

Standard cylinders DNC, ISO 15552

FESTO



Standard cylinders DNC, ISO 15552

Key features

FESTO

At a glance



DIN



- Standards-based cylinders to ISO 15552 (corresponds to the withdrawn standards ISO 6431, DIN ISO 6431, VDMA 24 562, NF E 49 003.1 and UNI 10290)
- The modern design and construction save up to 11% on fitting space compared to ordinary standard cylinders, thus permitting a considerably more compact system design
- An extensive range of accessories makes it possible to install the cylinder virtually anywhere
- The widest range of variants on the market provides the right DNC cylinder for every application

Cylinder with clamping units

DNC-KP



- Piston rod can be held or clamped in any position
- Piston rod can be held in position for long periods even with alternating loads, fluctuating operating pressure or leaks in the system

DNCKE



- Suitable for use in safety-related control systems in compliance with EN 954-1, EN 1050, EN 292 and EN 983
- Fail-safe
- Piston rod can be clamped in any position

Cylinder with end-position locking

DNC- ... -EL



- Mechanical locking when the end position is reached
- Lock is only automatically released when pressure is supplied to the cylinder
- End-position locking at one or both ends

Cylinder/valve combination

DNC-V1 ... V6



- The cylinder/valve combination is assembled and fitted with tubing ready for connection
- Particularly suitable for decentralised use in larger systems

Tandem cylinder

DNCT



- Connection of 2 cylinders with the same piston diameter and stroke in series
- Double the thrust and return force in comparison to a standard cylinder

Longer service life thanks to the bellows kit DADB



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.












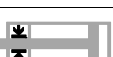
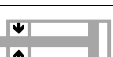
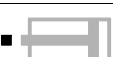

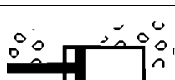
The bellows kit is a leak-free system. To prevent unwanted media being drawn in, the supply and exhaust air must be ducted via a pressure compensation hole in the connection part 1.

The kit protects the piston rod, seal and bearings from a wide range of media, for example:

- dust,
- chips,
- oil,
- grease,
- fuel.

Standard cylinders DNC, ISO 15552

Key features

| Variants from the modular product system | | |
|---|---|--|
| Symbol | Key features | Description |
|  | S2 Through piston rod | For working at both ends with the same force in the forward and return stroke, for attaching external stops |
|  | S6 Heat-resistant seals | Temperature resistance up to max. 120 °C |
|  | S10 Constant motion (slow speed) at low piston speeds | Suitable for slow stroke movements at a constant, stick-slip-free speed over the full stroke of the cylinder. Seal contains silicone grease (not free of paint-wetting impairment substances) |
|  | S11 Low friction | Special seals considerably reduce system wear. This means a considerably lower response pressure. Seal contains silicone grease (not free of paint-wetting impairment substances) |
|  | S20 Through, hollow piston rod | For supplying vacuum, small parts, media, etc. |
|  | K2 Extended male piston rod thread | – |
|  | K3 Female piston rod thread | – |
|  | K5 Special piston rod thread | Metric standard thread to ISO |
|  | K7 Piston rod with external hexagon | Special spanner flats |
|  | K8 Extended piston rod | – |
|  | K10 Smooth anodised aluminium piston rod | Ideal for use in welding environments: – Protection against welding spatter – Small working loads – Harder surface compared to steel – Long service life |
|  | KP With clamping unit | Integrated clamping unit on the piston rod |
|  | EL With end-position locking | Positive locking in the end position as a drop guard. If there is a drop in pressure, the piston rod is secured in its end position to prevent it from dropping |
|  | Q Square piston rod | Protection against rotation. For correctly oriented feeding |
|  | 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 |
|  | R8 Dust protection (wiper seal) | The cylinder is equipped with a hard-chrome plated piston rod and a rigid wiper seal, which protects against dry, dusty media |

Software tools

→ www.festo.com

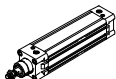
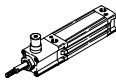
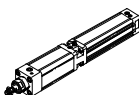
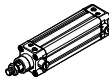
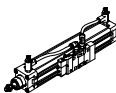
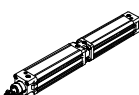
Configuration of Festo modular products

→ www.festo.com

Standard cylinders DNC, ISO 15552

Product range overview

FESTO

| Function | Design | Type | Piston Ø | Stroke | Position sensing | Protection against rotation | Through/hollow piston rod | Extended male piston rod thread | Female piston rod thread | Special piston rod thread | |
|---------------|---|---------------|------------------------------|--|------------------|-----------------------------|---------------------------|---------------------------------|--------------------------|---------------------------|---|
| | | | [mm] | [mm] | | | | | | | |
| Double-acting | Basic version | | | | | | | | | | |
| |  | DNC | 32, 40, 50, 63, 80, 100, 125 | 20, 25, 30, 40, 50, 60, 70, 80, 100, 125, 150, 160, 200, 250, 300, 320, 400, 500 | 10 ... 2000 | ■ | ■ | ■ | ■ | ■ | ■ |
| | Standard hole pattern, with clamping unit | | | | | | | | | | |
| |  | DNC-KP | 32, 40, 50, 63, 80, 100, 125 | – | 10 ... 2000 | ■ | ■ | ■ S2 | ■ | ■ | ■ |
| |  | DNCKE | 40, 63, 100 | – | 10 ... 2000 | ■ | – | – | – | – | – |
| | Standard hole pattern, with end-position locking | | | | | | | | | | |
| |  | DNC-...-EL | 32, 40, 50, 63, 80, 100 | – | 10 ... 2000 | ■ | – | ■ S2 | ■ | ■ | ■ |
| | Standard hole pattern, cylinder/valve combination | | | | | | | | | | |
| |  | DNC-V1 ... V6 | 32, 40, 50, 63, 80, 100 | – | 100 ... 2000 | ■ | ■ | ■ | ■ | ■ | ■ |
| | Standard hole pattern, tandem cylinder | | | | | | | | | | |
| |  | DNCT | 32, 40, 50 | – | 2 ... 500 | ■ | – | – | – | – | – |
| | | | 63, 80, 100, 125 | | 3 ... 500 | | | | | | |

Standard cylinders DNC, ISO 15552

Product range overview

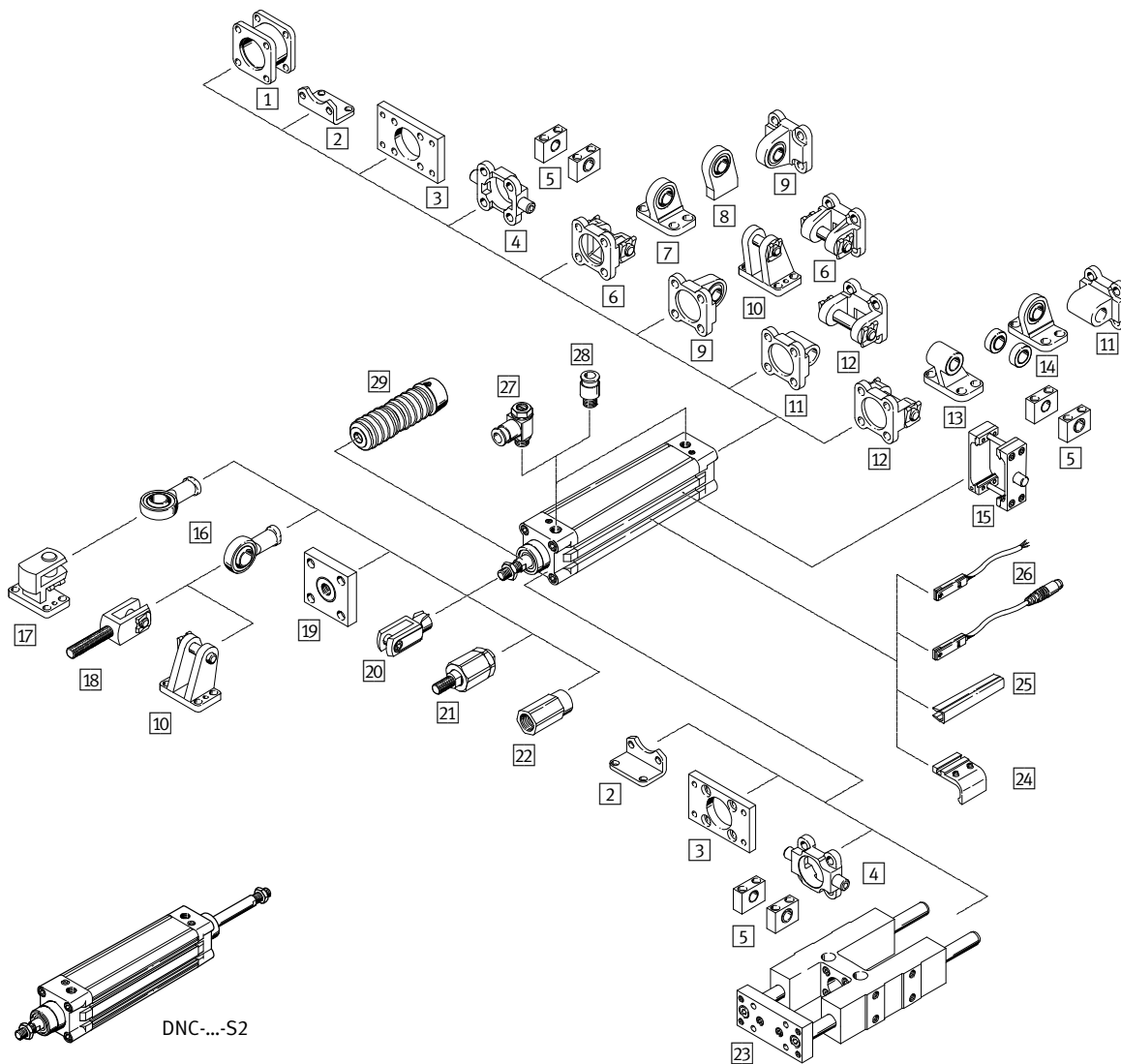
FESTO

| Type | Special spanner flats | Extended piston rod | Smooth anodised piston rod | Heat-resistant seals to max. 120 °C | Slow speed (constant motion) | Low friction | High corrosion protection | Dust protection | Cylinder/valve combination | → Page/Internet |
|---|-----------------------|---------------------|----------------------------|-------------------------------------|------------------------------|--------------|---------------------------|-----------------|----------------------------|-----------------|
| | K7 | K8 | K10 | S6 | S10 | S11 | R3 | R8 | V1 ... V6 | |
| Basic version | | | | | | | | | | |
| DNC | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | - | 9 |
| Standard hole pattern, with clamping unit | | | | | | | | | | |
| DNC-KP | ■ | ■ | - | - | - | - | - | - | ■ | 25 |
| DNCKE | - | - | - | - | - | - | - | - | - | 2 |
| Standard hole pattern, with end-position locking | | | | | | | | | | |
| DNC-...-EL | - | ■ | - | - | - | - | - | - | - | 33 |
| Standard hole pattern, cylinder/valve combination | | | | | | | | | | |
| DNC-V1 ... V6 | ■ | ■ | ■ | - | ■ | ■ | - | ■ | ■ | 40 |
| Standard hole pattern, tandem cylinder | | | | | | | | | | |
| DNCT | - | - | - | ■ | - | - | - | - | - | 2 |

Standard cylinders DNC, ISO 15552

Peripherals overview

FESTO



| Mounting attachments and accessories | | | | | | | |
|--------------------------------------|---------------------------------|---|-----------------|-----------------|-----------|---------------------|----|
| | Description | DNC | | | | ➔ Page/ Internet | |
| | | Basic version | KP | EL | V1 ... V6 | | |
| 1 | Multi-position kit DPNC | For connecting two cylinders with identical piston diameters to form a multi-position cylinder | ■ ¹⁾ | ■ | ■ | ■ ¹⁾ | 49 |
| 2 | Foot mounting HNC/CRHNC | For bearing or end caps | ■ | ■ | ■ | ■ | 50 |
| 3 | Flange mounting FNC/CRFNG | – For bearing or end caps – Cannot be used on the bearing cap in combination with bellows kit DADB | ■ | ■ | ■ | ■ | 51 |
| 4 | Trunnion flange ZNCF/CRZNG | – For bearing or end caps – Cannot be used on the bearing cap in combination with bellows kit DADB | ■ | ■ | ■ | ■ | 52 |
| 5 | Trunnion support LNZG/CRLNZG | – | ■ | ■ | ■ | ■ | 54 |
| 6 | Swivel flange SNC | For end caps | ■ ¹⁾ | ■ ¹⁾ | ■ | ■ ¹⁾ | 55 |
| 7 | Clevis foot LSNG | With spherical bearing | ■ ¹⁾ | ■ ¹⁾ | ■ | ■ ¹⁾ | 59 |
| 8 | Clevis foot LSNSG | Weld-on, with spherical bearing | ■ ¹⁾ | ■ ¹⁾ | ■ | ■ ¹⁾ | 59 |

Standard cylinders DNC, ISO 15552

Peripherals overview

FESTO

| Mounting attachments and accessories | | | | | | |
|--------------------------------------|---|-----------------|------------------------|----|-----------------|---------------------|
| | Description | DNC | | | | → Page/ Internet |
| | | Basic version | KP | EL | V1 ... V6 | |
| 9 | Swivel flange SNCS/CRNCS/SNCS-...-R3 | ■ ¹⁾ | ■ ¹⁾ | ■ | ■ ¹⁾ | 57 |
| 10 | Clevis foot LBG/LBG-...-R3 | ■ ¹⁾ | ■ | ■ | ■ ¹⁾ | 59 |
| 11 | Swivel flange SNCL | ■ ¹⁾ | ■ ¹⁾ | ■ | ■ ¹⁾ | 57 |
| 12 | Swivel flange SNCB/SNCB-...-R3 | ■ ¹⁾ | ■ ¹⁾ | ■ | ■ ¹⁾ | 56 |
| 13 | Clevis foot LNG/CRLNG | ■ ¹⁾ | ■ ¹⁾ | ■ | ■ ¹⁾ | 59 |
| 14 | Clevis foot LSN | ■ ¹⁾ | ■ ¹⁾ | ■ | ■ ¹⁾ | 59 |
| 15 | Trunnion mounting kit DAMT | ■ | ■ | ■ | ■ | 53 |
| 16 | Rod eye SGS/CRSGS | ■ | ■ | ■ | ■ | 60 |
| 17 | Right-angle clevis foot LQG | ■ | ■ | ■ | ■ | 59 |
| 18 | Rod clevis SGA | ■ | ■ | ■ | ■ | 60 |
| 19 | Coupling piece KSG | ■ | ■ | ■ | ■ | 60 |
| | Coupling piece KSZ | ■ | ■ | ■ | ■ | 60 |
| 20 | Rod clevis SG/CRSG | ■ | ■ | ■ | ■ | 60 |
| 21 | Self-aligning rod coupler FK/CRFK | ■ | ■ | ■ | ■ | 60 |
| 22 | Adapter AD | ■ | – | – | ■ | 60 |
| 23 | Guide unit FENG | ■ | ■ Ø 50 and above | – | – | 65 |
| 24 | Mounting kit SMB-8-FENG | ■ ²⁾ | ■ Ø 50 and above | ■ | – | 65 |
| 25 | Slot cover ABP-5-S | ■ | ■ | ■ | ■ | 66 |
| 26 | Proximity sensor SME/SMT-8 | ■ | ■ | ■ | ■ | 66 |
| 27 | One-way flow control valve GRLA | ■ | ■ | ■ | ■ | 67 |
| 28 | Push-in fitting QS | ■ | ■ | ■ | ■ | qs |
| 29 | Bellows kit DADB | ■ | – | ■ | ■ | 61 |

1) Not with variant S2 or S20


2) For piston Ø 32, 40 mm only with variant R3

Standard cylinders DNC, ISO 15552

Type codes

FESTO

| | | | | | | | | | | |
|-------------------------|---|-----|---|----|---|-----|---|-----|---|---|
| | | DNC | – | 80 | – | 320 | – | PPV | – | A |
| Type | | | | | | | | | | |
| Double-acting | | | | | | | | | | |
| DNC | Standard cylinder | | | | | | | | | |
| Piston Ø [mm] | | | | | | | | | | |
| Stroke [mm] | | | | | | | | | | |
| Cushioning | | | | | | | | | | |
| P | Flexible cushioning rings/pads at both ends | | | | | | | | | |
| PPV | Pneumatic cushioning, adjustable at both ends | | | | | | | | | |
| Position sensing | | | | | | | | | | |
| | Without position sensing | | | | | | | | | |
| A | Via proximity sensor | | | | | | | | | |



Note

The standard cylinder DNC can be ordered using either a fixed part number and type designation or via the modular product system.

The type code listed above only applies to the DNC standard cylinder with fixed part number and type designation.

Variants can only be ordered using the modular product system.

Standard cylinders DNC, ISO 15552

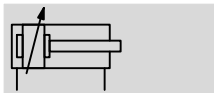
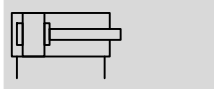
FESTO

Technical data

Function

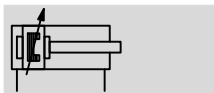
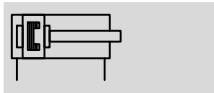
DNC-...

Without position sensing



DNC-...-A-...

With position sensing



- Ø - Diameter
32 ... 125 mm

- I - Stroke length
10 ... 2000 mm

- T - www.festo.com

Wearing parts kits

→ page 24



- Standards-based cylinders to ISO 15552 (corresponds to the withdrawn standards ISO 6431, DIN ISO 6431, VDMA 24562, NF E 49 003.1 and UNI 10290)



DIN



| General technical data | | | | | | | |
|---|---|----------|---------|---------|---------|---------|-------|
| Piston Ø | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| Pneumatic connection | G1/8 | G1/4 | G1/4 | G3/8 | G3/8 | G1/2 | G1/2 |
| Piston rod thread | M10x1.25 | M12x1.25 | M16x1.5 | M16x1.5 | M20x1.5 | M20x1.5 | M27x2 |
| | K3 | M6 | M8 | M10 | M10 | M12 | M16 |
| | K5 | M10 | M12 | M16 | M16 | M20 | M27 |
| Constructional design | Piston | | | | | | |
| | Piston rod | | | | | | |
| | Profile barrel | | | | | | |
| Max. torsional backlash of piston rod [°] | Q ±0.65 | ±0.6 | ±0.45 | ±0.45 | ±0.45 | ±0.45 | – |
| Cushioning | Flexible cushioning rings/pads at both ends | | | | | | |
| | Pneumatic cushioning, adjustable at both ends | | | | | | |
| Cushioning length PPV [mm] | 20 | 20 | 22 | 22 | 32 | 32 | 42 |
| Position sensing | Via proximity sensor | | | | | | |
| Type of mounting | Via female thread | | | | | | |
| | Via accessories | | | | | | |
| Mounting position | Any | | | | | | |

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

Standard cylinders DNC, ISO 15552

Technical data

FESTO

| Operating and environmental conditions | | | | | | | |
|--|--|----|------------|----|-------------|-----|-------------|
| Piston Ø | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| Operating medium | Compressed air in accordance with ISO 8573-1:2010 [7:4:4] | | | | | | |
| Note on operating/pilot medium | Operation with lubricated medium possible (in which case lubricated operation will always be required) | | | | | | |
| Operating pressure [bar] | 0.6 ... 12 | | | | | | 0.6 ... 10 |
| R8 | 1.5 ... 12 | | | | | | 1.5 ... 10 |
| S11 | After 10 strokes | | | | | | |
| | 0.16 ... 12 | | 0.1 ... 12 | | 0.06 ... 12 | | 0.06 ... 10 |
| | After 24 hours | | | | | | |
| | 0.3 ... 12 | | 0.2 ... 12 | | 0.1 ... 12 | | 0.1 ... 10 |
| Ambient temperature ¹⁾ [°C] | -20 ... +80 | | | | | | |
| S6 | 0 ... 120 | | | | | | |
| Corrosion resistance class CRC ²⁾ | 2 | | | | | | |
| R3 | 3 | | | | | | |
| Certification | Germanischer Lloyd | | | | | | |
| ATEX | Specified types → www.festo.com | | | | | | |

1) Note operating range of proximity sensors

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

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

Corrosion resistance class CRC 3 to Festo standard FN 940070

High corrosion stress. Outdoor exposure under moderate corrosive conditions. External visible parts with primarily functional requirements for the surface and which are in direct contact with a normal industrial environment.

| Force [N] and impact energy [J] | | | | | | | |
|---|-----|-----|------|------|------|------|------|
| Piston Ø | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| Theoretical force at 6 bar, advancing | 483 | 754 | 1178 | 1870 | 3016 | 4712 | 7363 |
| S2/S20 | 415 | 633 | 990 | 1682 | 2721 | 4418 | 6881 |
| Theoretical force at 6 bar, retracting | 415 | 633 | 990 | 1682 | 2721 | 4418 | 6881 |
| S2/S20 | 415 | 633 | 990 | 1682 | 2721 | 4418 | 6881 |
| Max. impact energy at the end positions ¹⁾ | 0.1 | 0.2 | 0.2 | 0.5 | 0.9 | 1.2 | 5 |

1) The permissible impact energy is reduced by approx. 10% for variants K10 and S20

Permissible impact velocity:

$$v_{perm.} = \sqrt{\frac{2 \times E_{perm.}}{m_{dead} + m_{load}}}$$

Maximum permissible load:

$$m_{load} = \frac{2 \times E_{perm.}}{v^2} - m_{dead}$$

$v_{perm.}$ Permissible impact velocity
 $E_{perm.}$ Max. impact energy
 $m_{intrinsic}$ Moving load (drive)
 m_{load} Moving effective load



Note

This data represents the maximum values that can be achieved. The maximum permissible impact energy must be observed.

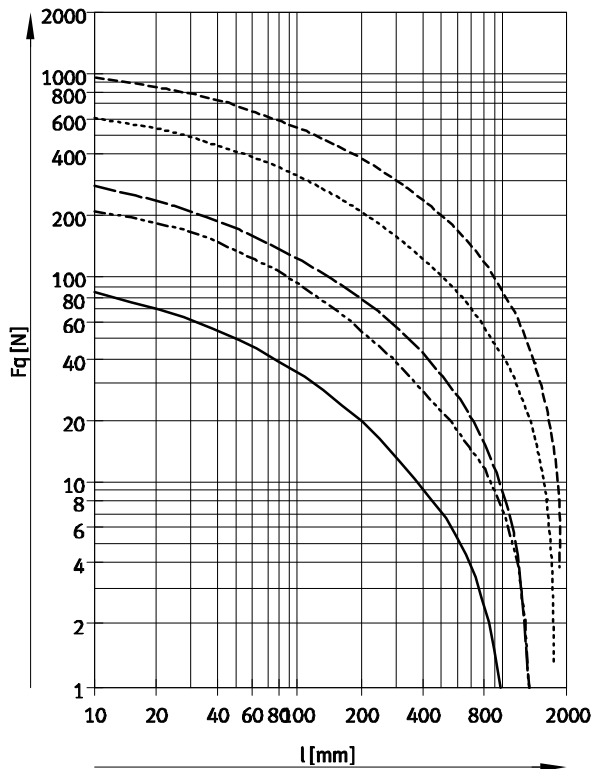
Standard cylinders DNC, ISO 15552

Technical data

FESTO

Lateral force F_q as a function of stroke length l

Basic version



- $\varnothing 32$
- - - $\varnothing 40$
- · - $\varnothing 50/63$
- $\varnothing 80/100$
- · · - $\varnothing 125$

Standard cylinders DNC, ISO 15552

Technical data

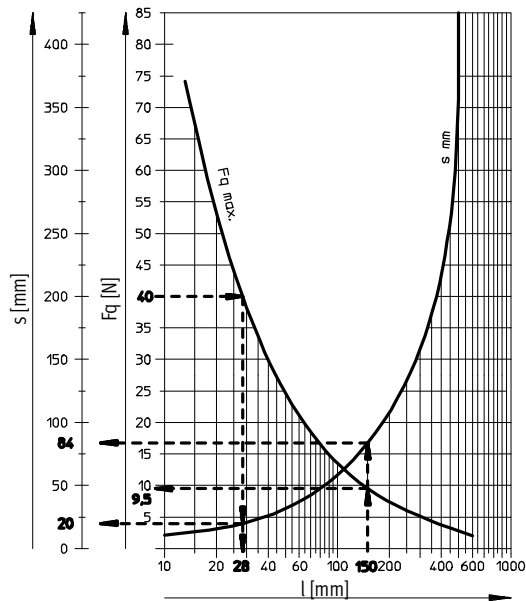
FESTO

Lateral force F_q as a function of stroke length l and lever arm s

Q – Square piston rod

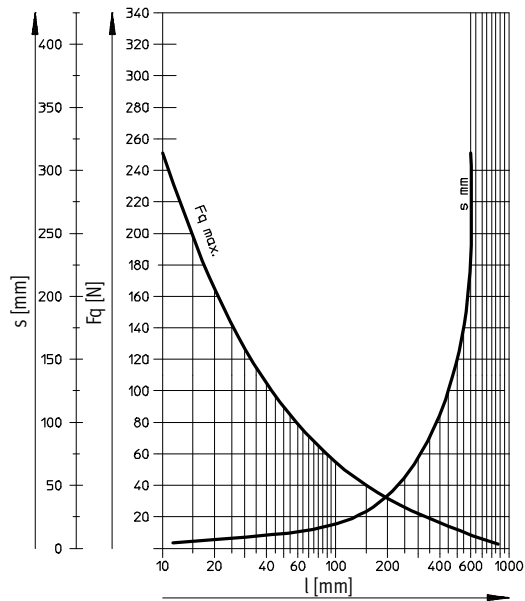
Ø 32

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



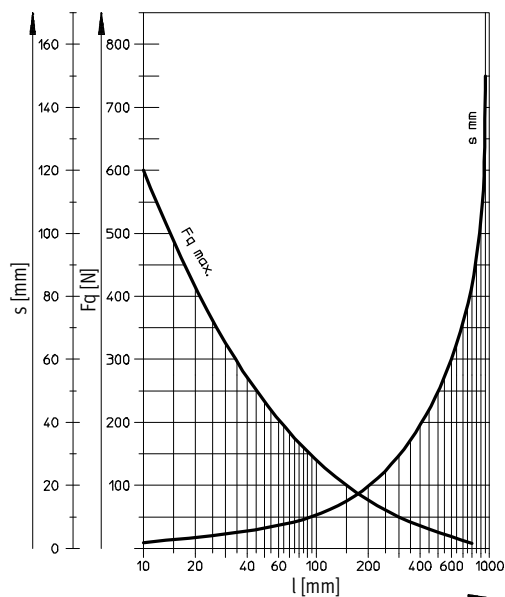
Ø 40

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



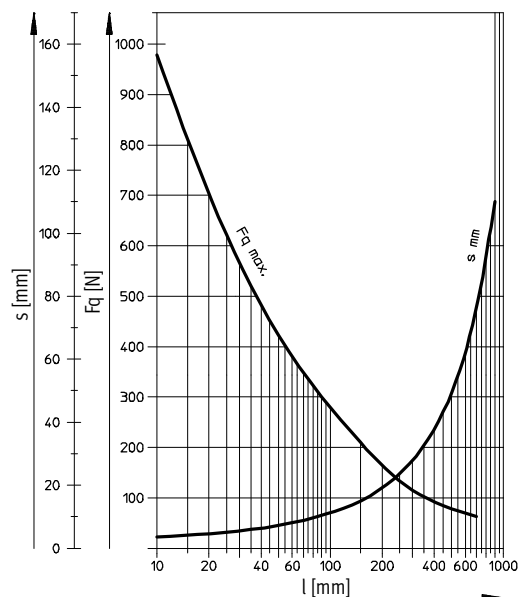
Ø 50/63

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



Ø 80/100

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



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

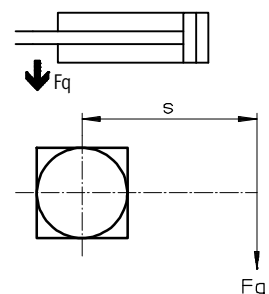
Lever arm s = 100 mm

$F_q = \frac{\text{Max. torque } 800 \text{ Nmm}}{\text{Lever arm } 100 \text{ mm}}$

= 8 N

Result: permissible

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



Standard cylinders DNC, ISO 15552

Technical data

FESTO

| Weight [g] | | | | | | | |
|--|-----|-----|------|------|------|------|------|
| Piston Ø | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| Basic version | | | | | | | |
| Product weight with 0 mm stroke | 517 | 800 | 1260 | 1709 | 2790 | 4653 | 6771 |
| Additional weight per 10 mm stroke | 30 | 45 | 64 | 73 | 106 | 115 | 168 |
| | | | | | | | |
| Moving load with 0 mm stroke | 162 | 307 | 538 | 663 | 1131 | 1544 | 2809 |
| Additional load per 10 mm stroke | 9 | 16 | 25 | 25 | 38 | 38 | 63 |
| | | | | | | | |
| Q – Square piston rod | | | | | | | |
| Product weight with 0 mm stroke | 504 | 738 | 1187 | 1632 | 2652 | 4508 | – |
| Additional weight per 10 mm stroke | 29 | 41 | 60 | 68 | 99 | 108 | – |
| | | | | | | | |
| Moving load with 0 mm stroke | 149 | 244 | 465 | 587 | 994 | 1399 | – |
| Additional load per 10 mm stroke | 8 | 11 | 20 | 20 | 31 | 31 | – |
| | | | | | | | |
| S2 – Through piston rod | | | | | | | |
| Product weight with 0 mm stroke | 576 | 895 | 1390 | 1917 | 3114 | 5297 | 7529 |
| Additional weight per 10 mm stroke | 39 | 61 | 89 | 98 | 144 | 153 | 231 |
| | | | | | | | |
| Moving load with 0 mm stroke | 170 | 330 | 560 | 711 | 1200 | 1660 | 2925 |
| Additional load per 10 mm stroke | 18 | 32 | 50 | 50 | 76 | 76 | 126 |
| | | | | | | | |
| K10 – Smooth anodised piston rod | | | | | | | |
| Product weight with 0 mm stroke | 443 | 655 | 1001 | 1437 | 2302 | 4138 | 5719 |
| Additional weight per 10 mm stroke | 24 | 35 | 47 | 57 | 81 | 90 | 127 |
| | | | | | | | |
| Moving load with 0 mm stroke | 88 | 162 | 279 | 391 | 643 | 1029 | 1757 |
| Additional load per 10 mm stroke | 3 | 6 | 8 | 9 | 13 | 13 | 22 |
| | | | | | | | |
| S2-K10 – Through, smooth anodised piston rod | | | | | | | |
| Product weight with 0 mm stroke | 514 | 766 | 1181 | 1676 | 2701 | 4821 | 6674 |
| Additional weight per 10 mm stroke | 27 | 40 | 56 | 65 | 94 | 103 | 148 |
| | | | | | | | |
| Moving load with 0 mm stroke | 108 | 201 | 351 | 470 | 787 | 1184 | 2070 |
| Additional load per 10 mm stroke | 6 | 11 | 17 | 17 | 26 | 26 | 43 |

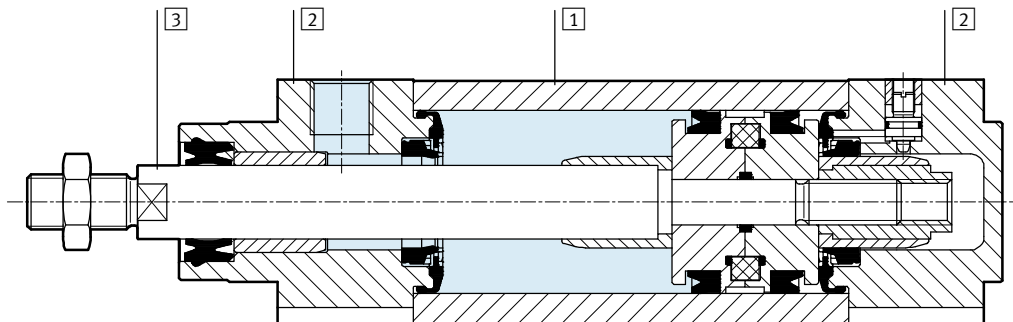
Standard cylinders DNC, ISO 15552

Technical data

FESTO

Materials

Sectional view



| Standard cylinder | Basic version | K10 | R3 |
|------------------------|--|-----------------------------------|----------------------------|
| 1 Profile barrel | Wrought aluminium alloy, smooth anodised | | |
| 2 Bearing and end caps | Die-cast aluminium | | |
| 3 Piston rod | High-alloy steel | Wrought aluminium alloy, anodised | High-alloy stainless steel |
| – Seals | Polyurethane, nitrile rubber | | |
| Note on materials | RoHS compliant | | |

| Standard cylinder | R8 | S6 | S10 | S11 |
|------------------------|--|------------------|---|-----|
| 1 Profile barrel | Wrought aluminium alloy, smooth anodised | | | |
| 2 Bearing and end caps | Die-cast aluminium | | | |
| 3 Piston rod | Tempered steel, hard-chromium plated | High-alloy steel | | |
| – Seals | Polyurethane, nitrile rubber | Fluoro rubber | | |
| Note on materials | RoHS compliant | | | |
| | – | | Contains PWIS (paint-wetting impairment substances) | |

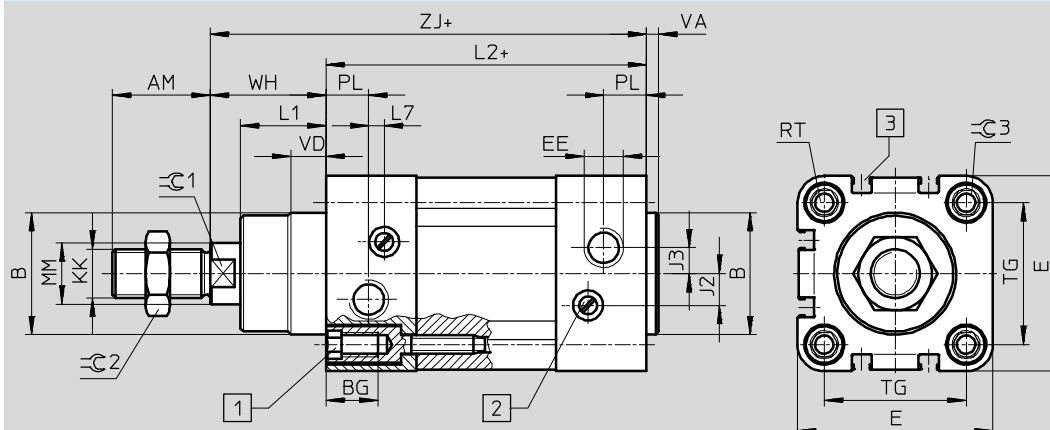
Standard cylinders DNC, ISO 15552

Technical data

FESTO

Dimensions – Basic version

Download CAD data → www.festo.com



- 1 For mounting attachments:
 Ø 32 ... 100: Socket head screw with female thread
 Ø 125: Thread in the end cap
- 2 Regulating screw for adjustable end-position cushioning
- 3 Slot for proximity sensor SME/SMT-8
- + = plus stroke length

| Ø [mm] | AM | B Ø d11 | BG | E | EE | J2 | J3 | KK | L1 | L2 |
|-----------|----|---------------|----|-----|------|------|-----|----------|------|-----|
| 32 | 22 | 30 | 16 | 45 | G1/8 | 6 | 5.2 | M10x1.25 | 18 | 94 |
| 40 | 24 | 35 | 16 | 54 | G1/4 | 8 | 6 | M12x1.25 | 21.5 | 105 |
| 50 | 32 | 40 | 17 | 64 | G1/4 | 10.4 | 8.5 | M16x1.5 | 28 | 106 |
| 63 | 32 | 45 | 17 | 75 | G3/8 | 12.4 | 10 | M16x1.5 | 28.5 | 121 |
| 80 | 40 | 45 | 17 | 93 | G3/8 | 12.5 | 8 | M20x1.5 | 34.7 | 128 |
| 100 | 40 | 55 | 17 | 110 | G1/2 | 12 | 10 | M20x1.5 | 38.2 | 138 |
| 125 | 54 | 60 | 22 | 134 | G1/2 | 13 | 8 | M27x2 | 46 | 160 |

| Ø [mm] | L7 | MM Ø | PL | RT | TG | VA | VD | WH | ZJ | 1 | 2 | 3 |
|-----------|------|---------|------|-----|------|----|------|----|-----|----|----|---|
| 32 | 3.3 | 12 | 15.6 | M6 | 32.5 | 4 | 10 | 26 | 120 | 10 | 16 | 6 |
| 40 | 3.6 | 16 | 14 | M6 | 38 | 4 | 10.5 | 30 | 135 | 13 | 18 | 6 |
| 50 | 5.1 | 20 | 14 | M8 | 46.5 | 4 | 11.5 | 37 | 143 | 17 | 24 | 8 |
| 63 | 6.6 | 20 | 17 | M8 | 56.5 | 4 | 15 | 37 | 158 | 17 | 24 | 8 |
| 80 | 10.5 | 25 | 16.4 | M10 | 72 | 4 | 15.7 | 46 | 174 | 22 | 30 | 6 |
| 100 | 8 | 25 | 18.8 | M10 | 89 | 4 | 19.2 | 51 | 189 | 22 | 30 | 6 |
| 125 | 14 | 32 | 18 | M12 | 110 | 6 | 20.5 | 65 | 225 | 27 | 36 | 8 |

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

Standard cylinders DNC, ISO 15552

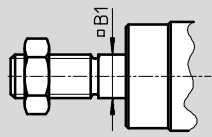
Technical data

FESTO

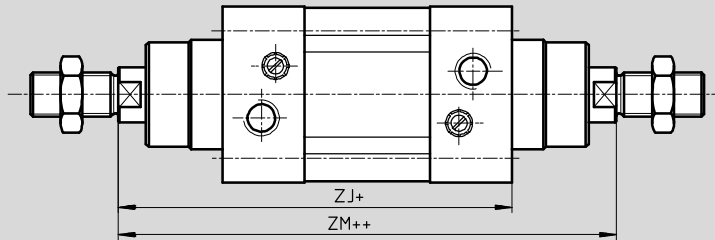
Dimensions – Variants

Download CAD data → www.festo.com

Q – Square piston rod

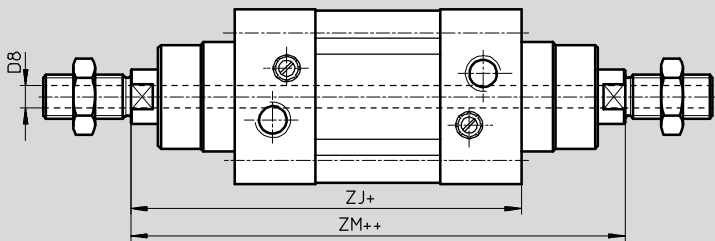


S2 – Through piston rod



+ = plus stroke length
++ = plus 2x stroke length

S20 – Through hollow piston rod



+ = plus stroke length
++ = plus 2x stroke length

| Ø [mm] | B1 □ | D8 Ø | ZJ | ZM |
|-----------|---------|-----------------|-----|-----|
| 32 | 10 | 4.5 | 120 | 148 |
| 40 | 12 | 5.5 | 135 | 167 |
| 50 | 16 | 8 ¹⁾ | 143 | 183 |
| 63 | 16 | 8 | 158 | 199 |
| 80 | 20 | 11.7 | 174 | 222 |
| 100 | 20 | 11.7 | 189 | 240 |
| 125 | – | 13 | 225 | 291 |

1) Internal narrowing to Ø 5.5 mm

2) Internal narrowing to Ø 10.2 mm

Standard cylinders DNC, ISO 15552

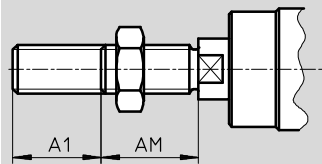
Technical data

FESTO

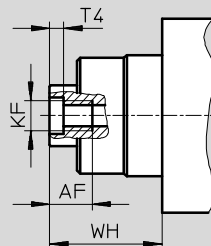
Dimensions – Variants

Download CAD data → www.festo.com

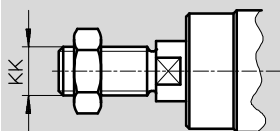
K2 – Extended male piston rod thread



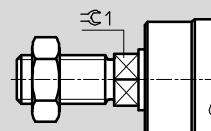
K3 – Female piston rod thread



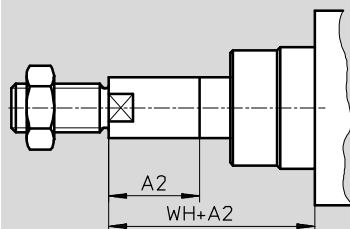
K5 – Special piston rod thread



K7 – Piston rod with external hexagon



K8 – Extended piston rod



Note

In combination with variant S2/S20, the piston rod is extended at one

end. In combination with variant Q, the square piston rod is extended.

| Ø [mm] | A1 max. | A2 max. | AF | AM | KF | KK | | T4 | WH | ≈1 |
|-----------|------------|------------|----|----|-----|--------------|------------------------------|-----|----|----|
| | | | | | | Basic thread | Special thread ¹⁾ | | | |
| 32 | 35 | 500 | 12 | 22 | M6 | M10x1.25 | M10 | 2.6 | 26 | 10 |
| 40 | 35 | 500 | 12 | 24 | M8 | M12x1.25 | M12 | 3.3 | 30 | 13 |
| 50 | 70 | 500 | 16 | 32 | M10 | M16x1.5 | M16 | 4.7 | 37 | 17 |
| 63 | 70 | 500 | 16 | 32 | M10 | M16x1.5 | M16 | 4.7 | 37 | 17 |
| 80 | 70 | 500 | 20 | 40 | M12 | M20x1.5 | M20 | 6.1 | 46 | 22 |
| 100 | 70 | 500 | 20 | 40 | M12 | M20x1.5 | M20 | 6.1 | 51 | 22 |
| 125 | 70 | 500 | 32 | 54 | M16 | M27x2 | M27 | 8 | 65 | 27 |

1) The special threads are only available as male threads. The mounting nut on the piston rod thread is included in the scope of delivery

Standard cylinders DNC, ISO 15552

Technical data

FESTO

| Ordering data – Without position sensing | | | | | | | |
|--|----------------|----------|--------------------|------------------|----------------|----------|--------------------|
| Piston Ø [mm] | Stroke [mm] | Part No. | Type ¹⁾ | Piston Ø [mm] | Stroke [mm] | Part No. | Type ¹⁾ |
| 32 | 25 | 163319 | DNC-32-25-PPV | 40 | 25 | 163351 | DNC-40-25-PPV |
| | 40 | 163320 | DNC-32-40-PPV | | 40 | 163352 | DNC-40-40-PPV |
| | 50 | 163321 | DNC-32-50-PPV | | 50 | 163353 | DNC-40-50-PPV |
| | 80 | 163322 | DNC-32-80-PPV | | 80 | 163354 | DNC-40-80-PPV |
| | 100 | 163323 | DNC-32-100-PPV | | 100 | 163355 | DNC-40-100-PPV |
| | 125 | 163324 | DNC-32-125-PPV | | 125 | 163356 | DNC-40-125-PPV |
| | 160 | 163325 | DNC-32-160-PPV | | 160 | 163357 | DNC-40-160-PPV |
| | 200 | 163326 | DNC-32-200-PPV | | 200 | 163358 | DNC-40-200-PPV |
| | 250 | 163327 | DNC-32-250-PPV | | 250 | 163359 | DNC-40-250-PPV |
| | 320 | 163328 | DNC-32-320-PPV | | 320 | 163360 | DNC-40-320-PPV |
| | 400 | 163329 | DNC-32-400-PPV | | 400 | 163361 | DNC-40-400-PPV |
| | 500 | 163330 | DNC-32-500-PPV | | 500 | 163362 | DNC-40-500-PPV |
| 50 | 25 | 163383 | DNC-50-25-PPV | 63 | 25 | 163415 | DNC-63-25-PPV |
| | 40 | 163384 | DNC-50-40-PPV | | 40 | 163416 | DNC-63-40-PPV |
| | 50 | 163385 | DNC-50-50-PPV | | 50 | 163417 | DNC-63-50-PPV |
| | 80 | 163386 | DNC-50-80-PPV | | 80 | 163418 | DNC-63-80-PPV |
| | 100 | 163387 | DNC-50-100-PPV | | 100 | 163419 | DNC-63-100-PPV |
| | 125 | 163388 | DNC-50-125-PPV | | 125 | 163420 | DNC-63-125-PPV |
| | 160 | 163389 | DNC-50-160-PPV | | 160 | 163421 | DNC-63-160-PPV |
| | 200 | 163390 | DNC-50-200-PPV | | 200 | 163422 | DNC-63-200-PPV |
| | 250 | 163391 | DNC-50-250-PPV | | 250 | 163423 | DNC-63-250-PPV |
| | 320 | 163392 | DNC-50-320-PPV | | 320 | 163424 | DNC-63-320-PPV |
| | 400 | 163393 | DNC-50-400-PPV | | 400 | 163425 | DNC-63-400-PPV |
| | 500 | 163394 | DNC-50-500-PPV | | 500 | 163426 | DNC-63-500-PPV |
| 80 | 25 | 163447 | DNC-80-25-PPV | 100 | 25 | 163479 | DNC-100-25-PPV |
| | 40 | 163448 | DNC-80-40-PPV | | 40 | 163480 | DNC-100-40-PPV |
| | 50 | 163449 | DNC-80-50-PPV | | 50 | 163481 | DNC-100-50-PPV |
| | 80 | 163450 | DNC-80-80-PPV | | 80 | 163482 | DNC-100-80-PPV |
| | 100 | 163451 | DNC-80-100-PPV | | 100 | 163483 | DNC-100-100-PPV |
| | 125 | 163452 | DNC-80-125-PPV | | 125 | 163484 | DNC-100-125-PPV |
| | 160 | 163453 | DNC-80-160-PPV | | 160 | 163485 | DNC-100-160-PPV |
| | 200 | 163454 | DNC-80-200-PPV | | 200 | 163486 | DNC-100-200-PPV |
| | 250 | 163455 | DNC-80-250-PPV | | 250 | 163487 | DNC-100-250-PPV |
| | 320 | 163456 | DNC-80-320-PPV | | 320 | 163488 | DNC-100-320-PPV |
| | 400 | 163457 | DNC-80-400-PPV | | 400 | 163489 | DNC-100-400-PPV |
| | 500 | 163458 | DNC-80-500-PPV | | 500 | 163490 | DNC-100-500-PPV |
| 125 | 25 | 163511 | DNC-125-25-PPV | | | | |
| | 40 | 163512 | DNC-125-40-PPV | | | | |
| | 50 | 163513 | DNC-125-50-PPV | | | | |
| | 80 | 163514 | DNC-125-80-PPV | | | | |
| | 100 | 163515 | DNC-125-100-PPV | | | | |
| | 125 | 163516 | DNC-125-125-PPV | | | | |
| | 160 | 163517 | DNC-125-160-PPV | | | | |
| | 200 | 163518 | DNC-125-200-PPV | | | | |
| | 250 | 163519 | DNC-125-250-PPV | | | | |
| | 320 | 163520 | DNC-125-320-PPV | | | | |
| | 400 | 163521 | DNC-125-400-PPV | | | | |
| | 500 | 163522 | DNC-125-500-PPV | | | | |

1) The mounting nut on the piston rod thread is included in the scope of delivery

Standard cylinders DNC, ISO 15552

FESTO

Technical data

| Ordering data – With position sensing | | | | | | | |
|---------------------------------------|----------------|----------|--------------------|--|------------------|----------------|--------------------------------|
| Piston Ø [mm] | Stroke [mm] | Part No. | Type ¹⁾ | | Piston Ø [mm] | Stroke [mm] | Part No. Type ¹⁾ |
| 32 | 20 | 1922617 | DNC-32-20-PPV-A | | 40 | 20 | 1922623 DNC-40-20-PPV-A |
| | 25 | 163305 | DNC-32-25-PPV-A | | | 25 | 163337 DNC-40-25-PPV-A |
| | 30 | 1922618 | DNC-32-30-PPV-A | | | 30 | 1922624 DNC-40-30-PPV-A |
| | 40 | 163306 | DNC-32-40-PPV-A | | | 40 | 163338 DNC-40-40-PPV-A |
| | 50 | 163307 | DNC-32-50-PPV-A | | | 50 | 163339 DNC-40-50-PPV-A |
| | 60 | 1922619 | DNC-32-60-PPV-A | | | 60 | 1922625 DNC-40-60-PPV-A |
| | 70 | 1922620 | DNC-32-70-PPV-A | | | 70 | 1922626 DNC-40-70-PPV-A |
| | 80 | 163308 | DNC-32-80-PPV-A | | | 80 | 163340 DNC-40-80-PPV-A |
| | 100 | 163309 | DNC-32-100-PPV-A | | | 100 | 163341 DNC-40-100-PPV-A |
| | 125 | 163310 | DNC-32-125-PPV-A | | | 125 | 163342 DNC-40-125-PPV-A |
| | 150 | 1922621 | DNC-32-150-PPV-A | | | 150 | 1922627 DNC-40-150-PPV-A |
| | 160 | 163311 | DNC-32-160-PPV-A | | | 160 | 163343 DNC-40-160-PPV-A |
| | 200 | 163312 | DNC-32-200-PPV-A | | | 200 | 163344 DNC-40-200-PPV-A |
| | 250 | 163313 | DNC-32-250-PPV-A | | | 250 | 163345 DNC-40-250-PPV-A |
| | 300 | 1922622 | DNC-32-300-PPV-A | | | 300 | 1922628 DNC-40-300-PPV-A |
| | 320 | 163314 | DNC-32-320-PPV-A | | | 320 | 163346 DNC-40-320-PPV-A |
| | 400 | 163315 | DNC-32-400-PPV-A | | | 400 | 163347 DNC-40-400-PPV-A |
| | 500 | 163316 | DNC-32-500-PPV-A | | | 500 | 163348 DNC-40-500-PPV-A |
| | | | | | | | |
| 50 | 20 | 1922629 | DNC-50-20-PPV-A | | 63 | 20 | 1922635 DNC-63-20-PPV-A |
| | 25 | 163369 | DNC-50-25-PPV-A | | | 25 | 163401 DNC-63-25-PPV-A |
| | 30 | 1922630 | DNC-50-30-PPV-A | | | 30 | 1922636 DNC-63-30-PPV-A |
| | 40 | 163370 | DNC-50-40-PPV-A | | | 40 | 163402 DNC-63-40-PPV-A |
| | 50 | 163371 | DNC-50-50-PPV-A | | | 50 | 163403 DNC-63-50-PPV-A |
| | 60 | 1922631 | DNC-50-60-PPV-A | | | 60 | 1922637 DNC-63-60-PPV-A |
| | 70 | 1922632 | DNC-50-70-PPV-A | | | 70 | 1922638 DNC-63-70-PPV-A |
| | 80 | 163372 | DNC-50-80-PPV-A | | | 80 | 163404 DNC-63-80-PPV-A |
| | 100 | 163373 | DNC-50-100-PPV-A | | | 100 | 163405 DNC-63-100-PPV-A |
| | 125 | 163374 | DNC-50-125-PPV-A | | | 125 | 163406 DNC-63-125-PPV-A |
| | 150 | 1922633 | DNC-50-150-PPV-A | | | 150 | 1922639 DNC-63-150-PPV-A |
| | 160 | 163375 | DNC-50-160-PPV-A | | | 160 | 163407 DNC-63-160-PPV-A |
| | 200 | 163376 | DNC-50-200-PPV-A | | | 200 | 163408 DNC-63-200-PPV-A |
| | 250 | 163377 | DNC-50-250-PPV-A | | | 250 | 163409 DNC-63-250-PPV-A |
| | 300 | 1922634 | DNC-50-300-PPV-A | | | 300 | 1922640 DNC-63-300-PPV-A |
| | 320 | 163378 | DNC-50-320-PPV-A | | | 320 | 163410 DNC-63-320-PPV-A |
| | 400 | 163379 | DNC-50-400-PPV-A | | | 400 | 163411 DNC-63-400-PPV-A |
| | 500 | 163380 | DNC-50-500-PPV-A | | | 500 | 163412 DNC-63-500-PPV-A |

1) The mounting nut on the piston rod thread is included in the scope of delivery

Standard cylinders DNC, ISO 15552

Technical data



| Ordering data – With position sensing | | | |
|---------------------------------------|----------------|----------|--------------------|
| Piston Ø [mm] | Stroke [mm] | Part No. | Type ¹⁾ |
| 80 | 20 | 1922641 | DNC-80-20-PPV-A |
| | 25 | 163433 | DNC-80-25-PPV-A |
| | 30 | 1922642 | DNC-80-30-PPV-A |
| | 40 | 163434 | DNC-80-40-PPV-A |
| | 50 | 163435 | DNC-80-50-PPV-A |
| | 60 | 1922643 | DNC-80-60-PPV-A |
| | 70 | 1922644 | DNC-80-70-PPV-A |
| | 80 | 163436 | DNC-80-80-PPV-A |
| | 100 | 163437 | DNC-80-100-PPV-A |
| | 125 | 163438 | DNC-80-125-PPV-A |
| | 150 | 1922645 | DNC-80-150-PPV-A |
| | 160 | 163439 | DNC-80-160-PPV-A |
| | 200 | 163440 | DNC-80-200-PPV-A |
| | 250 | 163441 | DNC-80-250-PPV-A |
| | 300 | 1922646 | DNC-80-300-PPV-A |
| | 320 | 163442 | DNC-80-320-PPV-A |
| | 400 | 163443 | DNC-80-400-PPV-A |
| | 500 | 163444 | DNC-80-500-PPV-A |
| 100 | 25 | 163465 | DNC-100-25-PPV-A |
| | 40 | 163466 | DNC-100-40-PPV-A |
| | 50 | 163467 | DNC-100-50-PPV-A |
| | 80 | 163468 | DNC-100-80-PPV-A |
| | 100 | 163469 | DNC-100-100-PPV-A |
| | 125 | 163470 | DNC-100-125-PPV-A |
| | 160 | 163471 | DNC-100-160-PPV-A |
| | 200 | 163472 | DNC-100-200-PPV-A |
| | 250 | 163473 | DNC-100-250-PPV-A |
| | 320 | 163474 | DNC-100-320-PPV-A |
| | 400 | 163475 | DNC-100-400-PPV-A |
| | 500 | 163476 | DNC-100-500-PPV-A |
| 125 | 25 | 163497 | DNC-125-25-PPV-A |
| | 40 | 163498 | DNC-125-40-PPV-A |
| | 50 | 163499 | DNC-125-50-PPV-A |
| | 80 | 163500 | DNC-125-80-PPV-A |
| | 100 | 163501 | DNC-125-100-PPV-A |
| | 125 | 163502 | DNC-125-125-PPV-A |
| | 160 | 163503 | DNC-125-160-PPV-A |
| | 200 | 163504 | DNC-125-200-PPV-A |
| | 250 | 163505 | DNC-125-250-PPV-A |
| | 320 | 163506 | DNC-125-320-PPV-A |
| | 400 | 163507 | DNC-125-400-PPV-A |
| | 500 | 163508 | DNC-125-500-PPV-A |

1) The mounting nut on the piston rod thread is included in the scope of delivery

Standard cylinders DNC, ISO 15552

Technical data

| Ordering data – Variable stroke | | | |
|---------------------------------|----------------|--------------------------|------------------------|
| Piston Ø [mm] | Stroke [mm] | Without position sensing | |
| | | Part No. | Type ¹⁾ |
| 32 | 10 ... 2000 | 163318 | DNC-32-...-PPV |
| 40 | 10 ... 2000 | 163350 | DNC-40-...-PPV |
| 50 | 10 ... 2000 | 163382 | DNC-50-...-PPV |
| 63 | 10 ... 2000 | 163414 | DNC-63-...-PPV |
| 80 | 10 ... 2000 | 163446 | DNC-80-...-PPV |
| 100 | 10 ... 2000 | 163478 | DNC-100-...-PPV |
| 125 | 10 ... 2000 | 163510 | DNC-125-...-PPV |

1) The mounting nut on the piston rod thread is included in the scope of delivery

| Ordering data – Variable stroke | | | |
|---------------------------------|----------------|-----------------------|--------------------------|
| Piston Ø [mm] | Stroke [mm] | With position sensing | |
| | | Part No. | Type ¹⁾ |
| 32 | 10 ... 2000 | 163304 | DNC-32-...-PPV-A |
| 40 | 10 ... 2000 | 163336 | DNC-40-...-PPV-A |
| 50 | 10 ... 2000 | 163368 | DNC-50-...-PPV-A |
| 63 | 10 ... 2000 | 163400 | DNC-63-...-PPV-A |
| 80 | 10 ... 2000 | 163432 | DNC-80-...-PPV-A |
| 100 | 10 ... 2000 | 163464 | DNC-100-...-PPV-A |
| 125 | 10 ... 2000 | 163496 | DNC-125-...-PPV-A |

1) The mounting nut on the piston rod thread is included in the scope of delivery

Standard cylinders DNC, ISO 15552

Ordering data – Modular products

FESTO

| Ordering table | | | | | | | | | | |
|-----------------------------|--|---------------|---------------|---------------|---------------|---------------|---------------|-----------------|---------------|---------------|
| Size | 32 | 40 | 50 | 63 | 80 | 100 | 125 | Condi- tions | Code | Enter code |
| M Module No. | 163302 | 163334 | 163366 | 163398 | 163430 | 163462 | 163494 | | | |
| Function | Standard cylinder, double-acting, based on ISO 15552 | | | | | | | | DNC | DNC |
| Piston Ø [mm] | 32 | 40 | 50 | 63 | 80 | 100 | 125 | | -... | |
| Stroke [mm] | 10 ... 2000 | | | | | | | | -... | |
| Cushioning | Flexible cushioning rings/pads at both ends | | | | | | | | -P | |
| | Pneumatic cushioning, adjustable at both ends | | | | | | | 15 | -PPV | |
| 0 Position sensing | Via proximity sensor | | | | | | | | -A | |
| Protection against rotation | Square piston rod | | | | | | | 2 | -Q | |
| Type of piston rod | Through piston rod | | | | | | | 3 | -S2 | |
| | Through, hollow piston rod | | | | | | | 4 | -S20 | |
| Extended male thread [mm] | Piston rod with extended male thread | | | | | | | 5 | -...K2 | |
| | 1 ... 35 1 ... 70 | | | | | | | | | |
| Female thread | Piston rod with female thread | | | | | | | 6 | -K3 | |
| | (M6) | (M8) | (M10) | (M10) | (M12) | (M12) | (M16) | | | |
| Special thread | Piston rod with special thread | | | | | | | 7 | -...K5 | |
| | M10 | M12 | M16 | M16 | M20 | M20 | M27 | | | |

15 PPV For piston Ø 125 not with S11

2 Q Max. stroke: 10 ... 1500 mm.

In combination with S2: square piston rod at bearing cap end only.
Not with S20, K7, K10, S10, S11, R8

3 S2 In combination with K2: thread extended at both ends.

In combination with K3: female thread at both ends.

In combination with K5: special thread at both ends.

In combination with K8: piston rod extended at bearing cap end only.

Not with K7, S10, S11

4 S20 Max. stroke: 850 mm.

Not with K2, K3, K5, K8, K10, S6, S10, S11, R8

5 K2 Not with K3, K10

6 K3 With K5: on request.

Not with K7

7 K5 Not with K10

Transfer order code

DNC - - - - - - - - - -

Standard cylinders DNC, ISO 15552

Ordering data – Modular products



| Ordering table | | | | | | | | | | |
|------------------------------|--|----|----|----|----|-----|-----|-----------------|--------|---------------|
| Size | 32 | 40 | 50 | 63 | 80 | 100 | 125 | Condi- tions | Code | Enter code |
| ↓ Special spanner flats | Piston rod with external hexagon | | | | | | | 8 | -K7 | |
| 0 Extended piston rod | Extended piston rod | | | | | | | | -...K8 | |
| [mm] 1 ... 500 | | | | | | | | | | |
| Improved running performance | Smooth anodised aluminium coated piston rod | | | | | | – | 9 | -K10 | |
| Temperature resistance | Heat-resistant seals for temperatures up to 120 °C | | | | | | | 10 | -S6 | |
| Slow speed (constant motion) | Slow speed (constant motion at low piston speeds) | | | | | | – | 12 | -S10 | |
| Running characteristics | Low friction | | | | | | | 13 | -S11 | |
| Corrosion protection | High corrosion protection | | | | | | | 14 | -R3 | |
| Wiper seal | Dust protection | | | | | | | | -R8 | |

- 8 **K7** Not with Q, S2, K10
 9 **K10** Max. stroke: 1,000 mm.
 Not with S6, R3, R8
 10 **S6** Not with S10, S11, R8

- 12 **S10** Max. stroke: 500 mm; additional strokes on request.
 Not with S11, R3, R8
 13 **S11** Max. stroke: 500 mm; additional strokes on request.
 Not with R3, R8
 14 **CT, R3** Not with R8

Transfer order code

– [] – [] – [] – [] – [] – [] – [] – []

Standard cylinders DNC, ISO 15552

Ordering data

FESTO

| Wearing parts kits | | | | | |
|--------------------|---------------|---------------------|--|---|------------------------|
| | Part No. | Type | | Part No. | Type |
| Piston Ø | Basic version | | | S6 – Heat-resistant seals up to max. 120 °C | |
| 32 | 369195 | DNC-32-...-PPV-(A) | | 384214 | DNC-32-...-PPV-(A)-S6 |
| 40 | 369196 | DNC-40-...-PPV-(A) | | 384215 | DNC-40-...-PPV-(A)-S6 |
| 50 | 369197 | DNC-50-...-PPV-(A) | | 384216 | DNC-50-...-PPV-(A)-S6 |
| 63 | 369198 | DNC-63-...-PPV-(A) | | 384217 | DNC-63-...-PPV-(A)-S6 |
| 80 | 369199 | DNC-80-...-PPV-(A) | | 384218 | DNC-80-...-PPV-(A)-S6 |
| 100 | 369200 | DNC-100-...-PPV-(A) | | 384219 | DNC-100-...-PPV-(A)-S6 |
| 125 | 369201 | DNC-125-...-PPV-(A) | | 384220 | DNC-125-...-PPV-(A)-S6 |

Standard cylinders DNC-KP, standard hole pattern, with clamping unit

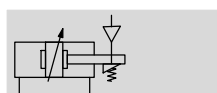
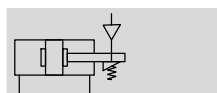
FESTO

Technical data

Function

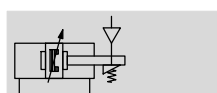
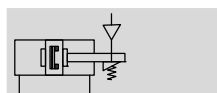
DNC-...-KP

Without position sensing



DNC-...-A-...-KP

With position sensing



Ø - Diameter
32 ... 125 mm

Stroke length
10 ... 2000 mm

www.festo.com

Wearing parts kits
→ page 32



Note

Additional measures are required for use in safety-related applications; in Europe, for example, the standards listed under the EC Machinery Directive must be observed. Without

additional measures in accordance with statutory minimum requirements, the product is not suitable for use in safety-related sections of control systems.

General technical data

| Piston Ø | | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
|--|----------|---|----------|---------|---------|---------|---------|-------|
| Pneumatic connection | Cylinder | G1/8 | G1/4 | G1/4 | G3/8 | G3/8 | G1/2 | G1/2 |
| | KP | M5 | G1/8 | G1/8 | G1/8 | G1/8 | G1/8 | G1/8 |
| Piston rod thread | | M10x1.25 | M12x1.25 | M16x1.5 | M16x1.5 | M20x1.5 | M20x1.5 | M27x2 |
| | K3 | M6 | M8 | M10 | M10 | M12 | M12 | M16 |
| | K5 | M10 | M12 | M16 | M16 | M20 | M20 | M27 |
| Axial play under load | [mm] | 0.5 | | 0.8 | | | | 1.8 |
| Constructional design | | Piston | | | | | | |
| | | Piston rod | | | | | | |
| | | Profile barrel | | | | | | |
| | | Clamping unit | | | | | | |
| Cushioning | | Flexible cushioning rings/pads at both ends | | | | | | |
| | | Pneumatic cushioning, adjustable at both ends | | | | | | |
| Cushioning length PPV | [mm] | 20 | 20 | 22 | 22 | 32 | 32 | 42 |
| Position sensing | | Via proximity sensor | | | | | | |
| Type of mounting | | Via female thread | | | | | | |
| | | Via accessories | | | | | | |
| Mounting position | | Any | | | | | | |
| Clamping type with effective direction | | At both ends | | | | | | |

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

Operating and environmental conditions

| | |
|--|--|
| Operating medium | Compressed air in accordance with ISO 8573-1:2010 [7:4:4] |
| Note on operating/pilot medium | Operation with lubricated medium possible (in which case lubricated operation will always be required) |
| Operating pressure [bar] | 1.5 ... 10 |
| Min. release pressure [bar] | 3 |
| Ambient temperature ¹⁾ [°C] | -10 ... +80 |
| Corrosion resistance class CRC ²⁾ | 2 |
| Certification | Germanischer Lloyd |

¹⁾ Note operating range of proximity sensors

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

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

Standard cylinders DNC-KP, standard hole pattern, with clamping unit

FESTO

Technical data

| Impact energy [J] | | | | | | | |
|---|-----|-----|-----|-----|-----|-----|-----|
| Piston Ø | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| Max. impact energy at the end positions | 0.1 | 0.2 | 0.2 | 0.5 | 0.9 | 1.2 | 5 |

Permissible impact velocity:

$$v_{perm.} = \sqrt{\frac{2 \times E_{perm.}}{m_{dead} + m_{load}}}$$

$v_{perm.}$ Permissible impact velocity

$E_{perm.}$ Max. impact energy

$m_{intrinsic}$ Moving load (drive)

m_{load} Moving effective load



Note

This data represents the maximum values that can be achieved. The maximum permissible impact energy must be observed.

Maximum permissible load:

$$m_{load} = \frac{2 \times E_{perm.}}{v^2} - m_{dead}$$

| Forces [N] | | | | | | | |
|--|-----|------|------|------|------|------|------|
| Piston Ø | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
| Theoretical force at 6 bar, advancing | 483 | 754 | 1178 | 1870 | 3016 | 4712 | 7363 |
| S2 | 415 | 633 | 990 | 1682 | 2721 | 4418 | 6881 |
| Theoretical force at 6 bar, retracting | 415 | 633 | 990 | 1682 | 2721 | 4418 | 6881 |
| S2 | 415 | 633 | 990 | 1682 | 2721 | 4418 | 6881 |
| Static holding force | 600 | 1000 | 1400 | 2000 | 5000 | 5000 | 7500 |



Note

The specified holding force refers to a static load. If this value is exceeded, slippage may occur. Dynamic forces occurring during operation must not

exceed the static holding force. The clamping unit is not backlash-free in the clamped condition if varying loads are applied to the piston rod.

Activation:

The clamping unit may only be released if the forces at the piston have reached equilibrium. Otherwise, there is a risk of accidents due to

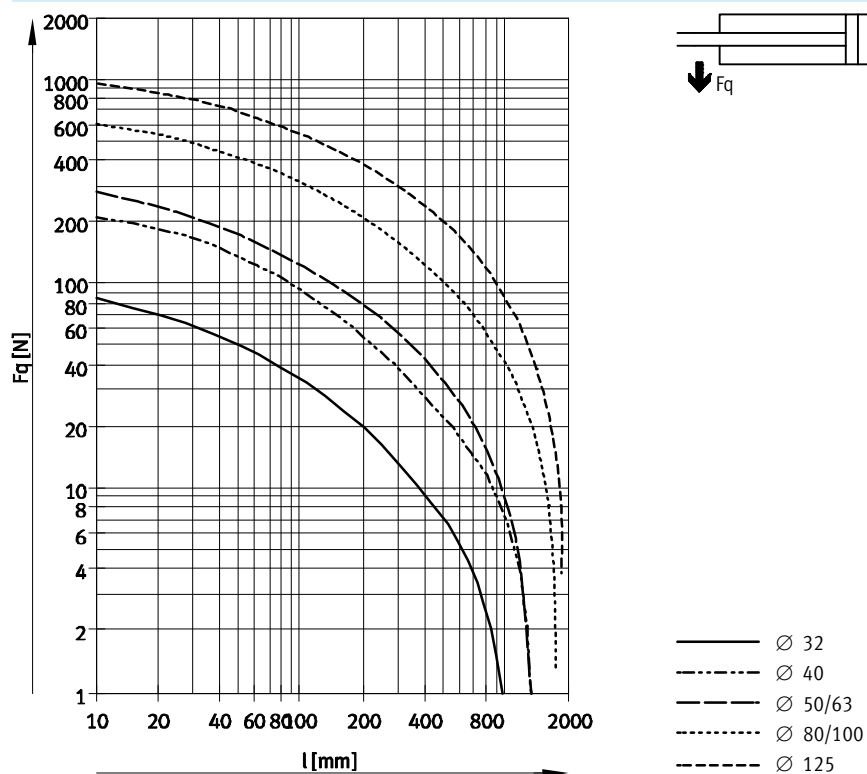
sudden movement of the piston rod. Blocking off the air supply at both ends (e.g. with a 5/3-way valve) does not provide any safety.

Standard cylinders DNC-KP, standard hole pattern, with clamping unit

FESTO

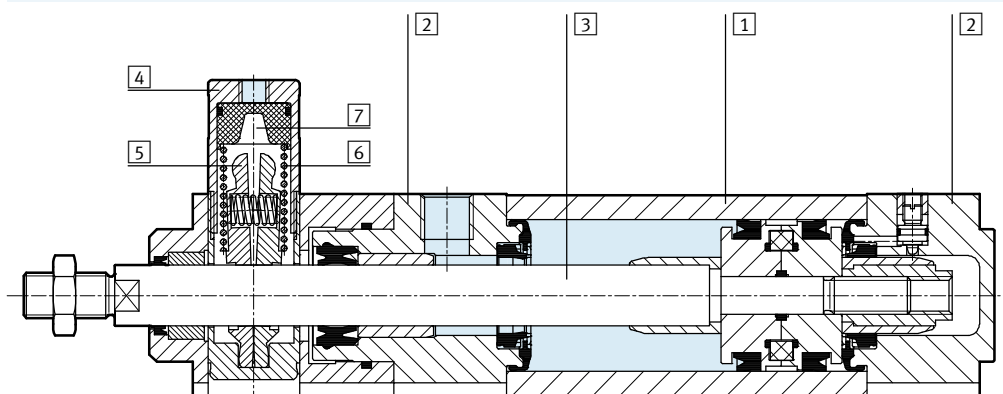
Technical data

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



Materials

Sectional view



| Standard cylinder | | |
|-------------------|------------------------|--|
| 1 | Profile barrel | Wrought aluminium alloy, smooth anodised |
| 2 | Bearing and end caps | Die-cast aluminium |
| 3 | Piston rod | High-alloy steel |
| 4 | Housing, clamping unit | Wrought aluminium alloy, anodised |
| 5 | Clamping jaws | Brass |
| 6 | Spring | Spring steel |
| 7 | Piston | Polyacetal |
| – | Seals | Polyurethane, nitrile rubber |
| Note on materials | | RoHS compliant |

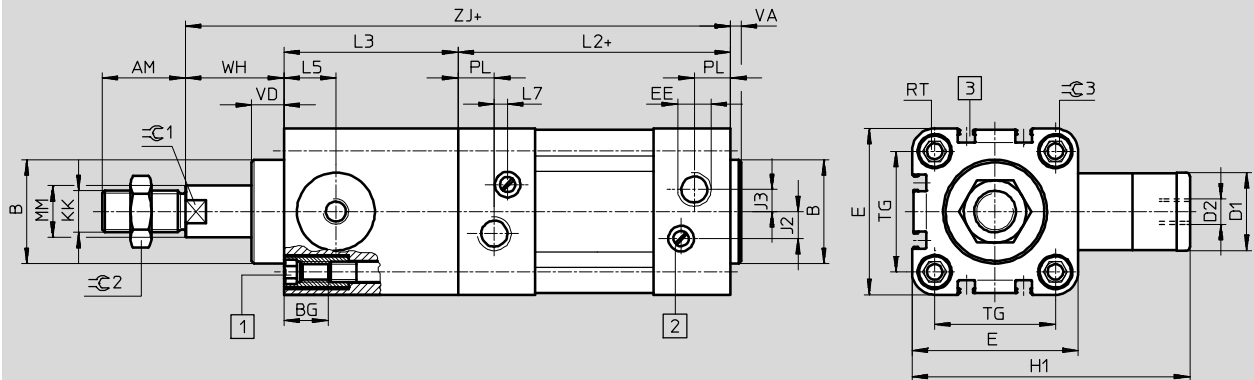
Standard cylinders DNC-KP, standard hole pattern, with clamping unit

FESTO

Technical data

Dimensions – Basic version

Download CAD data → www.festo.com



- 1 For mounting attachments:
 Ø 32 ... 100: Socket head screw with female thread
 Ø 125: Thread in the end cap
- 2 Regulating screw for adjustable end-position cushioning
- 3 Slot for proximity sensor SME/SMT-8
- + = plus stroke length

| Ø [mm] | AM | B Ø d11 | BG | D1 Ø f9 | D2 | E | EE | H1 | J2 | J3 | KK | L2 | L3 |
|-----------|----|---------------|----|---------------|------|-----|------|-------|------|-----|----------|-----|-----|
| 32 | 22 | 30 | 16 | 20 | M5 | 45 | G1/8 | 67 | 6 | 5.2 | M10x1.25 | 94 | 45 |
| 40 | 24 | 35 | 16 | 24 | G1/8 | 54 | G1/4 | 88 | 8 | 6 | M12x1.25 | 105 | 53 |
| 50 | 32 | 40 | 17 | 30 | G1/8 | 64 | G1/4 | 107 | 10.4 | 8.5 | M16x1.5 | 106 | 67 |
| 63 | 32 | 45 | 17 | 38 | G1/8 | 75 | G3/8 | 123 | 12.4 | 10 | M16x1.5 | 121 | 76 |
| 80 | 40 | 45 | 17 | 48 | G1/8 | 93 | G3/8 | 165.5 | 12.5 | 8 | M20x1.5 | 128 | 95 |
| 100 | 40 | 55 | 17 | 48 | G1/8 | 110 | G1/2 | 174 | 12 | 10 | M20x1.5 | 138 | 98 |
| 125 | 54 | 60 | 22 | 65 | G1/8 | 134 | G1/2 | 207 | 13 | 8 | M27x2 | 160 | 125 |

| Ø [mm] | L5 | L7 | MM Ø | PL | RT | TG | VA | VD | WH | ZJ | ⌀1 | ⌀2 | ⌀3 |
|-----------|------|------|---------|------|-----|------|----|------|----|-----|----|----|----|
| 32 | 14 | 3.3 | 12 | 15.6 | M6 | 32.5 | 4 | 11.5 | 26 | 165 | 10 | 16 | 6 |
| 40 | 16 | 3.6 | 16 | 14 | M6 | 38 | 4 | 11.5 | 30 | 188 | 13 | 18 | 6 |
| 50 | 20 | 5.1 | 20 | 14 | M8 | 46.5 | 4 | 11 | 37 | 210 | 17 | 24 | 8 |
| 63 | 24 | 6.6 | 20 | 17 | M8 | 56.5 | 4 | 11 | 37 | 234 | 17 | 24 | 8 |
| 80 | 31.5 | 10.5 | 25 | 16.4 | M10 | 72 | 4 | 12.5 | 46 | 269 | 22 | 30 | 6 |
| 100 | 31 | 8 | 25 | 18.8 | M10 | 89 | 4 | 12 | 51 | 287 | 22 | 30 | 6 |
| 125 | 42 | 14 | 32 | 18 | M12 | 110 | 6 | 27.5 | 65 | 350 | 27 | 36 | 8 |

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



Note

The dimensions for the cylinder/
 valve combination are on page
 → page 44

Standard cylinders DNC-KP, standard hole pattern, with clamping unit

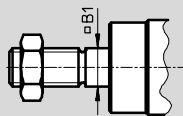
FESTO

Technical data

Dimensions – Variants

Download CAD data → www.festo.com

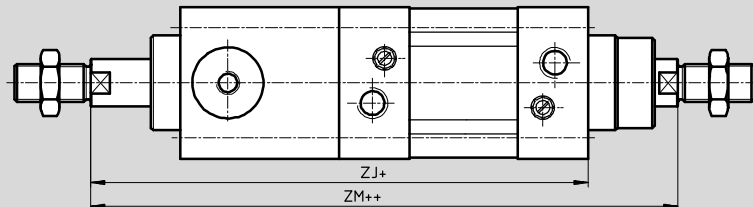
Q – Square piston rod



Note

Clamping unit and variant Q only in combination with S2.

S2 – Through piston rod



+ = plus stroke length
++ = plus 2x stroke length



Note

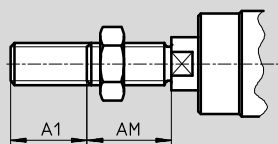
The thread types at both piston rod ends are identical.

In combination with variant Q, the left-hand piston rod is round,

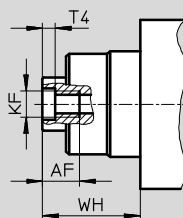
the right-hand piston rod square. The clamping unit is mounted on

the left-hand, round piston rod.

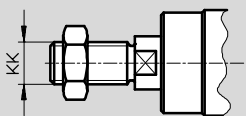
K2 – Extended male piston rod thread



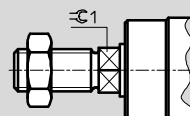
K3 – Female piston rod thread



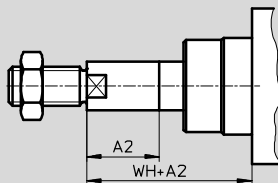
K5 – Special piston rod thread



K7 – Piston rod with external hexagon



K8 – Extended piston rod



Note

In combination with variant S2, the piston rod is extended at one end. The clamping unit is mounted on the

side of the piston rod that is not extended. If variant Q is also required,

the extension will only be added to the square piston rod.

| Ø [mm] | A1 max. | A2 max. | AF | AM | B1 □ | KF | KK | | T4 | WH | ZJ | ZM | ≈G1 |
|-----------|------------|------------|----|----|---------|-----|-----------------|---------------------------------|-----|----|-----|-----|-----|
| | | | | | | | Basic thread | Special thread ¹⁾ | | | | | |
| 32 | 35 | 500 | 12 | 22 | 10 | M6 | M10x1.25 | M10 | 2.6 | 26 | 165 | 193 | 10 |
| 40 | 35 | 500 | 12 | 24 | 12 | M8 | M12x1.25 | M12 | 3.3 | 30 | 188 | 220 | 13 |
| 50 | 70 | 500 | 16 | 32 | 16 | M10 | M16x1.5 | M16 | 4.7 | 37 | 210 | 250 | 17 |
| 63 | 70 | 500 | 16 | 32 | 16 | M10 | M16x1.5 | M16 | 4.7 | 37 | 234 | 275 | 17 |
| 80 | 70 | 500 | 20 | 40 | 20 | M12 | M20x1.5 | M20 | 6.1 | 46 | 269 | 317 | 22 |
| 100 | 70 | 500 | 20 | 40 | 20 | M12 | M20x1.5 | M20 | 6.1 | 51 | 287 | 338 | 22 |
| 125 | 70 | 500 | 32 | 54 | – | M16 | M27x2 | M27 | 8 | 65 | 350 | 416 | 27 |

1) The special threads are only available as male threads. The mounting nut on the piston rod thread is included in the scope of delivery

Standard cylinders DNC-KP, standard hole pattern, with clamping unit



Ordering data – Modular products

| Ordering table | | | | | | | | | | |
|-----------------------------|---|---------------|---------------|---------------|---------------|---------------|---------------|-----------------|-------------|---------------|
| Size | 32 | 40 | 50 | 63 | 80 | 100 | 125 | Condi- tions | Code | Enter code |
| M Module No. | 163302 | 163334 | 163366 | 163398 | 163430 | 163462 | 163494 | | | |
| Function | Standard cylinder, double-acting, standard hole pattern, with clamping unit | | | | | | | | DNC | DNC |
| Piston Ø [mm] | 32 | 40 | 50 | 63 | 80 | 100 | 125 | | -... | |
| Stroke [mm] | 10 ... 2000 | | | | | | | | -... | |
| Cushioning | Flexible cushioning rings/pads at both ends | | | | | | | | -P | |
| | Pneumatic cushioning, adjustable at both ends | | | | | | | | -PPV | |
| O Position sensing | Via proximity sensor | | | | | | | | -A | |
| Protection against rotation | Square piston rod | | | | | | | - | 1 | -Q |
| ↓ Type of piston rod | Through piston rod | | | | | | | | 2 | -S2 |

1 Q Max. stroke: 10 ... 1500 mm
In combination with S2: square piston rod at bearing cap end only
In combination with KP: only supplied with S2
Not with K7

2 S2 In combination with K2: extended thread at both ends
In combination with K3: female thread at both ends
In combination with K5: special thread at both ends
In combination with K8: piston rod extended at bearing cap end only
In combination with KP: clamping unit at end cap
Not with K7

Transfer order code

| | | | | | | | | | | | |
|--|-----|---|--|---|--|---|--|---|--|---|--|
| | DNC | - | | - | | - | | - | | - | |
|--|-----|---|--|---|--|---|--|---|--|---|--|

Standard cylinders DNC-KP, standard hole pattern, with clamping unit

FESTO

Ordering data – Modular products

| Ordering table | | | | | | | | | | |
|----------------|----------------------------|----|--|------|-------|-------|-------|-----------------|--------|---------------|
| Size | 32 | 40 | 50 | 63 | 80 | 100 | 125 | Condi- tions | Code | Enter code |
| ↓ | Extended male thread | | | | | | | | | |
| ○ | [mm] | | Piston rod with extended male thread | | | | | 3 | -...K2 | |
| | 1 ... 35 | | 1 ... 70 | | | | | | | |
| | Female thread | | Piston rod with female thread | | | | | 4 | -K3 | |
| | | | (M6) | (M8) | (M10) | (M10) | (M12) | (M12) | (M16) | |
| | Special thread | | Piston rod with special thread | | | | | | -...K5 | |
| | | | M10 | M12 | M16 | M16 | M20 | M20 | M27 | |
| | Special spanner flats | | Piston rod with external hexagon | | | | | | -K7 | |
| | Extended piston rod | | Extended piston rod | | | | | | -...K8 | |
| | [mm] | | 1 ... 500 | | | | | | | |
| ■ | Clamping unit | | Attached | | | | | 5 | -KP | -KP |
| ○ | Cylinder/valve combination | | Single solenoid valve, fitted on right, piston rod retracted when unactuated | | | | | 6 | -V1 | |
| | | | Single solenoid valve, fitted on right, piston rod advanced when unactuated | | | | | 6 | -V2 | |
| | | | Double solenoid valve, fitted on right | | | | | 6 | -V3 | |
| | | | Single solenoid valve, fitted on left, piston rod retracted when unactuated | | | | | 6 | -V4 | |
| | | | Single solenoid valve, fitted on left, piston rod advanced when unactuated | | | | | 6 | -V5 | |
| | | | Double solenoid valve, fitted on left | | | | | 6 | -V6 | |

- 3 K2 Not with K3
4 K3 With K5: on request
Not with K7

- 5 KP Without S2: position of the clamping unit at the bearing cap
6 V... Min. stroke: 100 mm

Transfer order code

- [] - [] - [] - [] - [] - KP [] - []

Standard cylinders DNC-KP, standard hole pattern, with clamping unit

FESTO

Ordering data

| Wearing parts kits | | |
|--------------------|---------------|----------------------------|
| | Part No. | Type |
| Piston Ø | Basic version | |
| 32 | 369195 | DNC-32-...-PPV-(A) |
| 40 | 369196 | DNC-40-...-PPV-(A) |
| 50 | 369197 | DNC-50-...-PPV-(A) |
| 63 | 369198 | DNC-63-...-PPV-(A) |
| 80 | 369199 | DNC-80-...-PPV-(A) |
| 100 | 369200 | DNC-100-...-PPV-(A) |
| 125 | 369201 | DNC-125-...-PPV-(A) |

Standard cylinders DNC-EL, standard hole pattern, with end-position locking

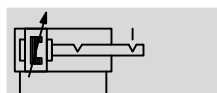
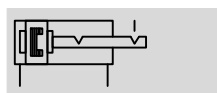
FESTO

Technical data

Function

DNC-...-A-...-EL

With position sensing



Ø - Diameter
32 ... 100 mm

└ - Stroke length
10 ... 2000 mm



www.festo.com

Wearing parts kits

→ page 24



Note

Additional measures are required for use in safety-related applications; in Europe, for example, the standards listed under the EC Machinery Directive must be observed. Without

additional measures in accordance with statutory minimum requirements, the product is not suitable for use in safety-related sections of control systems.

| General technical data | | | | | | | | |
|--|-----|---|----------|---------|---------|---------|---------|------|
| Piston Ø | | 32 | 40 | 50 | 63 | 80 | 100 | |
| Pneumatic connection | | G1/8 | G1/4 | G1/4 | G3/8 | G3/8 | G1/2 | |
| Piston rod thread | | M10x1.25 | M12x1.25 | M16x1.5 | M16x1.5 | M20x1.5 | M20x1.5 | |
| Max. axial backlash with end position locked | | [mm] | | ≤ 1.3 | | | ≤ 2.1 | |
| Constructional design | | Piston | | | | | | |
| | | Piston rod | | | | | | |
| | | Profile barrel | | | | | | |
| End-position locking | ELB | At both ends | | | | | | |
| | ELV | At front | | | | | | |
| | ELH | At rear | | | | | | |
| Cushioning | | Flexible cushioning rings/pads at both ends | | | | | | |
| | | Pneumatic cushioning, adjustable at both ends | | | | | | |
| Cushioning length PPV | | 20 | 20 | 22 | 22 | 32 | 32 | |
| [mm] | | EL | 8.2 | 8.3 | 7.3 | 10.8 | 9.8 | 11.8 |
| Position sensing | | Via proximity sensor | | | | | | |
| Type of mounting | | Via female thread | | | | | | |
| | | Via accessories | | | | | | |
| Mounting position | | Any | | | | | | |

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



Note

- End-position locking should only be operated in conjunction with double-acting cylinders with exhaust air flow control in order to ensure that the lock is always completely released prior to starting the drive movement.
- No screws with a head or similar may be used in place of end-position locking, as there is a risk that the function will be impaired if they are screwed in too deeply.
- The exhaust hole must not be closed.
- Locking can be performed from any stroke position once the drive is brought mechanically into its end position.
- End-position locking has been designed to prevent the load dropping in case of pressure failure.
- An excessive end-position cushioning setting (more than 50% closed) can result in the locking bolt not engaging reliably, resulting in premature wear.

Standard cylinders DNC-EL, standard hole pattern, with end-position locking

FESTO

Technical data

| Operating and environmental conditions | | | | | | |
|--|--|----|------------|----|----|-----|
| Piston Ø | 32 | 40 | 50 | 63 | 80 | 100 |
| Operating medium | Compressed air in accordance with ISO 8573-1:2010 [7:4:4] | | | | | |
| Note on operating/pilot medium | Operation with lubricated medium possible (in which case lubricated operation will always be required) | | | | | |
| Operating pressure [bar] | 2.5 ... 12 | | 1.5 ... 12 | | | |
| Ambient temperature ¹⁾ [°C] | -20 ... +80 | | | | | |
| Corrosion resistance class CRC ²⁾ | 2 | | | | | |
| Certification | Germanischer Lloyd | | | | | |

1) Note operating range of proximity sensors

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

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

| Impact energy [J] | | | | | | |
|---|-----|-----|-----|-----|-----|-----|
| Piston Ø | 32 | 40 | 50 | 63 | 80 | 100 |
| Max. impact energy at the end positions | 0.1 | 0.2 | 0.2 | 0.5 | 0.9 | 1.2 |


Permissible impact velocity:

$$v_{perm.} = \sqrt{\frac{2 \times E_{perm.}}{m_{dead} + m_{load}}}$$

Maximum permissible load:


$$m_{load} = \frac{2 \times E_{perm.}}{v^2} - m_{dead}$$

$v_{perm.}$ Permissible impact velocity
 $E_{perm.}$ Max. impact energy
 $m_{intrinsic}$ Moving load (drive)
 m_{load} Moving effective load

 Note
This data represents the maximum values that can be achieved. The maximum permissible impact energy must be observed.

| Forces [N] | | | | | | |
|--|-----|-----|------|------|------|------|
| Piston Ø | 32 | 40 | 50 | 63 | 80 | 100 |
| Theoretical force at 6 bar, advancing | 483 | 754 | 1178 | 1870 | 3016 | 4712 |
| Theoretical force at 6 bar, retracting | 415 | 633 | 990 | 1682 | 2721 | 4418 |
| Static holding force | 500 | | 2000 | | 5000 | |

Sizing example

 Note
When sizing pneumatic cylinders it is recommended as a basic principle that only 50% of the indicated theoretical forces (see above) be used.

Given:
 Installation position = Vertical
 Workpiece load = 44 kg
 $F = m \times g = 44 \text{ kg} \times 9.81 \text{ m/s}^2 = 431.6 \text{ N}$

To be calculated:
 Suitable piston Ø

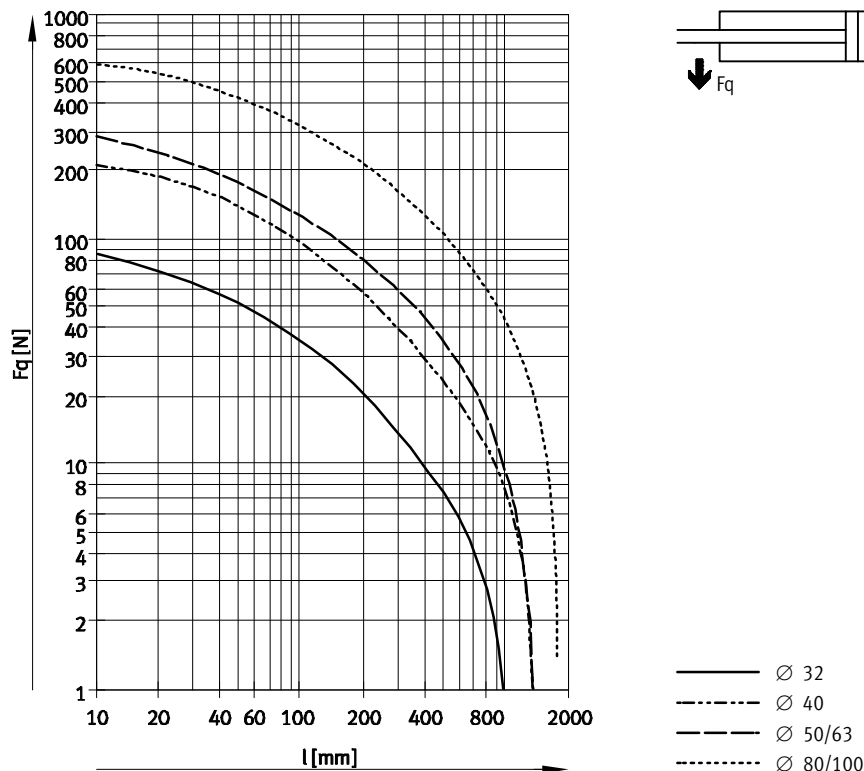
Example with 32 mm piston Ø:
 Theoretical force at 6 bar, advancing = 483 N
 50% of the theoretical force = 241.5 N
 Static holding force with 32 mm piston Ø = 500 N
 The static holding force of end-position locking is within the permissible range (max. 500 N) with a workpiece load of 44 kg (431.6 N), however the cylinder would be at 89% capacity.
Result:
 A cylinder with a piston Ø of 40 mm is therefore recommended for this application.

Standard cylinders DNC-EL, standard hole pattern, with end-position locking

FESTO

Technical data

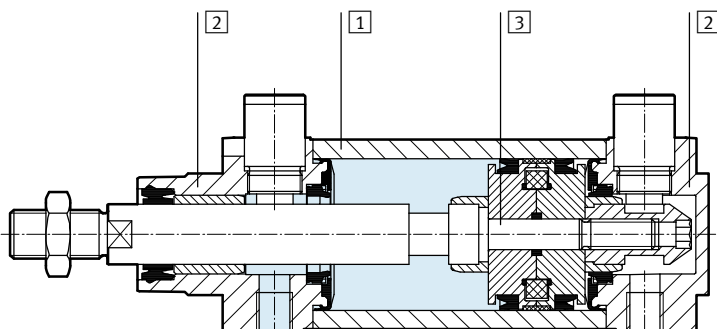
Max. lateral force F_q as a function of stroke length l



| Weight [g] | | | | | | |
|------------------------------------|-----|-----|------|------|------|------|
| Piston \varnothing | 32 | 40 | 50 | 63 | 80 | 100 |
| Basic version | | | | | | |
| Product weight with 0 mm stroke | 537 | 820 | 1320 | 1769 | 2970 | 4833 |
| Additional weight per 10 mm stroke | 30 | 45 | 64 | 73 | 106 | 115 |
| S2 – Through piston rod | | | | | | |
| Product weight with 0 mm stroke | 596 | 915 | 1450 | 1977 | 3294 | 5477 |
| Additional weight per 10 mm stroke | 39 | 61 | 89 | 98 | 144 | 153 |

Materials

Sectional view



| Standard cylinder | | |
|-------------------|----------------------|--|
| 1 | Profile barrel | Wrought aluminium alloy, smooth anodised |
| 2 | Bearing and end caps | Die-cast aluminium |
| 3 | Piston rod | High-alloy steel |
| - | Seals | Polyurethane, nitrile rubber |
| Note on materials | | RoHS compliant |

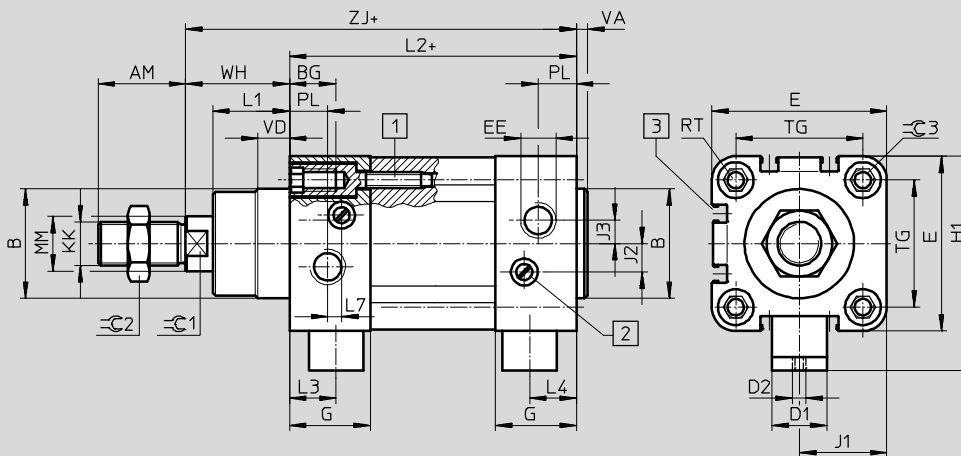
Standard cylinders DNC-EL, standard hole pattern, with end-position locking

FESTO

Technical data

Dimensions – Basic version

Download CAD data → www.festo.com

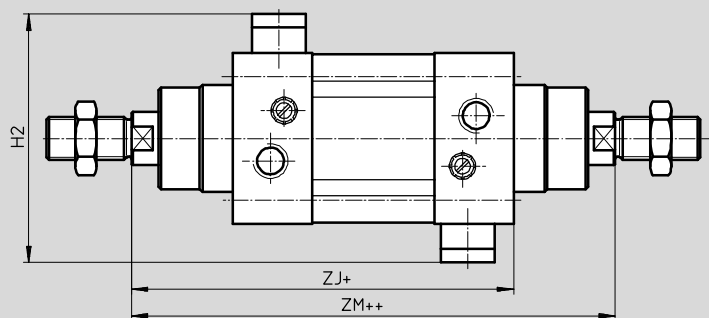


- 1 Socket head screw with female thread for mounting attachments
 2 Regulating screw for adjustable end-position cushioning
 3 Slot for proximity sensor
 + = plus stroke length

Dimensions – Variants

Download CAD data → www.festo.com

S2 – Through piston rod



- + = plus stroke length
 ++ = plus 2x stroke length

| Ø [mm] | AM | B Ø d11 | BG | D1 Ø f8 | D2 | E | EE | G | H1 | H2 | J1 | J2 | J3 | KK | L1 |
|-----------|----|---------------|----|---------------|----|-----|------|------|-------|-----|------|------|-----|----------|------|
| 32 | 22 | 30 | 16 | 13 | M3 | 45 | G1/8 | 25.1 | 57.5 | 70 | 22.5 | 6 | 5.2 | M10x1.25 | 18 |
| 40 | 24 | 35 | 16 | 13 | M3 | 54 | G1/4 | 29.6 | 64 | 74 | 27 | 8 | 6 | M12x1.25 | 21.5 |
| 50 | 32 | 40 | 17 | 20 | M5 | 64 | G1/4 | 29.6 | 78.5 | 93 | 32 | 10.4 | 8.5 | M16x1.5 | 28 |
| 63 | 32 | 45 | 17 | 20 | M5 | 75 | G3/8 | 35.6 | 84.5 | 93 | 37.5 | 12.4 | 10 | M16x1.5 | 28.5 |
| 80 | 40 | 45 | 17 | 30 | M5 | 93 | G3/8 | 35.9 | 104.5 | 116 | 46.5 | 12.5 | 8 | M20x1.5 | 34.7 |
| 100 | 40 | 55 | 17 | 30 | M5 | 110 | G1/2 | 38.8 | 113.5 | 116 | 55 | 12 | 10 | M20x1.5 | 38.2 |

| Ø [mm] | L2 | L3 | L4 | L7 | MM Ø | PL | RT | TG | VA | VD | WH ±2 | ZM | ZJ | ⌀C1 | ⌀C2 | ⌀C3 |
|-----------|-----|------|------|------|---------|------|-----|------|----|------|----------|-----|-----|-----|-----|-----|
| 32 | 94 | 13.8 | 12 | 3.3 | 12 | 15.6 | M6 | 32.5 | 4 | 10 | 26 | 148 | 120 | 10 | 16 | 6 |
| 40 | 105 | 16.6 | 16.6 | 3.6 | 16 | 14 | M6 | 38 | 4 | 10.5 | 30 | 167 | 135 | 13 | 18 | 6 |
| 50 | 106 | 17.1 | 17.1 | 5.1 | 20 | 14 | M8 | 46.5 | 4 | 11.5 | 37 | 183 | 143 | 17 | 24 | 8 |
| 63 | 121 | 16.6 | 16.6 | 6.6 | 20 | 17 | M8 | 56.5 | 4 | 15 | 37 | 199 | 158 | 17 | 24 | 8 |
| 80 | 128 | 19.9 | 19.9 | 10.5 | 25 | 16.4 | M10 | 72 | 4 | 15.7 | 46 | 222 | 174 | 22 | 30 | 6 |
| 100 | 138 | 22.8 | 22.8 | 8 | 25 | 18.8 | M10 | 89 | 4 | 19.2 | 51 | 240 | 189 | 22 | 30 | 6 |

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

Standard cylinders DNC-EL, standard hole pattern, with end-position locking

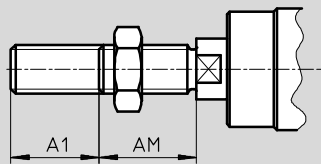
FESTO

Technical data

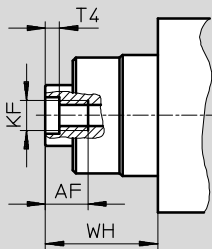
Dimensions – Variants

Download CAD data → www.festo.com

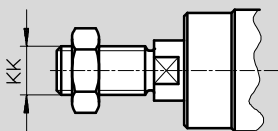
K2 – Extended male piston rod thread



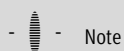
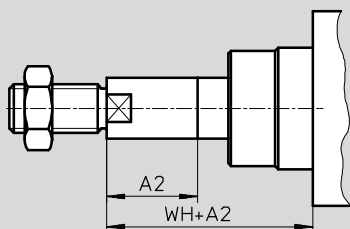
K3 – Female piston rod thread



K5 – Special piston rod thread



K8 – Extended piston rod



Note

In combination with variant S2, the piston rod is extended at one end.

| Ø [mm] | A1 max. | A2 max. | AF | AM | KF | KK | | T4 | WH | ≈1 |
|-----------|------------|------------|----|----|-----|--------------|------------------------------|-----|----|----|
| | | | | | | Basic thread | Special thread ¹⁾ | | | |
| 32 | 35 | 500 | 12 | 22 | M6 | M10x1.25 | M10 | 2.6 | 26 | 10 |
| 40 | 35 | 500 | 12 | 24 | M8 | M12x1.25 | M12 | 3.3 | 30 | 13 |
| 50 | 70 | 500 | 16 | 32 | M10 | M16x1.5 | M16 | 4.7 | 37 | 17 |
| 63 | 70 | 500 | 16 | 32 | M10 | M16x1.5 | M16 | 4.7 | 37 | 17 |
| 80 | 70 | 500 | 20 | 40 | M12 | M20x1.5 | M20 | 6.1 | 46 | 22 |
| 100 | 70 | 500 | 20 | 40 | M12 | M20x1.5 | M20 | 6.1 | 51 | 22 |

1) The special threads are only available as male threads. The mounting nut on the piston rod thread is included in the scope of delivery

Standard cylinders DNC-EL, standard hole pattern, with end-position locking



Ordering data – Modular products

| Ordering table | | | | | | | | | |
|-----------------------------|--|----------------|----------------|----------------|----------------|----------------|-----------------|-------------|---------------|
| Size | 32 | 40 | 50 | 63 | 80 | 100 | Condi- tions | Code | Enter code |
| M Module No. | 163 302 | 163 334 | 163 366 | 163 398 | 163 430 | 163 462 | | | |
| Function | Standard cylinder, double-acting, standard hole pattern, with end-position locking | | | | | | | DNC | DNC |
| Piston Ø [mm] | 32 | 40 | 50 | 63 | 80 | 100 | | -... | |
| Stroke [mm] | 10 ... 2000 | | | | | | | -... | |
| Cushioning | Flexible cushioning rings/pads at both ends | | | | | | | -P | |
| | Pneumatic cushioning, adjustable at both ends | | | | | | | -PPV | |
| O Position sensing | Via proximity sensor | | | | | | | -A | |
| ↓ Type of piston rod | Through piston rod | | | | | | 1 | -S2 | |

- 1 S2** In combination with K2: extended thread at both ends
 In combination with K3: female thread at both ends
 In combination with K5: special thread at both ends

Transfer order code

| | | | | | | | | | | | |
|--|-----|---|--|---|--|---|--|---|--|---|--|
| | DNC | - | | - | | - | | - | | - | |
|--|-----|---|--|---|--|---|--|---|--|---|--|

Standard cylinders DNC-EL, standard hole pattern, with end-position locking

FESTO

Ordering data – Modular products

| Ordering table | | | | | | | | | |
|--|--------------------------------------|----|----|----|----|-----|-----------------|--------|---------------|
| Size | 32 | 40 | 50 | 63 | 80 | 100 | Condi- tions | Code | Enter code |
| <div><div>Extended male thread</div><div><div>[O]</div><div>[mm]</div></div></div> | Piston rod with extended male thread | | | | | | <div>2</div> | -...K2 | |
| | 1 ... 351 ... 70 | | | | | | | | |
| | Piston rod with female thread | | | | | | <div>3</div> | -K3 | |
| | (M6)(M8)(M10)(M10)(M12)(M12) | | | | | | | | |
| | Piston rod with special thread | | | | | | | -...K5 | |
| M10M12M16M16M20M20 | | | | | | | | | |
| Extended piston rod | | | | | | | -...K8 | | |
| 1 ... 500 | | | | | | | | | |
| <div><div>End-position locking</div><div>[M]</div></div> | At both ends | | | | | | <div>4</div> | -ELB | |
| | At front | | | | | | <div>4</div> | -ELV | |
| | At rear | | | | | | <div>4</div> | -ELH | |

[2] **K2** Not with K3

[3] **K3** With K5: on request

[4] **ELB, ELV, ELH**

In combination with K8 and S2: on request only

Transfer order code

- [] - [] - [] - [] - []

Standard cylinders DNC-V1 ... V6, standard hole pattern, cyl./valve combination

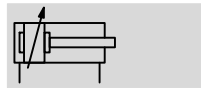
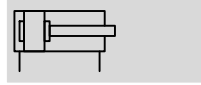
FESTO

Technical data

Function

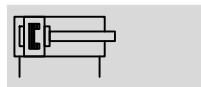
DNC-...



Without position sensing



DNC-...-A-...

With position sensing

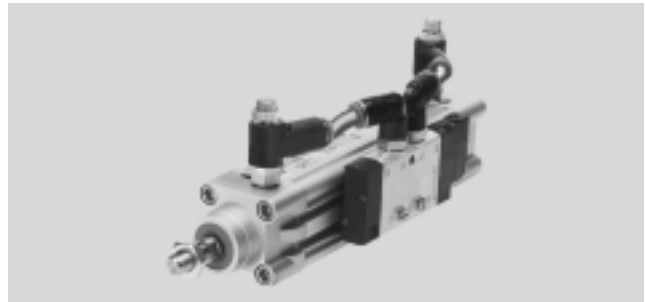


-  - Diameter
32 ... 100 mm
-  - Stroke length
100 ... 2000 mm

-  - www.festo.com

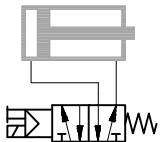
Wearing parts kits

→ page 32



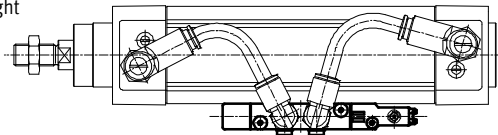
Valve variants

Single solenoid valve unactuated, piston rod retracted

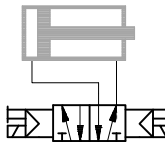


DNC-...-V1

fitted on right

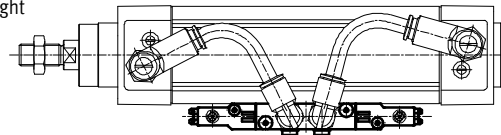


Double solenoid valve unactuated, piston rod retracted



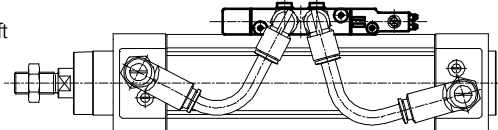
DNC-...-V3

fitted on right



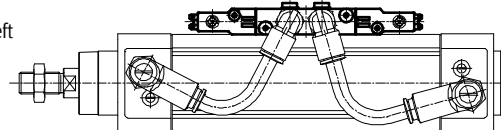
DNC-...-V4

fitted on left

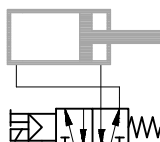


DNC-...-V6

fitted on left

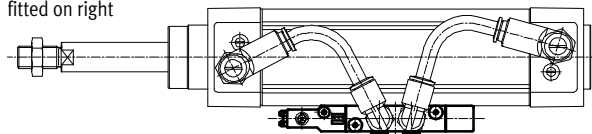


Single solenoid valve unactuated, piston rod advanced



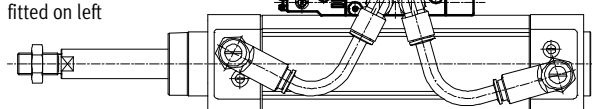
DNC-...-V2

fitted on right



DNC-...-V5

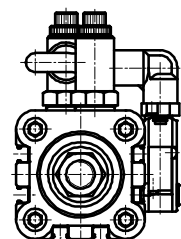
fitted on left



-  - Note

As viewed from the front of the cylinder (piston rod end) with valve fitted on left or right.

In this example, the valve is fitted on the right.



Standard cylinders DNC-V1 ... V6, standard hole pattern, cyl./valve combination

FESTO

Technical data

| General technical data | | | | | | |
|-----------------------------------|---|-------------------|---------|--|---------|------------------|
| Piston Ø | 32 | 40 | 50 | 63 | 80 | 100 |
| Cylinder | | | | | | |
| Pneumatic connection | G1/8 | G1/4 | G1/4 | G3/8 | G3/8 | G1/2 |
| Piston rod thread | M10x1.25 | M12x1.25 | M16x1.5 | M16x1.5 | M20x1.5 | M20x1.5 |
| | K3 | M6 | M8 | M10 | M10 | M12 |
| | K5 | M10 | M12 | M16 | M16 | M20 |
| Constructional design | Piston | | | | | |
| | Piston rod | | | | | |
| | Profile barrel | | | | | |
| Cushioning | Flexible cushioning rings/pads at both ends | | | | | |
| | Pneumatic cushioning, adjustable at both ends | | | | | |
| Cushioning length PPV | [mm] | 20 | 20 | 22 | 22 | 32 |
| Position sensing | Via proximity sensor | | | | | |
| Type of mounting | Via female thread | | | | | |
| | Via accessories | | | | | |
| Mounting position | Any | | | | | |
| | | | | | | |
| Valve | | | | Ordering data – Valves and accessories ➔ page 48 | | |
| Valve used | single solenoid | CPE14-M1BH-5L-1/8 | | CPE18-M1H-5L-1/4 | | CPE24-M1H-5L-3/8 |
| | double solenoid | CPE14-M1BH-5J-1/8 | | CPE18-M1H-5J-1/4 | | CPE24-M1H-5J-3/8 |
| Pneumatic connection | | G1/8 | | G1/4 | | G3/8 |
| Constructional design | Piston spool valve | | | | | |
| Type of mounting | Via mounting kit | | | | | |
| Operating voltage | [V DC] | 24 +10/–15% | | | | |
| Power consumption | [W] | 1 | | 1.5 | | |
| Duty cycle | 100% | | | | | |
| Protection class with plug socket | IP65 | | | | | |

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

| Operating and environmental conditions | | | | | | | | | | |
|--|--|----|------------|----|----|-----|--|--|--|--|
| Piston Ø | 32 | 40 | 50 | 63 | 80 | 100 | | | | |
| Operating medium | Compressed air in accordance with ISO 8573-1:2010 [7:4:4] | | | | | | | | | |
| Note on operating/pilot medium | Operation with lubricated medium possible (in which case lubricated operation will always be required) | | | | | | | | | |
| Operating pressure [bar] | 3 ... 8 | | 2.5 ... 10 | | | | | | | |
| Ambient temperature ¹⁾ [°C] | 0 ... +50 | | | | | | | | | |
| Corrosion resistance class CRC ²⁾ | 2 | | | | | | | | | |
| Certification | Germanischer Lloyd | | | | | | | | | |

1) Note operating range of proximity sensors

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

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

Standard cylinders DNC-V1 ... V6, standard hole pattern, cyl./valve combination

FESTO

Technical data

| Force [N] and impact energy [J] | | | | | | |
|---|-----|-----|------|------|------|------|
| Piston Ø | 32 | 40 | 50 | 63 | 80 | 100 |
| Theoretical force at 6 bar, advancing | 483 | 754 | 1178 | 1870 | 3016 | 4712 |
| S2/S20 | 415 | 633 | 990 | 1682 | 2721 | 4418 |
| Theoretical force at 6 bar, retracting | 415 | 633 | 990 | 1682 | 2721 | 4418 |
| S2/S20 | 415 | 633 | 990 | 1682 | 2721 | 4418 |
| Max. impact energy at the end positions ¹⁾ | 0.1 | 0.2 | 0.2 | 0.5 | 0.9 | 1.2 |

1) The permissible impact energy is reduced by approx. 10% for variants K10 and S20

Permissible impact velocity:

$$v_{perm.} = \sqrt{\frac{2 \times E_{perm.}}{m_{dead} + m_{load}}}$$

$v_{perm.}$ Permissible impact velocity

$E_{perm.}$ Max. impact energy

$m_{intrinsic}$ Moving load (drive)

m_{load} Moving effective load

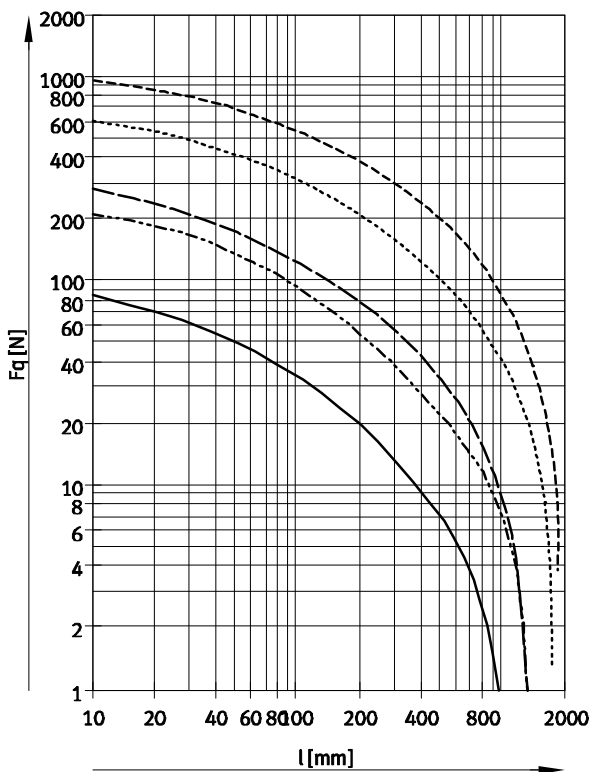
Maximum permissible load:

$$m_{load} = \frac{2 \times E_{perm.}}{v^2} - m_{dead}$$

Note

This data represents the maximum values that can be achieved. The maximum permissible impact energy must be observed.

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



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

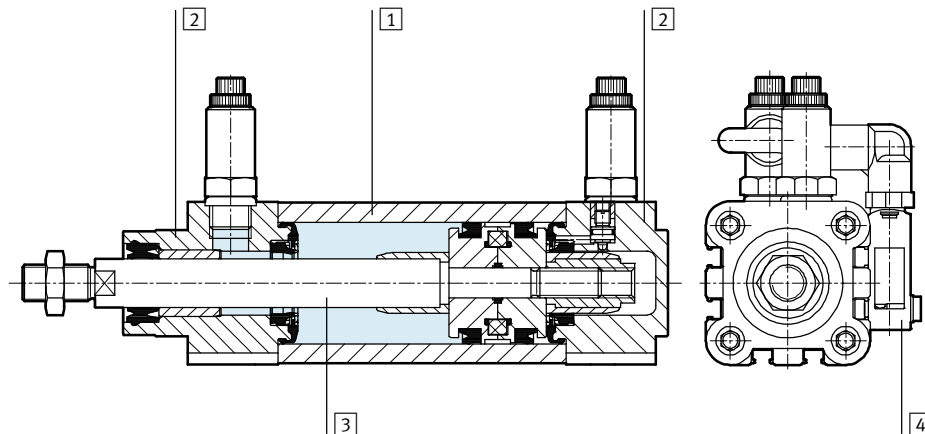
Standard cylinders DNC-V1 ... V6, standard hole pattern, cyl./valve combination

FESTO

Technical data

Materials

Sectional view



| Standard cylinder | Basic version | R8 | S10 | S11 | K10 |
|------------------------|--|----------------|------------------|-----|-----------------------------------|
| 1 Profile barrel | Wrought aluminium alloy, smooth anodised | | | | |
| 2 Bearing and end caps | Die-cast aluminium | | | | |
| 3 Piston rod | High-alloy steel | Tempered steel | High-alloy steel | | Wrought aluminium alloy, anodised |
| – Seals, cylinder | Polyurethane, nitrile rubber | | Fluoro rubber | | Polyurethane, nitrile rubber |
| 4 Housing, valve | Die-cast aluminium, polyamide, steel | | | | |
| – Seals, valve | Nitrile rubber | | | | |
| Note on materials | RoHS compliant | | | | |

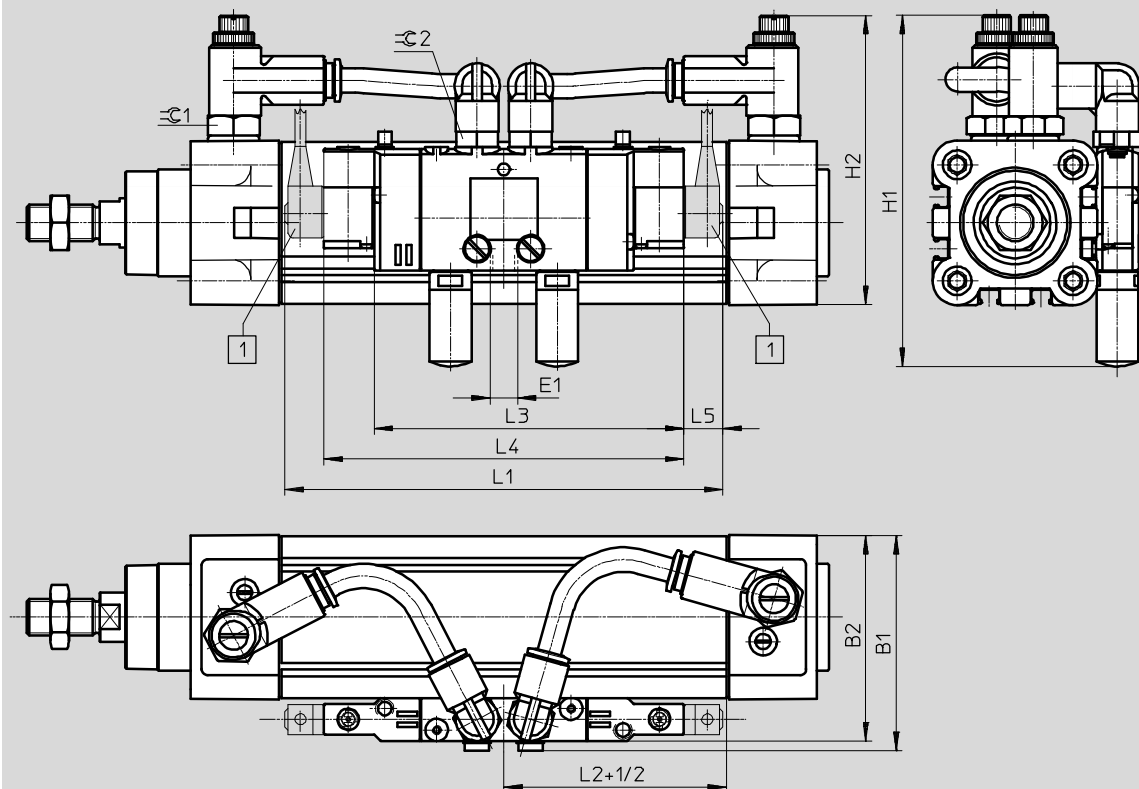
Standard cylinders DNC-V1 ... V6, standard hole pattern, cyl./valve combination

FESTO

Technical data

Dimensions

Download CAD data → www.festo.com



1 Connecting cable not included
in scope of delivery

+1/2 = plus half stroke length


Standard cylinders DNC-V1 ... V6, standard hole pattern, cyl./valve combination

FESTO

Technical data

| Ø | B1 | B2 | E1 | H1 | H2 | L1 max. | L2 ±3 | L3 | L4 | L5 | ≈C1 | ≈C2 |
|------|-----|-----|------|---------------------|---------------------|------------|----------|-----|-----|----|-----|-----|
| [mm] | | | | | | | | | | | | |
| 32 | 62 | 59 | G1/8 | 109 ^{+5.5} | 86 ^{+5.5} | 152 | 22 | 102 | 118 | 13 | 13 | 14 |
| 40 | 71 | 68 | G1/8 | 114 ^{+5.5} | 94 ^{+5.5} | 152 | 23 | 102 | 118 | 13 | 17 | 14 |
| 50 | 85 | 82 | G1/4 | 131 ^{+5.5} | 104 ^{+5.5} | 215 | 24 | 138 | 163 | 25 | 17 | 14 |
| 63 | 96 | 93 | G1/4 | 142 ^{+5.5} | 115 ^{+5.5} | 215 | 25 | 138 | 163 | 25 | 19 | 14 |
| 80 | 123 | 119 | G3/8 | 194 ^{+5.5} | 133 ^{+5.5} | 242 | 28 | 165 | 165 | 25 | 19 | 17 |
| 100 | 140 | 136 | G3/8 | 213 ⁺² | 158 ⁺² | 242 | 30 | 165 | 165 | 25 | 27 | 17 |

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


 Note
 Additional dimensions relating to the basic version and its variants are provided on
 → page 15,
 with clamping unit on
 → page 28.

Standard cylinders DNC-V1 ... V6, standard hole pattern, cyl./valve combination



Ordering data – Modular products

| Ordering table | | | | | | | | | |
|-----------------------------|---|---------------|---------------|---------------|---------------|---------------|-----------------|-------------|---------------|
| Size | 32 | 40 | 50 | 63 | 80 | 100 | Condi- tions | Code | Enter code |
| M Module No. | 163302 | 163334 | 163366 | 163398 | 163430 | 163462 | | | |
| Function | Standard cylinder, double-acting, standard hole pattern, cylinder/valve combination | | | | | | | DNC | DNC |
| Piston Ø [mm] | 32 | 40 | 50 | 63 | 80 | 100 | | -... | |
| Stroke [mm] | 100 ... 2000 | | | | | | | -... | |
| Cushioning | Flexible cushioning rings/pads at both ends | | | | | | | -P | |
| | Pneumatic cushioning, adjustable at both ends | | | | | | | -PPV | |
| O Position sensing | Via proximity sensor | | | | | | | -A | |
| Protection against rotation | Square piston rod | | | | | | 1 | -Q | |
| Type of piston rod | Through piston rod | | | | | | 2 | -S2 | |
| | Through, hollow piston rod | | | | | | 3 | -S20 | |

- 1 Q** Max. stroke: 100 ... 1500 mm
In combination with S2: square piston rod at bearing cap end only
In combination with KP: only supplied with S2
Not with S20, K7, K10, S10, S11

- 2 S2** In combination with K2: extended thread at both ends
In combination with K3: female thread at both ends
In combination with K5: special thread at both ends
In combination with K8: piston rod extended at bearing cap end only
In combination with KP: clamping unit at end cap
Not with S20, K7, S10, S11

- 3 S20** Max. stroke: 850 mm
Not with K2, K3, K5, K8, K10, KP, S10, S11

Transfer order code

| | | | | | | | | | | | |
|--|-----|---|--|---|--|---|--|---|--|---|--|
| | DNC | - | | - | | - | | - | | - | |
|--|-----|---|--|---|--|---|--|---|--|---|--|

Standard cylinders DNC-V1 ... V6, standard hole pattern, cyl./valve combination

FESTO

Ordering data – Modular products

| Ordering table | | | | | | | | | |
|----------------|--------------------------------------|--|----|----|----|-----|-----------------|--------|---------------|
| Size | 32 | 40 | 50 | 63 | 80 | 100 | Condi- tions | Code | Enter code |
| ↓ | Piston rod with extended male thread | | | | | | | | |
| [0] | Extended male thread [mm] | 1 ... 35 | | | | | [4] | -...K2 | |
| | Female thread | Piston rod with female thread (M6) (M8) (M10) (M10) (M12) (M12) | | | | | [5] | -K3 | |
| | Special thread | Piston rod with special thread M10 M12 M16 M16 M20 M20 | | | | | [6] | -...K5 | |
| | Special spanner flats | Piston rod with external hexagon | | | | | [7] | -K7 | |
| | Extended piston rod [mm] | Extended piston rod 1 ... 500 | | | | | | -...K8 | |
| | Improved running performance | Smooth anodised aluminium coated piston rod | | | | | [8] | -K10 | |
| | Clamping unit | Attached | | | | | [9] | -KP | |
| | Slow speed (constant motion) | Slow speed (constant motion at low piston speeds) | | | | | [10] | -S10 | |
| | Running characteristics | Low friction | | | | | [11] | -S11 | |
| [M] | Cylinder/valve combination | Single solenoid valve, fitted on right, piston rod retracted when unactuated | | | | | | -V1 | |
| | | Single solenoid valve, fitted on right, piston rod advanced when unactuated | | | | | | -V2 | |
| | | Double solenoid valve, fitted on right | | | | | | -V3 | |
| | | Single solenoid valve, fitted on left, piston rod retracted when unactuated | | | | | | -V4 | |
| | | Single solenoid valve, fitted on left, piston rod advanced when unactuated | | | | | | -V5 | |
| | | Double solenoid valve, fitted on left | | | | | | -V6 | |

- [4] **K2** Not with K3, K10
 [5] **K3** With K5: on request
 Not with K7
 [6] **K5** Not with K10
 [7] **K7** Not with Q, S2, K10

- [8] **K10** Max. stroke: 1000 mm
 Not with KP
 [9] **KP** Without S2: position of the clamping unit at the bearing cap
 Not with S10, S11
 [10] **S10** Max. stroke: 500 mm; additional strokes on request
 Not with S11
 [11] **S11** Max. stroke: 500 mm; additional strokes on request

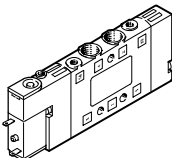
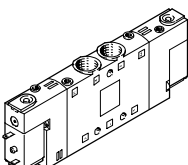
Transfer order code



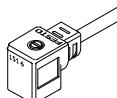
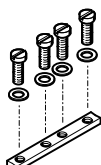
- [] - [] - [] - [] - [] - [] - [] - [] - [] - []

Standard cylinders DNC-V1 ... V6, standard hole pattern, cyl./valve combination

FESTO

Accessories

| Ordering data – Valves | | | | Technical data → Internet: cpe | |
|---|---------------|-------------------------|------------------|--------------------------------|-------------------|
| | For Ø [mm] | Pneumatic connection | Protection class | Part No. | Type |
| Single solenoid | | | | | |
|  | 32 | G1/8 | IP65 | 196941 | CPE14-M1BH-5L-1/8 |
| | 40 | | | | |
| | 50 | G1/4 | IP65 | 163142 | CPE18-M1H-5L-1/4 |
| | 63 | | | | |
| | 80 | G3/8 | IP65 | 163166 | CPE24-M1H-5L-3/8 |
| | 100 | | | | |
| Double solenoid | | | | | |
|  | 32 | G1/8 | IP65 | 196939 | CPE14-M1BH-5J-1/8 |
| | 40 | | | | |
| | 50 | G1/4 | IP65 | 163143 | CPE18-M1H-5J-1/4 |
| | 63 | | | | |
| | 80 | G3/8 | IP65 | 163167 | CPE24-M1H-5J-3/8 |
| | 100 | | | | |

| Ordering data – Valve accessories | | | | | |
|---|-----------|---------------------|---------------------------------|------------------------------|------------------|
| | For valve | | Part No. | Type | PU ¹⁾ |
| Push-in fitting QS | | | Technical data → Internet: qs | | |
|  | CPE14 | | 153015 | QS-1/8-8-I | 10 |
| | CPE18 | | 153018 | QS-1/4-10-I | 10 |
| | CPE24 | | 153020 | QS-3/8-12-I | 10 |
| Connecting cable NEBV/KMEB | | | Technical data → Internet: nebv | | |
|  | CPE14 | Cable length: 2.5 m | 8047679 | NEBV-Z4WA2L-R-E-2.5-N-LE2-S1 | 1 |
| | | Cable length: 5 m | 8047680 | NEBV-Z4WA2L-R-E-5-N-LE2-S1 | |
|  | CPE18 | Cable length: 2.5 m | 151688 | KMEB-1-24-2,5-LED | 1 |
| | CPE24 | Cable length: 5 m | 151689 | KMEB-1-24-5-LED | |
| | | Cable length: 10 m | 193457 | KMEB-1-24-10-LED | |
| | | | | | |
| Mounting kit ZVB | | | | | |
|  | CPE14 | | 185705 | ZVB-8-14/18 | – |
| | CPE18 | | | | |
| | CPE24 | | 187388 | ZVB-8-24 | – |

1) Packaging unit quantity

Standard cylinders DNC, ISO 15552

FESTO

Accessories

Multi-position kit DPNC

Material:

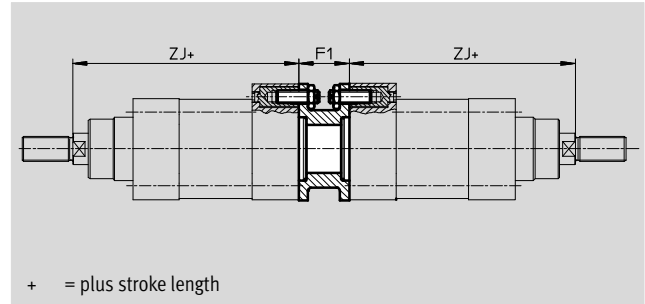
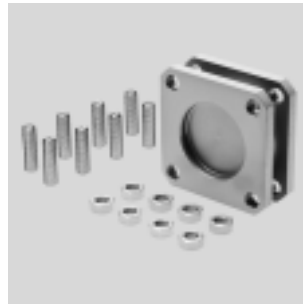
Flange: Wrought aluminium alloy

Threaded studs, hex nuts:

Galvanised steel

Free of copper and PTFE

RoHS-compliant



| Dimensions and ordering data | | | | | | | |
|------------------------------|----|---------------|-----|----------------------------|--------|----------|----------|
| For Ø | F1 | ZJ | | Max. overall stroke length | Weight | Part No. | Type |
| [mm] | | Basic version | KP | [mm] | [g] | | |
| 32 | 27 | 120 | 165 | 500 | 292 | 174418 | DPNC-32 |
| 40 | 27 | 135 | 188 | 800 | 410 | 174419 | DPNC-40 |
| 50 | 32 | 143 | 210 | 800 | 335 | 174420 | DPNC-50 |
| 63 | 28 | 158 | 234 | 700 | 390 | 174421 | DPNC-63 |
| 80 | 38 | 174 | 269 | 1000 | 847 | 174422 | DPNC-80 |
| 100 | 38 | 189 | 287 | 900 | 1200 | 174423 | DPNC-100 |
| 125 | 48 | 225 | 350 | 1000 | 2102 | 174424 | DPNC-125 |



Note

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

Connecting two cylinders with identical piston diameter as a 3 or 4-position cylinder

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

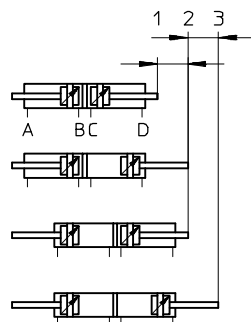
This means that depending on actuation and stroke division, this type of cylinder can assume up to four

positions. In each case the cylinder is driven precisely against a stop. Note that when one end of the piston rod is

fixed, the cylinder barrel executes the movement. The cylinder's connections must be flexible.

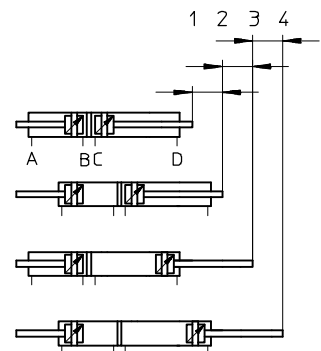
To achieve 3 positions

Two cylinders with identical stroke length must be connected together.



To achieve 4 positions

Two cylinders with different stroke lengths must be connected together.



Standard cylinders DNC, ISO 15552

Accessories

FESTO

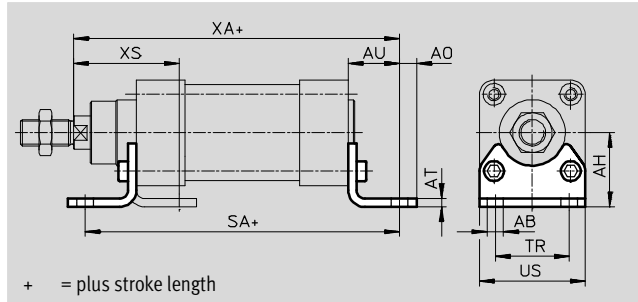
Foot mounting HNC/CRHNC

Material:

HNC: Galvanised steel

CRHNC: High-alloy steel

Free of copper and PTFE



| Dimensions and ordering data | | | | | | | | | | | | |
|------------------------------|------|----|------|----|----|---------------|-----|----|-----|---------------|-----|-----|
| For Ø | AB | AH | AO | AT | AU | SA | | TR | US | XA | | XS |
| [mm] | Ø | | | | | Basic version | KP | | | Basic version | KP | |
| 32 | 7 | 32 | 6.5 | 4 | 24 | 142 | 187 | 32 | 45 | 144 | 189 | 45 |
| 40 | 10 | 36 | 9 | 4 | 28 | 161 | 214 | 36 | 54 | 163 | 216 | 53 |
| 50 | 10 | 45 | 9.5 | 5 | 32 | 170 | 237 | 45 | 64 | 175 | 242 | 62 |
| 63 | 10 | 50 | 12.5 | 5 | 32 | 185 | 261 | 50 | 75 | 190 | 266 | 63 |
| 80 | 12 | 63 | 15 | 6 | 41 | 210 | 305 | 63 | 93 | 215 | 310 | 81 |
| 100 | 14.5 | 71 | 17.5 | 6 | 41 | 220 | 318 | 75 | 110 | 230 | 328 | 86 |
| 125 | 16.5 | 90 | 22 | 8 | 45 | 250 | 375 | 90 | 131 | 270 | 395 | 102 |

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

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

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

Corrosion resistance class CRC 4 to Festo standard FN 940070

Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (→ also FN 940082) using appropriate media.

Standard cylinders DNC, ISO 15552

FESTO

Accessories

Flange mounting FNC/CRFNG

Material:

FNC: Galvanised steel

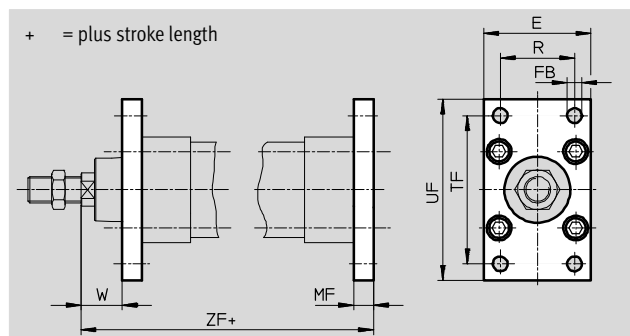
CRFNG: High-alloy steel

Free of copper and PTFE

RoHS-compliant

Cannot be used on the bearing cap in combination with the bellows kit

DADB



| Dimensions and ordering data | | | | | | | | | |
|------------------------------|-----|----------------|----|----|-----|-----|----|---------|------------|
| For Ø | E | FB Ø H13 | MF | R | TF | UF | W | ZF | |
| [mm] | | | | | | | | DNC-... | DNC-...-KP |
| 32 | 45 | 7 | 10 | 32 | 64 | 80 | 16 | 130 | 175 |
| 40 | 54 | 9 | 10 | 36 | 72 | 90 | 20 | 145 | 198 |
| 50 | 65 | 9 | 12 | 45 | 90 | 110 | 25 | 155 | 222 |
| 63 | 75 | 9 | 12 | 50 | 100 | 120 | 25 | 170 | 246 |
| 80 | 93 | 12 | 16 | 63 | 126 | 150 | 30 | 190 | 285 |
| 100 | 110 | 14 | 16 | 75 | 150 | 175 | 35 | 205 | 303 |
| 125 | 132 | 16 | 20 | 90 | 180 | 210 | 45 | 245 | 370 |

| For Ø [mm] | Basic version | | | | Corrosion resistant | | | |
|---------------|-------------------|---------------|----------|---------|---------------------|---------------|----------|-----------|
| | CRC ¹⁾ | Weight [g] | Part No. | Type | CRC ¹⁾ | Weight [g] | Part No. | Type |
| 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) Corrosion resistance class CRC 1 to Festo standard FN 940070

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

Corrosion resistance class CRC 4 to Festo standard FN 940070

Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (→ also FN 940082) using appropriate media.

Standard cylinders DNC, ISO 15552

Accessories

FESTO

Trunnion flange ZNCF/CRZNG

Material:

ZNCF: Special steel casting

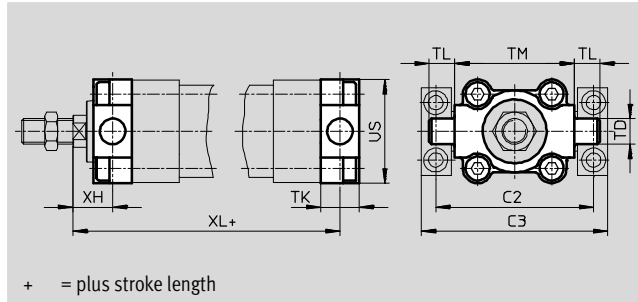
CRZNG: Electrolytically polished special steel casting

Free of copper and PTFE

RoHS-compliant

Cannot be used on the bearing cap in combination with the bellows kit

DADB



| Dimensions and ordering data | | | | | | | | | | |
|------------------------------|-----|-----|---------------|----|----|-----|-----|----|---------|------------|
| For Ø | C2 | C3 | TD Ø e9 | TK | TL | TM | US | XH | XL | |
| [mm] | | | | | | | | | DNC-... | DNC-...-KP |
| 32 | 71 | 86 | 12 | 16 | 12 | 50 | 45 | 18 | 128 | 173 |
| 40 | 87 | 105 | 16 | 20 | 16 | 63 | 54 | 20 | 145 | 198 |
| 50 | 99 | 117 | 16 | 24 | 16 | 75 | 64 | 25 | 155 | 222 |
| 63 | 116 | 136 | 20 | 24 | 20 | 90 | 75 | 25 | 170 | 246 |
| 80 | 136 | 156 | 20 | 28 | 20 | 110 | 93 | 32 | 188 | 283 |
| 100 | 164 | 189 | 25 | 38 | 25 | 132 | 110 | 32 | 208 | 306 |
| 125 | 192 | 217 | 25 | 50 | 25 | 160 | 131 | 40 | 250 | 375 |

| For Ø | Basic version | | | | Corrosion resistant | | | |
|-------|-------------------|---------------|----------|----------|---------------------|---------------|----------|-----------|
| | CRC ¹⁾ | Weight [g] | Part No. | Type | CRC ¹⁾ | Weight [g] | Part No. | Type |
| [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) Corrosion resistance class CRC 2 to Festo standard FN 940070

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

Corrosion resistance class CRC 4 to Festo standard FN 940070

Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (→ also FN 940082) using appropriate media.

Standard cylinders DNC, ISO 15552

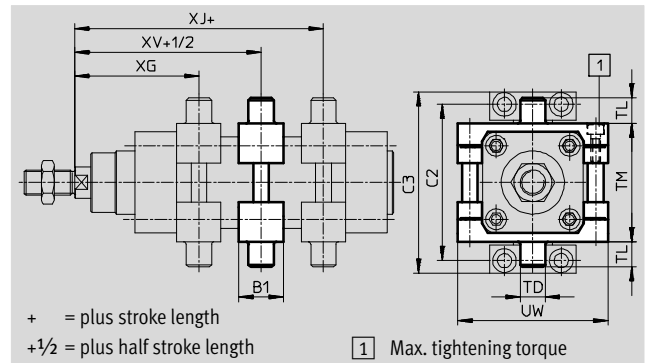
Accessories

FESTO

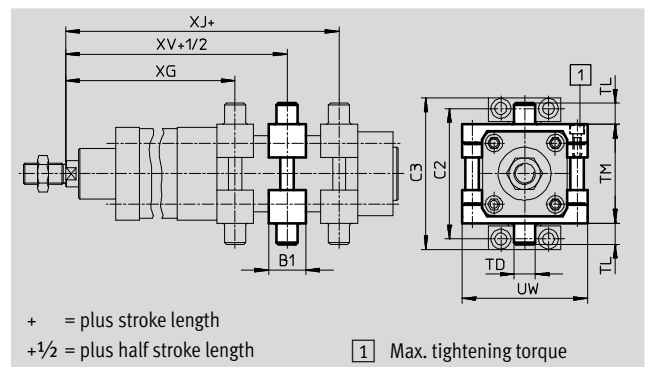
Trunnion mounting kit DAMT for basic version DNC

The mounting kit can be attached at any position along the profile barrel of a cylinder.

Material:
Tempered steel
Free of copper and PTFE



for DNC-KP



| Dimensions and ordering data | | | | | | | | | |
|------------------------------|----|-----|-----|---------------|----|-----|-----|---------|------------|
| For Ø | B1 | C2 | C3 | TD Ø e9 | TL | TM | UW | XG | |
| [mm] | | | | | | | | DNC-... | DNC-...-KP |
| 32 | 30 | 71 | 86 | 12 | 12 | 50 | 65 | 66.1 | 111.1 |
| 40 | 32 | 87 | 105 | 16 | 16 | 63 | 75 | 75.6 | 128.6 |
| 50 | 34 | 99 | 117 | 16 | 16 | 75 | 95 | 83.6 | 150.6 |
| 63 | 41 | 116 | 136 | 20 | 20 | 90 | 105 | 93.1 | 169.1 |
| 80 | 44 | 136 | 156 | 20 | 20 | 110 | 130 | 103.9 | 198.9 |
| 100 | 48 | 164 | 189 | 25 | 25 | 132 | 145 | 113.8 | 211.8 |
| 125 | 50 | 192 | 217 | 25 | 25 | 160 | 175 | 134.7 | 259.7 |

| For Ø | XJ | | XV | | Max. tightening torque | CRC ¹⁾ | Weight | Part No. | Type |
|-------|---------|------------|---------|------------|------------------------|-------------------|--------|----------|---------------|
| [mm] | DNC-... | DNC-...-KP | DNC-... | DNC-...-KP | [Nm] | | [g] | | |
| 32 | 79.9 | 124.9 | 73 | 118 | 4+1 | 2 | 213 | 2213233 | DAMT-V1-32-A |
| 40 | 89.4 | 142.4 | 82.5 | 135.5 | 8+1 | 2 | 388 | 2214899 | DAMT-V1-40-A |
| 50 | 96.4 | 163.4 | 90 | 157 | 8+2 | 2 | 608 | 2214909 | DAMT-V1-50-A |
| 63 | 101.9 | 177.9 | 97.5 | 173.5 | 18+2 | 2 | 911 | 2214971 | DAMT-V1-63-A |
| 80 | 116.1 | 211.1 | 110 | 205 | 28+2 | 2 | 1494 | 163529 | DAMT-V1-80-A |
| 100 | 126.2 | 224.2 | 120 | 218 | 28+2 | 2 | 2095 | 163530 | DAMT-V1-100-A |
| 125 | 155.3 | 280.3 | 145 | 270 | 40+2 | 2 | 3013 | 163531 | DAMT-V7-125-A |

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

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

Standard cylinders DNC, ISO 15552

Accessories

FESTO

Trunnion support LNZG

Material:

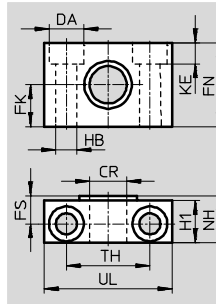
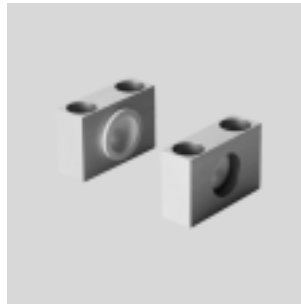
Trunnion support:

Anodised aluminium

Plain bearing: Polymer

Free of copper and PTFE

RoHS-compliant



| Dimensions and ordering data | | | | | | | | | | | | | | | |
|------------------------------|---------|---------|---------|----|------|------|---------|-----|------|------|----|-------------------|--------|----------|--------------|
| For Ø | CR Ø | DA Ø | FK Ø | FN | FS | H1 | HB Ø | KE | NH | TH | UL | CRC ¹⁾ | Weight | Part No. | Type |
| [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) Corrosion resistance class CRC 2 to Festo standard FN 940070

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

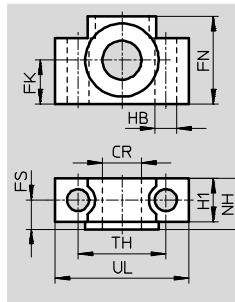
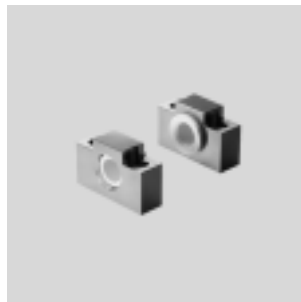
Trunnion support CRLNZG

Material:

High-alloy steel

Free of copper and PTFE

RoHS-compliant



| Dimensions and ordering data | | | | | | | | | | | | | |
|------------------------------|---------|---------|----|------|------|---------|------|------|----|-------------------|--------|----------|--------------|
| For Ø | CR Ø | FK Ø | FN | FS | H1 | HB Ø | NH | TH | UL | CRC ¹⁾ | 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-40/50 |
| 63, 80 | 20 | 20 | 40 | 13 | 20 | 11 | 23 | 42 | 65 | 4 | 435 | 161876 | CRLNZG-63/80 |
| 100, 125 | 25 | 25 | 50 | 16 | 24.5 | 14 | 28.5 | 50 | 75 | 4 | 739 | 161877 | CRLNZG-100 |

1) Corrosion resistance class CRC 4 to Festo standard FN 940070

Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (→ also FN 940082) using appropriate media.

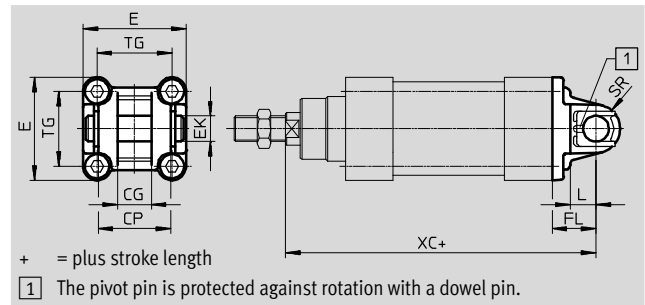
Standard cylinders DNC, ISO 15552

Accessories

FESTO

Swivel flange SNC

Material:
Die-cast aluminium
Free of copper and PTFE
RoHS-compliant



| Dimensions and ordering data | | | | | | | |
|------------------------------|-----|-----|--------------------------|---------|------|----|----|
| For Ø | CG | CP | E | EK Ø | FL | L | SR |
| [mm] | H14 | h14 | | H9 | ±0.2 | | |
| 32 | 14 | 34 | 45 ^{+0.2/-0.5} | 10 | 22 | 13 | 10 |
| 40 | 16 | 40 | 54 ^{-0.5} | 12 | 25 | 16 | 12 |
| 50 | 21 | 45 | 64 ^{-0.6} | 16 | 27 | 16 | 12 |
| 63 | 21 | 51 | 75 ^{-0.6} | 16 | 32 | 21 | 16 |
| 80 | 25 | 65 | 93 ^{-0.8} | 20 | 36 | 22 | 16 |
| 100 | 25 | 75 | 110 ^{+0.3/-0.8} | 20 | 41 | 27 | 20 |
| 125 | 37 | 97 | 131 ^{-0.8} | 30 | 50 | 30 | 25 |

| For Ø [mm] | TG | XC | | CRC ¹⁾ | Weight [g] | Part No. | Type |
|---------------|------|---------|------------|-------------------|---------------|----------|---------|
| | | DNC-... | DNC-...-KP | | | | |
| 32 | 32.5 | 142 | 187 | 2 | 93 | 174383 | SNC-32 |
| 40 | 38 | 160 | 213 | 2 | 140 | 174384 | SNC-40 |
| 50 | 46.5 | 170 | 237 | 2 | 234 | 174385 | SNC-50 |
| 63 | 56.5 | 190 | 266 | 2 | 331 | 174386 | SNC-63 |
| 80 | 72 | 210 | 305 | 2 | 618 | 174387 | SNC-80 |
| 100 | 89 | 230 | 328 | 2 | 865 | 174388 | SNC-100 |
| 125 | 110 | 275 | 400 | 2 | 1728 | 174389 | SNC-125 |

- 1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Standard cylinders DNC, ISO 15552

Accessories

FESTO

Swivel flange

SNCB/SNCB-...-R3

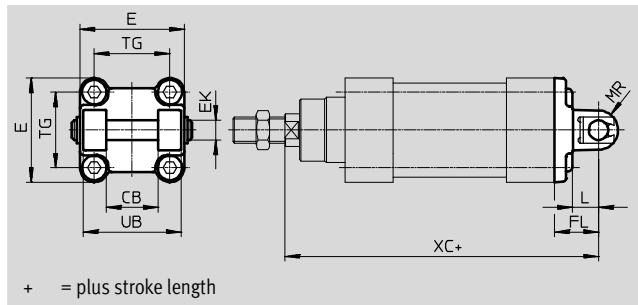
Material:

SNCB: Die-cast aluminium

SNCB-...-R3: Die-cast aluminium with protective coating

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data

| For Ø | CB | E | EK Ø | FL | L | MR | TG | UB | XC | |
|-------|-----|--------------|---------|------|----|-----|------|-----|---------|------------|
| [mm] | H14 | H9/e8 | e8 | ±0.2 | | | | h14 | DNC-... | DNC-...-KP |
| 32 | 26 | 45+0.2/-0.5 | 10 | 22 | 13 | 8.5 | 32.5 | 45 | 142 | 187 |
| 40 | 28 | 54-0.5 | 12 | 25 | 16 | 12 | 38 | 52 | 160 | 213 |
| 50 | 32 | 64-0.6 | 12 | 27 | 16 | 12 | 46.5 | 60 | 170 | 237 |
| 63 | 40 | 75-0.6 | 16 | 32 | 21 | 16 | 56.5 | 70 | 190 | 266 |
| 80 | 50 | 93-0.8 | 16 | 36 | 22 | 16 | 72 | 90 | 210 | 305 |
| 100 | 60 | 110+0.3/-0.8 | 20 | 41 | 27 | 20 | 89 | 110 | 230 | 328 |
| 125 | 70 | 131-0.8 | 25 | 50 | 30 | 25 | 110 | 130 | 275 | 400 |

| For Ø [mm] | Basic version | | | | R3 – High corrosion protection | | | |
|---------------|-------------------|---------------|----------|----------|--------------------------------|---------------|----------|-------------|
| | CRC ¹⁾ | Weight [g] | Part No. | Type | CRC ¹⁾ | Weight [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) Corrosion resistance class CRC 1 to Festo standard FN 940070

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

Corrosion resistance class CRC 3 to Festo standard FN 940070

High corrosion stress. Outdoor exposure under moderate corrosive conditions. External visible parts with primarily functional requirements for the surface and which are in direct contact with a normal industrial environment.

Standard cylinders DNC, ISO 15552

FESTO

Accessories

Swivel flange

SNCS/CRSNCS/SNCS-...-R3

Material:

SNCS 32 ... 50: Die-cast aluminium

SNCS 63 ... 125:

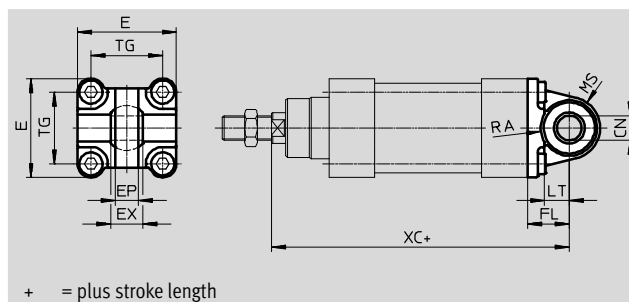
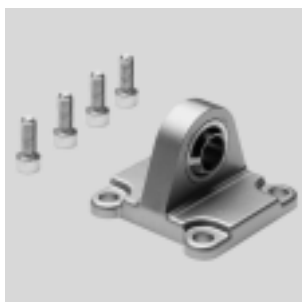
Wrought aluminium alloy

CRSNCS 32 ... 80:

High-alloy stainless steel

SNCS-...-R3 100 ... 125: Wrought aluminium alloy with protective coating

RoHS-compliant



+ = plus stroke length

| Dimensions and ordering data | | | | | | | | |
|------------------------------|----------------------|----------------------------|-------------------------|------------------------|------|----|------|----|
| For Ø | CN Ø | | E | | EP | EX | FL | LT |
| [mm] | DNC-... | DNC-...-R3 | DNC-... | DNC-...-R3 | ±0.2 | | ±0.2 | |
| 32 | 10 ^{+0.013} | 10 ^{+0.015/-0.04} | 45 ^{+0.2/-0.5} | 45 _{-0.5} | 10.5 | 14 | 22 | 13 |
| 40 | 12 ^{+0.015} | 12 ^{+0.018/-0.04} | 54 _{-0.5} | 54 _{-0.5} | 12 | 16 | 25 | 16 |
| 50 | 16 ^{+0.015} | 16 ^{+0.018/-0.04} | 64 _{-0.6} | 64 _{-0.6} | 15 | 21 | 27 | 16 |
| 63 | 16 ^{+0.015} | 16 ^{+0.018/-0.04} | 74,5 ^{±0.5} | 75 _{-0.6} | 15 | 21 | 32 | 21 |
| 80 | 20 ^{+0.018} | 20 ^{+0.021/-0.04} | 92,2 ^{±0.8} | 93 _{-0.8} | 18 | 25 | 36 | 22 |
| 100 | 20 ^{+0.018} | 20 ^{+0.021/-0.04} | 109 ^{+1/-0.7} | 109 ^{+1/-0.7} | 18 | 25 | 41 | 27 |
| 125 | 30 ^{+0.018} | 30 ^{+0.021/-0.04} | 132 ^{+1/-0.7} | 132 ^{+1/-0.7} | 25 | 37 | 50 | 30 |

| For Ø | MS | | RA | | TG | XC | |
|-------|--------------------|--------------------|---------------|------------------|------|---------|------------|
| [mm] | DNC-... | DNC-...-R3 | DNC-... +1 | DNC-...-R3 +1 | | DNC-... | DNC-...-KP |
| 32 | 15 ^{+0.5} | 15 ^{+0.5} | 14.5 | 14.5 | 32.5 | 142 | 187 |
| 40 | 17 ^{+0.5} | 17 ^{+0.5} | 17.5 | 17.5 | 38 | 160 | 213 |
| 50 | 20 ^{+0.5} | 20 ^{+0.5} | 18.5 | 19 | 46.5 | 170 | 237 |
| 63 | 23 _{-0.5} | 22 ^{+0.5} | 23 | 23 | 56.5 | 190 | 266 |
| 80 | 28 _{-0.5} | 27 ^{+0.5} | 25 | 25 | 72 | 210 | 305 |
| 100 | 30 ^{±0.5} | 30 ^{±0.5} | 95 | 100 | 89 | 230 | 328 |
| 125 | 39 ^{±0.5} | 39 ^{±0.5} | 100 | 100 | 110 | 275 | 400 |

| For Ø | Basic version | | | | High corrosion protection | | | |
|-------|-------------------|------------|----------|----------|---------------------------|------------|----------|-------------|
| [mm] | CRC ¹⁾ | Weight [g] | Part No. | Type | CRC ¹⁾ | Weight [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) Corrosion resistance class CRC 1 to Festo standard FN 940070

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

Corrosion resistance class CRC 2 to Festo standard FN 940070

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

Corrosion resistance class CRC 3 to Festo standard FN 940070

High corrosion stress. Outdoor exposure under moderate corrosive conditions. External visible parts with primarily functional requirements for the surface and which are in direct contact with a normal industrial environment.

Corrosion resistance class CRC 4 to Festo standard FN 940070

Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (→ also FN 940082) using appropriate media.

Standard cylinders DNC, ISO 15552

Accessories

FESTO

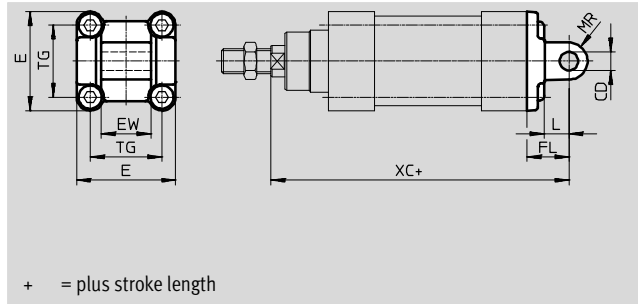
Swivel flange SNCL

Material:

Die-cast aluminium

Free of copper and PTFE

RoHS-compliant



| Dimensions and ordering data | | | | | | |
|------------------------------|----|--------------------------|-----------|------|----|----|
| For Ø | CD | E | EW | FL | L | MR |
| [mm] | Ø | | | | | |
| | H9 | | -0.2/-0.6 | ±0.2 | | |
| 32 | 10 | 45 ^{+0.2/-0.5} | 26 | 22 | 13 | 10 |
| 40 | 12 | 54 ^{-0.5} | 28 | 25 | 16 | 12 |
| 50 | 12 | 64 ^{-0.6} | 32 | 27 | 16 | 12 |
| 63 | 16 | 75 ^{-0.6} | 40 | 32 | 21 | 16 |
| 80 | 16 | 93 ^{-0.8} | 50 | 36 | 22 | 16 |
| 100 | 20 | 110 ^{+0.3/-0.8} | 60 | 41 | 27 | 20 |
| 125 | 25 | 131 ^{-0.8} | 70 | 50 | 30 | 25 |

| For Ø | TG | XC | | CRC ¹⁾ | Weight | Part No. | Type |
|-------|------|--------|-----------|-------------------|--------|----------|----------|
| [mm] | | DNC... | DNC...-KP | | [g] | | |
| 32 | 32.5 | 142 | 187 | 2 | 71 | 174404 | SNCL-32 |
| 40 | 38 | 160 | 213 | 2 | 95 | 174405 | SNCL-40 |
| 50 | 46.5 | 170 | 237 | 2 | 158 | 174406 | SNCL-50 |
| 63 | 56.5 | 190 | 266 | 2 | 225 | 174407 | SNCL-63 |
| 80 | 72 | 210 | 305 | 2 | 436 | 174408 | SNCL-80 |
| 100 | 89 | 230 | 328 | 2 | 606 | 174409 | SNCL-100 |
| 125 | 110 | 275 | 400 | 2 | 1135 | 174410 | SNCL-125 |

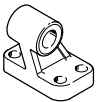
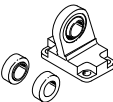
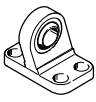

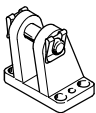
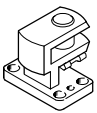
1) Corrosion resistance class CRC 2 to Festo standard FN 940070


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


Standard cylinders DNC, ISO 15552

Accessories

FESTO

| Ordering data – Mounting attachments | | | | Technical data → Internet: clevis foot | | | |
|--|-------|----------|----------|--|-------|----------|-----------|
| Designation | For Ø | Part No. | Type | Designation | For Ø | Part No. | Type |
| Clevis foot LNG | | | | Clevis foot LSN | | | |
|  | 32 | 33890 | LNG-32 |  | 32 | 5561 | LSN-32 |
| | 40 | 33891 | LNG-40 | | 40 | 5562 | LSN-40 |
| | 50 | 33892 | LNG-50 | | 50 | 5563 | LSN-50 |
| | 63 | 33893 | LNG-63 | | 63 | 5564 | LSN-63 |
| | 80 | 33894 | LNG-80 | | 80 | 5565 | LSN-80 |
| | 100 | 33895 | LNG-100 | | 100 | 5566 | LSN-100 |
| | 125 | 33896 | LNG-125 | | 125 | 6987 | LSN-125 |
| Clevis foot LSNG | | | | Clevis foot for welding LSNSG | | | |
|  | 32 | 31740 | LSNG-32 |  | 32 | 31747 | LSNSG-32 |
| | 40 | 31741 | LSNG-40 | | 40 | 31748 | LSNSG-40 |
| | 50 | 31742 | LSNG-50 | | 50 | 31749 | LSNSG-50 |
| | 63 | 31743 | LSNG-63 | | 63 | 31750 | LSNSG-63 |
| | 80 | 31744 | LSNG-80 | | 80 | 31751 | LSNSG-80 |
| | 100 | 31745 | LSNG-100 | | 100 | 31752 | LSNSG-100 |
| | 125 | 31746 | LSNG-125 | | 125 | 31753 | LSNSG-125 |
| Clevis foot LBG | | | | Right-angle clevis foot LQG | | | |
|  | 32 | 31761 | LBG-32 |  | 32 | 31768 | LQG-32 |
| | 40 | 31762 | LBG-40 | | 40 | 31769 | LQG-40 |
| | 50 | 31763 | LBG-50 | | 50 | 31770 | LQG-50 |
| | 63 | 31764 | LBG-63 | | 63 | 31771 | LQG-63 |
| | 80 | 31765 | LBG-80 | | 80 | 31772 | LQG-80 |
| | 100 | 31766 | LBG-100 | | 100 | 31773 | LQG-100 |
| | 125 | 31767 | LBG-125 | | 125 | 31774 | LQG-125 |






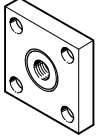
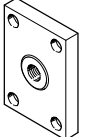

| Ordering data – Mounting attachments, corrosion-resistant | | | Technical data → Internet: crlng | |
|---|-------|----------|--|--|
| Designation | For Ø | Part No. | Type | |
| Clevis foot CRLNG | | | | |
|  | 32 | 161840 | CRLNG-32 | |
| | 40 | 161841 | CRLNG-40 | |
| | 50 | 161842 | CRLNG-50 | |
| | 63 | 161843 | CRLNG-63 | |
| | 80 | 161844 | CRLNG-80 | |
| | 100 | 161845 | CRLNG-100 | |
| | 125 | 176951 | CRLNG-125 | |




| Ordering – Mounting attachments, high corrosion protection | | | Technical data → 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 |

Standard cylinders DNC, ISO 15552

Accessories

FESTO

| Ordering data – Piston rod attachments | | | | Technical data → Internet: piston rod attachment | | | |
|---|-------|----------|-----------------|--|-------|----------|--------------|
| Designation | For Ø | Part No. | Type | Designation | For Ø | Part No. | Type |
| Rod eye SGS | | | | Rod clevis SGA | | | |
|  | 32 | 9261 | SGS-M10x1,25 |  | 32 | 32954 | SGA-M10x1,25 |
| | 40 | 9262 | SGS-M12x1,25 | | 40 | 10767 | SGA-M12x1,25 |
| | 50 | 9263 | SGS-M16x1,5 | | 50 | 10768 | SGA-M16x1,5 |
| | 63 | | | | 63 | | |
| | 80 | 9264 | SGS-M20x1,5 | | 80 | 10769 | SGA-M20x1,5 |
| | 100 | | | | 100 | | |
| | 125 | 10774 | SGS-M27x2 | | 125 | 10770 | SGA-M27x2 |
| Rod clevis SG | | | | Self-aligning rod coupler FK | | | |
|  | 32 | 6144 | SG-M10x1,25 |  | 32 | 6140 | FK-M10x1,25 |
| | 40 | 6145 | SG-M12x1,25 | | 40 | 6141 | FK-M12x1,25 |
| | 50 | 6146 | SG-M16x1,5 | | 50 | 6142 | FK-M16x1,5 |
| | 63 | | | | 63 | | |
|  | 80 | 6147 | SG-M20x1,5 | | 80 | 6143 | FK-M20x1,5 |
| | 100 | | | | 100 | | |
| | 125 | 14987 | SG-M27x2-B | | 125 | 10485 | FK-M27x2 |
| Coupling piece KSG | | | | Coupling piece KSZ | | | |
|  | 32 | 32963 | KSG-M10x1,25 |  | 32 | 36125 | KSZ-M10x1,25 |
| | 40 | 32964 | KSG-M12x1,25 | | 40 | 36126 | KSZ-M12x1,25 |
| | 50 | 32965 | KSG-M16x1,5 | | 50 | 36127 | KSZ-M16x1,5 |
| | 63 | | | | 63 | | |
| | 80 | 32966 | KSG-M20x1,5 | | 80 | 36128 | KSZ-M20x1,5 |
| | 100 | | | | 100 | | |
| | 125 | 32967 | KSG-M27x2 | | 125 | – | – |
| Adapter AD | | | | | | | |
|  | 32 | 157333 | AD-M10x1,25-1/8 | | | | |
| | | 157334 | AD-M10x1,25-1/4 | | | | |
| | 40 | 160256 | AD-M12x1,25-1/4 | | | | |
| | | 160257 | AD-M12x1,25-3/8 | | | | |

| Ordering data – Piston rod attachments, corrosion-resistant | | | | Technical data → Internet: crsg | | | |
|---|-------|----------|----------------|---|-------|----------|---------------|
| Designation | For Ø | Part No. | Type | Designation | For Ø | Part No. | Type |
| Rod eye CRS GS | | | | Rod clevis CRS G | | | |
|  | 32 | 195582 | CRSGS-M10x1,25 |  | 32 | 13569 | CRSG-M10x1,25 |
| | 40 | 195583 | CRSGS-M12x1,25 | | 40 | 13570 | CRSG-M12x1,25 |
| | 50 | 195584 | CRSGS-M16x1,5 | | 50 | 13571 | CRSG-M16x1,5 |
| | 63 | | | | 63 | | |
| | 80 | 195585 | CRSGS-M20x1,5 | | 80 | 13572 | CRSG-M20x1,5 |
| | 100 | | | | 100 | | |
| | 125 | 195586 | CRSGS-M27x2 | | 125 | 185361 | CRSG-M27x2 |
| Self-aligning rod coupler CRFK | | | | | | | |
|  | 32 | 2305778 | CRFK-M10x1,25 | | | | |
| | 40 | 2305779 | CRFK-M12x1,25 | | | | |
| | 50 | 2490673 | CRFK-M16x1,5 | | | | |
| | 63 | | | | | | |
| | 80 | 2545677 | CRFK-M20x1,5 | | | | |
| | 100 | | | | | | |

Standard cylinders DNC, ISO 15552

FESTO

Accessories

Bellows kit DADB



| General technical data | | | | | | | |
|--|------|---|------------|------------|------------|------------|------------|
| Type DADB-V6- | | 32 | 40 | 50 | 63 | 80 | 100 |
| Max. cylinder stroke range ¹⁾ | [mm] | 10 ... 500 | 10 ... 500 | 10 ... 500 | 10 ... 500 | 10 ... 500 | 10 ... 500 |
| Type of mounting | | Via threaded pin | | | | | |
| Mounting position | | Any | | | | | |
| Resistance to media | | Dust, chips, oil, grease, fuel (➔ Internet: media resistance) | | | | | |
| Ambient temperature ²⁾ | [°C] | -10 ... +80 | | | | | |
| Protection class | | IP54 | | | | | |
| Corrosion resistance class CRC ³⁾ | | 3 | | | | | |

1) In combination with the bellows kit DADB

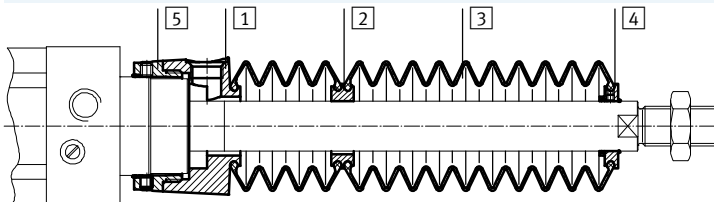
2) Note operating range of proximity sensors and cylinder

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

High corrosion stress. Outdoor exposure under moderate corrosive conditions. External visible parts with primarily functional requirements for the surface and which are in direct contact with a normal industrial environment.

Materials

Sectional view



| Bellows | | |
|-------------------|--------------------|-------------------------|
| 1 | Connection | Polyamide |
| 2 | Intermediate piece | Polyamide |
| 3 | Bellows | Nitrile rubber |
| 4 | End piece | Polyamide |
| 5 | Connector | Polyamide |
| - | O-ring | Nitrile rubber |
| Note on materials | | Free of copper and PTFE |
| | | RoHS-compliant |

| Weight [g] | | | | | | |
|---------------|-----|-----|-----|-----|-----|-----|
| Type DADB-V6- | 32 | 40 | 50 | 63 | 80 | 100 |
| 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 |

Standard cylinders DNC, ISO 15552

Accessories

FESTO

Travel velocity v as a function of tubing length l



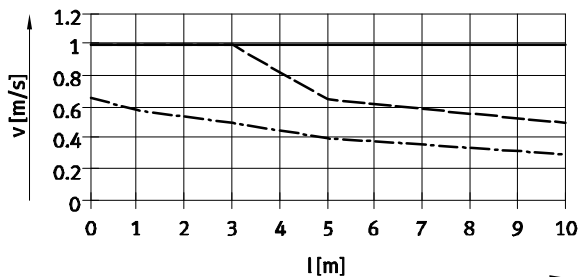
The bellows kit is a leak-free system. To prevent unwanted media being drawn in, the supply and exhaust air must be ducted via a pressure compensation hole in the connection

part **1**.

The pressure generated in the bellows kit by the positioning motion is primarily defined by travel velocity

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

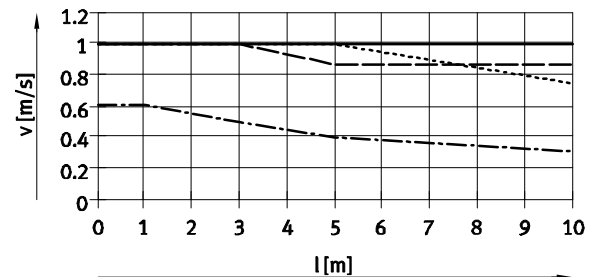
Advancing



— Ø 32/50/63
- - - Ø 40


- · - · - Ø 80/100

Returning



— Ø 32
- - - Ø 40

- · - · - Ø 50/63
· · · · · Ø 80/100

-  - Note

The push-in fittings opposite must be used for the pressure compensation hole. Silencers can also be used as an alternative. This reduces the travel velocity slightly.

Tubing size and push-in fitting for pressure compensation hole

| Ø [mm] | Tubing O.D. [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 |

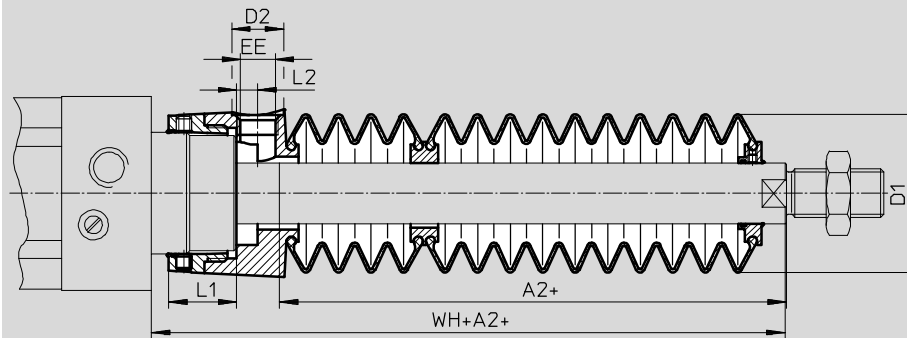
Standard cylinders DNC, ISO 15552

Accessories

FESTO

Dimensions

Download CAD data → www.festo.com



+ = plus stroke length

| Ø Stroke [mm] | 32 | | | | | | | 40 | | | | | | |
|---------------------|------------------|------------|----|------|------|-----|-------|------------------|------------|----|------|------|-----|-------|
| | A2 ¹⁾ | D1 max. | D2 | EE | L1 | L2 | WH+A2 | A2 ¹⁾ | D1 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 | 58 |
| 51 ... 125 | 47 | | | | | | 73 | 43 | | | | | | 73 |
| 126 ... 175 | 61 | | | | | | 87 | 56 | | | | | | 86 |
| 176 ... 250 | 80 | | | | | | 106 | 72 | | | | | | 102 |
| 251 ... 300 | 96 | | | | | | 122 | 86 | | | | | | 116 |
| 301 ... 350 | 112 | | | | | | 138 | 100 | | | | | | 130 |
| 351 ... 375 | 114 | | | | | | 140 | 101 | | | | | | 131 |
| 376 ... 425 | 130 | | | | | | 156 | 115 | | | | | | 145 |
| 426 ... 475 | 145 | | | | | | 171 | 130 | | | | | | 160 |
| 476 ... 500 | 147 | | | | | | 173 | 131 | | | | | | 161 |

| Ø Stroke [mm] | 50 | | | | | | | 63 | | | | | | |
|---------------------|------------------|------------|----|------|-------|----|-------|------------------|------------|----|------|------|----|-------|
| | A2 ¹⁾ | D1 max. | D2 | EE | L1 | L2 | WH+A2 | A2 ¹⁾ | D1 max. | D2 | EE | L1 | L2 | WH+A2 |
| 10 ... 50 | 28 | 57 | 17 | G1/4 | 22.35 | 7 | 65 | 28 | 57 | 17 | G1/4 | 22.4 | 7 | 65 |
| 51 ... 125 | 46 | | | | | | 83 | 46 | | | | | | 83 |
| 126 ... 175 | 56 | | | | | | 93 | 56 | | | | | | 93 |
| 176 ... 250 | 73 | | | | | | 110 | 73 | | | | | | 110 |
| 251 ... 300 | 86 | | | | | | 123 | 86 | | | | | | 123 |
| 301 ... 350 | 97 | | | | | | 134 | 97 | | | | | | 134 |
| 351 ... 375 | 105 | | | | | | 142 | 105 | | | | | | 142 |
| 376 ... 425 | 116 | | | | | | 153 | 116 | | | | | | 153 |
| 426 ... 475 | 126 | | | | | | 163 | 126 | | | | | | 163 |
| 476 ... 500 | 134 | | | | | | 171 | 134 | | | | | | 171 |

| Ø Stroke [mm] | 80 | | | | | | | 100 | | | | | | |
|---------------------|------------------|------------|----|------|----|----|-------|------------------|------------|----|------|----|----|-------|
| | A2 ¹⁾ | D1 max. | D2 | EE | L1 | L2 | WH+A2 | A2 ¹⁾ | D1 max. | D2 | EE | L1 | L2 | WH+A2 |
| 10 ... 50 | 25 | 93 | 17 | G1/4 | 28 | 4 | 71 | 25 | 93 | 17 | G1/4 | 28 | 4 | 71 |
| 51 ... 125 | 37 | | | | | | 83 | 37 | | | | | | 83 |
| 126 ... 175 | 49 | | | | | | 95 | 49 | | | | | | 95 |
| 176 ... 250 | 62 | | | | | | 108 | 62 | | | | | | 108 |
| 251 ... 300 | 74 | | | | | | 120 | 74 | | | | | | 120 |
| 301 ... 350 | 86 | | | | | | 132 | 86 | | | | | | 132 |
| 351 ... 375 | 87 | | | | | | 133 | 87 | | | | | | 133 |
| 376 ... 425 | 98 | | | | | | 144 | 98 | | | | | | 144 |
| 426 ... 475 | 110 | | | | | | 156 | 110 | | | | | | 156 |
| 476 ... 500 | 111 | | | | | | 157 | 111 | | | | | | 157 |

1) The dimension corresponds to the K8 value (extended piston rod) of the drive

Standard cylinders DNC, ISO 15552

FESTO

Accessories

Ordering data – Bellows kit

An extended piston rod (order code K8) is absolutely necessary when using a bellows kit.
→ Ordering data – Modular products.

The necessary dimension for K8 as a function of piston diameter and cylinder stroke as well as the associated bellows kit is indicated in the following table:

Order example:

Selected standard cylinder:

DNC-32-320-PPV-A-...

Dimension for the corresponding K8 value (see table):
112 mm

Complete type designation for the standard cylinder:

DNC-32-320-PPV-A-...-112K8

Associated bellows kit:

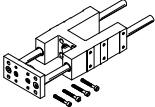
DADB-V6-32-S301-350

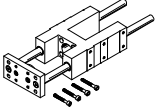
| Cylinder data | | | Bellows kit | |
|---------------|-------------|------------------|-------------|----------------------|
| Ø | Stroke | Dimension for K8 | Part No. | Type |
| [mm] | [mm] | [mm] | | |
| 32 | 10 ... 50 | 29 | 553271 | DADB-V6-32-S10-50 |
| | 51 ... 125 | 47 | 553273 | DADB-V6-32-S51-125 |
| | 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 |
| 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 |
| 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 |

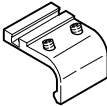
Standard cylinders DNC, ISO 15552

FESTO

Accessories

| Ordering data – Guide units for fixed strokes (recirculating ball bearing guide only) | | | | Technical data → Internet: feng | | |
|---|----------------|----------|----------------|---------------------------------|----------------|-----------------------|
| | Stroke [mm] | Part No. | Type | | Stroke [mm] | Part No. Type |
|  | For Ø 32 mm | | | | For Ø 40 mm | |
| | 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 |
| | For Ø 50 mm | | | | For Ø 63 mm | |
| | 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 |
| | For Ø 80 mm | | | | For Ø 100 mm | |
| | 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 |

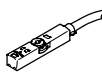
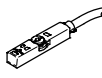
| Ordering data – Guide units for variable strokes | | | | Technical data → Internet: feng | |
|---|---------------|----------------|--|---|--|
| | For Ø [mm] | Stroke [mm] | With recirculating ball bearing guide Part No. Type | With plain-bearing guide Part No. Type | |
|  | 32 | 10 ... 500 | 34487 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 | |




| Ordering data – Mounting kits for proximity sensors SMT-8 | | | Technical data → Internet: smb | |
|---|------------|--------------------------|--------------------------------|--|
| | For Ø [mm] | Part No. Type | | |
|  | 32 | 175705 SMB-8-FENG-32/40 | | |
| | 40 | | | |
| | 50 | 175706 SMB-8-FENG-50/63 | | |
| | 63 | | | |
| | 80 | 175707 SMB-8-FENG-80/100 | | |
| | 100 | | | |



Standard cylinders DNC, ISO 15552


Accessories

FESTO

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

| Ordering data – Proximity sensors for T-slot, magnetic reed | | | | | Technical data → Internet: sme | |
|---|--|------------------|-----------------------|------------------|--------------------------------|-------------------------|
| | Type of mounting | Switching output | Electrical connection | Cable length [m] | Part No. | Type |
| N/O contact | | | | | | |
|  | Insertable in the slot from above, flush with the cylinder profile | Contacting | Cable, 3-wire | 2.5 | 543862 | SME-8M-DS-24V-K-2,5-OE |
| | | | | 5.0 | 543863 | SME-8M-DS-24V-K-5,0-OE |
| | | | Cable, 2-wire | 2.5 | 543872 | SME-8M-ZS-24V-K-2,5-OE |
| | | | Plug M8x1, 3-pin | 0.3 | 543861 | SME-8M-DS-24V-K-0,3-M8D |
|  | Insertable in the slot lengthwise, flush with the cylinder profile | Contacting | Cable, 3-wire | 2.5 | 150855 | SME-8-K-LED-24 |
| | | | Plug M8x1, 3-pin | 0.3 | 150857 | SME-8-S-LED-24 |
| N/C contact | | | | | | |
|  | Insertable in the slot lengthwise, flush with the cylinder profile | Contacting | Cable, 3-wire | 7.5 | 160251 | SME-8-O-K-LED-24 |


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

| Ordering data – Slot covers for T-slot | | | | | |
|---|-----------------------|----------|----------|---------|--|
| | Assembly | Length | Part No. | Type | |
|  | Insertable from above | 2x 0.5 m | 151680 | ABP-5-S | |

Standard cylinders DNC, ISO 15552

Accessories

FESTO

| Ordering data – One-way flow control valves | | | | Technical data → Internet: grla | |
|---|------------|-----------------|--------------|---------------------------------|------------------|
| | Connection | | Material | Part No. | Type |
| | Thread | For tubing O.D. | | | |
|  | G1/8 | 3 | Metal design | 193142 | GRLA-1/8-QS-3-D |
| | | 4 | | 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-1/4-QS-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 |