

Passive guide axes DGC-FA, without drive



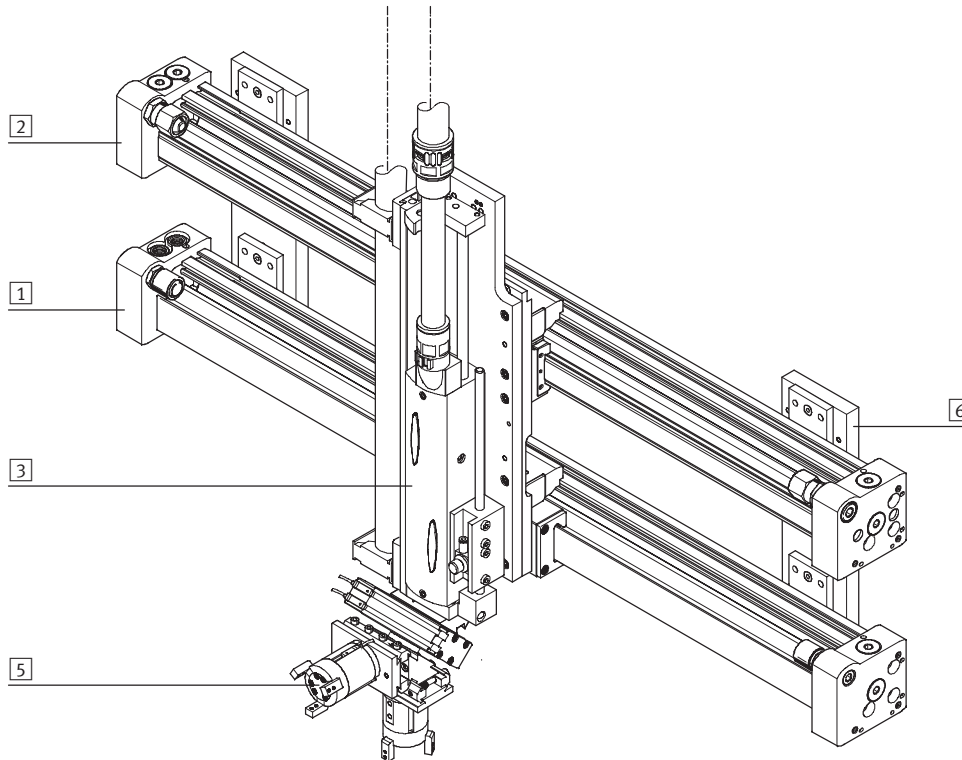
# Passive guide axes DGC-FA, without drive

Key features

## At a glance

- Driveless linear guide unit with guide and freely movable slide
- The passive guide axis/heavy-duty guide is designed to increase force and torque capacities in multi-axis applications
- Higher torsional resistance
- Reduced vibrations with dynamic loads
- Drive axis and passive guide axis/heavy-duty guide can be arranged adjacent to or above one another

## System product for handling and assembly technology



## System components and accessories

|   | Brief description  | → Page/Internet   |             |
|---|--------------------|---|-------------|
| 1 | Axes               | Wide range of combinations possible within handling and assembly technology | axis        |
| 2 | Passive guide axes | For increasing force and torque capacity in multi-axis applications         | guide axis  |
| 3 | Drives             | Wide range of combinations possible within handling and assembly technology | drive       |
| 5 | Grippers           | Wide range of variations possible within handling and assembly technology   | gripper     |
| 6 | Adapters           | For drive/drive and drive/gripper combinations                              | adapter kit |
| - | Motors             | Servo and stepper motors, with or without gearing                           | motor       |

# Passive guide axes DGC-FA, without drive

Key features

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## Guide axes and the corresponding drives

### Passive guide axis DGC-FA



- Can be combined with:
  - Linear drive DGC-KF
- For size 8 ... 63
- Load capacity to max. 6,890 N or 380 Nm

### Passive guide axis EGC-FA



- Can be combined with:
  - Toothed belt axis EGC-TB
  - Spindle axis EGC-BS
- For size 70 ... 185
- Load capacity to max. 15,200 N or 1,820 Nm

### Passive guide axis FDG-ZR-RF



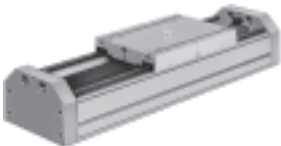
- Can be combined with:
  - Toothed belt axis DGE-ZR-RF
- For size 25 ... 63
- Load capacity to max. 1,500 N or 600 Nm

### Passive guide axis FDG-P/-ZR/-SP



- Can be combined with:
  - Linear drive DGPL
  - Toothed belt axis DGE-ZR-KF
  - Spindle axis DGE-SP-KF
- For size 18 ... 63
- Load capacity to max. 14,050 N or 1,820 Nm

### Heavy-duty guide HD




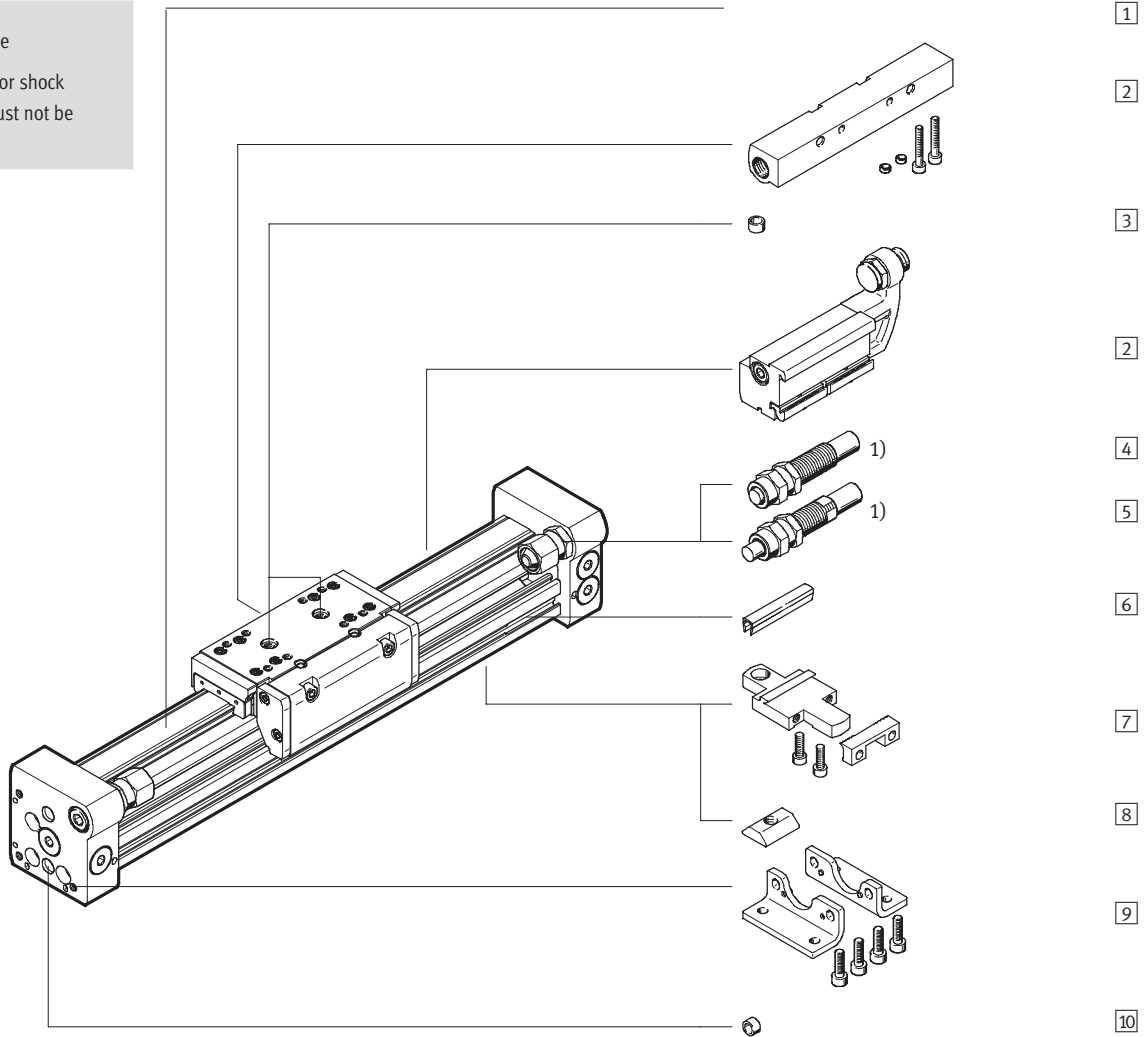
- Size HD8 ... HD40
- Stroke lengths of 10 ... 2,160 mm
- Load capacity to max. 5,600 N or 560 Nm

# Passive guide axes DGC-FA, without drive

Peripherals overview



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



## Passive guide axes DGC-FA, without drive

Peripherals overview

| Variants and accessories                        |  |                 |
|---|--|-----------------|
| Type  | Brief description  | → Page/Internet |
| 1 Passive guide axes<br>DGC-FA                  | Passive guide axis without accessories   | 6               |
| 2 Mechanical end position limiter<br>YWZ        | For variable end position adjustment, e.g. for format adjustments                                    | 25              |
| 3 Centring pin/sleeve <sup>1)</sup><br>ZBS/ZBH  | For centring loads and attachments on the slide  | 27              |
| – Cushioning<br>P                               | Non-adjustable, flexible cushioning. Only used for low speeds  | 19              |
| 4 Shock absorber<br>YSR                         | Self-adjusting hydraulic shock absorber with spring return and linear cushioning characteristic      | 19              |
| 5 Shock absorber<br>YSRW                        | Self-adjusting hydraulic shock absorber with spring return and progressive cushioning characteristic | 19              |
| 6 Slot cover<br>L                               | For protecting against ingress of dirt and securing proximity sensor cables                          | 27              |
| 7 Profile mounting<br>M                         | Simple and precise mounting option via dovetail connection   | 24              |
| 8 Slot nut<br>B                                 | For mounting attachments   | 27              |
| 9 Foot mounting<br>F                            | For mounting on end cap  | 20              |
| 10 Centring pin/sleeve <sup>1)</sup><br>ZBS/ZBH | For centring the drive DGC without foot mountings (user-specific)                                    | 27              |

1) Included in the scope of delivery for the axis

# Passive guide axes DGC-FA, without drive

Type codes

DGC – 25 – 500 – FA – YSR – – – FL –

**Type**

|     |              |
|-----|--------------|
| DGC | Linear drive |
|-----|--------------|

**Piston Ø [mm]**

**Stroke [mm]**

**Guide**

|    |                    |
|----|--------------------|
| FA | Passive guide axis |
|----|--------------------|

**Cushioning**

|      |   |
|------|---|
| P    | Flexible cushioning, non-adjustable         |
| YSR  | Linear shock absorber, self-adjusting       |
| YSRW | Shock absorber, progressive, self-adjusting |

**Slide**

|    |  |
|----|--|
| GP | Protected recirculating ball bearing guide |
|----|--|

**Additional slide**

|   |                  |
|---|------------------|
| K | Additional slide |
|---|------------------|

**Accessories**



|       |                                     |
|-------|-------------------------------------|
| F     | Foot mounting                       |
| ... M | Profile mounting                    |
| ... B | Slot nut for mounting slot          |
| ... L | Slot cover for sensor slot          |
| YWZ1  | Variable end position, at one end   |
| YWZ2  | Variable end position, at both ends |

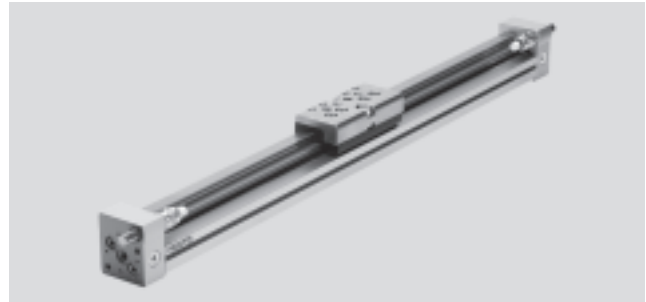
**User manual**

|   |   |
|---|---|
| 0 | Express waiver – no operating instructions to be included |
|---|---|

# Passive guide axes DGC-FA, without drive

Technical data

-  - Diameter  
8 ... 63 mm
-  - Stroke length  
1 ... 8,500 mm



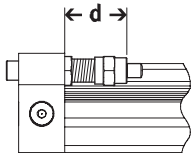
| General technical data   |   |             |             |             |    |    |    |    |
|--------------------------|---|-------------|-------------|-------------|----|----|----|----|
| Piston $\varnothing$     | 8   | 12          | 18          | 25          | 32 | 40 | 50 | 63 |
| Stroke [mm]              | 1 ... 1,300                               | 1 ... 1,900 | 1 ... 3,000 | 1 ... 5,000 |    |    |    |    |
| Guide                    | External recirculating ball bearing guide |             |             |             |    |    |    |    |
| Mounting position        | Any                                       |             |             |             |    |    |    |    |
| Cushioning<br>→9         | Non-adjustable at either end              |             |             |             |    |    |    |    |
|                          | Self-adjusting at both ends               |             |             |             |    |    |    |    |
| 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)       |             |             |             |    |    |    |    |

| Operating and environmental conditions       |             |
|--|-------------|
| Ambient temperature [°C]                     | -10 ... +60 |
| Corrosion resistance class CRC <sup>1)</sup> | 1           |

1) Corrosion resistance class 1 to Festo standard 940 070  
Components requiring low corrosion resistance. Transport and storage protection. Parts that do not have primarily decorative surface requirements, e.g. in internal areas that are not visible or behind covers

| Weights [g]                        |     |     |     |       |       |       |        |        |
|------------------------------------|-----|-----|-----|-------|-------|-------|--------|--------|
| Piston $\varnothing$               | 8   | 12  | 18  | 25    | 32    | 40    | 50     | 63     |
| Basic weight per 0 mm stroke       | 225 | 391 | 975 | 2,113 | 2,837 | 6,996 | 13,342 | 22,220 |
| Additional weight per 10 mm stroke | 11  | 16  | 31  | 49    | 47    | 117   | 153    | 236    |
| Moving load                        | 77  | 149 | 331 | 732   | 1,146 | 2,330 | 4,511  | 8,225  |

### Adjustable end position range d [mm]



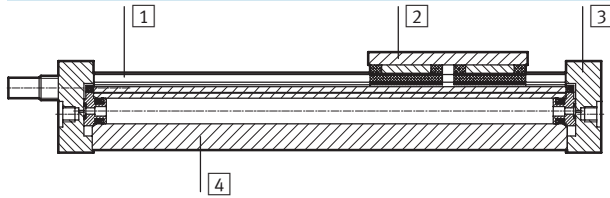
|                                   |               |               |               |               |               |               |               |               |
|-----------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Piston $\varnothing$              | 8             | 12            | 18            | 25            | 32            | 40            | 50            | 63            |
| Cushioning P                      | 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 |
| Protected guide with cushioning P | -             | -             | 16.9 ... 18.9 | 23.6 ... 27.6 | 25.2 ... 30.2 | 34.7 ... 39.7 | -             | -             |
| Cushioning YSR/YSRW               | 12.8 ... 22.8 | 14 ... 24     | 14.5 ... 34.5 | 22.5 ... 47.5 | 27.3 ... 37.3 | 31 ... 56     | 31 ... 56     | 41 ... 76     |

# Passive guide axes DGC-FA, without drive

Technical data

## Materials

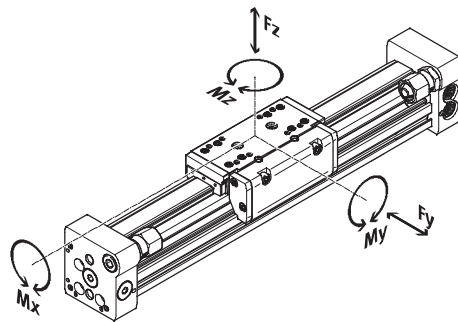
Sectional view



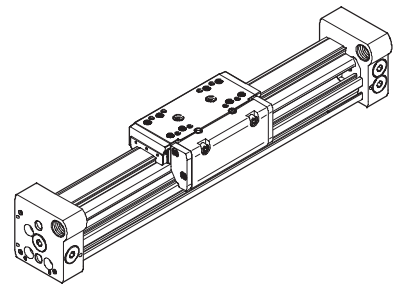
| Passive guide axes |                 |                    |
|--------------------|-----------------|--------------------|
| 1                  | Guide rail      | High-alloy steel   |
| 2                  | Slide           | High-alloy steel   |
| 3                  | End cap         | Anodised aluminium |
| 4                  | Cylinder barrel | Anodised aluminium |
| -                  | Sealing band    | Polyurethane       |

## Characteristic load values

The indicated forces and torques refer to the centre of the slide surface. They must not be exceeded in the dynamic range. Special attention must be paid to the cushioning phase.



GP – Protected guide




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

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

## Permissible forces and torques

| Piston Ø                            | 8   | 12  | 18    | 25    | 32    | 40    | 50    | 63     |
|-------------------------------------|-----|-----|-------|-------|-------|-------|-------|--------|
| F <sub>y</sub> <sub>max.</sub> [N]  | 300 | 650 | 1,850 | 3,050 | 3,310 | 6,890 | 6,890 | 15,200 |
| F <sub>z</sub> <sub>max.</sub> [N]  | 300 | 650 | 1,850 | 3,050 | 3,310 | 6,890 | 6,890 | 15,200 |
| 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   | 1,157  |
| M <sub>z</sub> <sub>max.</sub> [Nm] | 4.5 | 10  | 51    | 97    | 150   | 380   | 634   | 1,157  |

-  - Note

Sizing software  
ProDrive

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

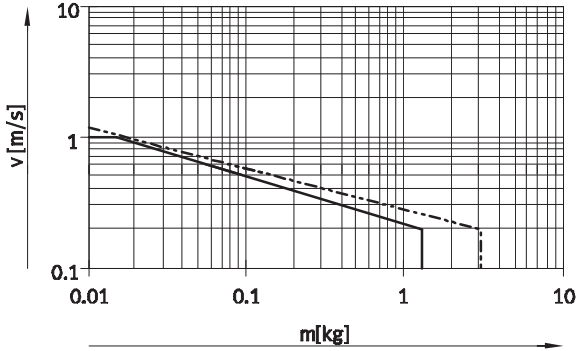


# Passive guide axes DGC-FA, without drive

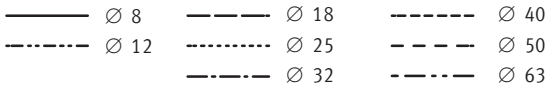
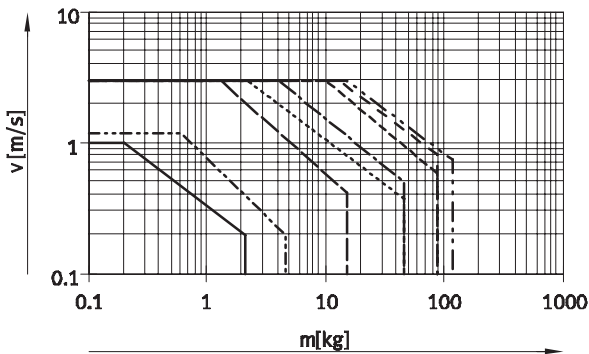
Technical data

## Maximum permissible slide speed $v$ as a function of effective load $m$

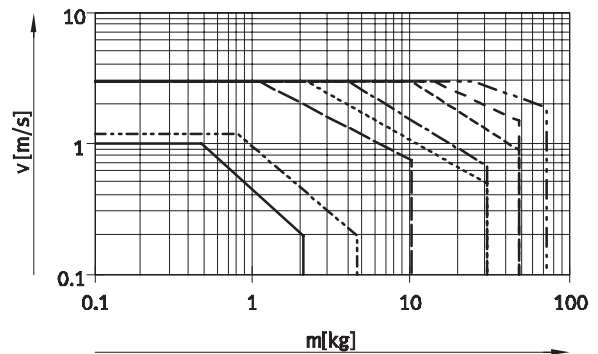
Piston  $\varnothing$  8/12 with P cushioning



Piston  $\varnothing$  8 ... 40 with YSR cushioning



Piston  $\varnothing$  8 ... 40 with YSRW cushioning



Note  
This data represents the maximum values that can be achieved. Values fluctuate in practice relative to the position of the effective load and mounting position.

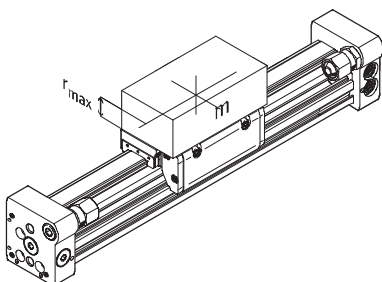
## Operating range of cushioning

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 mass.

Note  
To avoid distortion in the slide, the attachments must maintain a flatness of 0.01 mm.

The data applies 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 |



# Passive guide axes DGC-FA, without drive

Technical data



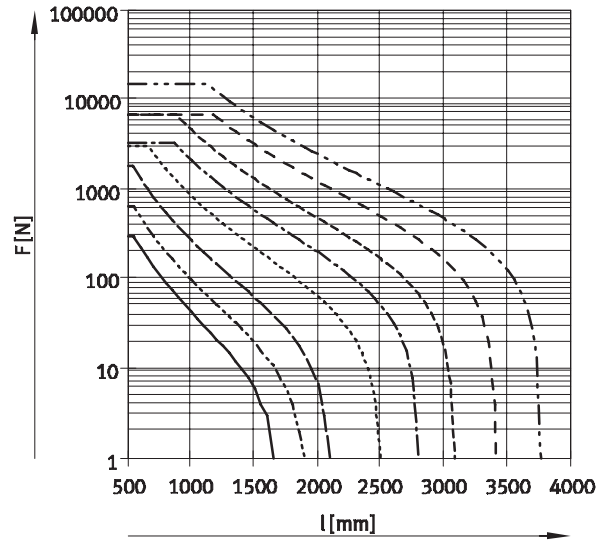
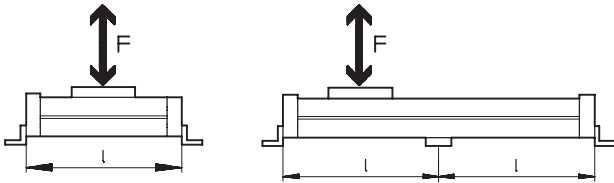
## Number of profile mountings MUC dependent on force due to weight F and support span l

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

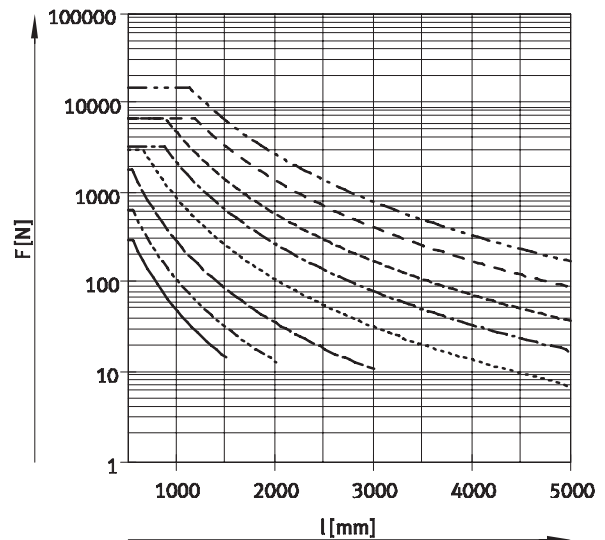
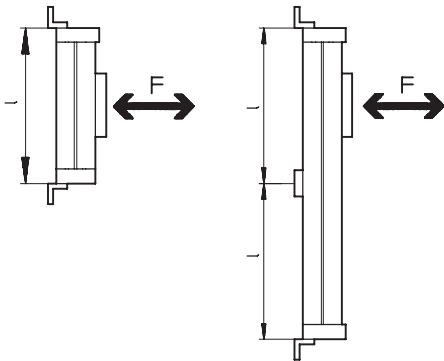
diagrams serve to determine the maximum permissible support span

as a function of the mounting position and the perpendicular force.

### Horizontal mounting position



### Vertical mounting position



### Example:

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

The axis has an overall length of:  
 $l = \text{stroke length} + L1$   
 (see dimensions)  
 $= 1,500 \text{ mm} + 200 \text{ mm}$   
 $= 1,700 \text{ mm}$

According to the diagram, the max. support span is 1,300 mm for the axis DGC-25 with a force of 300 N.

In this example, profile mountings are required as the max. support span (1,300 mm) is smaller than the overall length of the axis (1,700 mm).

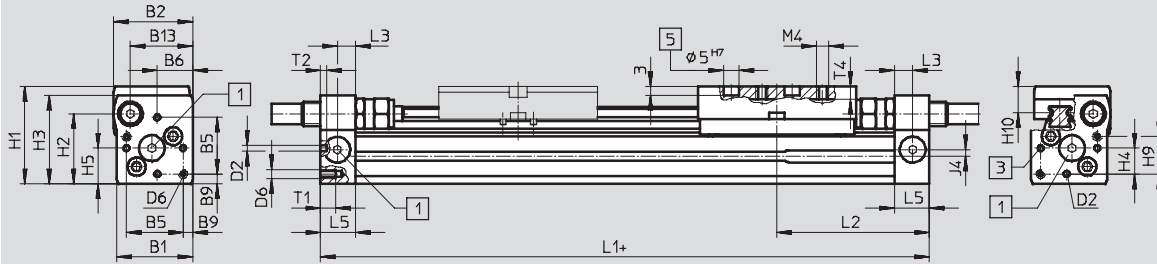
# Passive guide axes DGC-FA, without drive

Technical data

## Dimensions

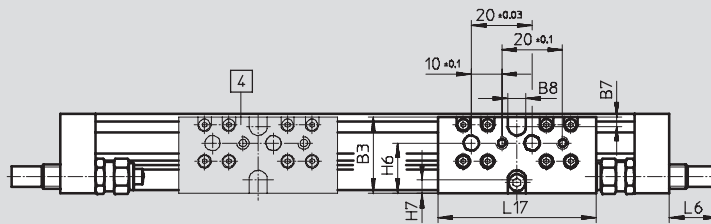
Download CAD data → [www.festo.com](http://www.festo.com)

∅ 8 and 12



+ plus stroke length

- 1 The ports on the end caps are sealed with blanking plugs
- 3 Mounting hole for foot mounting or centring pin
- 4 Additional slide KL
- 5 Hole for centring pin ZBS



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

| ∅    | H1   | H2   | H3   | H4  | H5   | H6   | H7  | H9   | H10 | J4  | L1            |
|------|------|------|------|-----|------|------|-----|------|-----|-----|---------------|
| [mm] |      |      |      |     |      |      |     |      |     |     | +0.5/<br>-0.4 |
| 8    | 32   | 23   | 29   | 8.5 | 11.7 | 16.5 | 4.5 | 12.3 | 8.7 | 2.2 | 100           |
| 12   | 37.5 | 28.5 | 34.5 | 8.7 | 13.5 | 20.5 | 5   | 14.7 | 9.8 | 3   | 125           |

| ∅    | L2   | L3 | L5   | L6 |      |      | L17 | T1 | T2 | T4  | Stroke tolerance |
|------|------|----|------|----|------|------|-----|----|----|-----|------------------|
|      |      |    |      | P  | YSR  | YSRW |     |    |    |     |                  |
| [mm] |      |    |      |    |      |      |     |    |    |     |                  |
| 8    | 50.1 | 6  | 11.5 | 0  | 16   | 16.2 | 52  | 5  | 2  | 4.3 | 0 ... 1.7        |
| 12   | 62.1 | 8  | 16   | 0  | 11.3 | 12.3 | 65  | 6  | 2  | 5   |                  |

## Profile barrel

∅ 8

∅ 12



1 Sensor slot for proximity sensor

# Passive guide axes DGC-FA, without drive

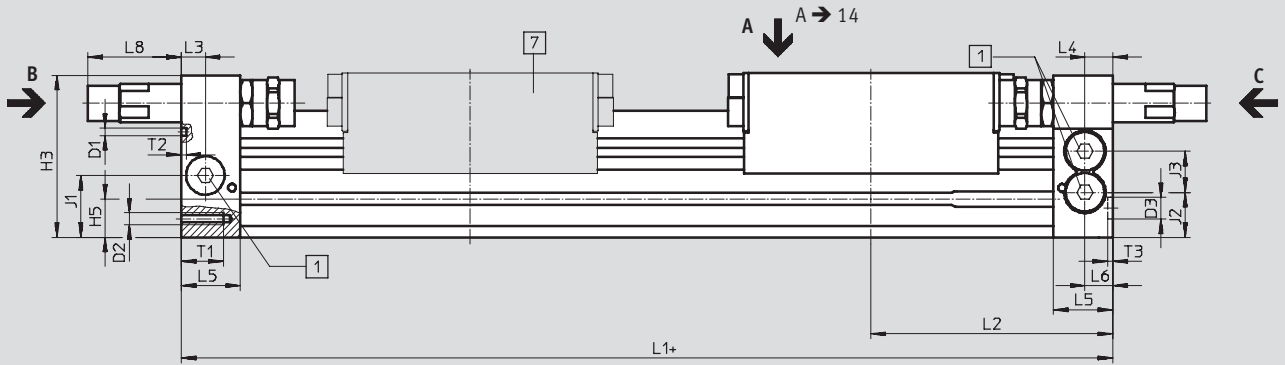
Technical data

FESTO

## Dimensions

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

∅ 18 ... 40



View C

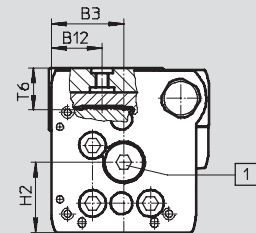
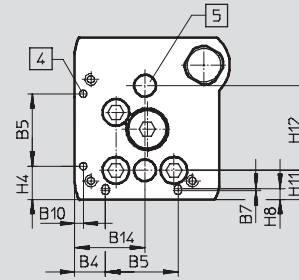
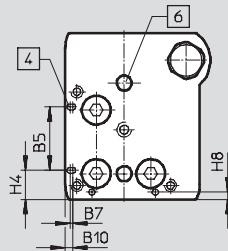
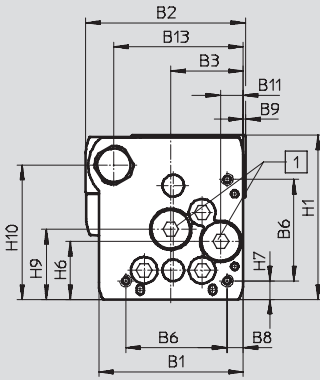
∅ 18 ... 40

View B

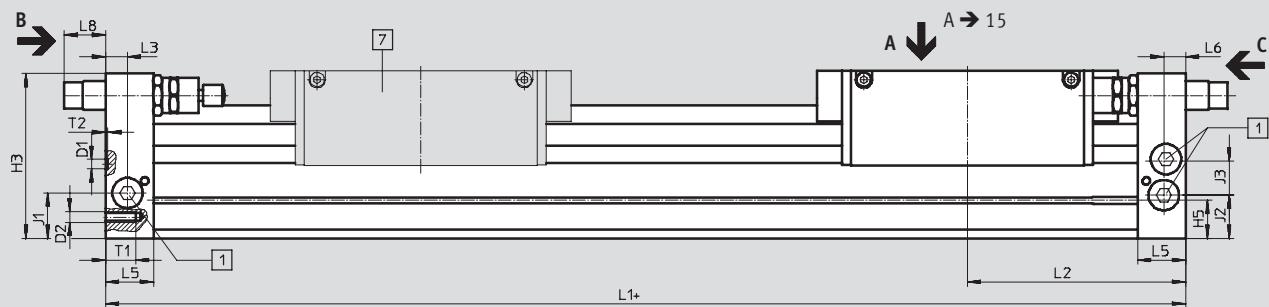
∅ 18

∅ 25 ... 40

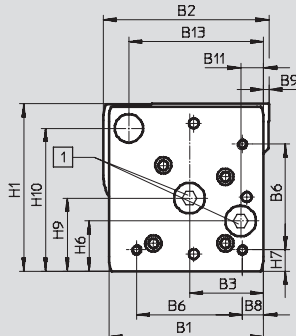
∅ 18 ... 40



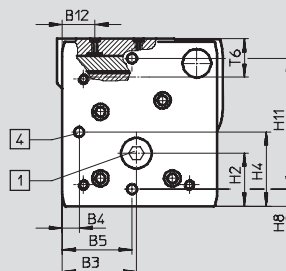
∅ 50/63



View C



View B



- + plus stroke length
- 1 The ports on the end caps are sealed with blanking plugs
- 4 Mounting hole for foot mounting HPC
- 5 Hole for centring sleeve ZBH
- 6 Hole for centring pin ZBS
- 7 Additional slide

# Passive guide axes DGC-FA, without drive

Technical data

| ∅<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 |
| 50        | 113  | 126.5 | 60   | 8     | 52.8        | 81.6 | –   | 12   | 0   | –   | 21   | 24   |
| 63        | 142  | 149   | 68   | 15.5  | 68          | 97   | –   | 19.5 | 5   | –   | 21   | 30   |

| ∅<br>[mm] | B13   | B14  | D1<br>∅<br>±0.05 | D2  | D3<br>∅<br>H7 | H1    | H2   | H3    | H4<br>±0.2 | H5   | H6   |
|-----------|-------|------|------------------|-----|---------------|-------|------|-------|------------|------|------|
| 18        | 39    | 19.5 | 2±0.05           | M4  | 5             | 56.3  | 23.1 | 55    | 9.6        | 13.4 | 20   |
| 25        | 53    | 30   | 3±0.05           | M5  | 9             | 68    | 29   | 67    | 13.65      | 15.8 | 24   |
| 32        | 65    | 38.5 | 3±0.05           | M6  | 9             | 78.5  | 30   | 77    | 5.7        | 17   | 27.7 |
| 40        | 80.5  | 45   | 4±0.05           | M6  | 9             | 99.5  | 41.5 | 97.5  | 17.2       | 25   | 36.5 |
| 50        | 97    | –    | 9 <sup>H7</sup>  | M8  | –             | 124.5 | 38.5 | 122.5 | 52.8       | 29.3 | 36   |
| 63        | 123.5 | –    | 9 <sup>H7</sup>  | M10 | –             | 153.5 | 48.5 | 151   | 68         | 34.8 | 46   |

| ∅<br>[mm] | H7   | H8   | H9   | H10   | H11        | H12<br>±0.05 | J1   | J2   | J3   | L1              |                    |
|-----------|------|------|------|-------|------------|--------------|------|------|------|-----------------|--------------------|
|           |      |      |      |       |            |              |      |      |      | KF<br>+0.9/–0.2 | KF-GP<br>+0.9/–0.2 |
| 18        | 4.6  | 2.4  | 25.2 | 46    | 8.5±0.15   | 30           | 20   | 16.5 | 11   | 150             | 157                |
| 25        | 7.65 | 4.5  | 29   | 55.5  | 12±0.15    | 35           | 26.1 | 18.6 | 17   | 200             | 205                |
| 32        | 8.5  | 14   | 35.2 | 63.8  | 11.45±0.15 | 50           | 30   | 22   | 18.5 | 250             | 250                |
| 40        | 12.2 | 8    | 44   | 81.5  | 15±0.15    | 60           | 35   | 26   | 26   | 300             | 312                |
| 50        | 12   | 8    | 53   | 104.5 | 100±0.05   | –            | 30.5 | 30.5 | 28   | 350             | –                  |
| 63        | 19.5 | 15.5 | 67   | 131   | 120±0.05   | –            | 41.5 | 39.5 | 31.5 | 400             | –                  |

| ∅<br>[mm] | L2    |       | L3   | L4   | L5   | L6   | L8   |      | T1   | T2                  | T3<br>+0.2 | T6    | Stroke tolerance |
|-----------|-------|-------|------|------|------|------|------|------|------|---------------------|------------|-------|------------------|
|           | KF    | KF-GP |      |      |      |      | YSR  | YSRW |      |                     |            |       |                  |
| 18        | 74.5  | 78    | 5.7  | 5.8  | 15   | 5.5  | 29.9 | 32.4 | 9    | 2                   | 3.1        | 15    | 0 ... 2.5        |
| 25        | 100   | 102.5 | 10.5 | 10.6 | 24.5 | 10.6 | 35.6 | 38.6 | 17.5 | 2                   | 2.1        | 17.3  |                  |
| 32        | 124.8 | 124.8 | 14.5 | 14.5 | 30.5 | 14.5 | 19.5 | 28   | 15   | 2                   | 2.1        | 20    |                  |
| 40        | 150   | 156   | 14.6 | 14.6 | 33.5 | 14.6 | 38.5 | 43.5 | 20   | 3                   | 2.1        | 25.7  |                  |
| 50        | 175   | –     | 17   | –    | 41   | 17   | 31   | 36.3 | 24   | 2.1 <sup>+0.2</sup> | –          | 28.75 |                  |
| 63        | 200   | –     | 20   | –    | 44   | 20   | 38.3 | 48.3 | 27.5 | 2.1 <sup>+0.2</sup> | –          | 36.1  |                  |

# Passive guide axes DGC-FA, without drive

Technical data

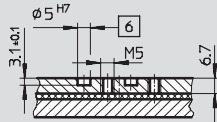
FESTO

## Dimensions

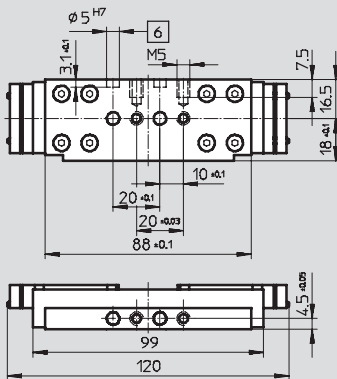
Download CAD data → [www.festo.com](http://www.festo.com)

Slide

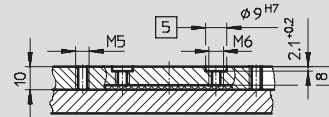
Ø 18



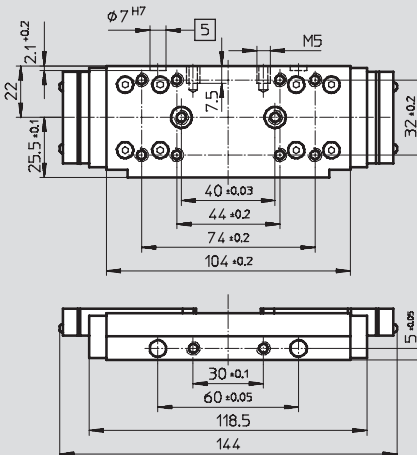
View A



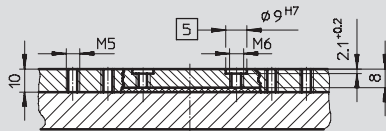
Ø 25



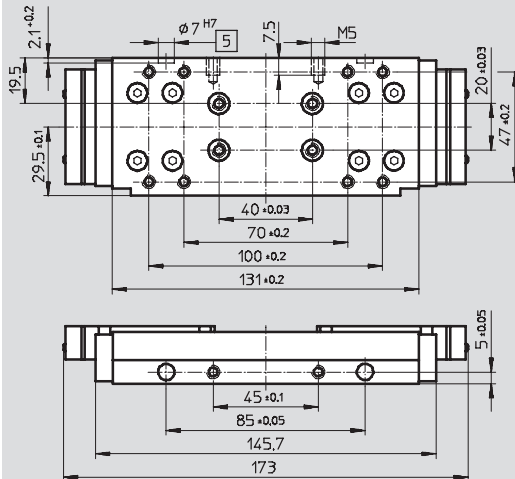
View A



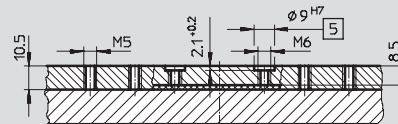
Ø 32



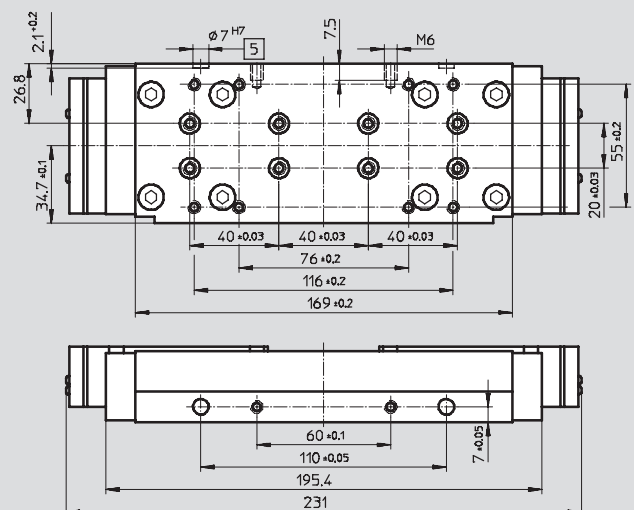
View A



Ø 40



View A



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

# Passive guide axes DGC-FA, without drive

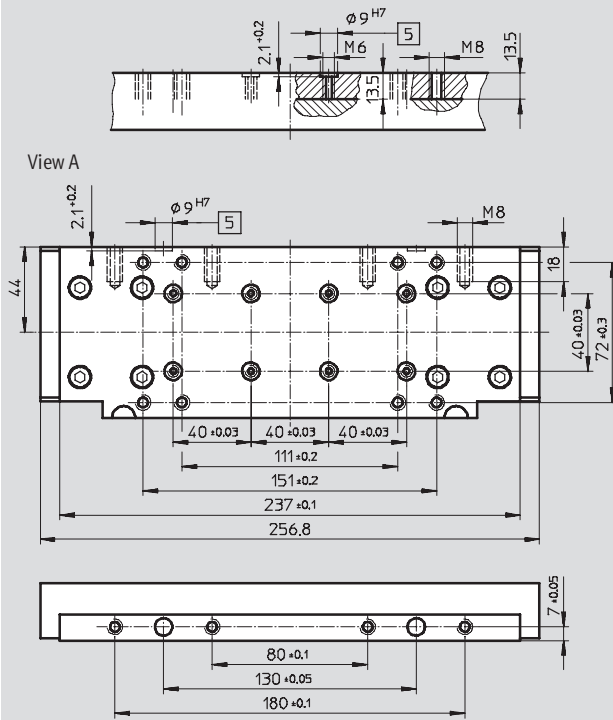
Technical data

## Dimensions

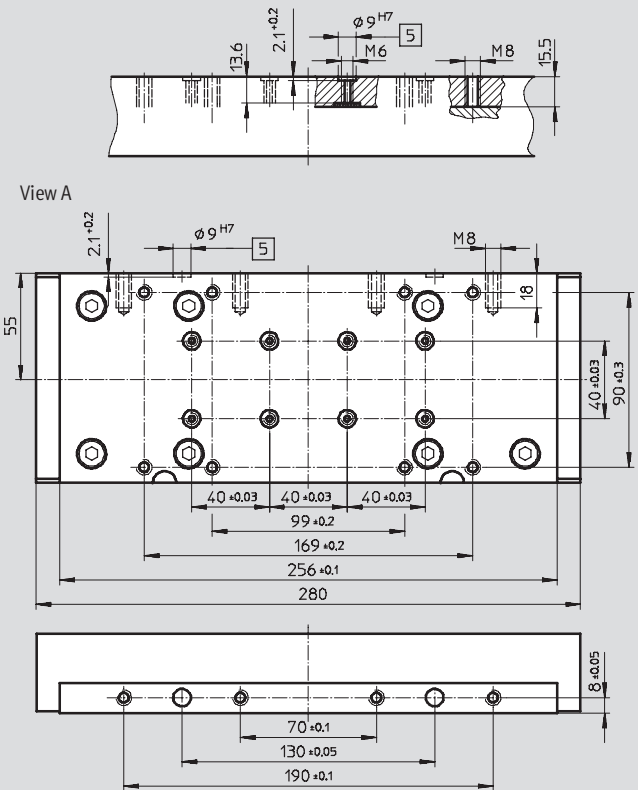
Download CAD data → [www.festo.com](http://www.festo.com)

Slide

Ø 50



Ø 63



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

# Passive guide axes DGC-FA, without drive

Technical data

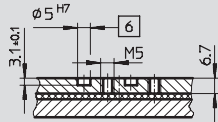
FESTO

## Dimensions

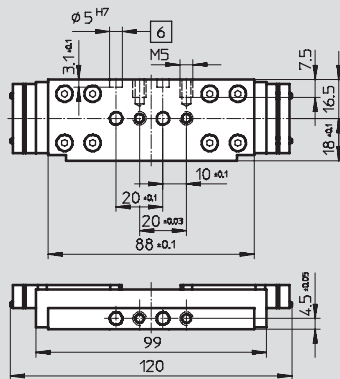
Download CAD data → [www.festo.com](http://www.festo.com)

Slide, variant GP – Protected recirculating ball bearing guide

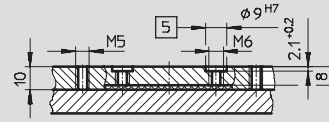
Ø 18



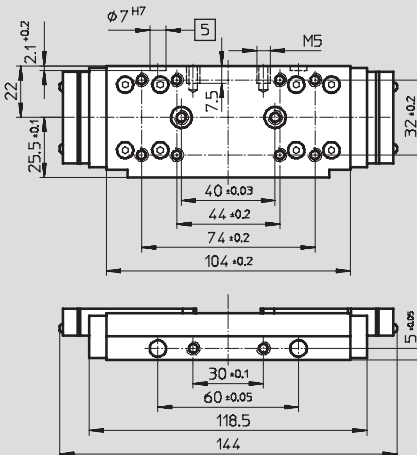
View A



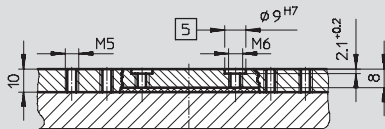
Ø 25



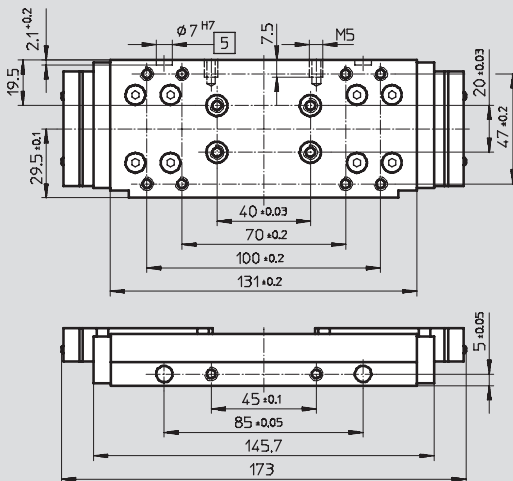
View A



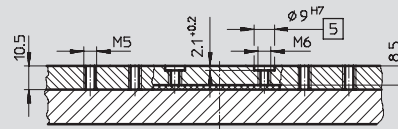
Ø 32



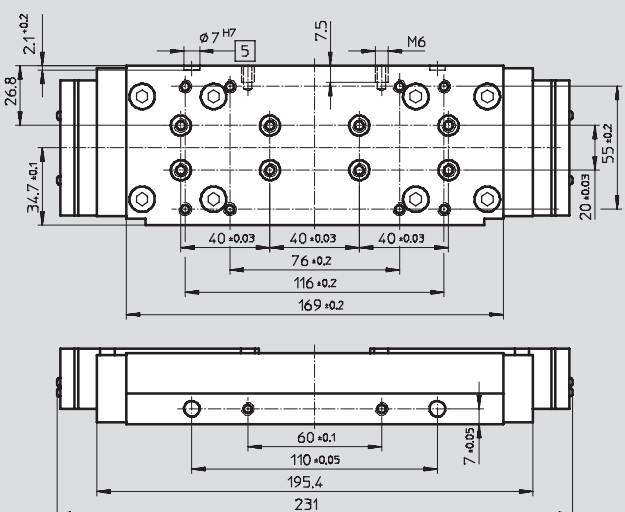
View A



Ø 40



View A



5 Hole for centring sleeve ZBH

6 Hole for centring pin ZBS

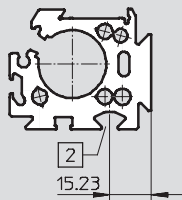


# Passive guide axes DGC-FA, without drive

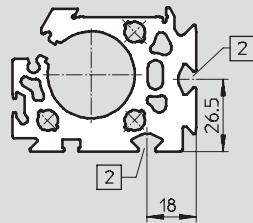
Technical data

## Profile barrel

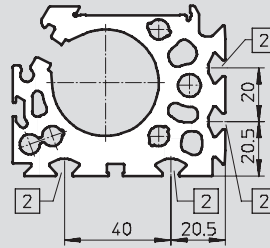
Ø 25



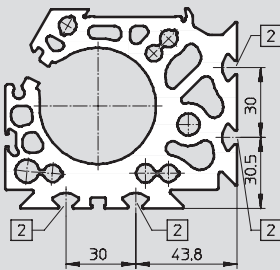
Ø 32



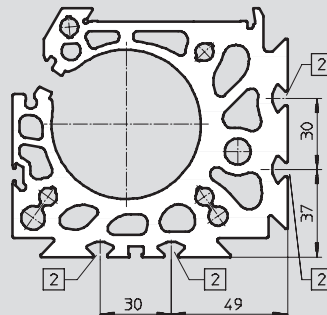
Ø 40



Ø 50



Ø 63



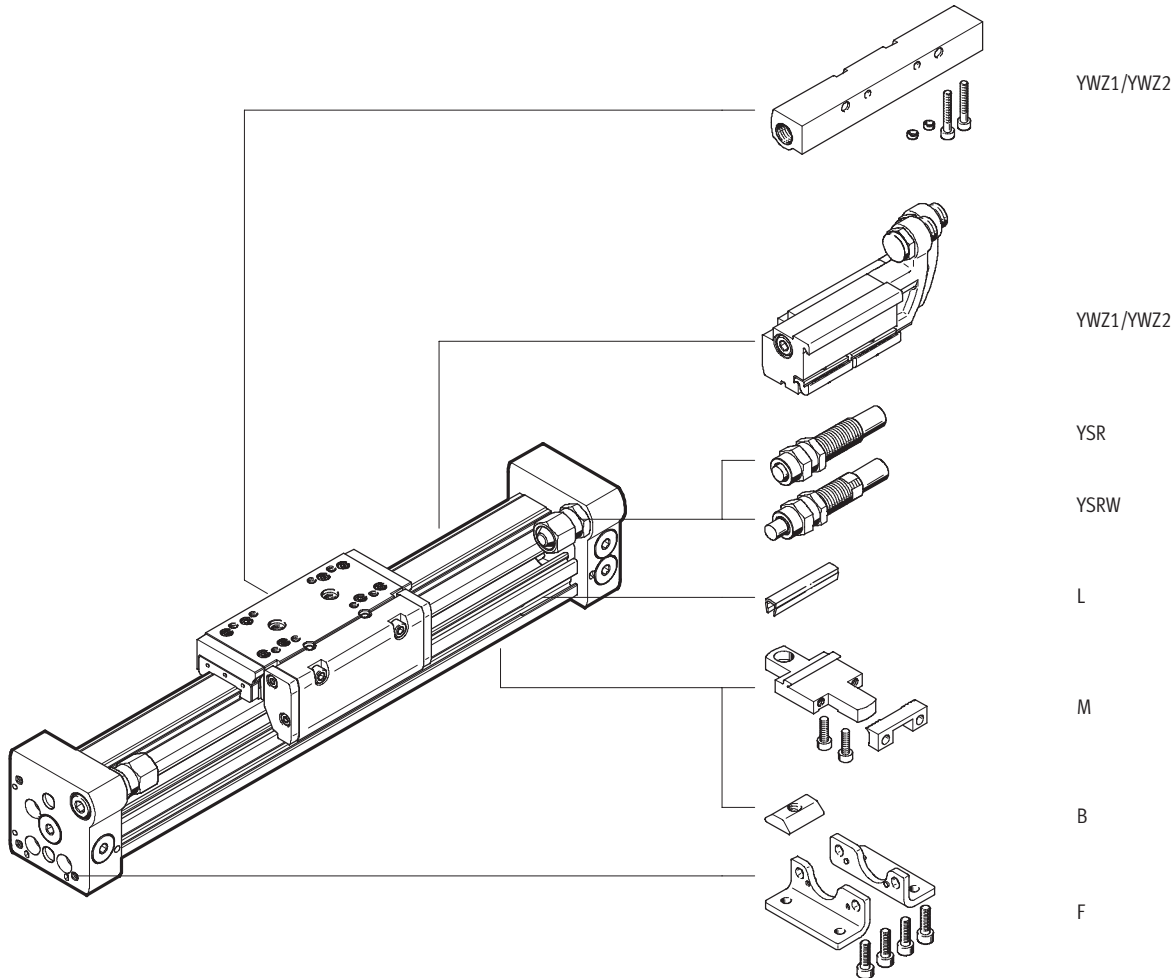
2 Mounting slot for slot nut

# Passive guide axes DGC-FA, without drive

Ordering data – Modular products

## Order code

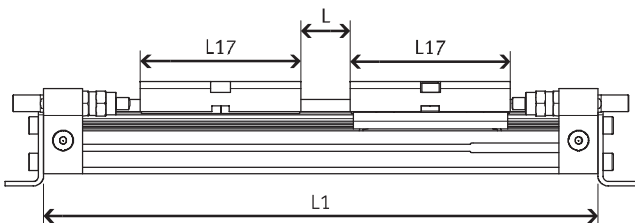
Mandatory data/options



## Effective stroke reduction when ordering an additional slide K

For a guide axis DGC with additional slide, the effective 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



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

The effective stroke is reduced to  
415 mm = 500 mm – 20 mm – 65 mm

# Passive guide axes DGC-FA, without drive

Ordering data – Modular products

| M Mandatory data     |          |        |            | O Options        |                            |             |       |       |   |
|----------------------|----------|--------|------------|------------------|----------------------------|-------------|-------|-------|---|
| Module No.           | Function | Stroke | Guide      | Slide            | Accessories                | User manual |       |       |   |
|                      | Piston Ø |        | Cushioning | Additional slide | Accessories supplied loose |             |       |       |   |
| 530 906              | DGC      | 8      | FA         | GP               | F                          | 0           |       |       |   |
| 530 907              |          | 12     |            |                  | ...M                       |             |       |       |   |
| 532 446              |          | 18     |            |                  | ...B                       |             |       |       |   |
| 532 447              |          | 25     |            |                  | ...L                       |             |       |       |   |
| 532 448              |          | 32     |            |                  | YWZ1                       |             |       |       |   |
| 532 449              |          | 40     |            |                  | YWZ2                       |             |       |       |   |
| 532 450              |          | 50     |            |                  |                            |             |       |       |   |
| 532 451              |          | 63     |            |                  |                            |             |       |       |   |
| <b>Order example</b> |          |        |            |                  |                            |             |       |       |   |
| 530 906              | DGC      | - 8    | - 250      | - FA             | - YSR                      | - 1K        | - ZUB | - F3M | - |

| Ordering table                  |   |            |  |            |         |         |         |         |                 |       |               |  |
|---------------------------------|---|------------|--|------------|---------|---------|---------|---------|-----------------|-------|---------------|--|
| Size                            | 8   | 12         | 18   | 25         | 32      | 40      | 50      | 63      | Condi-<br>tions | Code  | Enter<br>code |  |
| M Module No.                    | 530 906   | 530 907    | 532 446                                    | 532 447    | 532 448 | 532 449 | 532 450 | 532 451 |                 |       |               |  |
| Function                        | Driveless linear unit   |            |  |            |         |         |         |         |                 | DGC   | DGC           |  |
| Piston Ø [mm]                   | 8   | 12         | 18   | 25         | 32      | 40      | 50      | 63      |                 | -...  |               |  |
| Stroke [mm]                     | 1 ... 1300  | 1 ... 1900 | 1 ... 3000                                 | 1 ... 5000 |         |         |         |         | [1]             | -...  |               |  |
| Guide                           | Passive guide axis without drive  |            |  |            |         |         |         |         |                 | -FA   | -FA           |  |
| Cushioning                      | Flexible cushioning rings/pads at both ends                                   |            |  |            |         |         |         |         |                 | -P    |               |  |
|                                 | Shock absorber, self-adjusting  |            |  |            |         |         |         |         |                 | -YSR  |               |  |
|                                 | Shock absorber, self-adjusting, progressive                                   |            |  |            |         |         |         |         |                 | -YSRW |               |  |
| O Slide                         | -   | -          | Protected recirculating ball bearing guide |            | -       | -       |         |         | [2]             | -GP   |               |  |
| Additional slide                | 1 ... 2   |            |  |            |         |         |         |         |                 | [3]   | -...K         |  |
| Accessories                     | Supplied loose (can be retrofitted)   |            |  |            |         |         |         |         |                 | ZUB-  | ZUB-          |  |
| Foot mounting                   | 1   |            |  |            |         |         |         |         |                 | F     |               |  |
| Profile mounting                | 1 ... 9   |            |  |            |         |         |         |         |                 | ...M  |               |  |
| Slot nut for mounting slot      | -   | -          | -  | 1 ... 9    |         |         |         |         |                 | ...B  |               |  |
| Slot cover for sensor slot      | -   | -          | 1 ... 9                                    |            |         |         |         |         |                 | ...L  |               |  |
| Mechanical end position limiter | Variable end position, at one end   |            |  |            |         |         |         |         |                 | [4]   | YWZ1          |  |
|                                 | Variable end position, at both ends   |            |  |            |         |         |         |         |                 | [4]   | YWZ2          |  |
| User manual                     | Express waiver – no operating instructions to be included (already available) |            |  |            |         |         |         |         |                 |       | -O            |  |

- [1] **Stroke** Size 25, 32, 40: Strokes up to 8,500 mm on request
- [2] **GP** Not with cushioning YSR and YSRW  
Not with additional slide K

- [3] **K** For a guide axis 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 P

- [4] **YWZ1, YWZ2** Only with cushioning YSR or YSRW

**Transfer order code**

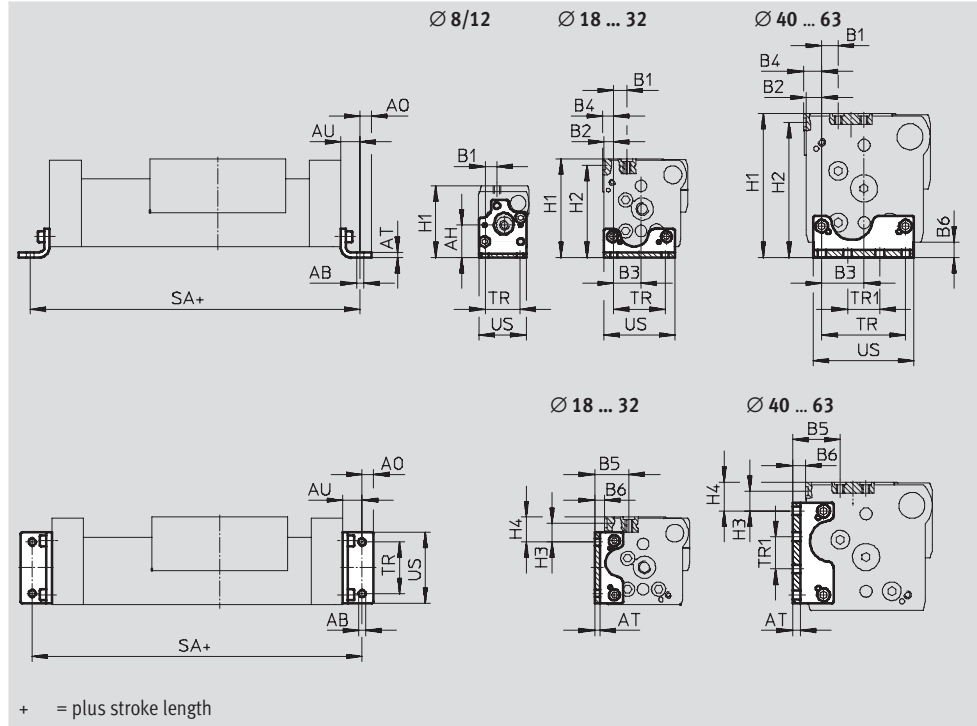
# Passive guide axes DGC-FA, without drive

Accessories



Foot mounting HPC  
(order code: F)

Material:  
Galvanised steel



| Dimensions and ordering data |     |      |      |    |       |       |      |       |      |      |     |       |  |
|------------------------------|-----|------|------|----|-------|-------|------|-------|------|------|-----|-------|--|
| For Ø                        | AB  | AH   | AO   | AT | AU    | B1    | B2   | B3    | B4   | B5   | B6  | H1    |  |
| [mm]                         | Ø   |      |      |    |       |       |      |       |      |      |     |       |  |
| 8                            | 3.4 | 16.7 | 3    | 2  | 9     | 6     | -    | -     | -    | -    | -   | 37    |  |
| 12                           | 4.5 | 18.5 | 4.5  | 2  | 11.5  | 5.4   | -    | -     | -    | -    | -   | 42.5  |  |
| 18                           | 5.5 | -    | 6.75 | 3  | 13.25 | 11.2  | 4.3  | 15.2  | 5.3  | 23.2 | 6.7 | 64    |  |
| 25                           | 5.5 | -    | 9    | 4  | 15    | 13.35 | 7.65 | 21.35 | 8.65 | 29.5 | 7.5 | 76.5  |  |
| 32                           | 6.6 | -    | 10   | 5  | 19    | 11.5  | 9    | 29.5  | 10.5 | 27   | 7.5 | 87.5  |  |
| 40                           | 6.6 | -    | 10   | 6  | 20    | 12.6  | 12.2 | 32.8  | 14.2 | 36.8 | 10  | 111.5 |  |
| 50                           | 9   | -    | 11   | 8  | 25    | 12.5  | 11.5 | 48.5  | 11.5 | 41   | 17  | 141.5 |  |
| 63                           | 11  | -    | 13.5 | 8  | 28    | 17.5  | 12.5 | 55.5  | 17.5 | 49   | 14  | 172.5 |  |

| For Ø | H2    | H3    | H4    | SA        | TR   | TR1  | US   | Weight | Part No. | Type   |
|-------|-------|-------|-------|-----------|------|------|------|--------|----------|--------|
| [mm]  |       |       |       | +0.9/-0.2 | ±0.1 | ±0.1 |      | [g]    |          |        |
| 8     | -     | -     | -     | 118       | 18   | -    | 24.4 | 26     | 526 385  | HPC-8  |
| 12    | -     | -     | -     | 148       | 20   | -    | 29.6 | 38     | 526 388  | HPC-12 |
| 18    | 59.5  | 16.7  | 21.5  | 176       | 30   | -    | 38.6 | 58     | 533 667  | HPC-18 |
| 25    | 71.5  | 14.35 | 19.35 | 230       | 40   | -    | 55   | 131    | 533 668  | HPC-25 |
| 32    | 82.5  | 8     | 13    | 288       | 56.5 | 19.5 | 68   | 239    | 533 669  | HPC-32 |
| 40    | 104.5 | 15.3  | 22.3  | 340       | 65   | 25   | 78   | 348    | 533 670  | HPC-40 |
| 50    | 134.5 | 23.4  | 30.4  | 400       | 82.6 | 47.4 | 102  | 754    | 545 236  | HPC-50 |
| 63    | 164.5 | 22    | 30    | 456       | 111  | 39   | 133  | 1,245  | 545 237  | HPC-63 |

# Passive guide axes DGC-FA, without drive

Accessories

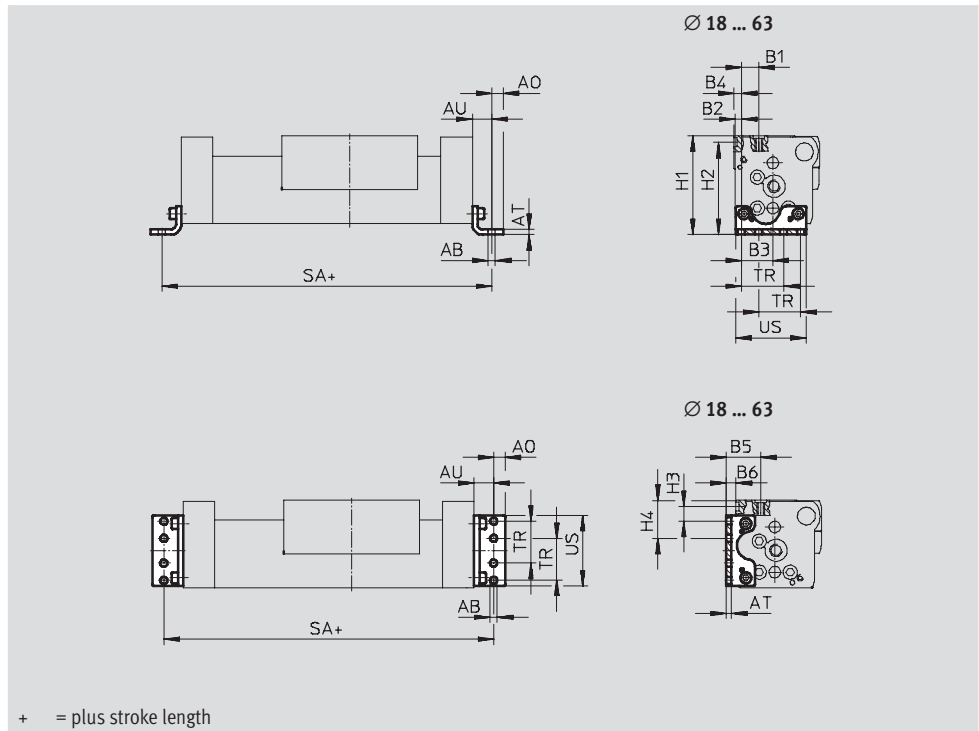


## Foot mounting HPC-S

(when replacing linear drive DGPL with linear drive DGC-GF/-KF)

Material:

Galvanised steel



| Dimensions and ordering data |     |      |    |       |       |      |       |      |      |     |
|------------------------------|-----|------|----|-------|-------|------|-------|------|------|-----|
| For Ø                        | AB  | AO   | AT | AU    | B1    | B2   | B3    | B4   | B5   | B6  |
| [mm]                         | Ø   |      |    |       |       |      |       |      |      |     |
| 18                           | 5.5 | 4.75 | 3  | 13.25 | 12    | 3.5  | 15.6  | 4.5  | 24   | 7.5 |
| 25                           | 5.5 | 6    | 3  | 13    | 16.25 | 4.75 | 24.25 | 5.75 | 29.5 | 7.5 |
| 32                           | 6.6 | 7    | 4  | 17    | 9     | 9    | 29.5  | 10.5 | 27   | 7.5 |
| 50                           | 9   | 11   | 8  | 25    | 12.5  | 11.5 | 48.5  | 11.5 | 38   | 14  |
| 63                           | 11  | 13.5 | 8  | 28    | 17.5  | 12.5 | 55.5  | 17.5 | 37   | 2   |

| For Ø | H1    | H2    | H3    | H4    | SA             | TR   | US  | Weight | Part No. | Type     |
|-------|-------|-------|-------|-------|----------------|------|-----|--------|----------|----------|
| [mm]  |       |       |       |       |                | ±0.1 |     | [g]    |          |          |
| 18    | 64    | 59.5  | 16.7  | 28    | 176.5+0.9/-0.2 | 24   | 40  | 54.5   | 535 600  | HPC-18-S |
| 25    | 75.5  | 70.5  | 11.45 | 29.75 | 226+0.9/-0.2   | 32.5 | 55  | 89.5   | 535 601  | HPC-25-S |
| 32    | 87.5  | 82.5  | 8     | 31.5  | 284+0.9/-0.2   | 38   | 68  | 180    | 538 413  | HPC-32-S |
| 50    | 138.5 | 131.5 | 23.4  | 48    | 400+1.7/-0.2   | 65   | 102 | 754    | 545 238  | HPC-50-S |
| 63    | 160.5 | 152.5 | 22    | 66    | 456+1.7/-0.2   | 75   | 133 | 1,138  | 545 239  | HPC-63-S |

# Passive guide axes DGC-FA, without drive

Accessories

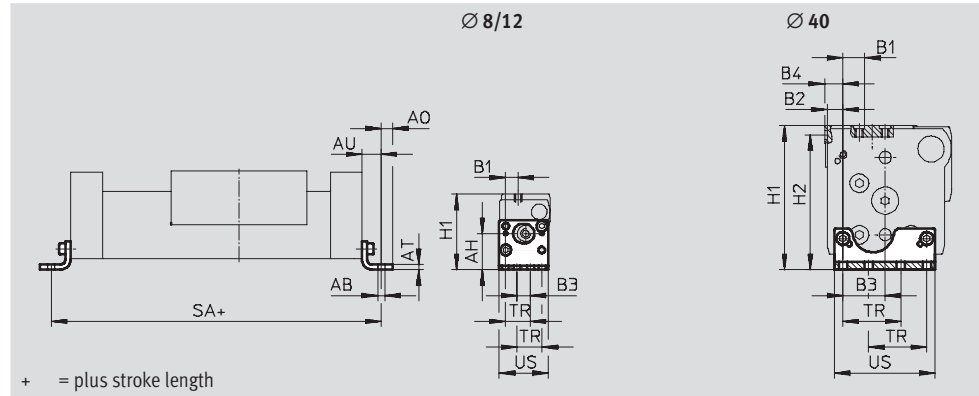
FESTO

## Foot mounting HPC-SO

(when replacing linear drive DGPL with linear drive DGC-GF/-KF)

Material:

Galvanised steel



### Dimensions and ordering data

| For Ø | AB<br>Ø | AH   | A0  | AT | AU   | B1   | B2   | B3   |
|-------|---------|------|-----|----|------|------|------|------|
| 8     | 3.4     | 18.7 | 3   | 2  | 9    | 6.5  | -    | 7    |
| 12    | 3.4     | 23.5 | 3   | 2  | 9    | 9.3  | -    | 9.4  |
| 40    | 6.6     | -    | 8.5 | 5  | 17.5 | 12.5 | 12.3 | 32.7 |

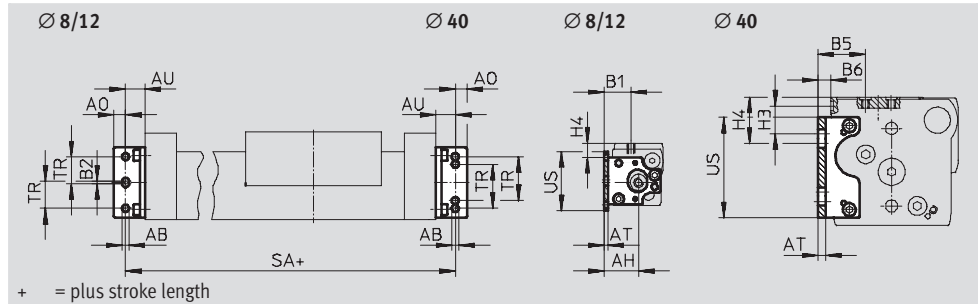
| For Ø | B4   | H1    | H2   | SA  | TR   | US   | Weight | Part No. | Type      |
|-------|------|-------|------|-----|------|------|--------|----------|-----------|
| 8     | -    | 39    | -    | 118 | 13   | 25.4 | 26     | 529 346  | HPC-8-SO  |
| 12    | -    | 47.5  | -    | 143 | 18.6 | 33.8 | 42     | 529 348  | HPC-12-SO |
| 40    | 14.3 | 104.5 | 97.5 | 335 | 45   | 78   | 264    | 536 745  | HPC-40-SO |

# Passive guide axes DGC-FA, without drive

Accessories

**Foot mounting HPC-SH**  
(when replacing linear drive DGPL  
with linear drive DGC-GF/-KF)

Material:  
Galvanised steel



| Dimensions and ordering data |     |      |     |    |      |      |     |    |
|------------------------------|-----|------|-----|----|------|------|-----|----|
| For Ø                        | AB  | AH   | AO  | AT | AU   | B1   | B2  | B5 |
| [mm]                         | Ø   |      |     |    |      |      |     |    |
| 8                            | 3.4 | 17.8 | 3   | 2  | 9    | 13.8 | 1.5 | -  |
| 12                           | 3.4 | 21.1 | 3   | 2  | 9    | 16.5 | 1.4 | -  |
| 40                           | 6.6 | -    | 8.5 | 5  | 17.5 | -    | -   | 36 |

| For Ø | B6  | H3   | H4   | SA        | TR   | US   | Weight | Part No. | Type      |
|-------|-----|------|------|-----------|------|------|--------|----------|-----------|
| [mm]  |     |      |      | +0.9/-0.2 | ±0.1 |      | [g]    |          |           |
| 8     | -   | -    | 7.25 | 118       | 13   | 30.5 | 25     | 529 347  | HPC-8-SH  |
| 12    | -   | -    | 4.5  | 143       | 18.6 | 41.8 | 41.5   | 529 349  | HPC-12-SH |
| 40    | 9.2 | 21.6 | 36   | 335       | 45   | 78   | 275    | 536 746  | HPC-40-SH |

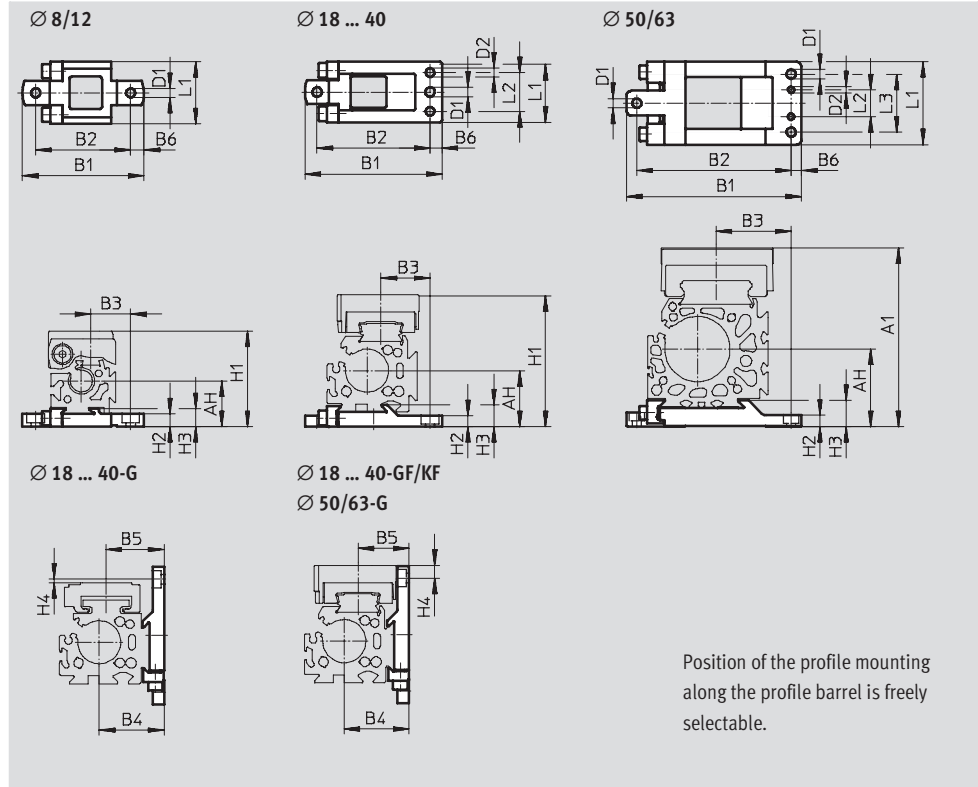
# Passive guide axes DGC-FA, without drive

Accessories

FESTO

Profile mounting MUC  
(order code: M)

Material:  
High-alloy steel



Position of the profile mounting along the profile barrel is freely selectable.

| Dimensions and ordering data |      |       |           |       |      |      |     |               |               |
|------------------------------|------|-------|-----------|-------|------|------|-----|---------------|---------------|
| For $\varnothing$            | AH   | B1    | B2        | B3    | B4   | B5   | B6  | D1            | D2            |
| [mm]                         |      |       | $\pm 0.2$ |       |      |      |     | $\varnothing$ | $\varnothing$ |
| 8                            | 17.7 | 47    | 36.7      | 15.35 | -    | -    | 5.1 | 3.5           | -             |
| 12                           | 18.5 | 52.5  | 42.2      | 16.5  | -    | -    | 5.1 | 3.5           | -             |
| 18                           | 27.2 | 67.8  | 56        | 28.7  | 27.2 | 28.7 | 5.7 | 5.5           | 5             |
| 25                           | 32.5 | 79.5  | 65.5      | 28.5  | 37.5 | 29.5 | 7   | 5.5           | 5             |
| 32                           | 37.5 | 94    | 80        | 35    | 47.5 | 37   | 7   | 5.5           | 5             |
| 40                           | 47   | 110.5 | 96        | 43    | 57   | 46.8 | 7   | 6.5           | 6             |
| 50                           | 61   | 145   | 125       | 56    | 77   | 61   | 7   | 9             | 6             |
| 63                           | 75   | 169   | 149       | 72.5  | 87   | 69   | 10  | 9             | 6             |

| For $\varnothing$ | H1    | H2  | H3   | H4   | L1 | L2   | L3 | Weight | Part No. | Type   |
|-------------------|-------|-----|------|------|----|------|----|--------|----------|--------|
| [mm]              |       |     |      |      |    |      |    | [g]    |          |        |
| 8                 | 37    | 5   | 7    | -    | 24 | -    | -  | 28     | 526 384  | MUC-8  |
| 12                | 42.5  | 4.5 | 7    | -    | 24 | -    | -  | 32     | 526 387  | MUC-12 |
| 18                | 64    | 5.7 | 9.9  | 6.4  | 33 | 20.5 | -  | 78     | 531 752  | MUC-18 |
| 25                | 76.5  | 6.5 | 12.5 | 7.43 | 35 | 22.5 | -  | 113    | 531 753  | MUC-25 |
| 32                | 87.5  | 6.5 | 13   | 4    | 45 | 30   | -  | 174    | 531 754  | MUC-32 |
| 40                | 111.5 | 8.5 | 16   | 11.3 | 60 | 44   | -  | 346    | 531 755  | MUC-40 |
| 50                | 159   | 11  | 23.5 | 9.2  | 80 | 26   | 56 | 874    | 531 756  | MUC-50 |
| 63                | 172.5 | 11  | 23.5 | 15   | 80 | 26   | 56 | 1,080  | 531 757  | MUC-63 |



# Passive guide axes DGC-FA, without drive

Accessories

## Shock absorber retainer DADP

### Stop KYC

(order code: YWZ1 or YWZ2)

Materials: Stop

Housing: Anodised aluminium

Stop bracket: Stainless steel casting

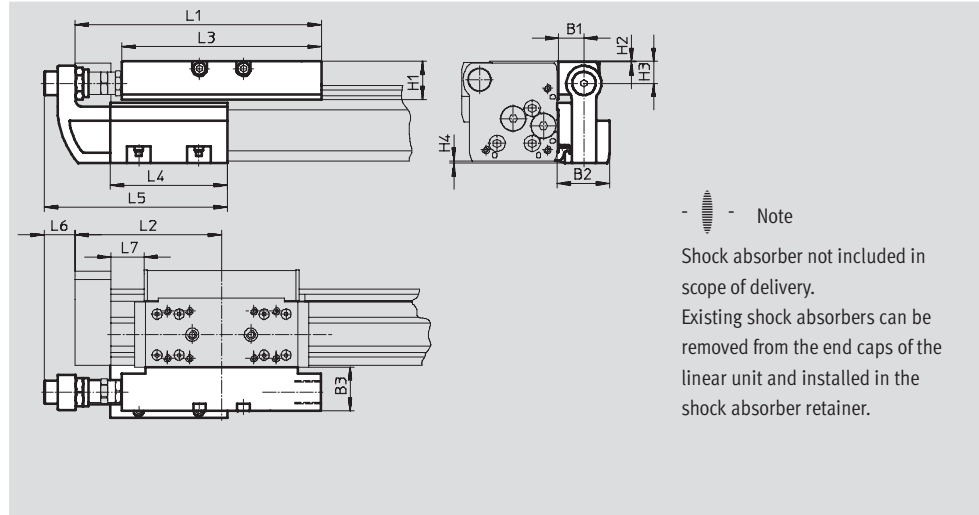
Clamp: High-alloy steel

Free of copper and PTFE

Materials: Shock absorber retainer

Housing: Anodised aluminium

Free of copper and PTFE



**Note**  
Shock absorber not included in scope of delivery. Existing shock absorbers can be removed from the end caps of the linear unit and installed in the shock absorber retainer.

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

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

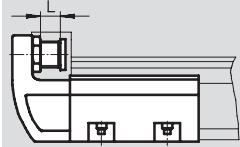
# Passive guide axes DGC-FA, without drive

Accessories

FESTO

## Technical data and ordering codes

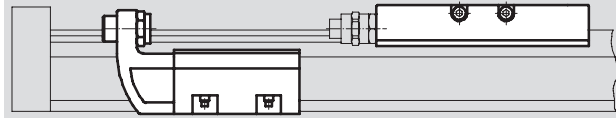
### Precision adjustment



-  - Note

The stop KYC can be used in both directions.

### Installation example



-  - Note

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

| For $\varnothing$<br>[mm]      | Precision adjustment L<br>[mm] | Ambient temperature<br>[°C] | CRC <sup>1)</sup> | Weight<br>[g] | Part No. | Type           |
|--------------------------------|--------------------------------|-----------------------------|-------------------|---------------|----------|----------------|
| <b>Shock absorber retainer</b> |                                |                             |                   |               |          |                |
| 18                             | 10                             | -10 ... +80                 | 2                 | 130           | 541 729  | DADP-DGC-18-KF |
| 25                             | 10                             |                             |                   | 180           | 541 730  | DADP-DGC-25-KF |
| 32                             | 10                             |                             |                   | 215           | 541 731  | DADP-DGC-32-KF |
| 40                             | 15                             |                             |                   | 460           | 541 732  | DADP-DGC-40-KF |
| 50                             | 15                             |                             |                   | 890           | 545 244  | DADP-DGC-50    |
| 63                             | 15                             |                             |                   | 1,080         | 545 245  | DADP-DGC-63    |
| <b>Stop</b>                    |                                |                             |                   |               |          |                |
| 18                             | 10                             | -10 ... +80                 | 2                 | 400           | 541 691  | KYC-18         |
| 25                             | 10                             |                             |                   | 560           | 541 692  | KYC-25         |
| 32                             | 10                             |                             |                   | 790           | 541 693  | KYC-32         |
| 40                             | 15                             |                             |                   | 1,525         | 541 694  | KYC-40         |
| 50                             | 15                             |                             |                   | 2,270         | 545 242  | KYC-50         |
| 63                             | 15                             |                             |                   | 2,950         | 545 243  | KYC-63         |




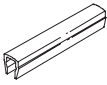
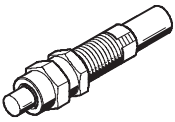
1) Corrosion resistance class 2 to Festo standard 940 070

Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents

# Passive guide axes DGC-FA, without drive

Accessories

**FESTO**

| Ordering data  |           |   |            |          |                   |                  |
|--|-----------|---|------------|----------|-------------------|------------------|
|  | For Ø     | Remarks   | Order code | Part No. | Type              | PU <sup>1)</sup> |
| Slot nut NST <span style="float: right;">Technical data → Internet: hmbn</span>                    |           |   |            |          |                   |                  |
|                   | 25 ... 40 | For mounting slot                                   | B          | 547 264  | HMBN-5-1M5        | 10               |
|                   | 50, 63    |   |            | 186 566  | HMBN-5-2M5        |                  |
| Centring pin/sleeve ZBS/ZBH <span style="float: right;">Technical data → Internet: zbs, zbh</span> |           |   |            |          |                   |                  |
|                   | 8 ... 18  | For slide   | -          | 150 928  | ZBS-5             | 10               |
|  | 25 ... 63 |   |            | 150 927  | ZBH-9             |                  |
|  | 8, 12     | For end cap   | -          | 525 273  | ZBS-2             |                  |
|  | 18        |   |            | 150 928  | ZBS-5             |                  |
|  | 25 ... 63 |   |            | 150 927  | ZBH-9             |                  |
| Slot cover ABP-S <span style="float: right;">Technical data → Internet: abp</span>                 |           |   |            |          |                   |                  |
|                   | 18 ... 63 | For sensor slot<br>each 0.5 m                       | L          | 151 680  | ABP-5-S           | 2                |
| Shock absorber <span style="float: right;">Technical data → Internet: ysrw</span>                  |           |   |            |          |                   |                  |
|                 | 18        | For DGC-FA with recirculating ball<br>bearing guide | YSRW       | 540 347  | YSRW-DGC-18-KF    | 1                |
|  | 25        |   |            | 540 349  | YSRW-DGC-25-KF    |                  |
|  | 32        |   |            | 540 351  | YSRW-DGC-32-KF    |                  |
|  | 40        |   |            | 540 353  | YSRW-DGC-40-KF    |                  |
|  | 50        |   |            | 551 489  | YSRW-DGC-50-GF/KF |                  |
|  | 63        |   |            | 543 069  | YSRW-DGC-63-GF/KF |                  |

1) Packaging unit quantity