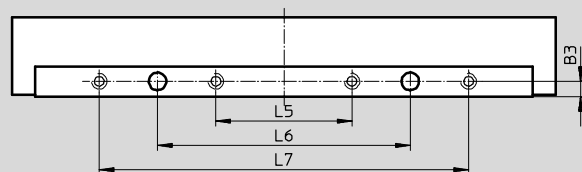
Ø 50



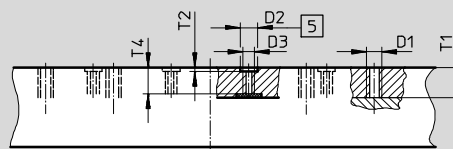
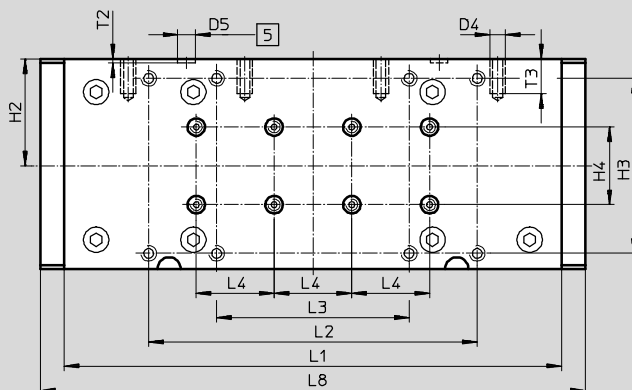
View A



Ø 63



View A



5 Hole for centring sleeve ZBH

6 Hole for centring pin ZBS

| Ø    | B3    | D1 | D2<br>Ø<br>H7 | D3 | D4 | D5<br>Ø<br>H7 | H2   | H3     | H4<br>±0.03 | H5<br>±0.1 | L1      |
|------|-------|----|---------------|----|----|---------------|------|--------|-------------|------------|---------|
| [mm] | ±0.05 |    |               |    |    |               |      |        |             |            |         |
| 18   | 4.5   | M5 | 5             | –  | M5 | 5             | 16.5 | –      | –           | 18         | 88±0.1  |
| 25   | 5     | M5 | 9             | M6 | M5 | 7             | 22   | 32±0.2 | –           | 25.5       | 104±0.2 |
| 32   | 5     | M5 | 9             | M6 | M5 | 7             | 19.5 | 47±0.2 | 20          | 29.5       | 131±0.2 |
| 40   | 7     | M5 | 9             | M6 | M6 | 7             | 26.8 | 55±0.2 | 20          | 34.7       | 169±0.2 |
| 50   | 7     | M8 | 9             | M6 | M8 | 9             | 44   | 72±0.3 | 40          | –          | 237±0.1 |
| 63   | 8     | M8 | 9             | M6 | M8 | 9             | 55   | 90±0.3 | 40          | –          | 256±0.1 |

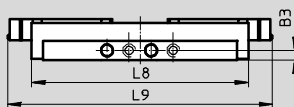
| Ø    | L2   | L3      | L4    | L5   | L6    | L7   | L8    | T1   | T2      | T3  | T4   |
|------|------|---------|-------|------|-------|------|-------|------|---------|-----|------|
| [mm] | ±0.2 |         | ±0.03 | ±0.1 | ±0.05 | ±0.1 |       |      |         |     |      |
| 18   | –    | 20±0.1  | 20    | 10   | –     | –    | 99    | –    | 3.1±0.1 | 7.5 | 6.7  |
| 25   | 74   | 44±0.2  | 40    | 30   | 60    | –    | 118.5 | 10   | 2.1±0.2 | 7.5 | 8    |
| 32   | 100  | 70±0.2  | 40    | 45   | 85    | –    | 145.7 | 10   | 2.1±0.2 | 7.5 | 8    |
| 40   | 116  | 76±0.2  | 40    | 60   | 110   | –    | 195.4 | 10.5 | 2.1±0.2 | 7.5 | 8.5  |
| 50   | 151  | 111±0.2 | 40    | 80   | 130   | 180  | 256.8 | 13.5 | 2.1±0.2 | 18  | 13.5 |
| 63   | 169  | 99±0.2  | 40    | 70   | 130   | 190  | 280   | 15.5 | 2.1±0.2 | 18  | 13.6 |

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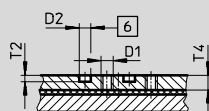
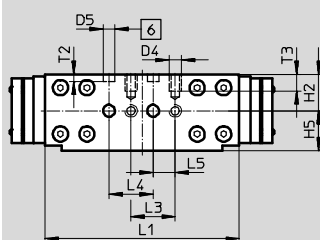
## Dimensions

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

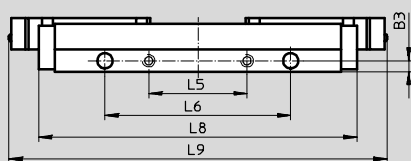
Ø 18



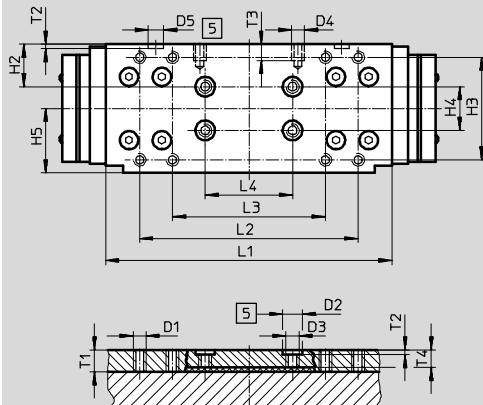
View A



Ø 32



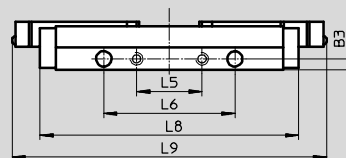
View A



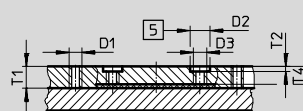
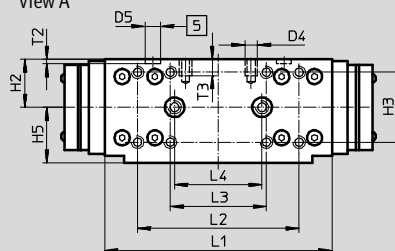
5 Hole for centring sleeve ZBH

6 Hole for centring pin ZBS

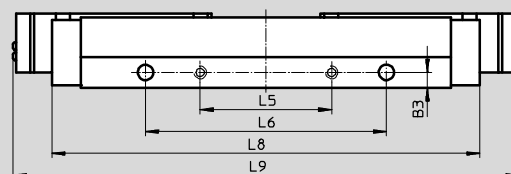
Ø 25



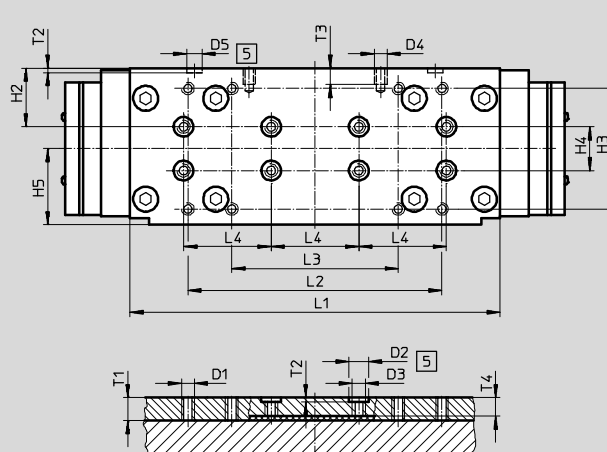
View A



Ø 40



View A



# Linear drives DGC-KF, with recirculating ball bearing guide

FESTO

Technical data

| Ø<br>[mm] | B3<br>±0.05 | D1 | D2<br>Ø<br>H7 | D3 | D4 | D5<br>Ø<br>H7 | H2   | H3     |
|-----------|-------------|----|---------------|----|----|---------------|------|--------|
| 18        | 4.5         | M5 | 5             | –  | M5 | 5             | 16.5 | –      |
| 25        | 5           | M5 | 9             | M6 | M5 | 7             | 22   | 32±0.2 |
| 32        | 5           | M5 | 9             | M6 | M5 | 7             | 19.5 | 47±0.2 |
| 40        | 7           | M5 | 9             | M6 | M6 | 7             | 26.8 | 55±0.2 |

| Ø<br>[mm] | H4<br>±0.03 | H5<br>±0.1 | L1      | L2<br>±0.2 | L3     | L4<br>±0.03 | L5<br>±0.1 | L6<br>±0.05 |
|-----------|-------------|------------|---------|------------|--------|-------------|------------|-------------|
| 18        | –           | 18         | 88±0.1  | –          | 20±0.1 | 20          | 10         | –           |
| 25        | –           | 25.5       | 104±0.2 | 74         | 44±0.2 | 40          | 30         | 60          |
| 32        | 20          | 29.5       | 131±0.2 | 100        | 70±0.2 | 40          | 45         | 85          |
| 40        | 20          | 34.7       | 169±0.2 | 116        | 76±0.2 | 40          | 60         | 110         |

| Ø<br>[mm] | L7<br>±0.1 | L8    | L9  | T1   | T2      | T3  | T4  |
|-----------|------------|-------|-----|------|---------|-----|-----|
| 18        | –          | 99    | 120 | –    | 3.1±0.1 | 7.5 | 6.7 |
| 25        | –          | 118.5 | 144 | 10   | 2.1±0.2 | 7.5 | 8   |
| 32        | –          | 145.7 | 173 | 10   | 2.1±0.2 | 7.5 | 8   |
| 40        | –          | 195.4 | 231 | 10.5 | 2.1±0.2 | 7.5 | 8.5 |

# Linear drives DGC-KF, with recirculating ball bearing guide

FESTO

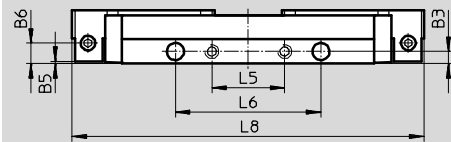
Technical data

## Dimensions

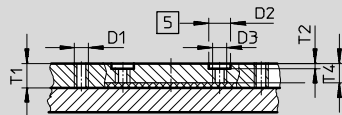
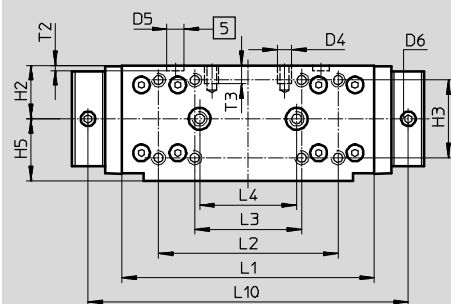
Download CAD data → [www.festo.com](http://www.festo.com)

Slide, variant C – Lubrication adapter

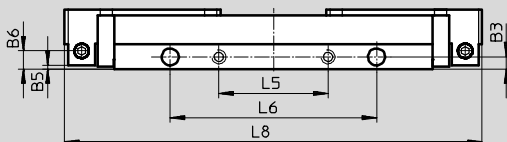
Ø 25



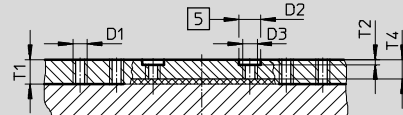
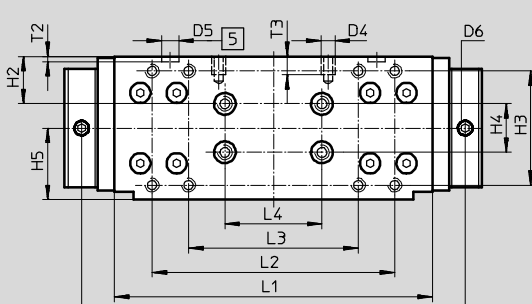
View A



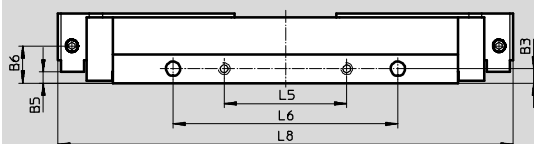
Ø 32



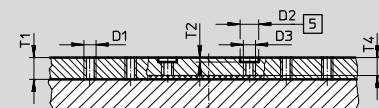
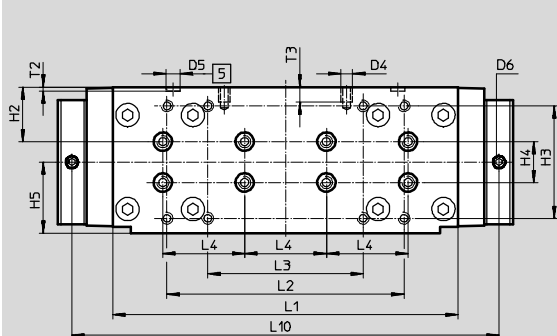
View A



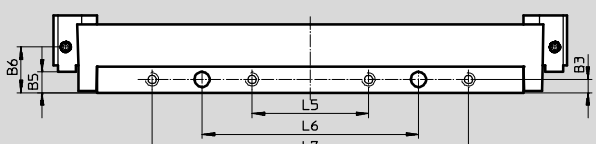
Ø 40



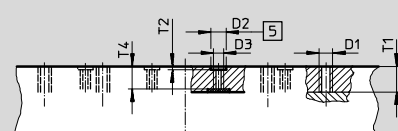
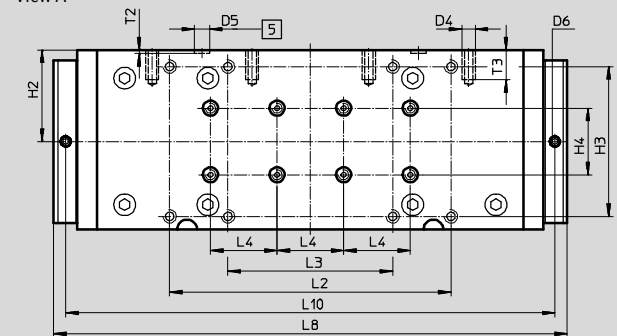
View A



Ø 63



View A



[5] Hole for centring sleeve ZBH

# Linear drives DGC-KF, with recirculating ball bearing guide

FESTO

Technical data

| Ø    | B3    | B5    | B6   | D1 | D2<br>Ø<br>H7 | D3 | D4 | D5<br>Ø<br>H7 | D6   | H2   | H3     | H4    | H5   |
|------|-------|-------|------|----|---------------|----|----|---------------|------|------|--------|-------|------|
| [mm] | ±0.05 | ±0.05 |      |    |               |    |    |               |      |      |        | ±0.03 | ±0.1 |
| 25   | 5     | 1     | 8.5  | M5 | 9             | M6 | M5 | 7             | M6x1 | 22   | 32±0.2 | –     | 25.5 |
| 32   | 5     | 1.5   | 7.5  | M5 | 9             | M6 | M5 | 7             | M6x1 | 19.5 | 47±0.2 | 20    | 29.5 |
| 40   | 7     | 18.2  | 18.2 | M5 | 9             | M6 | M6 | 7             | M6x1 | 26.8 | 55±0.2 | 20    | 34.7 |
| 63   | 8     | 12.5  | 27.5 | M8 | 9             | M6 | M8 | 9             | M6x1 | 55   | 90±0.3 | 40    | –    |

| Ø    | L1      | L2   | L3   | L4    | L5   | L6    | L7   | L8    | L10   | T1   | T2   | T3  | T4   |
|------|---------|------|------|-------|------|-------|------|-------|-------|------|------|-----|------|
| [mm] |         | ±0.2 | ±0.2 | ±0.03 | ±0.1 | ±0.05 | ±0.1 |       |       |      | ±0.2 |     |      |
| 25   | 104±0.2 | 74   | 44   | 40    | 30   | 60    | –    | 145   | 132   | 10   | 2.1  | 7.5 | 8    |
| 32   | 131±0.2 | 100  | 70   | 40    | 45   | 85    | –    | 172   | 158   | 10   | 2.1  | 7.5 | 8    |
| 40   | 169±0.2 | 116  | 76   | 40    | 60   | 110   | –    | 223   | 209   | 10.5 | 2.1  | 7.5 | 8.5  |
| 63   | 256±0.1 | 169  | 99   | 40    | 70   | 130   | 190  | 308.4 | 293.8 | 15.5 | 2.1  | 18  | 13.6 |

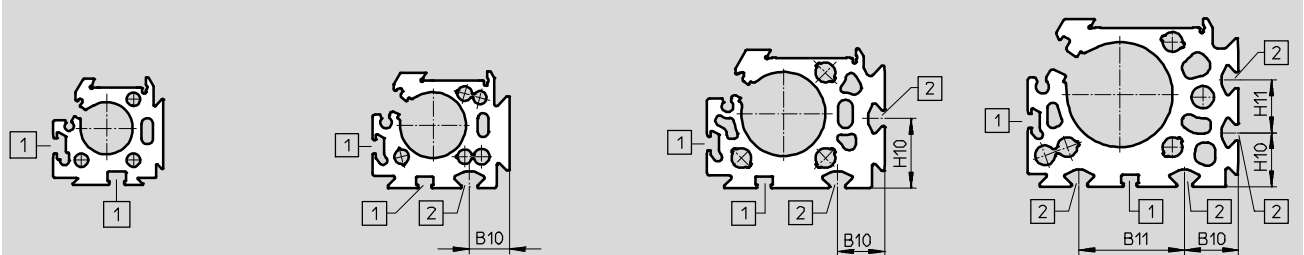
## Profile barrel

Ø 18

Ø 25

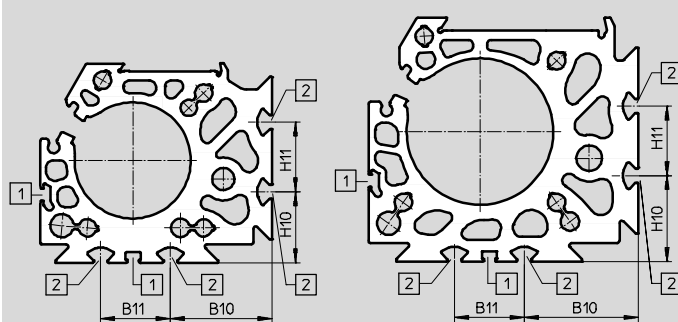
Ø 32

Ø 40



Ø 50

Ø 63



- 1 Sensor slot for proximity sensor
- 2 Mounting slot for slot nut

| Ø    | B10   | B11 | H10  | H11 |
|------|-------|-----|------|-----|
| [mm] |       |     |      |     |
| 25   | 15.23 | –   | –    | –   |
| 32   | 18    | –   | 26.5 | –   |
| 40   | 20.5  | 40  | 20.5 | 20  |
| 50   | 43.8  | 30  | 30.5 | 30  |
| 63   | 49    | 30  | 37   | 30  |

# Linear drives DGC-KF, with recirculating ball bearing guide

Technical data

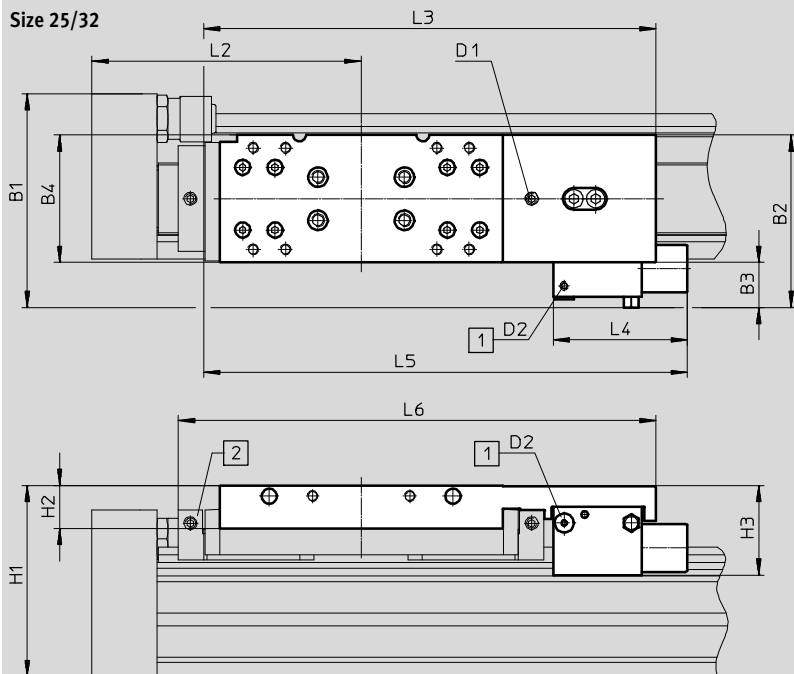
FESTO

## Dimensions

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

1H – With clamping unit

Size 25/32



- Note

Total length L1 with stroke = 0 mm

→ page 54

1 Supply port  
2 Lubrication adapter

| Type               | B1   | B2   | B3   | B4   | H1   | H2 | H3   | D1 | D2 | L2    | L3    | L4 | L5    | L6    |
|--------------------|------|------|------|------|------|----|------|----|----|-------|-------|----|-------|-------|
| DGC-25-...-1H-PN   | 83.6 | 64.9 | 17.6 | 47.5 | 79   | 21 | 39.5 | M6 | M5 | 100   | 182.3 | 63 | 198   | -     |
| DGC-25-...-C-1H-PN |      |      |      |      |      |    |      |    |    |       |       |    |       | 193.8 |
| DGC-32-...-1H-PN   | 99.9 | 79.9 | 20.9 | 59   | 88.5 | 20 | 41.5 | M6 | M5 | 124.8 | 209.4 | 62 | 223.9 | -     |
| DGC-32-...-C-1H-PN |      |      |      |      |      |    |      |    |    |       |       |    |       | 221   |

# Linear drives DGC-KF, with recirculating ball bearing guide

FESTO

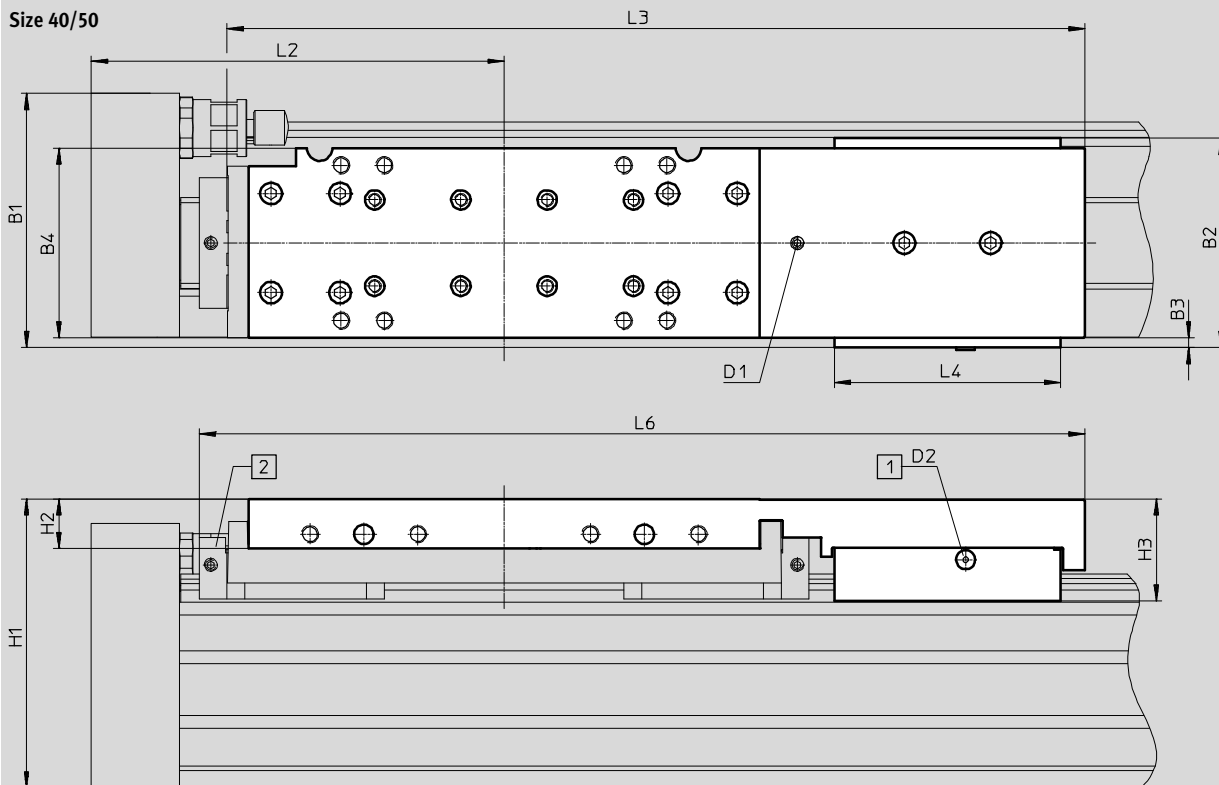
Technical data

## Dimensions

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

1H – With clamping unit

Size 40/50



- Note

Total length L1 with stroke = 0 mm

→ page 54

- 1 Supply port
- 2 Lubrication adapter

| Type               | B1    | B2 | B3   | B4   | H1    | H2 | H3   | D1 | D2 | L2    | L3    | L4  | L6    |
|--------------------|-------|----|------|------|-------|----|------|----|----|-------|-------|-----|-------|
| DGC-40-...-1H-PN   | 109.9 | 97 | 11.7 | 69.4 | 113.5 | 28 | 48.9 | M6 | M5 | 150   | 331.2 | 105 | -     |
| DGC-40-...-C-1H-PN |       |    |      |      |       |    |      |    |    |       |       |     | 345.7 |
| DGC-50-...-1H-PN   | 117.8 | 97 | 4.5  | 88   | 134   | 23 | 47.4 | M6 | M5 | 191,3 | 397.6 | 105 | -     |
| DGC-50-...-C-1H-PN |       |    |      |      |       |    |      |    |    |       |       |     | 412.1 |

# Linear drives DGC-KF, with recirculating ball bearing guide

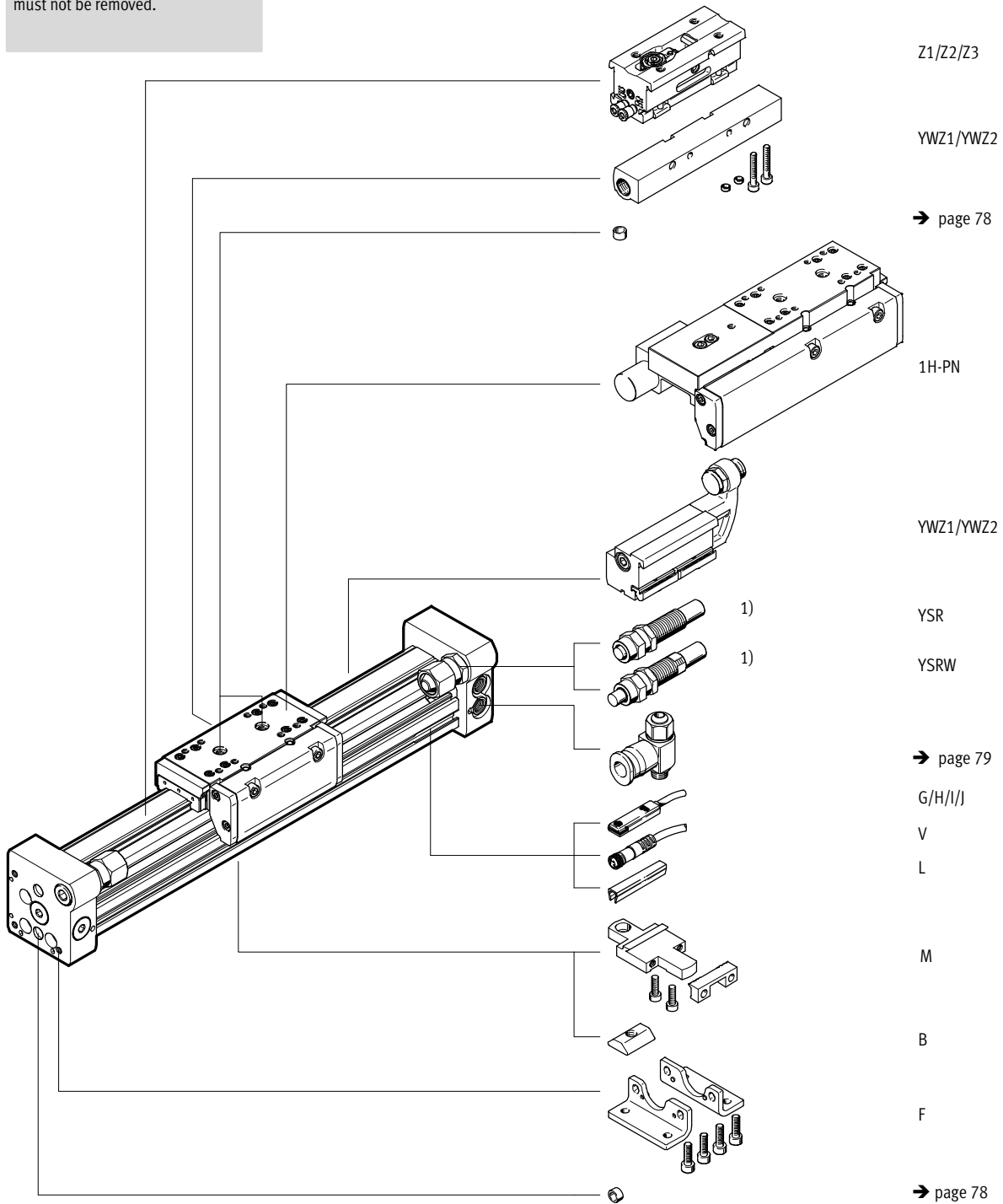
FESTO

Ordering data – Modular products

## Order code

-  - Note

1) End stops or shock absorbers must not be removed.





# Linear drives DGC-KF, with recirculating ball bearing guide

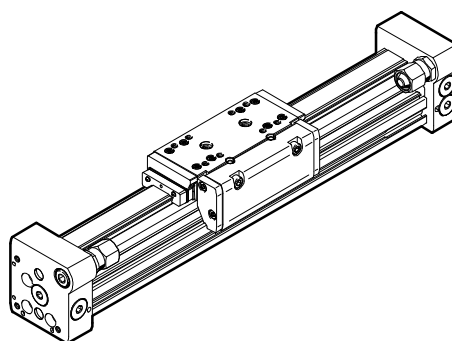
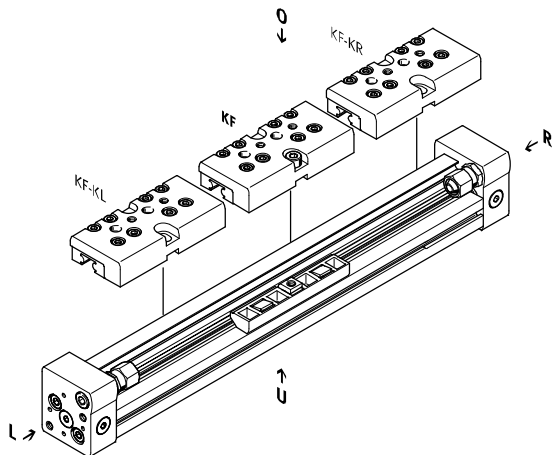
FESTO

Ordering data – Modular products

## Order code

KL/KR – With additional slide

GP – With protected recirculating ball bearing guide



## Working stroke reduction when ordering an additional slide KL or KR

With a linear drive DGC with additional slide, the working stroke is reduced by the length of the additional

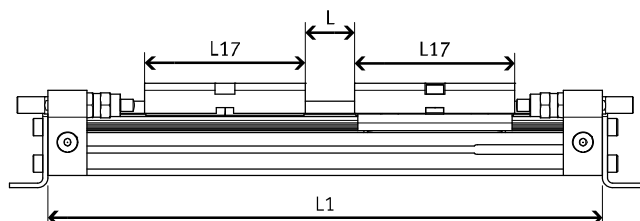
slide and the distance between both slides.

Given:

DGC-12-500-...

L = 20 mm

L17 = 65 mm



| Ø<br>[mm] | 8  | 12 | 18 | 25    | 32    | 40    | 50    | 63  |
|-----------|----|----|----|-------|-------|-------|-------|-----|
| L17       | 52 | 65 | 99 | 118.5 | 145.7 | 195.4 | 256.8 | 280 |

The working stroke is reduced to  
 $415 \text{ mm} = 500 \text{ mm} - 20 \text{ mm} - 65 \text{ mm}$

# Linear drives DGC-KF, with recirculating ball bearing guide

FESTO

Ordering data – Modular products

| Ordering table |                           |                                             |                                    |                                                   |                     |               |               |               |                 |      |               |      |  |
|----------------|---------------------------|---------------------------------------------|------------------------------------|---------------------------------------------------|---------------------|---------------|---------------|---------------|-----------------|------|---------------|------|--|
| Size           | 8                         | 12                                          | 18                                 | 25                                                | 32                  | 40            | 50            | 63            | Condi-<br>tions | Code | Enter<br>code |      |  |
| <b>M</b>       | Module No.                | <b>530906</b>                               | <b>530907</b>                      | <b>532446</b>                                     | <b>532447</b>       | <b>532448</b> | <b>532449</b> | <b>532450</b> | <b>532451</b>   |      |               |      |  |
|                | Function                  | Linear drive                                |                                    |                                                   |                     |               |               |               |                 |      | <b>DGC</b>    | DGC  |  |
|                | Piston Ø [mm]             | 8                                           | 12                                 | 18                                                | 25                  | 32            | 40            | 50            | 63              |      | ★ -...        |      |  |
|                | Stroke [mm]               | 1 ... 1300                                  | 1 ... 1900                         | 1 ... 3000                                        | 1 ... 8500          |               |               | 1 ... 5000    |                 |      | ★ -...        |      |  |
|                | Guide                     | Recirculating ball bearing guide            |                                    |                                                   |                     |               |               |               |                 |      | ★ -KF         | -KF  |  |
|                | Cushioning                | Elastic cushioning rings/pads at both ends  |                                    |                                                   |                     |               |               |               |                 |      | ★ -P          |      |  |
|                |                           |                                             |                                    | Pneumatic cushioning, adjustable at both ends     |                     |               |               |               |                 |      | ★ -PPV        |      |  |
|                |                           | Shock absorber, self-adjusting              |                                    |                                                   |                     |               |               |               |                 |      | -YSR          |      |  |
|                |                           | Shock absorber, self-adjusting, progressive |                                    |                                                   |                     |               |               |               |                 |      | ★ -YSRW       |      |  |
|                | Position sensing          | Via proximity sensor                        |                                    |                                                   |                     |               |               |               |                 |      | ★ -A          | -A   |  |
|                | <b>O</b>                  | Compressed air supply                       | At right side only or at both ends |                                                   |                     |               |               |               |                 |      |               | ★    |  |
|                |                           |                                             |                                    | At left side only or at both ends                 |                     |               |               |               |                 |      | -DL           |      |  |
|                | Slide                     |                                             |                                    | Protected recirculating ball bearing guide        |                     |               |               |               |                 | 1    | -GP           |      |  |
|                | Lubrication               |                                             |                                    | Standard                                          |                     |               |               |               |                 |      | ★             |      |  |
|                |                           |                                             |                                    | Lubrication approved for use in food applications |                     |               |               |               |                 | 2    | -H1           |      |  |
|                | Lubrication function      | Standard                                    |                                    |                                                   |                     |               |               |               |                 |      | ★             |      |  |
|                |                           |                                             |                                    |                                                   | Lubrication adapter |               |               |               | 3               | -C   |               |      |  |
|                | Additional slide on left  | Additional slide, standard, on left         |                                    |                                                   |                     |               |               |               |                 | 4    | -KL           |      |  |
|                | Additional slide on right | Additional slide, standard, on right        |                                    |                                                   |                     |               |               |               |                 | 4    | -KR           |      |  |
|                | Clamping unit             |                                             |                                    |                                                   | None                |               |               |               |                 | ★    |               |      |  |
|                |                           |                                             |                                    |                                                   | 1-channel           |               |               |               | 5               | -1H  |               |      |  |
|                | Actuation type            |                                             |                                    |                                                   | None                |               |               |               |                 | ★    |               |      |  |
|                |                           |                                             |                                    |                                                   | Pneumatic           |               |               |               | 5               | -PN  |               |      |  |
|                | EU certification          | without                                     |                                    |                                                   |                     |               |               |               |                 |      |               | ★    |  |
|                |                           | II 3GD                                      |                                    |                                                   |                     |               |               |               |                 |      | 6             | -EX2 |  |
|                |                           | II 2G                                       |                                    |                                                   |                     |               |               |               |                 |      | 6             | -EX3 |  |
| ↓              |                           |                                             |                                    |                                                   |                     |               |               |               |                 |      |               |      |  |

- 1 **GP** Not with cushioning YSR, YSRW  
Not with additional slide KL, KR
- 2 **H1** Not with protected version GP, cushioning YSR, YSRW or clamping unit 1H
- 3 **C** Not with slide GP  
For size 50 only with clamping unit 1H
- 4 **KL, KR** With a linear drive DGC with additional slide, the effective stroke is reduced by the length of the additional slide and the distance between both slides  
Not with cushioning PPV
- 5 **1H, PN** Not with intermediate position Z1, Z2, Z3; end-position limiter YWZ1, YWZ2; protected version GP; additional slide KL, KR or lubrication H1  
Only with cushioning YSRW  
1H only with PN
- 6 **EX2, EX3** Not with protected version GP; lubrication adapter C, clamping unit 1H-PN, proximity sensor G, H, I, J; connecting cable V; intermediate position Z1, Z2, Z3

- M** Mandatory data
- O** Options

## Transfer order code

**DGC** -  -  - **KF** -  - **A** -  -  -  -  -  -  -  -  -  -  -  -

Festo core product range

- ★ Ready for dispatch from the Festo factory in 24 hours
- ★ Ready for dispatch in 5 days maximum from stock

# Linear drives DGC-KF, with recirculating ball bearing guide

FESTO

Ordering data – Modular products

| Ordering table |                                                                               |                                          |         |                                     |                          |    |    |    |                 |             |  |               |  |
|----------------|-------------------------------------------------------------------------------|------------------------------------------|---------|-------------------------------------|--------------------------|----|----|----|-----------------|-------------|--|---------------|--|
| Size           | 8                                                                             | 12                                       | 18      | 25                                  | 32                       | 40 | 50 | 63 | Condi-<br>tions | Code        |  | Enter<br>code |  |
|                | Accessories                                                                   | Enclosed separately (can be retrofitted) |         |                                     |                          |    |    |    |                 | <b>ZUB-</b> |  | ZUB-          |  |
|                | Foot mounting                                                                 | 1                                        |         |                                     |                          |    |    |    |                 | <b>F</b>    |  |               |  |
|                | Profile mounting                                                              | 1 ... 9                                  |         |                                     |                          |    |    |    |                 | <b>...M</b> |  |               |  |
|                | Slot nut for mounting slot                                                    | –                                        | –       | –                                   | 1 ... 9                  |    |    |    |                 | <b>...B</b> |  |               |  |
|                | Proximity sensor                                                              | 2.5 m cable                              | 1 ... 9 |                                     |                          |    |    |    |                 |             |  | <b>...G</b>   |  |
|                |                                                                               | M8 plug                                  | 1 ... 9 |                                     |                          |    |    |    |                 |             |  | <b>...H</b>   |  |
|                | Proximity sensor,<br>contactless, PNP                                         | 2.5 m cable                              | 1 ... 9 |                                     |                          |    |    |    |                 |             |  | <b>...I</b>   |  |
|                |                                                                               | M8 plug                                  | 1 ... 9 |                                     |                          |    |    |    |                 |             |  | <b>...J</b>   |  |
|                | Connecting cable                                                              | M8, 2.5 m                                | 1 ... 9 |                                     |                          |    |    |    |                 |             |  | <b>...V</b>   |  |
|                | Slot cover for sensor slot                                                    | –                                        | –       | 1 ... 9                             |                          |    |    |    | <b>...L</b>     |             |  |               |  |
|                | Mechanical end-position limiter                                               | –                                        | –       | Variable end position, at one end   |                          |    |    |    |                 | <b>6</b>    |  | <b>YWZ1</b>   |  |
|                |                                                                               | –                                        | –       | Variable end position, at both ends |                          |    |    |    |                 | <b>6</b>    |  | <b>YWZ2</b>   |  |
|                | Intermediate position                                                         | –                                        | –       | –                                   | 1 intermediate position  |    |    | –  | –               | <b>7</b>    |  | <b>-Z1</b>    |  |
|                |                                                                               | –                                        | –       | –                                   | 2 intermediate positions |    |    | –  | –               | <b>7</b>    |  | <b>-Z2</b>    |  |
|                |                                                                               | –                                        | –       | –                                   | 3 intermediate positions |    |    | –  | –               | <b>7</b>    |  | <b>-Z3</b>    |  |
| Manual         | Express waiver – no operating instructions to be included (already available) |                                          |         |                                     |                          |    |    |    | <b>-0</b>       |             |  |               |  |

6 **YWZ1, YWZ2** Only with cushioning YSR or YSRW

7 **Z1, Z2, Z3** Only with cushioning YSR or YSRW and mechanical end-position limiter YWZ1 or YWZ2

M Mandatory data

O Options

Transfer order code

– ZUB –

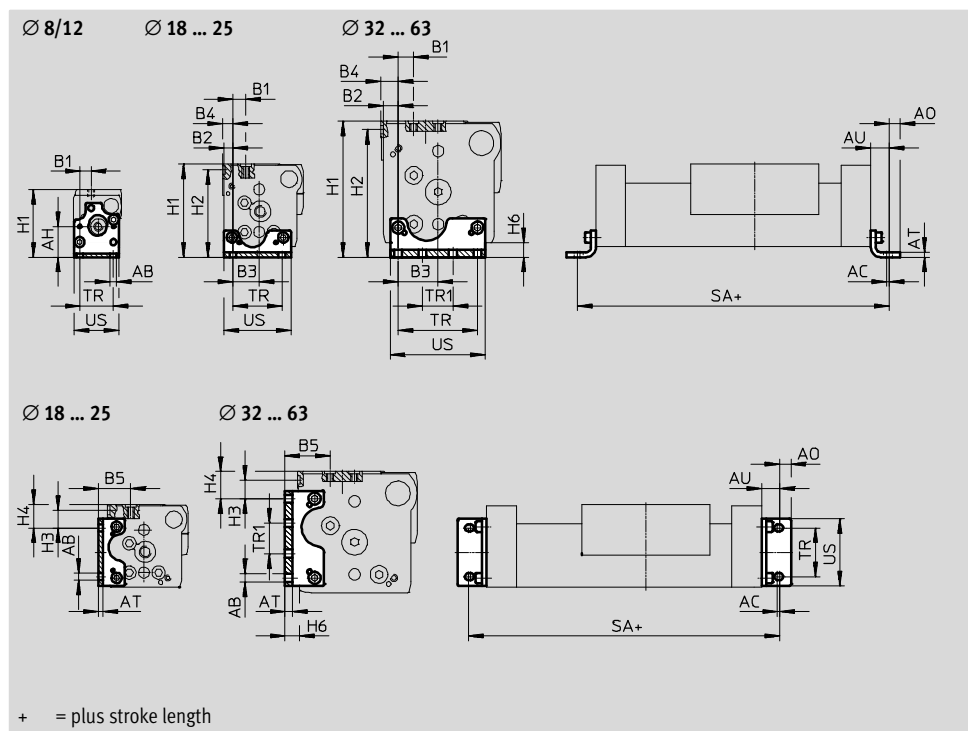
# Linear drives DGC

Accessories

FESTO

Foot mounting HPC  
(order code: F)

Material:  
Galvanised steel



## Dimensions and ordering data

| For Ø | AB  | AC  | AH   | AO   | AT | AU    | B1   |       | B2   |
|-------|-----|-----|------|------|----|-------|------|-------|------|
| [mm]  | Ø   |     |      |      |    |       | G    | GF/KF |      |
| 8     | 3.4 | 1.5 | 16.7 | 3    | 2  | 9     | 6    | 6     | –    |
| 12    | 4.5 | 2   | 18.5 | 4.5  | 2  | 11.5  | 5.4  | 5.4   | –    |
| 18    | 5.5 | 2   | –    | 6.75 | 3  | 13.25 | 15   | 11.2  | 4.3  |
| 25    | 5.5 | 2   | –    | 9    | 4  | 15    | 12.5 | 13.35 | 7.65 |
| 32    | 6.6 | 2   | –    | 10   | 5  | 19    | 11.5 | 9     | 9    |
| 40    | 6.6 | 2   | –    | 10   | 6  | 20    | 7.6  | 12.6  | 12.2 |
| 50    | 9   | 3   | –    | 11   | 8  | 25    | 12.5 | 12.5  | 11.5 |
| 63    | 11  | 3   | –    | 13.5 | 8  | 28    | 17.5 | 17.5  | 12.5 |

| For Ø | B3    | B4   |      | B5    |       | H1   |       |
|-------|-------|------|------|-------|-------|------|-------|
| [mm]  |       | GF   | KF   | G     | GF/KF | G    | GF/KF |
| 8     | –     | –    | –    | –     | –     | 37   | 37    |
| 12    | –     | –    | –    | –     | –     | 42.5 | 42.5  |
| 18    | 15.2  | –    | 5.3  | 27    | 23.2  | 57.5 | 64    |
| 25    | 21.35 | –    | 8.65 | 28.65 | 29.5  | 67   | 76.5  |
| 32    | 29.5  | –    | 10.5 | 29.5  | 27    | 82   | 87.5  |
| 40    | 32.8  | –    | 14.2 | 31.8  | 36.8  | 100  | 111.5 |
| 50    | 48.5  | 11.5 | 11.5 | 41    | 41    | 137  | 141.5 |
| 63    | 55.5  | 6.5  | 17.5 | 49    | 49    | 159  | 172.5 |

# Linear drives DGC

Accessories



| Dimensions and ordering data |       |       |      |       |     |                       |                       |
|------------------------------|-------|-------|------|-------|-----|-----------------------|-----------------------|
| For Ø                        | H2    | H3    | H4   |       | H6  | SA                    |                       |
| [mm]                         | GF/KF | GF/KF | G    | GF/KF |     | G/GF/KF               | KF-GP                 |
| 8                            | –     | –     | –    | –     | 5   | 118 <sub>-0.2</sub>   | –                     |
| 12                           | –     | –     | –    | –     | 5   | 148 <sub>-0.2</sub>   | –                     |
| 18                           | 59.5  | 16    | 14   | 21.2  | 7.7 | 176.5 <sub>-0.2</sub> | 183.5 <sub>-0.2</sub> |
| 25                           | 71.5  | 14.35 | 9.85 | 19.35 | 8.5 | 230 <sub>-0.2</sub>   | 235 <sub>-0.2</sub>   |
| 32                           | 82.5  | 8     | 7.5  | 13    | 9   | 288 <sub>-0.2</sub>   | 288 <sub>-0.2</sub>   |
| 40                           | 104.5 | 15.3  | 10.8 | 22.3  | 12  | 340 <sub>-0.2</sub>   | 352 <sub>-0.2</sub>   |
| 50                           | 134.5 | 23.4  | 25.9 | 30.4  | 17  | 400 <sub>-0.2</sub>   | –                     |
| 63                           | 164.5 | 22    | 24   | 30    | 19  | 456 <sub>-0.2</sub>   | –                     |

| For Ø | TR   | TR1  | US   | Weight | Part No.      | Type <sup>1)</sup> |
|-------|------|------|------|--------|---------------|--------------------|
| [mm]  | ±0.1 | ±0.1 |      | [g]    |               |                    |
| 8     | 18   | –    | 24.4 | 25     | <b>526385</b> | <b>HPC-8</b>       |
| 12    | 20   | –    | 29.6 | 41     | <b>526388</b> | <b>HPC-12</b>      |
| 18    | 30   | –    | 38.6 | 58     | <b>533667</b> | <b>HPC-18</b>      |
| 25    | 40   | –    | 55   | 131    | <b>533668</b> | <b>HPC-25</b>      |
| 32    | 56.5 | 19.5 | 68   | 239    | <b>533669</b> | <b>HPC-32</b>      |
| 40    | 65   | 25   | 78   | 348    | <b>533670</b> | <b>HPC-40</b>      |
| 50    | 82.6 | 47.4 | 102  | 754    | <b>545236</b> | <b>HPC-50</b>      |
| 63    | 111  | 39   | 133  | 1245   | <b>545237</b> | <b>HPC-63</b>      |

1) Suitable for ATEX areas

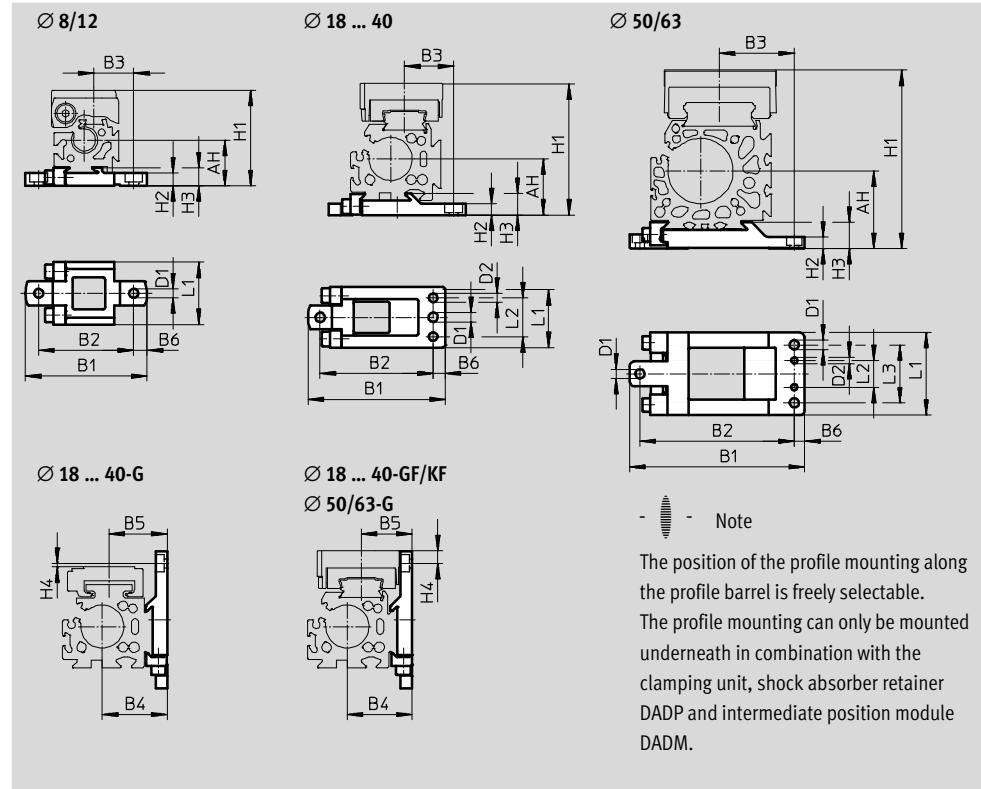
# Linear drives DGC

Accessories

FESTO

**Profile mounting MUC**  
(order code: M)

Material:  
High-alloy steel



| Dimensions and ordering data |      |           |           |       |       |      |
|------------------------------|------|-----------|-----------|-------|-------|------|
| For Ø                        | AH   | B1        | B2        | B3    |       | B4   |
| [mm]                         |      |           |           | G     | GF/KF |      |
| 8                            | 17.7 | 47        | 36.7      | 15.35 | 15.35 | –    |
| 12                           | 18.5 | 52.5      | 42.2      | 16.5  | 16.5  | –    |
| 18                           | 27.2 | 67.8±0.2  | 56±0.15   | 30.5  | 28.7  | 27.2 |
| 25                           | 32.5 | 79.5±0.2  | 65.5±0.15 | 32.5  | 28.5  | 37.5 |
| 32                           | 37.5 | 94±0.2    | 80±0.15   | 35    | 35    | 47.5 |
| 40                           | 47   | 110.5±0.2 | 96±0.15   | 43    | 43    | 57   |
| 50                           | 61   | 145±0.5   | 125±0.2   | 56    | 56    | 77   |
| 63                           | 75   | 169±0.5   | 149±0.2   | 72.5  | 72.5  | 87   |

| For Ø | B5   |       | B6  | D1<br>Ø<br>H13 | D2<br>Ø<br>H7 | H1   |       |       |
|-------|------|-------|-----|----------------|---------------|------|-------|-------|
| [mm]  | G    | GF/KF |     |                |               | G    | GF/KF | 1H-PN |
| 8     | –    | –     | 5.1 | 3.5            | –             | 37   | 37    | –     |
| 12    | –    | –     | 5.1 | 3.5            | –             | 42.5 | 42.5  | –     |
| 18    | 25   | 23.2  | 5.7 | 5.5            | 5             | 57.5 | 64    | –     |
| 25    | 33.5 | 29.5  | 7   | 5.5            | 5             | 67   | 76.5  | 87.5  |
| 32    | 37   | 37    | 7   | 5.5            | 5             | 82   | 87.5  | 97.5  |
| 40    | 46.8 | 46.8  | 7   | 6.5            | 6             | 100  | 111.5 | 125.5 |
| 50    | 61   | 61    | 7   | 9              | 6             | 137  | 141.5 | 151   |
| 63    | 69   | 69    | 10  | 9              | 6             | 159  | 172.5 | –     |

# Linear drives DGC

Accessories

**FESTO**

| Dimensions and ordering data |                     |                      |      |       |                    |
|------------------------------|---------------------|----------------------|------|-------|--------------------|
| For Ø                        | H2                  | H3                   | H4   |       | L1                 |
| [mm]                         |                     |                      | G    | GF/KF |                    |
| 8                            | 5                   | 7                    | –    | –     | 24                 |
| 12                           | 4.5                 | 7                    | –    | –     | 24                 |
| 18                           | 5.7 <sub>-0.2</sub> | 9.9 <sub>±0.1</sub>  | 0.1  | 6.4   | 33 <sub>±0.1</sub> |
| 25                           | 6.5 <sub>-0.2</sub> | 12.5 <sub>±0.1</sub> | 2.07 | 7.43  | 35 <sub>±0.1</sub> |
| 32                           | 6.5 <sub>-0.2</sub> | 13 <sub>±0.1</sub>   | 1.5  | 4     | 45 <sub>±0.1</sub> |
| 40                           | 8.5 <sub>-0.2</sub> | 16 <sub>±0.1</sub>   | 0.2  | 11.3  | 60 <sub>±0.1</sub> |
| 50                           | 11                  | 23.5                 | 4.7  | 9.2   | 80 <sub>±0.4</sub> |
| 63                           | 11                  | 25.5                 | 1.5  | 15    | 80 <sub>±0.4</sub> |

| For Ø | L2    | L3   | Weight | Part No.      | Type <sup>1)</sup> |
|-------|-------|------|--------|---------------|--------------------|
| [mm]  | ±0.05 | ±0.2 | [g]    |               |                    |
| 8     | –     | –    | 28     | <b>526384</b> | <b>MUC-8</b>       |
| 12    | –     | –    | 32     | <b>526387</b> | <b>MUC-12</b>      |
| 18    | 20.5  | –    | 78     | <b>531752</b> | <b>MUC-18</b>      |
| 25    | 22.5  | –    | 113    | <b>531753</b> | <b>MUC-25</b>      |
| 32    | 30    | –    | 174    | <b>531754</b> | <b>MUC-32</b>      |
| 40    | 44    | –    | 346    | <b>531755</b> | <b>MUC-40</b>      |
| 50    | 26    | 56   | 874    | <b>531756</b> | <b>MUC-50</b>      |
| 63    | 26    | 56   | 1080   | <b>531757</b> | <b>MUC-63</b>      |

1) Suitable for ATEX areas

# Linear drives DGC

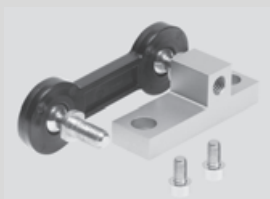
Accessories

FESTO

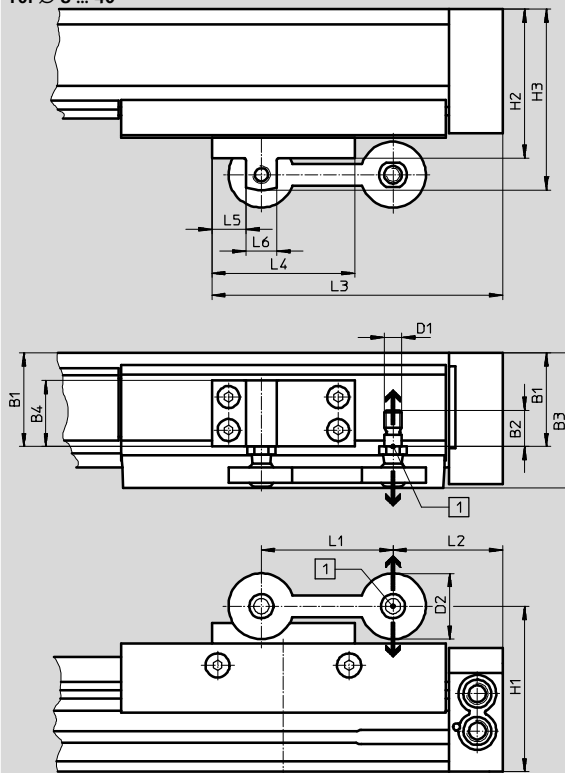
**Driver FK**  
(order code: FK)  
for DGC-G

Materials:  
Plate: Wrought aluminium alloy

Joint: Polyamide  
Ball pin: High-alloy steel



For  $\varnothing 8 \dots 40$

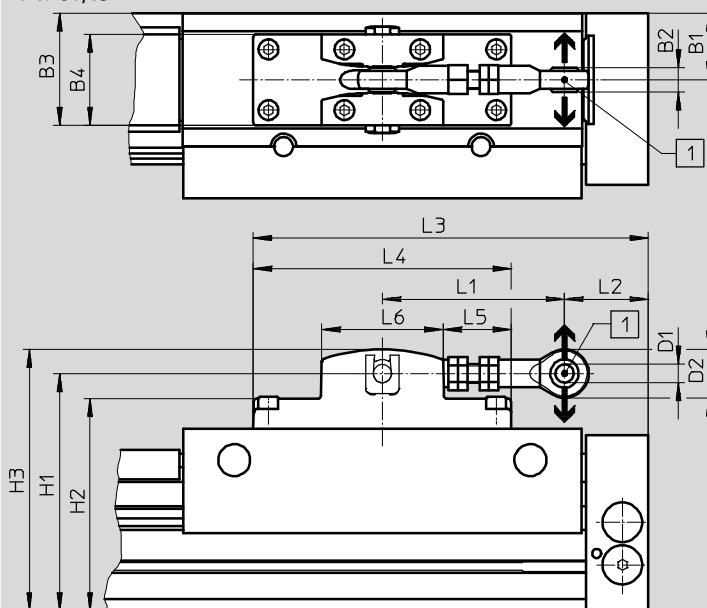


-  - Note

Compensation possible in direction of arrow.

- 1 Radial deflection:  
with  $\varnothing 8 \dots 40$ :  $\pm 2.5$  mm  
with  $\varnothing 50/63$ :  $\pm 4$  mm

For  $\varnothing 50/63$





# Linear drives DGC

Accessories

**FESTO**

| Dimensions and ordering data |                                                     |                                             |               |                     |
|------------------------------|-----------------------------------------------------|---------------------------------------------|---------------|---------------------|
| For Ø                        | Max. offset between linear drive and external guide | Max. permissible load in direction of force |               | Ambient temperature |
| [mm]                         | [mm]                                                | [N]                                         |               | [°C]                |
| 8                            | ±2.5                                                | 550                                         | Backlash-free | -10 ... +60         |
| 12                           |                                                     | 550                                         | Backlash-free |                     |
| 18                           |                                                     | 1400                                        | Backlash-free |                     |
| 25                           |                                                     | 1400                                        | Backlash-free |                     |
| 32                           |                                                     | 1400                                        | Backlash-free |                     |
| 40                           |                                                     | 1400                                        | Backlash-free |                     |
| 50                           | ±4                                                  | 5000                                        | Low-backlash  |                     |
| 63                           |                                                     | 5000                                        | Low-backlash  |                     |

| For Ø | B1    | B2   | B3    | B4 | D1               | D2 | H1    | H2    | H3    | L1          |
|-------|-------|------|-------|----|------------------|----|-------|-------|-------|-------------|
| [mm]  |       |      |       |    |                  |    |       |       |       |             |
| 8     | 17.5  | 10.2 | 30    | 16 | M5               | 20 | 43.5  | 42    | 48    | 40          |
| 12    | 18.5  | 10.2 | 31    | 16 | M5               | 20 | 49    | 47.5  | 53.5  | 40          |
| 18    | 29.3  | 16.5 | 47.8  | 20 | M8               | 30 | 66.8  | 59.8  | 73.8  | 60          |
| 25    | 42.65 | 16.5 | 61.15 | 30 | M8               | 30 | 75.5  | 68    | 82.5  | 60          |
| 32    | 43    | 16.5 | 61.5  | 30 | M8               | 30 | 90    | 82.5  | 97    | 60          |
| 40    | 57.3  | 16.5 | 75.8  | 45 | M8               | 30 | 105   | 97.5  | 113   | 60          |
| 50    | 44    | 16   | 74    | 60 | 12 <sup>H7</sup> | 32 | 156.5 | 140   | 172.4 | 120 ... 125 |
| 63    | 50    | 16   | 80    | 60 | 12 <sup>H7</sup> | 32 | 176.5 | 161.5 | 192.4 | 120 ... 125 |

| For Ø | L2        | L3    | L4  | L5   | L6 | CRC <sup>1)</sup> | Weight | Part No.      | Type             |
|-------|-----------|-------|-----|------|----|-------------------|--------|---------------|------------------|
| [mm]  |           |       |     |      |    |                   | [g]    |               |                  |
| 8     | 5.1       | 62.6  | 35  | 13   | 9  | 1                 | 29     | <b>529350</b> | <b>FKC-8/12</b>  |
| 12    | 17.1      | 74.6  | 35  | 13   | 9  | 1                 | 29     | <b>529350</b> | <b>FKC-8/12</b>  |
| 18    | 24.5      | 107   | 65  | 15.5 | 14 | 1                 | 97     | <b>538714</b> | <b>FKC-18</b>    |
| 25    | 50        | 132.5 | 65  | 15.5 | 14 | 1                 | 119    | <b>538715</b> | <b>FKC-25</b>    |
| 32    | 77.5      | 162   | 75  | 17.5 | 14 | 1                 | 122    | <b>538961</b> | <b>FKC-32</b>    |
| 40    | 103       | 187.5 | 75  | 17.5 | 14 | 1                 | 180    | <b>538962</b> | <b>FKC-40</b>    |
| 50    | 50 ... 55 | 260   | 170 | 45   | 80 | 1                 | 1200   | <b>545240</b> | <b>FKC-50/63</b> |
| 63    | 75 ... 80 | 260   | 170 | 45   | 80 | 1                 | 1200   | <b>545240</b> | <b>FKC-50/63</b> |

1) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

# Linear drives DGC

Accessories

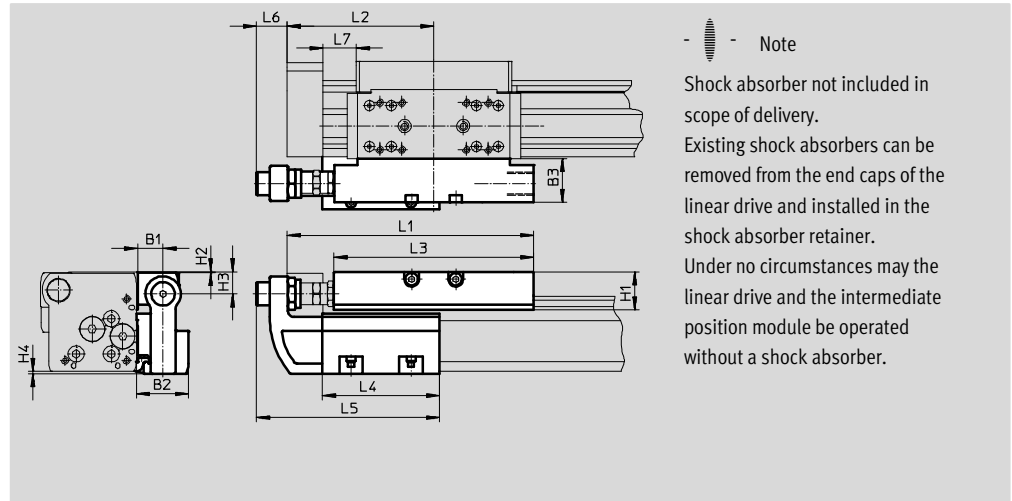
FESTO

## Shock absorber retainer DADP Stop KYC

(order code: YWZ1 or YWZ2)  
For DGC-GF, DGC-KF, DGC-FA

Materials: Stop  
Housing: Anodised aluminium  
Stop bracket: Stainless steel casting  
Clamp: High-alloy steel  
Free of copper and PTFE

Materials: Shock absorber retainer  
Housing: Anodised aluminium  
Free of copper and PTFE



| Dimensions |    |      |      |    |      |     |      |     |
|------------|----|------|------|----|------|-----|------|-----|
| For Ø [mm] |    | B1   | B2   | B3 | H1   | H2  | H3   | H4  |
| 18         | GF | 16   | 34.5 | 29 | 20.7 | 0.2 | 12.5 | 0.7 |
|            | KF |      |      |    |      |     |      |     |
| 25         | GF | 16.5 | 35   | 28 | 25.5 | 0.5 | 15   | 1.4 |
|            | KF |      |      | 30 |      |     |      |     |
| 32         | GF | 16.5 | 35   | 28 | 25.5 | 0.5 | 15   | 1.7 |
|            | KF |      |      | 30 |      |     |      |     |
| 40         | GF | 16   | 35.7 | 29 | 32   | 0.5 | 21.5 | 1.6 |
|            | KF |      |      | 35 | 37   |     |      | 2   |
| 50         | GF | 25   | 50   | 41 | 40.5 | 0.5 | 24   | 0   |
|            | KF |      |      |    |      |     |      |     |
| 63         | GF | 25   | 50   | 40 | 51.5 | 1.5 | 33   | 0   |
|            | KF |      |      |    |      |     |      |     |

| For Ø [mm] |    | L1    | L2    | L3  | L4  | L5    | L6   | L7 min. |
|------------|----|-------|-------|-----|-----|-------|------|---------|
| 18         | GF | 128   | 74.5  | 107 | 80  | 118.5 | 23.5 | 14.5    |
|            | KF |       |       |     |     |       |      |         |
| 25         | GF | 168   | 100   | 136 | 80  | 125   | 20.5 | 22.5    |
|            | KF |       |       |     |     |       |      |         |
| 32         | GF | 206.8 | 124.8 | 164 | 120 | 165   | 14.5 | 42.8    |
|            | KF |       |       |     |     |       |      | 27.3    |
| 40         | GF | 255   | 150   | 210 | 156 | 220.5 | 31   | 30.8    |
|            | KF |       |       |     |     |       |      | 31      |
| 50         | GF | 301   | 175   | 252 | 170 | 238   | 27   | 31      |
|            | KF |       |       |     |     |       |      |         |
| 63         | GF | 328   | 200   | 256 | 200 | 268   | 24   | 41      |
|            | KF |       |       |     |     |       |      |         |

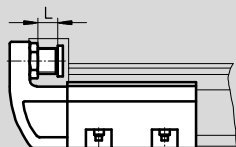
# Linear drives DGC

Accessories

FESTO

## Technical data and ordering codes

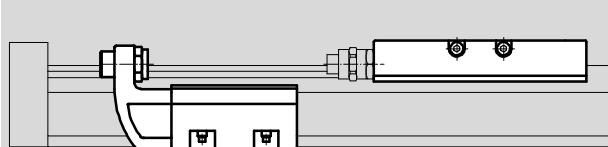
### Precision adjustment



- Note

The stop KYC can be used in both directions.

### Installation example



- Note

The stop KYC can be mounted at any position within the stroke.

| For Ø<br>[mm]           | Max. impact force<br>[N] | Ambient temperature<br>[°C] | CRC <sup>1)</sup> | Weight<br>[g] | Part No. | Type <sup>2)</sup> |
|-------------------------|--------------------------|-----------------------------|-------------------|---------------|----------|--------------------|
| Shock absorber retainer |                          |                             |                   |               |          |                    |
| 18                      | GF 1100                  | -10 ... +80                 | 2                 | 140           | 541725   | DADP-DGC-18-GF     |
|                         | KF                       |                             |                   | 130           | 541729   | DADP-DGC-18-KF     |
| 25                      | GF 1400                  |                             |                   | 205           | 541726   | DADP-DGC-25-GF     |
|                         | KF                       |                             |                   | 180           | 541730   | DADP-DGC-25-KF     |
| 32                      | GF 1700                  |                             |                   | 225           | 541727   | DADP-DGC-32-GF     |
|                         | KF                       |                             |                   | 215           | 541731   | DADP-DGC-32-KF     |
| 40                      | GF 3500                  |                             |                   | 380           | 541728   | DADP-DGC-40-GF     |
|                         | KF                       |                             |                   | 460           | 541732   | DADP-DGC-40-KF     |
| 50                      | GF 3500                  |                             |                   | 890           | 545244   | DADP-DGC-50        |
|                         | KF                       |                             |                   |               |          |                    |
| 63                      | GF 4300                  |                             |                   | 1080          | 545245   | DADP-DGC-63        |
|                         | KF                       |                             |                   |               |          |                    |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

2) Suitable for ATEX areas

| For Ø<br>[mm] | Precision adjustment L<br>[mm] | Ambient temperature<br>[°C] | CRC <sup>1)</sup> | Weight<br>[g] | Part No. | Type <sup>2)</sup> |
|---------------|--------------------------------|-----------------------------|-------------------|---------------|----------|--------------------|
| Stop          |                                |                             |                   |               |          |                    |
| 18            | 10                             | -10 ... +80                 | 2                 | 400           | 541691   | KYC-18             |
| 25            | 10                             |                             |                   | 560           | 541692   | KYC-25             |
| 32            | 10                             |                             |                   | 790           | 541693   | KYC-32             |
| 40            | 15                             |                             |                   | 1525          | 541694   | KYC-40             |
| 50            | 15                             |                             |                   | 2270          | 545242   | KYC-50             |
| 63            | 15                             |                             |                   | 2950          | 545243   | KYC-63             |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

2) Suitable for ATEX areas

# Linear drives DGC

Accessories

FESTO

## Intermediate position module DADM

(order code: Z1, Z2 or Z3)

For DGC-KF

Materials:

Housing: Anodised aluminium

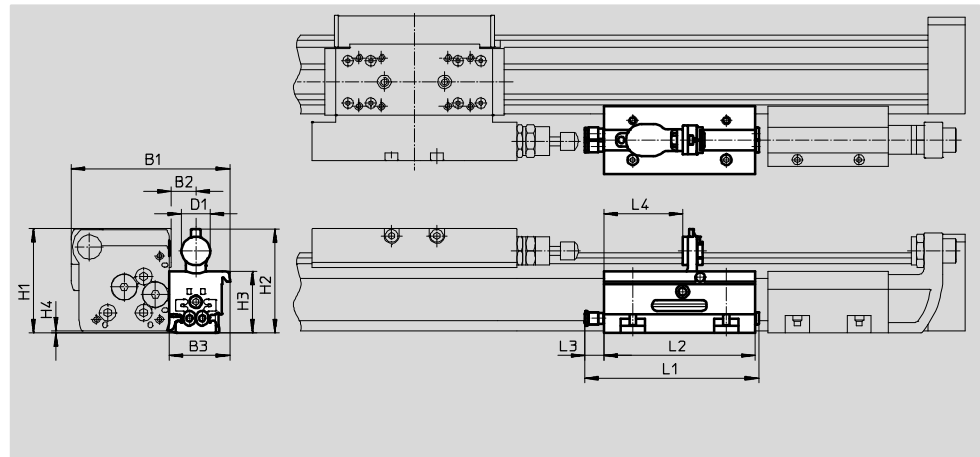
Stop screw, nut:

Galvanised steel

Clamp, lever:

High-alloy steel

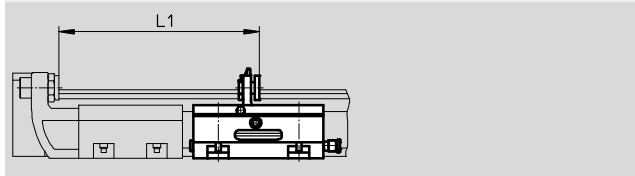
Free of copper and PTFE



| Dimensions    |       |      |    |    |       |       |    |     |     |     |      |      |
|---------------|-------|------|----|----|-------|-------|----|-----|-----|-----|------|------|
| For Ø<br>[mm] | B1    | B2   | B3 | D1 | H1    | H2    | H3 | H4  | L1  | L2  | L3   | L4   |
| 25            | 105   | 16.5 | 40 | 19 | 69.4  | 68.6  | 41 | 1.4 | 116 | 100 | 13.4 | 52.2 |
| 32            | 117.5 | 16.5 | 40 | 19 | 80.2  | 79.7  | 52 | 1.7 | 116 | 100 | 13.4 | 52.2 |
| 40            | 137.5 | 16   | 41 | 27 | 101.6 | 101.1 | 63 | 2.1 | 186 | 170 | 13.4 | 76.5 |

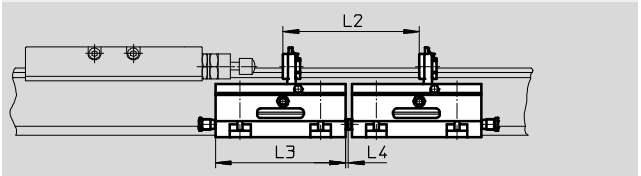
## Minimum distance

between end stop and intermediate position



| For Ø<br>[mm] | L1    |
|---------------|-------|
| 25            | 145.3 |
| 32            | 185.3 |
| 40            | 271.5 |

between two intermediate positions



| For Ø<br>[mm] | L2  | L3  | L4  |
|---------------|-----|-----|-----|
| 25            | 105 | 100 | 2.5 |
| 32            | 105 | 100 | 2.5 |
| 40            | 175 | 170 | 2.5 |

## Note

- Shock absorber not included in scope of delivery. Existing shock absorbers can be removed from the end caps of the linear drive and installed in the shock absorber retainer. Under no circumstances may the

linear drive and the intermediate position module be operated without a shock absorber.

- A shock absorber retainer DADP and a stop KYC are additionally needed when using an intermediate position module.

- The projection (dimension H4) must be noted when using the drive in combination with the intermediate position module DADM. Mounting via foot mountings HP or profile mountings MUC is recommended in this case.

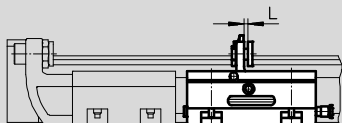
- The position of the stop lever can be detected using proximity sensors SME/SMT-10 → page 79.

# Linear drives DGC

Accessories

FESTO

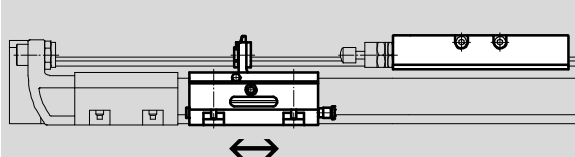
## Precision adjustment L



- Note

The intermediate position module DADM can be used in both directions. A shock absorber retainer DADP and a stop KYC are additionally needed when using an intermediate position module.

## Installation example



- Note

The intermediate position module DADM can be mounted at any position within the stroke.

| Technical data                               |       |                                 |      |      |
|----------------------------------------------|-------|---------------------------------|------|------|
| For Ø                                        | [mm]  | 25                              | 32   | 40   |
| Pneumatic connection                         |       | QS-4                            |      |      |
| Operating pressure                           | [bar] | 2.5 ... 8                       |      |      |
| Mounting position                            |       | Any                             |      |      |
| Impact velocity                              | [m/s] | → page 50                       |      |      |
| Swivel time                                  | [ms]  | ≤100                            | ≤100 | ≤300 |
| Precision adjustment L                       | [mm]  | 2                               | 2    | 4    |
| Repetition accuracy                          | [mm]  | 0.02                            |      |      |
| Position sensing                             |       | For proximity sensor SME/SMT-10 |      |      |
| Weight                                       | [g]   | 430                             | 530  | 970  |
| Ambient temperature                          | [°C]  | -10 ... +60                     |      |      |
| Corrosion resistance class CRC <sup>1)</sup> |       | 2                               |      |      |
| Note on material                             |       | Free of copper and PTFE         |      |      |
|                                              |       | Conforms to RoHS                |      |      |

1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

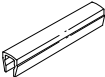
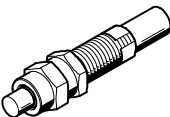
## Ordering codes

|  | For Ø<br>[mm] | Part No. | Type          |
|--|---------------|----------|---------------|
|  | 25            | 541700   | DADM-DGC-25-A |
|  | 32            | 541701   | DADM-DGC-32-A |
|  | 40            | 541702   | DADM-DGC-40-A |

# Linear drives DGC

Accessories

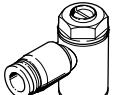
**FESTO**

| Ordering data                                                                                                  |            |                                                               |            |                    |                         |                  |  |
|----------------------------------------------------------------------------------------------------------------|------------|---------------------------------------------------------------|------------|--------------------|-------------------------|------------------|--|
|                                                                                                                | For Ø      | Remarks                                                       | Order code | Part No.           | Type                    | PU <sup>1)</sup> |  |
| Slot nut NST <sup>2)</sup> <span style="float:right">Technical data ➔ Internet: hmbn</span>                    |            |                                                               |            |                    |                         |                  |  |
|                               | 25 ... 40  | For mounting slot                                             | B          | <b>547264</b>      | <b>HMBN-5-1M5</b>       | 10               |  |
|                                                                                                                | 50, 63     |                                                               |            | <b>186566</b>      | <b>HMBN-5-2M5</b>       |                  |  |
|                               |            |                                                               |            |                    |                         |                  |  |
| Centring pin/sleeve ZBS/ZBH <sup>2)</sup> <span style="float:right">Technical data ➔ Internet: zbs, zbh</span> |            |                                                               |            |                    |                         |                  |  |
|                               | For DGC-G  |                                                               |            |                    |                         |                  |  |
|                                                                                                                | 8, 12      | For slide                                                     | –          | <b>150928</b>      | <b>ZBS-5</b>            | 10               |  |
|                                                                                                                | 8, 12      | For end cap                                                   | –          | <b>525273</b>      | <b>ZBS-2</b>            |                  |  |
|                                                                                                                | 50, 63     |                                                               |            | <b>150927</b>      | <b>ZBH-9</b>            |                  |  |
|                                                                                                                | For DGC-GF |                                                               |            |                    |                         |                  |  |
|                                                                                                                | 18         | For slide                                                     | –          | <b>150928</b>      | <b>ZBS-5</b>            | 10               |  |
|                                                                                                                | 25 ... 63  |                                                               |            | <b>150927</b>      | <b>ZBH-9</b>            |                  |  |
|                                                                                                                | 50, 63     | For end cap                                                   | –          | <b>150927</b>      | <b>ZBH-9</b>            |                  |  |
|                                                                                                                | For DGC-KF |                                                               |            |                    |                         |                  |  |
|                                                                                                                | 8, 12, 18  | For slide                                                     | –          | <b>150928</b>      | <b>ZBS-5</b>            | 10               |  |
|                                                                                                                | 25 ... 63  |                                                               |            | <b>150927</b>      | <b>ZBH-9</b>            |                  |  |
|                                                                                                                | 8, 12      | For end cap                                                   | –          | <b>525273</b>      | <b>ZBS-2</b>            |                  |  |
|                                                                                                                | 18         |                                                               |            | <b>150928</b>      | <b>ZBS-5</b>            |                  |  |
|                                                                                                                | 25 ... 63  |                                                               |            | <b>150927</b>      | <b>ZBH-9</b>            |                  |  |
|                                                                                                                |            |                                                               |            |                    |                         |                  |  |
| Slot cover ABP-S <sup>2)</sup> <span style="float:right">Technical data ➔ Internet: abp</span>                 |            |                                                               |            |                    |                         |                  |  |
|                             | 18 ... 63  | For sensor slot<br>each 0.5 m                                 | L          | <b>151680</b>      | <b>ABP-5-S</b>          | 2                |  |
| Shock absorber YSRW <sup>2)</sup> <span style="float:right">Technical data ➔ Internet: ysrw</span>             |            |                                                               |            |                    |                         |                  |  |
|                             | 8          | For DGC basic version and<br>recirculating ball bearing guide | YSRW       | <b>540344</b>      | <b>YSRW-DGC-8</b>       | 1                |  |
|                                                                                                                | 12         |                                                               |            | <b>540345</b>      | <b>YSRW-DGC-12</b>      |                  |  |
|                                                                                                                | 18         |                                                               |            | <b>540346</b>      | <b>YSRW-DGC-18-GF</b>   |                  |  |
|                                                                                                                | 25         |                                                               |            | <b>540348</b>      | <b>YSRW-DGC-25-GF</b>   |                  |  |
|                                                                                                                | 32         |                                                               |            | <b>540350</b>      | <b>YSRW-DGC-32-GF</b>   |                  |  |
|                                                                                                                | 40         |                                                               |            | <b>540352</b>      | <b>YSRW-DGC-40-GF</b>   |                  |  |
|                                                                                                                | 50         | For DGC with plain-bearing<br>guide                           |            | <b>1232870</b>     | <b>YSRW-DGC-40/50-B</b> |                  |  |
|                                                                                                                | 63         |                                                               |            | <b>543069</b>      | <b>YSRW-DGC-63</b>      |                  |  |
|                                                                                                                | 18         |                                                               |            | <b>540347</b>      | <b>YSRW-DGC-18-KF</b>   |                  |  |
|                                                                                                                | 25         |                                                               |            | <b>540349</b>      | <b>YSRW-DGC-25-KF</b>   |                  |  |
|                                                                                                                | 32         |                                                               |            | <b>540351</b>      | <b>YSRW-DGC-32-KF</b>   |                  |  |
|                                                                                                                | 40, 50     |                                                               |            | <b>1232870</b>     | <b>YSRW-DGC-40/50-B</b> |                  |  |
|                                                                                                                | 63         | <b>543069</b>                                                 |            | <b>YSRW-DGC-63</b> |                         |                  |  |

1) Packaging unit quantity

2) Suitable for ATEX areas

## Accessories

| Ordering data                                                                     |          |              |                                 |          |                  |                  |
|-----------------------------------------------------------------------------------|----------|--------------|---------------------------------|----------|------------------|------------------|
|                                                                                   | For Ø    | Remarks      | Order code                      | Part No. | Type             | PU <sup>1)</sup> |
| One-way flow control valve GRLA                                                   |          |              | Technical data → Internet: grla |          |                  |                  |
|  | 8 ... 18 | Metal design | –                               | ★ 193137 | GRLA-M5-QS-3-D   | 1                |
|                                                                                   | 25, 32   |              |                                 | ★ 193138 | GRLA-M5-QS-4-D   |                  |
|                                                                                   |          |              |                                 | ★ 193142 | GRLA-1/8-QS-3-D  |                  |
|                                                                                   |          |              |                                 | ★ 193143 | GRLA-1/8-QS-4-D  |                  |
|                                                                                   |          |              |                                 | ★ 193144 | GRLA-1/8-QS-6-D  |                  |
|                                                                                   | 40, 50   |              |                                 | ★ 193145 | GRLA-1/8-QS-8-D  |                  |
|                                                                                   |          |              |                                 | ★ 193146 | GRLA-1/4-QS-6-D  |                  |
|                                                                                   |          |              |                                 | ★ 193147 | GRLA-1/4-QS-8-D  |                  |
|                                                                                   |          |              |                                 | ★ 193148 | GRLA-1/4-QS-10-D |                  |
|                                                                                   | 63       |              |                                 | ★ 193149 | GRLA-3/8-QS-6-D  |                  |
|                                                                                   |          |              |                                 | ★ 193150 | GRLA-3/8-QS-8-D  |                  |
|                                                                                   |          |              |                                 | ★ 193151 | GRLA-3/8-QS-10-D |                  |

1) Packaging unit quantity

| Ordering data – Proximity sensors for C-slot, magneto-resistive                     |                                   |               |                                             |                  |          | Technical data → Internet: smt |
|-------------------------------------------------------------------------------------|-----------------------------------|---------------|---------------------------------------------|------------------|----------|--------------------------------|
|                                                                                     | Type of mounting                  | Switch output | Electrical connection, connection direction | Cable length [m] | Part No. | Type                           |
| N/O contact                                                                         |                                   |               |                                             |                  |          |                                |
|  | Insertable in the slot from above | PNP           | Plug M8x1, 3-pin, in-line                   | 0.3              | ★ 551375 | SMT-10M-PS-24V-E-0,3-L-M8D     |
|                                                                                     |                                   |               | Cable, 3-wire, in-line                      | 2.5              | ★ 551373 | SMT-10M-PS-24V-E-2,5-L-OE      |

| Ordering data – Proximity sensors for C-slot, magnetic reed                         |                                   |               |                                             |                  |          | Technical data ➔ Internet: sme |
|-------------------------------------------------------------------------------------|-----------------------------------|---------------|---------------------------------------------|------------------|----------|--------------------------------|
|                                                                                     | Type of mounting                  | Switch output | Electrical connection, connection direction | Cable length [m] | Part No. | Type                           |
| N/O contact                                                                         |                                   |               |                                             |                  |          |                                |
|  | Insertable in the slot from above | Contacting    | Plug M8x1, 3-pin, in-line                   | 0.3              | ★ 551367 | SME-10M-DS-24V-E-0,3-L-M8D     |
|                                                                                     |                                   |               | Cable, 3-wire, in-line                      | 2.5              | ★ 551365 | SME-10M-DS-24V-E-2,5-L-OE      |
|                                                                                     |                                   |               | Cable, 2-wire, in-line                      | 2.5              | ★ 551369 | SME-10M-ZS-24V-E-2,5-L-OE      |
|  | Insertable in the slot lengthwise | Contacting    | Plug M8x1, 3-pin, in-line                   | 0.3              | 173212   | SME-10-SL-LED-24               |
|                                                                                     |                                   |               | Cable, 3-wire, in-line                      | 2.5              | 173210   | SME-10-KL-LED-24               |

| Ordering data – Proximity sensors for T-slot, magneto-resistive                     |                                                                              |               |                       |                  |          | Technical data → Internet: smt |  |
|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------|---------------|-----------------------|------------------|----------|--------------------------------|--|
|                                                                                     | Type of mounting                                                             | Switch output | Electrical connection | Cable length [m] | Part No. | Type                           |  |
| N/O contact                                                                         |                                                                              |               |                       |                  |          |                                |  |
|  | Insertable in the slot from above, flush with cylinder profile, short design | PNP           | Cable, 3-wire         | 2.5              | ★ 574335 | SMT-8M-A-PS-24V-E-2,5-OE       |  |
|                                                                                     |                                                                              |               | Plug M8x1, 3-pin      | 0.3              | ★ 574334 | SMT-8M-A-PS-24V-E-0,3-M8D      |  |
|                                                                                     |                                                                              |               | Plug M12x1, 3-pin     | 0.3              | ★ 574337 | SMT-8M-A-PS-24V-E-0,3-M12      |  |
|                                                                                     |                                                                              | NPN           | Cable, 3-wire         | 2.5              | ★ 574338 | SMT-8M-A-NS-24V-E-2,5-OE       |  |
|                                                                                     |                                                                              |               | Plug M8x1, 3-pin      | 0.3              | ★ 574339 | SMT-8M-A-NS-24V-E-0,3-M8D      |  |
| N/C contact                                                                         |                                                                              |               |                       |                  |          |                                |  |
|  | Insertable in the slot from above, flush with cylinder profile, short design | PNP           | Cable, 3-wire         | 7.5              | ★ 574340 | SMT-8M-A-PO-24V-E-7,5-OE       |  |

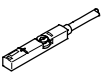
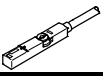
- ★ Ready for dispatch from the Festo factory in 24 hours
- ★ Ready for dispatch in 5 days maximum from stock

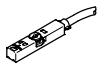
# Linear drives DGC

Accessories

FESTO

## Proximity sensors for piston Ø 18 ... 63

| Ordering data – Proximity sensors for T-slot, magnetic reed                       |                                                                |               |                       |                  |          | Technical data → Internet: sme |  |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------|---------------|-----------------------|------------------|----------|--------------------------------|--|
|                                                                                   | Type of mounting                                               | Switch output | Electrical connection | Cable length [m] | Part No. | Type                           |  |
| N/O contact                                                                       |                                                                |               |                       |                  |          |                                |  |
|  | Insertable in the slot from above, flush with cylinder profile | Contacting    | Cable, 3-wire         | 2.5              | ★ 543862 | SME-8M-DS-24V-K-2,5-OE         |  |
|                                                                                   |                                                                |               |                       | 5.0              | ★ 543863 | SME-8M-DS-24V-K-5,0-OE         |  |
|                                                                                   |                                                                |               | Cable, 2-wire         | 2.5              | ★ 543872 | SME-8M-ZS-24V-K-2,5-OE         |  |
|                                                                                   |                                                                |               | Plug M8x1, 3-pin      | 0.3              | ★ 543861 | SME-8M-DS-24V-K-0,3-M8D        |  |
| N/C contact                                                                       |                                                                |               |                       |                  |          |                                |  |
|  | Insertable in the slot from above, flush with cylinder profile | Contacting    | Cable, 3-wire         | 7.5              | ★ 546799 | SME-8M-DO-24V-K-7,5-OE         |  |

| Ordering data – Proximity sensors for T-slot, magneto-resistive for ATEX areas     |                                                                              |               |       |               |                       |                  |          | Technical data → Internet: smt |  |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------|---------------|-------|---------------|-----------------------|------------------|----------|--------------------------------|--|
|                                                                                    | Type of mounting                                                             | ATEX category |       | Switch output | Electrical connection | Cable length [m] | Part No. | Type                           |  |
|                                                                                    |                                                                              | Gas           | Dust  |               |                       |                  |          |                                |  |
| N/O contact                                                                        |                                                                              |               |       |               |                       |                  |          |                                |  |
|  | Insertable in the slot from above, flush with cylinder profile, short design | II 3G         | II 3D | PNP           | Plug M8x1, 3-wire     | 0.3              | 574342   | SMT-8M-A-PS-24V-E-0,3-M8D-EX2  |  |

| Ordering data – Safety clip for ATEX areas                                          |                                                                                                                                                                                                                                                       |           |          |            |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------|------------|
|                                                                                     | Description                                                                                                                                                                                                                                           | Size      | Part No. | Type       |
| N/O contact                                                                         |                                                                                                                                                                                                                                                       |           |          |            |
|  | <ul style="list-style-type: none"><li>Protects "equipment that is not intrinsically safe" against simple disconnection, here the plug of the proximity sensor SMT and connecting cable NEBU</li><li>ATEX-category: Gas: II 3G / Dust: II 3D</li></ul> | Plug M8x1 | 548067   | NEAU-M8-GD |

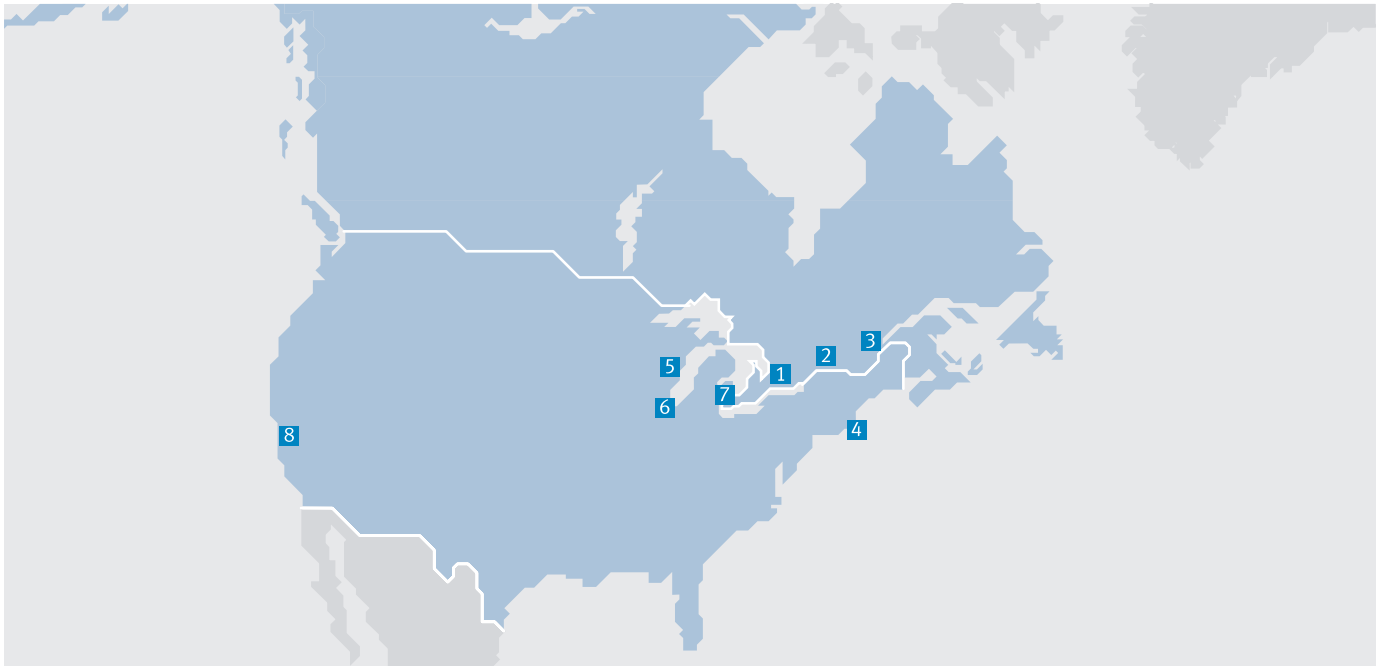
| Ordering data – Connecting cables                                                   |                               |                              |                  | Technical data → Internet: nebu |                      |  |
|-------------------------------------------------------------------------------------|-------------------------------|------------------------------|------------------|---------------------------------|----------------------|--|
|                                                                                     | Electrical connection, left   | Electrical connection, right | Cable length [m] | Part No.                        | Type                 |  |
|  | Straight socket, M8x1, 3-pin  | Cable, open end, 3-wire      | 2.5              | ★ 541333                        | NEBU-M8G3-K-2.5-LE3  |  |
|                                                                                     |                               |                              | 5                | ★ 541334                        | NEBU-M8G3-K-5-LE3    |  |
|                                                                                     | Straight socket, M12x1, 5-pin | Cable, open end, 3-wire      | 2.5              | ★ 541363                        | NEBU-M12G5-K-2.5-LE3 |  |
|                                                                                     |                               |                              | 5                | ★ 541364                        | NEBU-M12G5-K-5-LE3   |  |
|  | Angled socket, M8x1, 3-pin    | Cable, open end, 3-wire      | 2.5              | ★ 541338                        | NEBU-M8W3-K-2.5-LE3  |  |
|                                                                                     |                               |                              | 5                | ★ 541341                        | NEBU-M8W3-K-5-LE3    |  |
|                                                                                     | Angled socket, M12x1, 5-pin   | Cable, open end, 3-wire      | 2.5              | 541367                          | NEBU-M12W5-K-2.5-LE3 |  |
|                                                                                     |                               |                              | 5                | 541370                          | NEBU-M12W5-K-5-LE3   |  |

Festo core product range

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- ☆ Ready for dispatch in 5 days maximum from stock



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