# Mini slides DGSL

| | | |
|---|---|---|
| ★ | Festo Core Range<br>Solves the majority of your automation tasks | With the Festo Core Range, we have selected the most important products and functions from our broad product catalogue, and added the quickest delivery. |
| Worldwide: | Quickest delivery – wherever, whenever | The Core Range offers you the best value for your automation tasks. |
| Simply good: | Expected high Festo quality | |
| Fast: | Easy and fast to select | |

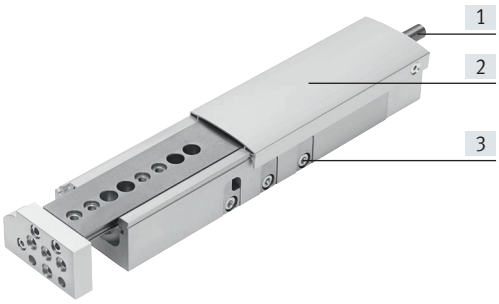
Just look for the star!

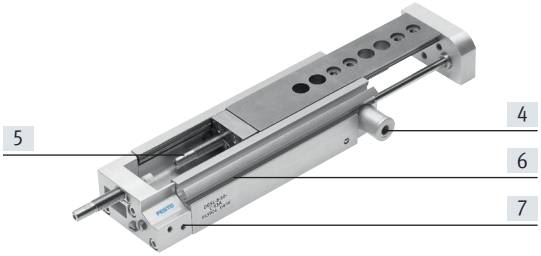
# Key features

## General

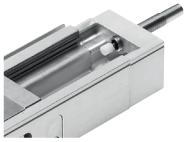
- Double-acting drives
- Wide range of mounting options
- System product for handling and assembly technology
- Highly flexible thanks to versatile assembly and mounting options on:
  – Drive body, slide, yoke plate

## The technology in detail




### [1] Cushioning



- Choice of five cushioning types:
  – Elastic cushioning without metal end position (P)
  – Elastic cushioning without metal end position, short design (E)
  – Elastic cushioning with metal end position (P1)
  – Shock absorber (Y3)
  – Shock absorber with reducing sleeve (Y11)
- Alternatives:
  – Without cushioning (N)

### [2] Cover → Page 47

- The cover stops foreign parts or dirt getting into the guide
- The cover comes in different lengths and can be shortened as required by the customer

### [3] Rough stroke adjustment → Page 10

- The end stop for the advanced end position can be adjusted mechanically, for example to shorten the stroke

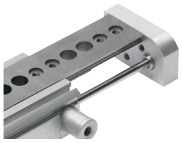
### [4] Clamping unit → Page 40

- Mechanical clamping for fixing the slide in any position; frictional locking (C)

### [4] End-position locking → Page 40

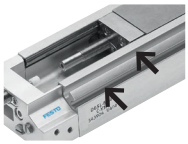
- Mechanical locking when the end position is reached, for fixing the slide in the unpressurised, retracted state; positive locking (E3)

### [5] Innovative guide unit



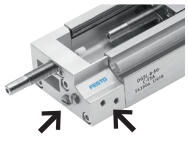
- Wide roller track, providing extremely high rigidity
- High load capacity
- High precision
- Housing and steel slide form a guide, there are no accumulative tolerances

### [6] Position sensing



- Proximity switches can be integrated, so there are no projecting parts
- Two slots for mounting
- Clearly visible from the side and from above

### [7] Supply ports



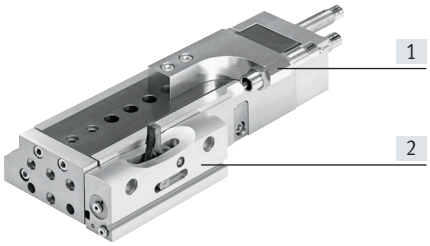
- Choice of two sides:
  – On the front
  – On the side

# System example

**The technology in detail**

Intermediate-position module

→ Page 48

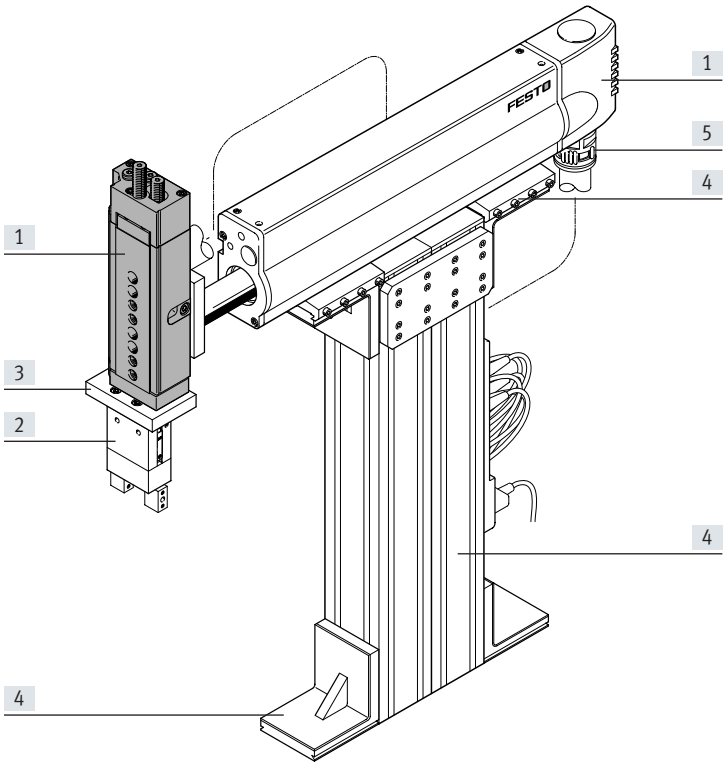



The intermediate-position module enables an additional adjustable position within the stroke range.

[1] Shock absorber retainer
[2] Intermediate-position module

- The symmetrical design means that the intermediate position can be approached when advancing or retracting, depending on the assembly
- Can be travelled through from the end position
- Possible to continue on directly from the intermediate position
- Easy to assemble
- Sensing of the stop lever position is possible

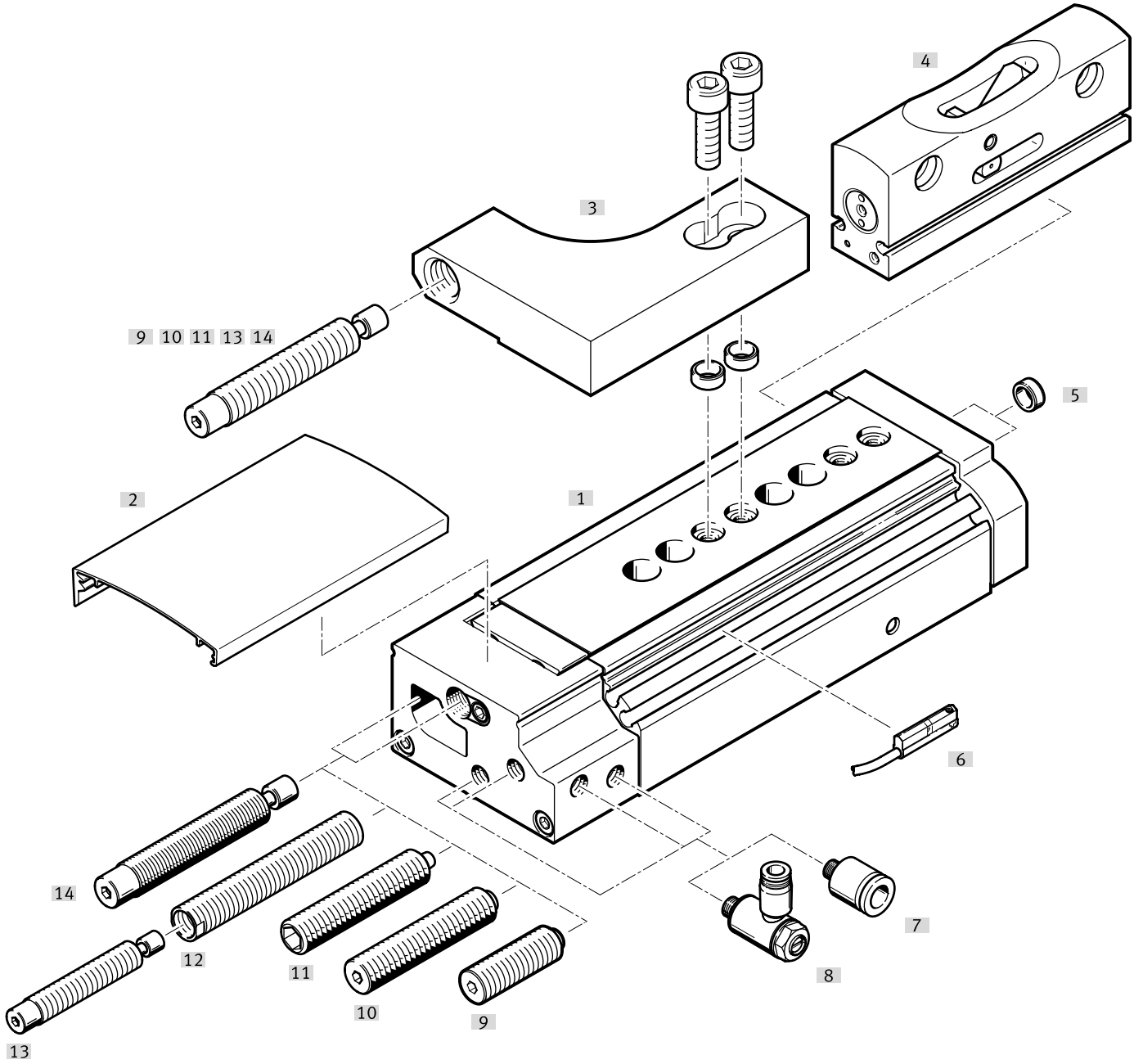
**System product for handling and assembly technology**




**System components and accessories**

| | | Description | → Page/Internet |
|---|---|---|---|
| [1] | Drives | Wide range of combinations possible within handling and assembly systems | drive |
| [2] | Gripper | Wide range of variations possible within handling and assembly technology | gripper |
| [3] | Adapter | For drive/drive connections | adapter kit |
| | | For drive/gripper connections | |
| [4] | Basic components | Profiles and profile connections as well as profile/drive connections | basic component |
| [5] | Installation components | For a clear, safe installation of electrical cables and tubes | installation component |
| – | Axes | Wide range of combinations possible within handling and assembly systems | axis |
| – | Motors | Servo and stepper motors, with or without gear unit | motor |

## Peripherals overview




**Note**

Operation without cushioning components is not permitted.

## Peripherals overview

| Accessories | | Description | → Page/Internet |
|---|---|---|---|
| [1] | Mini slide<br>DGSL | Double-acting | |
| [2] | Covering<br>DADS | • For protection, to stop foreign parts or dirt getting into the guide<br>• The cover can be shortened as required by the customer | 47 |
| [3] | Shock absorber retainer<br>DADP | • Attachment for the shock absorber<br>• For positioning and cushioning the intermediate position | 50 |
| [4] | Intermediate-position module<br>DADM | With stop lever for the intermediate position | 48 |
| [5] | Centring sleeve<br>ZBH | For centring loads and attachments<br>(centring sleeves are included in the scope of delivery of the mini slide) | 52 |
| [6] | Proximity switch<br>SME/SMT-10 | For position sensing Can be integrated in the sensor slot, so it does not protrude | 52 |
| [7] | Push-in fitting<br>QSM | For connecting tubing with standard O.D. | 52 |
| [8] | One-way flow control valve<br>GRLA | For regulating speed | 52 |
| [9] | Cushioning<br>E | Elastic stop for medium loads at medium speed | 51 |
| [10] | Cushioning<br>P | Elastic stop for medium loads at medium speed | 51 |
| [11] | Cushioning with stop<br>P1 | Precision metal stop for small loads at low speed | 51 |
| [12] | Reducing sleeve<br>DAYH | For installing a smaller shock absorber. For applications in which the cushioning energy is between cushioning Y3 and P1 | 51 |
| [13] | Shock absorber<br>DYSW | → Page (shock absorber selection) | 51 |
| [14] | Cushioning with shock absorber<br>Y3 | For large loads and high speed. Ensures precise, metal-to-metal contact after the cushioning | 51 |

## Type codes

| 001 | Series | |
|---|---|---|
| **DGSL** | Mini slide, double-acting | |

| 002 | Size | |
|---|---|---|
| **4** | 4 | |
| **6** | 6 | |
| **8** | 8 | |
| **10** | 10 | |
| **12** | 12 | |
| **16** | 16 | |
| **20** | 20 | |
| **25** | 25 | |

| 003 | Stroke | |
|---|---|---|
| **...** | 10 ... 200 | |

| 004 | Clamping unit | |
|---|---|---|
| | None | |
| **C** | Attached | |

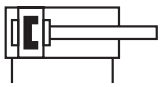
| 005 | End-position locking | |
|---|---|---|
| | None | |
| **E3** | With retracted piston rod | |

| 006 | Cushioning | |
|---|---|---|
| **N** | No cushioning | |
| **P** | Elastic cushioning rings/plates on both sides | |
| **P1** | Elastomer cushioning, adjustable on both sides, with fixed stop | |
| **Y3** | Shock absorber, self-adjusting, progressive, at both ends | |
| **E** | Elastomer cushioning, short, on both sides | |
| **Y11** | Shock absorber, self-adjustable, progressive at both ends, with reducing sleeve | |

| 007 | Position sensing | |
|---|---|---|
| **A** | For proximity sensor | |

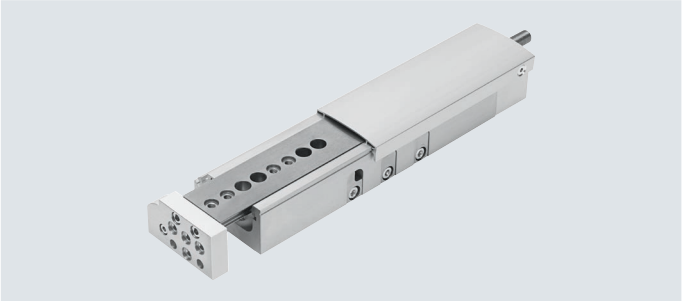
# Datasheet

Function



- Ø - Size
  4 ... 25
- | - Stroke
  10 ... 200 mm

Sets of wearing parts
➔ Page 45



| **General technical data** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Size | | | 4 | 6 | 8 | 10 | 12 | 16 | 20 | 25 |
| Pneumatic connection | | | M3 | | | M5 | | | G1/8 | |
| Design | | | Scotch yoke system | | | | | | | |
| Guide | | | Ball bearing cage guide | | | | | | | |
| Type of mounting | | | With through-hole | | | | | | | |
| | | | With female thread | | | | | | | |
| Cushioning | | P | Elastic cushioning without metal end position, at both ends | | | | | | | |
| | | E | Elastic cushioning without metal end position, at both ends, short design | | | | | | | |
| | | P1 | Elastic cushioning with metal end position, at both ends, adjustable | | | | | | | |
| | | Y3 | – | | Progressive shock absorber at both ends | | | | | |
| | | Y11 | – | | | Progressive shock absorber with reducing sleeve, at both ends | | | | |
| | | N | No cushioning | | | | | | | |
| Position sensing | | | Via proximity switch | | | | | | | |
| Mounting position | | | Any | | | | | | | |
| Max. advancing speed | | [m/s] | 0.5 | | 0.8 | | | | | |
| Max. retracting speed | | [m/s] | 0.5 | | 0.8 | | | | | |
| Repetition accuracy | P1/Y3 | [mm] | ±0.01 | | | | | | | |
| | P | [mm] | 0.3 | | | | | | | |

| **Operating and environmental conditions** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Size | | | 4 | 6 | 8 | 10 | 12 | 16 | 20 | 25 |
| Operating medium | | | Compressed air to ISO 8573-1:2010 [7:4:4] | | | | | | | |
| Note on the operating/pilot medium | | | Lubricated operation possible (in which case lubricated operation will always be required) | | | | | | | |
| Min. operating pressure | | | | | | | | | | |
| | | [MPa] | 0.25 | 0.15 | | | 0.1 | | | |
| | | [bar] | 2.5 | 1.5 | | | 1 | | | |
| Max. operating pressure[1] | | | | | | | | | | |
| | | [MPa] | 0.8 | | | | | | | |
| | | [bar] | 8 | | | | | | | |
| Ambient temperature[2] | | [°C] | 0 ... +60 | | | | | | | |

1) Note max. operating pressure in combination with the intermediate-position module DADM-EP ➔ Internet: dadm

2) Note operating range of proximity switches

| **Piston ø, forces and impact energy** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Size | | | 4 | 6 | 8 | 10 | 12 | 16 | 20 | 25 |
| Piston ø | | [mm] | 6 | 8 | 10 | 12 | 16 | 20 | 25 | 32 |
| Theoretical force at 0.6 MPa (6 bar), advancing | | [N] | 17 | 30 | 47 | 68 | 121 | 188 | 295 | 483 |
| Theoretical force at 0.6 MPa (6 bar), retracting | | [N] | 13 | 23 | 40 | 51 | 104 | 158 | 247 | 415 |
| Impact energy in the end positions | P, E | [Nm] | 0.015 | 0.05 | 0.08 | 0.12 | 0.25 | 0.35 | 0.45 | 0.55 |
| | P1 | [Nm] | 0.005 | 0.02 | 0.03 | 0.04 | 0.06 | 0.12 | 0.2 | 0.25 |
| | Y3 | [Nm] | – | – | 0.8 | 1.3 | 2.5 | 4 | 8 | 12 |
| | 1) | [Nm] | – | – | – | 0.8 | 1.3 | 2.5 | 4 | 8 |

1) With reducing sleeve and next smaller shock absorber.

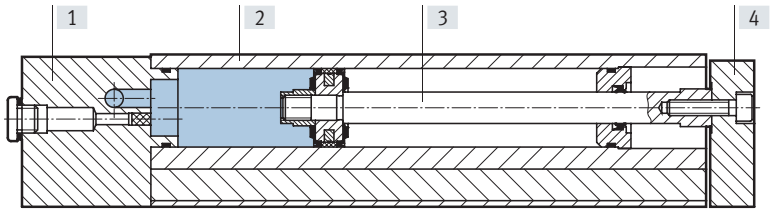
# Datasheet

| Weight [g] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Size | Stroke | 4 | 6 | 8 | 10 | 12 | 16 | 20 | 25 |
| **Product weight without cushioning component** | | | | | | | | | |
| | 10 | 82 | 158 | 235 | 396 | 604 | 896 | 1535 | 2520 |
| | 20 | 93 | 179 | 263 | 434 | 660 | 954 | 1649 | 2670 |
| | 30 | 104 | 197 | 289 | 470 | 711 | 1008 | 1746 | 2824 |
| | 40 | – | 215 | 313 | 507 | 762 | 1072 | 1857 | 2983 |
| | 50 | – | 232 | 370 | 548 | 813 | 1143 | 1991 | 3137 |
| | 80 | – | – | 454 | 727 | 1112 | 1 365 | 2295 | 4019 |
| | 100 | – | – | – | 813 | 1229 | 1712 | 2921 | 4519 |
| | 150 | – | – | – | – | 1499 | 2034 | 3620 | 5344 |
| | 200 | – | – | – | – | – | – | 4248 | 6139 |
| **Moving mass without cushioning component** | | | | | | | | | |
| | 10 | 31 | 68 | 101 | 163 | 256 | 403 | 660 | 998 |
| | 20 | 34 | 76 | 111 | 180 | 279 | 432 | 710 | 1052 |
| | 30 | 38 | 83 | 121 | 194 | 299 | 459 | 750 | 1115 |
| | 40 | – | 90 | 130 | 208 | 320 | 486 | 801 | 1181 |
| | 50 | – | 99 | 152 | 226 | 340 | 519 | 858 | 1244 |
| | 80 | – | – | 185 | 299 | 456 | 618 | 998 | 1567 |
| | 100 | – | – | – | 334 | 507 | 776 | 1254 | 1761 |
| | 150 | – | – | – | – | 614 | 910 | 1566 | 2102 |
| | 200 | – | – | – | – | – | – | 1807 | 2432 |
| **Cushioning component** | | | | | | | | | |
| | P | 2 | 3.6 | 6 | 14 | 23 | 45.6 | 82.4 | 106 |
| | E | 1 | 2 | 3 | 9 | 12 | 15 | 31 | 40 |
| | P1 | 1.6 | 3 | 5 | 12 | 19.7 | 39.6 | 77.3 | 104 |
| | Y3 | – | – | 6 | 11 | 21 | 42 | 67 | 91 |
| | 1) | – | – | – | 18 | 33 | 52 | 91 | 131 |

1) With reducing sleeve and next smaller shock absorber.

## Materials

Sectional view

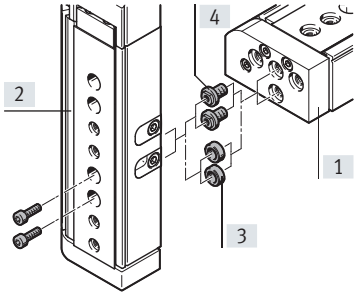


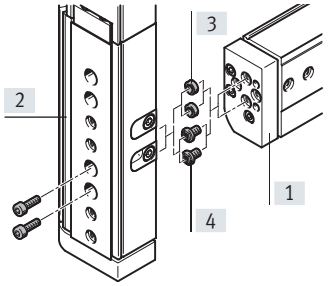

| Mini slide | | |
|---|---|---|
| [1] | Cover | Anodised aluminium |
| [2] | Housing | Anodised aluminium |
| [3] | Piston rod | High-alloy steel |
| [4] | Yoke plate | Anodised aluminium |
| – | Guide | Quenched and tempered steel |
| | Seals | Thermoplastic rubber, hydrogenated nitrile rubber, nitrile rubber |
| | Cleanroom class | Class 7 to ISO 14644-1 |
| | LABS (PWIS) conformity | VDMA24364-B1/B2-L |

# Datasheet

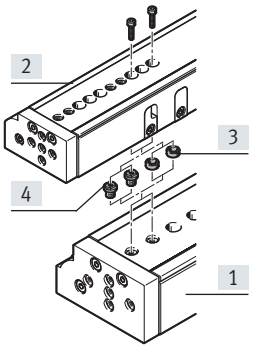
## Possible combinations without adapter plate

### Pick and place



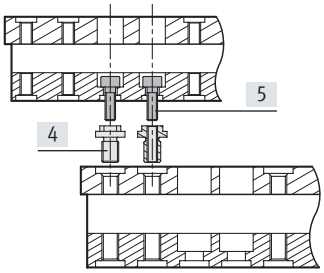




### Piggy-back assembly




[3] Centring sleeve ZBH
[4] Connector sleeve ZBV

### Mounting example with connector sleeve ZBV




[4] Connector sleeve ZBV[2)]
[5] Screw

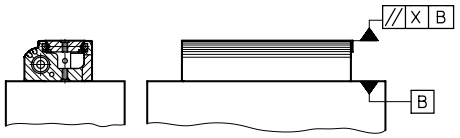
| | [1] Base drive | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Size | 4 | 6 | 8 | 10 | 12 | 16 | 20 | 25 |
| [2] Assembly drive | 4 | 2x M3x7<br>2x ZBH-5[1)] | 2x M3x10<br>2x ZBH-5[1)] | ZBV-M4-7[2)] | ZBV-M4-7[2)] | – | – | – | – |
| | 6 | – | 2x M3x10<br>2x ZBH-5[1)] | ZBV-M4-7[2)] | ZBV-M4-7[2)] | – | – | – | – |
| | 8 | – | – | 2x M4x12<br>2x ZBH-7[1)] | 2x M4x12<br>2x ZBH-7[1)] | ZBV-M5-7[2)] | ZBV-M5-7[2)] | – | – |
| | 10 | – | – | – | 2x M4x14<br>2x ZBH-7[1)] | ZBV-M5-7[2)] | ZBV-M5-7[2)] | – | – |
| | 12 | – | – | – | – | 2x M5x14<br>2x ZBH-7[1)] | 2x M5x16<br>2x ZBH-7[1)] | ZBV-M6-9[2)] | ZBV-M6-9[2)] |
| | 16 | – | – | – | – | – | 2x M5x18<br>2x ZBH-7[1)] | ZBV-M6-9[2)] | ZBV-M6-9[2)] |
| | 20 | – | – | – | – | – | – | 2x M6x20<br>2x ZBH-9[1)] | 2x M6x20<br>2x ZBH-9[1)] |
| | 25 | – | – | – | – | – | – | – | 2x M6x30<br>2x ZBH-9[1)] |

1) Centring sleeves ZBH are included in the scope of delivery of the mini slide DGSL
2) Connector sleeves ZBV ➔ Page 52

# Datasheet

## Parallelism [mm]

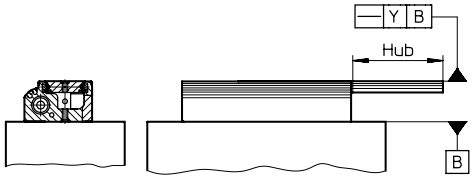
The term parallelism refers to the accuracy of alignment between the mounting surface and the slide surface.



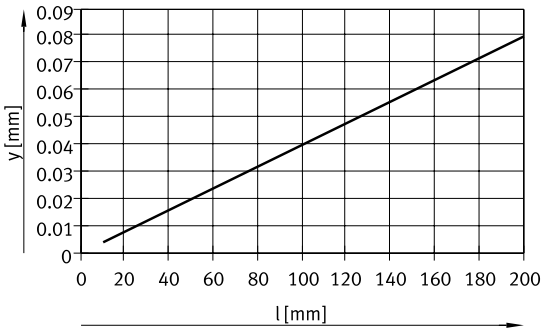

| Size | Stroke [mm] | 4 | 6 | 8 | 10 | 12 | 16 | 20 | 25 |
|---|---|---|---|---|---|---|---|---|---|
| Parallelism X | 10 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| | 20 | 0.02 | 0.02 | 0.02 | 0.02 | 0.025 | 0.025 | 0.025 | 0.025 |
| | 30 | 0.025 | 0.025 | 0.025 | 0.025 | 0.025 | 0.025 | 0.03 | 0.03 |
| | 40 | – | 0.025 | 0.025 | 0.025 | 0.03 | 0.03 | 0.035 | 0.035 |
| | 50 | – | 0.03 | 0.03 | 0.03 | 0.035 | 0.035 | 0.04 | 0.04 |
| | 80 | – | – | 0.035 | 0.035 | 0.04 | 0.04 | 0.045 | 0.045 |
| | 100 | – | – | – | 0.045 | 0.05 | 0.05 | 0.055 | 0.055 |
| | 150 | – | – | – | – | 0.075 | 0.075 | 0.08 | 0.08 |
| | 200 | – | – | – | – | – | – | 0.08 | 0.08 |

## Linearity [mm]

The term linearity refers to the accuracy of alignment between the mounting surface and the slide surface as a function of the stroke.




Linear travel accuracy y as a function of stroke length l



# Datasheet

**Adjustable end-position range**

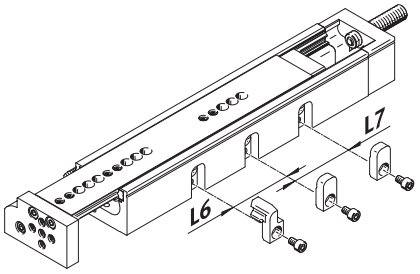
Rough adjustment of the front end position

With the mini slide DGSL, the advanced fixed stop can be relocated by swapping it with the cover.
This permits a stroke reduction down to the next but one smaller standard stroke through a combination of rough and precision adjustments.

Advantages:
- Can be flexibly adapted to the application
- Integrated, which means reduced conversion effort and costs
- Large setting range

**Note**

Removal of the fixed stops can severely damage the mini slide DGSL.




| Size | 4 | | 6 | | 8 | | 10 | | 12 | | 16 | | 20 | | 25 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Stroke [mm] | L6 | L7 | L6 | L7 | L6 | L7 | L6 | L7 | L6 | L7 | L6 | L7 | L6 | L7 | L6 | L7 |
| 10 | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| 20 | 10 | – | 14 | – | 10 | – | – | – | – | – | – | – | – | – | – | – |
| 30 | 10 | – | 14 | – | 16 | – | – | – | – | – | – | – | – | – | – | – |
| 40 | – | – | 14 | – | 16 | – | – | – | – | – | – | – | – | – | – | – |
| 50 | – | – | 14 | 14 | 16 | – | – | – | – | – | – | – | – | – | – | – |
| 80 | – | – | – | – | 16 | 16 | 24 | – | 29 | – | 35 | – | – | – | 55 | – |
| 100 | – | – | – | – | – | – | 24 | 24 | 29 | – | 35 | – | 44 | – | 55 | – |
| 150 | – | – | – | – | – | – | – | – | 29 | 29 | 35 | – | 44 | – | 55 | – |
| 200 | – | – | – | – | – | – | – | – | – | – | – | – | 44 | 44 | 55 | – |

**Example:**
DGSL-12-150-...
Max. stroke = 150 mm

By repositioning the fixed stop by the dimension L6:
Stroke = 150 – 29 =121 mm

By repositioning the fixed stop by the dimension L6 and L7:
Stroke = 150 – 29 – 29 = 92 mm

In addition, the stroke can be reduced through a precision adjustment:
Stroke = 150 – 29 – 29 – 29
= 63 mm

Precision adjustment of the advanced and retracted end position
➔ Page 11

# Datasheet

**Adjustable end-position range**

Precision adjustment of the advanced and retracted end position

Precision adjustment of the required stroke reduction is possible using the cushioning components (on the slide and in the end cap).

Advantages:

- Precision adjustment is accurately fixed by the clamping component
- No readjustment required, position is fully retained under lock and load
- Quick and easy adjustment, only one tool required

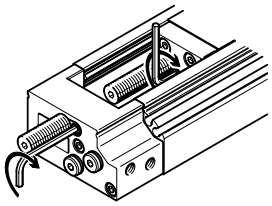
Step 1:
Loosen the clamping component

Step 2:
Position the slide by hand in the required end position

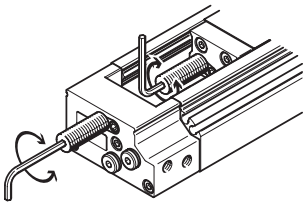
Step 3:
Turn the stop element with an Allen key until the end position is reached.

Step 4:
Tighten the clamping component

Step 1



Step 2 ... 4



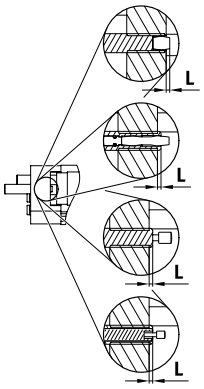
Adjustable end position range [mm] per end position / stroke reduction

| Size | | 4 | 6 | 8 | 10 | 12 | 16 | 20 | 25 |
|---|---|---|---|---|---|---|---|---|---|
| Front end position | | | | | | | | | |
| With cushioning | P | –14.5 | –16.5 | –19.5 | –27.5 | –29 | –37.5 | –50.5 | –55 |
| | E | –4.5 | –5 | –4.5 | –13 | –9 | –3.5 | –6.5 | –11.5 |
| | P1 | –14.5 | –16.5 | –19.5 | –27.5 | –29 | –37.5 | –50.5 | –55 |
| | Y3 | – | – | –15 | –24 | –29 | –36.5 | –44 | –56 |
| | 1) | – | – | – | –24 | –29 | –36.5 | –44 | –56 |
| Rear end position | | | | | | | | | |
| With cushioning | P | –13.5 | –15 | –18.5 | –20 | –25.5 | –39.5 | –49.5 | –49 |
| | E | –3.5 | –3.5 | –3.5 | –5.5 | –5.5 | –5.5 | –5.5 | –5.5 |
| | P1 | –13.5 | –15 | –18.5 | –20 | –25.5 | –39.5 | –49.5 | –49 |
| | Y3 | – | – | –14 | –15 | –25.5 | –38.5 | –42 | –51.5 |
| | 1) | – | – | – | –15 | –25.5 | –38.5 | –42 | –51.5 |

1) With reducing sleeve and next smaller shock absorber.

**Note**

The distance L of the cushioning element (➔ operating manual) must be maintained at all times (factory setting).




DGSL-...-P/E

DGSL-...-P1

DGSL-...-Y3

DGSL-... with Reducing sleeve

**Note**

The setting range of the advanced and retracted end position is restricted when using the cushioning type "E".

# Datasheet

**Shock absorber selection**

Payload load m as a function of impact velocity v

With the mini slide DGSL, shock absorbers can be replaced and the cushioning behaviour can thus be influenced (depending on the payload).

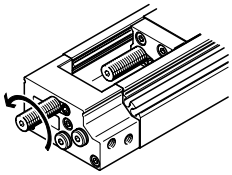
This is done by removing the existing shock absorbers on the DGSL and replacing them with a smaller shock absorber as appropriate to the application.
(➔ description below)

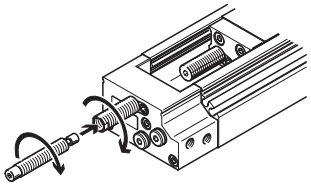
Graphs
For selecting a suitable shock absorber as a function of the mounting position of the mini slide
➔ from page 13

Ordering data
Shock absorbers DYSW, DYEF and reducing sleeve DAYH
➔ Page 51

For smaller loads:

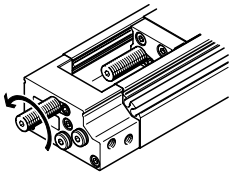
The next smaller shock absorber DYSW can be installed with the help of the reducing sleeve DAYH.

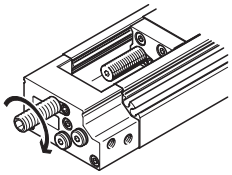




For very small loads:

The shock absorber DYEF can be installed.

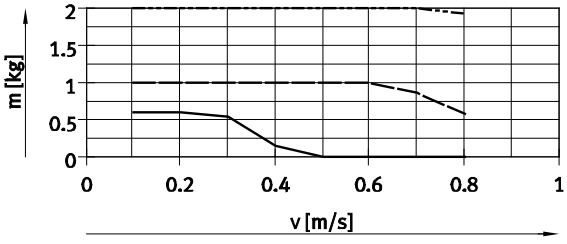




Selection example:

Current drive:
Mini slide: DGSL-10-...-Y3-A

Where:
Payload: 500 g
Impact velocity: 0.4 m/s
Mounting position: horizontal




DYSW-5-8 (cushioning Y3)
DYSW-4-6 with DAYH-4 (cushioning Y11)
DYEF-M8-Y1F

Results:
The first cushioning curve, which is positioned above the intersection point, is the most suitable for this case.
To improve the cushioning characteristics when the payload is of less than one kilogram, replace the shock absorber DYSW-5-8 integrated in the mini slide with the reducing sleeve DAYH-4 and the next smaller shock absorber DYSW-4-6.

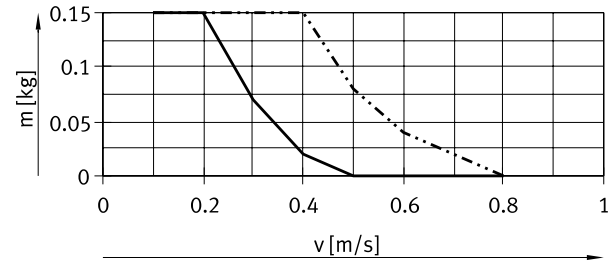
Basically, shock absorbers must be loaded.
Since the shock absorber DYSW-4-6 is more fully utilised in this case, both the service life of the shock absorber and the cushioning characteristics are improved.

# Datasheet

**Shock absorber selection**

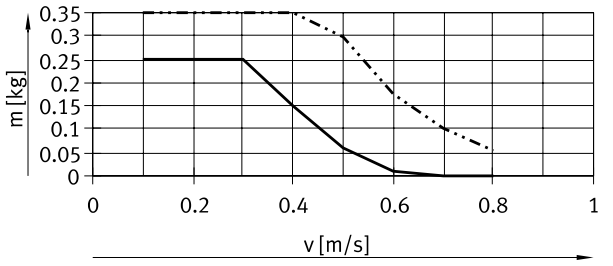
Payload m as a function of impact velocity v – horizontal mounting position

DGSL-4



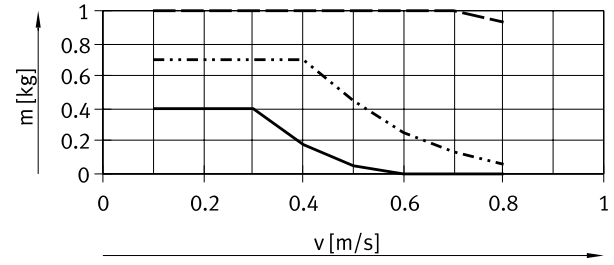

DYEF-M4-Y1F (cushioning P1)
DYEF-M4-Y1 (cushioning P)

DGSL-6



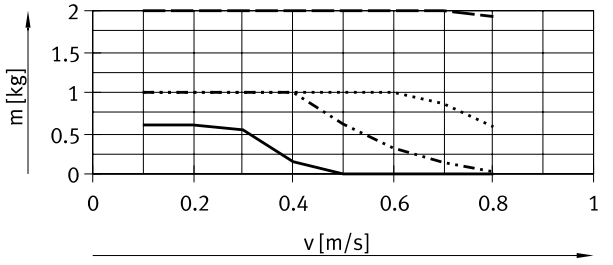

DYEF-M5-Y1F (cushioning P1)
DYEF-M5-Y1 (cushioning P)

DGSL-8



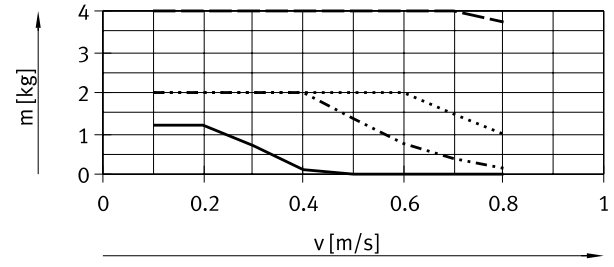

DYEF-M6-Y1F (cushioning P1)
DYEF-M6-Y1 (cushioning P)
DYSW-4-6 (cushioning Y3)

DGSL-10



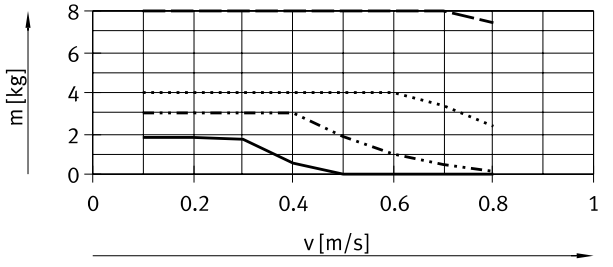

DYEF-M8-Y1F (cushioning P1)
DYEF-M8-Y1 (cushioning P)
DYSW-5-8 (cushioning Y3)
DYSW-4-6 with DAYH-4 (cushioning Y11)

DGSL-12



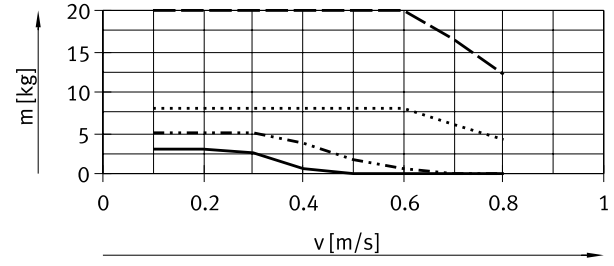

DYEF-M10-Y1F (cushioning P1)
DYEF-M10-Y1 (cushioning P)
DYSW-7-10 (cushioning Y3)
DYSW-5-8 with DAYH-5 (cushioning Y11)

DGSL-16



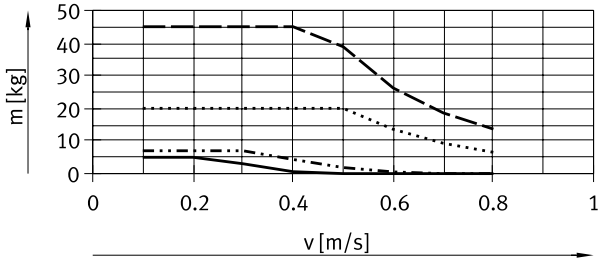

DYEF-M12-Y1F (cushioning P1)
DYEF-M12-Y1 (cushioning P)
DYSW-8-14 (cushioning Y3)
DYSW-7-10 with DAYH-7 (cushioning Y11)

DGSL-20




DYEF-M14-Y1F (cushioning P1)
DYEF-M14-Y1 (cushioning P)
DYSW-10-17 (cushioning Y3)
DYSW-8-14 with DAYH-8 (cushioning Y11)

DGSL-25



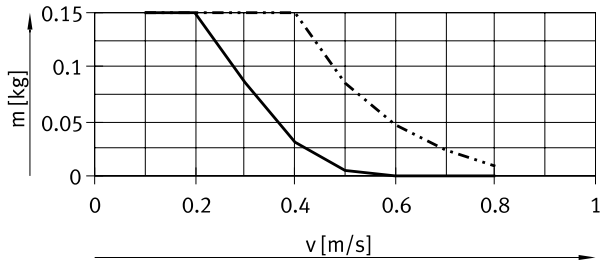

DYEF-M16-Y1F (cushioning P1)
DYEF-M16-Y1 (cushioning P)
DYSW-12-20 (cushioning Y3)
DYSW-10-17 with DAYH-10 (cushioning Y11)

# Datasheet

**Shock absorber selection**

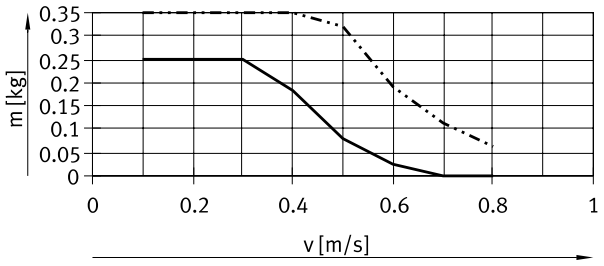
Payload m as a function of impact velocity v – vertical mounting position, payload moving upwards

DGSL-4



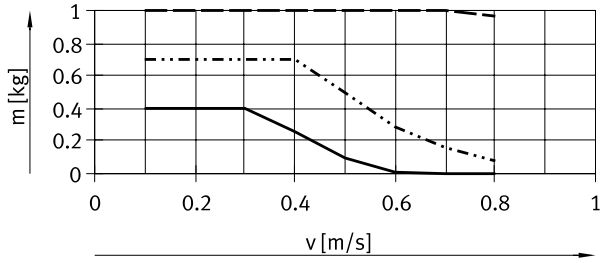

DYEF-M4-Y1F (cushioning P1)
DYEF-M4-Y1 (cushioning P)

DGSL-6



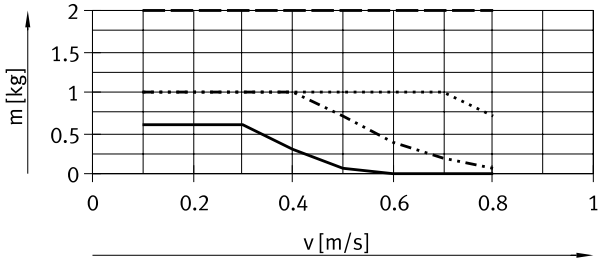

DYEF-M5-Y1F (cushioning P1)
DYEF-M5-Y1 (cushioning P)

DGSL-8



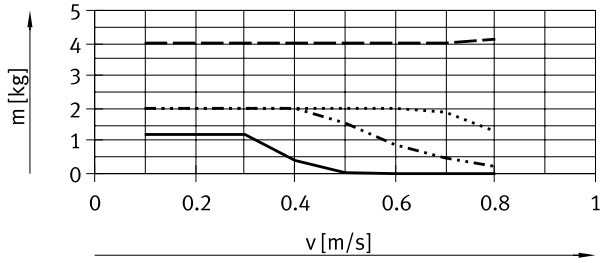

DYEF-M6-Y1F (cushioning P1)
DYEF-M6-Y1 (cushioning P)
DYSW-4-6 (cushioning Y3)

DGSL-10



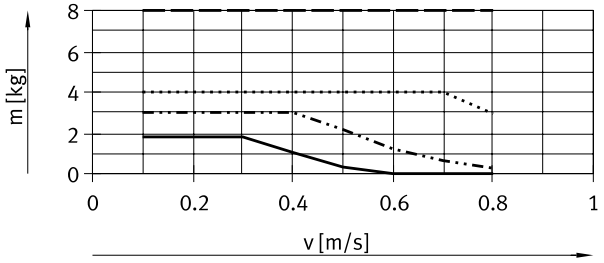

DYEF-M8-Y1F (cushioning P1)
DYEF-M8-Y1 (cushioning P)
DYSW-5-8 (cushioning Y3)
DYSW-4-6 with DAYH-4 (cushioning Y11)

DGSL-12



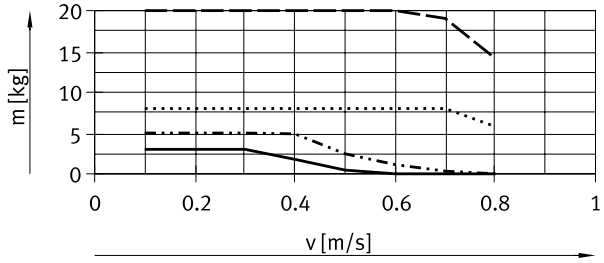

DYEF-M10-Y1F (cushioning P1)
DYEF-M10-Y1 (cushioning P)
DYSW-7-10 (cushioning Y3)
DYSW-5-8 with DAYH-5 (cushioning Y11)

DGSL-16



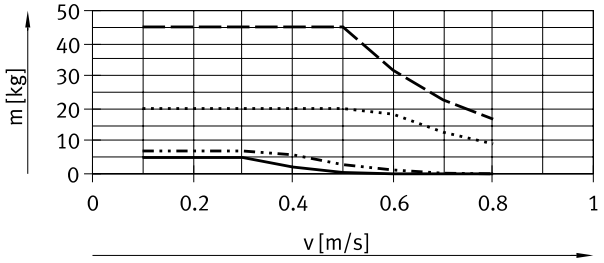

DYEF-M12-Y1F (cushioning P1)
DYEF-M12-Y1 (cushioning P)
DYSW-8-14 (cushioning Y3)
DYSW-7-10 with DAYH-7 (cushioning Y11)

DGSL-20




DYEF-M14-Y1F (cushioning P1)
DYEF-M14-Y1 (cushioning P)
DYSW-10-17 (cushioning Y3)
DYSW-8-14 with DAYH-8 (cushioning Y11)

DGSL-25



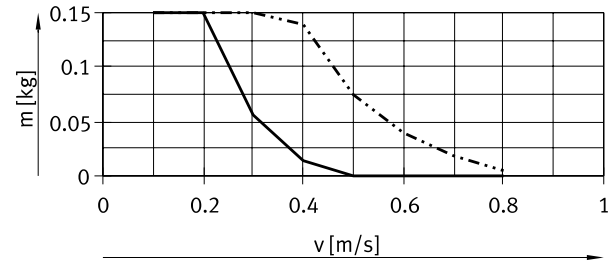

DYEF-M16-Y1F (cushioning P1)
DYEF-M16-Y1 (cushioning P)
DYSW-12-20 (cushioning Y3)
DYSW-10-17 with DAYH-10 (cushioning Y11)

# Datasheet

**Shock absorber selection**

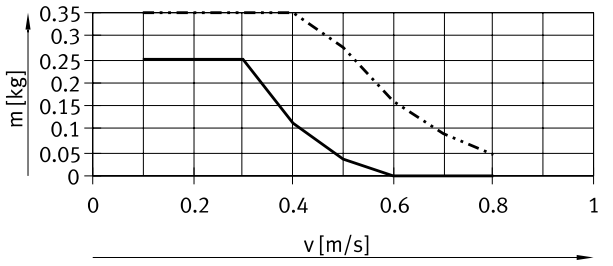
Payload m as a function of impact velocity v – vertical mounting position, payload moving downwards

DGSL-4



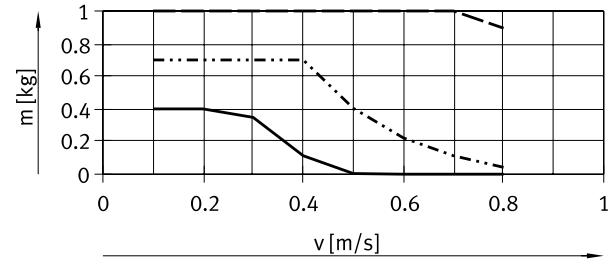

DYEF-M4-Y1F (cushioning P1)
DYEF-M4-Y1 (cushioning P)

DGSL-6



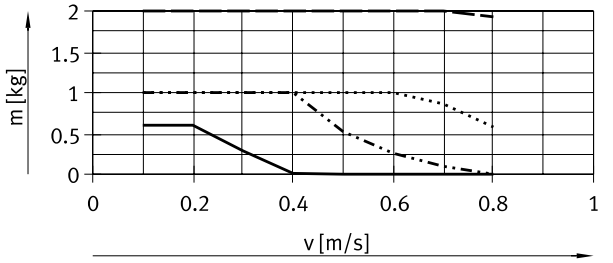

DYEF-M5-Y1F (cushioning P1)
DYEF-M5-Y1 (cushioning P)

DGSL-8



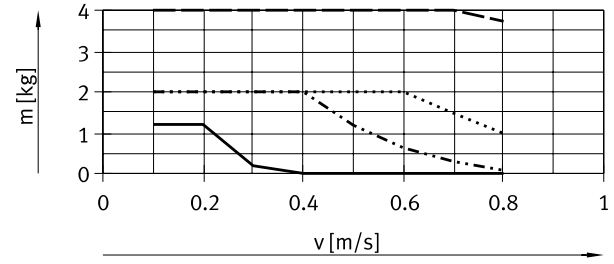

DYEF-M6-Y1F (cushioning P1)
DYEF-M6-Y1 (cushioning P)
DYSW-4-6 (cushioning Y3)

DGSL-10



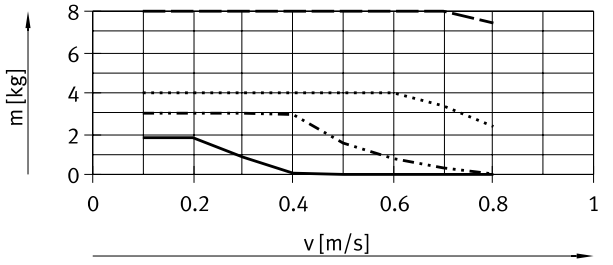

DYEF-M8-Y1F (cushioning P1)
DYEF-M8-Y1 (cushioning P)
DYSW-5-8 (cushioning Y3)
DYSW-4-6 with DAYH-4 (cushioning Y11)

DGSL-12



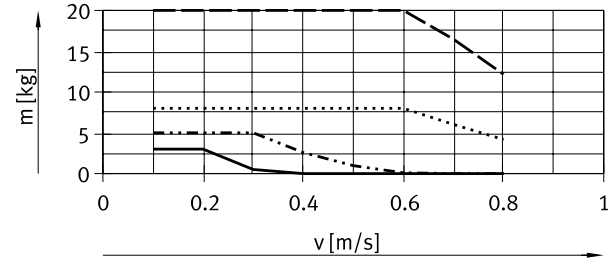

DYEF-M10-Y1F (cushioning P1)
DYEF-M10-Y1 (cushioning P)
DYSW-7-10 (cushioning Y3)
DYSW-5-8 with DAYH-5 (cushioning Y11)

DGSL-16



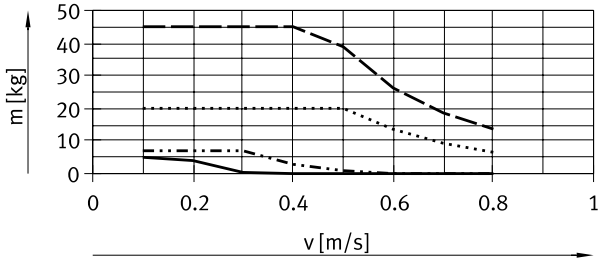

DYEF-M12-Y1F (cushioning P1)
DYEF-M12-Y1 (cushioning P)
DYSW-8-14 (cushioning Y3)
DYSW-7-10 with DAYH-7 (cushioning Y11)

DGSL-20




DYEF-M14-Y1F (cushioning P1)
DYEF-M14-Y1 (cushioning P)
DYSW-10-17 (cushioning Y3)
DYSW-8-14 with DAYH-8 (cushioning Y11)

DGSL-25

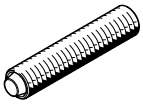



DYEF-M16-Y1F (cushioning P1)
DYEF-M16-Y1 (cushioning P)
DYSW-12-20 (cushioning Y3)
DYSW-10-17 with DAYH-10 (cushioning Y11)

# Datasheet

## Shock absorber selection

Travel time t as a function of payload m and cushioning P/E – horizontal mounting position

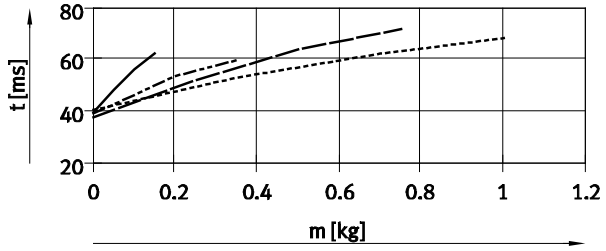


The values in the graphs are determined by calculation.
The travel time as a function of payload must not be reduced below the values shown, because the kinetic impact or residual energy in the end positions can result in damage to the drive.

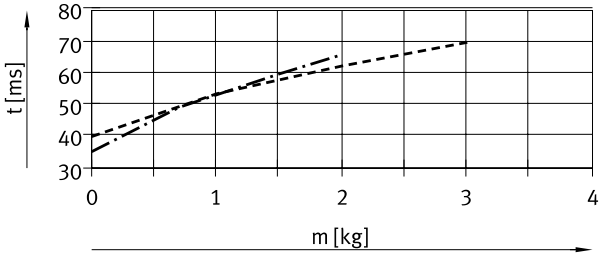
Vertical mounting position
➔ Page 19

### Advancing

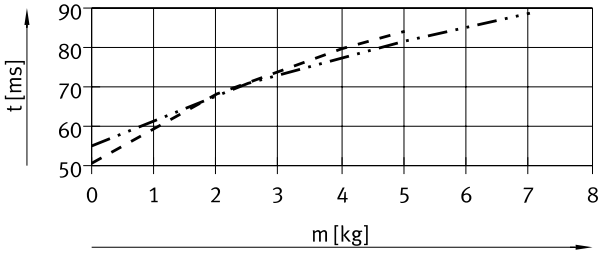
Stroke 10 mm, size 4 ... 10



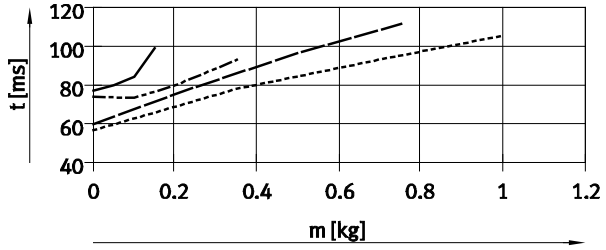

Stroke 10 mm, size 12 ... 16




Stroke 10 mm, size 20 ... 25

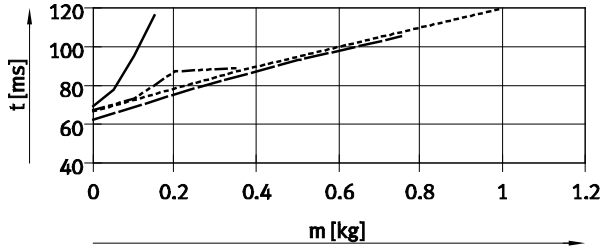



Stroke 30 mm, size 4 ... 10

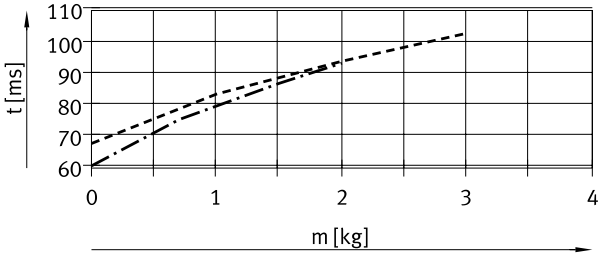



### Retracting

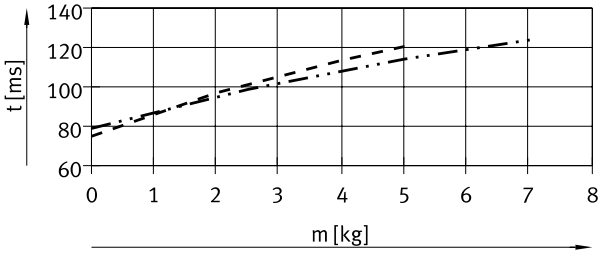
Stroke 10 mm, size 4 ... 10



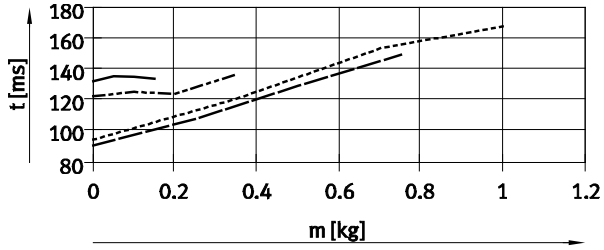

Stroke 10 mm, size 12 ... 16




Stroke 10 mm, size 20 ... 25




Stroke 30 mm, size 4 ... 10

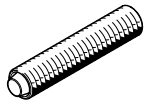



DGSL-4
DGSL-6
DGSL-8
DGSL-10
DGSL-12
DGSL-16
DGSL-20
DGSL-25

# Datasheet

## Shock absorber selection

Travel time t as a function of payload m and cushioning P/E – horizontal mounting position

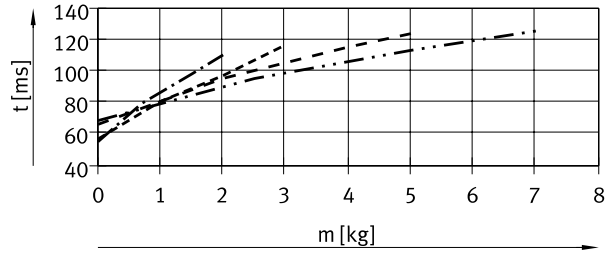


The values in the graphs are determined by calculation.
The travel time as a function of payload must not be reduced below the values shown, because the kinetic impact or residual energy in the end positions can result in damage to the drive.

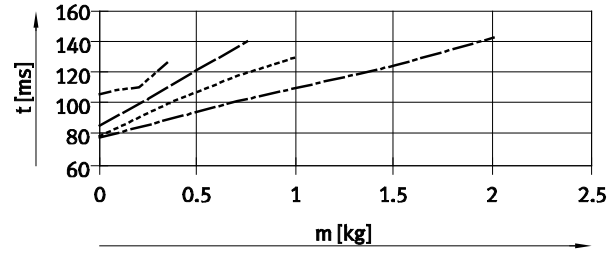
Vertical mounting position
→ Page 19

### Advancing

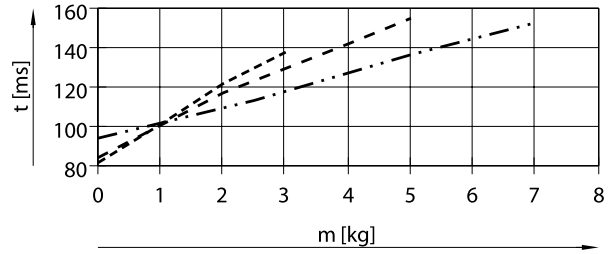
Stroke 30 mm, size 12 ... 25




Stroke 50 mm, size 6 ... 12



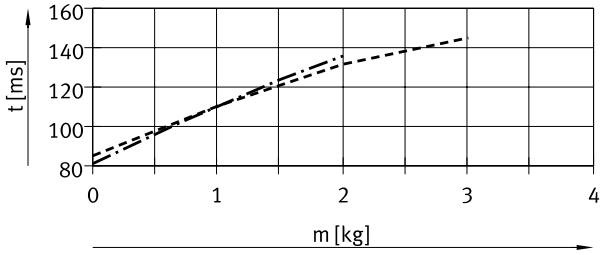

Stroke 50 mm, size 16 ... 25



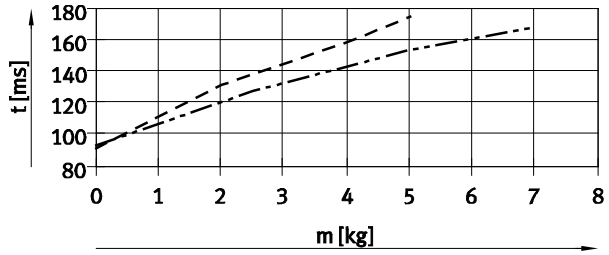

DGSL-4
DGSL-6
DGSL-8
DGSL-10
DGSL-12
DGSL-16
DGSL-20
DGSL-25

### Retracting

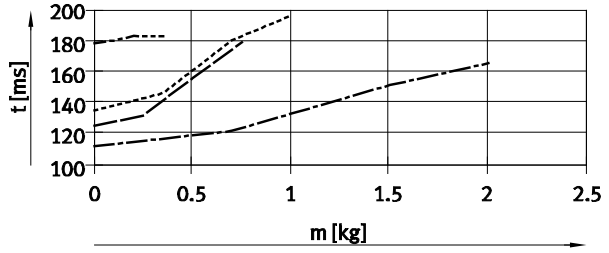
Stroke 30 mm, size 12 ... 16



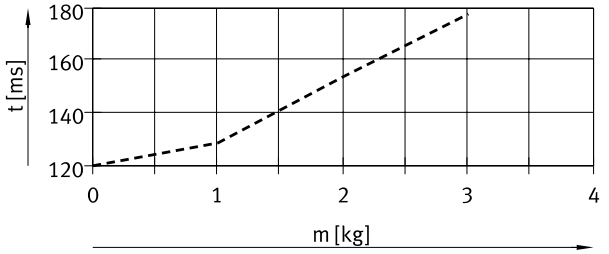

Stroke 30 mm, size 20 ... 25



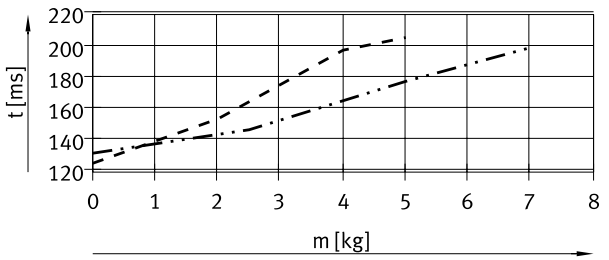

Stroke 50 mm, size 6 ... 12




Stroke 50 mm, size 16



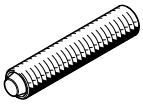

Stroke 50 mm, size 20 ... 25



# Datasheet

## Shock absorber selection

Travel time t as a function of payload m and cushioning P/E – horizontal mounting position

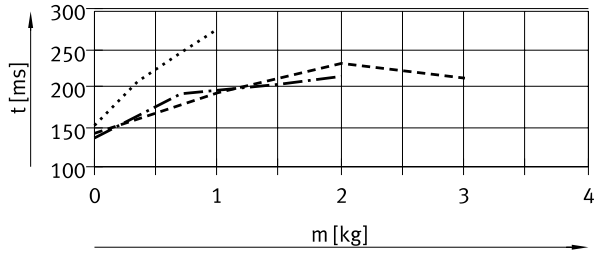


The values in the graphs are determined by calculation.
The travel time as a function of payload must not be reduced below the values shown, because the kinetic impact or residual energy in the end positions can result in damage to the drive.

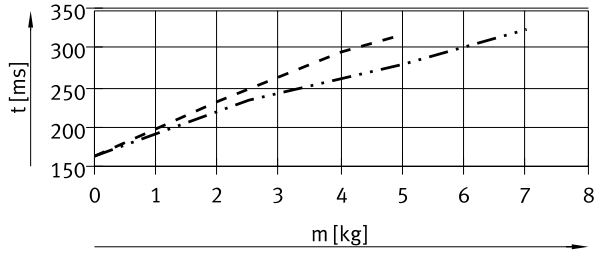
Vertical mounting position
➔ Page 19

### Advancing

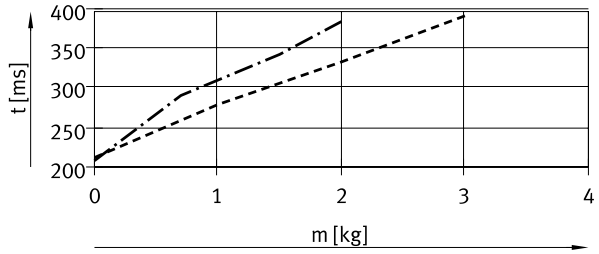
Stroke 100 mm, size 10 ... 16



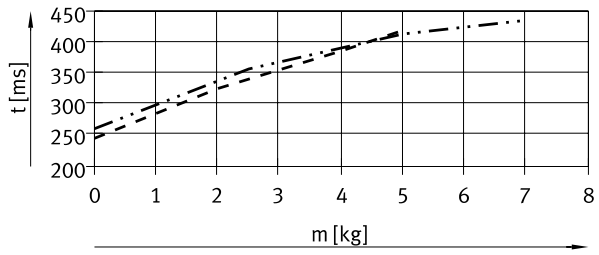

Stroke 100 mm, size 20 ... 25




Stroke 150 mm, size 12 ... 16

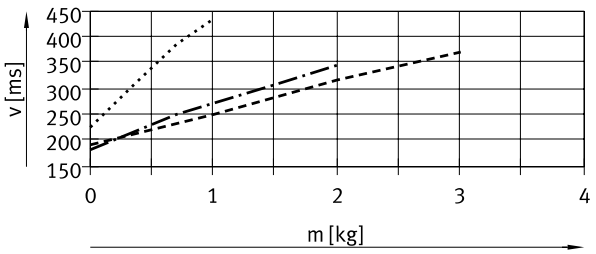



Stroke 150 mm, size 20 ... 25

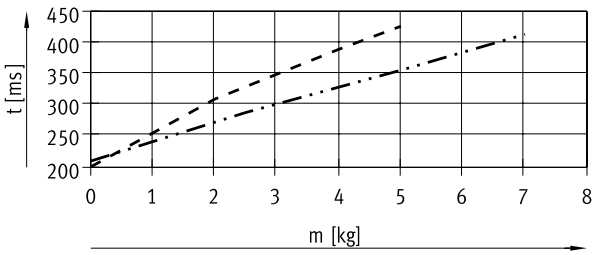



### Retracting

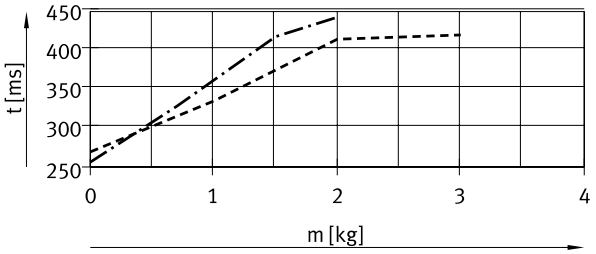
Stroke 100 mm, size 10 ... 16



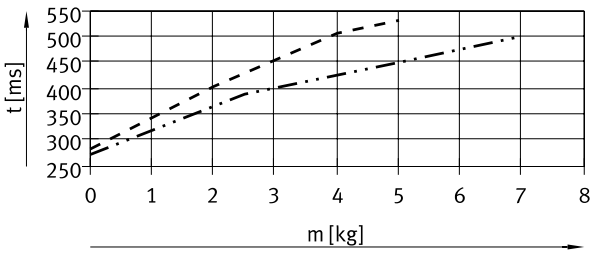

Stroke 100 mm, size 20 ... 25




Stroke 150 mm, size 12 ... 16




Stroke 150 mm, size 20 ... 25

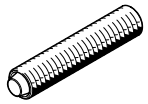



DGSL-10
DGSL-12
DGSL-16
DGSL-20
DGSL-25

# Datasheet

## Shock absorber selection

Travel time t as a function of payload m and cushioning P/E – horizontal mounting position

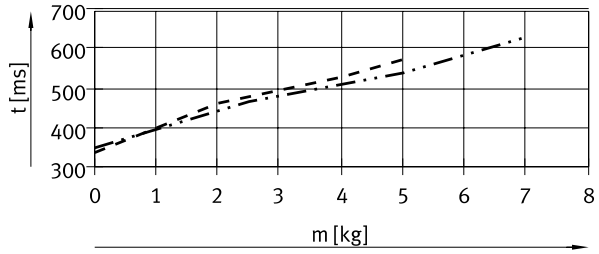


The values in the graphs are determined by calculation.
The travel time as a function of payload must not be reduced below the values shown, because the kinetic impact or residual energy in the end positions can result in damage to the drive.

Vertical mounting position
➔ Page 19

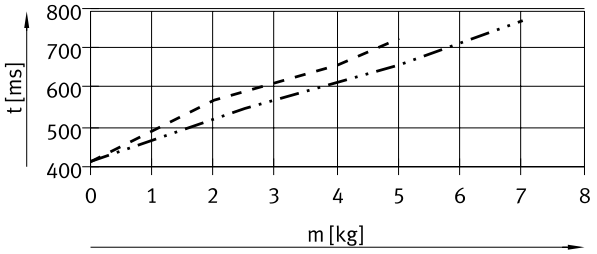
### Advancing

Stroke 200 mm, size 20 ... 25




### Retracting

Stroke 200 mm, size 20 ... 25




DGSL-20
DGSL-25

## Vertical mounting position

The travel times for a vertical mounting position are calculated by multiplying the data for a horizontal mounting position by a correction factor ka (advancing) and ke (retracting), see adjacent table.

Where:
Stroke = 200 mm
Size = 20
Payload = 3 kg
Calculated travel time th (horizontal),
see graph:
- Advancing = 500 ms
- Retracting = 600 ms

Calculated travel time tv (vertical):
- Advancing: tv = th x ka
  ts = 500 ms x 0.9 = 450 ms
- Retracting: tv = th x ke
  ts = 600 ms x 1.1 = 660 ms

| Stroke [mm] | Size | Advancing (ka) [1] | Retracting (kr) |
|---|---|---|---|
| 10 | 4, 6, 8, 10 | 0.95 | 1.1 |
| | 12, 16, 20, 25 | 0.95 | 1.2 |
| 30 | 4, 6, 8, 10 | 0.95 | 1.1 |
| | 12, 16, 20, 25 | 0.95 | 1.2 |
| 50 | 6, 8, 10, 12 | 0.9 | 1.1 |
| | 16, 20, 25 | 1.1 | 1.2 |
| 100 | 10, 12, 16, 20, 25 | 1 | 1.1 |
| 150 | 12, 16, 20, 25 | 1 | 1.1 |
| 200 | 20, 25 | 0.9 | 1.1 |

1) Downward.

# Datasheet

## Shock absorber selection

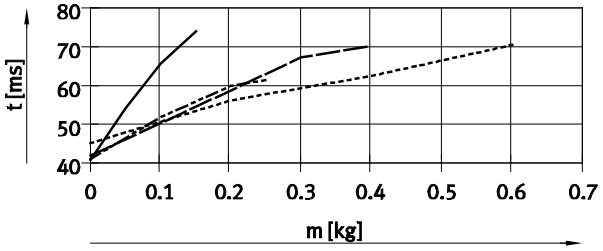
Travel time t as a function of payload m and cushioning P1 – horizontal mounting position

The values in the graphs are determined by calculation.
The travel time as a function of payload must not be reduced below the values shown, because the kinetic impact or residual energy in the end positions can result in damage to the drive.

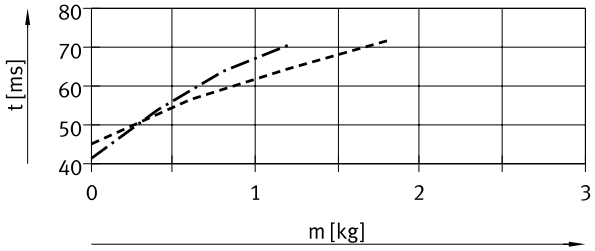
Vertical mounting position
➔ Page 23

### Advancing

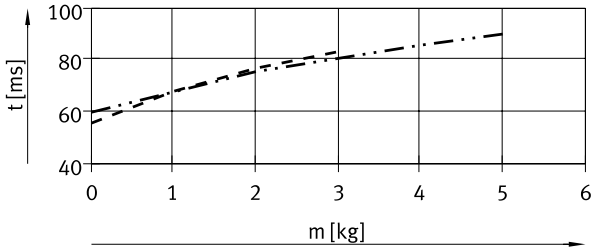
Stroke 10 mm, size 4 ... 10



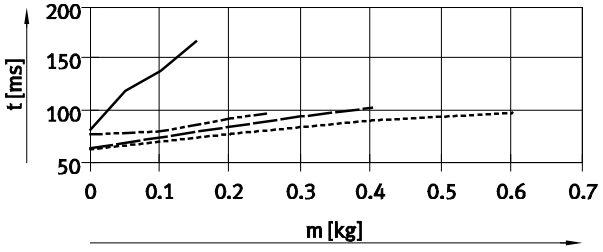

Stroke 10 mm, size 12 ... 16




Stroke 10 mm, size 20 ... 25

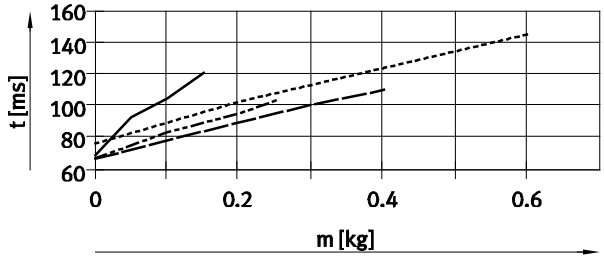



Stroke 30 mm, size 4 ... 10

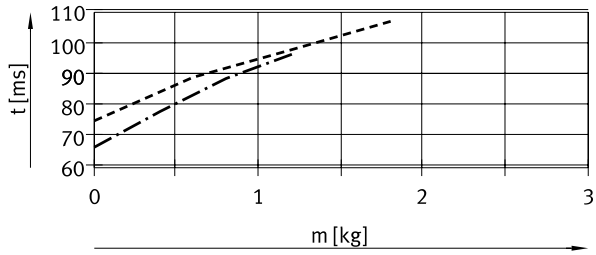



### Retracting

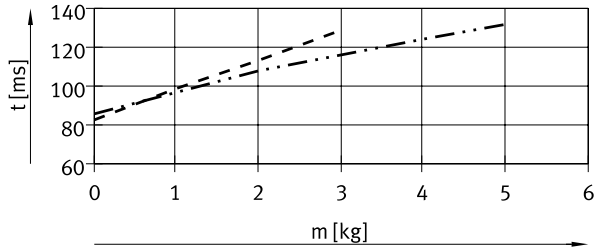
Stroke 10 mm, size 4 ... 10



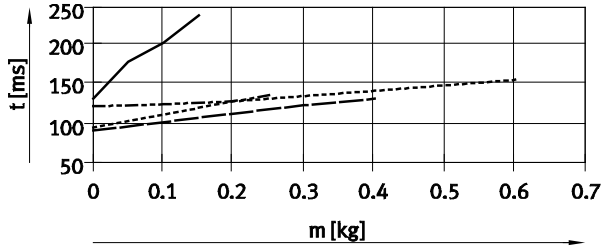

Stroke 10 mm, size 12 ... 16




Stroke 10 mm, size 20 ... 25




Stroke 30 mm, size 4 ... 10




DGSL-4
DGSL-6
DGSL-8
DGSL-10
DGSL-12
DGSL-16
DGSL-20
DGSL-25

# Datasheet

## Shock absorber selection

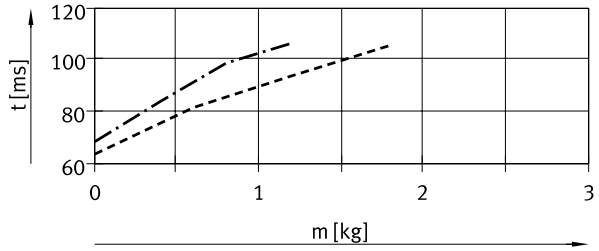
Travel time t as a function of payload m and cushioning P1 – horizontal mounting position

The values in the graphs are determined by calculation.
The travel time as a function of payload must not be reduced below the values shown, because the kinetic impact or residual energy in the end positions can result in damage to the drive.

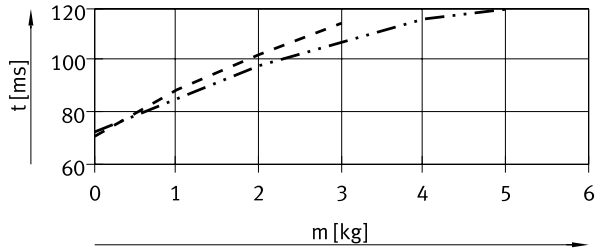
Vertical mounting position
→ Page 23

### Advancing

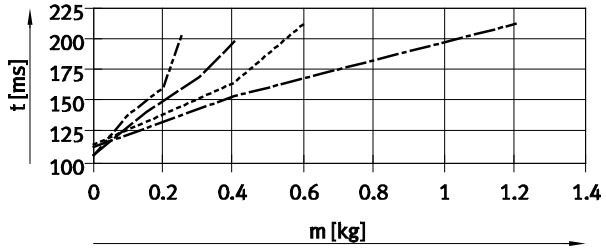
Stroke 30 mm, size 12 ... 16



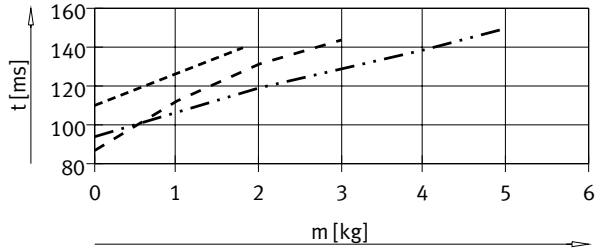

Stroke 30 mm, size 20 ... 25




Stroke 50 mm, size 6 ... 12

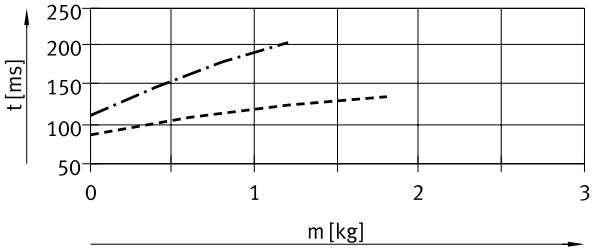



Stroke 50 mm, size 16 ... 25

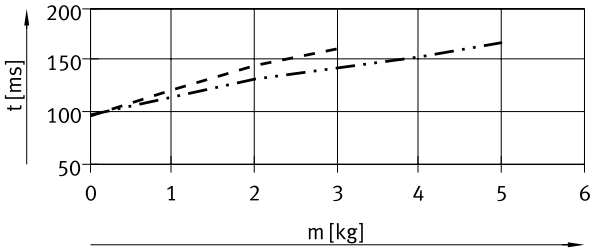



### Retracting

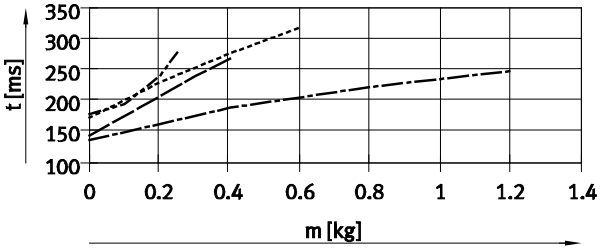
Stroke 30 mm, size 12 ... 16



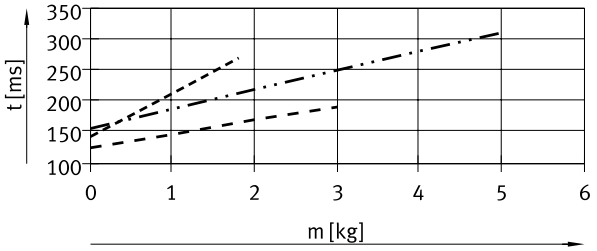

Stroke 30 mm, size 20 ... 25




Stroke 50 mm, size 6 ... 12




Stroke 50 mm, size 16 ... 25




DGSL-6
DGSL-8
DGSL-10
DGSL-12
DGSL-16
DGSL-20
DGSL-25

# Datasheet

## Shock absorber selection

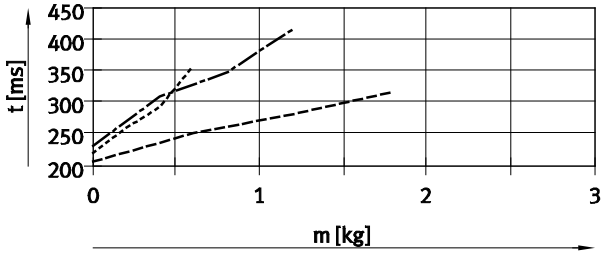
Travel time t as a function of payload m and cushioning P1 – horizontal mounting position

The values in the graphs are determined by calculation.
The travel time as a function of payload must not be reduced below the values shown, because the kinetic impact or residual energy in the end positions can result in damage to the drive.

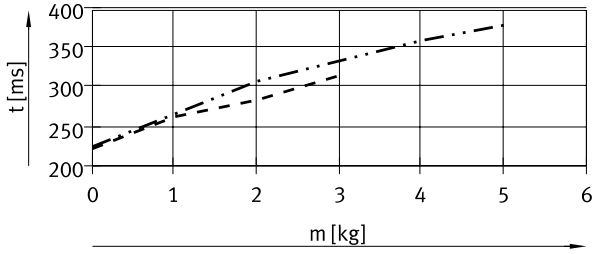
Vertical mounting position
➔ Page 23

### Advancing

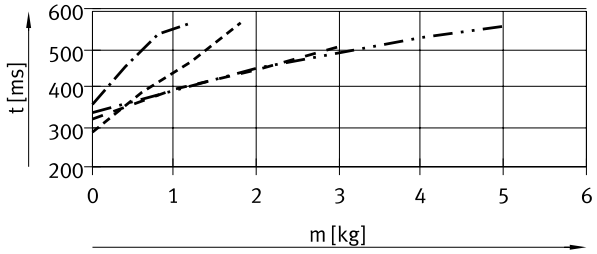
Stroke 100 mm, size 10 ... 16




Stroke 100 mm, size 20 ... 25

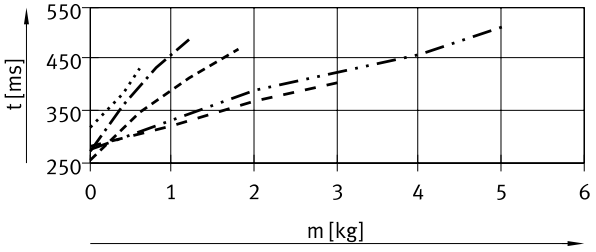



Stroke 150 mm, size 12 ... 25

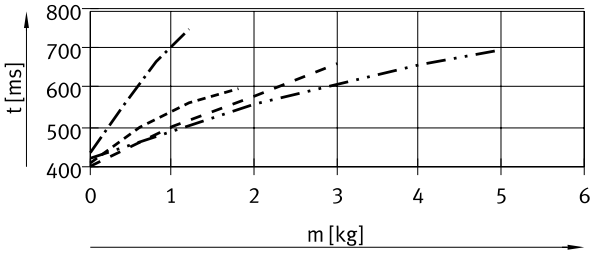



### Retracting

Stroke 100 mm, size 10 ... 25




Stroke 150 mm, size 12 ... 25




DGSL-10
DGSL-12
DGSL-16
DGSL-20
DGSL-25

# Datasheet

## Shock absorber selection

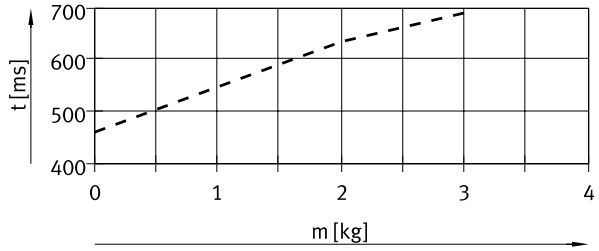
Travel time t as a function of payload m and cushioning P1 – horizontal mounting position

The values in the graphs are determined by calculation.
The travel time as a function of payload must not be reduced below the values shown, because the kinetic impact or residual energy in the end positions can result in damage to the drive.

Vertical mounting position
➔ Page 23

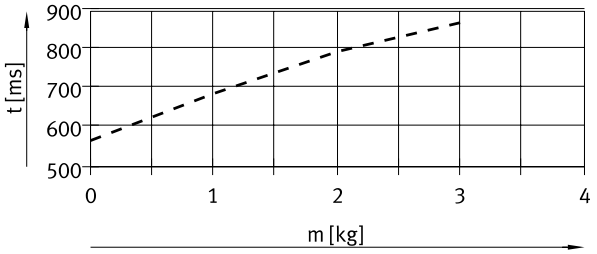
### Advancing

Stroke 200 mm, size 20

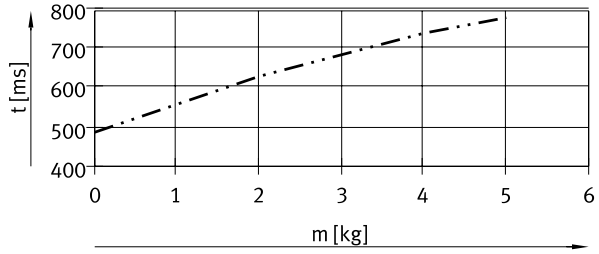



### Retracting

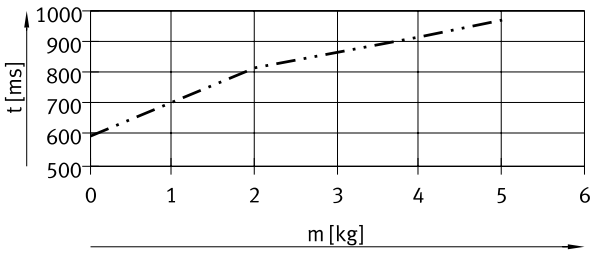
Stroke 200 mm, size 20




Stroke 200 mm, size 25




Stroke 200 mm, size 25




DGSL-20
DGSL-25

## Vertical mounting position

The travel times for a vertical mounting position are calculated by multiplying the data for a horizontal mounting position by a correction factor ka (advancing) and ke (retracting), see adjacent table.

Where:
Stroke = 200 mm
Size = 20
Payload = 2 kg
Calculated travel time th (horizontal),
see graph:
- Advancing = 640 ms
- Retracting = 780 ms

Calculated travel time tv (vertical):
- Advancing: tv = th x ka
  ts = 640 ms x 0.9 = 576 ms
- Retracting: tv = th x ke
  ts = 780 ms x 1.1 = 858 ms

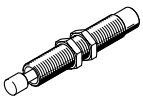
| Stroke [mm] | Size | Advancing (ka) [1] | Retracting (kr) |
|---|---|---|---|
| 10 | 4, 6, 8, 10 | 1 | 1.1 |
| | 12, 16, 20, 25 | 1.1 | 1.2 |
| 30 | 4, 6, 8, 10 | 1 | 1.1 |
| | 12, 16, 20, 25 | 1.1 | 1.2 |
| 50 | 6, 8, 10, 12 | 1 | 1.1 |
| | 16, 20, 25 | 0.9 | 1.1 |
| 100 | 10, 12, 16, 20, 25 | 0.95 | 1.1 |
| 150 | 12, 16, 20, 25 | 0.95 | 1.1 |
| 200 | 20, 25 | 0.9 | 1.1 |

1) Downward.

# Datasheet

## Shock absorber selection

Travel time t as a function of payload m and cushioning Y3 – horizontal mounting position

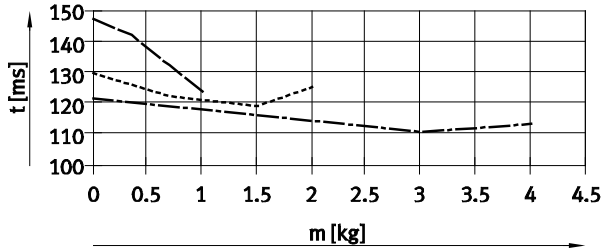


The values in the graphs are determined by calculation.
The travel time as a function of payload must not be reduced below the values shown, because the kinetic impact or residual energy in the end positions can result in damage to the drive.

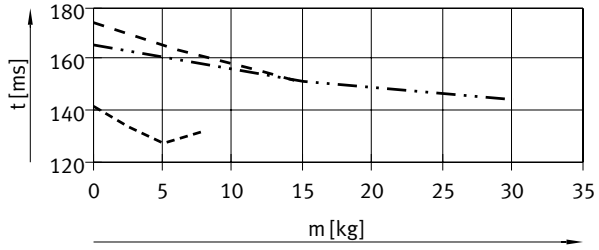
Vertical mounting position
➔ Page 25

### Advancing

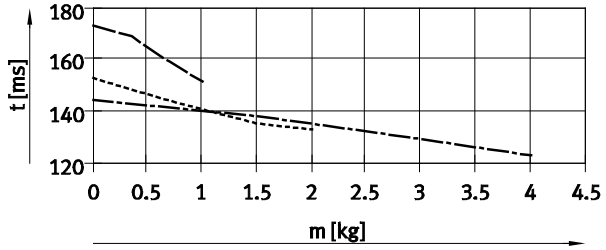
Stroke 30 mm, size 8 ... 12



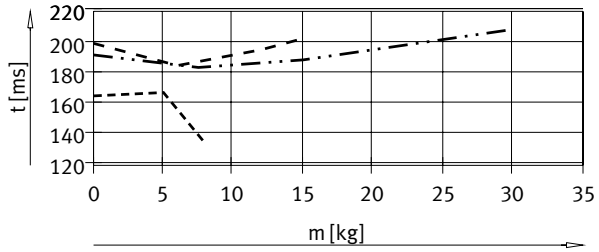

Stroke 30 mm, size 16 ... 25




Stroke 50 mm, size 8 ... 12

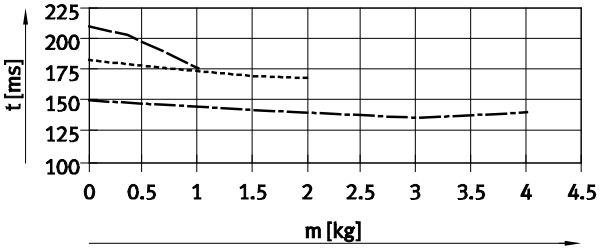



Stroke 50 mm, size 16 ... 25

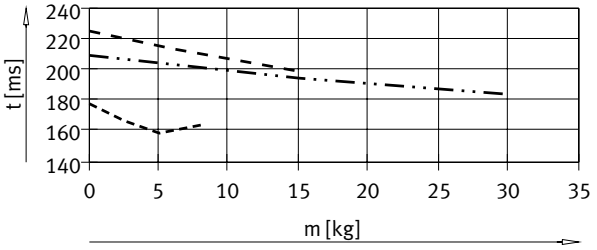



### Retracting

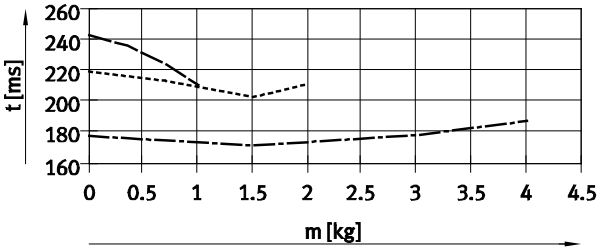
Stroke 30 mm, size 8 ... 12



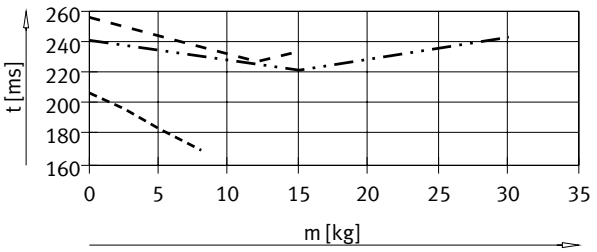

Stroke 30 mm, size 16 ... 25




Stroke 50 mm, size 8 ... 12




Stroke 50 mm, size 16 ... 25

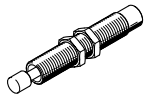



DGSL-10
DGSL-12
DGSL-16
DGSL-20
DGSL-25

# Datasheet

## Shock absorber selection

Travel time t as a function of payload m and cushioning Y3 – horizontal mounting position

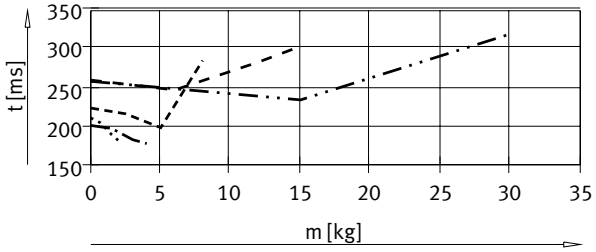


The values in the graphs are determined by calculation.
The travel time as a function of payload must not be reduced below the values shown, because the kinetic impact or residual energy in the end positions can result in damage to the drive.

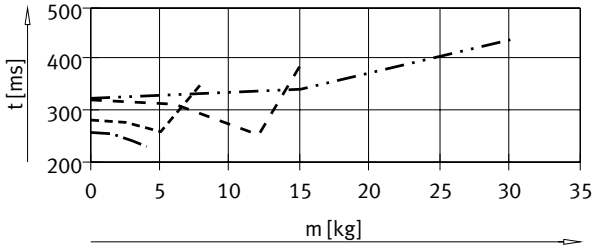
Vertical mounting position
➔ Page 25

### Advancing

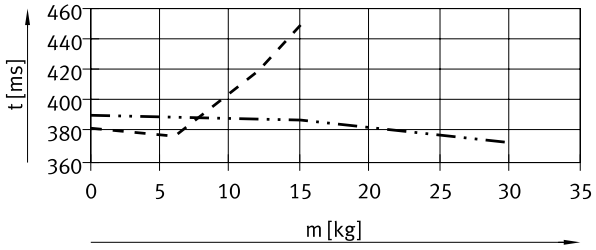
Stroke 100 mm, size 10 ... 25




Stroke 150 mm, size 12 ... 25

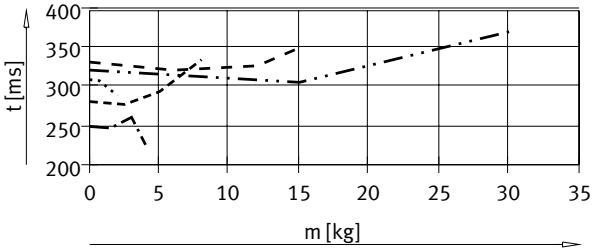



Stroke 200 mm, size 20 ... 25

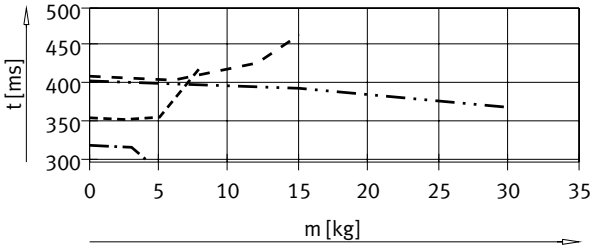



### Retracting

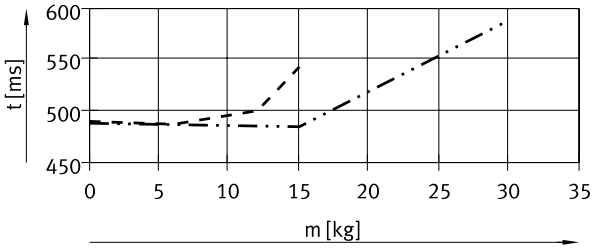
Stroke 100 mm, size 10 ... 25




Stroke 150 mm, size 12 ... 25




Stroke 200 mm, size 20 ... 25




DGSL-20
DGSL-25

## Vertical mounting position

The travel times for a vertical mounting position are calculated by multiplying the data for a horizontal mounting position by a correction factor ka (advancing) and ke (retracting), see adjacent table.

Where:
Stroke = 200 mm
Size = 20
Payload = 10 kg
Calculated travel time th (horizontal),
see graph:
- Advancing = 405 ms
- Retracting = 490 ms

Calculated travel time tv (vertical):
- Advancing: tv = th x ka
  ts = 405 ms x 0.9 = 365 ms
- Retracting: tv = th x ke
  ts = 490 ms x 1.5 = 735 ms

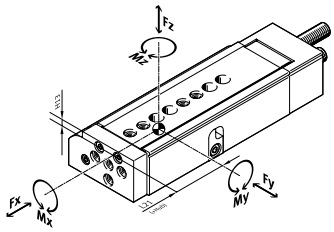
| Stroke [mm] | Size | Advancing (ka) [1] | Retracting (kr) |
|---|---|---|---|
| 30 | 8, 10, 12 | 0.95 | 1.2 |
| | 16, 20, 25 | 0.9 | 1.5 |
| 50 | 8, 10, 12 | 0.9 | 1.5 |
| | 16, 20, 25 | 0.9 | 1.5 |
| 100 | 10, 12, 16, 20, 25 | 0.8 | 1.5 |
| 150 | 12, 16, 20, 25 | 0.9 | 1.5 |
| 200 | 20, 25 | 0.9 | 1.5 |

1) Downward.

# Datasheet

## Dynamic load values

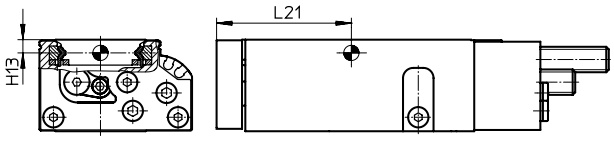
The indicated torques refer to the centre of the guide.
These values must not be exceeded during dynamic operation. Special attention must be paid to the deceleration phase.




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

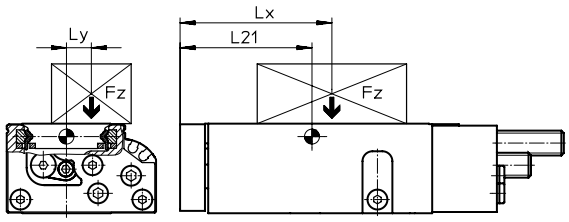
$$+\frac{7{,}848\ N}{1200\ N}+\frac{0{,}236\ Nm}{18\ \mathrm{Nm}}+\frac{0{,}886\ \mathrm{Nm}}{12\ Nm}+0\ \leq 1$$

## Position of the guide centre




## Calculation example

Where:




Mini slide = DGSL-10
Stroke length = 80 mm
Lever arm $L_x$ = 50 mm
Lever arm $L_y$ = 30 mm
Mass $F_z$ = 0.8 kg
Acceleration a = 0 m/s²

To be determined:

$F_y$, $F_z$, Mx, My, Mz
and
functional operation with combined load

Solution:

L21 = 83 mm from table
$F_y$ = 0 N

$F_z$ = m x g
= 0.8 kg x 9.81 m/s² = 7.848 N

$M_x$ = m x g x $L_y$
= 0.8 kg x 9.81 m/s² x 30 mm = 0.236 Nm

$M_y$ = m x g x [(L21+stroke)-$L_x$]
= 0.8 kg x 9.81 m/s² x [(83 mm + 80 mm) - 50 mm] = 0.886 Nm

$M_z$ = 0 Nm

Combined load:

$$+\frac{7{,}848\ N}{1200\ N}+\frac{0{,}236\ Nm}{18\ \mathrm{Nm}}+\frac{0{,}886\ \mathrm{Nm}}{12\ Nm}+0\ \leq 1$$

$$0+\frac{7{,}848\ N}{1200\ N}+\frac{0{,}236\ Nm}{18\ \mathrm{Nm}}+\frac{0{,}886\ \mathrm{Nm}}{12\ Nm}+0\ \leq 1$$

| Permissible forces and torques | | | | | | Geometric characteristics | |
|---|---|---|---|---|---|---|---|
| Size | Stroke [mm] | $Fy_{max}$ [N] | $Fz_{max}$ [N] | $Mx_{max}$ [Nm] | $My_{max}$, $Mz_{max}$ [Nm] | H13 [mm] | L21 [mm] |
| 4 | | | | | | | |
| | 10 | 343 | 343 | 2 | 2 | 2.7 | 31 |
| | 20 | 368 | 368 | 2 | 2 | | 36 |
| | 30 | 387 | 387 | 2 | 2 | | 42 |
| 6 | | | | | | | |
| | 10 | 540 | 540 | 6 | 4.5 | 3.4 | 37 |
| | 20 | 590 | 590 | 7 | 5 | | 42 |
| | 30 | 631 | 631 | 8 | 5.5 | | 47 |
| | 40 | 677 | 677 | 8 | 5.5 | | 52 |
| | 50 | 719 | 719 | 8 | 5.5 | | 57 |

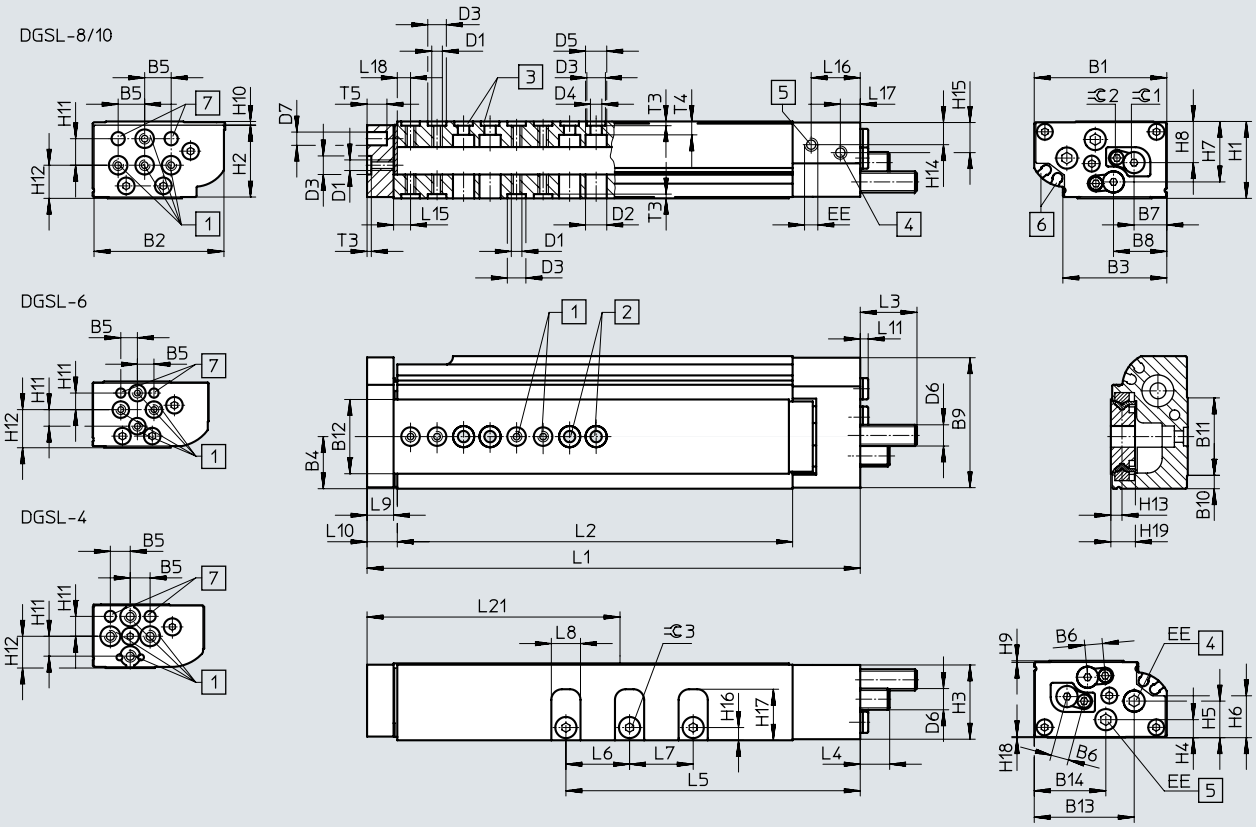
# Datasheet

| **Permissible forces and torques** | | | | | | **Geometric characteristics** | |
|---|---|---|---|---|---|---|---|
| Size | Stroke [mm] | $Fy_{max}$ [N] | $Fz_{max}$ [N] | $Mx_{max}$ [Nm] | $My_{max}$, $Mz_{max}$ [Nm] | H13 [mm] | L21 [mm] |
| 8 | | | | | | | |
| | 10 | 657 | 657 | 7 | 5.5 | 3.25 | 41 |
| | 20 | 745 | 745 | 8 | 5.5 | | 46 |
| | 30 | 850 | 850 | 9 | 5.5 | | 51 |
| | 40 | 934 | 934 | 10 | 5.5 | | 56 |
| | 50 | 962 | 962 | 10 | 8 | | 67 |
| | 80 | 971 | 971 | 10 | 8 | | 82 |
| 10 | | | | | | | |
| | 10 | 927 | 927 | 15 | 6 | 4.2 | 43 |
| | 20 | 1003 | 1003 | 15 | 7 | | 46 |
| | 30 | 1078 | 1078 | 15 | 8 | | 51 |
| | 40 | 1152 | 1152 | 15 | 9 | | 56 |
| | 50 | 1175 | 1175 | 18 | 9 | | 61 |
| | 80 | 1200 | 1200 | 18 | 12 | | 83 |
| | 100 | 1250 | 1250 | 18 | 12 | | 96 |
| 12 | | | | | | | |
| | 10 | 942 | 942 | 15 | 8 | 5.2 | 44 |
| | 20 | 1006 | 1006 | 15 | 9 | | 49 |
| | 30 | 1075 | 1075 | 15 | 10 | | 54 |
| | 40 | 1142 | 1142 | 18 | 11 | | 59 |
| | 50 | 1200 | 1200 | 18 | 12 | | 64 |
| | 80 | 1280 | 1280 | 20 | 15 | | 88 |
| | 100 | 1340 | 1340 | 20 | 15 | | 98 |
| | 150 | 1400 | 1400 | 20 | 15 | | 124 |
| 16 | | | | | | | |
| | 10 | 1769 | 1769 | 35 | 20 | 6.4 | 54 |
| | 20 | 2021 | 2021 | 35 | 22 | | 59 |
| | 30 | 2274 | 2274 | 35 | 22 | | 64 |
| | 40 | 2527 | 2527 | 40 | 25 | | 69 |
| | 50 | 2780 | 2780 | 40 | 25 | | 74 |
| | 80 | 2800 | 2800 | 50 | 27 | | 89 |
| | 100 | 2850 | 2850 | 50 | 43 | | 113 |
| | 150 | 2900 | 2900 | 50 | 43 | | 138 |
| 20 | | | | | | | |
| | 10 | 2911 | 2911 | 60 | 30 | 7.55 | 56 |
| | 20 | 3143 | 3143 | 60 | 30 | | 61 |
| | 30 | 3354 | 3354 | 60 | 30 | | 66 |
| | 40 | 3612 | 3612 | 60 | 40 | | 71 |
| | 50 | 3816 | 3816 | 70 | 50 | | 76 |
| | 80 | 4032 | 4032 | 80 | 50 | | 91 |
| | 100 | 4200 | 4200 | 85 | 80 | | 121 |
| | 150 | 4400 | 4400 | 90 | 80 | | 152 |
| | 200 | 4600 | 4600 | 90 | 80 | | 177 |
| 25 | | | | | | | |
| | 10 | 3270 | 3270 | 100 | 60 | 8.55 | 64 |
| | 20 | 3744 | 3744 | 100 | 60 | | 69 |
| | 30 | 4205 | 4205 | 100 | 60 | | 74 |
| | 40 | 4643 | 4643 | 110 | 60 | | 79 |
| | 50 | 4650 | 4650 | 120 | 60 | | 84 |
| | 80 | 4700 | 4700 | 130 | 80 | | 112 |
| | 100 | 4750 | 4750 | 130 | 80 | | 129 |
| | 150 | 4800 | 4800 | 130 | 80 | | 154 |
| | 200 | 4800 | 4800 | 130 | 80 | | 179 |

# Datasheet

**Dimensions** Download CAD data ➔ www.festo.com

Size 4 ... 10




[1] Mounting thread (centring sleeves included in the scope of delivery)
[2] Through-holes for mounting the drive
[3] Centring holes (centring sleeves included in the scope of delivery)
[4] Supply port, advancing
[5] Supply port, retracting
[6] Sensor slots for proximity switch SME/SMT-10
[7] Centring hole
L10 Distance between outer edge of yoke plate and housing
L15 Distance between centre of centring hole and outer edge of slide
L18 Distance between centre of centring hole and outer edge of housing

**General dimensions**

| Size | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | B11 | B12 | B13 | B14 | D1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 28 | 27.4 | 18.35 | 9.4 | 5 | 3.55 | 6.3 | 11.95 | 27.5 | 2 | 17.2 | 12.4 | 23.15 | 16.15 | M3 |
| 6 | 35 | 34.5 | 26.3 | 13.5 | 5 | 5 | 8.2 | 13.55 | 34.5 | 3.5 | 19.9 | 20 | 28.1 | 18.9 | M3 |
| 8 | 42 | 41.3 | 31.45 | 16.6 | 10 | 6 | 10.3 | 16.25 | 41.5 | 4.57 | 24 | 24.1 | 33 | 24.4 | M4 |
| 10 | 50 | 49 | 39.2 | 19.65 | 10 | 6.8 | 12.35 | 20.1 | 49 | 5 | 29.2 | 28 | 37.7 | 27 | M4 |

| Size | D2 Ø | D3 Ø | D4 Ø | D5 Ø | D6 | D7 Ø | EE | H1 ±0.08 | H2 | H3 | H4 | H5 | H6 | H7 | H8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 6.3 | $5^{H7}$ | 3.3 | 6.2 | M4x0.5 | $3^{H7}$ | M3 | 16 | 15.4 | 15.1 | 3.85 | 6.25 | 8.55 | 8.1 | 8.4 |
| 6 | 6.3 | $5^{H7}$ | 3.3 | 6.2 | M5x0.5 | $3^{H7}$ | M3 | 20 | 19 | 19.25 | 4.7 | 7.8 | 10.2 | 16.05 | 10.55 |
| 8 | 8.2 | $7^{H7}$ | 4.3 | 8 | M6x0.5 | $5^{H7}$ | M3 | 24 | 22.7 | 23 | 6.46 | 10.63 | 14.06 | 18.9 | 13.3 |
| 10 | 8.2 | $7^{H7}$ | 4.3 | 8 | M8x1 | $5^{H7}$ | M5 | 29 | 27.1 | 28 | 6.8 | 13.8 | 15.8 | 22.8 | 15.5 |

| Size | H9 | H10 | H11 | H12 | H13 | H14 | H15 | H16 | H17 | H18 | H19 | T3 +0.1 | T4 | T5 | ⊂ 2 [1] | ⊂ 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 0.65 | 0.3 | 5 | 8 | 2.7 | 5.35 | 5.85 | 3.1 | 10.6 | 0.25 | 5.28 | 1.3 | 2.25 | 4 | 1.5 | 2 |
| 6 | 0.45 | 0.5 | 5 | 11.5 | 3.38 | 6.5 | 7.2 | 3.7 | 13.1 | 0.3 | 6.68 | 1.3 | 3.7 | 6 | 1.5 | 2.5 |
| 8 | 0.64 | 0.9 | 10 | 8.7 | 3.28 | 7.8 | 10.5 | 4.1 | 16.8 | 0.36 | 6.7 | 1.6 | 3.8 | 7.5 | 2 | 2.5 |
| 10 | 0.6 | 1.4 | 10 | 12.5 | 4.2 | 8.76 | 11.76 | 4.8 | 19.25 | 0.41 | 9 | 1.6 | 5.35 | 7.5 | 2.5 | 3 |

1) With size 4, the scope of delivery of the drive includes an Allen key.

# Datasheet

**Stroke-dependent dimensions**

| Size | Stroke | L1 | L2 | L5 | L6 | L7 | L8 | L9 | L10 | L11 | L15 ±0.05 | L16 | L17 | L18 ±0.05 | L21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 10 | 72.1 | 48 | 28.85 | – | – | 6.5 | 5.5 | 6.6 | 2.5 | 4 | 13.25 | 4.95 | 3 | 31 |
| | 20 | 81.2 | 57.1 | 37.95 | 10 | | | | | | | | | | 36 |
| | 30 | 91.2 | 67.1 | 47.95 | 11 | | | | | | | | | | 42 |
| 6 | 10 | 81.1 | 54 | 33.1 | – | | 8 | 8 | 9.6 | 2.5 | 5.1 | 13.25 | 4.95 | 3.5 | 37 |
| | 20 | 91.1 | 64 | 43.1 | 14 | | | | | | | | | | 42 |
| | 30 | 101.1 | 74 | 53.1 | | | | | | | | | | | 47 |
| | 40 | 111.1 | 84 | 63.1 | | | | | | | | | | | 52 |
| | 50 | 121.1 | 94 | 73.1 | | | | | | | | | | | 57 |
| 8 | 10 | 90.2 | 59.6 | 34.6 | – | – | 8 | 10 | 11.6 | 2.5 | 7 | 14.65 | 6.1 | 5.5 | 41 |
| | 20 | 100.2 | 69.6 | 44.6 | 10 | | | | | | | | | | 46 |
| | 30 | 110.2 | 79.6 | 54.6 | 16 | | | | | | | | | | 51 |
| | 40 | 120.2 | 89.6 | 64.6 | | | | | | | | | | | 56 |
| | 50 | 142.2 | 111.6 | 74.6 | | | | | | | | | | | 67 |
| | 80 | 172.2 | 141.6 | 104.6 | | 16 | | | | | | | | | 82 |
| 10 | 10 | 103.1 | 66 | 41.3 | – | – | 11 | 10 | 11.6 | 2.5 | 6.4 | 18.5 | 7.5 | 5 | 43 |
| | 20 | 112.8 | 75.7 | 51 | | | | | | | | | | | 46 |
| | 30 | 122.8 | 85.7 | 61 | | | | | | | | | | | 51 |
| | 40 | 132.8 | 95.7 | 71 | | | | | | | | | | | 56 |
| | 50 | 142.8 | 105.7 | 81 | | | | | | | | | | | 61 |
| | 80 | 186.2 | 149.1 | 111 | 24 | | | | | | | | | | 83 |
| | 100 | 206.2 | 169.1 | 131 | 24 | 24 | | | | | | | | | 96 |

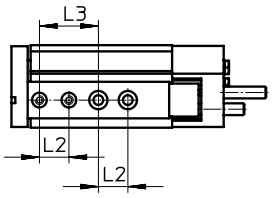
**Cushioning-dependent dimensions**

| Size | Cushioning | L3 max. | L4 max. | ⊂ 1 | |
|---|---|---|---|---|---|
| | | | | For adjusting the cushioning stroke | For adjusting the end position |
| 4 | P | 15.2 | 7.8 | – | 1.5 |
| | E | 5.7 | 0 | – | 1.5 |
| | P1 | 14 | 6 | 1.3 | 2.5 |
| 6 | P | 17.6 | 8.1 | – | 1.5 |
| | E | 6.6 | 0 | – | 1.5 |
| | P1 | 15.5 | 5.8 | 1.5 | 3 |
| 8 | P | 21.1 | 10.7 | – | 2 |
| | E | 6.6 | 0 | – | 2 |
| | P1 | 19 | 9.1 | 2 | 4 |
| | Y3 | 24.3 | 23.9 | – | 2 |
| 10 | P | 22.8 | 12.5 | – | 2.5 |
| | E | 8.8 | 0 | – | 2.5 |
| | P1 | 20.5 | 10.2 | 2.5 | 5 |
| | Y3 | 25.5 | 14.9 | – | 2.5 |
| | Y11 | 30.4 | 19.9 | – | 2 |

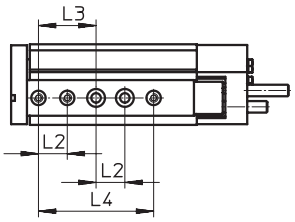
# Datasheet

**Hole pattern for mounting threads and centring holes**

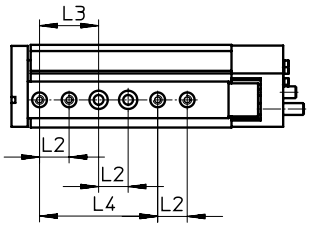
DGSL-4-10



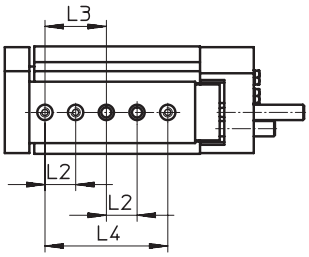

DGSL-4-20



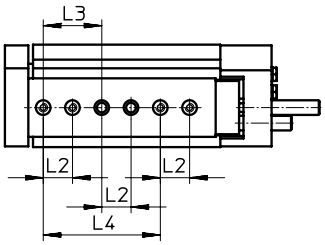

DGSL-4-30



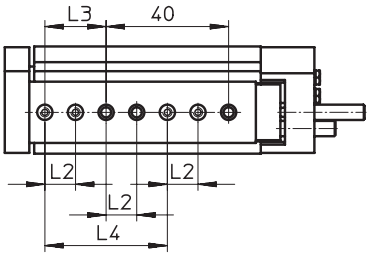

DGSL-6-10



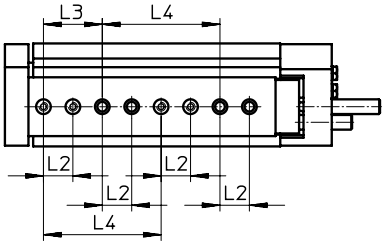

DGSL-6-20



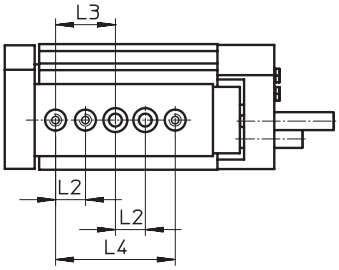

DGSL-6-30



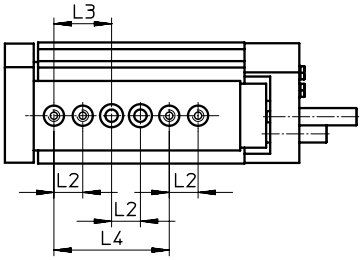

DGSL-6-40/50



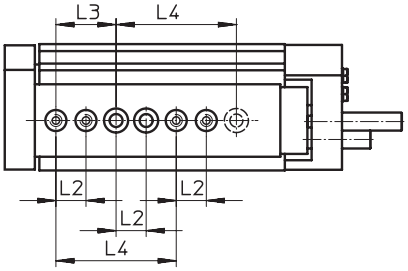

DGSL-8-10




DGSL-8-20



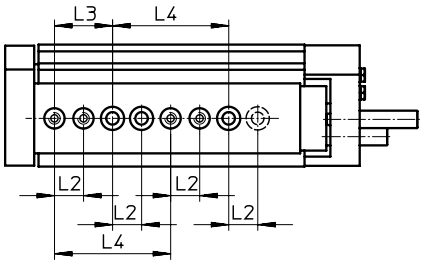

DGSL-8-30



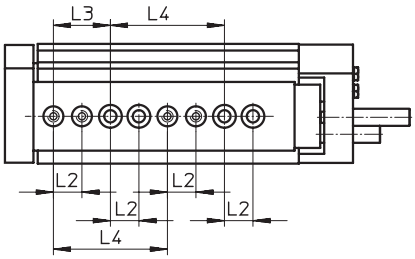
# Datasheet

## Hole pattern for mounting threads and centring holes

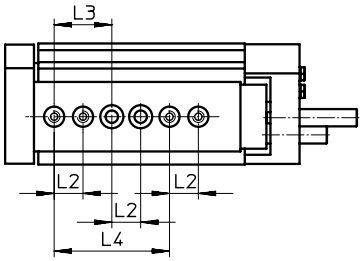
DGSL-8-40



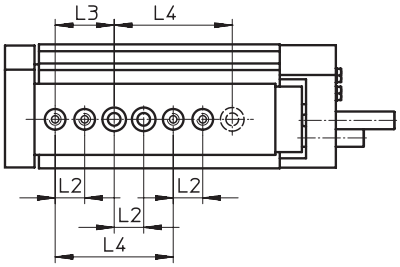

DGSL-8-50/80



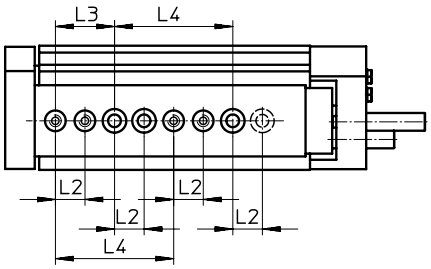

DGSL-10-10



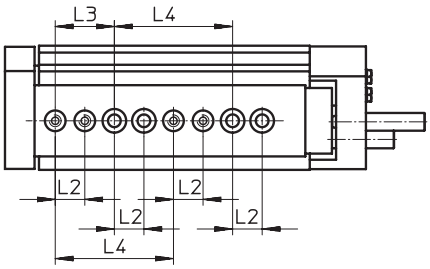

DGSL-10-20




DGSL-10-30

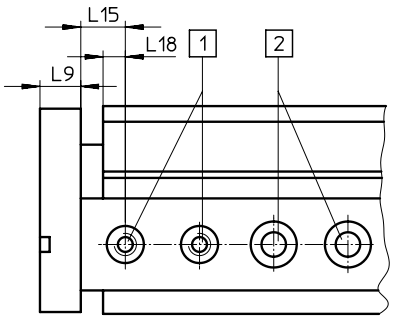



DGSL-10-40 ... 100




## Distances from the yoke plate to the mounting threads and centring holes

DGSL-4 ... 10




[1] Centring holes with thread

[2] Through-holes for mounting the drive

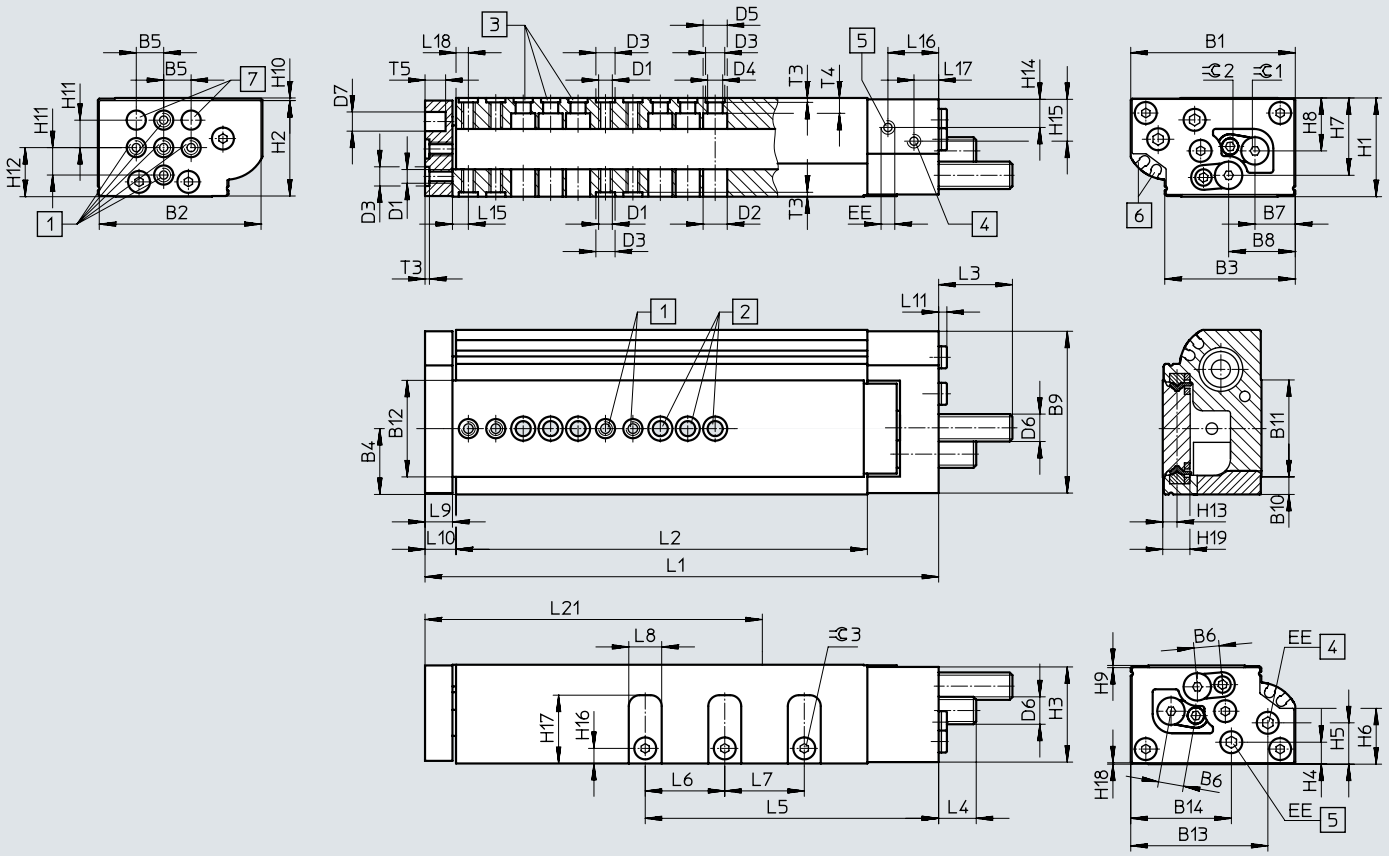
| Size | L2[1)] | L3[1)] | L4[1)] | L9 | L15 ±0.05 | L18 |
|---|---|---|---|---|---|---|
| 4 | 10 | 20 | 40 | 5.5 | 4 | 3 |
| 6 | 10 | 20 | 40 | 8 | 5.1 | 3.5 |
| 8 | 10 | 20 | 40 | 10 | 7 | 5.5 |
| 10 | 10 | 20 | 40 | 10 | 6.4 | 5 |

1) Tolerance for centring hole ±0.02
Tolerance for through-hole ±0.1

# Datasheet

**Dimensions** Download CAD data ➔ www.festo.com

Size 12/16




[1] Mounting thread (centring sleeves included in the scope of delivery)
[2] Through-holes for mounting the drive
[3] Centring holes (centring sleeves included in the scope of delivery)
[4] Supply port, advancing
[5] Supply port, retracting
[6] Sensor slots for proximity switch SME/SMT-10
[7] Centring hole

L10 Distance between outer edge of yoke plate and housing
L15 Distance between centre of centring hole and outer edge of slide
L18 Distance between centre of centring hole and outer edge of housing

**General dimensions**

| Size | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | B11 | B12 | B13 | B14 | D1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | 60 | 59 | 47.6 | 24 | 10 | 9.2 | 14.7 | 24.3 | 59 | 6.45 | 35.25 | 35.2 | 50 | 36.7 | M5 |
| 16 | 66 | 65 | 53.5 | 26.7 | 10 | 11.1 | 16.7 | 27.5 | 65 | 7.75 | 37.9 | 38 | 50.4 | 36.7 | M5 |

| Size | D2 Ø | D3 Ø | D4 Ø | D5 Ø | D6 | D7 Ø | EE | H1 ±0.08 | H2 | H3 | H4 | H5 | H6 | H7 | H8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | 9 | $7^{H7}$ | 5.5 | 9 | M10x1 | $8^{H7}$ | M5 | 36 | 34.8 | 34.7 | 8 | 15.1 | 20.35 | 28.2 | 19.3 |
| 16 | 9 | $7^{H7}$ | 5.5 | 9 | M12x1 | $8^{H7}$ | M5 | 40 | 38 | 39 | 8.5 | 16.7 | 20.6 | 31.7 | 20.8 |

| Size | H9 | H10 | H11 | H12 | H13 | H14 | H15 | H16 | H17 | H18 | H19 | T3 +0.1 | T4 | T5 | C 2 | C 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | 0.8 | 0.95 | 10 | 17.9 | 5.2 | 10.75 | 15.75 | 5.5 | 24.9 | 0.5 | 10.1 | 1.6 | 5.6 | 7.5 | 3 | 3 |
| 16 | 0.5 | 1.5 | 10 | 20 | 6.4 | 10.5 | 16.7 | 7 | 26.6 | 0.5 | 12.5 | 1.6 | 6.1 | 9 | 4 | 4 |

# Datasheet

**Stroke-dependent dimensions**

| Size | Stroke | L1 | L2 | L5 | L6 | L7 | L8 | L9 | L10 | L11 | L15 ±0.05 | L16 | L17 | L18 ±0.05 | L21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | 10 | 106.2 | 68.6 | 42.4 | – | – | 12 | 10 | 11.6 | 2.5 | 5.8 | 18.5 | 9 | 4.5 | 44 |
| | 20 | 116.2 | 78.6 | 52.4 | | | | | | | | | | | 49 |
| | 30 | 126.2 | 88.6 | 62.4 | | | | | | | | | | | 54 |
| | 40 | 136.2 | 98.6 | 72.4 | | | | | | | | | | | 59 |
| | 50 | 146.2 | 108.6 | 82.4 | | | | | | | | | | | 64 |
| | 80 | 197.6 | 160 | 112.4 | 29 | | | | | | | | | | 88 |
| | 100 | 217.6 | 180 | 132.4 | | | | | | | | | | | 98 |
| | 150 | 267.6 | 230 | 182.4 | | 29 | | | | | | | | | 124 |
| 16 | 10 | 124.1 | 82.5 | 45 | – | – | 14 | 12 | 13.6 | 2.5 | 6.8 | 21 | 10 | 5.5 | 54 |
| | 20 | 134.6 | 93 | 54.6 | | | | | | | | | | | 59 |
| | 30 | 144.6 | 103 | 64.6 | | | | | | | | | | | 64 |
| | 40 | 154.6 | 113 | 74.6 | | | | | | | | | | | 69 |
| | 50 | 164.6 | 123 | 84.6 | | | | | | | | | | | 74 |
| | 80 | 194.6 | 153 | 114.6 | 35 | | | | | | | | | | 89 |
| | 100 | 243.6 | 202 | 134.6 | | | | | | | | | | | 113 |
| | 150 | 293.6 | 252 | 184.6 | | | | | | | | | | | 138 |

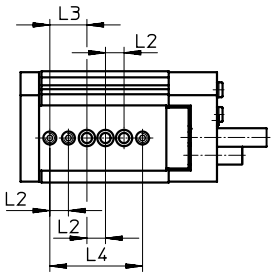
**Cushioning-dependent dimensions**

| Size | Cushioning | L3 max. | L4 max. | ⇙ 1 | |
|---|---|---|---|---|---|
| | | | | For adjusting the cushioning stroke | For adjusting the end position |
| 12 | P | 28.1 | 14.9 | – | 3 |
| | E | 8.8 | 0 | – | 3 |
| | P1 | 26 | 12.8 | 3 | 6 |
| | Y3 | 36.9 | 23.7 | – | 3 |
| | Y11 | 42.2 | 18.7 | – | 2.5 |
| 16 | P | 42.3 | 26.1 | – | 4 |
| | E | 8.8 | 0 | – | 4 |
| | P1 | 40 | 23.8 | 4 | 8 |
| | Y3 | 51.9 | 35.7 | – | 4 |
| | Y11 | 55.4 | 38.9 | – | 3 |

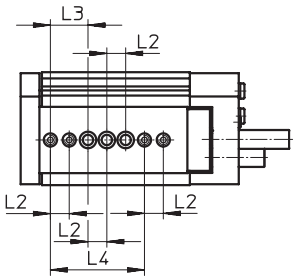
# Datasheet

**Hole pattern for mounting threads and centring holes**

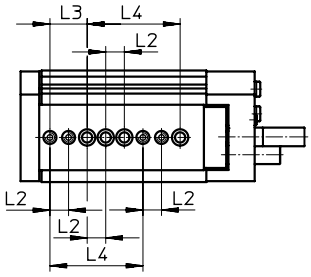
DGSL-12-10



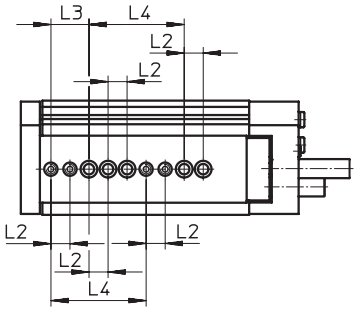

DGSL-12-20



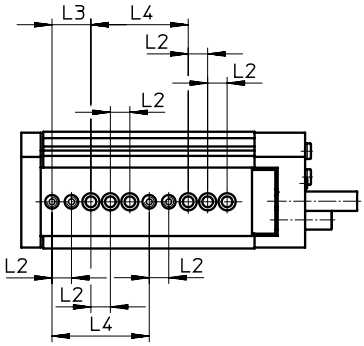

DGSL-12-30



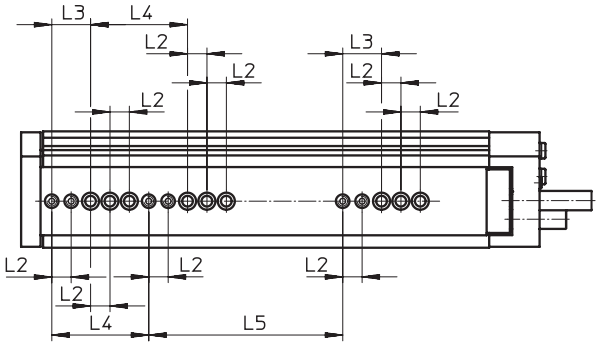

DGSL-12-40



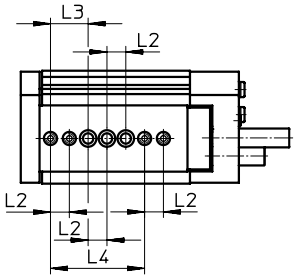

DGSL-12-50 ... 100



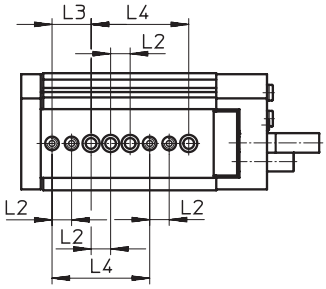

DGSL-12-150




DGSL-16-10



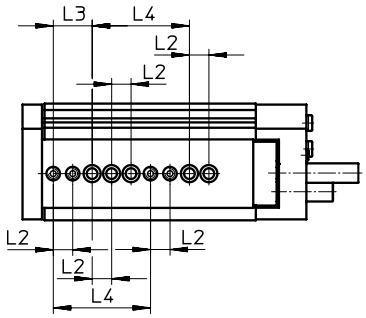

DGSL-16-20



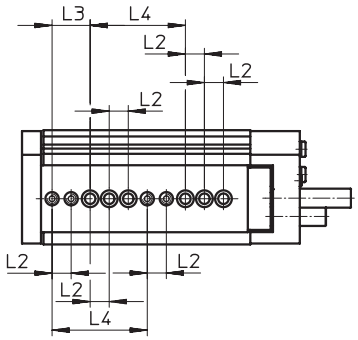
# Datasheet

## Hole pattern for mounting threads and centring holes

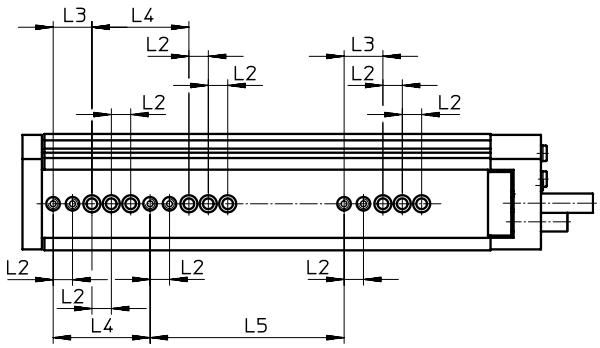
DGSL-16-30




DGSL-16-40 ... 100

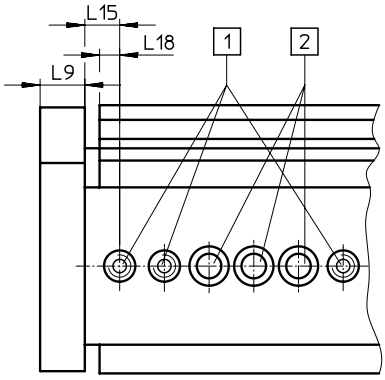



DGSL-16-150




## Distances from the yoke plate to the mounting threads and centring holes

DGSL-12/16




[1] Centring holes with thread

[2] Through-holes for mounting the drive

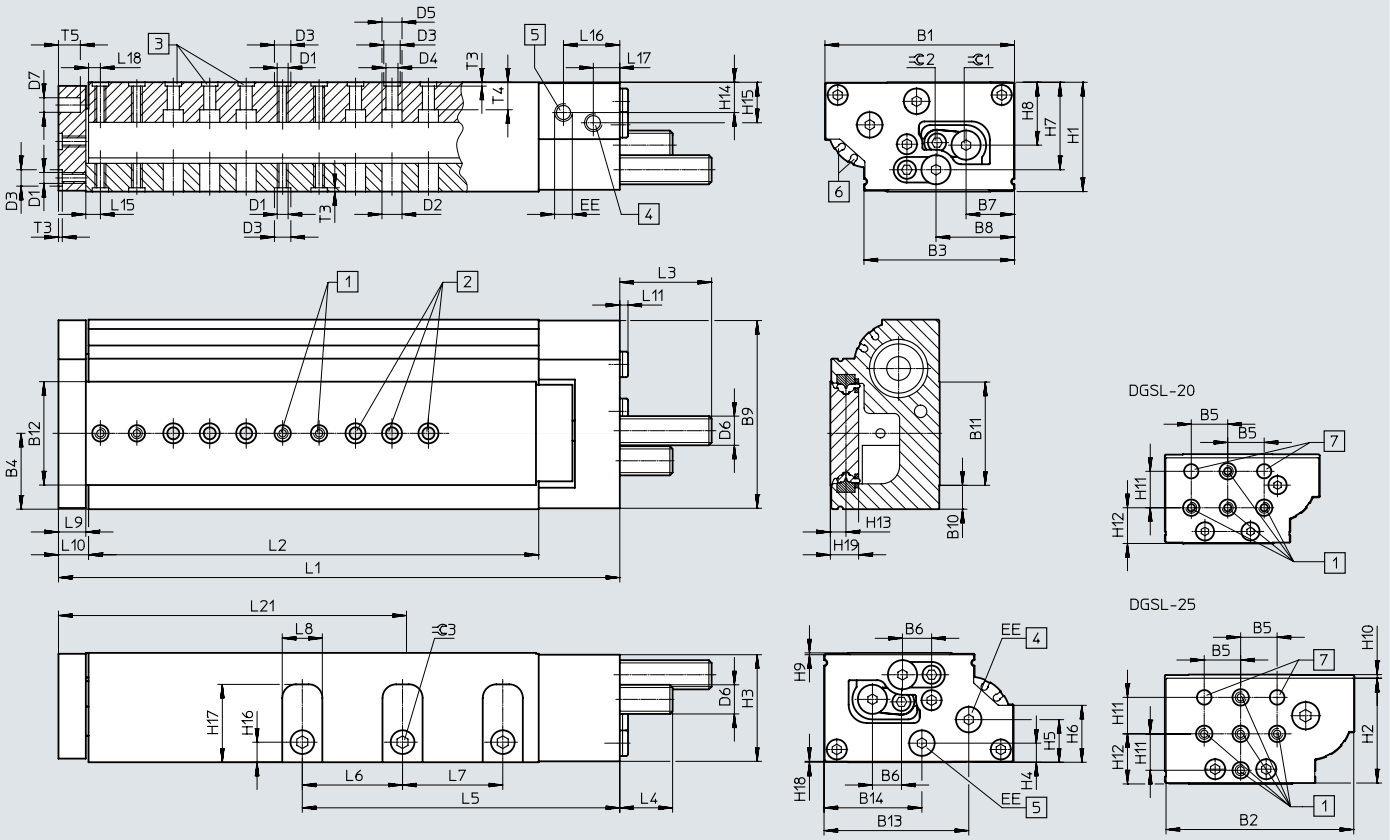
| Size | L2[1)] | L3[1)] | L4[1)] | L5 ±0.03 | L9 | L15 ±0.05 | L18 ±0.05 |
|---|---|---|---|---|---|---|---|
| 12 | 10 | 20 | 50 | 100 | 10 | 5.8 | 4.5 |
| 16 | 10 | 20 | 50 | 100 | 12 | 6.8 | 5.5 |

1) Tolerance for centring hole ±0.02
Tolerance for through-hole ±0.1

# Datasheet

**Dimensions** Download CAD data ➔ www.festo.com

Size 20/25




[1] Mounting thread (centring sleeves included in the scope of delivery)
[2] Through-holes for mounting the drive
[3] Centring holes (centring sleeves included in the scope of delivery)
[4] Supply port, advancing
[5] Supply port, retracting
[6] Sensor slots for proximity switch SME/SMT-10
[7] Centring hole

L10 Distance between outer edge of yoke plate and housing
L15 Distance between centre of centring hole and outer edge of slide
L18 Distance between centre of centring hole and outer edge of housing

# Datasheet

**General dimensions**

| Size | B1 | B2 | B3 | B4 | B5 | B6 | B7 | B8 | B9 | B10 | B11 | B12 | B13 | B14 | D1 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20 | 85 | 84 | 68.85 | 34.5 | 20 | 14.15 | 21.4 | 36.35 | 83.4 | 10 | 48.9 | 49.2 | 64.1 | 48.6 | M6 |
| 25 | 104 | 103 | 82.6 | 41.6 | 20 | 16.2 | 26.4 | 43.05 | 103 | 13.25 | 56.5 | 56.7 | 79.3 | 53.65 | M6 |

| Size | D2<br>Ø | D3<br>Ø | D4<br>Ø | D5<br>Ø | D6 | D7<br>Ø | EE | H1<br>±0.08 | H2 | H3 | H4 | H5 | H6 | H7 | H8 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20 | 11.2 | $9^{H7}$ | 6.6 | 11 | M14x1 | $8^{H7}$ | G1/8 | 49 | 46.5 | 47.7 | 10.3 | 20.6 | 23.2 | 38.2 | 26.1 |
| 25 | 11.2 | $9^{H7}$ | 6.6 | 11 | M16x1 | $8^{H7}$ | G1/8 | 60 | 57.5 | 58.5 | 10.45 | 23.35 | 31.15 | 47.95 | 34.5 |

| Size | H9 | H10 | H11 | H12 | H13 | H14 | H15 | H16 | H17 | H18 | H19 | T3<br>+0.1 | T4 | T5 | ⊂ 2 | ⊂ 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20 | 0.5 | 2 | 20 | 19.6 | 7.55 | 14.7 | 14.7 | 10 | 33.3 | 0.8 | 14.6 | 2.1 | 8.6 | 10 | 4 | 5 |
| 25 | 1 | 2 | 20 | 27.5 | 8.55 | 16.55 | 21.15 | 11 | 42.7 | 0.45 | 15.6 | 2.1 | 15 | 12 | 5 | 6 |

**Stroke-dependent dimensions**

| Size | Stroke | L1 | L2 | L5 | L6 | L7 | L8 | L9 | L10 | L11 | L15<br>±0.05 | L16 | L17 | L18<br>±0.05 | L21 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20 | 10 | 141.2 | 84.6 | 59.1 | – | – | 17 | 14 | 15.6 | 4.6 | 7.8 | 30.5 | 12 | 6.5 | 56 |
| | 20 | 151.2 | 94.6 | 69.1 | | | | | | | | | | | 61 |
| | 30 | 161.2 | 104.6 | 79.1 | | | | | | | | | | | 66 |
| | 40 | 171.2 | 114.6 | 89.1 | | | | | | | | | | | 71 |
| | 50 | 183.2 | 126.6 | 99.1 | | | | | | | | | | | 76 |
| | 80 | 211.2 | 154.6 | 129.1 | | | | | | | | | | | 91 |
| | 100 | 270.2 | 213.6 | 149.1 | 44 | | | | | | | | | | 121 |
| | 150 | 333.2 | 276.6 | 199.1 | | | | | | | | | | | 152 |
| | 200 | 383.2 | 326.6 | 249.1 | | 44 | | | | | | | | | 177 |
| 25 | 10 | 157.1 | 96 | 63.7 | – | – | 22 | 15 | 16.6 | 4.6 | 8 | 32.3 | 14.5 | 6.5 | 64 |
| | 20 | 167.1 | 106 | 72.2 | | | | | | | | | | | 69 |
| | 30 | 177.1 | 116 | 82.2 | | | | | | | | | | | 74 |
| | 40 | 187.1 | 126 | 92.2 | | | | | | | | | | | 79 |
| | 50 | 197.1 | 136 | 102.2 | | | | | | | | | | | 84 |
| | 80 | 253.1 | 192 | 132.2 | 55 | | | | | | | | | | 112 |
| | 100 | 286.1 | 225 | 152.2 | | | | | | | | | | | 129 |
| | 150 | 338.1 | 277 | 202.2 | | | | | | | | | | | 154 |
| | 200 | 388.1 | 327 | 252.2 | | | | | | | | | | | 179 |

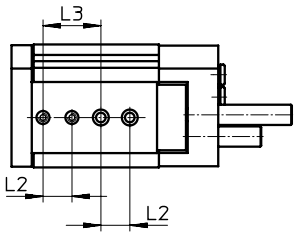
**Cushioning-dependent dimensions**

| Size | Cushioning | L3<br>max. | L4<br>max. | ⊂ 1 | |
|---|---|---|---|---|---|
| | | | | For adjusting the cushioning stroke | For adjusting the end position |
| 20 | P | 52.4 | 31.2 | – | 4 |
| | E | 8.8 | 0 | – | 4 |
| | P1 | 50.1 | 28.9 | 4 | 8 |
| | Y3 | 55.5 | 34.3 | – | 4 |
| | Y11 | 67.4 | 45.9 | – | 4 |
| 25 | P | 51.9 | 30.5 | – | 5 |
| | E | 8.8 | 0 | – | 5 |
| | P1 | 49.6 | 28.2 | 5 | 10 |
| | Y3 | 65.2 | 43.8 | – | 5 |
| | Y11 | 78.4 | 56.9 | – | 4 |

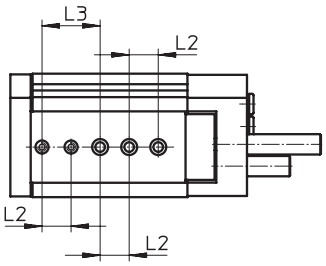
# Datasheet

**Hole pattern for mounting threads and centring holes**

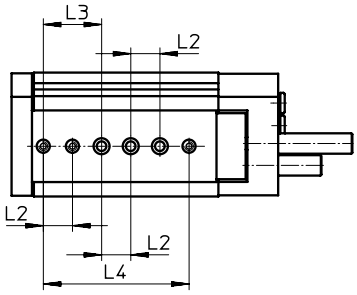
DGSL-20-10/20



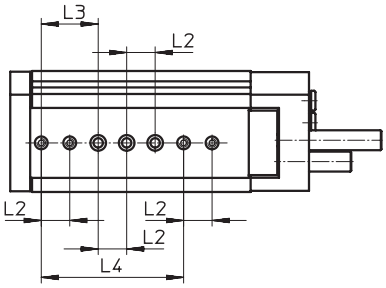

DGSL-20-30/40



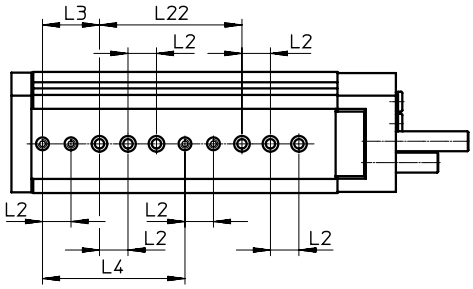

DGSL-20-50



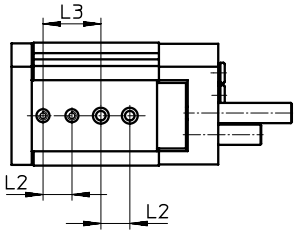

DGSL-20-80



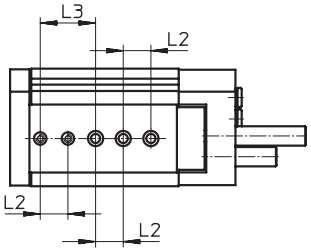

DGSL-20-100 ... 200




DGSL-25-10



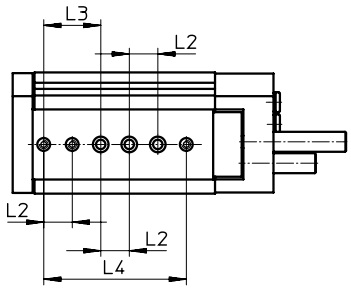

DGSL-25-20



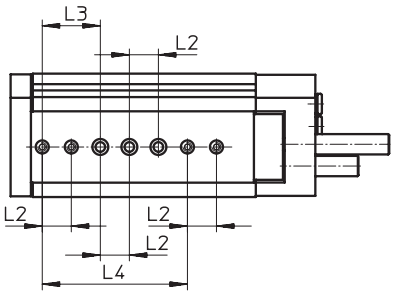
# Datasheet

## Hole pattern for mounting threads and centring holes

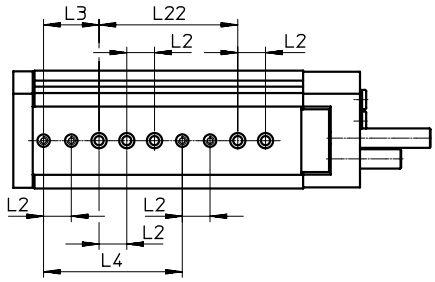
DGSL-25-30/40



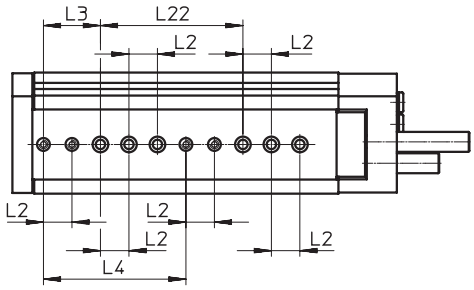

DGSL-25-50




DGSL-25-80

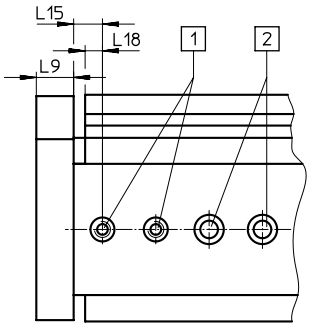



DGSL-25-100 ... 200




## Distances from the yoke plate to the mounting threads and centring holes

DGSL-20/25




[1] Centring holes with thread

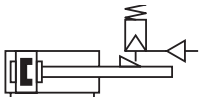
[2] Through-holes for mounting the drive

| Size | L2[1)] | L3[1)] | L4 | L9 | L15 ±0.05 | L18 +0.05 | L22 |
|---|---|---|---|---|---|---|---|
| 20 | 20 | 40 | 100[1)] | 14 | 7.8 | 6.5 | 100±0.03 |
| 25 | 20 | 40 | 100±0.03 | 15 | 8 | 6.5 | 100[1)] |

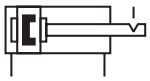
1) Tolerance for centring hole ±0.02
Tolerance for through-hole ±0.1

# Datasheet

Function
C – Clamping unit

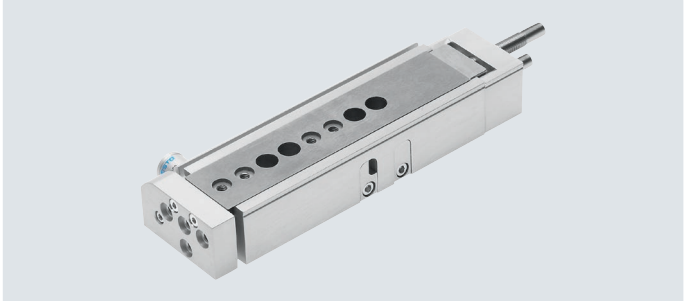


E3 – End-position locking



Size
6 ... 25

Sets of wearing parts
→ Page 45



**Note**
Additional measures are required for use in safety-related applications; in Europe, for example, the standards listed under the EC Machinery Directive must be observed. Without additional measures in accordance with legally specified minimum requirements, the product is not suitable as a safety-related component in control systems.

**General technical data – Clamping unit**

| Size | | 6 | 8 | 10 | 12 | 16 | 20 | 25 |
|---|---|---|---|---|---|---|---|---|
| Function | | • Mechanical clamping<br>• For fixing the slide in any position<br>• Frictional locking | | | | | | |
| Clamping type with operating direction | | At both ends | | | | | | |
| | | Clamping via spring force, release via compressed air | | | | | | |
| Pneumatic connection | | M5 | | | | | | |
| Mounting position | | Any | | | | | | |
| Static holding force | [N] | 80 | 80 | 180 | 180 | 350 | 350 | 600 |
| Product weight | [g] | 10 | 10 | 15 | 15 | 50 | 50 | 50 |

**Operating and environmental conditions – Clamping unit**

| | | |
|---|---|---|
| Operating medium | | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Note on the operating/pilot medium | | Lubricated operation possible (in which case lubricated operation will always be required) |
| Min. release pressure | | |
| | [MPa] | 0.3 |
| | [bar] | 3 |
| Max. operating pressure | | |
| | [MPa] | ≤ 1 |
| | [bar] | ≤ 10 |

**General technical data – End-position locking**

| Size | | 6 | 8 | 10 | 12 | 16 | 20 | 25 |
|---|---|---|---|---|---|---|---|---|
| Function | | • Mechanical locking when the end position is reached<br>• For fixing the slide in the unpressurised, retracted state<br>• Form-fitting | | | | | | |
| Clamping type with operating direction | | At both ends | | | | | | |
| | | Clamping via spring force, unlocked via compressed air | | | | | | |
| Pneumatic connection | | M5 | | | | | | |
| Mounting position | | Any | | | | | | |
| Static holding force | [N] | 60 | 60 | 160 | 160 | 250 | 380 | 640 |
| Product weight | [g] | 13 | 13 | 26 | 26 | 64 | 64 | 65 |

**Operating and environmental conditions – End-position locking**

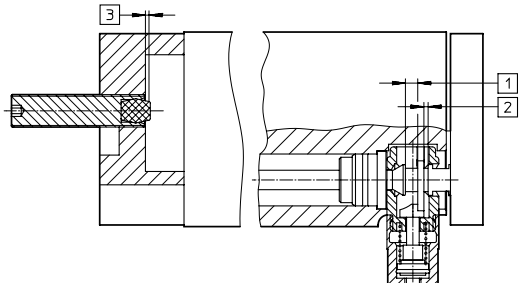
| | | |
|---|---|---|
| Operating medium | | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Note on the operating/pilot medium | | Lubricated operation possible (in which case lubricated operation will always be required) |
| Operating pressure | | |
| | [MPa] | 0.3 ... 0.8 |
| | [bar] | 3 ... 8 |

# Datasheet

## Adjustable end-position range

When using end-position locking (E3), the adjustable end-position range, the retracted end position, is reduced by the following values.

[1] Axial setting range
[2] Max. cushioning stroke
[3] Adjustable end-position range




| Size | [3] |
|---|---|
| 6, 8 | Max. 1.5 mm |
| 10, 12 | Max. 2.3 mm |
| 16, 20, 25 | Max. 2.7 mm |

## Dimensions

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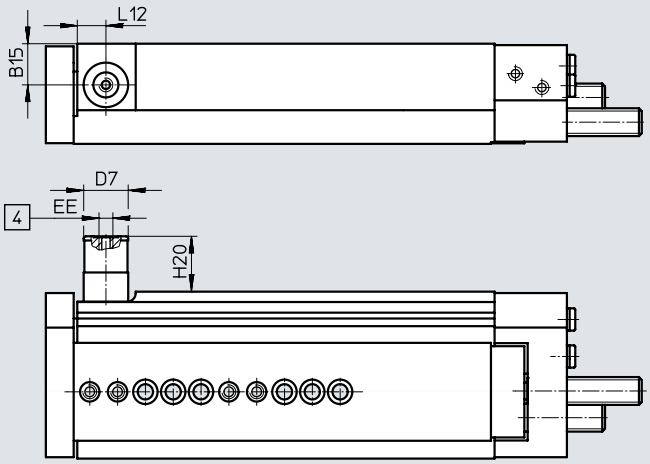
C – Clamping unit / E3 – End-position locking




[4] Compressed air supply port

| Size | B15 | D7 ø | EE | H20 | | L12 |
|---|---|---|---|---|---|---|
| | | | | C | E3 | |
| 6 | 7.2 | 12 | M5 | 10.7 | 21.2 | 7.3 |
| 8 | 9.9 | 12 | | 10.5 | 21 | 7.3 |
| 10 | 11.2 | 16 | | 11.8 | 21.2 | 10.5 |
| 12 | 14.8 | 16 | | 10.5 | 19.9 | 10.3 |
| 16 | 14 | 20 | | 27.5 | 30.5 | 13 |
| 20 | 17 | 20 | | 21.3 | 24.3 | 14 |
| 25 | 22.55 | 20 | | 17.75 | 20.65 | 14 |

# Datasheet

## ★ Core Range

**Ordering data**

| Size | Stroke [mm] | Part no. | Type |
|---|---|---|---|
| With cushioning P | | | |
| 8 | 10 | ★ 543926 | DGSL-8-10-PA |
| | 20 | ★ 543927 | DGSL-8-20-PA |
| | 30 | ★ 543928 | DGSL-8-30-PA |
| | 40 | ★ 543929 | DGSL-8-40-PA |
| | 50 | ★ 543930 | DGSL-8-50-PA |
| | 80 | ★ 543931 | DGSL-8-80-PA |
| 10 | 10 | ★ 543942 | DGSL-10-10-PA |
| | 20 | ★ 543943 | DGSL-10-20-PA |
| | 30 | ★ 543944 | DGSL-10-30-PA |
| | 40 | ★ 543945 | DGSL-10-40-PA |
| | 50 | ★ 543946 | DGSL-10-50-PA |
| | 80 | ★ 543947 | DGSL-10-80-PA |
| | 100 | ★ 543948 | DGSL-10-100-PA |
| 12 | 10 | ★ 543961 | DGSL-12-10-PA |
| | 20 | ★ 543962 | DGSL-12-20-PA |
| | 30 | ★ 543963 | DGSL-12-30-PA |
| | 40 | ★ 543964 | DGSL-12-40-PA |
| | 50 | ★ 543965 | DGSL-12-50-PA |
| | 80 | ★ 543966 | DGSL-12-80-PA |
| | 100 | ★ 543967 | DGSL-12-100-PA |
| | 150 | ★ 543968 | DGSL-12-150-PA |
| 16 | 10 | ★ 543983 | DGSL-16-10-PA |
| | 20 | ★ 543984 | DGSL-16-20-PA |
| | 30 | ★ 543985 | DGSL-16-30-PA |
| | 40 | ★ 543986 | DGSL-16-40-PA |
| | 50 | ★ 543987 | DGSL-16-50-PA |
| | 80 | ★ 543988 | DGSL-16-80-PA |
| | 100 | ★ 543989 | DGSL-16-100-PA |
| | 150 | ★ 543990 | DGSL-16-150-PA |
| 20 | 10 | ★ 544005 | DGSL-20-10-PA |
| | 20 | ★ 544006 | DGSL-20-20-PA |
| | 30 | ★ 544007 | DGSL-20-30-PA |
| | 40 | ★ 544008 | DGSL-20-40-PA |
| | 50 | ★ 544009 | DGSL-20-50-PA |
| | 80 | ★ 544010 | DGSL-20-80-PA |
| | 100 | ★ 544011 | DGSL-20-100-PA |
| | 150 | ★ 544012 | DGSL-20-150-PA |
| | 200 | ★ 544013 | DGSL-20-200-PA |

| Size | Stroke [mm] | Part no. | Type |
|---|---|---|---|
| With cushioning Y3 | | | |
| 8 | 10 | – | |
| | 20 | | |
| | 30 | ★ 543938 | DGSL-8-30-Y3A |
| | 40 | ★ 543939 | DGSL-8-40-Y3A |
| | 50 | ★ 543940 | DGSL-8-50-Y3A |
| | 80 | ★ 543941 | DGSL-8-80-Y3A |
| 10 | 10 | – | |
| | 20 | | |
| | 30 | ★ 543956 | DGSL-10-30-Y3A |
| | 40 | ★ 543957 | DGSL-10-40-Y3A |
| | 50 | ★ 543958 | DGSL-10-50-Y3A |
| | 80 | ★ 543959 | DGSL-10-80-Y3A |
| | 100 | ★ 543960 | DGSL-10-100-Y3A |
| 12 | 10 | – | |
| | 20 | | |
| | 30 | ★ 543977 | DGSL-12-30-Y3A |
| | 40 | ★ 543978 | DGSL-12-40-Y3A |
| | 50 | ★ 543979 | DGSL-12-50-Y3A |
| | 80 | ★ 543980 | DGSL-12-80-Y3A |
| | 100 | ★ 543981 | DGSL-12-100-Y3A |
| | 150 | ★ 543982 | DGSL-12-150-Y3A |
| 16 | 10 | – | |
| | 20 | | |
| | 30 | ★ 543999 | DGSL-16-30-Y3A |
| | 40 | ★ 544000 | DGSL-16-40-Y3A |
| | 50 | ★ 544001 | DGSL-16-50-Y3A |
| | 80 | ★ 544002 | DGSL-16-80-Y3A |
| | 100 | ★ 544003 | DGSL-16-100-Y3A |
| | 150 | ★ 544004 | DGSL-16-150-Y3A |
| 20 | 10 | – | |
| | 20 | | |
| | 30 | ★ 544023 | DGSL-20-30-Y3A |
| | 40 | ★ 544024 | DGSL-20-40-Y3A |
| | 50 | ★ 544025 | DGSL-20-50-Y3A |
| | 80 | ★ 544026 | DGSL-20-80-Y3A |
| | 100 | ★ 544027 | DGSL-20-100-Y3A |
| | 150 | ★ 544028 | DGSL-20-150-Y3A |
| | 200 | ★ 544029 | DGSL-20-200-Y3A |

# Datasheet

**Ordering data**

| Size | Stroke [mm] | Part no. | Type |
|---|---|---|---|
| With cushioning P | | | |
| 4 | 10 | **543910** | **DGSL-4-10-PA** |
| | 20 | **543911** | **DGSL-4-20-PA** |
| | 30 | **543912** | **DGSL-4-30-PA** |
| 6 | 10 | **543916** | **DGSL-6-10-PA** |
| | 20 | **543917** | **DGSL-6-20-PA** |
| | 30 | **543918** | **DGSL-6-30-PA** |
| | 40 | **543919** | **DGSL-6-40-PA** |
| | 50 | **543920** | **DGSL-6-50-PA** |
| 25 | 10 | **544030** | **DGSL-25-10-PA** |
| | 20 | **544031** | **DGSL-25-20-PA** |
| | 30 | **544032** | **DGSL-25-30-PA** |
| | 40 | **544033** | **DGSL-25-40-PA** |
| | 50 | **544034** | **DGSL-25-50-PA** |
| | 80 | **544035** | **DGSL-25-80-PA** |
| | 100 | **544036** | **DGSL-25-100-PA** |
| | 150 | **544037** | **DGSL-25-150-PA** |
| | 200 | **544038** | **DGSL-25-200-PA** |

| Size | Stroke [mm] | Part no. | Type |
|---|---|---|---|
| With cushioning Y3 | | | |
| 4 | 10 | – | |
| | 20 | | |
| | 30 | | |
| 6 | 10 | – | |
| | 20 | | |
| | 30 | | |
| | 40 | | |
| | 50 | | |
| 25 | 10 | – | |
| | 20 | | |
| | 30 | **544048** | **DGSL-25-30-Y3A** |
| | 40 | **544049** | **DGSL-25-40-Y3A** |
| | 50 | **544050** | **DGSL-25-50-Y3A** |
| | 80 | **544051** | **DGSL-25-80-Y3A** |
| | 100 | **544052** | **DGSL-25-100-Y3A** |
| | 150 | **544053** | **DGSL-25-150-Y3A** |
| | 200 | **544054** | **DGSL-25-200-Y3A** |

# Datasheet

**Ordering data**

| Size | Stroke [mm] | Part no. | Type |
|---|---|---|---|
| With cushioning P1 | | | |
| 4 | 10 | **543913** | **DGSL-4-10-P1A** |
| | 20 | **543914** | **DGSL-4-20-P1A** |
| | 30 | **543915** | **DGSL-4-30-P1A** |
| 6 | 10 | **543921** | **DGSL-6-10-P1A** |
| | 20 | **543922** | **DGSL-6-20-P1A** |
| | 30 | **543923** | **DGSL-6-30-P1A** |
| | 40 | **543924** | **DGSL-6-40-P1A** |
| | 50 | **543925** | **DGSL-6-50-P1A** |
| 8 | 10 | **543932** | **DGSL-8-10-P1A** |
| | 20 | **543933** | **DGSL-8-20-P1A** |
| | 30 | **543934** | **DGSL-8-30-P1A** |
| | 40 | **543935** | **DGSL-8-40-P1A** |
| | 50 | **543936** | **DGSL-8-50-P1A** |
| | 80 | **543937** | **DGSL-8-80-P1A** |
| 10 | 10 | **543949** | **DGSL-10-10-P1A** |
| | 20 | **543950** | **DGSL-10-20-P1A** |
| | 30 | **543951** | **DGSL-10-30-P1A** |
| | 40 | **543952** | **DGSL-10-40-P1A** |
| | 50 | **543953** | **DGSL-10-50-P1A** |
| | 80 | **543954** | **DGSL-10-80-P1A** |
| | 100 | **543955** | **DGSL-10-100-P1A** |
| 12 | 10 | **543969** | **DGSL-12-10-P1A** |
| | 20 | **543970** | **DGSL-12-20-P1A** |
| | 30 | **543971** | **DGSL-12-30-P1A** |
| | 40 | **543972** | **DGSL-12-40-P1A** |
| | 50 | **543973** | **DGSL-12-50-P1A** |
| | 80 | **543974** | **DGSL-12-80-P1A** |
| | 100 | **543975** | **DGSL-12-100-P1A** |
| | 150 | **543976** | **DGSL-12-150-P1A** |

| Size | Stroke [mm] | Part no. | Type |
|---|---|---|---|
| With cushioning E | | | |
| 4 | 10 | **570158** | **DGSL-4-10-EA** |
| | 20 | **570159** | **DGSL-4-20-EA** |
| | 30 | **570160** | **DGSL-4-30-EA** |
| 6 | 10 | **570161** | **DGSL-6-10-EA** |
| | 20 | **570162** | **DGSL-6-20-EA** |
| | 30 | **570163** | **DGSL-6-30-EA** |
| | 40 | **570164** | **DGSL-6-40-EA** |
| | 50 | **570165** | **DGSL-6-50-EA** |
| 8 | 10 | **570166** | **DGSL-8-10-EA** |
| | 20 | **570167** | **DGSL-8-20-EA** |
| | 30 | **570168** | **DGSL-8-30-EA** |
| | 40 | **570169** | **DGSL-8-40-EA** |
| | 50 | **570170** | **DGSL-8-50-EA** |
| | 80 | **570171** | **DGSL-8-80-EA** |
| 10 | 10 | **570172** | **DGSL-10-10-EA** |
| | 20 | **570173** | **DGSL-10-20-EA** |
| | 30 | **570174** | **DGSL-10-30-EA** |
| | 40 | **570175** | **DGSL-10-40-EA** |
| | 50 | **570176** | **DGSL-10-50-EA** |
| | 80 | **570177** | **DGSL-10-80-EA** |
| | 100 | **570178** | **DGSL-10-100-EA** |
| 12 | 10 | **570179** | **DGSL-12-10-EA** |
| | 20 | **570180** | **DGSL-12-20-EA** |
| | 30 | **570181** | **DGSL-12-30-EA** |
| | 40 | **570182** | **DGSL-12-40-EA** |
| | 50 | **570183** | **DGSL-12-50-EA** |
| | 80 | **570184** | **DGSL-12-80-EA** |
| | 100 | **570185** | **DGSL-12-100-EA** |
| | 150 | **570186** | **DGSL-12-150-EA** |

# Datasheet

**Ordering data**

| Size | Stroke [mm] | Part no. | Type |
|---|---|---|---|
| 16 | 10 | **543991** | **DGSL-16-10-P1A** |
| | 20 | **543992** | **DGSL-16-20-P1A** |
| | 30 | **543993** | **DGSL-16-30-P1A** |
| | 40 | **543994** | **DGSL-16-40-P1A** |
| | 50 | **543995** | **DGSL-16-50-P1A** |
| | 80 | **543996** | **DGSL-16-80-P1A** |
| | 100 | **543997** | **DGSL-16-100-P1A** |
| | 150 | **543998** | **DGSL-16-150-P1A** |
| 20 | 10 | **544014** | **DGSL-20-10-P1A** |
| | 20 | **544015** | **DGSL-20-20-P1A** |
| | 30 | **544016** | **DGSL-20-30-P1A** |
| | 40 | **544017** | **DGSL-20-40-P1A** |
| | 50 | **544018** | **DGSL-20-50-P1A** |
| | 80 | **544019** | **DGSL-20-80-P1A** |
| | 100 | **544020** | **DGSL-20-100-P1A** |
| | 150 | **544021** | **DGSL-20-150-P1A** |
| | 200 | **544022** | **DGSL-20-200-P1A** |
| 25 | 10 | **544039** | **DGSL-25-10-P1A** |
| | 20 | **544040** | **DGSL-25-20-P1A** |
| | 30 | **544041** | **DGSL-25-30-P1A** |
| | 40 | **544042** | **DGSL-25-40-P1A** |
| | 50 | **544043** | **DGSL-25-50-P1A** |
| | 80 | **544044** | **DGSL-25-80-P1A** |
| | 100 | **544045** | **DGSL-25-100-P1A** |
| | 150 | **544046** | **DGSL-25-150-P1A** |
| | 200 | **544047** | **DGSL-25-200-P1A** |

| Size | Stroke [mm] | Part no. | Type |
|---|---|---|---|
| 16 | 10 | **570187** | **DGSL-16-10-EA** |
| | 20 | **570188** | **DGSL-16-20-EA** |
| | 30 | **570189** | **DGSL-16-30-EA** |
| | 40 | **570190** | **DGSL-16-40-EA** |
| | 50 | **570191** | **DGSL-16-50-EA** |
| | 80 | **570192** | **DGSL-16-80-EA** |
| | 100 | **570193** | **DGSL-16-100-EA** |
| | 150 | **570194** | **DGSL-16-150-EA** |
| 20 | 10 | **570195** | **DGSL-20-10-EA** |
| | 20 | **570196** | **DGSL-20-20-EA** |
| | 30 | **570197** | **DGSL-20-30-EA** |
| | 40 | **570198** | **DGSL-20-40-EA** |
| | 50 | **570199** | **DGSL-20-50-EA** |
| | 80 | **570200** | **DGSL-20-80-EA** |
| | 100 | **570201** | **DGSL-20-100-EA** |
| | 150 | **570202** | **DGSL-20-150-EA** |
| | 200 | **570203** | **DGSL-20-200-EA** |
| 25 | 10 | **570204** | **DGSL-25-10-EA** |
| | 20 | **570205** | **DGSL-25-20-EA** |
| | 30 | **570206** | **DGSL-25-30-EA** |
| | 40 | **570207** | **DGSL-25-40-EA** |
| | 50 | **570208** | **DGSL-25-50-EA** |
| | 80 | **570209** | **DGSL-25-80-EA** |
| | 100 | **570210** | **DGSL-25-100-EA** |
| | 150 | **570211** | **DGSL-25-150-EA** |
| | 200 | **570212** | **DGSL-25-200-EA** |

Ordering data for modular products ➔ Page 46

**Ordering data – Sets of wearing parts**

| Size | Part no. | Type |
|---|---|---|
| 4 | **713743** | **DGSL-4-...** |
| 6 | **713744** | **DGSL-6-...** |
| 8 | **713745** | **DGSL-8-...** |
| 10 | **713746** | **DGSL-10-...** |

| Size | Part no. | Type |
|---|---|---|
| 12 | **713747** | **DGSL-12-...** |
| 16 | **713748** | **DGSL-16-...** |
| 20 | **713749** | **DGSL-20-...** |
| 25 | **713750** | **DGSL-25-...** |

# Ordering data – Modular product system

**Ordering table**

| Size | 4 | 6 | 8 | 10 | 12 | 16 | 20 | 25 | Conditions | Code | Enter code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Module no. | **543902** | **543903** | **543904** | **543905** | **543906** | **543907** | **543908** | **543909** | | | |
| Function | Mini slide with recirculating ball bearing guide | | | | | | | | | **DGSL** | DGSL |
| Size | 4 | 6 | 8 | 10 | 12 | 16 | 20 | 25 | | **-...** | |
| Stroke [mm] | 10 | | | | | | | | | **-10** | |
| | 20 | | | | | | | | | **-20** | |
| | 30 | | | | | | | | | **-30** | |
| | – | 40 | | | | | | | | **-40** | |
| | – | 50 | | | | | | | | **-50** | |
| | – | – | 80 | | | | | | | **-80** | |
| | – | – | – | 100 | | | | | | **-100** | |
| | – | – | – | – | 150 | | | | | **-150** | |
| | – | – | – | – | – | – | 200 | | | **-200** | |
| Clamping unit | – | Attached | | | | | | | | **-C** | |
| End-position locking | – | With retracted piston rod | | | | | | | [1] | **-E3** | |
| Cushioning | Elastic cushioning rings/pads at both ends, end positions adjustable | | | | | | | | | **-P** | |
| | Elastic cushioning rings/pads at both ends, end positions adjustable, with fixed stop | | | | | | | | | **-P1** | |
| | – | | Progressive shock absorber at both ends | | | | | | [2] | **-Y3** | |
| | Elastic cushioning rings/pads at both ends, end positions adjustable, short design | | | | | | | | | **-E** | |
| | – | | | Progressive shock absorber with reducing sleeve, at both ends | | | | | [2] | **-Y11** | |
| | No cushioning | | | | | | | | [2] | **-N** | |
| Position sensing | Via proximity switch | | | | | | | | | **A** | A |

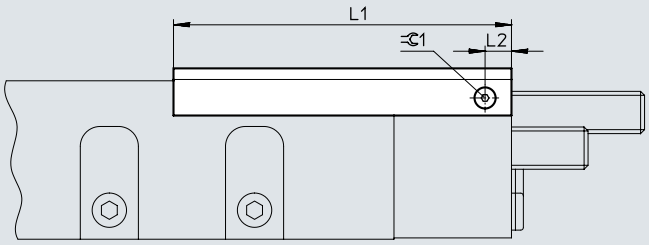
[1] **E3** Not with clamping unit C

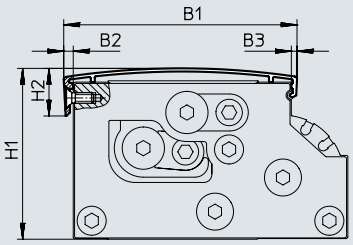
[2] **Y3, Y11** Minimum stroke 30 mm

# Accessories

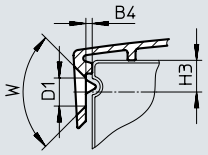
**Covering DADS**

Material:
Anodised aluminium
RoHS-compliant




DADS-...-500
Customer-specific design:




**Dimensions and ordering data**

| For size | Length [mm] | B1 | B2 | B3 | B4 | D1 | H1 | H2 | H3 | L1 | L2 | W | ⌭1 | Weight [g] | Part no. | Type |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 30 | 22 | 1.9 | – | 0.4 | 2.8 | 17.9 | 7.5 | 2 | 40 | 4.5 | 90° | – | 2 | **1086663** | **DADS-AB-G6-4-30** |
| | 500 | | | | | | | | | 500 | | | | 27 | **1212468** | **DADS-AB-G6-4-500** |
| 6 | 50 | 31.2 | 1.4 | – | 0 | 2.8 | 22 | 8.2 | 2.5 | 63 | 6 | 90° | – | 4 | **1066625** | **DADS-AB-G6-6-50** |
| | 500 | | | | | | | | | 500 | | | | 33 | **1212476** | **DADS-AB-G6-6-500** |
| 8 | 80 | 36.3 | 1.9 | – | 0.3 | 2.8 | 26.5 | 8.2 | 2 | 93 | 7 | 90° | – | 8 | **1087413** | **DADS-AB-G6-8-80** |
| | 500 | | | | | | | | | 500 | | | | 42 | **1212478** | **DADS-AB-G6-8-500** |
| 10 | 50 | 43.6 | 2.8 | 2.2 | 1.2 | 3.4 | 32 | 12 | 3.4 | 70 | 10 | 90° | 2 | 11 | **1162400** | **DADS-AB-G6-10-50** |
| | 100 | | | | | | | | | 120 | | | | 18 | **1090689** | **DADS-AB-G6-10-100** |
| | 500 | | | | | | | | | 500 | | | | 75 | **1212479** | **DADS-AB-G6-10-500** |
| 12 | 50 | 51.7 | 2.7 | 2 | 0.5 | 3.4 | 38.8 | 12.8 | 4.25 | 72 | 10 | 90° | 2 | 12 | **1162406** | **DADS-AB-G6-12-50** |
| | 150 | | | | | | | | | 170 | | | | 28 | **1090732** | **DADS-AB-G6-12-150** |
| | 500 | | | | | | | | | 500 | | | | 82 | **1212480** | **DADS-AB-G6-12-500** |
| 16 | 50 | 60 | 4.3 | 3.1 | 2.25 | 3.4 | 43.7 | 15.2 | 5 | 73 | 10 | 90° | 2 | 21 | **1162410** | **DADS-AB-G6-16-50** |
| | 150 | | | | | | | | | 173 | | | | 49 | **1066591** | **DADS-AB-G6-16-150** |
| | 500 | | | | | | | | | 500 | | | | 141 | **1212503** | **DADS-AB-G6-16-500** |
| 20 | 50 | 74.8 | 3.6 | 2.8 | 1.2 | 4.4 | 53.2 | 18.9 | 6.5 | 74 | 10 | 90° | 2.5 | 28 | **1162412** | **DADS-AB-G6-20-50** |
| | 100 | | | | | | | | | 124 | | | | 46 | **1162415** | **DADS-AB-G6-20-100** |
| | 200 | | | | | | | | | 224 | | | | 83 | **1090823** | **DADS-AB-G6-20-200** |
| | 500 | | | | | | | | | 500 | | | | 184 | **1212521** | **DADS-AB-G6-20-500** |
| 25 | 50 | 88.4 | 3.5 | 2.7 | 0.7 | 4.4 | 64.7 | 18.3 | 6 | 78 | 10 | 90° | 2.5 | 34 | **1162417** | **DADS-AB-G6-25-50** |
| | 100 | | | | | | | | | 128 | | | | 55 | **1162419** | **DADS-AB-G6-25-100** |
| | 200 | | | | | | | | | 228 | | | | 98 | **1090895** | **DADS-AB-G6-25-200** |
| | 500 | | | | | | | | | 500 | | | | 213 | **1212523** | **DADS-AB-G6-25-500** |

**Note**

With the 500 mm covers, the mounting hole must be made by the customer.

The cover can be shortened as required by the customer.

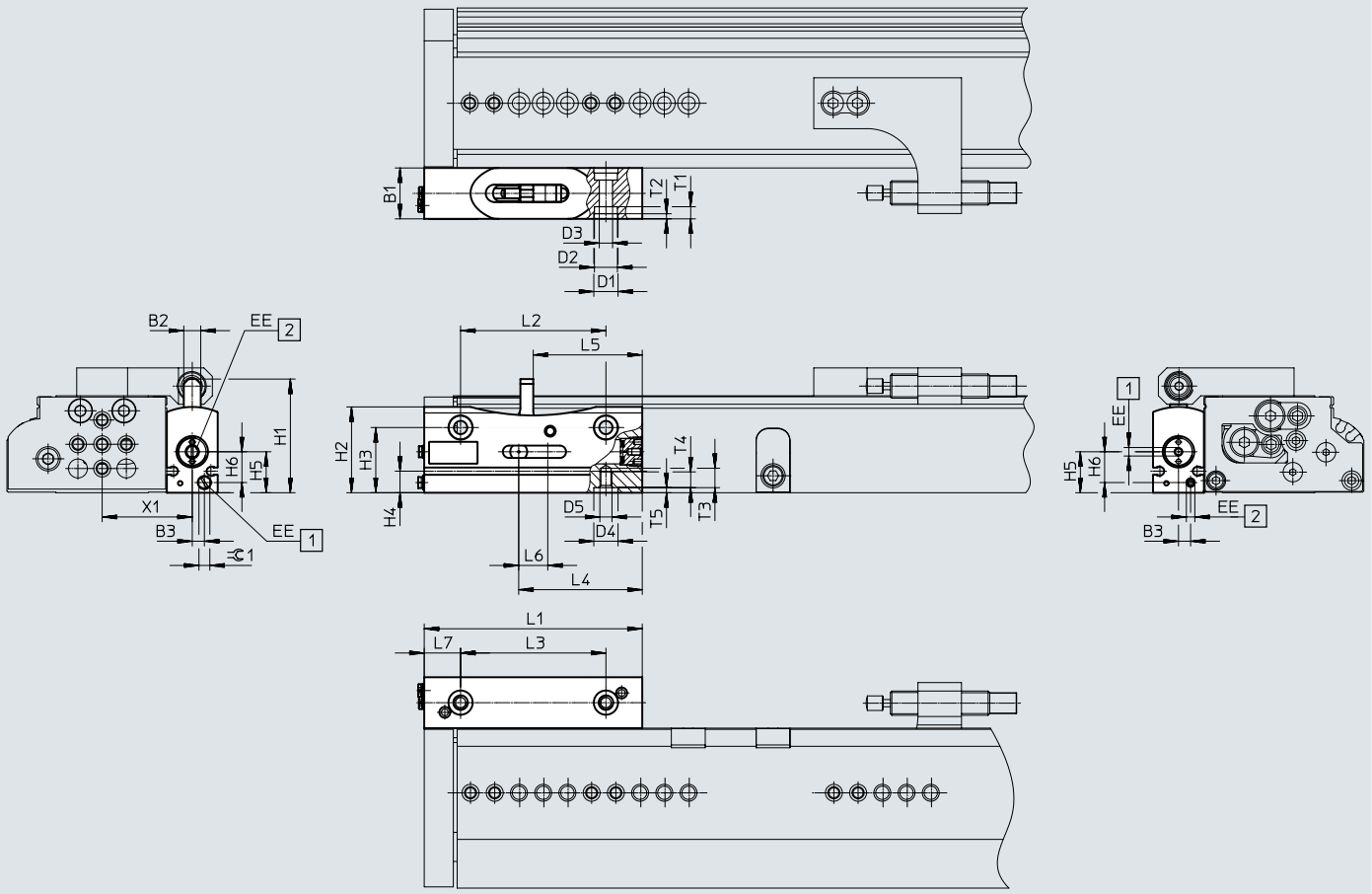
# Accessories

**Intermediate-position module DADM**

- The intermediate-position module enables an additional adjustable position within the stroke range. The module is attached separately, directly next to the mini slide. It can be mounted anywhere along the mini slide.
- The associated shock absorber retainer ➔ page 50 can be attached at several points on the slide. The position can be precisely set with the help of the shock absorber.
- The stop lever positions can be sensed using proximity switches SME/SMT ➔ Page 52
- Push-in fittings are not included in the scope of delivery

Material:
Housing:
Wrought aluminium alloy
Lever:
High-alloy stainless steel
RoHS-compliant

**Dimensions and ordering data** Datasheets➔ Internet: dadm




[1] Swivel stop lever inwards
[2] Swivel stop lever outwards

**Note**

With DADM-EP-G6-10: SME/SMT-10
With DADM-EP-G6-16: SME/SMT-8

| For size | B1 | B2 | B3<br>±0.1 | D1<br>ø<br>H7 | D2<br>ø | D3<br>ø | D4<br>ø<br>H7 | D5 | EE | H1 | H2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12, 16 | 21 | 7 | 5 | 10 | 9.5 | 5.5 | 10 | M5 | M3 | 46.9 | 35.4 |
| 20, 25 | 26.5 | 9 | 5.5 | 12 | 11 | 6.6 | 12 | M6 | M5 | 65.2 | 47.4 |

# Accessories

| For size | H3 ±0.1 | H4 | H5 ±0.1 | H6 ±0.1 | L1 | L2 ±0.1 | L3 ±0.1 | L4 | L5 | L6 | L7 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12, 16 | 26.9 | 8.9 | 16.9 | 12.7 | 90 | 60 | 60 | 51 | 45 | 12 | 15 |
| 20, 25 | 36.4 | 12.4 | 23.4 | 17 | 120 | 80 | 80 | 68 | 60 | 16 | 20 |

| For size | T1 | T2 +0.2 | T3 | T4 | T5 +0.1 | X1 +0.2 | =⊂1 | Weight [g] | Part no. | Type |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | 5 | 2.1 | 8 | 6.5 | 2.1 | 34.4 | 4.5 | 154 | **1492072** | **DADM-EP-G6-10** |
| 16 | | | | | | 37.8 | | | | |
| 20 | 6.8 | 2.1 | 10 | 8 | 2.1 | 48.5 | 2.5 | 340 | **1478121** | **DADM-EP-G6-16** |
| 25 | | | | | | 55.6 | | | | |

**Ordering data**

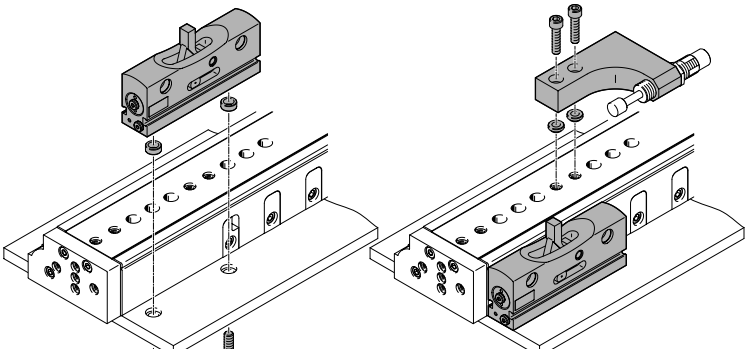
| | For size | Description | Part no. | Type | PU[1] |
|---|---|---|---|---|---|
| **Connector sleeve ZBV** | | | | | Datasheets → Internet: zbv |
| | 12, 16 | For centring the intermediate-position module (2 pieces included in the scope of delivery of the intermediate-position module) | **560254** | **ZBV-10-9** | 10 |
| **Centring sleeve ZBH** | | | | | Datasheets → Internet: zbh |
| | 20, 25 | For centring the intermediate-position module (2 pieces included in the scope of delivery of the intermediate-position module) | **8137185** | **ZBH-12-B** | 10 |

1) Packaging unit

## Assembly

To ensure that the shock absorber strikes the stop lever in the centre, we recommended mounting the intermediate-position module directly next to the mini slide (without a gap). It is fastened on the mounting surface using 2 screws and centring sleeves.
The shock absorber retainer is then attached to the slide of the mini slide, also using 2 screws and centring sleeves.

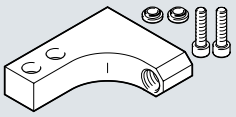
Precision adjustment:
The position can be precisely adjusted via the screw-in depth of the shock absorber. The shock absorber must protrude by at least 1.5 mm.

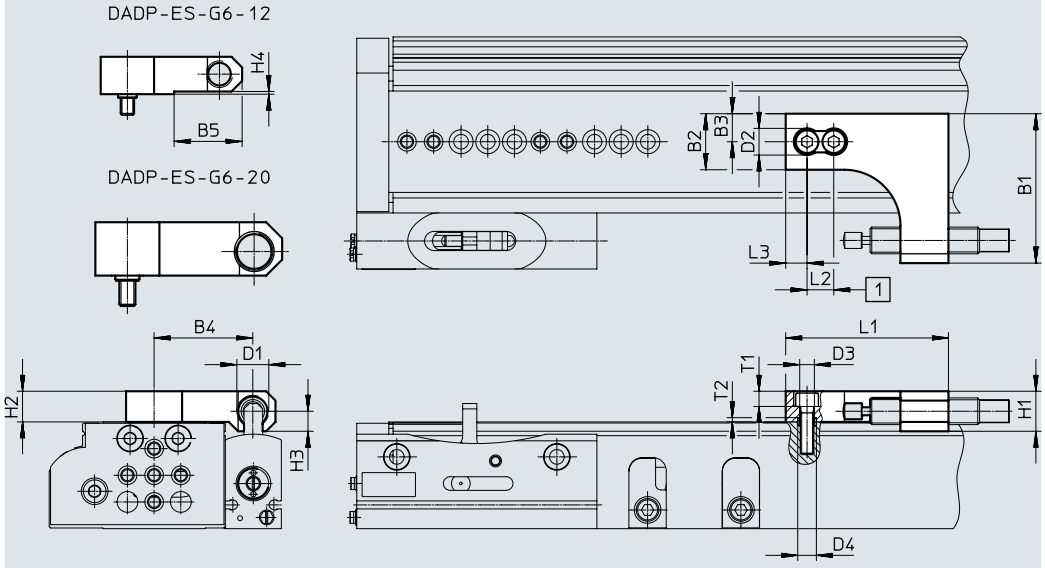


# Accessories

**Shock absorber retainer DADP**

Material:
Anodised wrought aluminium alloy
RoHS-compliant






[1] ±0.02 für ø D3

**Dimensions and ordering data**

| For size | B1 | B2 | B3 | B4 | B5 | D1 | D2 ø | D3 ø | D4 ø H7 | H1 | H2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | 53 | 20 | 10 | 34.5 | 25.5 | M10x1 | 10 | 5.5 | 7 | 13 | 14 |
| 16 | 56 | 21 | 10.5 | 37 | 39.2 | M12x1 | 10 | 5.5 | 7 | 15 | 12.2 |
| 20 | 70 | 24 | 12 | 47.5 | – | M14x1 | 11 | 6.6 | 12 | 20 | 20 |
| 25 | 80 | 30 | 15 | 54.5 | 58 | M16x1 | 11 | 6.6 | 12 | 25 | 14 |

| For size | H3 | H4 | L1 | L2 | L3 | T1 | T2 | Weight [g] | Part no. | Type |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | 6.5 | 1 | 65 | 10 | 10 | 5.7 | 1.6 | 80 | **1812471** | **DADP-ES-G6-12** |
| 16 | 7.5 | 2.8 | 61 | 10 | 8 | 5.7 | 1.6 | 70 | **1812472** | **DADP-ES-G6-16** |
| 20 | 9 | – | 85 | 20 | 10 | 6.4 | 2.6 | 185 | **1812473** | **DADP-ES-G6-20** |
| 25 | 10 | 11 | 80 | 20 | 10 | 6.8 | 2.6 | 160 | **1812550** | **DADP-ES-G6-25** |

**Ordering data**

| | For size | Description | Part no. | Type | PU[1] |
|---|---|---|---|---|---|
| **Centring sleeve ZBH** | | | | Datasheets → Internet: zbh | |
| | 12, 16 | For centring the shock absorber retainer (2 pieces included in the scope of delivery of the shock absorber retainer) | **8146544** | **ZBH-7-B** | 10 |
| **Connector sleeve ZBV** | | | | Datasheets → Internet: zbv | |
| | 20, 25 | For centring the shock absorber retainer (2 pieces included in the scope of delivery of the shock absorber retainer) | **548806** | **ZBV-12-9** | 10 |

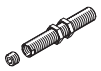
1) Packaging unit

**Note**

- A shock absorber retainer DADP-ES is additionally required when using an intermediate-position module
- Operation without cushioning components is not permitted
- Cushioning components are not included in the scope of delivery
- The size of the shock absorbers for the mini slides and for the relevant shock absorber retainer are identical. Shock absorber selection → Page 51
- The same cushioning component is used for cushioning the intermediate position as for the end positions of the mini slide

# Accessories

**Ordering data**

| | For size | For shock absorber retainer | Description | Order code | Part no. | Type | PU[1] |
|---|---|---|---|---|---|---|---|
| **Shock absorber DYEF-...-Y1** | | | | | | | Datasheets → Internet: dyef |
| | 4 | – | Elastic cushioning, without metal stop | P | **1179810** | **DYEF-M4-Y1** | 1 |
| | 6 | – | | | **1179818** | **DYEF-M5-Y1** | |
| | 8 | – | | | **1179831** | **DYEF-M6-Y1** | |
| | 10 | – | | | **1179834** | **DYEF-M8-Y1** | |
| | 12 | DADP-ES-G6-12 | | | **1179837** | **DYEF-M10-Y1** | |
| | 16 | DADP-ES-G6-16 | | | **1179840** | **DYEF-M12-Y1** | |
| | 20 | DADP-ES-G6-20 | | | **1179863** | **DYEF-M14-Y1** | |
| | 25 | DADP-ES-G6-25 | | | **1179879** | **DYEF-M16-Y1** | |
| **Shock absorber DYEF-S-...-Y1** | | | | | | | Datasheets → Internet: dyef |
| | 4 | – | Elastic cushioning, without metal stop, short design | E | **1152500** | **DYEF-S-M4-Y1** | 1 |
| | 6 | – | | | **1152507** | **DYEF-S-M5-Y1** | |
| | 8 | – | | | **1152524** | **DYEF-S-M6-Y1** | |
| | 10 | – | | | **1152536** | **DYEF-S-M8-Y1** | |
| | 12 | DADP-ES-G6-12 | | | **1152959** | **DYEF-S-M10-Y1** | |
| | 16 | DADP-ES-G6-16 | | | **1153004** | **DYEF-S-M12-Y1** | |
| | 20 | DADP-ES-G6-20 | | | **1153017** | **DYEF-S-M14-Y1** | |
| | 25 | DADP-ES-G6-25 | | | **1153023** | **DYEF-S-M16-Y1** | |
| **Shock absorber DYEF-...-Y1F** | | | | | | | Datasheets → Internet: dyef |
| | 4 | – | Elastic cushioning, with metal stop | P1 | **548370** | **DYEF-M4-Y1F** | 1 |
| | 6 | – | | | **548371** | **DYEF-M5-Y1F** | |
| | 8 | – | | | **548372** | **DYEF-M6-Y1F** | |
| | 10 | – | | | **548373** | **DYEF-M8-Y1F** | |
| | 12 | DADP-ES-G6-12 | | | **548374** | **DYEF-M10-Y1F** | |
| | 16 | DADP-ES-G6-16 | | | **548375** | **DYEF-M12-Y1F** | |
| | 20 | DADP-ES-G6-20 | | | **548376** | **DYEF-M14-Y1F** | |
| | 25 | DADP-ES-G6-25 | | | **548377** | **DYEF-M16-Y1F** | |
| **Shock absorber DYSW** | | | | | | | Datasheets → Internet: dysw |
| | 8 | – | Progressive shock absorber, at both ends | Y3 | **548070** | **DYSW-4-6-Y1F** | 1 |
| | 10 | – | | | **548071** | **DYSW-5-8-Y1F** | |
| | 12 | DADP-ES-G6-12 | | | **548072** | **DYSW-7-10-Y1F** | |
| | 16 | DADP-ES-G6-16 | | | **548073** | **DYSW-8-14-Y1F** | |
| | 20 | DADP-ES-G6-20 | | | **548074** | **DYSW-10-17-Y1F** | |
| | 25 | DADP-ES-G6-25 | | | **548075** | **DYSW-12-20-Y1F** | |
| **Reducing sleeve DAYH** | | | | | | | Datasheets → Internet: dayh |
|  | 10 | – | For DYSW-4-6 | – | **1165476** | **DAYH-4** | 1 |
| | 12 | DADP-ES-G6-12 | For DYSW-5-8 | | **1165480** | **DAYH-5** | |
| | 16 | DADP-ES-G6-16 | For DYSW-7-10 | | **1165484** | **DAYH-7** | |
| | 20 | DADP-ES-G6-20 | For DYSW-8-14 | | **1165488** | **DAYH-8** | |
| | 25 | DADP-ES-G6-25 | For DYSW-10-17 | | **1165491** | **DAYH-10** | |

1) Packaging unit

# Accessories

**Ordering data**

| | For size | Description | Part no. | Type | PU[1] |
|---|---|---|---|---|---|
| **Centring sleeve ZBH** | | | | | Datasheets → Internet: zbh |
| | 4, 6 | For centring loads and attachments (6 centring sleeves are included in the scope of delivery of the mini slide) | 8146543 | ZBH-5-B | 10 |
| | 8, 10, 12, 16 | | 8146544 | ZBH-7-B | |
| | 20, 25 | | 8137184 | ZBH-9-B | |
| **Connector sleeve ZBV** | | | | | Datasheets → Internet: zbv |
| | 8, 10 | • For connecting two mini slides DGSL<br>• Sizing information refers to the y axis | 548802 | ZBV-M4-7 | 3 |
| | 12, 16 | | 548803 | ZBV-M5-7 | |
| | 20, 25 | | 548804 | ZBV-M6-9 | |

1) Packaging unit

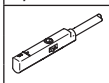
**Ordering data**

| | For size | Description | Part no. | Type | PU[1] |
|---|---|---|---|---|---|
| **One-way flow control valve GRLA** | | | | | Datasheets → Internet: grla |
| | 4, 6, 8 | • For regulating speed<br>• Only one GRLA-M3-QS-3 can be mounted on the front with size 4 | 175041 | GRLA-M3-QS-3 | 1 |
| | | | 175038 | GRLA-M3 | |
| | 10, 12, 16 | | ★ 193137 | GRLA-M5-QS-3-D | |
| | | | ★ 193138 | GRLA-M5-QS-4-D | |
| | 20, 25 | | ★ 193143 | GRLA-1/8-QS-4-D | |
| | | | ★ 193144 | GRLA-1/8-QS-6-D | |
| | 20, 25 | | 162965 | GRLA-1/8-QS-6-RS-B | |
| | | | 162966 | GRLA-1/8-QS-8-RS-B | |
| **Push-in fitting QSM** | | | | | Datasheets → Internet: qs |
| | 4, 6, 8 | For connecting tubing with standard O.D. | ★ 153301 | QSM-M3-3 | 10 |
| | 10, 12, 16 | | ★ 153304 | QSM-M5-4 | |
| | 20, 25 | | ★ 153307 | QSM-1/8-6 | |

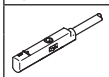
1) Packaging unit

**Proximity switch for mini slide DGSL and intermediate-position module DADM-EP-G6-10**

**Ordering data – Proximity switch for C-slot, magneto-resistive** Datasheets → Internet: smt

| | Type of mounting | Switching output | Electrical connection, outlet direction of connection | Cable length [m] | Part no. | Type |
|---|---|---|---|---|---|---|
| **N/O** | | | | | | |
|  | Inserted in the slot from above | PNP | Cable, 3-core, lengthwise | 2.5 | ★ 551373 | SMT-10M-PS-24V-E-2.5-L-OE |
| | | | Plug M8x1, 3-pin, lengthways | 0.3 | ★ 551375 | SMT-10M-PS-24V-E-0.3-L-M8D |
| | | | Plug M8x1, 3-pin, crossways | 0.3 | 551376 | SMT-10M-PS-24V-E-0.3-Q-M8D |

**Ordering data – Proximity switch for C-slot, magnetic reed[1)]** Datasheets → Internet: sme

| | Type of mounting | Switching output | Electrical connection, outlet direction of connection | Cable length [m] | Part no. | Type |
|---|---|---|---|---|---|---|
| **N/O** | | | | | | |
|  | Inserted in the slot from above | Contacting | Plug M8x1, 3-pin, lengthways | 0.3 | ★ 551367 | SME-10M-DS-24V-E-0.3-L-M8D |
| | | | Cable, 3-core, lengthwise | 2.5 | ★ 551365 | SME-10M-DS-24V-E-2.5-L-OE |
| | | | Cable, 2-core, lengthwise | 2.5 | ★ 551369 | SME-10M-ZS-24V-E-2.5-L-OE |
| | Inserted into the slot length-wise | Contacting | Plug M8x1, 3-pin, lengthways | 0.3 | 173212 | SME-10-SL-LED-24 |
| | | | Cable, 3-core, lengthwise | 2.5 | 173210 | SME-10-KL-LED-24 |

1) Proximity switches are not permitted on the mini-slide DGSL-4.

# Accessories

**Proximity switch for intermediate-position module DADM-EP-G6-16**

**Ordering data – Proximity switch for T-slot, magneto-resistive**

Datasheets → Internet: smt

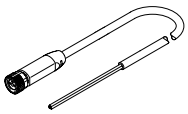
| | Type of mounting | Switching output | Electrical connection | Cable length | Part no. | Type |
|---|---|---|---|---|---|---|
| **N/O** | | | | | | |
| | Inserted in the slot from above, flush with the cylinder profile, short design | PNP | Cable, 3-core | 2.5 m | ★ 574335 | SMT-8M-A-PS-24V-E-2.5-OE |
| | | | Plug M8x1, 3-pin | 0.3 m | ★ 574334 | SMT-8M-A-PS-24V-E-0.3-M8D |
| | | | Plug M12x1, 3-pin | 0.3 m | ★ 574337 | SMT-8M-A-PS-24V-E-0.3-M12 |
| | | NPN | Cable, 3-core | 2.5 m | ★ 574338 | SMT-8M-A-NS-24V-E-2.5-OE |
| | | | Plug M8x1, 3-pin | 0.3 m | ★ 574339 | SMT-8M-A-NS-24V-E-0.3-M8D |

**Ordering data – Proximity switch for T-slot, magnetic reed**

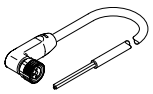
Datasheets → Internet: sme

| | Type of mounting | Switching output | Electrical connection | Cable length | Part no. | Type |
|---|---|---|---|---|---|---|
| **N/O** | | | | | | |
| | Inserted in the slot from above, flush with the cylinder profile | Contacting | Cable, 3-core | 2.5 m | ★ 543862 | SME-8M-DS-24V-K-2.5-OE |
| | | | | 5.0 m | ★ 543863 | SME-8M-DS-24V-K-5.0-OE |
| | | | Cable, 2-core | 2.5 m | ★ 543872 | SME-8M-ZS-24V-K-2.5-OE |
| | | | Plug M8x1, 3-pin | 0.3 m | ★ 543861 | SME-8M-DS-24V-K-0.3-M8D |
| | Inserted in the slot lengthwise, flush with the cylinder profile | Contacting | Cable, 3-core | 2.5 m | 150855 | SME-8-K-LED-24 |
| | | | Plug M8x1, 3-pin | 0.3 m | 150857 | SME-8-S-LED-24 |

**Connecting cables NEBA, straight**

| | Electrical connection 1, connection technology | Electrical connection 2, connection technology | Electrical connection 2, number of pins/cores | Cable length | Part no. | Type |
|---|---|---|---|---|---|---|
|  | M8x1 A-coded to EN 61076-2-104 | Open end | 3 | 2.5 m | ★ 8078223 | NEBA-M8G3-U-2.5-N-LE3 |
| | | | | 5 m | ★ 8078224 | NEBA-M8G3-U-5-N-LE3 |

**Connecting cables NEBA, angled**

| | Electrical connection 1, connection technology | Electrical connection 2, connection technology | Electrical connection 2, number of pins/cores | Cable length | Part no. | Type |
|---|---|---|---|---|---|---|
|  | M8x1 A-coded to EN 61076-2-104 | Open end | 3 | 2.5 m | ★ 8078230 | NEBA-M8W3-U-2.5-N-LE3 |
| | | | | 5 m | ★ 8078231 | NEBA-M8W3-U-5-N-LE3 |