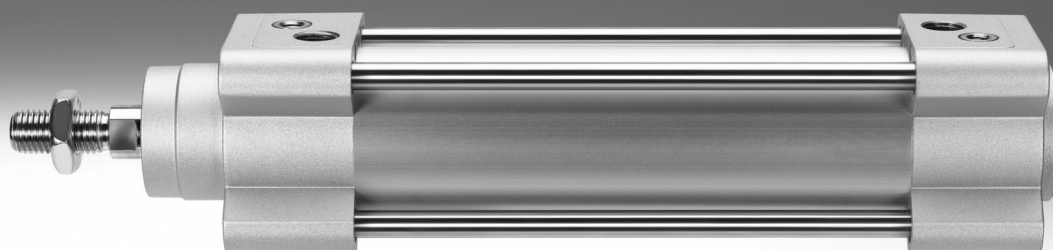


## Standards-based cylinders DSBG, to ISO 15552

**FESTO**



## Key features

### At a glance



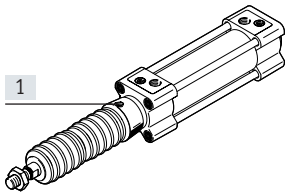
- Standards-based cylinders to ISO15552 (corresponds to the withdrawn standards ISO 6431, DIN ISO 6431, VDMA24562, NFE49003.1 and UNI 10290)

- Sturdy tie rod design
- Double-acting
- For contactless position sensing
- Optionally with protection against rotation
- EX4: for use in potentially explosive areas
- Extensive range of accessories makes it possible to install the cylinder virtually anywhere

- There is a choice of three types of cushioning:
  - P cushioning: elastic cushioning rings/plates at both ends
  - PPS cushioning: pneumatic cushioning, self-adjusting at both ends
  - PPV cushioning: pneumatic cushioning, adjustable at both ends

- The variants can be configured according to individual needs using a modular product system
- Excellent flexibility thanks to a wide range of variants

### DSBG-...-P2 – with bellows kit DADB, to ISO 15552



The bellows protects the piston rod, the seal and the bearing from the effects of a wide range of media, which has a positive impact on the service life of these components.

The bellows kit is a leak-free system. To prevent unwanted media from being drawn in, the supply and exhaust air for the kit must be ducted via a pressure compensation hole in the connection part [1].

The kit protects the piston rod, seal and bearing against a wide variety of media, for example:

- Dust
- Chippings
- Oil
- Grease
- Fuel

### Ordering the bellows kit

An extended piston rod is absolutely essential if a bellows kit is to be used. The bellows kit can be ordered via the modular product system or as an accessory. The following must be noted in this case:

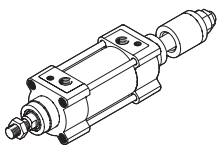
#### Ordering via the modular product system:

The bellows kit is supplied mounted on the bearing cap using feature P2. The required piston rod extension is automatically taken into consideration. This means that there is no need to specify a value for feature ...E.

#### Ordering as an accessory:

If the bellows kit is ordered as an accessory, the required value → page 37 must be entered for characteristic ...E in the modular product system.

### DSBG-...-KE – with stroke adjustment



- Through piston rod with stroke adjustment
- Setting range of the advanced end position

### Position sensing/force control

With position transmitter SMAT, SDAT → Page 42



Analogue position feedback possible

- Analogue output
  - 0 ... 10 V

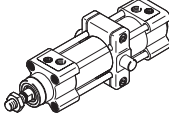
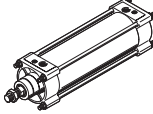
With proportional-pressure regulator VPPM



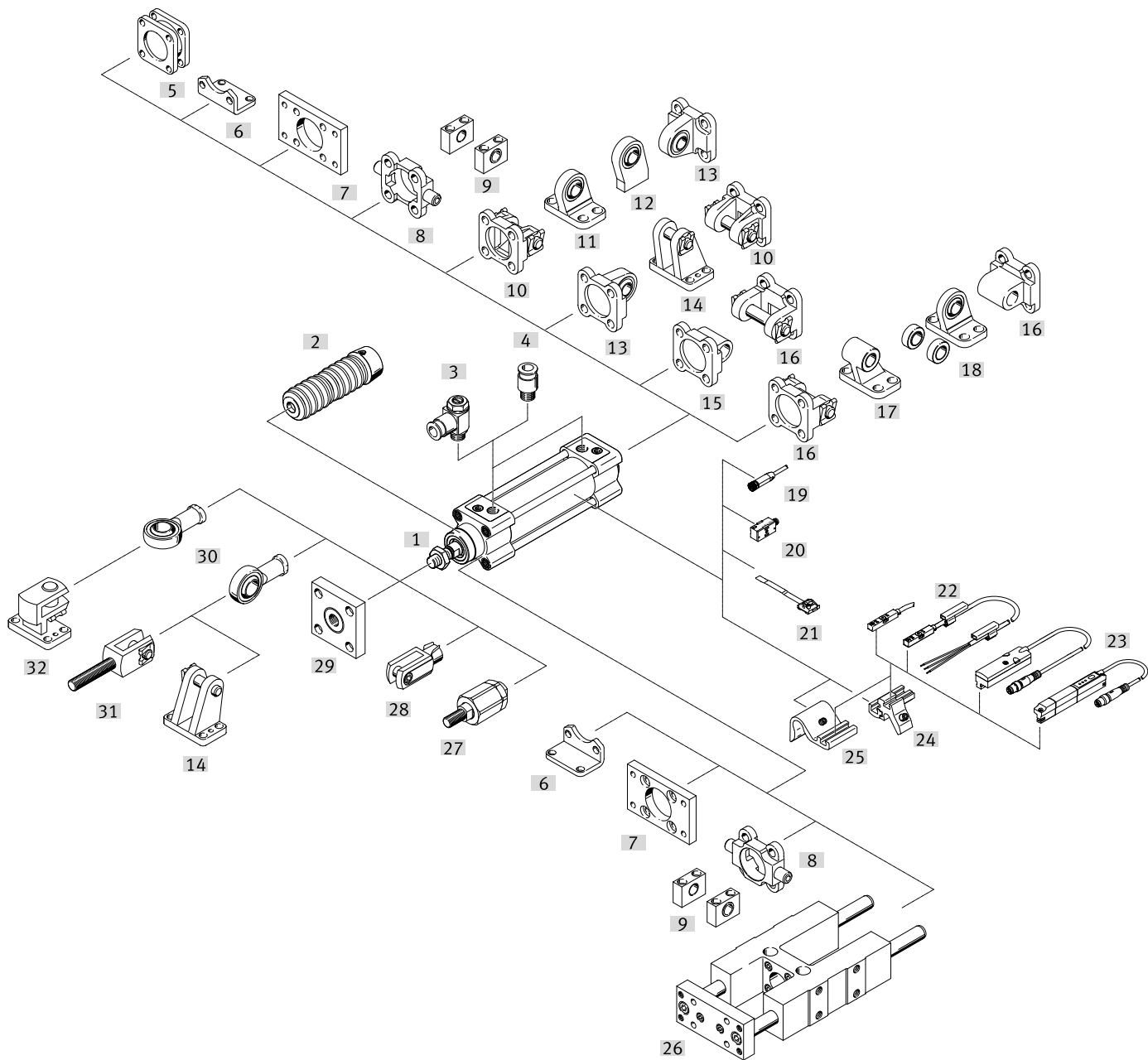
Stepless adjustment of the gripping force possible

- Setpoint value input
  - 0 ... 10 V
  - 4 ... 20 mA

## Key features

| Variants from the modular product system                                            |                                                                                      |                                                                                                                                                                                                                                                                                                                                        |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Symbol                                                                              | Key features                                                                         | Description                                                                                                                                                                                                                                                                                                                            |
|    | Q Square piston rod                                                                  | Protection against rotation. For position-oriented feeding                                                                                                                                                                                                                                                                             |
|    | L Low friction                                                                       | <ul style="list-style-type: none"> <li>Break-away pressure: low</li> <li>Dynamic response: suitable for very fast movements, especially at low operating pressures</li> </ul> Application example: very dynamic movements with no standstill                                                                                           |
|    | U Constant, slow movement                                                            | <ul style="list-style-type: none"> <li>Break-away pressure: very low</li> <li>Dynamic response: suitable for very slow, constant and stick-slip-free movements</li> </ul> Application example: slow, constant feed motion                                                                                                              |
|    | L1 Low friction for balancer applications                                            | <ul style="list-style-type: none"> <li>Break-away pressure: low</li> <li>Dynamic response: suitable for slow movements with constant application of pressure at one end. System friction is independent of operating pressure</li> </ul> Application example: balancing of a mass (balancer, belt tensioner with constant feed motion) |
|    | T Through piston rod                                                                 | For working at both ends with the same force in the forward and return stroke, for attaching external stops                                                                                                                                                                                                                            |
|    | KE Stroke adjustment                                                                 | Through piston rod with adjustment component mounted on one side. For limiting the advancing end position and to set a precise position.                                                                                                                                                                                               |
|    | F Female thread on the piston rod                                                    | –                                                                                                                                                                                                                                                                                                                                      |
|    | R3 High corrosion protection                                                         | All external cylinder surfaces comply with corrosion resistance class 3 to Festo standard 940 070. The piston rod is made from corrosion- and acid-resistant steel                                                                                                                                                                     |
|   | T1 Heat-resistant seals                                                              | Temperature range 0 ... +120 °C                                                                                                                                                                                                                                                                                                        |
|  | T3 Low temperature                                                                   | Temperature range –40 ... +80 °C                                                                                                                                                                                                                                                                                                       |
|  | T4 Heat-resistant seals                                                              | Temperature range 0 ... +150 °C                                                                                                                                                                                                                                                                                                        |
|  | A2 Wiper variant                                                                     | Hard wiper:<br>The cylinder has a hard-chromium plated piston rod and a hard wiper, which protects against dry, dusty and viscous media                                                                                                                                                                                                |
|  | A3 Wiper variant                                                                     | Unlubricated operation:<br>Cleaning processes degrease the piston rod. A special piston rod seal designed for unlubricated operation permits a longer service life compared to the standard seal.                                                                                                                                      |
|  | A6 Wiper variant                                                                     | Metal wiper:<br>The cylinder has a hard-chromium plated piston rod and metal wiper, which scrapes off hard particles (e.g. welding spatter) sticking to the piston rod.<br>For use in welding systems, for example                                                                                                                     |
|  | ...E Extended piston rod                                                             | 1 ... 500 mm                                                                                                                                                                                                                                                                                                                           |
|  | ...L Extended piston rod thread                                                      | 1 ... 70 mm                                                                                                                                                                                                                                                                                                                            |
|                                                                                     | ...S Shortened piston rod thread                                                     | 1 ... 44 mm                                                                                                                                                                                                                                                                                                                            |
|                                                                                     | M... Piston rod thread                                                               | Piston rod thread version:<br>M16/M16x1.5/M20/M20x1.5/M24/M27                                                                                                                                                                                                                                                                          |
|  | ...V Swivel mounting position                                                        | <ul style="list-style-type: none"> <li>Swivel mounting, position freely selectable</li> <li>Position can be moved at any time</li> </ul>                                                                                                                                                                                               |
|  | Thread length of spacer bolts:<br>...LB2 On the bearing cap<br>...LB3 On the end cap | <ul style="list-style-type: none"> <li>Variable thread length: 20 ... 140 mm</li> <li>Optionally on the bearing or end cap</li> </ul>                                                                                                                                                                                                  |

Peripherals overview



| Mounting attachments and accessories |                                 | Description                                                                                                                                                                                                                                 | DSBG-... |               |    | → Page/Internet |
|--------------------------------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------------|----|-----------------|
|                                      |                                 |                                                                                                                                                                                                                                             |          | -L/-U/<br>-L1 | -T |                 |
| [1]                                  | Standards-based cylinder DSBG   | Standards-based cylinder without accessories, basic design                                                                                                                                                                                  |          |               |    | 7               |
| [2]                                  | Bellows kit DADB                | <ul style="list-style-type: none"><li>Protects the cylinder (piston rod, seal and bearing) against a wide range of media and thus prevents premature wear</li><li>Can only be used in combination with an extended piston rod (E)</li></ul> | ■        | —             | ■  | 34              |
| [3]                                  | One-way flow control valve GRLA | For regulating speed                                                                                                                                                                                                                        | ■        | ■             | ■  | 43              |
| [4]                                  | Push-in fitting QS              | For connecting tubing with standard O.D.                                                                                                                                                                                                    | ■        | ■             | ■  | q5              |
| [5]                                  | Multi-position kit DPNC         | For connecting two cylinders with identical piston Ø to form a multi-position cylinder                                                                                                                                                      | ■        | —             | ■  | 38              |

## Peripherals overview

| Mounting attachments and accessories |                                          | Description                                                                                                                                               | DSBG... |               |    | → Page/Internet |
|--------------------------------------|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------------|----|-----------------|
|                                      |                                          |                                                                                                                                                           |         | -L/-U/<br>-L1 | -T |                 |
| [6]                                  | Foot mounting<br>HNC/CRHNC               | For bearing or end caps                                                                                                                                   | ■       | ■             | ■  | 24              |
| [7]                                  | Flange mounting<br>FNC/CRFNG             | <ul style="list-style-type: none"> <li>For bearing or end caps</li> <li>Cannot be used on the bearing cap in combination with bellows kit DADB</li> </ul> | ■       | ■             | ■  | 25              |
| [8]                                  | Trunnion flange<br>ZNC/CRZNG             | <ul style="list-style-type: none"> <li>For bearing or end caps</li> <li>Cannot be used on the bearing cap in combination with bellows kit DADB</li> </ul> | ■       | ■             | ■  | 26              |
| [9]                                  | Trunnion support<br>LNZG/CRLNZG          | –                                                                                                                                                         | ■       | ■             | ■  | 27              |
| [10]                                 | Swivel flange<br>SNC                     | For end caps                                                                                                                                              | ■       | ■             | –  | 28              |
| [11]                                 | Clevis foot<br>LSNG                      | With spherical bearing                                                                                                                                    | ■       | ■             | –  | 32              |
| [12]                                 | Clevis foot<br>LSNSG                     | Weld-on, with spherical bearing                                                                                                                           | ■       | ■             | –  | 32              |
| [13]                                 | Swivel flange<br>SNCS/CRSNCS/SNCS-...-R3 | With spherical bearing for end caps                                                                                                                       | ■       | ■             | –  | 30              |
| [14]                                 | Clevis foot<br>LBG/LBG-...-R3            | –                                                                                                                                                         | ■       | ■             | –  | 32              |
| [15]                                 | Swivel flange<br>SNCL                    | For end caps                                                                                                                                              | ■       | ■             | –  | 31              |
| [16]                                 | Swivel flange<br>SNCB/SNCB-...-R3        | For end caps                                                                                                                                              | ■       | ■             | –  | 29              |
| [17]                                 | Clevis foot<br>LNG/CRLNG                 | –                                                                                                                                                         | ■       | ■             | –  | 32              |
| [18]                                 | Clevis foot<br>LSN                       | With spherical bearing                                                                                                                                    | ■       | ■             | –  | 32              |
| [19]                                 | Connecting cable<br>NEBA                 | –                                                                                                                                                         | ■       | ■             | ■  | 42              |
| [20]                                 | Proximity switch<br>SMPO-1-H-B           | –                                                                                                                                                         | ■       | ■             | ■  | 43              |
| [21]                                 | Mounting kit<br>SMBS                     | For proximity switch SMPO-1-H-B                                                                                                                           | ■       | ■             | ■  | 41              |
| [22]                                 | Proximity switch<br>SME/SMT-8M/SDBT-MS   | Can be integrated in the cylinder profile barrel                                                                                                          | ■       | ■             | ■  | 40              |
| [23]                                 | Position transmitter<br>SMAT, SDAT       | <ul style="list-style-type: none"> <li>Continuously senses the position of the piston</li> <li>Has an analogue output</li> </ul>                          | ■       | ■             | ■  | 42              |
| [24]                                 | Mounting kit<br>SMBZ-8- ...              | For proximity switch SME/SMT-8M, with piston Ø 32 ... 100                                                                                                 | ■       | ■             | ■  | 41              |
| [25]                                 | Sensor bracket<br>DASP-M4- ...           | For proximity switch SME/SMT-8M, with piston Ø 125                                                                                                        | ■       | ■             | ■  | 41              |
| [26]                                 | Guide unit<br>FENG                       | For protecting standards-based cylinders against rotation at high torques                                                                                 | ■       | ■             | ■  | 39              |
| [27]                                 | Self-aligning rod coupler<br>FK, CRFK    | To compensate for radial and angular deviations                                                                                                           | ■       | ■             | ■  | 33              |
| [28]                                 | Rod clevis<br>SG/CRSG                    | Permits a swivelling movement of the cylinder in one plane                                                                                                | ■       | ■             | ■  | 33              |
| [29]                                 | Coupling piece<br>KSG                    | To compensate for radial deviations                                                                                                                       | ■       | ■             | ■  | 33              |
|                                      | Coupling piece<br>KSZ                    | For cylinders with a non-rotating piston rod to compensate for radial deviations                                                                          | ■       | ■             | ■  | 33              |
| [30]                                 | Rod eye<br>SGS/CRSGS                     | With spherical bearing                                                                                                                                    | ■       | ■             | ■  | 33              |
| [31]                                 | Rod clevis<br>SGA                        | With male thread                                                                                                                                          | ■       | ■             | ■  | 33              |
| [32]                                 | Right-angle clevis foot<br>LQG           | –                                                                                                                                                         | ■       | ■             | ■  | 32              |

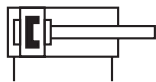
## Type codes

|             |                                                             |  |
|-------------|-------------------------------------------------------------|--|
| <b>001</b>  | <b>Series</b>                                               |  |
| <b>DSBG</b> | Standards-based cylinder, double-acting, based on ISO 15552 |  |
| <b>002</b>  | <b>Protection against rotation</b>                          |  |
|             | None                                                        |  |
| <b>Q</b>    | With protection against rotation                            |  |
| <b>003</b>  | <b>Running characteristics</b>                              |  |
|             | Standard                                                    |  |
| <b>L</b>    | Low friction                                                |  |
| <b>U</b>    | Uniform, slow movement                                      |  |
| <b>L1</b>   | Low friction for balancer applications                      |  |
| <b>004</b>  | <b>Piston diameter [mm]</b>                                 |  |
| <b>32</b>   | 32                                                          |  |
| <b>40</b>   | 40                                                          |  |
| <b>50</b>   | 50                                                          |  |
| <b>63</b>   | 63                                                          |  |
| <b>80</b>   | 80                                                          |  |
| <b>100</b>  | 100                                                         |  |
| <b>125</b>  | 125                                                         |  |
| <b>005</b>  | <b>Stroke range [mm]</b>                                    |  |
| <b>...</b>  | 1 ... 2800                                                  |  |
| <b>006</b>  | <b>Piston rod type</b>                                      |  |
|             | At one end                                                  |  |
| <b>T</b>    | Through piston rod                                          |  |
| <b>007</b>  | <b>Piston rod thread type</b>                               |  |
|             | Male thread                                                 |  |
| <b>F</b>    | Female thread                                               |  |
| <b>008</b>  | <b>Cushioning</b>                                           |  |
| <b>P</b>    | Elastic cushioning rings/plates on both sides               |  |
| <b>PPS</b>  | Pneumatic cushioning, self-adjusting at both ends           |  |
| <b>PPV</b>  | Pneumatic cushioning, adjustable at both ends               |  |
| <b>009</b>  | <b>Position sensing</b>                                     |  |
| <b>A</b>    | For proximity sensor                                        |  |
| <b>010</b>  | <b>Standard</b>                                             |  |
|             | Not according to standard                                   |  |
| <b>N3</b>   | Conforms to ISO 15552                                       |  |
| <b>011</b>  | <b>Corrosion protection</b>                                 |  |
|             | Standard                                                    |  |
| <b>R3</b>   | High corrosion protection                                   |  |

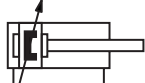
|               |                                                     |  |
|---------------|-----------------------------------------------------|--|
| <b>012</b>    | <b>Temperature range</b>                            |  |
|               | Standard                                            |  |
| <b>T1</b>     | Heat-resistant seals max. 120°C                     |  |
| <b>T3</b>     | -40 ... +80°C                                       |  |
| <b>T4</b>     | 0 ... +150°C                                        |  |
| <b>013</b>    | <b>Protection against particles</b>                 |  |
|               | Standard                                            |  |
| <b>P2</b>     | Bellows on bearing cap                              |  |
| <b>014</b>    | <b>Scraper variant</b>                              |  |
|               | None                                                |  |
| <b>A2</b>     | Hard scraper                                        |  |
| <b>A3</b>     | For unlubricated operation                          |  |
| <b>A6</b>     | Metal scraper                                       |  |
| <b>015</b>    | <b>EU certification</b>                             |  |
|               | None                                                |  |
| <b>EX4</b>    | II 2GD                                              |  |
| <b>016</b>    | <b>Swivel mounting position</b>                     |  |
|               | None                                                |  |
| <b>...V</b>   | 163 ... 2483 mm                                     |  |
| <b>017</b>    | <b>Piston rod extension</b>                         |  |
|               | None                                                |  |
| <b>...E</b>   | 1 ... 500 mm                                        |  |
| <b>018</b>    | <b>Piston rod thread extension [mm]</b>             |  |
| <b>...</b>    | 1 ... 70                                            |  |
| <b>019</b>    | <b>Piston rod thread shortening</b>                 |  |
|               | None                                                |  |
| <b>...S</b>   | 0 ... 86 mm                                         |  |
| <b>020</b>    | <b>Piston rod thread</b>                            |  |
|               | Standard                                            |  |
| <b>M16</b>    | M16                                                 |  |
| <b>M16P</b>   | M16x1.5                                             |  |
| <b>M20</b>    | M20                                                 |  |
| <b>M20P</b>   | M20x1.5                                             |  |
| <b>M24</b>    | M24                                                 |  |
| <b>M27</b>    | M27                                                 |  |
| <b>021</b>    | <b>Thread length of spacer bolts on bearing cap</b> |  |
|               | Without spacer bolt                                 |  |
| <b>...LB2</b> | 20...140 mm                                         |  |
| <b>022</b>    | <b>Thread length of spacer bolts on end cap</b>     |  |
|               | Without spacer bolt                                 |  |
| <b>...LB3</b> | 20...140 mm                                         |  |

## Datasheet

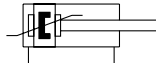
Function  
P cushioning



PPV cushioning



PPS cushioning

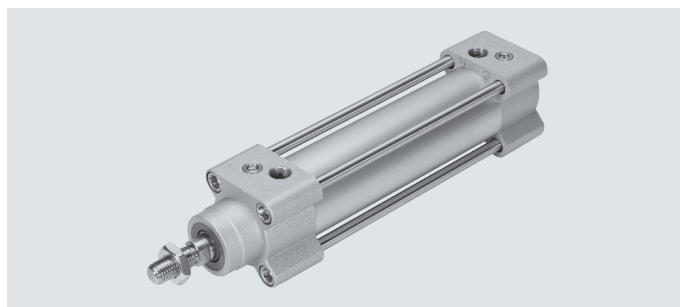


Ø - Diameter  
32 ... 125 mm

- | - Stroke length  
1 ... 2800 mm

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

 Repair service  
piston Ø 125 mm



## General technical data

| Piston Ø           | 32                                                | 40   | 50   | 63   | 80   | 100  | 125  |
|--------------------|---------------------------------------------------|------|------|------|------|------|------|
| Design             | Piston/piston rod/cylinder barrel                 |      |      |      |      |      |      |
| Operating mode     | Double-acting                                     |      |      |      |      |      |      |
| Pneumatic port     | G1/8                                              | G1/4 | G1/4 | G3/8 | G3/8 | G1/2 | G1/2 |
| Stroke             |                                                   |      |      |      |      |      |      |
| DSBG-... [mm]      | 1 ... 2800                                        |      |      |      |      |      |      |
| DSBG-...-Q [mm]    | 1 ... 1500                                        |      |      |      |      |      | –    |
| DSBG-...-L1 [mm]   | 10 ... 1000                                       |      |      |      |      |      |      |
| DSBG-...-P2 [mm]   | 10 ... 500                                        |      |      |      |      |      | –    |
| DSBG-...-KE [mm]   | 1 ... 1500                                        |      |      |      |      |      |      |
| DSBG-...-...E [mm] | 1 ... 2000                                        |      |      |      |      |      |      |
| DSBG-...-...L [mm] | 1 ... 2000                                        |      |      |      |      |      |      |
| Cushioning         |                                                   |      |      |      |      |      |      |
| DSBG-...-P         | Elastic cushioning rings/plates at both ends      |      |      |      |      |      |      |
| DSBG-...-PPV       | Pneumatic cushioning, adjustable at both ends     |      |      |      |      |      |      |
| DSBG-...-PPS       | Pneumatic cushioning, self-adjusting at both ends |      |      |      |      |      |      |
| Cushioning length  |                                                   |      |      |      |      |      |      |
| DSBG-...-PPV [mm]  | 17                                                | 19   | 22   | 22   | 31   | 31   | 45   |
| Position sensing   | Via proximity switch                              |      |      |      |      |      |      |
| Type of mounting   | With female thread/accessories                    |      |      |      |      |      |      |
| Mounting position  | Any                                               |      |      |      |      |      |      |

## Datasheet

| Operating and environmental conditions       |       |                                                                                            |               |    |              |               |               |               |
|----------------------------------------------|-------|--------------------------------------------------------------------------------------------|---------------|----|--------------|---------------|---------------|---------------|
| Piston Ø                                     |       | 32                                                                                         | 40            | 50 | 63           | 80            | 100           | 125           |
| 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                           |       |                                                                                            |               |    |              |               |               |               |
| DSBG-...                                     | [MPa] | 0.06 ... 1.2                                                                               |               |    | 0.04 ... 1.2 |               | 0.02 ... 1.0  |               |
|                                              | [bar] | 0.6 ... 12                                                                                 |               |    | 0.4 ... 12   |               | 0.2 ... 10    |               |
| DSBG-...-Q                                   | [MPa] | 0.1 ... 1.2                                                                                |               |    |              |               |               | –             |
|                                              | [bar] | 1 ... 12                                                                                   |               |    |              |               |               | –             |
| DSBG-...-Q-T1                                | [MPa] | 0.1 ... 0.8                                                                                |               |    |              |               |               | –             |
|                                              | [bar] | 1 ... 8                                                                                    |               |    |              |               |               | –             |
| DSBG-...-L <sup>1)</sup>                     | [MPa] | 0.03 ... 1.2                                                                               | 0.025 ... 1.2 |    |              | 0.02 ... 1.2  | 0.015 ... 1.2 | –             |
|                                              | [bar] | 0.3 ... 12                                                                                 | 0.25 ... 12   |    |              | 0.2 ... 12    | 0.15 ... 12   | –             |
| DSBG-...-U <sup>1)</sup>                     | [MPa] | 0.01 ... 1.2                                                                               |               |    |              | 0.005 ... 1.2 |               | 0.005 ... 1.0 |
|                                              | [bar] | 0.1 ... 12                                                                                 |               |    |              | 0.05 ... 12   |               | 0.05 ... 10   |
| DSBG-...-L1 <sup>1)</sup>                    | [MPa] | 0.03 ... 1.2                                                                               | 0.025 ... 1.2 |    |              | 0.02 ... 1.2  | 0.015 ... 1.2 | 0.01 ... 1.0  |
|                                              | [bar] | 0.3 ... 12                                                                                 | 0.25 ... 12   |    |              | 0.2 ... 12    | 0.15 ... 12   | 0.1 ... 10    |
| DSBG-...-T/-KE/-T3/-A2                       | [MPa] | 0.1 ... 1.2                                                                                |               |    |              |               |               | 0.1 ... 1.0   |
|                                              | [bar] | 1 ... 12                                                                                   |               |    |              |               |               | 1 ... 10      |
| DSBG-...-T3-A6                               | [MPa] | 0.15 ... 1.2                                                                               |               |    |              |               |               |               |
|                                              | [bar] | 1.5 ... 12                                                                                 |               |    |              |               |               |               |
| DSBG-...-A3                                  | [MPa] | 0.15 ... 1.2                                                                               |               |    | 0.1 ... 1.2  | 0.06 ... 1.2  |               | 0.06 ... 1.0  |
|                                              | [bar] | 1.5 ... 12                                                                                 |               |    | 1 ... 12     | 0.6 ... 12    |               | 0.6 ... 10    |
| DSBG-...-A6                                  | [MPa] | 0.15 ... 1.2                                                                               |               |    |              |               |               |               |
|                                              | [bar] | 1.5 ... 12                                                                                 |               |    |              |               |               |               |
| Ambient temperature <sup>2)</sup>            |       |                                                                                            |               |    |              |               |               |               |
| DSBG-...                                     | [°C]  | –20 ... +80                                                                                |               |    |              |               |               |               |
| DSBG-...-L/-U                                | [°C]  | +5 ... +80                                                                                 |               |    |              |               |               |               |
| DSBG-...-L1                                  | [°C]  | 0 ... +60                                                                                  |               |    |              |               |               |               |
| DSBG-...-A1                                  | [°C]  | 0 ... +80                                                                                  |               |    |              |               |               |               |
| DSBG-...-A6/-KE                              | [°C]  | –20 ... +80                                                                                |               |    |              |               |               |               |
| DSBG-...-T1-A6                               | [°C]  | 0 ... +120                                                                                 |               |    |              |               |               |               |
| DSBG-...-T3-A6                               | [°C]  | –40 ... +80                                                                                |               |    |              |               |               |               |
| DSBG-...-T4-A6                               | [°C]  | 0 ... +150                                                                                 |               |    |              |               |               |               |
| DSBG-...-T1                                  | [°C]  | 0 ... +120                                                                                 |               |    |              |               |               |               |
| DSBG-...-T3                                  | [°C]  | –40 ... +80                                                                                |               |    |              |               |               |               |
| DSBG-...-T4                                  | [°C]  | 0 ... +150                                                                                 |               |    |              |               |               |               |
| DSBG-...-P2                                  | [°C]  | –10 ... +80                                                                                |               |    |              |               |               | –             |
| DSBG-...-EX4                                 | [°C]  | –20 ... +60                                                                                |               |    |              |               |               |               |
| Corrosion resistance class CRC <sup>3)</sup> |       |                                                                                            |               |    |              |               |               |               |
| DSBG-...                                     |       | 2 - Moderate corrosion stress                                                              |               |    |              |               |               |               |
| DSBG-...-R3                                  |       | 3 - High corrosion stress                                                                  |               |    |              |               |               |               |

- 1) Values apply only for strokes ≤ 500 mm and after 10 double strokes.  
In combination with cushioning PPV/PPS, the specifications only apply outside the cushioning range
- 2) Note operating range of proximity switches.
- 3) More information [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

| Weight [g]                         |  | 32  | 40  | 50   | 63   | 80   | 100  | 125  |
|------------------------------------|--|-----|-----|------|------|------|------|------|
| Piston Ø                           |  |     |     |      |      |      |      |      |
| DSBG-...                           |  |     |     |      |      |      |      |      |
| Product weight with 0 mm stroke    |  | 465 | 740 | 1190 | 1740 | 2660 | 3665 | 6611 |
| Additional weight per 10 mm stroke |  | 25  | 35  | 52   | 55   | 85   | 94   | 143  |
| Moving mass with 0 mm stroke       |  | 110 | 205 | 365  | 430  | 810  | 1000 | 2245 |
| Moving mass per 10 mm stroke       |  | 9   | 16  | 25   | 25   | 39   | 39   | 63   |
| DSBG-...-Q                         |  |     |     |      |      |      |      |      |
| Product weight with 0 mm stroke    |  | 503 | 755 | 1241 | 1821 | 2717 | 3827 | –    |
| Additional weight per 10 mm stroke |  | 24  | 30  | 47   | 50   | 78   | 87   | –    |
| Moving mass with 0 mm stroke       |  | 103 | 170 | 332  | 391  | 757  | 890  | –    |
| Moving mass per 10 mm stroke       |  | 8   | 11  | 20   | 20   | 32   | 32   | –    |

## Datasheet

| Weight [g]<br>Piston Ø                              | 32  | 40   | 50   | 63   | 80   | 100  | 125  |
|-----------------------------------------------------|-----|------|------|------|------|------|------|
| <b>DSBG-...-L1</b>                                  |     |      |      |      |      |      |      |
| Product weight with 0 mm stroke                     | 465 | 741  | 1200 | 1759 | 2651 | 3693 | 6651 |
| Additional weight per 10 mm stroke                  | 25  | 35   | 52   | 55   | 85   | 94   | 143  |
| Moving mass with 0 mm stroke                        | 110 | 206  | 375  | 449  | 801  | 1028 | 2285 |
| Moving mass per 10 mm stroke                        | 9   | 16   | 25   | 25   | 39   | 39   | 63   |
| <b>DSBG-...-T</b>                                   |     |      |      |      |      |      |      |
| Product weight with 0 mm stroke                     | 581 | 924  | 1523 | 2103 | 3243 | 4353 | 7450 |
| Additional weight per 10 mm stroke                  | 34  | 51   | 77   | 80   | 124  | 133  | 206  |
| Moving mass with 0 mm stroke                        | 181 | 339  | 613  | 684  | 1292 | 1516 | 3084 |
| Moving mass per 10 mm stroke                        | 18  | 32   | 50   | 50   | 78   | 78   | 126  |
| <b>DSBG-...-KE</b>                                  |     |      |      |      |      |      |      |
| Product weight with 0 mm stroke                     |     |      |      |      |      |      |      |
| DSBG-...-25KE                                       | 650 | 1030 | 1724 | 2344 | 3504 | 4614 | 8006 |
| DSBG-...-50KE                                       | –   | 1111 | 1803 | 2383 | 3605 | 4715 | 8163 |
| Additional weight per 10 mm stroke                  | 34  | 51   | 77   | 80   | 124  | 133  | 206  |
| Moving mass with 0 mm stroke                        |     |      |      |      |      |      |      |
| DSBG-...-25KE                                       | 250 | 445  | 814  | 885  | 1553 | 1777 | 3640 |
| DSBG-...-50KE                                       | –   | 526  | 893  | 964  | 1654 | 1878 | 3797 |
| Moving mass per 10 mm stroke                        | 18  | 32   | 50   | 50   | 78   | 78   | 126  |
| <b>DSBG-...-F</b>                                   |     |      |      |      |      |      |      |
| Product weight with 0 mm stroke                     | 453 | 721  | 1145 | 1695 | 2570 | 3575 | 6389 |
| Additional weight per 10 mm stroke                  | 25  | 35   | 52   | 55   | 85   | 94   | 143  |
| Moving mass with 0 mm stroke                        | 98  | 186  | 320  | 385  | 720  | 910  | 2023 |
| Moving mass per 10 mm stroke                        | 9   | 16   | 25   | 25   | 39   | 39   | 63   |
| <b>DSBG-...E</b>                                    |     |      |      |      |      |      |      |
| Additional weight per piston rod extension of 10 mm | 9   | 16   | 25   | 25   | 39   | 39   | 63   |
| <b>DSBG-...L</b>                                    |     |      |      |      |      |      |      |
| Additional weight per piston rod extension of 10 mm | 6   | 8    | 14   | 14   | 22   | 22   | 41   |

|                                                   |                                             |
|---------------------------------------------------|---------------------------------------------|
| <b>ATEX<sup>1)</sup></b>                          |                                             |
| ATEX category for gas                             | II 2G                                       |
| Type of (ignition) protection for gas             | Ex h IIC T4 Gb                              |
| ATEX category for dust                            | II 2D                                       |
| Type of ignition protection for dust              | Ex h IIIC T120°C Db                         |
| Explosion-proof ambient temperature               | –20°C ≤ Ta ≤ +60°C                          |
| CE marking (see declaration of conformity)        | To EU Explosion Protection Directive (ATEX) |
| UKCA marking (see declaration of conformity)      | To UK explosion regulations                 |
| Explosion protection certification outside the EU | EPL Gb (GB)                                 |
|                                                   | EPL Db (GB)                                 |

1) Note the ATEX certification of the accessories.

|                                         |      |      |      |      |      |      |      |
|-----------------------------------------|------|------|------|------|------|------|------|
| <b>Forces [N] and impact energy [J]</b> |      |      |      |      |      |      |      |
| Piston Ø                                | 32   | 40   | 50   | 63   | 80   | 100  | 125  |
| Theoretical force at 6 bar, advancing   | 483  | 754  | 1178 | 1870 | 3016 | 4712 | 7363 |
| Theoretical force at 6 bar, retracting  | 415  | 633  | 990  | 1682 | 2721 | 4418 | 6881 |
| Max. impact energy in the end positions |      |      |      |      |      |      |      |
| DSBG-...                                | 0.4  | 0.7  | 1.0  | 1.3  | 1.8  | 2.5  | 3.3  |
| DSBG-...-L/-U/-T1/-T3/-T4               | 0.2  | 0.35 | 0.5  | 0.65 | 0.9  | 1.25 | 1.65 |
| DSBG-...-L1                             | 0.1  | 0.2  | 0.3  | 0.4  | 0.9  | 1.25 | 1.65 |
| DSBG-...-KE                             | 0.32 | 0.56 | 0.8  | 1    | 1.4  | 2    | 2.6  |

Permissible impact velocity:

$$V = \sqrt{\frac{2 \times E}{m_1 + m_2}}$$

Maximum permissible mass:

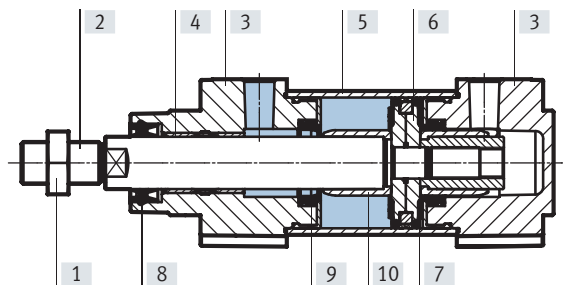
$$m_2 = \frac{2 \times E}{V^2} - m_1$$

V Perm. impact velocity  
E Max. impact energy  
m1 Moving mass (drive)  
m2 Moving payload

## Datasheet

## Materials

Sectional view



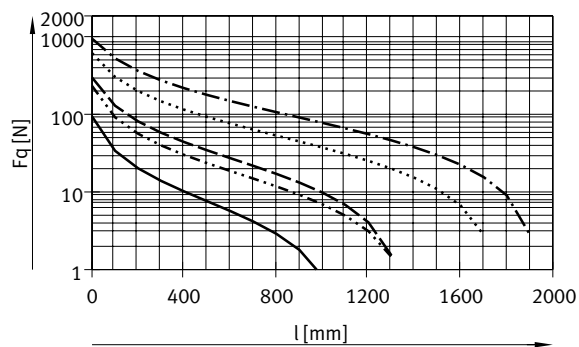
## Standards-based cylinder

|      |                                 |                                                |
|------|---------------------------------|------------------------------------------------|
| [1]  | Nut                             | Galvanised steel                               |
| [2]  | Piston rod                      |                                                |
|      | DSBG-...                        | High-alloy steel                               |
|      | DSBG-...-R3                     | High-alloy stainless steel                     |
|      | DSBG-...-A2/-A6/-T3-A6          | Hard-chrome-plated tempered steel              |
|      | DSBG-...-T1-A6                  | High-alloy stainless steel, hard chrome-plated |
| [3]  | Cover                           | Coated die-cast aluminum                       |
| [4]  | Bearings                        |                                                |
|      | DSBG-...                        | POM                                            |
|      | DSBG-...-A2                     | Bronze                                         |
|      | DSBG-...-L/-U/-T1/-T1-A6/-T4-A6 | Metal polymer compound                         |
| [5]  | Cylinder barrel                 | Anodised wrought aluminium alloy               |
| [6]  | Piston                          | Anodised wrought aluminium alloy               |
| [7]  | Piston seal                     |                                                |
|      | DSBG-...                        | TPE-U(PU)                                      |
|      | DSBG-...-L/-U/-T1/-T4           | FPM                                            |
|      | DSBG-...-T3                     | TPE-U (PU) (suitable for low temperatures)     |
|      | DSBG-...-L1                     | HNBR                                           |
| [8]  | Piston rod wiper seal           |                                                |
|      | DSBG-...                        | TPE-U(PU)                                      |
|      | DSBG-...-L/-U                   | FPM                                            |
|      | DSBG-...-L1                     | HNBR                                           |
|      | DSBG-...-T1/-T4/-A1             | FPM                                            |
|      | DSBG-...-T3                     | TPE-U (PU) (suitable for low temperatures)     |
|      | DSBG-...-A3                     | UHMW-PE                                        |
| [9]  | Buffer seal                     |                                                |
|      | DSBG-...                        | PUR                                            |
|      | DSBG-...-L                      | TPE-U(PU)                                      |
|      | DSBG-...-U/-T1/-T1-A6/-T4       | FPM                                            |
|      | DSBG-...-T3                     | PUR (suitable for low temperatures)            |
| [10] | Cushioning boss                 |                                                |
|      | DSBG-...                        | POM                                            |
|      | DSBG-...-L/-T1/-T1-A6           | Metal polymer compound                         |
|      | DSBG-...-T4/-T4-A6              | Anodised wrought aluminium alloy               |
| -    | Tie rods                        |                                                |
|      | DSBG-...                        | High-alloy steel                               |
|      | DSBG-...-R3                     | High-alloy stainless steel                     |
| -    | Piston rod wiper                |                                                |
|      | DSBG-...-A6/-T3-A6              | CuZn                                           |
|      | DSBG-...                        | POM                                            |
|      | DSBG-...-L/-U                   | Aluminium                                      |
|      | DSBG-...-T1/-T3/-T4             | Aluminium                                      |
|      | DSBG-...-T4-A6                  | Brass                                          |
| -    | Stroke adjustment DSBG-...-KE   |                                                |
|      | Stop element                    | PE-UHMW                                        |
|      | Threaded coupling               | Aluminium                                      |
| -    | Spacer bolt                     |                                                |
|      | DSBG-...-...LB2/-...LB3         | High-alloy stainless steel                     |
| -    | Swivel mounting                 |                                                |
|      | DSBG-...-...V                   | Painted spheroidal graphite cast iron          |
| -    | Collar nut                      | Galvanised steel                               |
| -    | Note on materials               | RoHs-compliant                                 |
|      | LABS (PWIS) conformity          |                                                |
|      | DSBG-...                        | VDMA 24364-B1/B2-L                             |
|      | DSBG-...-L/U/-T3/-T4/-A3        | VDMA 24364-Zone III                            |
|      | Cleanroom class                 |                                                |
|      | DSBG-32 ... 50                  | Class 5 to ISO 14644-1                         |

## Datasheet

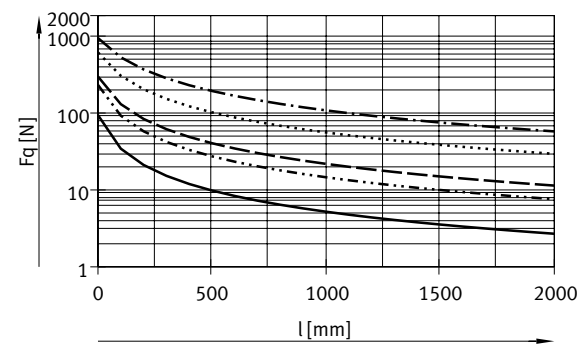
Max. lateral force  $F_q$  as a function of stroke length  $l$ 

Horizontal installation



- Ø 32
- · - · - · Ø 40
- - - - - Ø 50/63
- · · · · Ø 80/100
- · - · - · Ø 125

Vertical installation


**Note**

No lateral loads are permitted in combination with characteristic DS-BG-...-L1.

## Permissible torsional backlash for variant Q – with protection against rotation

| Piston Ø               | 32    | 40   | 50    | 63    | 80    | 100   |
|------------------------|-------|------|-------|-------|-------|-------|
| Torsional backlash [°] | ±0.65 | ±0.6 | ±0.45 | ±0.45 | ±0.45 | ±0.45 |

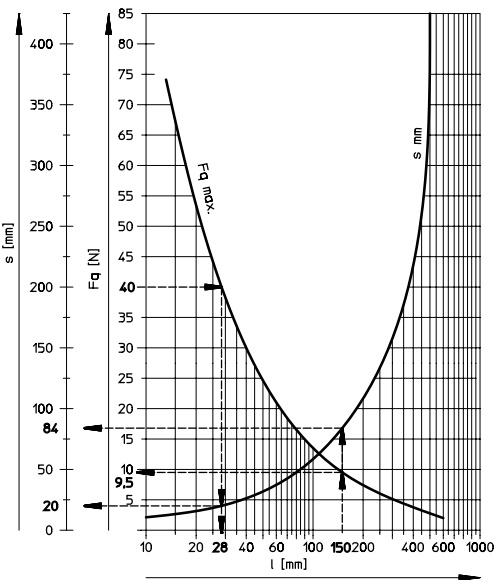
Datasheet

Max. lateral force  $F_q$  as a function of stroke length  $l$  and lever arm  $s$

Q – With protection against rotation

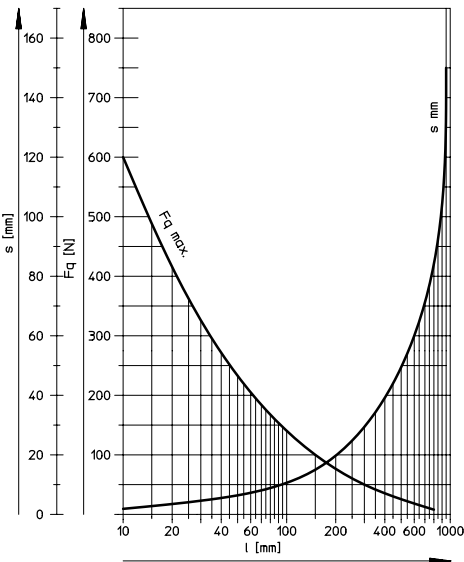
Ø 32

Max. torque = 800 Nmm/max. stroke = 300 mm



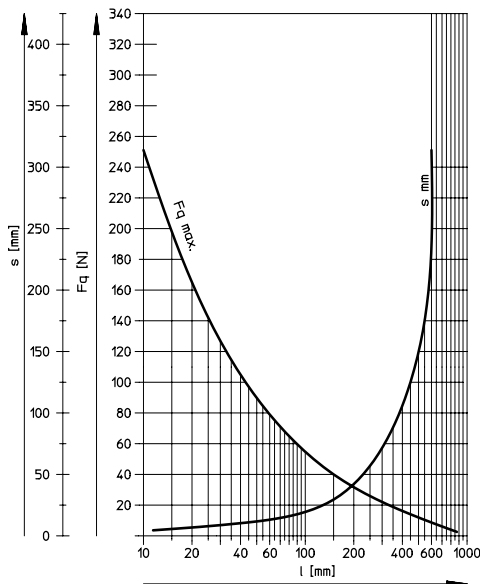
Ø 50/63

Max. torque = 1500 Nmm/max. stroke = 500 mm



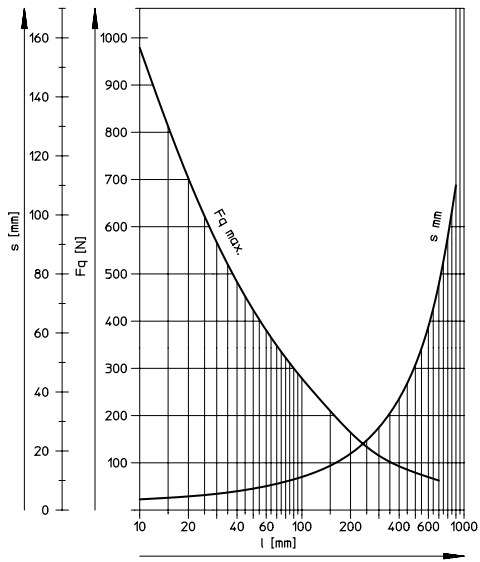
Ø 40

Max. torque = 1100 Nmm/max. stroke = 400 mm



Ø 80/100

Max. torque = 3000 Nmm/max. stroke = 600 mm



## Datasheet

## Examples for piston Ø 32 mm

## Example 1:

Stroke length l = 150 mm

Result: permissible

Lateral force  $F_q$  = 9.5 N

Lever arm s = 84 mm

## Example 2:

Lateral force  $F_q$  = 40 N

Result: permissible

Stroke length l = 28 mm

Lever arm s = 20 mm

## Example 3:

Stroke length l = 150 mm

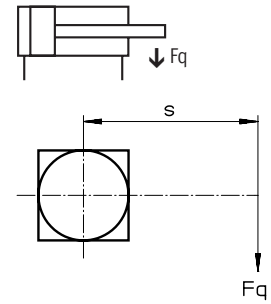
Lever arm s = 100 mm

$$F_q = \frac{M}{s} = \frac{800 \text{ Nmm}}{100 \text{ mm}}$$

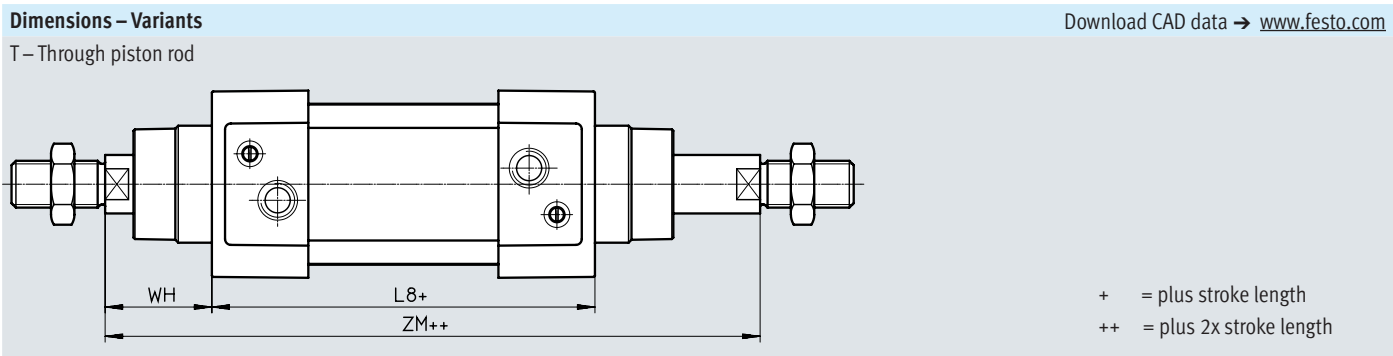
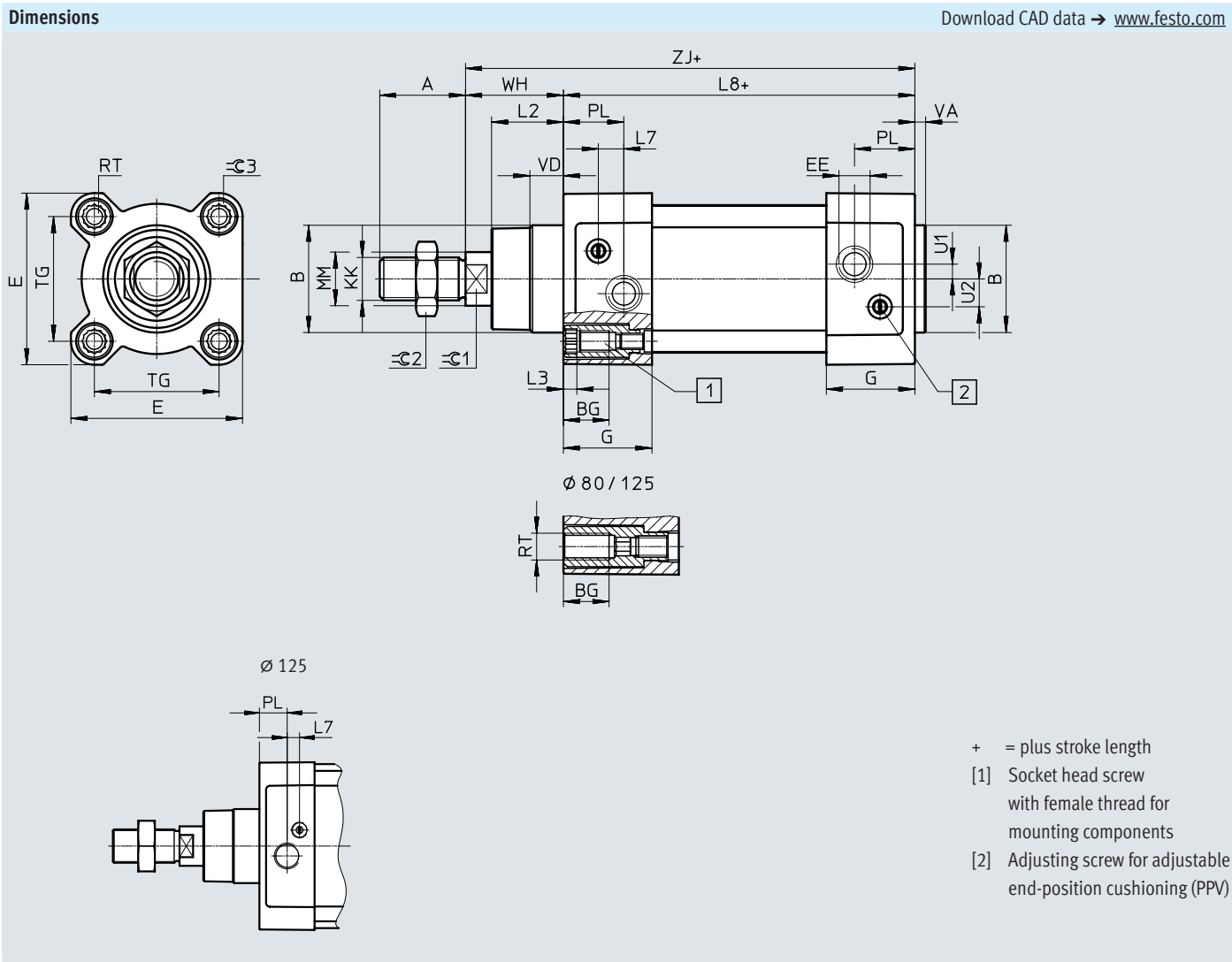
M = max. torque

s = lever arm

Result: permissible

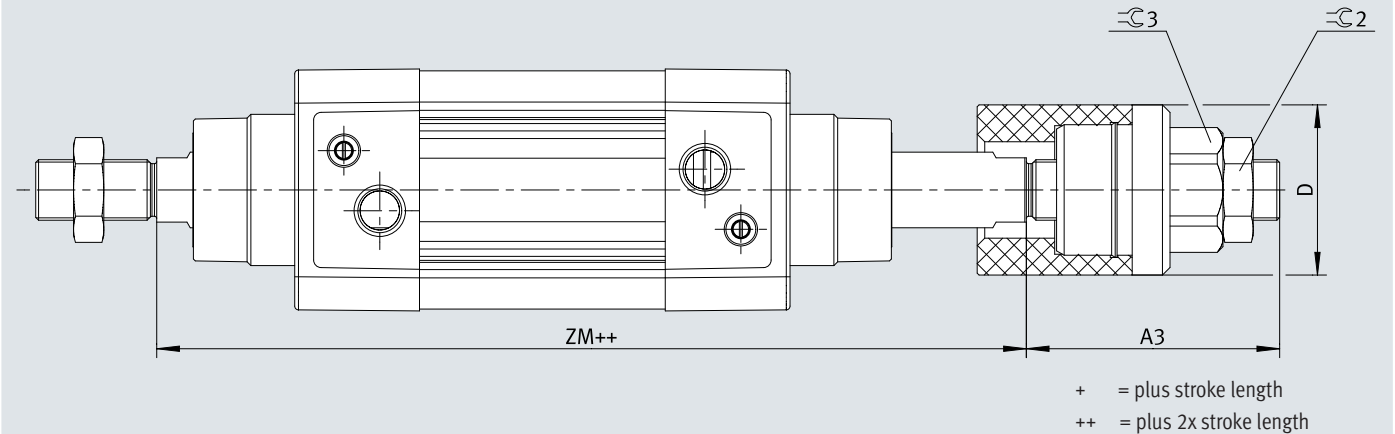
 $F_q = 8 \text{ N} < F_{q_{\max}} = 9.5 \text{ N}$ 

Datasheet



## Datasheet

## KE – Stroke adjustment



| ∅    | A    | A3            |               | B<br>∅<br>d11 | BG<br>min. | D<br>∅ | E<br>+0.5 | EE   | G<br>-0.2 | L2                   | L3<br>max. | L7  |
|------|------|---------------|---------------|---------------|------------|--------|-----------|------|-----------|----------------------|------------|-----|
| [mm] | -0.5 | DSBG-...-25KE | DSBG-...-50KE |               |            |        |           |      |           |                      |            |     |
| 32   | 22   | 52            | –             | 30            | 16         | 30     | 45        | G1/8 | 28        | 18 <sub>-0.2</sub>   | 5          | 6.5 |
| 40   | 24   | 56            | 81            | 35            | 16         | 35     | 54        | G1/4 | 33        | 21.3 <sub>-0.2</sub> | 5          | 7.5 |
| 50   | 32   | 67            | 92            | 40            | 16         | 45     | 64        | G1/4 | 33        | 26.8 <sub>-0.2</sub> | 5          | 9.5 |
| 63   | 32   | 67            | 92            | 45            | 16         | 45     | 75        | G3/8 | 40.5      | 27 <sub>-0.2</sub>   | 5          | 9   |
| 80   | 40   | 73            | 98            | 45            | 17         | 45     | 93        | G3/8 | 43        | 34.2 <sub>-0.2</sub> | –          | 11  |
| 100  | 40   | 73            | 98            | 55            | 17         | 45     | 110       | G1/2 | 48        | 38 <sub>-0.2</sub>   | –          | 7.5 |
| 125  | 54   | 89            | 114           | 60            | 20         | 60     | 136       | G1/2 | 44.7      | 45 <sub>-0.3</sub>   | –          | 10  |

| ∅    | L8   | MM<br>∅ | PL   | RT  | TG   | U1   | U2    | VA                | VD<br>+0.5 | WH<br>+2.2 | ZJ<br>+1.8 | ZM<br>+1 |
|------|------|---------|------|-----|------|------|-------|-------------------|------------|------------|------------|----------|
| [mm] | ±0.4 |         | ±0.1 |     | ±0.3 | ±0.1 | ±0.1  |                   |            |            |            |          |
| 32   | 94   | 12      | 19.5 | M6  | 32.5 | 5.25 | 5.7   | 4 <sub>-0.2</sub> | 10         | 25         | 119.1      | 146.1    |
| 40   | 105  | 16      | 22.5 | M6  | 38   | 4    | 8     | 4 <sub>-0.2</sub> | 10.5       | 28.7       | 133.9      | 164.8    |
| 50   | 106  | 20      | 22.5 | M8  | 46.5 | 5.5  | 10.4  | 4 <sub>-0.2</sub> | 11.5       | 35.6       | 141.8      | 179.8    |
| 63   | 121  | 20      | 27.5 | M8  | 56.5 | 6.25 | 12.75 | 4 <sub>-0.2</sub> | 15         | 35.9       | 157.1      | 195.4    |
| 80   | 128  | 25      | 30   | M10 | 72   | 8    | 12.5  | 4 <sub>-0.2</sub> | 15.7       | 45.4       | 173.6      | 221      |
| 100  | 138  | 25      | 31.5 | M10 | 89   | 10   | 13.5  | 4 <sub>-0.2</sub> | 19.2       | 49.3       | 187.5      | 238.8    |
| 125  | 160  | 32      | 22.5 | M12 | 110  | 8    | 13    | 6 <sub>-0.3</sub> | 20.5       | 64.1       | 225        | 290      |

| ∅    | ⌀1 | ⌀2 | ⌀3       |             | ⌀4 | KK       |                                 |
|------|----|----|----------|-------------|----|----------|---------------------------------|
| [mm] |    |    | DSBG-... | DSBG-...-KE |    | DSBG-... | DSBG-...-M... <sup>1)</sup>     |
| 32   | 10 | 17 | 6        | 17          | 24 | M10x1.25 | –                               |
| 40   | 13 | 19 | 6        | 19          | 30 | M12x1.25 | –                               |
| 50   | 17 | 24 | 8        | 24          | 30 | M16x1.5  | –                               |
| 63   | 17 | 24 | 8        | 24          | 30 | M16x1.5  | –                               |
| 80   | 22 | 30 | 6        | 30          | 36 | M20x1.5  | M16/M16x1.5/M20                 |
| 100  | 22 | 30 | 6        | 30          | 36 | M20x1.5  | M16/M16x1.5/M20                 |
| 125  | 27 | 41 | 8        | 41          | 41 | M27x2    | M16/M16x1.5/M20/M20x1.5/M24/M27 |

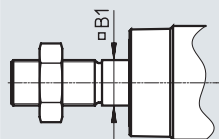
1) Threads with smaller nominal diameter than in the basic version can generally not withstand such high loads. If necessary, the screw connection must be modified.

## Datasheet

## Dimensions – Variants

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

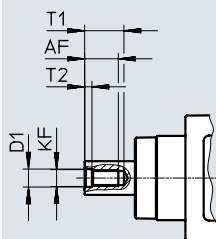
Q – With protection against rotation



-  - **Note**

In combination with variant T, the piston rod is protected against rotation at one end.

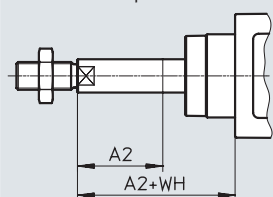
F – Female thread



-  - **Note**

In combination with variant T, the piston rod has female threads at both ends.

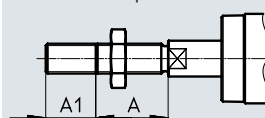
...E – Extended piston rod



-  - **Note**

Piston rod extension at one end in combination with variant T.  
In combination with variants T and Q, the piston rod is extended only at the square piston rod.

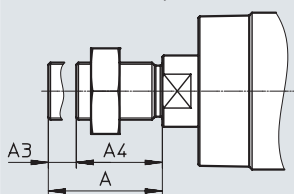
...L – Extended piston rod thread



-  - **Note**

In combination with variant T, the piston rod thread is extended at both ends.

.....S – Shortened piston rod thread



-  - **Note**

In combination with variant T, the piston rod thread is shortened at both ends.

Effective thread length:  $A4 = A - A3$ 

| ø<br>[mm] | A  | A1   |      | A2   |      | A3   |      |
|-----------|----|------|------|------|------|------|------|
|           |    | min. | max. | min. | max. | min. | max. |
| 32        | 22 | 1    | 35   | 1    | 500  | –    | –    |
| 40        | 24 | 1    | 35   | 1    | 500  | –    | –    |
| 50        | 32 | 1    | 70   | 1    | 500  | –    | –    |
| 63        | 32 | 1    | 70   | 1    | 500  | –    | –    |
| 80        | 40 | 1    | 70   | 1    | 500  | 1    | 30   |
| 100       | 40 | 1    | 70   | 1    | 500  | 1    | 30   |
| 125       | 54 | 1    | 70   | 1    | 500  | 1    | 44   |

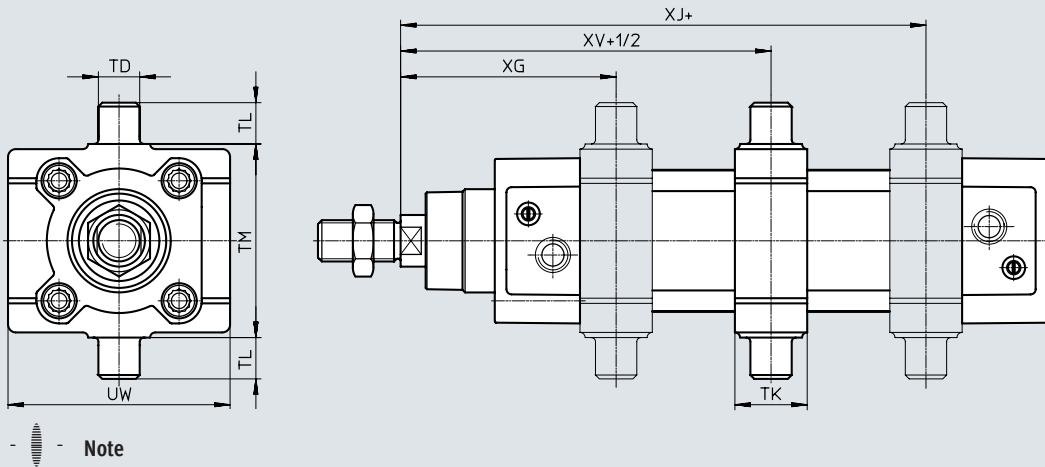
| ø<br>[mm] | AF   | B1 | D1   | KF  | T1   | T2  | WH   |
|-----------|------|----|------|-----|------|-----|------|
|           | min. |    |      |     | max. |     | +2.2 |
| 32        | 12   | 10 | 6.4  | M6  | 16   | 2.6 | 25   |
| 40        | 12   | 12 | 8.4  | M8  | 16   | 3.3 | 28.7 |
| 50        | 16   | 16 | 10.5 | M10 | 21   | 4.7 | 35.6 |
| 63        | 16   | 16 | 10.5 | M10 | 21   | 4.7 | 35.9 |
| 80        | 20   | 20 | 13   | M12 | 26.5 | 6.1 | 45.4 |
| 100       | 20   | 20 | 13   | M12 | 26.5 | 6.1 | 49.3 |
| 125       | 32   | –  | 17   | M16 | 40   | 8   | 64.1 |

## Datasheet

## Dimensions – Variants

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

...V – swivel mounting position



-  - **Note**

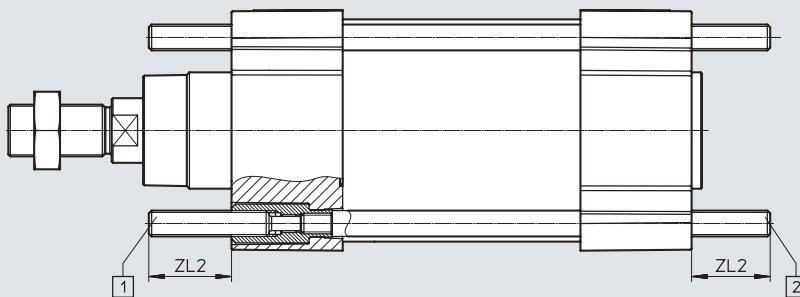
The dimensions for the swivel mounting position (...V) refer to the basic design without piston rod extension.

The swivel mounting can be moved at any time.

+ = plus stroke length  
+1/2 = plus half stroke length

| ∅    | TD      | TK | TL  | TM  | UW  | XG        | XJ        | XV        |
|------|---------|----|-----|-----|-----|-----------|-----------|-----------|
| [mm] | ∅<br>e9 |    | h14 | h14 |     | min.      | max.      |           |
| 32   | 12      | 20 | 12  | 50  | 65  | 64±1.4    | 81±1.4    | 73±1.4    |
| 40   | 16      | 25 | 16  | 63  | 72  | 74.2±1.4  | 88.4±1.4  | 81.2±1.4  |
| 50   | 16      | 28 | 16  | 75  | 86  | 82.6±1.4  | 94.8±1.4  | 88.6±1.4  |
| 63   | 20      | 30 | 20  | 90  | 98  | 91.4±1.8  | 101.6±1.8 | 96.4±1.8  |
| 80   | 20      | 32 | 20  | 110 | 110 | 104.4±1.8 | 114.6±1.8 | 109.4±1.8 |
| 100  | 25      | 38 | 25  | 132 | 136 | 116.3±1.8 | 120.5±1.8 | 118.3±1.8 |
| 125  | 25      | 44 | 25  | 160 | 160 | 131.7±1.8 | 158.3±1.8 | 145±1.8   |

...LB2/-LB3 – thread length of spacer bolts



[1] = DSBG-...-LB2  
(on bearing cap)  
[2] = DSBG-...-LB3  
(on end cap)

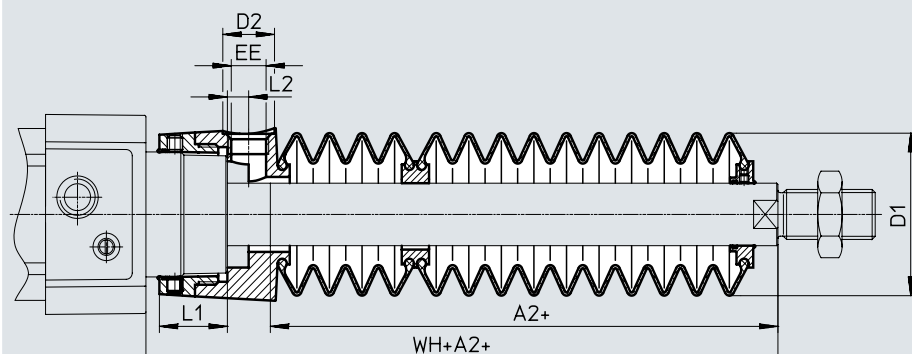
| ∅    | ZL2  |      |
|------|------|------|
| [mm] | min. | max. |
| 80   | 20   | 140  |
| 100  | 20   | 140  |
| 125  | 24   | 140  |

## Datasheet

## Dimensions – Variants

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

P2 – Bellows on the bearing cap



+ = plus stroke length

| Ø<br>Stroke<br>[mm] | 32               |            |    |      |      |     |       | 40               |            |    |      |      |     |       |
|---------------------|------------------|------------|----|------|------|-----|-------|------------------|------------|----|------|------|-----|-------|
|                     | A2 <sup>1)</sup> | D1<br>max. | D2 | EE   | L1   | L2  | WH+A2 | A2 <sup>1)</sup> | D1<br>max. | D2 | EE   | L1   | L2  | WH+A2 |
| 10 ... 50           | 29               | 38         | 14 | G1/8 | 12.9 | 5.4 | 55    | 28               | 46         | 14 | G1/8 | 16.3 | 5.4 | 56.7  |
| 51 ... 125          | 47               |            |    |      |      |     | 73    | 43               |            |    |      |      |     | 71.7  |
| 126 ... 175         | 61               |            |    |      |      |     | 87    | 56               |            |    |      |      |     | 84.7  |
| 176 ... 250         | 80               |            |    |      |      |     | 106   | 72               |            |    |      |      |     | 100.7 |
| 251 ... 300         | 96               |            |    |      |      |     | 122   | 86               |            |    |      |      |     | 114.7 |
| 301 ... 350         | 112              |            |    |      |      |     | 138   | 100              |            |    |      |      |     | 128.7 |
| 351 ... 375         | 114              |            |    |      |      |     | 140   | 101              |            |    |      |      |     | 129.7 |
| 376 ... 425         | 130              |            |    |      |      |     | 156   | 115              |            |    |      |      |     | 143.7 |
| 426 ... 475         | 145              |            |    |      |      |     | 171   | 130              |            |    |      |      |     | 158.7 |
| 476 ... 500         | 147              |            |    |      |      |     | 173   | 131              |            |    |      |      |     | 159.7 |

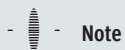
| Ø<br>Stroke<br>[mm] | 50               |            |    |      |       |    |       | 63               |            |    |      |      |    |       |
|---------------------|------------------|------------|----|------|-------|----|-------|------------------|------------|----|------|------|----|-------|
|                     | A2 <sup>1)</sup> | D1<br>max. | D2 | EE   | L1    | L2 | WH+A2 | A2 <sup>1)</sup> | D1<br>max. | D2 | EE   | L1   | L2 | WH+A2 |
| 10 ... 50           | 28               | 57         | 17 | G1/4 | 22.35 | 7  | 63.6  | 28               | 57         | 17 | G1/4 | 22.4 | 7  | 63.9  |
| 51 ... 125          | 46               |            |    |      |       |    | 81.6  | 46               |            |    |      |      |    | 81.9  |
| 126 ... 175         | 56               |            |    |      |       |    | 91.6  | 56               |            |    |      |      |    | 91.9  |
| 176 ... 250         | 73               |            |    |      |       |    | 108.6 | 73               |            |    |      |      |    | 108.9 |
| 251 ... 300         | 86               |            |    |      |       |    | 121.6 | 86               |            |    |      |      |    | 121.9 |
| 301 ... 350         | 97               |            |    |      |       |    | 132.6 | 97               |            |    |      |      |    | 132.9 |
| 351 ... 375         | 105              |            |    |      |       |    | 140.6 | 105              |            |    |      |      |    | 140.9 |
| 376 ... 425         | 116              |            |    |      |       |    | 151.6 | 116              |            |    |      |      |    | 151.9 |
| 426 ... 475         | 126              |            |    |      |       |    | 161.6 | 126              |            |    |      |      |    | 161.9 |
| 476 ... 500         | 134              |            |    |      |       |    | 169.6 | 134              |            |    |      |      |    | 169.9 |

| Ø<br>Stroke<br>[mm] | 80               |            |    |      |    |    |       | 100              |            |    |      |    |    |       |
|---------------------|------------------|------------|----|------|----|----|-------|------------------|------------|----|------|----|----|-------|
|                     | A2 <sup>1)</sup> | D1<br>max. | D2 | EE   | L1 | L2 | WH+A2 | A2 <sup>1)</sup> | D1<br>max. | D2 | EE   | L1 | L2 | WH+A2 |
| 10 ... 50           | 25               | 93         | 17 | G1/4 | 28 | 4  | 70.4  | 25               | 93         | 17 | G1/4 | 28 | 4  | 74.3  |
| 51 ... 125          | 37               |            |    |      |    |    | 82.4  | 37               |            |    |      |    |    | 86.3  |
| 126 ... 175         | 49               |            |    |      |    |    | 94.4  | 49               |            |    |      |    |    | 98.3  |
| 176 ... 250         | 62               |            |    |      |    |    | 107.4 | 62               |            |    |      |    |    | 111.3 |
| 251 ... 300         | 74               |            |    |      |    |    | 119.4 | 74               |            |    |      |    |    | 123.3 |
| 301 ... 350         | 86               |            |    |      |    |    | 131.4 | 86               |            |    |      |    |    | 135.3 |
| 351 ... 375         | 87               |            |    |      |    |    | 132.4 | 87               |            |    |      |    |    | 136.3 |
| 376 ... 425         | 98               |            |    |      |    |    | 143.4 | 98               |            |    |      |    |    | 147.3 |
| 426 ... 475         | 110              |            |    |      |    |    | 155.4 | 110              |            |    |      |    |    | 159.3 |
| 476 ... 500         | 111              |            |    |      |    |    | 156.4 | 111              |            |    |      |    |    | 160.3 |

1) The dimension corresponds to the E value (piston rod extension) of the drive

## Datasheet

| Ordering data    |                |                     |                     |                     |                     |
|------------------|----------------|---------------------|---------------------|---------------------|---------------------|
| Piston Ø<br>[mm] | Stroke<br>[mm] | With PPV cushioning |                     | With PPS cushioning |                     |
|                  |                | Part no.            | Type                | Part no.            | Type                |
| 32               | 25             | 1638842             | DSBG-32-25-PPVA-N3  | 1645460             | DSBG-32-25-PPSA-N3  |
|                  | 40             | 1638843             | DSBG-32-40-PPVA-N3  | 1645461             | DSBG-32-40-PPSA-N3  |
|                  | 50             | 1638844             | DSBG-32-50-PPVA-N3  | 1645462             | DSBG-32-50-PPSA-N3  |
|                  | 80             | 1638845             | DSBG-32-80-PPVA-N3  | 1645463             | DSBG-32-80-PPSA-N3  |
|                  | 100            | 1638846             | DSBG-32-100-PPVA-N3 | 1645464             | DSBG-32-100-PPSA-N3 |
|                  | 125            | 1638848             | DSBG-32-125-PPVA-N3 | 1645465             | DSBG-32-125-PPSA-N3 |
|                  | 160            | 1638849             | DSBG-32-160-PPVA-N3 | 1645466             | DSBG-32-160-PPSA-N3 |
|                  | 200            | 1638850             | DSBG-32-200-PPVA-N3 | 1645467             | DSBG-32-200-PPSA-N3 |
|                  | 250            | 1638851             | DSBG-32-250-PPVA-N3 | 1645468             | DSBG-32-250-PPSA-N3 |
|                  | 320            | 1638852             | DSBG-32-320-PPVA-N3 | 1645469             | DSBG-32-320-PPSA-N3 |
|                  | 400            | 1638853             | DSBG-32-400-PPVA-N3 | 1645470             | DSBG-32-400-PPSA-N3 |
|                  | 500            | 1638854             | DSBG-32-500-PPVA-N3 | 1645471             | DSBG-32-500-PPSA-N3 |
|                  | 1 ... 2800     | 1634781             | DSBG-32-...-PPVA-N3 | 1634560             | DSBG-32-...-PPSA-N3 |
| 40               | 25             | 1646547             | DSBG-40-25-PPVA-N3  | 1646559             | DSBG-40-25-PPSA-N3  |
|                  | 40             | 1646548             | DSBG-40-40-PPVA-N3  | 1646560             | DSBG-40-40-PPSA-N3  |
|                  | 50             | 1646549             | DSBG-40-50-PPVA-N3  | 1646561             | DSBG-40-50-PPSA-N3  |
|                  | 80             | 1646550             | DSBG-40-80-PPVA-N3  | 1646562             | DSBG-40-80-PPSA-N3  |
|                  | 100            | 1646551             | DSBG-40-100-PPVA-N3 | 1646563             | DSBG-40-100-PPSA-N3 |
|                  | 125            | 1646552             | DSBG-40-125-PPVA-N3 | 1646564             | DSBG-40-125-PPSA-N3 |
|                  | 160            | 1646553             | DSBG-40-160-PPVA-N3 | 1646565             | DSBG-40-160-PPSA-N3 |
|                  | 200            | 1646554             | DSBG-40-200-PPVA-N3 | 1646566             | DSBG-40-200-PPSA-N3 |
|                  | 250            | 1646555             | DSBG-40-250-PPVA-N3 | 1646567             | DSBG-40-250-PPSA-N3 |
|                  | 320            | 1646556             | DSBG-40-320-PPVA-N3 | 1646568             | DSBG-40-320-PPSA-N3 |
|                  | 400            | 1646557             | DSBG-40-400-PPVA-N3 | 1646569             | DSBG-40-400-PPSA-N3 |
|                  | 500            | 1646558             | DSBG-40-500-PPVA-N3 | 1646570             | DSBG-40-500-PPSA-N3 |
|                  | 1 ... 2800     | 1644503             | DSBG-40-...-PPVA-N3 | 1645473             | DSBG-40-...-PPSA-N3 |
| 50               | 25             | 1646709             | DSBG-50-25-PPVA-N3  | 1646723             | DSBG-50-25-PPSA-N3  |
|                  | 40             | 1646710             | DSBG-50-40-PPVA-N3  | 1646724             | DSBG-50-40-PPSA-N3  |
|                  | 50             | 1646711             | DSBG-50-50-PPVA-N3  | 1646725             | DSBG-50-50-PPSA-N3  |
|                  | 80             | 1646712             | DSBG-50-80-PPVA-N3  | 1646726             | DSBG-50-80-PPSA-N3  |
|                  | 100            | 1646713             | DSBG-50-100-PPVA-N3 | 1646727             | DSBG-50-100-PPSA-N3 |
|                  | 125            | 1646714             | DSBG-50-125-PPVA-N3 | 1646728             | DSBG-50-125-PPSA-N3 |
|                  | 160            | 1646715             | DSBG-50-160-PPVA-N3 | 1646729             | DSBG-50-160-PPSA-N3 |
|                  | 200            | 1646716             | DSBG-50-200-PPVA-N3 | 1646730             | DSBG-50-200-PPSA-N3 |
|                  | 250            | 1646717             | DSBG-50-250-PPVA-N3 | 1646731             | DSBG-50-250-PPSA-N3 |
|                  | 320            | 1646718             | DSBG-50-320-PPVA-N3 | 1646732             | DSBG-50-320-PPSA-N3 |
|                  | 400            | 1646719             | DSBG-50-400-PPVA-N3 | 1646733             | DSBG-50-400-PPSA-N3 |
|                  | 500            | 1646720             | DSBG-50-500-PPVA-N3 | 1646734             | DSBG-50-500-PPSA-N3 |
|                  | 1 ... 2800     | 1646708             | DSBG-50-...-PPVA-N3 | 1646722             | DSBG-50-...-PPSA-N3 |

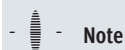


## Note

Other variants in the modular product system → Page 22

## Datasheet

| Ordering data    |                |                     |                      |                     |                      |
|------------------|----------------|---------------------|----------------------|---------------------|----------------------|
| Piston Ø<br>[mm] | Stroke<br>[mm] | With PPV cushioning |                      | With PPS cushioning |                      |
|                  |                | Part no.            | Type                 | Part no.            | Type                 |
| 63               | 25             | 1646740             | DSBG-63-25-PPVA-N3   | 1646754             | DSBG-63-25-PPSA-N3   |
|                  | 40             | 1646741             | DSBG-63-40-PPVA-N3   | 1646755             | DSBG-63-40-PPSA-N3   |
|                  | 50             | 1646742             | DSBG-63-50-PPVA-N3   | 1646756             | DSBG-63-50-PPSA-N3   |
|                  | 80             | 1646743             | DSBG-63-80-PPVA-N3   | 1646757             | DSBG-63-80-PPSA-N3   |
|                  | 100            | 1646744             | DSBG-63-100-PPVA-N3  | 1646758             | DSBG-63-100-PPSA-N3  |
|                  | 125            | 1646745             | DSBG-63-125-PPVA-N3  | 1646760             | DSBG-63-125-PPSA-N3  |
|                  | 160            | 1646746             | DSBG-63-160-PPVA-N3  | 1646761             | DSBG-63-160-PPSA-N3  |
|                  | 200            | 1646747             | DSBG-63-200-PPVA-N3  | 1646762             | DSBG-63-200-PPSA-N3  |
|                  | 250            | 1646748             | DSBG-63-250-PPVA-N3  | 1646763             | DSBG-63-250-PPSA-N3  |
|                  | 320            | 1646749             | DSBG-63-320-PPVA-N3  | 1646764             | DSBG-63-320-PPSA-N3  |
|                  | 400            | 1646750             | DSBG-63-400-PPVA-N3  | 1646765             | DSBG-63-400-PPSA-N3  |
|                  | 500            | 1646751             | DSBG-63-500-PPVA-N3  | 1646766             | DSBG-63-500-PPSA-N3  |
|                  | 1 ... 2800     | 1646739             | DSBG-63-...-PPVA-N3  | 1646753             | DSBG-63-...-PPSA-N3  |
| 80               | 25             | 1646771             | DSBG-80-25-PPVA-N3   | 1646785             | DSBG-80-25-PPSA-N3   |
|                  | 40             | 1646772             | DSBG-80-40-PPVA-N3   | 1646786             | DSBG-80-40-PPSA-N3   |
|                  | 50             | 1646773             | DSBG-80-50-PPVA-N3   | 1646787             | DSBG-80-50-PPSA-N3   |
|                  | 80             | 1646774             | DSBG-80-80-PPVA-N3   | 1646788             | DSBG-80-80-PPSA-N3   |
|                  | 100            | 1646775             | DSBG-80-100-PPVA-N3  | 1646789             | DSBG-80-100-PPSA-N3  |
|                  | 125            | 1646776             | DSBG-80-125-PPVA-N3  | 1646790             | DSBG-80-125-PPSA-N3  |
|                  | 160            | 1646777             | DSBG-80-160-PPVA-N3  | 1646791             | DSBG-80-160-PPSA-N3  |
|                  | 200            | 1646778             | DSBG-80-200-PPVA-N3  | 1646792             | DSBG-80-200-PPSA-N3  |
|                  | 250            | 1646779             | DSBG-80-250-PPVA-N3  | 1646793             | DSBG-80-250-PPSA-N3  |
|                  | 320            | 1646780             | DSBG-80-320-PPVA-N3  | 1646794             | DSBG-80-320-PPSA-N3  |
|                  | 400            | 1646781             | DSBG-80-400-PPVA-N3  | 1646795             | DSBG-80-400-PPSA-N3  |
|                  | 500            | 1646782             | DSBG-80-500-PPVA-N3  | 1646796             | DSBG-80-500-PPSA-N3  |
|                  | 1 ... 2800     | 1646770             | DSBG-80-...-PPVA-N3  | 1646784             | DSBG-80-...-PPSA-N3  |
| 100              | 25             | 1646801             | DSBG-100-25-PPVA-N3  | 1646815             | DSBG-100-25-PPSA-N3  |
|                  | 40             | 1646802             | DSBG-100-40-PPVA-N3  | 1646816             | DSBG-100-40-PPSA-N3  |
|                  | 50             | 1646803             | DSBG-100-50-PPVA-N3  | 1646817             | DSBG-100-50-PPSA-N3  |
|                  | 80             | 1646804             | DSBG-100-80-PPVA-N3  | 1646818             | DSBG-100-80-PPSA-N3  |
|                  | 100            | 1646805             | DSBG-100-100-PPVA-N3 | 1646819             | DSBG-100-100-PPSA-N3 |
|                  | 125            | 1646806             | DSBG-100-125-PPVA-N3 | 1646820             | DSBG-100-125-PPSA-N3 |
|                  | 160            | 1646807             | DSBG-100-160-PPVA-N3 | 1646821             | DSBG-100-160-PPSA-N3 |
|                  | 200            | 1646808             | DSBG-100-200-PPVA-N3 | 1646822             | DSBG-100-200-PPSA-N3 |
|                  | 250            | 1646809             | DSBG-100-250-PPVA-N3 | 1646823             | DSBG-100-250-PPSA-N3 |
|                  | 320            | 1646810             | DSBG-100-320-PPVA-N3 | 1646824             | DSBG-100-320-PPSA-N3 |
|                  | 400            | 1646811             | DSBG-100-400-PPVA-N3 | 1646825             | DSBG-100-400-PPSA-N3 |
|                  | 500            | 1646812             | DSBG-100-500-PPVA-N3 | 1646826             | DSBG-100-500-PPSA-N3 |
|                  | 1 ... 2800     | 1646800             | DSBG-100-...-PPVA-N3 | 1646814             | DSBG-100-...-PPSA-N3 |

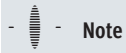


## Note

Other variants in the modular product system → Page 22

## Datasheet

| Ordering data    |                |                     |                      |                     |                      |
|------------------|----------------|---------------------|----------------------|---------------------|----------------------|
| Piston Ø<br>[mm] | Stroke<br>[mm] | With PPV cushioning |                      | With PPS cushioning |                      |
|                  |                | Part no.            | Type                 | Part no.            | Type                 |
| 125              | 25             | 2159622             | DSBG-125-25-PPVA-N3  | 2159907             | DSBG-125-25-PPSA-N3  |
|                  | 40             | 2159623             | DSBG-125-40-PPVA-N3  | 2159908             | DSBG-125-40-PPSA-N3  |
|                  | 50             | 2159624             | DSBG-125-50-PPVA-N3  | 2159909             | DSBG-125-50-PPSA-N3  |
|                  | 80             | 2159625             | DSBG-125-80-PPVA-N3  | 2159910             | DSBG-125-80-PPSA-N3  |
|                  | 100            | 2159626             | DSBG-125-100-PPVA-N3 | 2159911             | DSBG-125-100-PPSA-N3 |
|                  | 125            | 2159627             | DSBG-125-125-PPVA-N3 | 2159912             | DSBG-125-125-PPSA-N3 |
|                  | 160            | 2159628             | DSBG-125-160-PPVA-N3 | 2159913             | DSBG-125-160-PPSA-N3 |
|                  | 200            | 2159629             | DSBG-125-200-PPVA-N3 | 2159915             | DSBG-125-200-PPSA-N3 |
|                  | 250            | 2159630             | DSBG-125-250-PPVA-N3 | 2159916             | DSBG-125-250-PPSA-N3 |
|                  | 320            | 2159631             | DSBG-125-320-PPVA-N3 | 2159917             | DSBG-125-320-PPSA-N3 |
|                  | 400            | 2159632             | DSBG-125-400-PPVA-N3 | 2159918             | DSBG-125-400-PPSA-N3 |
|                  | 500            | 2159633             | DSBG-125-500-PPVA-N3 | 2159919             | DSBG-125-500-PPSA-N3 |
|                  | 1 ... 2800     | 2158455             | DSBG-125-...-PPVA-N3 | 2158471             | DSBG-125-...-PPSA-N3 |



## Note

Other variants in the modular product system → Page 22

## Ordering data – Modular product system

| Ordering table              |                                                             |                                     |                |                |                |                |                |            |             |            |
|-----------------------------|-------------------------------------------------------------|-------------------------------------|----------------|----------------|----------------|----------------|----------------|------------|-------------|------------|
| Size                        | 32                                                          | 40                                  | 50             | 63             | 80             | 100            | 125            | Conditions | Code        | Enter code |
| Module no.                  | <b>1634484</b>                                              | <b>1645477</b>                      | <b>1646707</b> | <b>1646738</b> | <b>1646769</b> | <b>1646799</b> | <b>2045493</b> |            |             |            |
| Function                    | Standards-based cylinder, double-acting, based on ISO 15552 |                                     |                |                |                |                |                |            | <b>DSBG</b> | DSBG       |
| Protection against rotation | With protection against rotation                            |                                     |                |                |                |                | –              | [1]        | <b>-Q</b>   |            |
| Running characteristics     | Standard                                                    |                                     |                |                |                |                |                |            |             |            |
|                             | Low friction                                                |                                     |                |                |                |                | –              | [2]        | <b>L</b>    |            |
|                             | Constant, slow movement                                     |                                     |                |                |                |                |                | [2]        | <b>U</b>    |            |
|                             | Low friction for balancer applications                      |                                     |                |                |                |                |                | [3]        | <b>L1</b>   |            |
| Piston Ø [mm]               | 32                                                          | 40                                  | 50             | 63             | 80             | 100            | 125            |            | <b>-...</b> |            |
| Stroke [mm]                 | 1 ... 2800                                                  |                                     |                |                |                |                |                |            | <b>-...</b> |            |
| Piston rod type             | At one end                                                  |                                     |                |                |                |                |                |            |             |            |
|                             | Through piston rod                                          |                                     |                |                |                |                |                |            | <b>-T</b>   |            |
| Piston rod thread type      | Male thread                                                 |                                     |                |                |                |                |                |            |             |            |
|                             | Female thread                                               |                                     |                |                |                |                |                | [4]        | <b>F</b>    |            |
| Cushioning                  | Elastic cushioning rings/plates at both ends                |                                     |                |                |                |                |                |            | <b>-P</b>   |            |
|                             | Pneumatic cushioning, self-adjusting at both ends           |                                     |                |                |                |                |                | [5]        | <b>-PPS</b> |            |
|                             | Pneumatic cushioning, adjustable at both ends               |                                     |                |                |                |                |                |            | <b>-PPV</b> |            |
| Position sensing            | Via proximity switch                                        |                                     |                |                |                |                |                |            | <b>A</b>    | A          |
| Standard                    | Based on ISO 15552                                          |                                     |                |                |                |                |                |            |             |            |
|                             | Conforms to ISO 15552                                       |                                     |                |                |                |                |                |            | <b>-N3</b>  |            |
| Corrosion protection        | Standard                                                    |                                     |                |                |                |                |                |            |             |            |
|                             | High corrosion protection                                   |                                     |                |                |                |                |                | [6]        | <b>R3</b>   |            |
| Temperature range           | Standard                                                    |                                     |                |                |                |                |                |            |             |            |
|                             | [°C]                                                        | Heat-resistant seals up to max. 120 |                |                |                |                |                | [7]        | <b>T1</b>   |            |
|                             | [°C]                                                        | –40 ... +80                         |                |                |                |                |                | [7]        | <b>T3</b>   |            |
|                             | [°C]                                                        | 0 ... +150                          |                |                |                |                |                | [7]        | <b>T4</b>   |            |

- [1] Q Not with L, U, N3, T3, T4, P2, A2, A3, A6  
Only up to a stroke of 1500 mm
- [2] L, U Not with T, R3, T1, T3, T4, P2, A2, A3, A6, EX4
- [3] L1 Not with T, PPV, R3, T1, T3, T4, P2, A2, A3, A6, EX4
- [4] F Not with N3, ...L, M...
- [5] PPS Not with T1, T3, T4
- [6] R3 Not with A2, A6, ...V
- [7] T1, T3, T4 Not with P2, A2, A3, EX4

 **Note**

If characteristic L is used in combination with transverse loads or strokes of above 500 mm, suitable measures must be taken to support the piston rod.

The operating pressure (→ page 8) is applicable for strokes up to 500 mm

 **Note**

If characteristic L1 is used in combination with strokes of above 500 mm, suitable measures must be taken to support the piston rod.

The operating pressure (→ page 8) is applicable for strokes up to 500 mm.

## Ordering data – Modular product system

| Ordering table               |            |                            |    |          |    |                    |     |            |            |        |       |            |
|------------------------------|------------|----------------------------|----|----------|----|--------------------|-----|------------|------------|--------|-------|------------|
| Size                         |            | 32                         | 40 | 50       | 63 | 80                 | 100 | 125        | Conditions | Code   |       | Enter code |
| Protection against particles |            | Standard                   |    |          |    |                    |     |            |            |        |       |            |
|                              |            | Bellows on bearing cap     |    |          |    |                    |     |            | –          | [8]    | P2    |            |
| Wiper variant                |            | Hard wiper                 |    |          |    |                    |     |            |            |        | A2    |            |
|                              |            | For unlubricated operation |    |          |    |                    |     |            |            |        | A3    |            |
|                              |            | Metal wiper                |    |          |    |                    |     |            |            |        | A6    |            |
| EU certification             |            | II 2GD                     |    |          |    |                    |     |            | [9]        |        | EX4   |            |
| Swivel mounting position     | [mm]       | 0 ... 2800                 |    |          |    |                    |     |            |            |        | ---V  |            |
| Stroke adjustment, advancing | [mm]       | 0 ... 25                   |    |          |    |                    |     |            | [10]       |        | -25KE |            |
|                              | [mm]       | –                          |    | 0 ... 50 |    |                    |     |            | [10]       |        | -50KE |            |
| Piston rod extension         | [mm]       | 1 ... 500                  |    |          |    |                    |     |            | [11]       |        | ---E  |            |
| Extended piston rod thread   | [mm]       | 1 ... 35                   |    | 1 ... 70 |    |                    |     |            | [11]       |        | ---L  |            |
| Shortened piston rod thread  | [mm]       | –                          |    |          |    | 1 ... 30           |     | 1 ... 44   |            |        | ---S  |            |
| Piston rod thread            |            | Standard (→ 15)            |    |          |    |                    |     |            |            |        |       |            |
|                              |            | –                          |    |          |    | M16                |     | [12]       |            | -M16   |       |            |
|                              |            |                            |    |          |    | M16x1.5            |     | [12]       |            | -M16P  |       |            |
|                              |            |                            |    |          |    | M20                |     | [12]       |            | -M20   |       |            |
|                              |            |                            |    |          |    | –                  |     | M20x1.5    | [12]       |        | -M20P |            |
|                              | M24        |                            |    |          |    |                    |     | [12]       |            | -M24   |       |            |
|                              | M27        |                            |    |          |    |                    |     | [12]       |            | -M27   |       |            |
| Thread length<br>Spacer bolt | [mm]       | –                          |    |          |    | On the bearing cap |     | [12]       |            | ---LB2 |       |            |
|                              |            |                            |    |          |    | 20 ... 140         |     | 24 ... 140 |            |        |       |            |
|                              | [mm]       | –                          |    |          |    | On the end cap     |     | [12]       |            | ---LB3 |       |            |
|                              | 20 ... 140 |                            |    |          |    | 24 ... 140         |     |            |            |        |       |            |

- [8] P2 Not with N3, A2, A3, A6, EX4  
Only for strokes 10 ... 500 mm
- [9] EX4 Not with T1, T3, T4, P2, A3, A6, LB2, LB3
- [10] KE Only up to a stroke of 1500 mm  
Not with L, U, L1, T, T1, T3, T4, P2, A2, A6, EX4, LB3
- [11] ...E, ...L Only up to a stroke of 2000 mm  
Not with N3
- [12] M..., LB... Not with N3

 - Note

The piston rod extension for the bellows is automatically taken into consideration when characteristic P2 is selected. This means that there is no need to specify a value for characteristic ...E.

 - Note

When feature ...E is selected in combination with feature P2, the part of the piston rod extension ...E is not covered by the protective bellows.

 - Note

When feature P2 is selected in combination with feature T (through piston rod), the protective bellows is mounted at one end only.

 - Note

Is used with feature M... If a thread smaller than the standard thread is selected (piston rod thread), this may reduce the load capacity.

 - Note

If feature M... is selected, the scope of delivery does not include the piston rod nut.

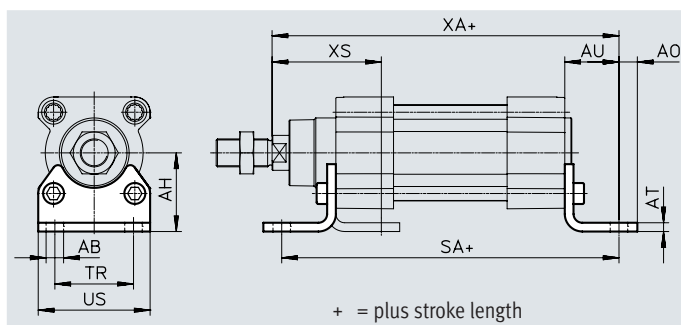
## Accessories

## Foot mounting HNC/CRHNC

Material:

HNC: Galvanised steel

CRHNC: High-alloy steel



## Dimensions and ordering data

| For Ø | AB<br>Ø | AH | AO   | AT | AU | SA  | TR | US  | XA    | XS   |
|-------|---------|----|------|----|----|-----|----|-----|-------|------|
| [mm]  |         |    |      |    |    |     |    |     |       |      |
| 32    | 7       | 32 | 6.5  | 4  | 24 | 142 | 32 | 45  | 143.1 | 46   |
| 40    | 10      | 36 | 9    | 4  | 28 | 161 | 36 | 54  | 161.9 | 52.7 |
| 50    | 10      | 45 | 9.5  | 5  | 32 | 170 | 45 | 64  | 173.8 | 62.6 |
| 63    | 10      | 50 | 12.5 | 5  | 32 | 185 | 50 | 75  | 189.1 | 62.9 |
| 80    | 12      | 63 | 15   | 6  | 41 | 210 | 63 | 93  | 214.6 | 80.4 |
| 100   | 14.5    | 71 | 17.5 | 6  | 41 | 220 | 75 | 110 | 228.5 | 84.3 |
| 125   | 16.5    | 90 | 22   | 8  | 45 | 250 | 90 | 131 | 270   | 102  |

| For Ø | Basic version     |               |          |                    | Corrosion resistant |               |          |                    |
|-------|-------------------|---------------|----------|--------------------|---------------------|---------------|----------|--------------------|
|       | CRC <sup>1)</sup> | Weight<br>[g] | Part no. | Type <sup>2)</sup> | CRC <sup>1)</sup>   | Weight<br>[g] | Part no. | Type <sup>2)</sup> |
| [mm]  |                   |               |          |                    |                     |               |          |                    |
| 32    | 1                 | 144           | 174369   | HNC-32             | 4                   | 139           | 176937   | CRHNC-32           |
| 40    | 1                 | 193           | 174370   | HNC-40             | 4                   | 188           | 176938   | CRHNC-40           |
| 50    | 1                 | 353           | 174371   | HNC-50             | 4                   | 341           | 176939   | CRHNC-50           |
| 63    | 1                 | 436           | 174372   | HNC-63             | 4                   | 424           | 176940   | CRHNC-63           |
| 80    | 1                 | 829           | 174373   | HNC-80             | 4                   | 809           | 176941   | CRHNC-80           |
| 100   | 1                 | 1009          | 174374   | HNC-100            | 4                   | 990           | 176942   | CRHNC-100          |
| 125   | 1                 | 1902          | 174375   | HNC-125            | 4                   | 1920          | 176943   | CRHNC-125          |

1) More information [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

2) Suitable for ATEX

## Accessories

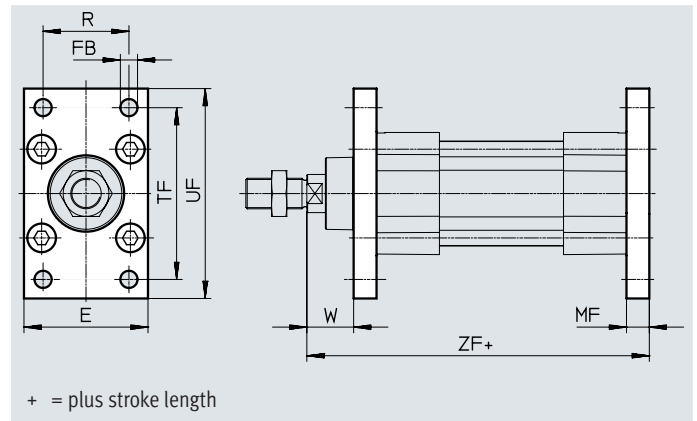
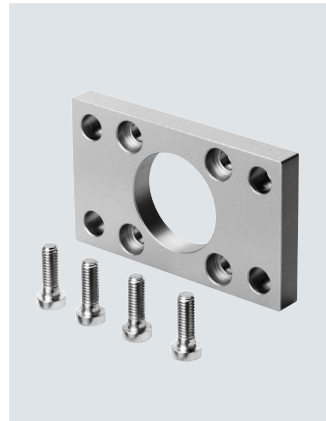
### Flange mounting FNC/CRFNG

Material:

FNC: Galvanised steel

CRFNG: high-alloy steel

RoHS-compliant



#### Dimensions and ordering data

| For Ø | E   | FB<br>Ø<br>H13 | MF | R  | TF  | UF  | W    | ZF    |
|-------|-----|----------------|----|----|-----|-----|------|-------|
| [mm]  |     |                |    |    |     |     |      |       |
| 32    | 45  | 7              | 10 | 32 | 64  | 80  | 16   | 129.1 |
| 40    | 54  | 9              | 10 | 36 | 72  | 90  | 18.7 | 143.9 |
| 50    | 65  | 9              | 12 | 45 | 90  | 110 | 23.6 | 153.8 |
| 63    | 75  | 9              | 12 | 50 | 100 | 120 | 23.9 | 169.1 |
| 80    | 93  | 12             | 16 | 63 | 126 | 150 | 29.4 | 189.6 |
| 100   | 110 | 14             | 16 | 75 | 150 | 175 | 33.3 | 203.5 |
| 125   | 132 | 16             | 20 | 90 | 180 | 210 | 45   | 245   |

| For Ø | Basic version     |               |          |                    | Corrosion resistant |               |          |                    |
|-------|-------------------|---------------|----------|--------------------|---------------------|---------------|----------|--------------------|
|       | CRC <sup>1)</sup> | Weight<br>[g] | Part no. | Type <sup>2)</sup> | CRC <sup>1)</sup>   | Weight<br>[g] | Part no. | Type <sup>2)</sup> |
| [mm]  |                   |               |          |                    |                     |               |          |                    |
| 32    | 1                 | 221           | 174376   | FNC-32             | 4                   | 220           | 161846   | CRFNG-32           |
| 40    | 1                 | 291           | 174377   | FNC-40             | 4                   | 291           | 161847   | CRFNG-40           |
| 50    | 1                 | 536           | 174378   | FNC-50             | 4                   | 526           | 161848   | CRFNG-50           |
| 63    | 1                 | 679           | 174379   | FNC-63             | 4                   | 680           | 161849   | CRFNG-63           |
| 80    | 1                 | 1495          | 174380   | FNC-80             | 4                   | 1508          | 161850   | CRFNG-80           |
| 100   | 1                 | 2041          | 174381   | FNC-100            | 4                   | 2054          | 161851   | CRFNG-100          |
| 125   | 1                 | 3775          | 174382   | FNC-125            | 4                   | 3787          | 185363   | CRFNG-125          |

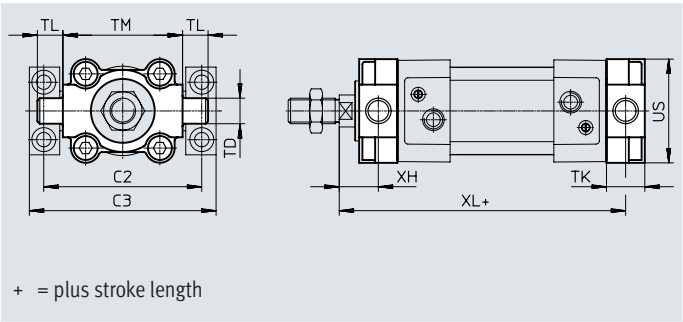
1) More information [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

2) Suitable for ATEX

Accessories

Trunnion flange ZNCF/CRZNG

Material:  
ZNCF: Stainless steel casting  
CRZNG: Electropolished stainless steel casting  
RoHs-compliant



| Dimensions and ordering data |     |     |               |    |    |     |     |      |       |
|------------------------------|-----|-----|---------------|----|----|-----|-----|------|-------|
| For Ø                        | C2) | C3) | TD<br>Ø<br>e9 | TK | TL | TM  | US  | XH   | XL    |
| [mm]                         |     |     |               |    |    |     |     |      |       |
| 32                           | 71  | 86  | 12            | 16 | 12 | 50  | 45  | 18   | 127.1 |
| 40                           | 87  | 105 | 16            | 20 | 16 | 63  | 54  | 18.7 | 143.9 |
| 50                           | 99  | 117 | 16            | 24 | 16 | 75  | 64  | 23.6 | 153.8 |
| 63                           | 116 | 136 | 20            | 24 | 20 | 90  | 75  | 23.9 | 169.1 |
| 80                           | 136 | 156 | 20            | 28 | 20 | 110 | 93  | 31.4 | 187.6 |
| 100                          | 164 | 189 | 25            | 38 | 25 | 132 | 110 | 30.3 | 206.5 |
| 125                          | 192 | 217 | 25            | 50 | 25 | 160 | 131 | 40   | 250   |

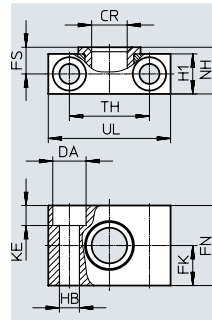
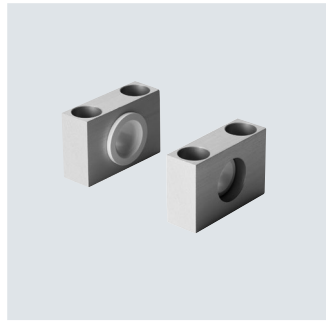
| For Ø | Basic version     |               |          |                    | Corrosion resistant |               |          |                    |
|-------|-------------------|---------------|----------|--------------------|---------------------|---------------|----------|--------------------|
|       | CRC <sup>1)</sup> | Weight<br>[g] | Part no. | Type <sup>2)</sup> | CRC <sup>1)</sup>   | Weight<br>[g] | Part no. | Type <sup>2)</sup> |
| [mm]  |                   |               |          |                    |                     |               |          |                    |
| 32    | 2                 | 150           | 174411   | ZNCF-32            | 4                   | 150           | 161852   | CRZNG-32           |
| 40    | 2                 | 285           | 174412   | ZNCF-40            | 4                   | 285           | 161853   | CRZNG-40           |
| 50    | 2                 | 473           | 174413   | ZNCF-50            | 4                   | 473           | 161854   | CRZNG-50           |
| 63    | 2                 | 687           | 174414   | ZNCF-63            | 4                   | 687           | 161855   | CRZNG-63           |
| 80    | 2                 | 1296          | 174415   | ZNCF-80            | 4                   | 1296          | 161856   | CRZNG-80           |
| 100   | 2                 | 2254          | 174416   | ZNCF-100           | 4                   | 2254          | 161857   | CRZNG-100          |
| 125   | 2                 | 3484          | 174417   | ZNCF-125           | 4                   | 3484          | 185362   | CRZNG-125          |

1) More information [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)  
2) Suitable for ATEX

## Accessories

### Trunnion support LNZG

Material:  
Trunnion support: Anodised aluminium  
Plain bearing: Plastic  
RoHS-compliant

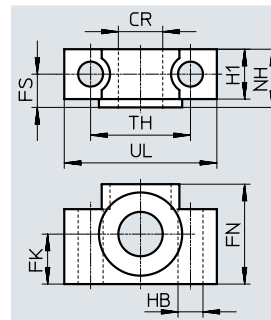
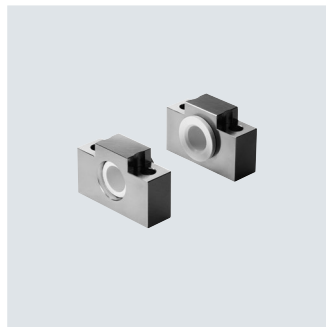


| Dimensions and ordering data |         |         |         |    |      |      |         |     |      |      |    |                   |     | Weight | Part no.     | Type |
|------------------------------|---------|---------|---------|----|------|------|---------|-----|------|------|----|-------------------|-----|--------|--------------|------|
| For Ø                        | CR<br>Ø | DA<br>Ø | FK<br>Ø | FN | FS   | H1   | HB<br>Ø | KE  | NH   | TH   | UL | CRC <sup>1)</sup> |     |        |              |      |
| [mm]                         | D11     | H13     | ±0.1    |    |      |      | H13     |     |      | ±0.2 |    |                   | [g] |        |              |      |
| 32                           | 12      | 11      | 15      | 30 | 10.5 | 15   | 6.6     | 6.8 | 18   | 32   | 46 | 2                 | 83  | 32959  | LNZG-32      |      |
| 40, 50                       | 16      | 15      | 18      | 36 | 12   | 18   | 9       | 9   | 21   | 36   | 55 | 2                 | 129 | 32960  | LNZG-40/50   |      |
| 63, 80                       | 20      | 18      | 20      | 40 | 13   | 20   | 11      | 11  | 23   | 42   | 65 | 2                 | 178 | 32961  | LNZG-63/80   |      |
| 100, 125                     | 25      | 20      | 25      | 50 | 16   | 24.5 | 14      | 13  | 28.5 | 50   | 75 | 2                 | 306 | 32962  | LNZG-100/125 |      |

1) More information [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

### Trunnion support CRLNZG

Material:  
High-alloy steel  
RoHS-compliant



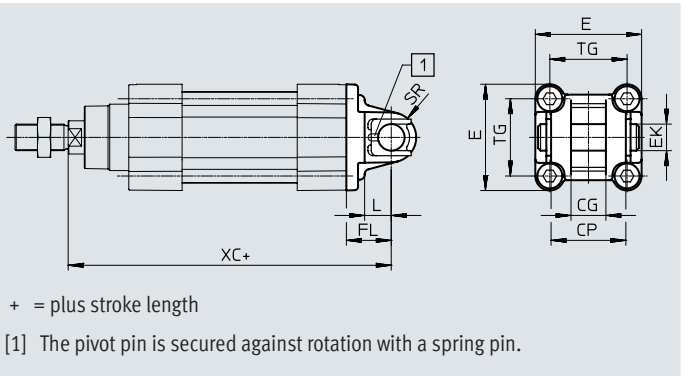
| Dimensions and ordering data |         |         |    |      |      |         |      |      |    |                   |        |          |                 |
|------------------------------|---------|---------|----|------|------|---------|------|------|----|-------------------|--------|----------|-----------------|
| For Ø                        | CR<br>Ø | FK<br>Ø | FN | FS   | H1   | HB<br>Ø | NH   | TH   | UL | CRC <sup>1)</sup> | Weight | Part no. | Type            |
| [mm]                         | D11     | ±0.1    |    |      |      | H13     |      | ±0.2 |    |                   | [g]    |          |                 |
| 32                           | 12      | 15      | 30 | 10.5 | 15   | 6.6     | 18   | 32   | 46 | 4                 | 205    | 161874   | CRLNZG-32       |
| 40, 50                       | 16      | 18      | 36 | 12   | 18   | 9       | 21   | 36   | 55 | 4                 | 323    | 161875   | CRLNZG-4 0/50   |
| 63, 80                       | 20      | 20      | 40 | 13   | 20   | 11      | 23   | 42   | 65 | 4                 | 435    | 161876   | CRLNZG-6 3/80   |
| 100, 125                     | 25      | 25      | 50 | 16   | 24.5 | 14      | 28.5 | 50   | 75 | 4                 | 739    | 161877   | CRLNZG-10 0/125 |

1) More information [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

Accessories

Swivel flange SNC

Material:  
Die-cast aluminium  
RoHS-compliant



+ = plus stroke length  
[1] The pivot pin is secured against rotation with a spring pin.

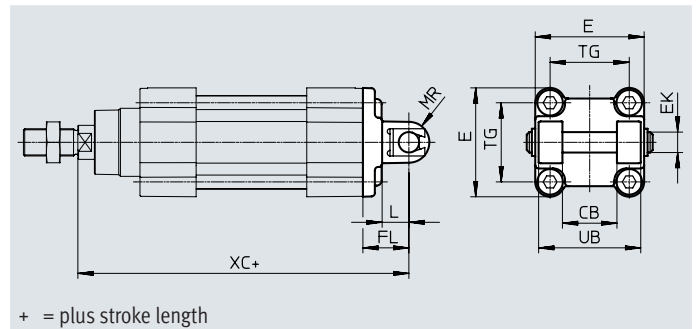
| Dimensions and ordering data |     |     |              |         |      |    |    |      |       |                   |        |          |                    |
|------------------------------|-----|-----|--------------|---------|------|----|----|------|-------|-------------------|--------|----------|--------------------|
| For Ø                        | CG  | CP  | E            | EK<br>Ø | FL   | L  | SR | TG   | XC    | CRC <sup>1)</sup> | Weight | Part no. | Type <sup>2)</sup> |
| [mm]                         | H14 | h14 |              | H9      | ±0.2 |    |    |      |       |                   | [g]    |          |                    |
| 32                           | 14  | 34  | 45+0.2/-0.5  | 10      | 22   | 13 | 10 | 32.5 | 141.1 | 1                 | 93     | 174383   | SNC-32             |
| 40                           | 16  | 40  | 54-0.5       | 12      | 25   | 16 | 12 | 38   | 158.9 | 1                 | 140    | 174384   | SNC-40             |
| 50                           | 21  | 45  | 64-0.6       | 16      | 27   | 16 | 12 | 46.5 | 168.8 | 1                 | 234    | 174385   | SNC-50             |
| 63                           | 21  | 51  | 75-0.6       | 16      | 32   | 21 | 16 | 56.5 | 189.1 | 1                 | 331    | 174386   | SNC-63             |
| 80                           | 25  | 65  | 93-0.8       | 20      | 36   | 22 | 16 | 72   | 209.6 | 1                 | 618    | 174387   | SNC-80             |
| 100                          | 25  | 75  | 110+0.3/-0.8 | 20      | 41   | 27 | 20 | 89   | 228.5 | 1                 | 865    | 174388   | SNC-100            |
| 125                          | 37  | 97  | 131-0.8      | 30      | 50   | 30 | 25 | 110  | 275   | 1                 | 1728   | 174389   | SNC-125            |

1) More information [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)  
2) Suitable for ATEX

## Accessories

### Swivel flange SNCB/SNCB-...-R3

Material:  
SNCB: Die-cast aluminium  
SNCB-...-R3: Die-cast aluminium with  
protective coating  
RoHS-compliant



#### Dimensions and ordering data

| For Ø | CB  | E                        | EK<br>Ø | FL   | L  | MR   | TG   | UB  | XC    |
|-------|-----|--------------------------|---------|------|----|------|------|-----|-------|
| [mm]  | H14 |                          | H9/e8   | ±0.2 |    | -0.5 |      | h14 |       |
| 32    | 26  | 45 <sup>+0.2/-0.5</sup>  | 10      | 22   | 13 | 8.5  | 32.5 | 45  | 141.1 |
| 40    | 28  | 54 <sup>-0.5</sup>       | 12      | 25   | 16 | 12   | 38   | 52  | 158.9 |
| 50    | 32  | 64 <sup>-0.6</sup>       | 12      | 27   | 16 | 12   | 46.5 | 60  | 168.8 |
| 63    | 40  | 75 <sup>-0.6</sup>       | 16      | 32   | 21 | 16   | 56.5 | 70  | 189.1 |
| 80    | 50  | 93 <sup>-0.8</sup>       | 16      | 36   | 22 | 16   | 72   | 90  | 209.6 |
| 100   | 60  | 110 <sup>+0.3/-0.8</sup> | 20      | 41   | 27 | 20   | 89   | 110 | 228.5 |
| 125   | 70  | 131 <sup>-0.8</sup>      | 25      | 50   | 30 | 25   | 110  | 130 | 275   |

| For Ø<br>[mm] | Basic version     |               |          |          | R3 – High corrosion protection |               |          |             |
|---------------|-------------------|---------------|----------|----------|--------------------------------|---------------|----------|-------------|
|               | CRC <sup>1)</sup> | Weight<br>[g] | Part no. | Type     | CRC <sup>1)</sup>              | Weight<br>[g] | Part no. | Type        |
| 32            | 1                 | 103           | 174390   | SNCB-32  | 3                              | 100           | 176944   | SNCB-32-R3  |
| 40            | 1                 | 155           | 174391   | SNCB-40  | 3                              | 151           | 176945   | SNCB-40-R3  |
| 50            | 1                 | 232           | 174392   | SNCB-50  | 3                              | 228           | 176946   | SNCB-50-R3  |
| 63            | 1                 | 375           | 174393   | SNCB-63  | 3                              | 371           | 176947   | SNCB-63-R3  |
| 80            | 1                 | 636           | 174394   | SNCB-80  | 3                              | 632           | 176948   | SNCB-80-R3  |
| 100           | 1                 | 1035          | 174395   | SNCB-100 | 3                              | 986           | 176949   | SNCB-100-R3 |
| 125           | 1                 | 1860          | 174396   | SNCB-125 | 3                              | 1776          | 176950   | SNCB-125-R3 |

1) More information [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

## Accessories

## Swivel flange

SNCS/CRSNCS/SNCS-...-R3

Material:

SNCS 32 ... 50:

Die-cast aluminium

SNCS 63 ... 125:

Wrought aluminium alloy

CRSNCS 32 ... 80:

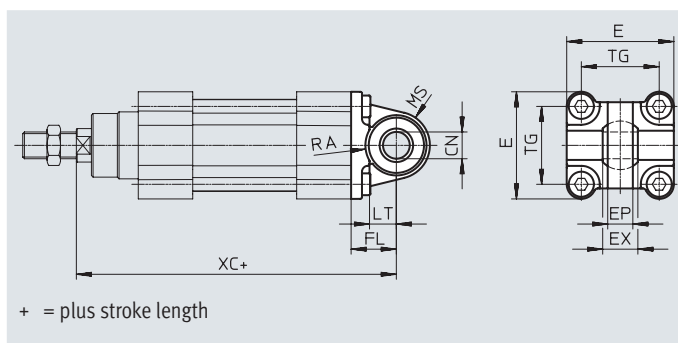
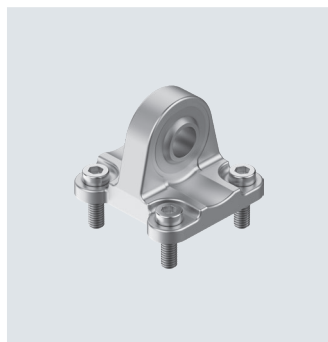
High-alloy stainless steel

SNCS-...-R3 100 ... 125:

Wrought aluminium alloy with protect-

ive coating

RoHS-compliant



## Dimensions and ordering data

| For Ø | CN<br>Ø              |                | E                  |                    | EP   | EX | FL   |
|-------|----------------------|----------------|--------------------|--------------------|------|----|------|
| [mm]  | DSBG-...             | DSBG-...-R3    | DSBG-...           | DSBG-...-R3        | ±0.2 |    | ±0.2 |
| 32    | 10 <sup>+0.013</sup> | 10+0.015/-0.04 | 45+0.2/-0.5        | 45-0.5             | 10.5 | 14 | 22   |
| 40    | 12 <sup>+0.015</sup> | 12+0.018/-0.04 | 54 <sup>-0.5</sup> | 54 <sup>-0.5</sup> | 12   | 16 | 25   |
| 50    | 16 <sup>+0.015</sup> | 16+0.018/-0.04 | 64 <sup>-0.6</sup> | 64 <sup>-0.6</sup> | 15   | 21 | 27   |
| 63    | 16 <sup>+0.015</sup> | 16+0.018/-0.04 | 74.5±0.5           | 75 <sup>-0.6</sup> | 15   | 21 | 32   |
| 80    | 20 <sup>+0.018</sup> | 20+0.021/-0.04 | 92.2±0.8           | 93 <sup>-0.8</sup> | 18   | 25 | 36   |
| 100   | 20 <sup>+0.018</sup> | 20+0.021/-0.04 | 109+1/-0.7         | 109+1/-0.7         | 18   | 25 | 41   |
| 125   | 30 <sup>+0.018</sup> | 30+0.021/-0.04 | 132+1/-0.7         | 132+1/-0.7         | 25   | 37 | 50   |

| For Ø | LT | MS                 |                    | RA         |                   | TG   | XC    |
|-------|----|--------------------|--------------------|------------|-------------------|------|-------|
| [mm]  |    | DSBG               | DSBG-...-R3        | DSBG<br>+1 | DSBG-...-R3<br>+1 |      |       |
| 32    | 13 | 15 <sup>+0.5</sup> | 15 <sup>+0.5</sup> | 14.5       | 14.5              | 32.5 | 141.1 |
| 40    | 16 | 17 <sup>+0.5</sup> | 17 <sup>+0.5</sup> | 17.5       | 17.5              | 38   | 158.9 |
| 50    | 16 | 20 <sup>+0.5</sup> | 20 <sup>+0.5</sup> | 18.5       | 19                | 46.5 | 168.8 |
| 63    | 21 | 23 <sup>-0.5</sup> | 22 <sup>+0.5</sup> | 23         | 23                | 56.5 | 189.1 |
| 80    | 22 | 28 <sup>-0.5</sup> | 27 <sup>+0.5</sup> | 25         | 25                | 72   | 209.6 |
| 100   | 27 | 30±0.5             | 30±0.5             | 95         | 100               | 89   | 228.5 |
| 125   | 30 | 39±0.5             | 39±0.5             | 100        | 100               | 110  | 275   |

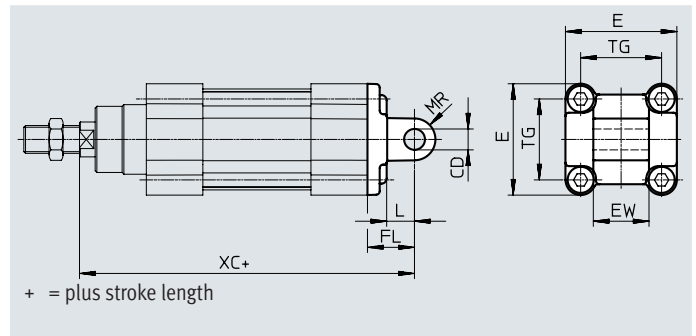
| For Ø<br>[mm] | Basic version     |               |          |          | High corrosion protection |               |          |             |
|---------------|-------------------|---------------|----------|----------|---------------------------|---------------|----------|-------------|
|               | CRC <sup>1)</sup> | Weight<br>[g] | Part no. | Type     | CRC <sup>1)</sup>         | Weight<br>[g] | Part no. | Type        |
| 32            | 1                 | 86            | 174397   | SNCS-32  | 4                         | 161           | 2895920  | CRSNCS-32   |
| 40            | 1                 | 122           | 174398   | SNCS-40  | 4                         | 239           | 2895921  | CRSNCS-40   |
| 50            | 1                 | 216           | 174399   | SNCS-50  | 4                         | 403           | 2895922  | CRSNCS-50   |
| 63            | 2                 | 281           | 174400   | SNCS-63  | 4                         | 576           | 2895923  | CRSNCS-63   |
| 80            | 2                 | 557           | 174401   | SNCS-80  | 4                         | 1173          | 2895924  | CRSNCS-80   |
| 100           | 2                 | 683           | 174402   | SNCS-100 | 3                         | 684           | 2895925  | SNCS-100-R3 |
| 125           | 2                 | 1369          | 174403   | SNCS-125 | 3                         | 1369          | 2895926  | SNCS-125-R3 |

1) More information [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

## Accessories

### Swivel flange SNCL

Material:  
Die-cast aluminium  
RoHS-compliant



#### Dimensions and ordering data

| For Ø | CD<br>Ø<br>H9 | E                        | EW | FL<br>±0.2 | L  | MR | TG   | XC    | CRC <sup>1)</sup> | Weight<br>[g] | Part no. | Type     |
|-------|---------------|--------------------------|----|------------|----|----|------|-------|-------------------|---------------|----------|----------|
| 32    | 10            | 45 <sup>+0.2/-0.5</sup>  | 26 | 22         | 13 | 10 | 32.5 | 141.1 | 1                 | 71            | 174404   | SNCL-32  |
| 40    | 12            | 54 <sup>+0.5</sup>       | 28 | 25         | 16 | 12 | 38   | 158.9 | 1                 | 95            | 174405   | SNCL-40  |
| 50    | 12            | 64 <sup>+0.6</sup>       | 32 | 27         | 16 | 12 | 46.5 | 168.8 | 1                 | 158           | 174406   | SNCL-50  |
| 63    | 16            | 75 <sup>+0.6</sup>       | 40 | 32         | 21 | 16 | 56.5 | 189.1 | 1                 | 225           | 174407   | SNCL-63  |
| 80    | 16            | 93 <sup>+0.8</sup>       | 50 | 36         | 22 | 16 | 72   | 209.6 | 1                 | 436           | 174408   | SNCL-80  |
| 100   | 20            | 110 <sup>+0.3/-0.8</sup> | 60 | 41         | 27 | 20 | 89   | 228.5 | 1                 | 606           | 174409   | SNCL-100 |
| 125   | 25            | 131 <sup>+0.8</sup>      | 70 | 50         | 30 | 25 | 110  | 275   | 1                 | 1135          | 174410   | SNCL-125 |

1) More information [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

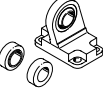
## Accessories

## Ordering data – Mounting components

| Designation                                                                      | For Ø | Part no. | Type     |
|----------------------------------------------------------------------------------|-------|----------|----------|
| Clevis foot LNG                                                                  |       |          |          |
|  | 32    | 33890    | LNG-32   |
|                                                                                  | 40    | 33891    | LNG-40   |
|                                                                                  | 50    | 33892    | LNG-50   |
|                                                                                  | 63    | 33893    | LNG-63   |
|                                                                                  | 80    | 33894    | LNG-80   |
|                                                                                  | 100   | 33895    | LNG-100  |
|                                                                                  | 125   | 33896    | LNG-125  |
| Clevis foot LSNG                                                                 |       |          |          |
|  | 32    | 31740    | LSNG-32  |
|                                                                                  | 40    | 31741    | LSNG-40  |
|                                                                                  | 50    | 31742    | LSNG-50  |
|                                                                                  | 63    | 31743    | LSNG-63  |
|                                                                                  | 80    | 31744    | LSNG-80  |
|                                                                                  | 100   | 31745    | LSNG-100 |
|                                                                                  | 125   | 31746    | LSNG-125 |
| Clevis foot LBG <sup>1)</sup>                                                    |       |          |          |
|  | 32    | 31761    | LBG-32   |
|                                                                                  | 40    | 31762    | LBG-40   |
|                                                                                  | 50    | 31763    | LBG-50   |
|                                                                                  | 63    | 31764    | LBG-63   |
|                                                                                  | 80    | 31765    | LBG-80   |
|                                                                                  | 100   | 31766    | LBG-100  |
|                                                                                  | 125   | 31767    | LBG-125  |

1) Suitable for ATEX

Datasheets → Internet: clevis foot

| Designation                                                                       | For Ø | Part no. | Type      |
|-----------------------------------------------------------------------------------|-------|----------|-----------|
| Clevis foot LSN                                                                   |       |          |           |
|  | 32    | 5561     | LSN-32    |
|                                                                                   | 40    | 5562     | LSN-40    |
|                                                                                   | 50    | 5563     | LSN-50    |
|                                                                                   | 63    | 5564     | LSN-63    |
|                                                                                   | 80    | 5565     | LSN-80    |
|                                                                                   | 100   | 5566     | LSN-100   |
|                                                                                   | 125   | 6987     | LSN-125   |
| Clevis foot LSNSG                                                                 |       |          |           |
|  | 32    | 31747    | LSNSG-32  |
|                                                                                   | 40    | 31748    | LSNSG-40  |
|                                                                                   | 50    | 31749    | LSNSG-50  |
|                                                                                   | 63    | 31750    | LSNSG-63  |
|                                                                                   | 80    | 31751    | LSNSG-80  |
|                                                                                   | 100   | 31752    | LSNSG-100 |
|                                                                                   | 125   | 31753    | LSNSG-125 |
| Right-angle clevis foot LQG <sup>1)</sup>                                         |       |          |           |
|  | 32    | 31768    | LQG-32    |
|                                                                                   | 40    | 31769    | LQG-40    |
|                                                                                   | 50    | 31770    | LQG-50    |
|                                                                                   | 63    | 31771    | LQG-63    |
|                                                                                   | 80    | 31772    | LQG-80    |
|                                                                                   | 100   | 31773    | LQG-100   |
|                                                                                   | 125   | 31774    | LQG-125   |

## Ordering data – Mounting components, corrosion-resistant

Datasheets → Internet: crlng

| Designation                                                                        | For Ø | Part no. | Type      |
|------------------------------------------------------------------------------------|-------|----------|-----------|
| Clevis foot CRLNG                                                                  |       |          |           |
|  | 32    | 161840   | CRLNG-32  |
|                                                                                    | 40    | 161841   | CRLNG-40  |
|                                                                                    | 50    | 161842   | CRLNG-50  |
|                                                                                    | 63    | 161843   | CRLNG-63  |
|                                                                                    | 80    | 161844   | CRLNG-80  |
|                                                                                    | 100   | 161845   | CRLNG-100 |
|                                                                                    | 125   | 176951   | CRLNG-125 |

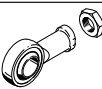
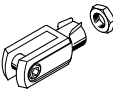
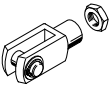
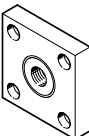
## Ordering data – Mounting components, high corrosion protection

Datasheets → Internet: clevis foot

| Designation                                                                        | For Ø | Part no. | Type       |
|------------------------------------------------------------------------------------|-------|----------|------------|
| Clevis foot LBG-R3                                                                 |       |          |            |
|  | 32    | 2078790  | LBG-32-R3  |
|                                                                                    | 40    | 2078792  | LBG-40-R3  |
|                                                                                    | 50    | 2078794  | LBG-50-R3  |
|                                                                                    | 63    | 2078795  | LBG-63-R3  |
|                                                                                    | 80    | 2078797  | LBG-80-R3  |
|                                                                                    | 100   | 2078799  | LBG-100-R3 |
|                                                                                    | 125   | 2078837  | LBG-125-R3 |

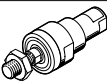
## Accessories

## Ordering data – Piston rod attachments

| Designation                                                                        | For Ø | Part no. | Type         |
|------------------------------------------------------------------------------------|-------|----------|--------------|
| Rod eye SGS                                                                        |       |          |              |
|   | 32    | 9261     | SGS-M10x1.25 |
|                                                                                    | 40    | 9262     | SGS-M12x1.25 |
|                                                                                    | 50    | 9263     | SGS-M16x1.5  |
|                                                                                    | 63    |          |              |
|                                                                                    | 80    | 9264     | SGS-M20x1.5  |
|                                                                                    | 100   |          |              |
|                                                                                    | 125   | 10774    | SGS-M27x2    |
| Rod clevis SG <sup>1)</sup>                                                        |       |          |              |
|   | 32    | 6144     | SG-M10x1.25  |
|                                                                                    | 40    | 6145     | SG-M12x1.25  |
|                                                                                    | 50    | 6146     | SG-M16x1.5   |
|                                                                                    | 63    |          |              |
|   | 80    | 6147     | SG-M20x1.5   |
|                                                                                    | 100   |          |              |
|                                                                                    | 125   | 14987    | SG-M27x2-B   |
| Coupling piece KSG <sup>1)</sup>                                                   |       |          |              |
|  | 32    | 32963    | KSG-M10x1.25 |
|                                                                                    | 40    | 32964    | KSG-M12x1.25 |
|                                                                                    | 50    | 32965    | KSG-M16x1.5  |
|                                                                                    | 63    |          |              |
|                                                                                    | 80    | 32966    | KSG-M20x1.5  |
|                                                                                    | 100   |          |              |
|                                                                                    | 125   | 32967    | KSG-M27x2    |

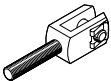
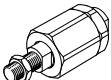
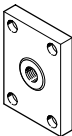
1) Suitable for ATEX

## Ordering data – Piston rod attachments, corrosion-resistant

| Designation                                                                         | For Ø | Part no. | Type           |
|-------------------------------------------------------------------------------------|-------|----------|----------------|
| Rod eye CRSGS                                                                       |       |          |                |
|  | 32    | 195582   | CRSGS-M10x1.25 |
|                                                                                     | 40    | 195583   | CRSGS-M12x1.25 |
|                                                                                     | 50    | 195584   | CRSGS-M16x1.5  |
|                                                                                     | 63    |          |                |
|                                                                                     | 80    |          |                |
|                                                                                     | 100   | 195585   | CRSGS-M20x1.5  |
|                                                                                     | 125   |          |                |
| Self-aligning rod coupler CRFK <sup>1)</sup>                                        |       |          |                |
|  | 32    | 2305778  | CRFK-M10x1.25  |
|                                                                                     | 40    | 2305779  | CRFK-M12x1.25  |
|                                                                                     | 50    | 2490673  | CRFK-M16x1.5   |
|                                                                                     | 63    |          |                |
|                                                                                     | 80    |          |                |
|                                                                                     | 100   | 2545677  | CRFK-M20x1.5   |
|                                                                                     | 125   |          |                |

1) Suitable for ATEX

Datasheets → Internet: piston rod attachment

| Designation                                                                        | For Ø | Part no. | Type         |
|------------------------------------------------------------------------------------|-------|----------|--------------|
| Rod clevis SGA <sup>1)</sup>                                                       |       |          |              |
|   | 32    | 32954    | SGA-M10x1.25 |
|                                                                                    | 40    | 10767    | SGA-M12x1.25 |
|                                                                                    | 50    | 10768    | SGA-M16x1.5  |
|                                                                                    | 63    |          |              |
|                                                                                    | 80    | 10769    | SGA-M20x1.5  |
|                                                                                    | 100   |          |              |
|                                                                                    | 125   | 10770    | SGA-M27x2    |
| Self-aligning rod coupler FK <sup>1)</sup>                                         |       |          |              |
|   | 32    | 6140     | FK-M10x1.25  |
|                                                                                    | 40    | 6141     | FK-M12x1.25  |
|                                                                                    | 50    | 6142     | FK-M16x1.5   |
|                                                                                    | 63    |          |              |
|                                                                                    | 80    | 6143     | FK-M20x1.5   |
|                                                                                    | 100   |          |              |
|                                                                                    | 125   | 10485    | FK-M27x2     |
| Coupling piece KSZ <sup>1)</sup>                                                   |       |          |              |
|  | 32    | 36125    | KSZ-M10x1.25 |
|                                                                                    | 40    | 36126    | KSZ-M12x1.25 |
|                                                                                    | 50    | 36127    | KSZ-M16x1.5  |
|                                                                                    | 63    |          |              |
|                                                                                    | 80    | 36128    | KSZ-M20x1.5  |
|                                                                                    | 100   |          |              |
|                                                                                    | 125   | —        | —            |

## Accessories

## Bellows kit DADB



| General technical data                          |      | 32                                                                | 40         | 50         | 63         | 80         | 100        |
|-------------------------------------------------|------|-------------------------------------------------------------------|------------|------------|------------|------------|------------|
| Type DADB-V6-                                   |      |                                                                   |            |            |            |            |            |
| Max. stroke range of the cylinder <sup>1)</sup> | [mm] | 10 ... 500                                                        | 10 ... 500 | 10 ... 500 | 10 ... 500 | 10 ... 500 | 10 ... 500 |
| Type of mounting                                |      | Via threaded pin                                                  |            |            |            |            |            |
| Mounting position                               |      | Any                                                               |            |            |            |            |            |
| Media resistance                                |      | Dust, chippings, oil, grease, fuel (→ Internet: media resistance) |            |            |            |            |            |
| Ambient temperature <sup>2)</sup>               | [°C] | -10 ... +80                                                       |            |            |            |            |            |
| Degree of protection                            |      | IP54                                                              |            |            |            |            |            |
| Corrosion resistance class CRC <sup>3)</sup>    |      | 3 - High corrosion stress                                         |            |            |            |            |            |

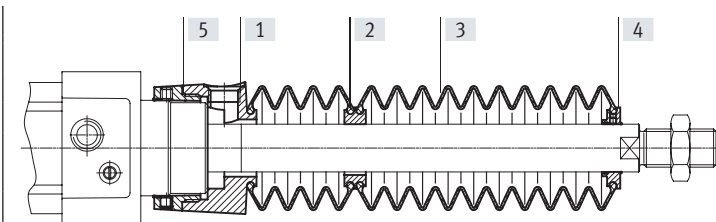
1) In conjunction with the bellows kit DADB

2) Note operating range of proximity switches and cylinder

3) More information [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

## Materials

## Sectional view

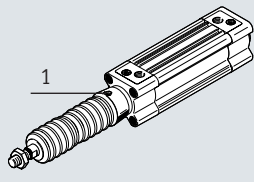


## Bellows

|                   |                    |                |
|-------------------|--------------------|----------------|
| [1]               | Connection         | Polyamide      |
| [2]               | Intermediate piece | Polyamide      |
| [3]               | Bellows            | NBR            |
| [4]               | End piece          | Polyamide      |
| [5]               | Connector          | Polyamide      |
| -                 | O-ring             | NBR            |
| Note on materials |                    | RoHS-compliant |

| Weight [g]    |  | 32  | 40  | 50  | 63  | 80  | 100 |
|---------------|--|-----|-----|-----|-----|-----|-----|
| Type DADB-V6- |  |     |     |     |     |     |     |
| Stroke [mm]   |  |     |     |     |     |     |     |
| 10 ... 50     |  | 29  | 42  | 71  | 69  | 99  | 124 |
| 51 ... 125    |  | 41  | 56  | 91  | 89  | 127 | 152 |
| 126 ... 175   |  | 52  | 68  | 105 | 103 | 140 | 165 |
| 176 ... 250   |  | 66  | 85  | 129 | 127 | 193 | 218 |
| 251 ... 300   |  | 79  | 100 | 147 | 145 | 231 | 255 |
| 301 ... 350   |  | 92  | 115 | 166 | 164 | 268 | 293 |
| 351 ... 375   |  | 92  | 115 | 167 | 165 | 259 | 284 |
| 376 ... 425   |  | 104 | 129 | 185 | 183 | 296 | 321 |
| 426 ... 475   |  | 117 | 144 | 204 | 202 | 334 | 359 |
| 476 ... 500   |  | 117 | 144 | 205 | 203 | 324 | 349 |

## Accessories

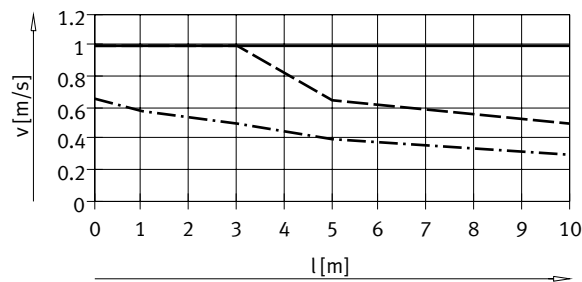
Travel speed  $v$  as a function of tubing length  $l$ 

The bellows kit is a leak-free system. To prevent unwanted media from being drawn in, the supply and exhaust air for the kit must be ducted via a pressure

compensation hole in the connection part [1]. The pressure generated in the bellows kit by the positioning motion is primarily defined by the travel speed and the

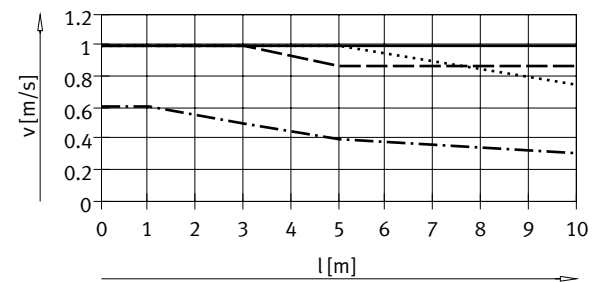
tubing length. The recommended tubing length based on the travel speed of the drive can be read from the graph.

## Advancing

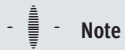


— Ø 32/ 50/63  
- - - Ø 40  
- · - · - Ø 80/100

## Retracting



— Ø 32  
- - - Ø 40  
- · - · - Ø 50/63  
····· Ø 80/100



## Note

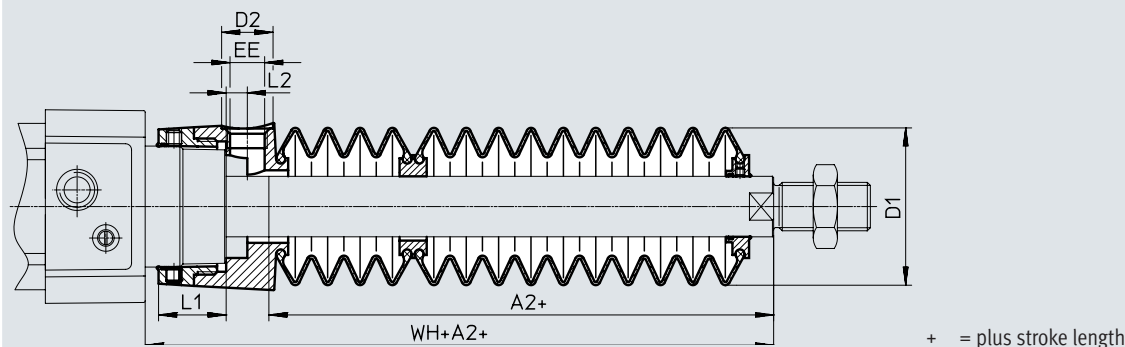
The push-in fittings in the adjacent table must be used for the pressure compensation hole. Silencers can be used as an alternative. This reduces the travel speed slightly.

## Tubing size and push-in fitting for pressure compensation hole

| Ø<br>[mm]       | Tubing O.D.<br>[mm] | Push-in fitting |                    |
|-----------------|---------------------|-----------------|--------------------|
|                 |                     | Part no.        | Type               |
| 32, 40          | 8                   | 186109          | QS-G1/8-8-I        |
|                 |                     | 578376          | NPQH-DK-G18-Q8-P10 |
|                 |                     | 578362          | NPQH-D-G18-S8-P10  |
| 50, 63, 80, 100 | 12                  | 186350          | QS-G1/4-12         |
|                 |                     | 578344          | NPQH-D-G14-Q12-P10 |
|                 |                     | 578366          | NPQH-D-G14-S12-P10 |

## Accessories

## Dimensions

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

| Ø<br>Stroke<br>[mm] | 32               |            |    |      |      |     |       | 40               |            |    |      |      |     |       |
|---------------------|------------------|------------|----|------|------|-----|-------|------------------|------------|----|------|------|-----|-------|
|                     | A2 <sup>1)</sup> | D1<br>max. | D2 | EE   | L1   | L2  | WH+A2 | A2 <sup>1)</sup> | D1<br>max. | D2 | EE   | L1   | L2  | WH+A2 |
| 10 ... 50           | 29               | 38         | 14 | G1/8 | 12.9 | 5.4 | 55    | 28               | 46         | 14 | G1/8 | 16.3 | 5.4 | 56.7  |
| 51 ... 125          | 47               |            |    |      |      |     | 73    | 43               |            |    |      |      |     | 71.7  |
| 126 ... 175         | 61               |            |    |      |      |     | 87    | 56               |            |    |      |      |     | 84.7  |
| 176 ... 250         | 80               |            |    |      |      |     | 106   | 72               |            |    |      |      |     | 100.7 |
| 251 ... 300         | 96               |            |    |      |      |     | 122   | 86               |            |    |      |      |     | 114.7 |
| 301 ... 350         | 112              |            |    |      |      |     | 138   | 100              |            |    |      |      |     | 128.7 |
| 351 ... 375         | 114              |            |    |      |      |     | 140   | 101              |            |    |      |      |     | 129.7 |
| 376 ... 425         | 130              |            |    |      |      |     | 156   | 115              |            |    |      |      |     | 143.7 |
| 426 ... 475         | 145              |            |    |      |      |     | 171   | 130              |            |    |      |      |     | 158.7 |
| 476 ... 500         | 147              |            |    |      |      |     | 173   | 131              |            |    |      |      |     | 159.7 |

| Ø<br>Stroke<br>[mm] | 50               |            |    |      |       |    |       | 63               |            |    |      |      |    |       |
|---------------------|------------------|------------|----|------|-------|----|-------|------------------|------------|----|------|------|----|-------|
|                     | A2 <sup>1)</sup> | D1<br>max. | D2 | EE   | L1    | L2 | WH+A2 | A2 <sup>1)</sup> | D1<br>max. | D2 | EE   | L1   | L2 | WH+A2 |
| 10 ... 50           | 28               | 57         | 17 | G1/4 | 22.35 | 7  | 63.6  | 28               | 57         | 17 | G1/4 | 22.4 | 7  | 63.9  |
| 51 ... 125          | 46               |            |    |      |       |    | 81.6  | 46               |            |    |      |      |    | 81.9  |
| 126 ... 175         | 56               |            |    |      |       |    | 91.6  | 56               |            |    |      |      |    | 91.9  |
| 176 ... 250         | 73               |            |    |      |       |    | 108.6 | 73               |            |    |      |      |    | 108.9 |
| 251 ... 300         | 86               |            |    |      |       |    | 121.6 | 86               |            |    |      |      |    | 121.9 |
| 301 ... 350         | 97               |            |    |      |       |    | 132.6 | 97               |            |    |      |      |    | 132.9 |
| 351 ... 375         | 105              |            |    |      |       |    | 140.6 | 105              |            |    |      |      |    | 140.9 |
| 376 ... 425         | 116              |            |    |      |       |    | 151.6 | 116              |            |    |      |      |    | 151.9 |
| 426 ... 475         | 126              |            |    |      |       |    | 161.6 | 126              |            |    |      |      |    | 161.9 |
| 476 ... 500         | 134              |            |    |      |       |    | 169.6 | 134              |            |    |      |      |    | 169.9 |

| Ø<br>Stroke<br>[mm] | 80               |            |    |      |    |    |       | 100              |            |    |      |    |    |       |
|---------------------|------------------|------------|----|------|----|----|-------|------------------|------------|----|------|----|----|-------|
|                     | A2 <sup>1)</sup> | D1<br>max. | D2 | EE   | L1 | L2 | WH+A2 | A2 <sup>1)</sup> | D1<br>max. | D2 | EE   | L1 | L2 | WH+A2 |
| 10 ... 50           | 25               | 93         | 17 | G1/4 | 28 | 4  | 70.4  | 25               | 93         | 17 | G1/4 | 28 | 4  | 74.3  |
| 51 ... 125          | 37               |            |    |      |    |    | 82.4  | 37               |            |    |      |    |    | 86.3  |
| 126 ... 175         | 49               |            |    |      |    |    | 94.4  | 49               |            |    |      |    |    | 98.3  |
| 176 ... 250         | 62               |            |    |      |    |    | 107.4 | 62               |            |    |      |    |    | 111.3 |
| 251 ... 300         | 74               |            |    |      |    |    | 119.4 | 74               |            |    |      |    |    | 123.3 |
| 301 ... 350         | 86               |            |    |      |    |    | 131.4 | 86               |            |    |      |    |    | 135.3 |
| 351 ... 375         | 87               |            |    |      |    |    | 132.4 | 87               |            |    |      |    |    | 136.3 |
| 376 ... 425         | 98               |            |    |      |    |    | 143.4 | 98               |            |    |      |    |    | 147.3 |
| 426 ... 475         | 110              |            |    |      |    |    | 155.4 | 110              |            |    |      |    |    | 159.3 |
| 476 ... 500         | 111              |            |    |      |    |    | 156.4 | 111              |            |    |      |    |    | 160.3 |

1) The dimension corresponds to the E value (piston rod extension) of the drive

## Accessories

## Ordering data – Bellows kit

An extended piston rod (order code E) is absolutely essential when using a bellows kit → Ordering data – Modular product system.

The necessary dimension for order code E as a function of piston Ø and cylinder stroke as well as the corresponding bellows kit is indicated in the table below:

## Order example:

Selected standards-based cylinder:

DSBG-32-320-PPV-A-...

The dimension for the corresponding E value (see table):  
112 mm

Complete order reference for standards-based cylinder:

DSBG-32-320-PPV-A-...-112E

The corresponding bellows kit:

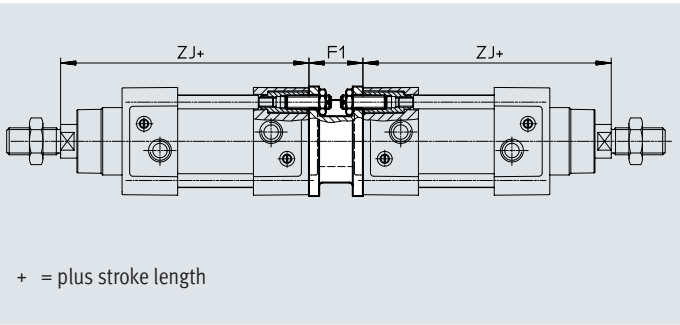
DADB-V6-32-S301-350

| Cylinder data |             |                 | Bellows kit |                      |
|---------------|-------------|-----------------|-------------|----------------------|
| Ø             | Stroke      | Dimension for E | Part no.    | Type                 |
| [mm]          | [mm]        | [mm]            |             |                      |
| 32            | 10 ... 50   | 29              | 553271      | DADB-V6-32-S10-50    |
|               | 51 ... 125  | 47              | 553273      | DADB-V6-32-S51-125   |
|               | 126 ... 175 | 61              | 553275      | DADB-V6-32-S126-175  |
|               | 176 ... 250 | 80              | 553277      | DADB-V6-32-S176-250  |
|               | 251 ... 300 | 96              | 553279      | DADB-V6-32-S251-300  |
|               | 301 ... 350 | 112             | 553281      | DADB-V6-32-S301-350  |
|               | 351 ... 375 | 114             | 553283      | DADB-V6-32-S351-375  |
|               | 376 ... 425 | 130             | 553285      | DADB-V6-32-S376-425  |
|               | 426 ... 475 | 145             | 553287      | DADB-V6-32-S426-475  |
|               | 476 ... 500 | 147             | 553289      | DADB-V6-32-S476-500  |
| 50            | 10 ... 50   | 28              | 553311      | DADB-V6-50-S10-50    |
|               | 51 ... 125  | 46              | 553313      | DADB-V6-50-S51-125   |
|               | 126 ... 175 | 56              | 553315      | DADB-V6-50-S126-175  |
|               | 176 ... 250 | 73              | 553317      | DADB-V6-50-S176-250  |
|               | 251 ... 300 | 86              | 553319      | DADB-V6-50-S251-300  |
|               | 301 ... 350 | 97              | 553321      | DADB-V6-50-S301-350  |
|               | 351 ... 375 | 105             | 553323      | DADB-V6-50-S351-375  |
|               | 376 ... 425 | 116             | 553325      | DADB-V6-50-S376-425  |
|               | 426 ... 475 | 126             | 553327      | DADB-V6-50-S426-475  |
|               | 476 ... 500 | 134             | 553329      | DADB-V6-50-S476-500  |
| 80            | 10 ... 50   | 25              | 553351      | DADB-V6-80-S10-50    |
|               | 51 ... 125  | 37              | 553353      | DADB-V6-80-S51-125   |
|               | 126 ... 175 | 49              | 553355      | DADB-V6-80-S126-175  |
|               | 176 ... 250 | 62              | 553357      | DADB-V6-80-S176-250  |
|               | 251 ... 300 | 74              | 553359      | DADB-V6-80-S251-300  |
|               | 301 ... 350 | 86              | 553361      | DADB-V6-80-S301-350  |
|               | 351 ... 375 | 87              | 553363      | DADB-V6-80-S351-375  |
|               | 376 ... 425 | 98              | 553365      | DADB-V6-80-S376-425  |
|               | 426 ... 475 | 110             | 553367      | DADB-V6-80-S426-475  |
|               | 476 ... 500 | 111             | 553369      | DADB-V6-80-S476-500  |
| 100           | 10 ... 50   | 25              | 553371      | DADB-V6-100-S10-50   |
|               | 51 ... 125  | 37              | 553373      | DADB-V6-100-S51-125  |
|               | 126 ... 175 | 49              | 553375      | DADB-V6-100-S126-175 |
|               | 176 ... 250 | 62              | 553377      | DADB-V6-100-S176-250 |
|               | 251 ... 300 | 74              | 553379      | DADB-V6-100-S251-300 |
|               | 301 ... 350 | 86              | 553381      | DADB-V6-100-S301-350 |
|               | 351 ... 375 | 87              | 553383      | DADB-V6-100-S351-375 |
|               | 376 ... 425 | 98              | 553385      | DADB-V6-100-S376-425 |
|               | 426 ... 475 | 110             | 553387      | DADB-V6-100-S426-475 |
|               | 476 ... 500 | 111             | 553389      | DADB-V6-100-S476-500 |
| 40            | 10 ... 50   | 28              | 553291      | DADB-V6-40-S10-50    |
|               | 51 ... 125  | 43              | 553293      | DADB-V6-40-S51-125   |
|               | 126 ... 175 | 56              | 553295      | DADB-V6-40-S126-175  |
|               | 176 ... 250 | 72              | 553297      | DADB-V6-40-S176-250  |
|               | 251 ... 300 | 86              | 553399      | DADB-V6-40-S251-300  |
|               | 301 ... 350 | 100             | 553301      | DADB-V6-40-S301-350  |
|               | 351 ... 375 | 101             | 553303      | DADB-V6-40-S351-375  |
|               | 376 ... 425 | 115             | 553305      | DADB-V6-40-S376-425  |
|               | 426 ... 475 | 130             | 553307      | DADB-V6-40-S426-475  |
|               | 476 ... 500 | 131             | 553309      | DADB-V6-40-S476-500  |
| 63            | 10 ... 50   | 28              | 553331      | DADB-V6-63-S10-50    |
|               | 51 ... 125  | 46              | 553333      | DADB-V6-63-S51-125   |
|               | 126 ... 175 | 56              | 553335      | DADB-V6-63-S126-175  |
|               | 176 ... 250 | 73              | 553337      | DADB-V6-63-S176-250  |
|               | 251 ... 300 | 86              | 553339      | DADB-V6-63-S251-300  |
|               | 301 ... 350 | 97              | 553341      | DADB-V6-63-S301-350  |
|               | 351 ... 375 | 105             | 553343      | DADB-V6-63-S351-375  |
|               | 376 ... 425 | 116             | 553345      | DADB-V6-63-S376-425  |
|               | 426 ... 475 | 126             | 553347      | DADB-V6-63-S426-475  |
|               | 476 ... 500 | 134             | 553349      | DADB-V6-63-S476-500  |

Accessories

Multi-position kit DPNC

Material:  
Flange: Wrought aluminium alloy  
Threaded pins, hex nuts: Galvanised steel





**Note**

The maximum total stroke length must not be exceeded when combining cylinders and multi-position kits.

| Dimensions and ordering data |    |       |                   |        |          |                    |
|------------------------------|----|-------|-------------------|--------|----------|--------------------|
| For Ø                        | F1 | ZJ    | Max. Total stroke | Weight | Part no. | Type <sup>1)</sup> |
| [mm]                         |    | +1.8  | [mm]              | [g]    |          |                    |
| 32                           | 27 | 119.1 | 500               | 249    | 174418   | DPNC-32            |
| 40                           | 27 | 133.9 | 800               | 343    | 174419   | DPNC-40            |
| 50                           | 32 | 141.8 | 800               | 332    | 174420   | DPNC-50            |
| 63                           | 28 | 157.1 | 700               | 387    | 174421   | DPNC-63            |
| 80                           | 38 | 173.6 | 1000              | 840    | 174422   | DPNC-80            |
| 100                          | 38 | 187.5 | 900               | 1194   | 174423   | DPNC-100           |
| 125                          | 48 | 225   | 1000              | 2090   | 174424   | DPNC-125           |

1) Suitable for ATEX

Connecting two cylinders with identical piston diameters to form a 3- or 4-position cylinder

A 3- or 4-position cylinder consists of two separate cylinders whose piston rods advance in opposite directions.

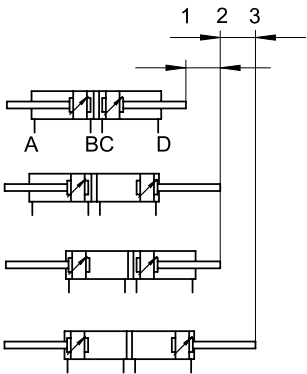
This means that, depending on the actuation and stroke pattern, this type of cylinder can assume up to four positions. In each case the cylinder is moved precisely

against a stop. Note that when one end of the piston rod is fixed, the cylinder barrel

executes the movement. The line connections to the cylinder must be flexible.

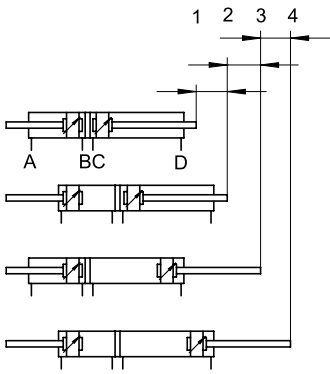
To achieve 3 positions

Two cylinders with the same stroke length must be connected to each other.



To achieve 4 positions

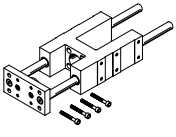
Two cylinders with different stroke lengths must be connected to each other.



## Accessories

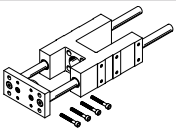
## Ordering data – Guide units for fixed strokes (recirculating ball bearing guide only)

Datasheets → Internet: feng

|                                                                                   | Stroke<br>[mm]     | Part no. | Type <sup>1)</sup> |  | Stroke<br>[mm]      | Part no. | Type <sup>1)</sup> |
|-----------------------------------------------------------------------------------|--------------------|----------|--------------------|--|---------------------|----------|--------------------|
|  | <b>For Ø 32 mm</b> |          |                    |  | <b>For Ø 40 mm</b>  |          |                    |
|                                                                                   | 10 ... 50          | 34493    | FENG-32-50-KF      |  | 10 ... 50           | 34499    | FENG-40-50-KF      |
|                                                                                   | 10 ... 100         | 34494    | FENG-32-100-KF     |  | 10 ... 100          | 34500    | FENG-40-100-KF     |
|                                                                                   | 10 ... 160         | 34495    | FENG-32-160-KF     |  | 10 ... 160          | 34501    | FENG-40-160-KF     |
|                                                                                   | 10 ... 200         | 34496    | FENG-32-200-KF     |  | 10 ... 200          | 34502    | FENG-40-200-KF     |
|                                                                                   | 10 ... 250         | 150289   | FENG-32-250-KF     |  | 10 ... 250          | 34503    | FENG-40-250-KF     |
|                                                                                   | 10 ... 320         | 34497    | FENG-32-320-KF     |  | 10 ... 320          | 34504    | FENG-40-320-KF     |
|                                                                                   | 10 ... 400         | 150290   | FENG-32-400-KF     |  | 10 ... 400          | 150291   | FENG-40-400-KF     |
|                                                                                   | 10 ... 500         | 34498    | FENG-32-500-KF     |  | 10 ... 500          | 34505    | FENG-40-500-KF     |
|                                                                                   | <b>For Ø 50 mm</b> |          |                    |  | <b>For Ø 63 mm</b>  |          |                    |
|                                                                                   | 10 ... 50          | 34506    | FENG-50-50-KF      |  | 10 ... 50           | 34513    | FENG-63-50-KF      |
|                                                                                   | 10 ... 100         | 34507    | FENG-50-100-KF     |  | 10 ... 100          | 34514    | FENG-63-100-KF     |
|                                                                                   | 10 ... 160         | 34508    | FENG-50-160-KF     |  | 10 ... 160          | 34515    | FENG-63-160-KF     |
|                                                                                   | 10 ... 200         | 34509    | FENG-50-200-KF     |  | 10 ... 200          | 34516    | FENG-63-200-KF     |
|                                                                                   | 10 ... 250         | 34510    | FENG-50-250-KF     |  | 10 ... 250          | 34517    | FENG-63-250-KF     |
|                                                                                   | 10 ... 320         | 34511    | FENG-50-320-KF     |  | 10 ... 320          | 34518    | FENG-63-320-KF     |
|                                                                                   | 10 ... 400         | 150292   | FENG-50-400-KF     |  | 10 ... 400          | 34519    | FENG-63-400-KF     |
|                                                                                   | 10 ... 500         | 34512    | FENG-50-500-KF     |  | 10 ... 500          | 34520    | FENG-63-500-KF     |
|                                                                                   | <b>For Ø 80 mm</b> |          |                    |  | <b>For Ø 100 mm</b> |          |                    |
|                                                                                   | 10 ... 50          | 34521    | FENG-80-50-KF      |  | 10 ... 50           | 34529    | FENG-100-50-KF     |
|                                                                                   | 10 ... 100         | 34522    | FENG-80-100-KF     |  | 10 ... 100          | 34530    | FENG-100-100-KF    |
|                                                                                   | 10 ... 160         | 34523    | FENG-80-160-KF     |  | 10 ... 160          | 34531    | FENG-100-160-KF    |
|                                                                                   | 10 ... 200         | 34524    | FENG-80-200-KF     |  | 10 ... 200          | 34532    | FENG-100-200-KF    |
|                                                                                   | 10 ... 250         | 34525    | FENG-80-250-KF     |  | 10 ... 250          | 34533    | FENG-100-250-KF    |
|                                                                                   | 10 ... 320         | 34526    | FENG-80-320-KF     |  | 10 ... 320          | 34534    | FENG-100-320-KF    |
|                                                                                   | 10 ... 400         | 34527    | FENG-80-400-KF     |  | 10 ... 400          | 34535    | FENG-100-400-KF    |
|                                                                                   | 10 ... 500         | 34528    | FENG-80-500-KF     |  | 10 ... 500          | 34536    | FENG-100-500-KF    |

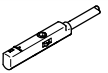
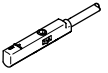
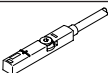
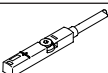
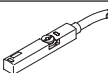
## Ordering data – Guide units for variable strokes

Datasheets → Internet: feng

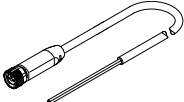
|                                                                                     | For Ø<br>[mm] | Stroke<br>[mm] | With recirculating ball bearing guide |                    | With plain-bearing guide |                    |
|-------------------------------------------------------------------------------------|---------------|----------------|---------------------------------------|--------------------|--------------------------|--------------------|
|                                                                                     |               |                | Part no.                              | Type <sup>1)</sup> | Part no.                 | Type <sup>1)</sup> |
|  | 32            | 10 ... 500     | 34487                                 | FENG-32-...-KF     | 34481                    | FENG-32-...-GF     |
|                                                                                     | 40            | 10 ... 500     | 34488                                 | FENG-40-...-KF     | 34482                    | FENG-40-...-GF     |
|                                                                                     | 50            | 10 ... 500     | 34489                                 | FENG-50-...-KF     | 34483                    | FENG-50-...-GF     |
|                                                                                     | 63            | 10 ... 500     | 34490                                 | FENG-63-...-KF     | 34484                    | FENG-63-...-GF     |
|                                                                                     | 80            | 10 ... 500     | 34491                                 | FENG-80-...-KF     | 34485                    | FENG-80-...-GF     |
|                                                                                     | 100           | 10 ... 500     | 34492                                 | FENG-100-...-KF    | 34486                    | FENG-100-...-GF    |

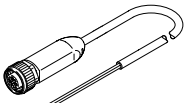
1) Suitable for ATEX

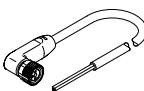
## Accessories

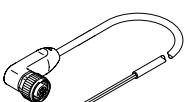
| Ordering data – Proximity switch for T-slot, magneto-resistive                     |                                                                                                                                                                                                                                                       |                   |                       |                  |          | Datasheets → Internet: smt  |  |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------|------------------|----------|-----------------------------|--|
|                                                                                    | Type of mounting                                                                                                                                                                                                                                      | Switching out-put | Electrical connection | Cable length [m] | Part no. | Type                        |  |
| N/O                                                                                |                                                                                                                                                                                                                                                       |                   |                       |                  |          |                             |  |
|    | Inserted in the slot from above, flush with the cylinder profile, short design                                                                                                                                                                        | PNP               | Cable, 3-core         | 2.5              | 574335   | SMT-8M-A-PS-24V-E-2.5-OE    |  |
|                                                                                    |                                                                                                                                                                                                                                                       |                   | Plug M8x1, 3-pin      | 0.3              | 574334   | SMT-8M-A-PS-24V-E-0.3-M8D   |  |
|                                                                                    |                                                                                                                                                                                                                                                       |                   | Plug M12x1, 3-pin     | 0.3              | 574337   | SMT-8M-A-PS-24V-E-0.3-M12   |  |
|                                                                                    |                                                                                                                                                                                                                                                       | NPN               | Cable, 3-core         | 2.5              | 574338   | SMT-8M-A-NS-24V-E-2.5-OE    |  |
|                                                                                    |                                                                                                                                                                                                                                                       |                   | Plug M8x1, 3-pin      | 0.3              | 574339   | SMT-8M-A-NS-24V-E-0.3-M8D   |  |
| N/C                                                                                |                                                                                                                                                                                                                                                       |                   |                       |                  |          |                             |  |
|    | Inserted in the slot from above, flush with the cylinder profile, short design                                                                                                                                                                        | PNP               | Cable, 3-core         | 7.5              | 574340   | SMT-8M-A-PO-24V-E-7.5-OE    |  |
| Ordering data – Proximity switch for T-slot, magnetic reed                         |                                                                                                                                                                                                                                                       |                   |                       |                  |          | Datasheets → Internet: sme  |  |
|                                                                                    | Type of mounting                                                                                                                                                                                                                                      | Switching out-put | Electrical connection | Cable length [m] | Part no. | Type                        |  |
| N/O                                                                                |                                                                                                                                                                                                                                                       |                   |                       |                  |          |                             |  |
|    | Inserted in the slot from above, flush with the cylinder profile                                                                                                                                                                                      | Contacting        | Cable, 3-core         | 2.5              | 543862   | SME-8M-DS-24V-K-2.5-OE      |  |
|                                                                                    |                                                                                                                                                                                                                                                       |                   |                       | 5.0              | 543863   | SME-8M-DS-24V-K-5.0-OE      |  |
|                                                                                    |                                                                                                                                                                                                                                                       |                   | Cable, 2-core         | 2.5              | 543872   | SME-8M-ZS-24V-K-2.5-OE      |  |
|                                                                                    |                                                                                                                                                                                                                                                       |                   |                       | 0.3              | 543861   | SME-8M-DS-24V-K-0.3-M8D     |  |
| N/C                                                                                |                                                                                                                                                                                                                                                       |                   |                       |                  |          |                             |  |
|   | Inserted in the slot from above, flush with the cylinder profile                                                                                                                                                                                      | Contacting        | Cable, 3-core         | 7.5              | 546799   | SME-8M-DO-24V-K-7.5-OE      |  |
| Ordering data – Proximity switch for T-slot, NAMUR                                 |                                                                                                                                                                                                                                                       |                   |                       |                  |          | Datasheets → Internet: sdbt |  |
|                                                                                    | Type of mounting                                                                                                                                                                                                                                      | Switching out-put | Electrical connection | Cable length [m] | Part no. | Type                        |  |
| N/O                                                                                |                                                                                                                                                                                                                                                       |                   |                       |                  |          |                             |  |
|  | Inserted in the slot from above, flush with cylinder profile                                                                                                                                                                                          | NAMUR             | Cable, 2-core         | 5                | 579071   | SDBT-MS-20NL-ZN-E-5-LE-EX6  |  |
|                                                                                    |                                                                                                                                                                                                                                                       |                   |                       | 10               | 579072   | SDBT-MS-20NL-ZN-E-10-LE-EX6 |  |
| Ordering data – Safety clip for ATEX zone                                          |                                                                                                                                                                                                                                                       |                   |                       |                  |          |                             |  |
|                                                                                    | Description                                                                                                                                                                                                                                           |                   | For size              |                  | Part no. | Type                        |  |
|  | <ul style="list-style-type: none"><li>Protects "equipment that is not intrinsically safe" against simple disconnection, here the plug of the proximity switch SMT and connecting cable NEBA</li><li>ATEX category: gas: II 3G / dust: II 3D</li></ul> |                   | Plug M8x1             |                  | 548067   | NEAU-M8-GD                  |  |

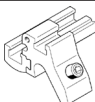
## Accessories

| Connecting cables NEBA, straight, M8 connection                                   |                                                |                                                |                                               |              |          |                       |
|-----------------------------------------------------------------------------------|------------------------------------------------|------------------------------------------------|-----------------------------------------------|--------------|----------|-----------------------|
|                                                                                   | 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, straight, M12 connection                                  |                                                |                                                |                                               |              |          |                        |
|-----------------------------------------------------------------------------------|------------------------------------------------|------------------------------------------------|-----------------------------------------------|--------------|----------|------------------------|
|                                                                                   | Electrical connection 1, connection technology | Electrical connection 2, connection technology | Electrical connection 2, number of pins/cores | Cable length | Part no. | Type                   |
|  | M12x1, A-coded to EN 61076-2-101               | Open end                                       | 3                                             | 2.5 m        | 8078236  | NEBA-M12G5-U-2.5-N-LE3 |
|                                                                                   |                                                |                                                |                                               | 5 m          | 8078237  | NEBA-M12G5-U-5-N-LE3   |

| Connecting cables NEBA, angled, M8 connection                                      |                                                |                                                |                                               |              |          |                       |
|------------------------------------------------------------------------------------|------------------------------------------------|------------------------------------------------|-----------------------------------------------|--------------|----------|-----------------------|
|                                                                                    | 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   |

| Connecting cables NEBA, angled, M12 connection                                      |                                                |                                                |                                               |              |          |                        |
|-------------------------------------------------------------------------------------|------------------------------------------------|------------------------------------------------|-----------------------------------------------|--------------|----------|------------------------|
|                                                                                     | Electrical connection 1, connection technology | Electrical connection 2, connection technology | Electrical connection 2, number of pins/cores | Cable length | Part no. | Type                   |
|  | M12x1, A-coded to EN 61076-2-101               | Open end                                       | 3                                             | 2.5 m        | 8078245  | NEBA-M12W5-U-2.5-N-LE3 |
|                                                                                     |                                                |                                                |                                               | 5 m          | 8078246  | NEBA-M12W5-U-5-N-LE3   |

| Ordering data – Mounting kits for proximity switch SME/SMT-8                        |            |                                                                              |          |                |
|-------------------------------------------------------------------------------------|------------|------------------------------------------------------------------------------|----------|----------------|
|                                                                                     | For Ø      | Materials                                                                    | Part no. | Type           |
|  | 32 ... 100 | Rail: Anodised wrought aluminium alloy<br>Screws: High-alloy stainless steel | 537806   | SMBZ-8-3 2/100 |
|  | 125        |                                                                              | 1451483  | DASP-M4-125-A  |

| Ordering data – Mounting kits for proximity switch SME/SMT-8                        |            |                                             |                   |          |                 | Datasheets → Internet: smbr |
|-------------------------------------------------------------------------------------|------------|---------------------------------------------|-------------------|----------|-----------------|-----------------------------|
|                                                                                     | For Ø      | Assembly                                    | CRC <sup>1)</sup> | Part no. | Type            |                             |
|  | 32 ... 100 | On the cylinder barrel using clamping strap | 4                 | 538937   | SMBR-8-8/100-S6 |                             |

1) More information [www.festo.com/x/topic/crc](http://www.festo.com/x/topic/crc)

## Accessories

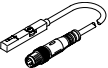
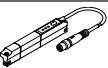
## Position transmitter

The position transmitter continuously senses the position of the piston.

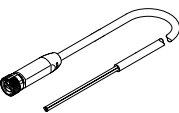
It has an analogue output with an output signal that is proportional to the piston position.

## Ordering data – Position transmitter for T-slot

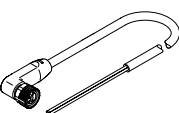
Datasheets → Internet: position transmitter

|                                                                                  | For Ø      | Position measuring range | Analogue output [V] | [mA]     | Type of mounting                | Electrical connection     | Cable length [m] | Part no. | Type                         |
|----------------------------------------------------------------------------------|------------|--------------------------|---------------------|----------|---------------------------------|---------------------------|------------------|----------|------------------------------|
|  | 32 ... 125 | 0 ... 40                 | 0 ... 10            | –        | Inserted in the slot from above | Plug M8x1, 4-pin, in-line | 0.3              | 553744   | SMAT-8M-U-E-0.3-M8D          |
|  | 32 ... 125 | 0 ... 50                 | –                   | 4 ... 20 | Inserted in the slot from above | Plug M8x1, 4-pin, in-line | 0.3              | 1531265  | SDAT-MHS-M50-1L-SA-E-0.3-M8  |
|                                                                                  |            | 0 ... 80                 |                     |          |                                 |                           |                  | 1531266  | SDAT-MHS-M80-1L-SA-E-0.3-M8  |
|                                                                                  |            | 0 ... 100                |                     |          |                                 |                           |                  | 1531267  | SDAT-MHS-M100-1L-SA-E-0.3-M8 |
|                                                                                  |            | 0 ... 125                |                     |          |                                 |                           |                  | 1531268  | SDAT-MHS-M125-1L-SA-E-0.3-M8 |
|                                                                                  |            | 0 ... 160                |                     |          |                                 |                           |                  | 1531269  | SDAT-MHS-M160-1L-SA-E-0.3-M8 |
|                                                                                  |            | 0 ... 50                 | 0 ... 10            | –        |                                 |                           |                  | 8115394  | SDAT-MHS-M50-1L-SV-E-0.3-M8  |

## Connecting cables NEBA, straight

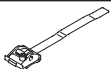
|                                                                                   | Electrical connection 1, connection technology | Electrical connection 2, connection technology | Electrical connection 2, number of pins/cores | Cable length | Part no. | Type                  |
|-----------------------------------------------------------------------------------|------------------------------------------------|------------------------------------------------|-----------------------------------------------|--------------|----------|-----------------------|
|  | M8x1 A-coded to EN 61076-2-104                 | Open end                                       | 4                                             | 2.5 m        | 8078227  | NEBA-M8G4-U-2.5-N-LE4 |
|                                                                                   |                                                |                                                |                                               | 5 m          | 8078228  | NEBA-M8G4-U-5-N-LE4   |

## 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                                       | 4                                             | 2.5 m        | 8078233  | NEBA-M8W4-U-2.5-N-LE4 |
|                                                                                    |                                                |                                                |                                               | 5 m          | 8078234  | NEBA-M8W4-U-5-N-LE4   |

## Accessories

| Ordering data – Proximity switch, cuboid shape, pneumatic                         |                  |                                         |  | Datasheets → Internet: smpo |            |
|-----------------------------------------------------------------------------------|------------------|-----------------------------------------|--|-----------------------------|------------|
|                                                                                   | Assembly         | Pneumatic port                          |  | Part no.                    | Type       |
| 3/2-way valve, normally closed                                                    |                  |                                         |  |                             |            |
|  | With accessories | Barbed connector for tubing I.D. Ø 3 mm |  | 31008                       | SMPO-1-H-B |

| Ordering data – Mounting kit for proximity switch SMPO-1                          |               |                                             |  | Datasheets → Internet: smbs |        |
|-----------------------------------------------------------------------------------|---------------|---------------------------------------------|--|-----------------------------|--------|
|                                                                                   | For Ø         | Assembly                                    |  | Part no.                    | Type   |
|  | 32 ... 100 mm | On the cylinder barrel using clamping strap |  | 151226                      | SMBS-2 |

| Ordering data – One-way flow control valves                                       |            |                 |              | Datasheets → Internet: grla |                  |
|-----------------------------------------------------------------------------------|------------|-----------------|--------------|-----------------------------|------------------|
|                                                                                   | Connection |                 | Material     | Part no.                    | Type             |
|                                                                                   | Thread     | For tubing O.D. |              |                             |                  |
| For exhaust air                                                                   |            |                 |              |                             |                  |
|  | G1/8       | 4               | Metal design | 193143                      | GRLA-1/8-QS-4-D  |
|                                                                                   |            | 6               |              | 193144                      | GRLA-1/8-QS-6-D  |
|                                                                                   |            | 8               |              | 193145                      | GRLA-1/8-QS-8-D  |
|                                                                                   | G1/4       | 6               |              | 193146                      | GRLA-1/4-QS-6-D  |
|                                                                                   |            | 8               |              | 193147                      | GRLA-1/4-QS-8-D  |
|                                                                                   |            | 10              |              | 193148                      | GRLA-1/4QS-10-D  |
|                                                                                   | G3/8       | 6               |              | 193149                      | GRLA-3/8-QS-6-D  |
|                                                                                   |            | 8               |              | 193150                      | GRLA-3/8-QS-8-D  |
|                                                                                   |            | 10              |              | 193151                      | GRLA-3/8-QS-10-D |
|                                                                                   | G1/2       | 12              |              | 193152                      | GRLA-1/2-QS-12-D |