



- Reacts quickly thanks to minimal break-away force
- Meets the highest requirements for running characteristics, service life and load carrying ability
- Extensive range of accessories

Round cylinders DSNU/ESNU

Key features

FESTO

At a glance

- Round cylinders with piston diameter from 32 to 63 mm
- The series is not repairable
- Piston rod and cylinder barrel made of stainless steel
- The cap is roller burnished onto the barrel
- Good running performance and long service life thanks to smooth, hard inner surface of cylinder barrel
- Three cushioning variants available
 - P cushioning
 - PPV cushioning
 - PPS cushioning

Wide choice of variants

DSNU-...

- Cylinder barrel made from stainless steel
- Bearing and end caps made from wrought aluminium alloy



DSNU/ESNU-...MA

- Bearing cap with flange thread
- Short end cap with axial air connection



DSNU-...MQ

- Bearing cap with flange thread
- Short end cap with lateral air connection



DSNU-...MH

- Direct mounting on the bearing cap
- Short end cap with lateral air connection



DSNU-...KP

- With clamping unit




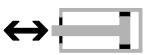








Cushioning types

| | P cushioning | PPS cushioning | PPV cushioning |
|--------------------------|---|---|---|
| Mode of operation | <ul style="list-style-type: none"> • The drive is equipped with polymer flexible end position cushioning | <ul style="list-style-type: none"> • The drive is equipped with self-adjusting end position cushioning | <ul style="list-style-type: none"> • The drive is equipped with adjustable end position cushioning |
| Application | <ul style="list-style-type: none"> • Small loads • Low speeds • Low impact energies | <ul style="list-style-type: none"> • Small to medium loads • Low to medium speeds • Medium impact energies | <ul style="list-style-type: none"> • Medium to high loads • High speeds • High impact energies |
| Advantages | <ul style="list-style-type: none"> • No adjustment required • Time-saving | <ul style="list-style-type: none"> • No adjustment required • Time-saving • Powerful | <ul style="list-style-type: none"> • Very powerful |

Round cylinders DSNU/ESNU

Key features

| Additional variants | | |
|---|---|--|
| 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 friction. This means a considerably lower response pressure. Seal contains silicone grease (not free of paint-wetting impairment substances) |
|  | K2 Extended male piston rod thread | – |
|  | K3 Female piston rod thread | – |
|  | K5 Special piston rod thread | Metric standard thread to ISO |
|  | K6 Shortened male piston rod thread | – |
|  | K8 Extended piston rod | – |
|  | R3 High corrosion protection | All external cylinder surfaces comply with corrosion resistance class 3 to Festo standard 940 070. The piston rod is made from corrosion and acid-resistant steel |

Longer service life thanks to the bellows kit DADB



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**.

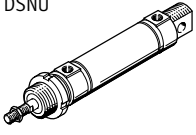
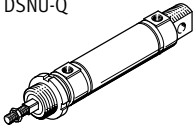
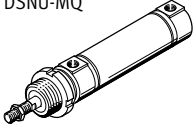
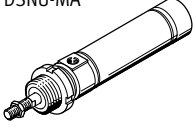
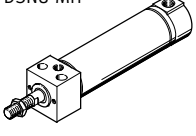
The kit protects the piston rod, seal and bearings from a wide range of media, for example:

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

Round cylinders DSNU

Product range overview

FESTO

| Function | Version | Piston Ø [mm] | Stroke [mm] | Variable stroke ¹⁾ [mm] | Piston rod | | | | | | |
|--|---|---|-------------------|--|---------------|----------------|----------------|-----------------|-------------------------|------------------------|---|
| | | | | | Through S2 | Extended K8 | Male thread | | | Female thread K3 | |
| | | | | | | | Extended K2 | Shortened K6 | Special thread K5 | | |
| Double- acting | Basic version with position sensing | | | | | | | | | | |
| | DSNU |  | 32, 40, 50, 63 | 25, 40, 50, 80, 100, 125, 160, 200, 250, 320 | 1 ... 500 | ■ | ■ | ■ | ■ | ■ | ■ |
| | DSNU – Standard cylinder with piston Ø 8 ... 25 | | | | | | | | | | |
| | Protected against rotation | | | | | | | | | | |
| | DSNU-Q |  | 32 | - | 5 ... 300 | ■ | ■ | ■ | ■ | ■ | ■ |
| | | | 40, 50 | - | 5 ... 400 | | | | | | |
| | | | 63 | - | 5 ... 500 | | | | | | |
| | DSNU-Q – Standard cylinder with piston Ø 8 ... 25 | | | | | | | | | | |
| | Lateral air connection | | | | | | | | | | |
| | DSNU-MQ |  | 32, 40, 50, 63 | - | 1 ... 500 | - | ■ | ■ | ■ | ■ | ■ |
| DSNU-MQ – Standard cylinder with piston Ø 8 ... 25 | | | | | | | | | | | |
| Axial air connection | | | | | | | | | | | |
| DSNU-MA |  | 32, 40, 50, 63 | - | 1 ... 500 | - | ■ | ■ | ■ | ■ | ■ | |
| DSNU-MA – Standard cylinder with piston Ø 8 ... 25 | | | | | | | | | | | |
| Direct mounting | | | | | | | | | | | |
| DSNU-MH |  | 32, 40, 50, 63 | - | 1 ... 500 | - | ■ | ■ | ■ | ■ | ■ | |
| DSNU-MH – Standard cylinder with piston Ø 8 ... 25 | | | | | | | | | | | |

1) Cylinders with position sensing require a minimum stroke of 10 mm to ensure reliable sensing

Round cylinders DSNU

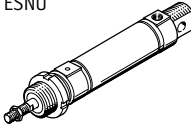
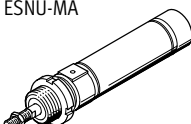
Product range overview

| Version | Cushioning | | | Position sensing | Clamping unit | Heat-resistant seal | Slow speed (constant motion) | Low friction | Corrosion protection | Wiper seal | → Page/ Internet |
|--|------------|------------|----------------|------------------|---------------|---------------------|------------------------------|--------------|----------------------|------------|------------------|
| | Fixed | Adjustable | Self-adjusting | | | | | | | | |
| | P | PPV | PPS | | | | | | | | |
| Basic version with position sensing | | | | | | | | | | | |
| DSNU | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | 11 |
| DSNU – Standard cylinder with piston Ø 8 ... 25 | | | | | | | | | | | dsnu |
| Protected against rotation | | | | | | | | | | | |
| DSNU-Q | ■ | ■ | - | ■ | ■ | ■ | ■ | ■ | ■ | - | 20 |
| DSNU-Q – Standard cylinder with piston Ø 8 ... 25 | | | | | | | | | | | dsnu |
| Lateral air connection | | | | | | | | | | | |
| DSNU-MQ | ■ | ■ | ■ | ■ | ■ | ■ | - | - | ■ | ■ | 11 |
| DSNU-MQ – Standard cylinder with piston Ø 8 ... 25 | | | | | | | | | | | dsnu |
| Axial air connection | | | | | | | | | | | |
| DSNU-MA | ■ | - | - | ■ | ■ | ■ | - | - | ■ | - | 11 |
| DSNU-MA – Standard cylinder with piston Ø 8 ... 25 | | | | | | | | | | | dsnu |
| Direct mounting | | | | | | | | | | | |
| DSNU-MH | ■ | ■ | - | ■ | - | ■ | - | - | ■ | - | 11 |
| DSNU-MH – Standard cylinder with piston Ø 8 ... 25 | | | | | | | | | | | dsnu |

Round cylinders ESNU

Product range overview



| Function | Version | Piston Ø [mm] | Stroke [mm] | Variable stroke ¹⁾ [mm] | Fixed cushioning P | Position sensing A |
|--|---|------------------|----------------|---------------------------------------|-----------------------|-----------------------|
| Single-acting | Basic version with position sensing | | | | | |
| | ESNU  | 32, 40, 50, 63 | 10, 25, 50 | 1 ... 50 | ■ | ■ |
| | ESNU – Standard cylinder with piston Ø 8 ... 25 | | | | | |
| | Axial air connection | | | | | |
| ESNU-MA  | 32, 40, 50, 63 | – | 1 ... 50 | ■ | ■ | |
| ESNU-MA – Standard cylinder with piston Ø 8 ... 25 | | | | | | |

1) Cylinders with position sensing require a minimum stroke of 10 mm to ensure reliable sensing

Round cylinders ESNU

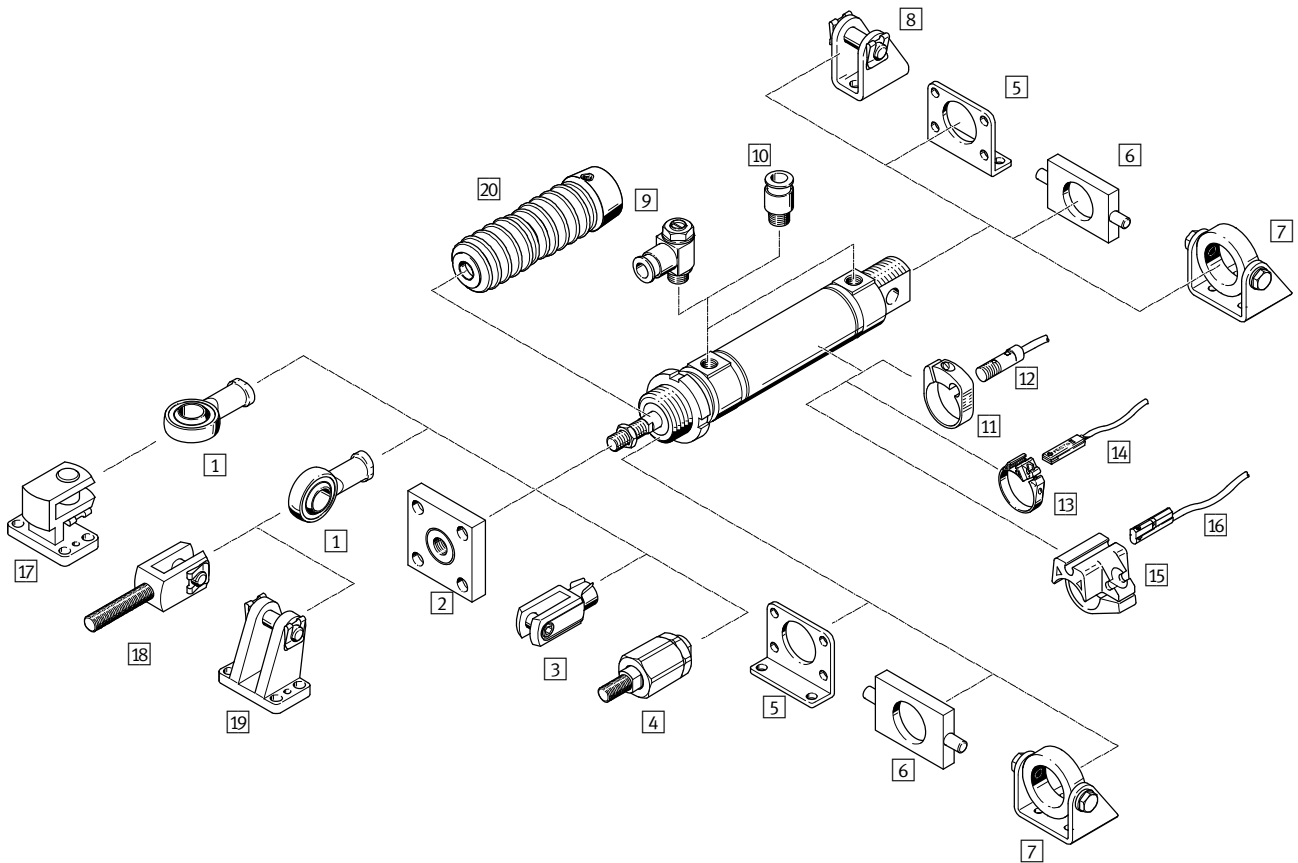
Product range overview



| Version | Piston rod | | | | | → Page/Internet |
|--|------------|-------------|-----------|----------------|---------------|-----------------|
| | Extended | Male thread | | | Female thread | |
| | | Extended | Shortened | Special thread | | |
| | K8 | K2 | K6 | K5 | K3 | |
| Basic version with position sensing | | | | | | |
| ESNU | ■ | ■ | ■ | ■ | ■ | 32 |
| ESNU – Standard cylinder with piston \varnothing 8 ... 25 | | | | | | esnu |
| Axial air connection | | | | | | |
| ESNU-MA | ■ | ■ | ■ | ■ | ■ | 32 |
| ESNU-MA – Standard cylinder with piston \varnothing 8 ... 25 | | | | | | esnu |

Round cylinders DSNU/ESNU

Peripherals overview

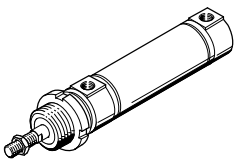


Variants

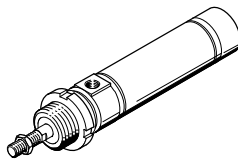
DSNU-MQ

DSNU-MA

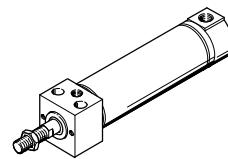
DSNU-MH



DSNU-Q



DSNU-KP

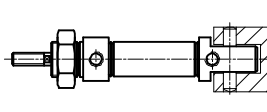
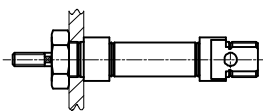
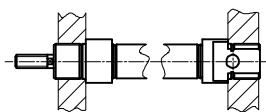


Mounting options

Mounting front and rear

Mounting via hex nut

Swivel mounting

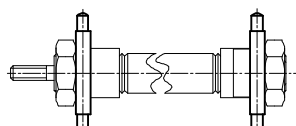
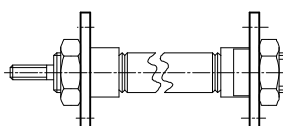
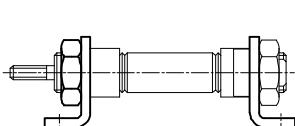
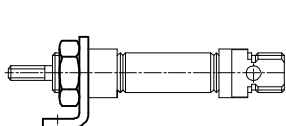


Foot mounting (for short strokes)

Foot mounting

Flange mounting

Swivel mounting




Round cylinders DSNU/ESNU

Peripherals overview

FESTO

| Mounting attachments and accessories | | | | | | | |
|--------------------------------------|--|-----------------|------------|----|----|--------|-----------------|
| | DSNU/ESNU | DSNU/ESNU MA | DSNU MQ | MH | KP | DSNU-Q | → Page/Internet |
| 1 | Rod eye SGS/CRSGS | ■ | ■ | ■ | ■ | ■ | 41 |
| 2 | Coupling piece KSG/KSZ | ■ | ■ | ■ | ■ | ■ | 41 |
| 3 | Rod clevis SG/CRSG | ■ | ■ | ■ | ■ | ■ | 41 |
| 4 | Self-aligning rod coupler FK/CRFK | ■ | ■ | ■ | ■ | ■ | 41 |
| 5 | Foot mounting HBN/CRH | ■ | ■ | ■ | - | ■ | 38 |
| | Flange mounting FBN/CRFV | ■ | ■ | ■ | - | ■ | 38 |
| 6 | Swivel mounting ¹⁾ WBN | ■ | ■ | ■ | - | ■ | 39 |
| 7 | Swivel mounting ¹⁾ SBN | ■ | ■ | ■ | - | ■ | 39 |
| 8 | Clevis foot LBN/CRLBN | ■ | - | - | - | ■ | 40 |
| 9 | One-way flow control valve GRLA/GRLZ/CRGRLA | ■ | ■ | ■ | ■ | ■ | 41 |
| 10 | Push-in fitting QS | ■ | ■ | ■ | ■ | ■ | quick star |
| 11 | Mounting kit CRSMBR | ■ | ■ | ■ | ■ | ■ | 47 |
| 12 | Proximity sensor SMEO/SMTO/CRSMEO-4 | ■ | ■ | ■ | ■ | ■ | 47 |
| 13 | Mounting kit SMBR-8 | ■ | ■ | ■ | ■ | ■ | 48 |
| 14 | Proximity sensor SME/SMT-8 | ■ | ■ | ■ | ■ | ■ | 48 |
| 15 | Mounting kit SMBR-10 | ■ | ■ | ■ | ■ | ■ | 49 |
| 16 | Proximity sensor SME/SMT-10 | ■ | ■ | ■ | ■ | ■ | 49 |
| 17 | Right-angle clevis foot LQG | ■ | ■ | ■ | ■ | ■ | 40 |
| 18 | Rod clevis SGA | ■ | ■ | ■ | ■ | ■ | 41 |
| 19 | Clevis foot LBG | ■ | ■ | ■ | ■ | ■ | 40 |
| 20 | Bellows kit ²⁾ DADB | ■ | ■ | ■ | - | - | 40 |

-  Note

1) Cannot be used on the bearing cap in combination with bellows kit DADB.

2) The bellows kit protects the cylinder (piston rod, seal and bearings) against a wide range of media and thus prevents premature wear.

It can only be used in combination with an extended piston rod (K8).

Round cylinders DSNU/ESNU

Type codes

FESTO

DSNU – 32 – 80 – PPV – A – MQ

| | |
|-------------------------|---|
| Type | |
| Double-acting | |
| DSNU | Round cylinder |
| Single-acting | |
| ESNU | Round cylinder |
| Piston Ø [mm] | |
| Stroke [mm] | |
| Cushioning | |
| P | Flexible cushioning rings/pads at both ends |
| PPV | Pneumatic cushioning, adjustable at both ends |
| PPS | Pneumatic cushioning, self-adjusting at both ends |
| Position sensing | |
| A | Via proximity sensor |
| Variant | |
| MQ | Lateral air connection |
| MA | Axial air connection |
| MH | With mounting flange on bearing cap |

Modular product system

Individually configurable

DSNU → 28

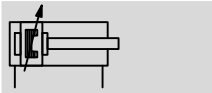
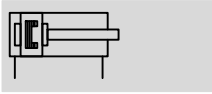
ESNU → 36


- Square piston rod (protection against rotation)
- Through piston rod (piston rod type)
- Extended male piston rod thread
- Male piston rod thread, shortened at one end
- Female piston rod thread (female thread)
- Special piston rod thread (special thread)
- Piston rod extended at front
- Clamping unit on the piston rod
- Heat-resistant seals for temperatures up to 120 °C (temperature resistance)
- Slow speed (constant motion at low piston rod speeds)
- Low friction
- ATEX certification II 2GD
- All external cylinder surfaces conform to corrosion resistance class CRC 3 (corrosion protection)
- Dust protection (wiper seal)


Round cylinders DSNU

Technical data

Function



-  - Diameter
32 ... 63 mm

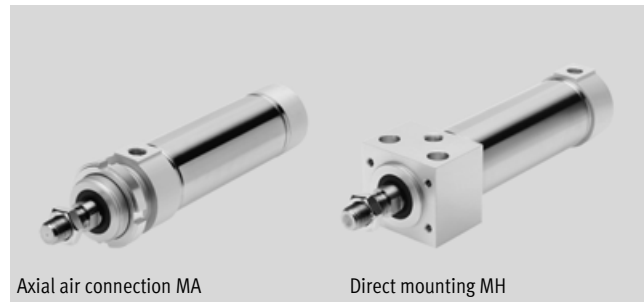
-  - Stroke length
1 ... 500 mm

Variants
→ 18



Basic version

Lateral air connection MQ



Axial air connection MA

Direct mounting MH

| General technical data | | | | | |
|------------------------|-----|---|----------|---------|---------|
| Piston \varnothing | | 32 | 40 | 50 | 63 |
| Pneumatic connection | | G1/8 | G1/4 | G1/4 | G3/8 |
| Piston rod thread | | M10x1.25 | M12x1.25 | M16x1.5 | M16x1.5 |
| Constructional design | | Piston | | | |
| | | Piston rod | | | |
| | | Cylinder barrel | | | |
| Cushioning | P | Flexible cushioning rings/pads at both ends | | | |
| | PPV | Adjustable cushioning at both ends | | | |
| | PPS | Self-adjusting cushioning at both ends | | | |
| Cushioning length | PPV | [mm] 14 | 18 | 20 | 21 |
| | PPS | [mm] 14 | 18 | 20 | 21 |
| Position sensing | | Via proximity sensor | | | |
| Type of mounting | | Direct mounting (MH variant only) | | | |
| | | Via accessories | | | |
| Mounting position | | Any | | | |

| Operating conditions | | | | | |
|--------------------------------|---------------|--|----|------------|----|
| Piston \varnothing | | 32 | 40 | 50 | 63 |
| 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] | Basic version | 1 ... 10 | | | |
| | S10 | 0.5 ... 10 | | 0.4 ... 10 | |
| | S11 | 0.2 ... 10 | - | 0.2 ... 10 | |

Round cylinders DSNU

Technical data

| Ambient conditions | | | | | |
|--|---------------|------------|------------|-----|-------------|
| Round cylinder | Basic version | S6 | S10 | S11 | R3 |
| Ambient temperature ¹⁾ [°C] | -20 ... +80 | 0 ... +120 | +5 ... +80 | | -20 ... +80 |
| Corrosion resistance class CRC ²⁾ | 2 | 2 | 2 | 2 | 3 |

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.

| ATEX ¹⁾ | |
|---|---|
| ATEX category for gas | II 2G |
| Explosion ignition protection type for gas | c T4 |
| ATEX category for dust | II 2D |
| Explosion ignition protection type for dust | c 120°C |
| Explosion-proof temperature rating | -20°C ≤ Ta ≤ +60°C |
| CE marking (see declaration of conformity) | To EU Explosion Protection Directive (ATEX) |

1) Make sure that the accessories are suited for ATEX application.

| Speed [mm/s] | | | | | |
|--|-----|------------------|----|----|-----------|
| Piston Ø | | 32 | 40 | 50 | 63 |
| Speed with stick-slip-free operation, horizontal, without load, at 6 bar | S10 | 8 ... 100 | | | 5 ... 100 |
| Minimum speed, advancing | S11 | <1 ¹⁾ | | | |
| Minimum speed, retracting | S11 | <1 ¹⁾ | | | |

1) Measurements of less than 1 mm/s were not conducted.

| Force [N] and impact energy [J] | | | | | |
|---|--|------|------|------|------|
| Piston Ø | | 32 | 40 | 50 | 63 |
| Theoretical force at 6 bar, advancing | | 483 | 753 | 1178 | 1870 |
| Theoretical force at 6 bar, retracting | | 415 | 633 | 990 | 1682 |
| Impact energy at the end positions for P cushioning ¹⁾ | | 0.40 | 0.70 | 1 | 1.3 |

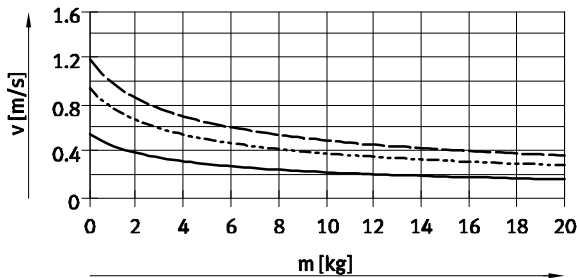
1) The values are reduced by approx. 50% at an ambient temperature of 80 °C.

Round cylinders DSNU

Technical data

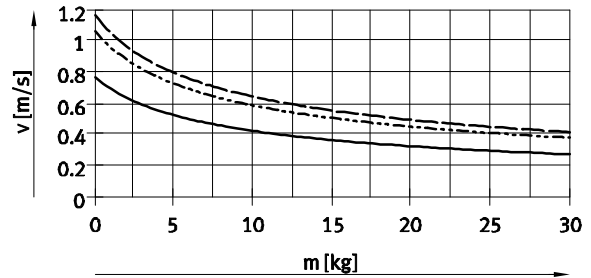
Mean piston velocity v as a function of applied load m in combination with PPS cushioning

Piston $\varnothing 32$



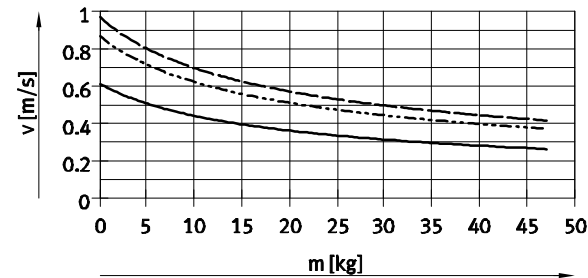
- DSNU-32-50
- - - DSNU-32-100
- · - DSNU-32-200

Piston $\varnothing 40$



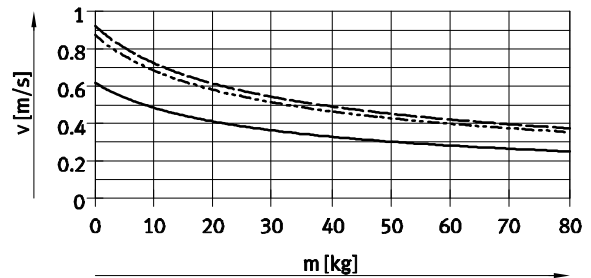
- DSNU-40-50
- - - DSNU-40-100
- · - DSNU-40-200

Piston $\varnothing 50$




- DSNU-50-50
- - - DSNU-50-100
- · - DSNU-50-200

Piston $\varnothing 63$



- DSNU-63-50
- - - DSNU-63-100
- · - DSNU-63-200

-  - Note
Mean piston velocity
= stroke/movement time

-  - Note

| | | |
|---|---|---|
| Design software for P cushioning → ProDrive | Additional graphs for PPS cushioning → www.festo.com | Design software for PPV cushioning → ProDrive |
|---|---|---|

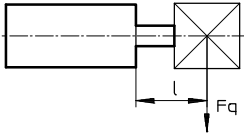
Round cylinders DSNU

Technical data

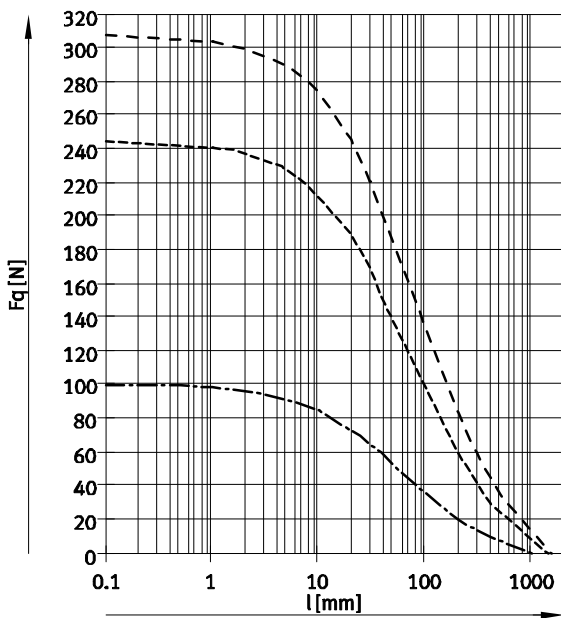
FESTO

| Weight [g] | | | | |
|------------------------------------|-------|-----|------|------|
| Piston \varnothing | 32 | 40 | 50 | 63 |
| Product weight with 0 mm stroke | 370.5 | 661 | 1087 | 1445 |
| Additional weight per 10 mm stroke | 15.5 | 24 | 40 | 44 |

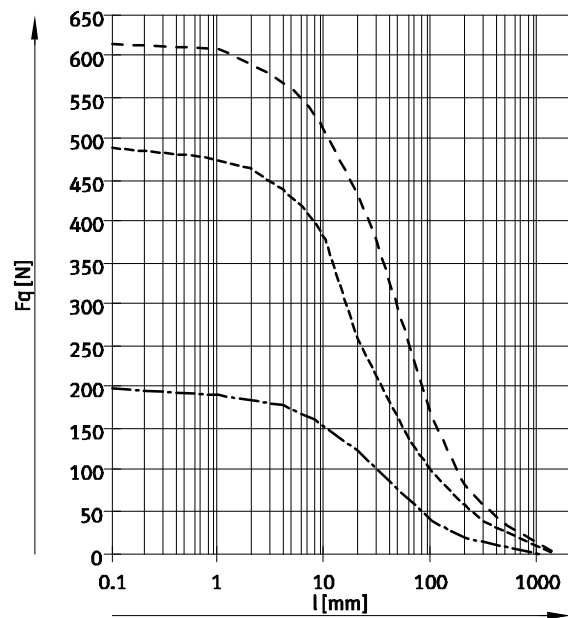
Max. lateral force F_q as a function of projection l



Basic version



S2 – Through piston rod



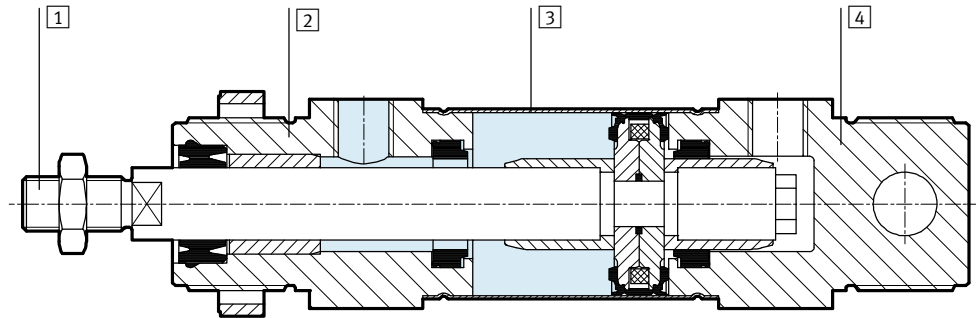
- ∅ 32
- ∅ 40
- . - . - ∅ 50/63

Round cylinders DSNU

Technical data

Materials

Sectional view



| Round cylinder | Basic version | S6 | S10 | S11 | R3 |
|-------------------|------------------------------|---------------|-----------------------------|-----|------------------------------|
| 1 Piston rod | High-alloy steel | | | | High-alloy stainless steel |
| 2 Bearing cap | Anodised aluminium | | | | |
| 3 Cylinder barrel | High-alloy stainless steel | | | | |
| 4 End cap | Anodised aluminium | | | | |
| - Seals | Polyurethane, nitrile rubber | Fluoro rubber | Fluoro rubber, polyurethane | | Polyurethane, nitrile rubber |
| Note on materials | RoHS compliant | | | | |

Round cylinders DSNU

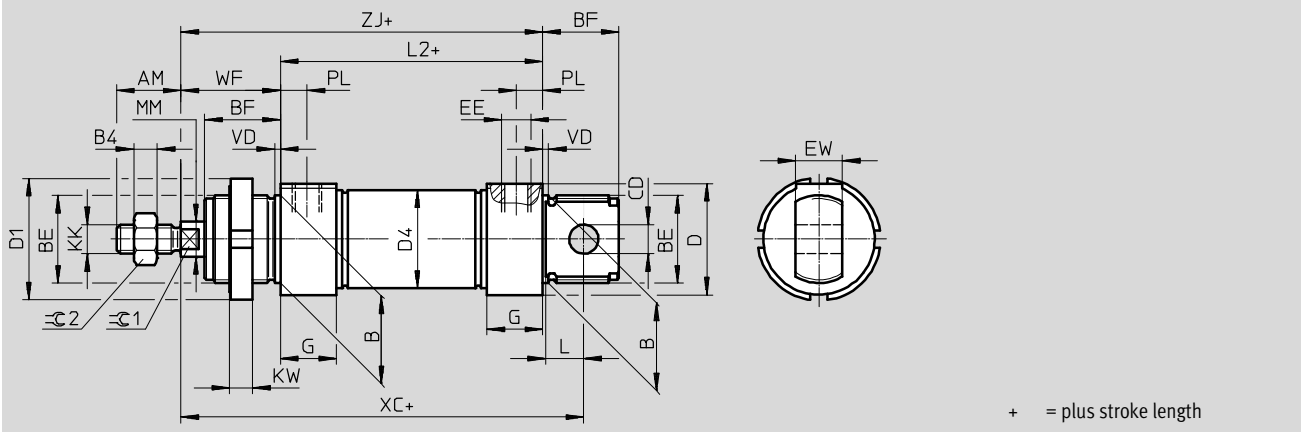
Technical data

FESTO

Dimensions

Download CAD data → www.festo.com

Basic version



| ∅ | AM | B | B4 | BE | BF | CD | D | D1 | D4 | EE | EW | G |
|------|----|---------|----|---------|----|----------|----|----|------|-----------------|----|----|
| [mm] | | ∅ h9 | | | | ∅ E10 | ∅ | ∅ | ∅ | | | |
| 32 | 22 | 30 | 5 | M30x1.5 | 26 | 10 | 38 | 42 | 33.6 | G $\frac{1}{8}$ | 16 | 19 |
| 40 | 24 | 38 | 6 | M38x1.5 | 30 | 12 | 46 | 50 | 41.6 | G $\frac{1}{4}$ | 18 | 25 |
| 50 | 32 | 45 | 8 | M45x1.5 | 33 | 16 | 57 | 60 | 52.4 | | 21 | |
| 63 | | | | | | | 70 | | 65.4 | G $\frac{3}{8}$ | | |

| ∅ | KK | KW | L | L2 | MM | PL | VD | WF | XC | ZJ | ∅1 | ∅2 |
|------|----------|----|----|------|----|----|----|-------|-------|-------|----|----|
| [mm] | | | | | ∅ | | | | ±1 | | | |
| 32 | M10x1.25 | 8 | 13 | 69.5 | 12 | 9 | 2 | 34 | 117.5 | 103.5 | 10 | 16 |
| 40 | M12x1.25 | 10 | 15 | 84.6 | 16 | 12 | 3 | 39 | 139.6 | 123.6 | 13 | 18 |
| 50 | M16x1.5 | | 16 | 86.2 | 20 | | | 44 | 147.2 | 130.2 | 17 | 24 |
| 63 | | | | 94.2 | 13 | 45 | | 156.2 | 139.2 | | | |

Round cylinders DSNU

Technical data

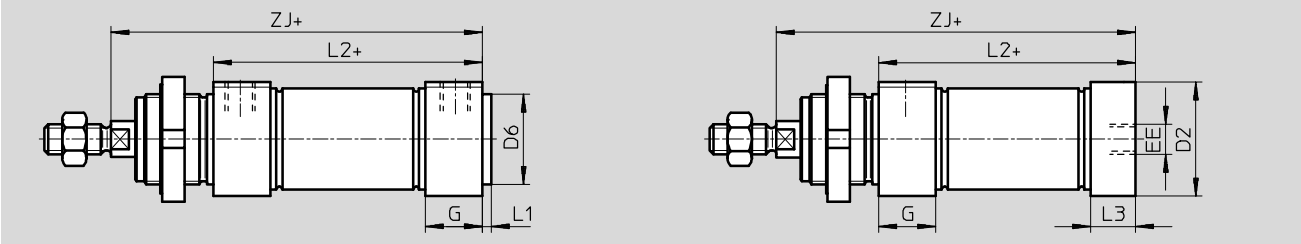
FESTO

Dimensions

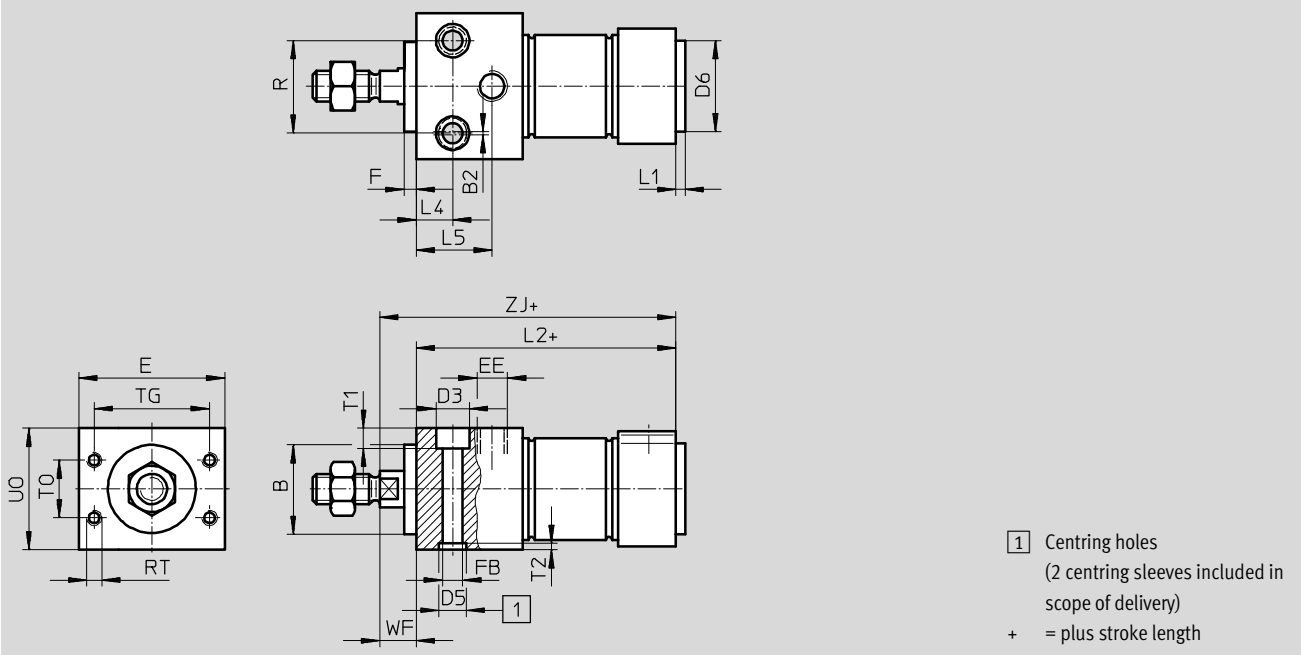
Download CAD data → www.festo.com

MQ – Lateral air connection

MA – Axial air connection



MH – Direct mounting



| ∅ [mm] | B ∅ h9 | B2 | E | EE | G | F | FB ∅ | D2 ∅ | D3 | D5 ∅ | D6 ∅ | L1 | L2 | | |
|-----------|--------------|----|----|-----------------|----|----|---------|---------|----|---------|---------|----|------|------|-------|
| | | | | | | | | | | | | | -MQ | -MA | -MH |
| 32 | 30 | 1 | 48 | G $\frac{1}{8}$ | 19 | 4 | 6.6 | 34 | 11 | 9 | 30 | 3 | 69.5 | 65.5 | 85.5 |
| 40 | 38 | | 54 | G $\frac{1}{4}$ | 25 | | 9 | 42 | 14 | 12 | 38 | 4 | 84.6 | 77.6 | 104.6 |
| 50 | 45 | 2 | 64 | G $\frac{3}{8}$ | 28 | 11 | 11 | 53 | 18 | 15 | 45 | | 4 | 86.2 | 86.2 |
| 63 | | | 72 | | | | | 66 | | | | 18 | | 15 | 45 |

| ∅ [mm] | L3 | L4 | L5 | R | RT | T0 | T1 | T2 | TG | U0 | WF | ZJ | | |
|-----------|----|----|----|----|----|----|-----|-----|----|-------|-------|-------|-------|-------|
| | | | | | | | | | | | | -MQ | -MA | -MH |
| 32 | 15 | 12 | 25 | 30 | M5 | 19 | 6.6 | 2.1 | 38 | 40 | 12 | 103.5 | 99.5 | 97.5 |
| 40 | 18 | 15 | 32 | 38 | | 24 | 9 | 2.6 | 42 | 48 | | 15 | 123.6 | 116.5 |
| 50 | 25 | | 35 | 42 | M6 | 32 | 11 | 3.1 | 50 | 58 | 130.2 | | 130.2 | 124.2 |
| 63 | 28 | 36 | 44 | M8 | 36 | 11 | 3.1 | 52 | 72 | 139.2 | 139.2 | 132.2 | | |

Round cylinders DSNU

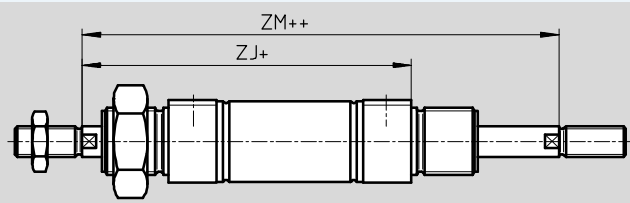
Technical data



Dimensions

Download CAD data → www.festo.com

S2 – Through piston rod

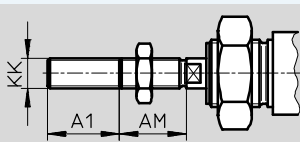


Note

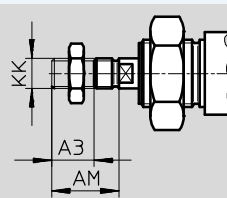
The thread types at both piston rod ends are identical. In combination with variant Q, the left-hand piston rod end is square, the right-hand piston rod end round.

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

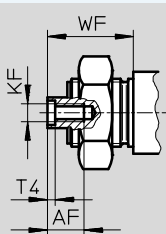
K2 – Extended male piston rod thread



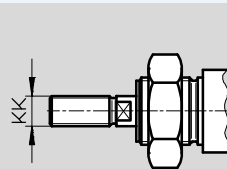
K6 – Shortened male piston rod thread



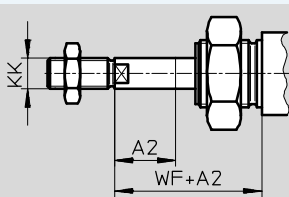
K3 – Female piston rod thread



K5 – Special piston rod thread



K8 – Extended piston rod



Note


If variant K8 is required in combination with S2, the piston rod will only be extended on one side.

| ∅ [mm] | A1 max. | A2 max. | A3 max. | AF | AM | KF | KK | | T4 | WF | ZJ | | | ZM |
|-----------|------------|------------|------------|----|----|-----|-----------------|---------------------------------|-----|----|-------|-------|-------|-------|
| | | | | | | | Basic thread | Special thread ¹⁾ | | | -MQ | -MA | -MH | |
| 32 | 35 | 500 | 8 | 12 | 22 | M6 | M10x1.25 | M10 | 2.6 | 34 | 103.5 | 99.5 | 97.5 | 137.5 |
| 40 | | | | | 24 | M8 | M12x1.25 | M12 | 3.3 | 39 | 123.6 | 111.6 | 116.6 | 162.6 |
| 50 | 70 | | 10 | 16 | 32 | M10 | M16x1.5 | M16 | 4.7 | 44 | 130.2 | 130.2 | 124.2 | 174.2 |
| 63 | | | | | | | | | | 45 | 139.2 | 139.2 | 132.2 | 184.2 |

1) The special threads are only available as male threads. The scope of delivery does not include a hex nut for the piston rod thread

Round cylinders DSNU

Technical data

| Ordering data | | | | | | | | | |
|---|------------------|----------------|---|-----------------|--|-------------------|--|-------------------|--|
| Type | Piston Ø [mm] | Stroke [mm] | P – Flexible cushioning rings/ pads at both ends | | PPV – Pneumatic cushioning, adjustable at both ends | | PPS – Pneumatic cushioning, self-adjusting at both ends | | |
| | | | A – With position sensing | | A – With position sensing | | A – With position sensing | | |
| | | | Part No. | Type | Part No. | Type | Part No. | Type | |
|  | 32 | 25 | 195980 | DSNU-32-25-P-A | 196020 | DSNU-32-25-PPV-A | 559295 | DSNU-32-25-PPS-A | |
| | | 40 | 195981 | DSNU-32-40-P-A | 196021 | DSNU-32-40-PPV-A | 559296 | DSNU-32-40-PPS-A | |
| | | 50 | 195982 | DSNU-32-50-P-A | 196022 | DSNU-32-50-PPV-A | 559297 | DSNU-32-50-PPS-A | |
| | | 80 | 195983 | DSNU-32-80-P-A | 196023 | DSNU-32-80-PPV-A | 559298 | DSNU-32-80-PPS-A | |
| | | 100 | 195984 | DSNU-32-100-P-A | 196024 | DSNU-32-100-PPV-A | 559299 | DSNU-32-100-PPS-A | |
| | | 125 | 195985 | DSNU-32-125-P-A | 196025 | DSNU-32-125-PPV-A | 559300 | DSNU-32-125-PPS-A | |
| | | 160 | 195986 | DSNU-32-160-P-A | 196026 | DSNU-32-160-PPV-A | 559301 | DSNU-32-160-PPS-A | |
| | | 200 | 195987 | DSNU-32-200-P-A | 196027 | DSNU-32-200-PPV-A | 559302 | DSNU-32-200-PPS-A | |
| | | 250 | 195988 | DSNU-32-250-P-A | 196028 | DSNU-32-250-PPV-A | 559303 | DSNU-32-250-PPS-A | |
| | 320 | 195989 | DSNU-32-320-P-A | 196029 | DSNU-32-320-PPV-A | 559304 | DSNU-32-320-PPS-A | | |
| | 40 | 25 | 195990 | DSNU-40-25-P-A | 196030 | DSNU-40-25-PPV-A | 559305 | DSNU-40-25-PPS-A | |
| | | 40 | 195991 | DSNU-40-40-P-A | 196031 | DSNU-40-40-PPV-A | 559306 | DSNU-40-40-PPS-A | |
| | | 50 | 195992 | DSNU-40-50-P-A | 196032 | DSNU-40-50-PPV-A | 559307 | DSNU-40-50-PPS-A | |
| | | 80 | 195993 | DSNU-40-80-P-A | 196033 | DSNU-40-80-PPV-A | 559308 | DSNU-40-80-PPS-A | |
| | | 100 | 195994 | DSNU-40-100-P-A | 196034 | DSNU-40-100-PPV-A | 559309 | DSNU-40-100-PPS-A | |
| | | 125 | 195995 | DSNU-40-125-P-A | 196035 | DSNU-40-125-PPV-A | 559310 | DSNU-40-125-PPS-A | |
| | | 160 | 195996 | DSNU-40-160-P-A | 196036 | DSNU-40-160-PPV-A | 559311 | DSNU-40-160-PPS-A | |
| | | 200 | 195997 | DSNU-40-200-P-A | 196037 | DSNU-40-200-PPV-A | 559312 | DSNU-40-200-PPS-A | |
| | | 250 | 195998 | DSNU-40-250-P-A | 196038 | DSNU-40-250-PPV-A | 559313 | DSNU-40-250-PPS-A | |
| | | 320 | 195999 | DSNU-40-320-P-A | 196039 | DSNU-40-320-PPV-A | 559314 | DSNU-40-320-PPS-A | |
| | 50 | 25 | 196000 | DSNU-50-25-P-A | 196040 | DSNU-50-25-PPV-A | 559315 | DSNU-50-25-PPS-A | |
| | | 40 | 196001 | DSNU-50-40-P-A | 196041 | DSNU-50-40-PPV-A | 559316 | DSNU-50-40-PPS-A | |
| | | 50 | 196002 | DSNU-50-50-P-A | 196042 | DSNU-50-50-PPV-A | 559317 | DSNU-50-50-PPS-A | |
| | | 80 | 196003 | DSNU-50-80-P-A | 196043 | DSNU-50-80-PPV-A | 559318 | DSNU-50-80-PPS-A | |
| | | 100 | 196004 | DSNU-50-100-P-A | 196044 | DSNU-50-100-PPV-A | 559319 | DSNU-50-100-PPS-A | |
| | | 125 | 196005 | DSNU-50-125-P-A | 196045 | DSNU-50-125-PPV-A | 559320 | DSNU-50-125-PPS-A | |
| | | 160 | 196006 | DSNU-50-160-P-A | 196046 | DSNU-50-160-PPV-A | 559321 | DSNU-50-160-PPS-A | |
| | | 200 | 196007 | DSNU-50-200-P-A | 196047 | DSNU-50-200-PPV-A | 559322 | DSNU-50-200-PPS-A | |
| | | 250 | 196008 | DSNU-50-250-P-A | 196048 | DSNU-50-250-PPV-A | 559323 | DSNU-50-250-PPS-A | |
| | | 320 | 196009 | DSNU-50-320-P-A | 196049 | DSNU-50-320-PPV-A | 559324 | DSNU-50-320-PPS-A | |
| | 63 | 25 | 196010 | DSNU-63-25-P-A | 196050 | DSNU-63-25-PPV-A | 559325 | DSNU-63-25-PPS-A | |
| | | 40 | 196011 | DSNU-63-40-P-A | 196051 | DSNU-63-40-PPV-A | 559326 | DSNU-63-40-PPS-A | |
| 50 | | 196012 | DSNU-63-50-P-A | 196052 | DSNU-63-50-PPV-A | 559327 | DSNU-63-50-PPS-A | | |
| 80 | | 196013 | DSNU-63-80-P-A | 196053 | DSNU-63-80-PPV-A | 559328 | DSNU-63-80-PPS-A | | |
| 100 | | 196014 | DSNU-63-100-P-A | 196054 | DSNU-63-100-PPV-A | 559329 | DSNU-63-100-PPS-A | | |
| 125 | | 196015 | DSNU-63-125-P-A | 196055 | DSNU-63-125-PPV-A | 559330 | DSNU-63-125-PPS-A | | |
| 160 | | 196016 | DSNU-63-160-P-A | 196056 | DSNU-63-160-PPV-A | 559331 | DSNU-63-160-PPS-A | | |
| 200 | | 196017 | DSNU-63-200-P-A | 196057 | DSNU-63-200-PPV-A | 559332 | DSNU-63-200-PPS-A | | |
| 250 | | 196018 | DSNU-63-250-P-A | 196058 | DSNU-63-250-PPV-A | 559333 | DSNU-63-250-PPS-A | | |
| 320 | | 196019 | DSNU-63-320-P-A | 196059 | DSNU-63-320-PPV-A | 559334 | DSNU-63-320-PPS-A | | |

 Note

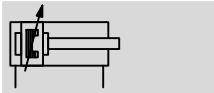
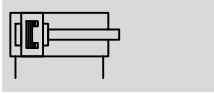
Variable strokes and additional variants can be configured and ordered through the DSNU modular product system → 28.

Round cylinders DSNU-Q, protected against rotation

FESTO

Technical data

Function



⌀ - Diameter
32 ... 63 mm

█ - Stroke length
5 ... 500 mm



| General technical data | | | | |
|------------------------------------|---|-----------------|-----------------|-----------------|
| Piston ⌀ | 32 | 40 | 50 | 63 |
| Pneumatic connection | G $\frac{1}{8}$ | G $\frac{1}{4}$ | G $\frac{1}{4}$ | G $\frac{3}{8}$ |
| Piston rod thread | M10x1.25 | M12x1.25 | M16x1.5 | M16x1.5 |
| Constructional design | Piston | | | |
| | Protected against rotation with square piston rod | | | |
| Max. torque at the piston rod [Nm] | 0.8 | 1.1 | 1.5 | 1.5 |
| Cushioning | Flexible cushioning rings/pads at both ends | | | |
| | Pneumatic cushioning, adjustable at both ends | | | |
| Cushioning length (PPV) [mm] | 14 | 18 | 20 | 21 |
| Position sensing | Via proximity sensor | | | |
| Type of mounting | Via accessories | | | |
| Mounting position | Any | | | |

| Operating conditions | | | | |
|------------------------------------|--|----|----|----|
| Piston ⌀ | 32 | 40 | 50 | 63 |
| 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 ... 10 | | | |

| Ambient conditions | | |
|--|---------------|----|
| Round cylinder | Basic version | R3 |
| Ambient temperature ¹⁾ [°C] | -20 ... +80 | |
| Corrosion resistance class CRC ²⁾ | 2 | 3 |

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.

Round cylinders DSNU-Q, protected against rotation

Technical data

| ATEX ¹⁾ | |
|---|---|
| ATEX category for gas | II 2G |
| Explosion ignition protection type for gas | c T4 |
| ATEX category for dust | II 2D |
| Explosion ignition protection type for dust | c 120°C |
| Explosion-proof temperature rating | -20°C ≤ Ta ≤ +60°C |
| CE marking (see declaration of conformity) | To EU Explosion Protection Directive (ATEX) |

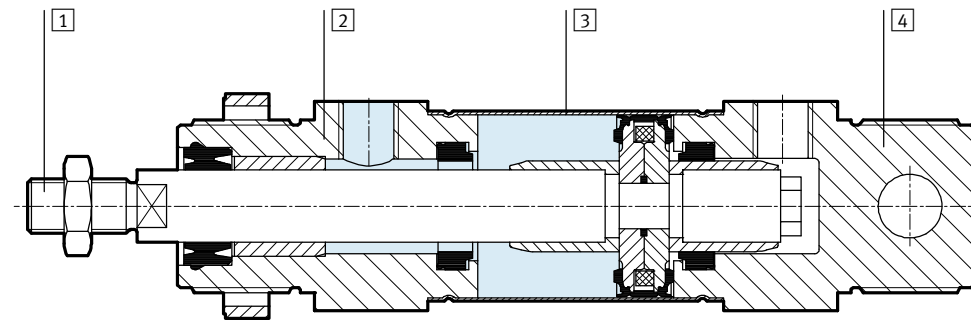
1) Make sure that the accessories are suited for ATEX application.

| Force [N] and impact energy [J] | | | | |
|--|------|------|------|------|
| Piston Ø | 32 | 40 | 50 | 63 |
| Theoretical force at 6 bar, advancing | 483 | 753 | 1178 | 1870 |
| Theoretical force at 6 bar, retracting | 415 | 633 | 990 | 1682 |
| Impact energy at the end positions | 0.40 | 0.70 | 1 | 1.3 |

| Weight [g] | | | | |
|------------------------------------|-------|-----|------|------|
| Piston Ø | 32 | 40 | 50 | 63 |
| Product weight with 0 mm stroke | 370.5 | 661 | 1087 | 1445 |
| Additional weight per 10 mm stroke | 15.5 | 24 | 40 | 44 |

Materials

Sectional view

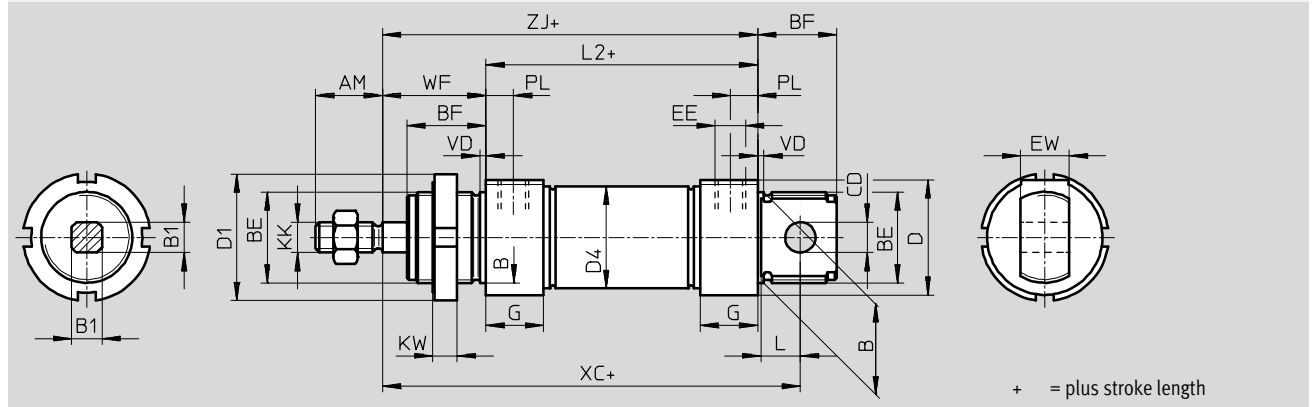


| Round cylinder | Basic version | R3 |
|-------------------|------------------------------|----------------------------|
| 1 Piston rod | High-alloy steel | High-alloy stainless steel |
| 2 Bearing cap | Anodised aluminium | |
| 3 Cylinder barrel | High-alloy stainless steel | |
| 4 End cap | Anodised aluminium | |
| - Seals | Polyurethane, nitrile rubber | |
| Note on materials | RoHS compliant | |

Round cylinders DSNU-Q, protected against rotation

Technical data

Dimensions Download CAD data → www.festo.com
 Basic version



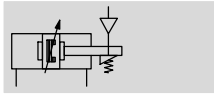
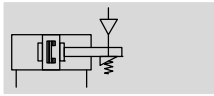
| ∅ | AM | B | B1 | BE | BF | CD | D | D1 | D4 | EE | EW |
|------|----|---------|----|---------|----|----------|----|----|------|-------------------------------|----|
| [mm] | | ∅ h9 | □ | | | ∅ E10 | ∅ | ∅ | ∅ | | |
| 32 | 22 | 30 | 10 | M30x1.5 | 26 | 10 | 38 | 42 | 33.6 | G ¹ / ₈ | 16 |
| 40 | 24 | 38 | 12 | M38x1.5 | 30 | 12 | 46 | 50 | 41.6 | G ¹ / ₄ | 18 |
| 50 | 32 | 45 | 16 | M45x1.5 | 33 | 16 | 57 | 60 | 52.4 | G ¹ / ₄ | 21 |
| 63 | 32 | 45 | 16 | M45x1.5 | 33 | 16 | 70 | 60 | 65.4 | G ³ / ₈ | 21 |

| ∅ | G | KK | KW | L | L2 | PL | VD | WF | XC | ZJ |
|------|----|----------|----|----|------|----|----|----|-------|-------|
| [mm] | | | | | | | | | ±1 | |
| 32 | 19 | M10x1.25 | 8 | 13 | 69.5 | 9 | 2 | 34 | 117.5 | 103.5 |
| 40 | 25 | M12x1.25 | 10 | 15 | 84.6 | 12 | 3 | 39 | 139.6 | 123.6 |
| 50 | 25 | M16x1.5 | 10 | 16 | 86.2 | 12 | 3 | 44 | 147.2 | 130.2 |
| 63 | 28 | M16x1.5 | 10 | 16 | 94.2 | 13 | 3 | 45 | 156.2 | 139.2 |

Round cylinders DSNU-KP, with clamping unit

Technical data

Function



- - Diameter
32 ... 63 mm

- - Stroke length
1 ... 500 mm

- - 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 | |
| Pneumatic connection | | G $\frac{1}{8}$ | G $\frac{1}{4}$ | G $\frac{1}{4}$ | G $\frac{3}{8}$ | |
| Piston rod thread | | M10x1.25 | M12x1.25 | M16x1.5 | M16x1.5 | |
| Constructional design | | Piston | | | | |
| | | Piston rod | | | | |
| | | Cylinder barrel | | | | |
| Cushioning | P | Flexible cushioning rings/pads at both ends | | | | |
| | PPV | Pneumatic cushioning, adjustable at both ends | | | | |
| | PPS | Cushioning, self-adjusting at both ends | | | | |
| Cushioning length | PPV | [mm] | 14 | 18 | 20 | 21 |
| | PPS | [mm] | 14 | 18 | 20 | 21 |
| Position sensing | | Via proximity sensor | | | | |
| Type of mounting | | Via through-holes | | | | |
| | | Via accessories | | | | |
| Mounting position | | Any | | | | |
| Clamping unit holding force | | [N] | 600 | 1000 | 1400 | 2000 |
| Axial play under load | | [mm] | 0.5 | | 0.8 | |
| Clamping unit pneumatic connection | | | M5 | G $\frac{1}{8}$ | G $\frac{1}{8}$ | G $\frac{1}{8}$ |

| Operating conditions | | | | | |
|--------------------------------|--|--|----------|----|----|
| Piston Ø | | 32 | 40 | 50 | 63 |
| 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 ... 10 | | |

| Ambient conditions | | | |
|--|---------------|-------------|---|
| Round cylinder | Basic version | R3 | |
| Ambient temperature ¹⁾ | [°C] | -10 ... +80 | |
| Corrosion resistance class CRC ²⁾ | | 2 | 3 |

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.

Round cylinders DSNU-KP, with clamping unit

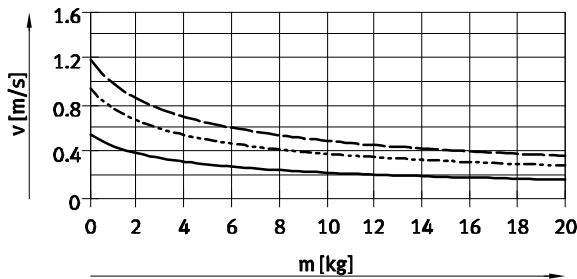
Technical data

| Force [N] and impact energy [J] | | | | |
|--|------|------|------|------|
| Piston \varnothing | 32 | 40 | 50 | 63 |
| Theoretical force at 6 bar, advancing | 483 | 753 | 1178 | 1870 |
| Theoretical force at 6 bar, retracting | 415 | 633 | 990 | 1682 |
| Impact energy at the end positions ¹⁾ | 0.40 | 0.70 | 1 | 1.3 |

1) The values are reduced by approx. 50% at an ambient temperature of 80 °C.

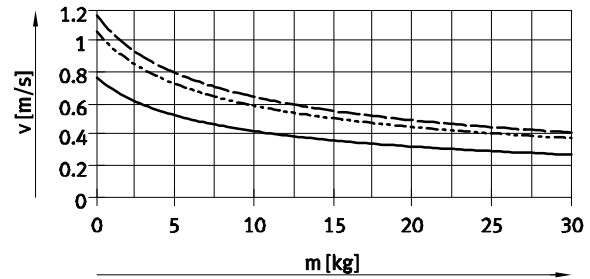
Mean piston velocity v as a function of applied load m in combination with PPS cushioning

Piston \varnothing 32



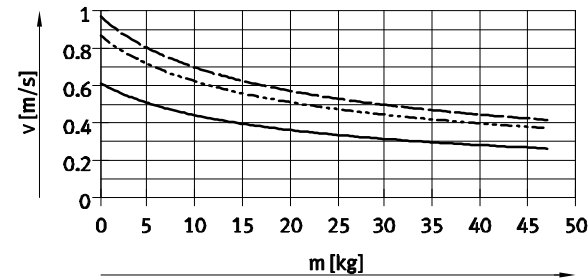
— DSNU-32-50
 - - - DSNU-32-100
 - · - DSNU-32-200

Piston \varnothing 40



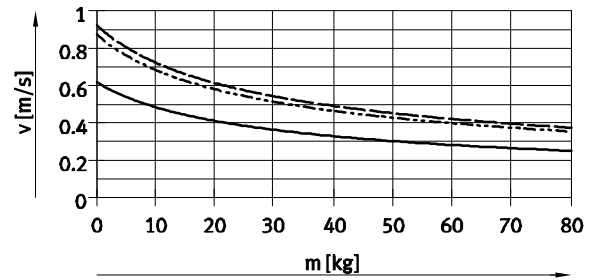
— DSNU-40-50
 - - - DSNU-40-100
 - · - DSNU-40-200

Piston \varnothing 50



— DSNU-50-50
 - - - DSNU-50-100
 - · - DSNU-50-200

Piston \varnothing 63



— DSNU-63-50
 - - - DSNU-63-100
 - · - DSNU-63-200

Note
 Mean piston velocity
 = stroke/movement time

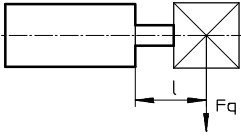
Note
 Design software for P cushioning → ProDrive
 Additional graphs for PPS cushioning → www.festo.com
 Design software for PPV cushioning → ProDrive

| Weight [g] | | | | |
|------------------------------------|-------|------|------|------|
| Piston \varnothing | 32 | 40 | 50 | 63 |
| Product weight with 0 mm stroke | 711.5 | 1287 | 2059 | 2556 |
| Additional weight per 10 mm stroke | 15.5 | 24 | 40 | 44 |

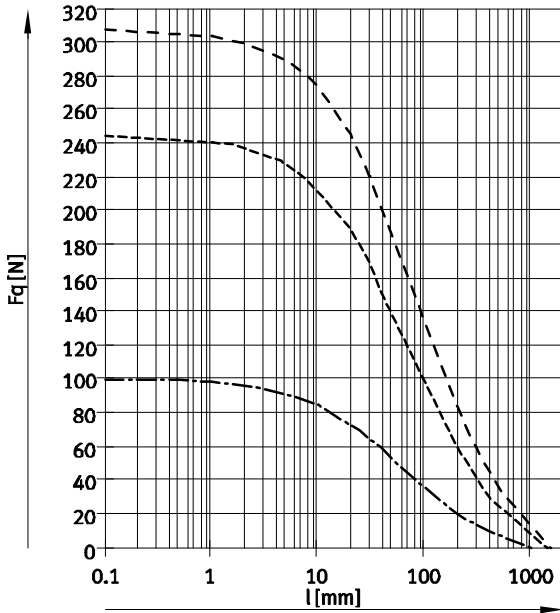
Round cylinders DSNU-KP, with clamping unit

Technical data

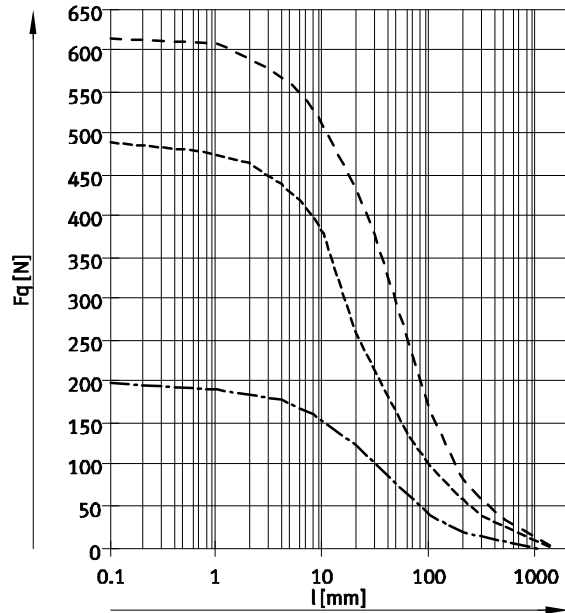
Max. lateral force F_q as a function of projection l



Basic version



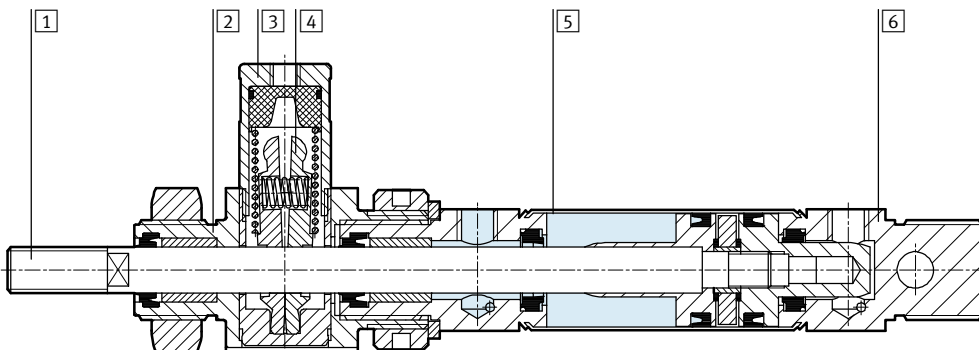
S2 – Through piston rod



- $\varnothing 32$
- $\varnothing 40$
- $\varnothing 50/63$

Materials

Sectional view



| Round cylinder | Basic version | R3 |
|--------------------------|------------------------------|----------------------------|
| 1 Piston rod | High-alloy steel | High-alloy stainless steel |
| 2 Bearing cap | Anodised aluminium | |
| 3 Housing, clamping unit | Wrought aluminium alloy | |
| 4 Clamping jaws | Brass | |
| 5 Cylinder barrel | High-alloy stainless steel | |
| 6 End cap | Anodised aluminium | |
| - Piston, clamping unit | Polyacetate | |
| - Spring | Spring steel | |
| - Seals | Polyurethane, nitrile rubber | |
| Note on materials | RoHS compliant | |

Round cylinders DSNU-KP, with clamping unit

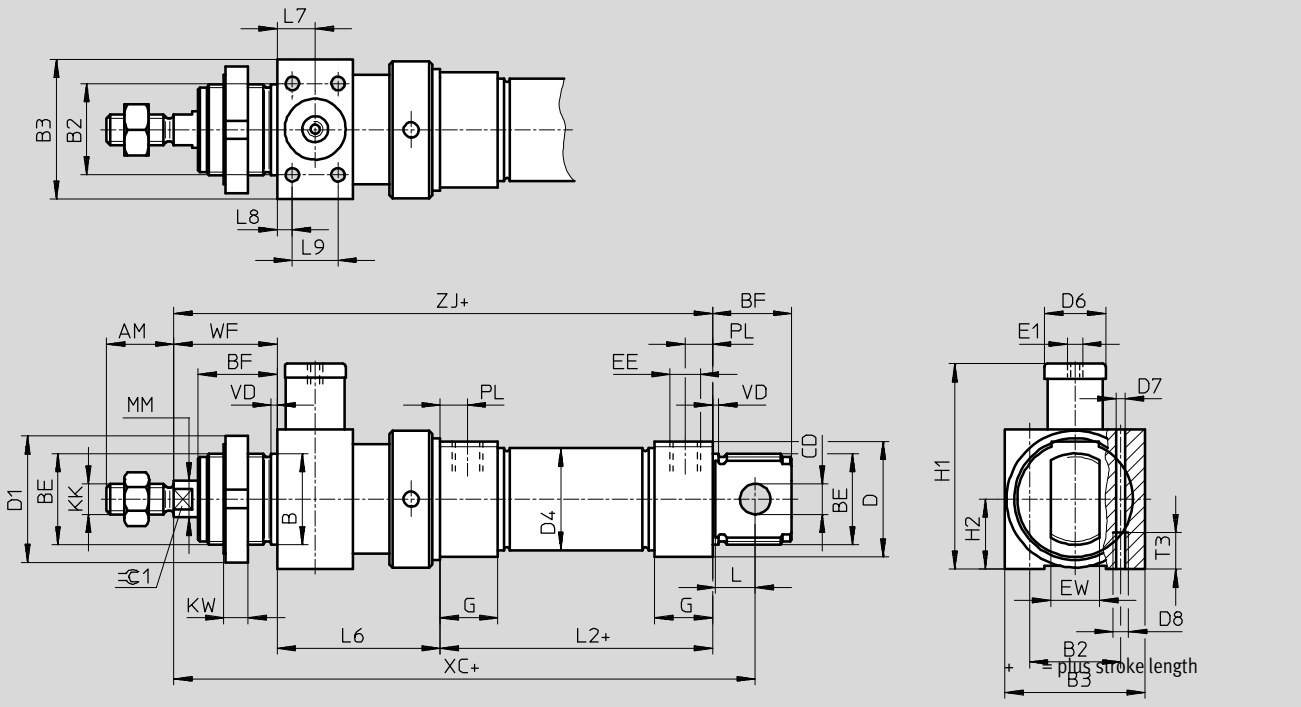
Technical data



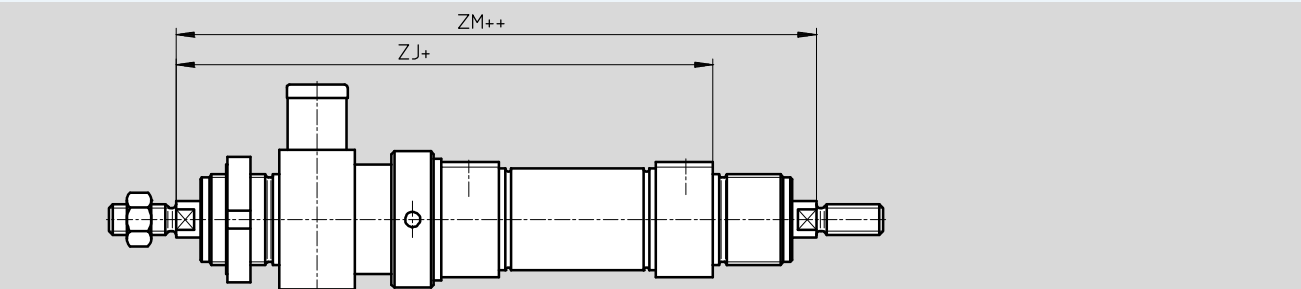
Dimensions

Download CAD data → www.festo.com

Basic version



S2 – Through piston rod



- Note

The thread types at both piston rod ends are identical. The clamping unit is mounted on only one side.

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

The clamping unit is mounted on the left-hand, round piston rod.

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

Round cylinders DSNU-KP, with clamping unit

Technical data

| ∅ [mm] | AM | B ∅ h9 | B2 | B3 | BE | BF | CD ∅ E10 | D ∅ | D1 ∅ | D4 ∅ | D6 | D7 |
|-----------|----|--------------|----|----|---------|----|----------------|--------|---------|---------|----|-----|
| 32 | 22 | 30 | 30 | 46 | M30x1.5 | 26 | 10 | 38 | 42 | 33.6 | 20 | 4.4 |
| 40 | 24 | 38 | 36 | 56 | M38x1.5 | 30 | 12 | 46 | 50 | 41.6 | 24 | 6.8 |
| 50 | 32 | 45 | 50 | 65 | M45x1.5 | 33 | 16 | 57 | 60 | 52.4 | 30 | 8.5 |
| 63 | | | 54 | 72 | M45x1.5 | | | 70 | | 65.4 | 38 | |

| ∅ [mm] | D8 | E1 | EE | EW | G | H1 | H2 | KK | KW | MM ∅ | L | L2 |
|-----------|-----|-----------------|-----------------|----|-------|-------|------|----------|----|---------|----|------|
| 32 | M5 | M5 | G $\frac{1}{8}$ | 16 | 19 | 67.5 | 23 | M10x1.25 | 8 | 12 | 13 | 69.5 |
| 40 | M8 | G $\frac{1}{8}$ | G $\frac{1}{4}$ | 18 | 25 | 89 | 28 | M12x1.25 | 10 | 16 | 15 | 84.6 |
| 50 | M10 | G $\frac{1}{8}$ | | 21 | | 107.5 | 32.5 | M16x1.5 | | 20 | 16 | 86.2 |
| 63 | | G $\frac{1}{8}$ | G $\frac{3}{8}$ | 28 | 121.5 | 36 | 94.2 | | | | | |

| ∅ [mm] | L6 ±0.75 | L7 | L8 | L9 | T3 | PL | VD | WF | XC ±1 | ZJ | ZM | ≈±1 |
|-----------|-------------|------|----|----|----|----|------|-------|----------|-------|-------|-----|
| 32 | 55 | 12.5 | 5 | 15 | 12 | 9 | 2 | 34.5 | 173 | 159 | 191 | 10 |
| 40 | 69 | 17 | 7 | 20 | 18 | 12 | 3 | 40.5 | 210.1 | 194.1 | 230.1 | 13 |
| 50 | 78 | 20 | | 26 | 20 | | | 45.5 | 226.7 | 209.7 | 250.7 | 17 |
| 63 | 86 | 24 | 8 | 32 | 21 | 13 | 46.5 | 243.7 | 226.7 | 268.7 | | |

Round cylinders DSNU

Ordering data – Modular products



| Ordering table | | | | | | | |
|---------------------------|---|---------------|---------------|---------------|-----------------|-------------|---------------|
| Size | 32 | 40 | 50 | 63 | Condi- tions | Code | Enter code |
| M Module No. | 193992 | 193993 | 193994 | 193995 | | | |
| Function | Double-acting round cylinder | | | | | DSNU | DSNU |
| Piston Ø [mm] | 32 | 40 | 50 | 63 | | -... | |
| Stroke [mm] | 1 ... 500 | | | | | -... | |
| Cushioning | Flexible cushioning rings/pads at both ends | | | | | -P | |
| | Pneumatic cushioning, adjustable at both ends | | | | 1 | -PPV | |
| | Pneumatic cushioning, self-adjusting at both ends | | | | 15 | -PPS | |
| O Position sensing | Via proximity sensor | | | | 2 | -A | |
| Cylinder end cap | Lateral air connection, end cap | | | | 3 | -MQ | |
| | Axial air connection, end cap | | | | 4 | -MA | |
| | Mounting flange at front (direct mounting), bearing cap | | | | 5 | -MH | |
| Type of piston rod | Through piston rod | | | | 6 | -S2 | |
| Extended male thread [mm] | 1 ... 35 | | 1 ... 70 | | 7 | -...K2 | |

- 1** **PPV** Not with MA
- 2** **A** Minimum stroke: 10 mm
- 3** **MQ** Not with S2, S10, S11
- 4** **MA** Not with S2, S10, S11, R8

- 5** **MH** Not with combination S6-R3
Not with KP, S10, S11, R8
- 6** **S2** Not with MQ, MA, S10, S11
- 7** **K2** Not with K3, K6
- 15** **PPS** Not with MA, MH, S6, S10, S11
and not with combination MQ-R3

- Note

The bellows kit DADB must not be used in combination with the variant MH.

The running characteristics change slightly when the bellows kit DADB is combined with the variant S10 or S11.

Transfer order code

DSNU - - - - - - -

Round cylinders DSNU

Ordering data – Modular products



| Ordering table | | | | | | | |
|--------------------------------|--|------|----------|----|-----------------|----------|---------------|
| Size | 32 | 40 | 50 | 63 | Condi- tions | Code | Enter code |
| ↓ Shortened male thread | Piston rod with shortened male thread | | | | | | |
| 0 [mm] | 1 ... 8 | | 1 ... 10 | | 8 | -...K6 | |
| Female thread | Piston rod with female thread | | | | | | |
| | (M6) | (M8) | (M10) | | 9 | -K3 | |
| Special thread | Piston rod with special thread | | | | | | |
| | M10 | M12 | M16 | | | -“...”K5 | |
| Piston rod extended at one end | Extended piston rod at one end | | | | | | |
| [mm] | 1 ... 500 | | | | | ...K8 | |
| Clamping unit | Attached | | | | 10 | -KP | |
| Temperature resistance | Heat-resistant seals for temperatures up to 120 °C | | | | 11 | -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 | Metal wiper seal | | | | | -R8 | |
| EU certification | II 2GD | | | | 15 | -EX4 | |

- 8 **K6** Not with K3
- 9 **K3** Not with K5
- 10 **KP** Not with S6, S10, S11, R3, R8

- 11 **S6** Not with S10, S11
- 12 **S10** Not with S11, R3, R8
- 13 **S11** Not with R3, R8
- 14 **R3** Not with R8
- 15 **EX4** Not with KP and S6

Transfer order code

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


Round cylinders DSNU-Q, protected against rotation

Ordering data – Modular products

| Ordering table | | | | | | | |
|-----------------------------|---|---------------|---------------|---------------|-----------------|-------------|---------------|
| Size | 32 | 40 | 50 | 63 | Condi- tions | Code | Enter code |
| M Module No. | 193992 | 193993 | 193994 | 193995 | | | |
| Function | Double-acting round cylinder | | | | | DSNU | DSNU |
| Piston Ø [mm] | 32 | 40 | 50 | 63 | | -... | |
| Stroke [mm] | 1 ... 500 | | | | | -... | |
| Cushioning | Flexible cushioning rings/pads at both ends | | | | | -P | |
| | Pneumatic cushioning, adjustable at both ends | | | | 1 | -PPV | |
| O Position sensing | Via proximity sensor | | | | 2 | -A | |
| Cylinder end cap | Lateral air connection, end cap | | | | 3 | -MQ | |
| | Axial air connection, end cap | | | | 3 | -MA | |
| | Mounting flange at front (direct mounting), bearing cap | | | | 4 | -MH | |
| Protection against rotation | Square piston rod | | | | | -Q | -Q |
| | Restricted stroke [mm] 5 ... 300 5 ... 400 5 ... 500 | | | | | | |
| Type of piston rod | Through piston rod | | | | | -S2 | |
| Extended male thread [mm] | Piston rod with extended male thread | | | | | | |
| | 1 ... 35 | | 1 ... 70 | | 5 | -...K2 | |

- 1** PPV Not with MA
- 2** A Minimum stroke: 10 mm
- 3** MQ, MA Not with S2

- 4** MH Not with combinations: Q-R3, S6-R3
- 5** K2 Not with KP

 Note
The bellows kit DADB must not be used in combination with the variant Q.

Transfer order code

DSNU - - - - - - - **Q** - -

Round cylinders DSNU-Q, protected against rotation

Ordering data – Modular products

| Ordering table | | | | | | | |
|--------------------------------|--|------|----------|----|-----------------|----------|---------------|
| Size | 32 | 40 | 50 | 63 | Condi- tions | Code | Enter code |
| ↓ Shortened male thread | Piston rod with shortened male thread | | | | | | |
| 0 [mm] | 1 ... 8 | | 1 ... 10 | | 6 | -...K6 | |
| Female thread | Piston rod with female thread | | | | | | |
| | (M6) | (M8) | (M10) | | 7 | -K3 | |
| Special thread | Piston rod with special thread | | | | | | |
| | M10 | M12 | M16 | | | -“...”K5 | |
| Piston rod extended at one end | Extended piston rod at one end | | | | | | |
| [mm] | 1 ... 500 | | | | | | ...K8 |
| Clamping unit | Attached | | | | 8 | -KP | |
| Temperature resistance | Heat-resistant seals for temperatures up to 120 °C | | | | | -S6 | |
| Corrosion protection | High corrosion protection | | | | | -R3 | |
| EU certification | II 2GD | | | | 9 | -EX4 | |

6 **K6** Not with K3
7 **K3** Not with K5

8 **KP** Only with S2
Not with S6, R3

9 **EX4** Not with KP

Transfer order code

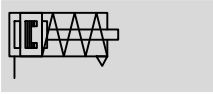
- [] - [] - [] - [] - [] - [] - [] - []

Round cylinders ESNU

Technical data

FESTO

Function



Ø - Diameter
32 ... 63 mm

l - Stroke length
1 ... 50 mm

Additional variants

→ 35



Basic version



Axial air connection MA

| General technical data | | | | |
|------------------------|---|-----------------|-----------------|-----------------|
| Piston Ø | 32 | 40 | 50 | 63 |
| Pneumatic connection | G $\frac{1}{8}$ | G $\frac{1}{4}$ | G $\frac{1}{4}$ | G $\frac{3}{8}$ |
| Piston rod thread | M10x1.25 | M12x1.25 | M16x1.5 | M16x1.5 |
| Constructional design | Piston | | | |
| | Piston rod | | | |
| | Cylinder barrel | | | |
| Cushioning | Flexible cushioning rings/pads at both ends | | | |
| Position sensing | Via proximity sensor | | | |
| Type of mounting | Via accessories | | | |
| Mounting position | Any | | | |

| Operating conditions | | | | |
|------------------------------------|--|----|----|----|
| Piston Ø | 32 | 40 | 50 | 63 |
| 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] | 1.2 ... 10 | | | |

| Ambient conditions | | |
|--|-------------|--|
| Round cylinder | | |
| Ambient temperature ¹⁾ [°C] | -20 ... +80 | |
| Corrosion resistance class CRC ²⁾ | 2 | |

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.

Round cylinders ESNU

Technical data

FESTO

| Force [N] and impact energy [J] | | | | |
|--|------|------|------|------|
| Piston Ø | 32 | 40 | 50 | 63 |
| Theoretical force at 6 bar, advancing | 442 | 688 | 1071 | 1763 |
| Spring return force 10 mm stroke | 36 | 60 | 95 | 95 |
| Spring return force 25 mm stroke | 30 | 50 | 82 | 82 |
| Spring return force 50 mm stroke | 20 | 30 | 60 | 60 |
| Impact energy at the end positions ¹⁾ | 0.40 | 0.70 | 1 | 1.3 |

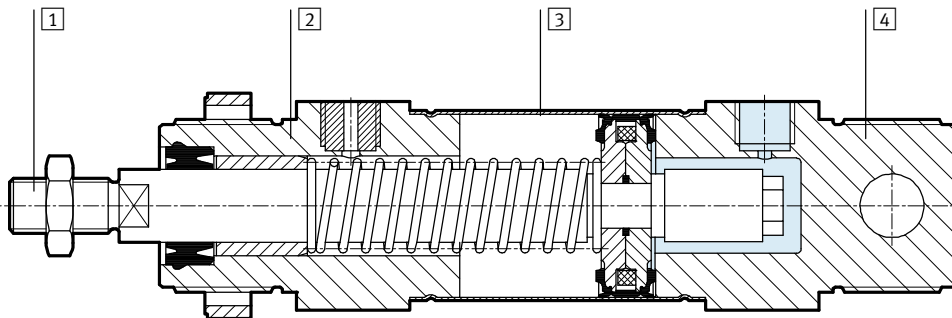
1) The values are reduced by approx. 50% at an ambient temperature of 80 °C.

| Weight ESNU-... [g] | | | | |
|------------------------------------|-------|-----|------|------|
| Piston Ø | 32 | 40 | 50 | 63 |
| Product weight with 0 mm stroke | 370.5 | 661 | 1087 | 1445 |
| Additional weight per 10 mm stroke | 15.5 | 24 | 40 | 44 |

| Weight ESNU-...-MA [g] | | | | |
|------------------------------------|------|-----|------|------|
| Piston Ø | 32 | 40 | 50 | 63 |
| Product weight with 0 mm stroke | 330 | 585 | 1013 | 1369 |
| Additional weight per 10 mm stroke | 15.5 | 24 | 40 | 44 |

Materials

Sectional view



| Round cylinder | |
|-------------------------------------|---|
| 1 | Piston rod High-alloy steel |
| 2 | Bearing cap Anodised aluminium |
| 3 | Cylinder barrel High-alloy stainless steel |
| 4 | End cap Anodised aluminium |
| - | Seals Polyurethane, nitrile rubber |
| - | Spring Spring steel |
| Note on materials RoHS compliant | |

Round cylinders ESNU

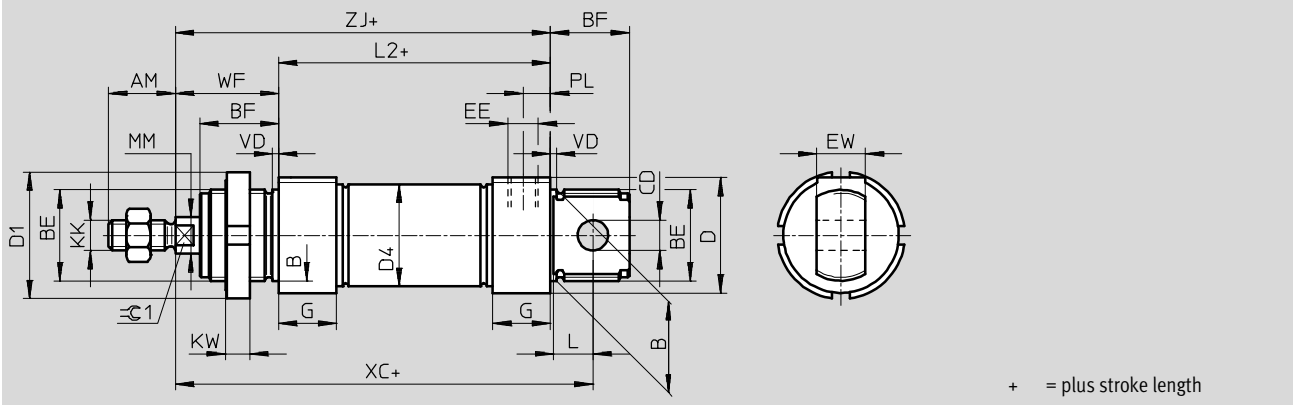
Technical data

FESTO

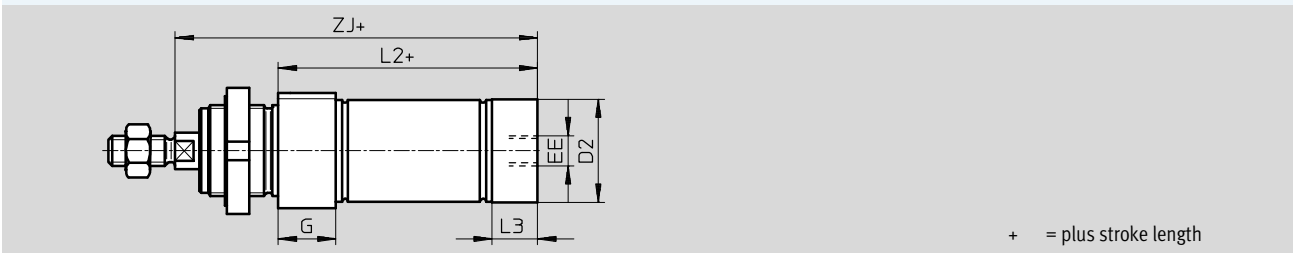
Dimensions

Download CAD data → www.festo.com

Basic version



MA – Axial air connection



| ∅ | AM | B | BE | BF | CD | D | D1 | D2 | D4 | EE | EW | G | KK |
|------|----|---------|---------|----|----------|----|----|----|------|-----------------|----|----|----------|
| [mm] | | ∅ h9 | | | ∅ E10 | ∅ | ∅ | ∅ | ∅ | | | | |
| 32 | 22 | 30 | M30x1.5 | 26 | 10 | 38 | 42 | 34 | 33.6 | G $\frac{1}{8}$ | 16 | 19 | M10x1.25 |
| 40 | 24 | 38 | M38x1.5 | 30 | 12 | 46 | 50 | 42 | 41.6 | G $\frac{1}{4}$ | 18 | 25 | M12x1.25 |
| 50 | 32 | 45 | M45x1.5 | 33 | 16 | 57 | 60 | 53 | 52.4 | G $\frac{3}{8}$ | 21 | 28 | M16x1.5 |
| 63 | | | | | | 70 | | 66 | 65.4 | | | | |

| ∅ | KW | L | L2 | | L3 | PL | MM | VD | WF | XC | ZJ | | ∅C1 |
|------|----|------|------|------|----|----|-------|----|-------|-------|-------|-------|-----|
| [mm] | | | | -MA | | | ∅ | | | ±1 | | -MA | |
| 32 | 8 | 13 | 69.5 | 65.5 | 15 | 9 | 12 | 2 | 34 | 117.5 | 103.5 | 99.5 | 10 |
| 40 | 10 | 15 | 84.6 | 77.6 | 18 | 12 | 16 | 3 | 39 | 139.6 | 123.6 | 116.6 | 13 |
| 50 | | 16 | 86.2 | 86.2 | 25 | | 20 | | 44 | 147.2 | 130.2 | 130.2 | 17 |
| 63 | | 94.2 | 94.2 | 28 | 13 | 45 | 156.2 | | 139.2 | 139.2 | 17 | | |

Round cylinders ESNU

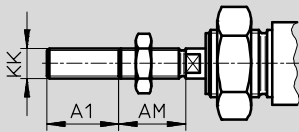
Technical data

FESTO

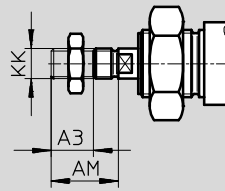
Dimensions

Download CAD data → www.festo.com

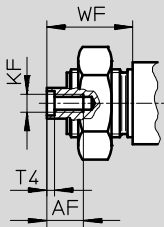
K2 – Extended male piston rod thread



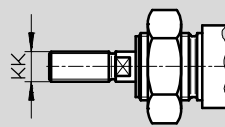
K6 – Shortened male piston rod thread



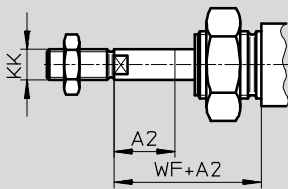
K3 – Female piston rod thread



K5 – Special piston rod thread



K8 – Extended piston rod



| ∅ [mm] | A1 max. | A2 max. | A3 max. | AF | AM | KF | KK | | T4 | WF |
|-----------|------------|------------|------------|----|----|-----|-----------------|---------------------------------|-----|----|
| | | | | | | | Basic thread | Special thread ¹⁾ | | |
| 32 | 35 | 50 | 8 | 12 | 22 | M6 | M10x1.25 | M10 | 2.6 | 34 |
| 40 | | | | | | | M12x1.25 | M12 | | |
| 50 | | | 10 | 16 | 32 | M10 | M16x1.5 | M16 | 4.7 | 44 |
| 63 | | | | | | | | | | |

1) The special threads are only available as male threads. The scope of delivery does not include a hex nut for the piston rod thread.

Ordering data

| Type | Piston ∅ [mm] | Stroke [mm] | Without position sensing | | With position sensing | |
|------|------------------|----------------|--------------------------|--------------|-----------------------|----------------|
| | | | Part No. | Type | Part No. | Type |
| | 32 | 10 | 195870 | ESNU-32-10-P | 196376 | ESNU-32-10-P-A |
| | | 25 | 195871 | ESNU-32-25-P | 196377 | ESNU-32-25-P-A |
| | | 50 | 195872 | ESNU-32-50-P | 196378 | ESNU-32-50-P-A |
| | 40 | 10 | 195873 | ESNU-40-10-P | 196379 | ESNU-40-10-P-A |
| | | 25 | 195874 | ESNU-40-25-P | 196380 | ESNU-40-25-P-A |
| | | 50 | 195875 | ESNU-40-50-P | 196381 | ESNU-40-50-P-A |
| | 50 | 10 | 195876 | ESNU-50-10-P | 196382 | ESNU-50-10-P-A |
| | | 25 | 195877 | ESNU-50-25-P | 196383 | ESNU-50-25-P-A |
| | | 50 | 195878 | ESNU-50-50-P | 196384 | ESNU-50-50-P-A |
| | 63 | 10 | 195879 | ESNU-63-10-P | 196385 | ESNU-63-10-P-A |
| | | 25 | 195880 | ESNU-63-25-P | 196386 | ESNU-63-25-P-A |
| | | 50 | 195881 | ESNU-63-50-P | 196387 | ESNU-63-50-P-A |

Round cylinders ESNU

Ordering data – Modular products



| Ordering table | | | | | | | |
|---------------------------|---|---------------|---------------|---------------|-----------------|-------------|---------------|
| Size | 32 | 40 | 50 | 63 | Condi- tions | Code | Enter code |
| M Module No. | 194002 | 194003 | 194004 | 194005 | | | |
| Function | Single-acting round cylinder | | | | | ESNU | ESNU |
| Piston Ø [mm] | 32 | 40 | 50 | 63 | | -... | |
| Stroke [mm] | 1 ... 50 | | | | | -... | |
| Cushioning | Flexible cushioning rings/pads at both ends | | | | | -P | -P |
| O Position sensing | Via proximity sensor | | | | 1 | -A | |
| ↓ End cap | Axial air connection | | | | | -MA | |

1 **A** Minimum stroke: 10 mm

Transfer order code

Round cylinders ESNU

Ordering data – Modular products



| Ordering table | | | | | | | |
|----------------|-------------------------------|---|------|----------|-----------------|----------|---------------|
| Size | 32 | 40 | 50 | 63 | Condi- tions | Code | Enter code |
| ↓ 0 | Extended male thread [mm] | Piston rod with extended male thread 1 ... 35 | | | 2 | -...K2 | |
| | Shortened male thread [mm] | Piston rod with shortened male thread 1 ... 8 | | 1 ... 10 | | -...K6 | |
| | Female thread | (M6) | (M8) | (M10) | 3 | -K3 | |
| | Special thread | Piston rod with special thread M10 M12 M16 | | | | -“...”K5 | |
| | Extended piston rod [mm] | Extended piston rod 1 ... 50 | | | | ...K8 | |

- 2 K2 Not with female thread K3, shortened male thread K6
- 3 K3 Not with special thread K5, shortened male thread K6

Transfer order code

- - - -

Round cylinders DSNU/ESNU

Accessories



Foot mounting HBN/CRH

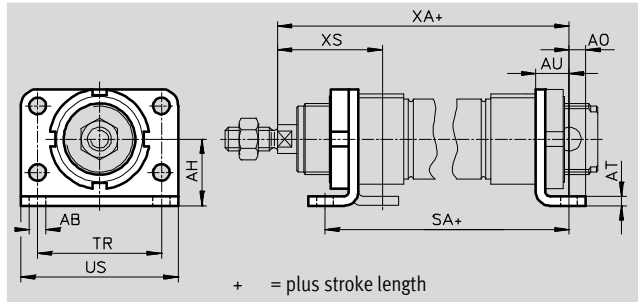
Material:

HBN: Galvanised steel

CRH: High-alloy stainless steel

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data

| For \varnothing [mm] | AB \varnothing | AH | AO | AT | AU | SA | | TR | US | XA | | XS | |
|---------------------------|---------------------|----|----|----|----|-------|-------|----|----|-------|-------|----|---|
| | | | | | | | -KP | | | | -KP | | |
| 32 | 7 | 28 | 7 | 4 | 14 | 97.5 | 151 | 52 | 66 | 117.5 | 171 | 44 | - |
| 40 | 9 | 33 | 10 | 5 | 20 | 124.6 | 192.1 | 60 | 80 | 138.6 | 206.1 | 49 | - |
| 50 | 9 | 40 | 10 | 6 | 20 | 126.2 | 202.7 | 70 | 90 | 150.2 | 226.7 | 58 | - |
| 63 | 9 | 45 | 10 | 6 | 20 | 134.2 | 218.7 | 76 | 96 | 159.2 | 243.7 | 59 | - |

| For \varnothing [mm] | Basic version | | | | High corrosion protection | | | |
|---------------------------|-------------------|------------|----------|----------|---------------------------|------------|----------|--------|
| | CRC ¹⁾ | Weight [g] | Part No. | Type | CRC ¹⁾ | Weight [g] | Part No. | Type |
| 32 | 2 | 247 | 195851 | HBN-32x2 | 4 | 237 | 162951 | CRH-32 |
| 40 | 2 | 446 | 195852 | HBN-40x2 | 4 | 341 | 162952 | CRH-40 |
| 50 | 2 | 666 | 195853 | HBN-50x2 | 4 | 559 | 162953 | CRH-50 |
| 63 | 2 | 816 | 195854 | HBN-63x2 | 4 | 680 | 162954 | CRH-63 |

Flange mounting FBN/CRFV

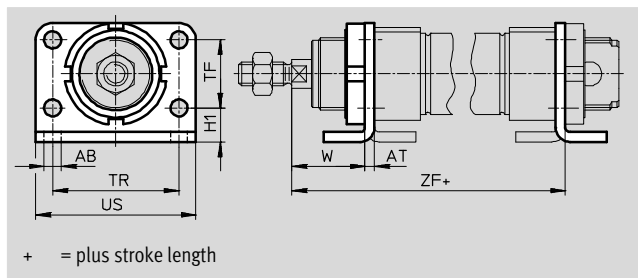
Material:

FBN: Galvanised steel

CRFV: High-alloy stainless steel

Free of copper and PTFE

RoHS-compliant



Dimensions and ordering data

| For \varnothing [mm] | AB \varnothing | AT | H1 | TF | TR | US | W | ZF | |
|---------------------------|---------------------|----|----|----|----|----|----|-------|-------|
| | | | | | | | | | -KP |
| 32 | 7 | 4 | 14 | 28 | 52 | 66 | 30 | 107.5 | 161 |
| 40 | 9 | 5 | 18 | 30 | 60 | 80 | 29 | 123.6 | 191.1 |
| 50 | 9 | 6 | 20 | 40 | 70 | 90 | 38 | 136.2 | 212.6 |
| 63 | 9 | 6 | 20 | 50 | 76 | 96 | 39 | 145.2 | 229.7 |

| For \varnothing [mm] | Basic version | | | | High corrosion protection | | | |
|---------------------------|-------------------|------------|----------|--------|---------------------------|------------|----------|---------|
| | CRC ¹⁾ | Weight [g] | Part No. | Type | CRC ¹⁾ | Weight [g] | Part No. | Type |
| 32 | 2 | 102 | 195855 | FBN-32 | 4 | 102 | 161858 | CRFV-32 |
| 40 | 2 | 190 | 195856 | FBN-40 | 4 | 190 | 161859 | CRFV-40 |
| 50 | 2 | 290 | 195857 | FBN-50 | 4 | 290 | 161860 | CRFV-50 |
| 63 | 2 | 365 | 195858 | FBN-63 | 4 | 365 | 161861 | CRFV-63 |

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

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

Corrosion resistance class CRC 4 to Festo standard FN 940070

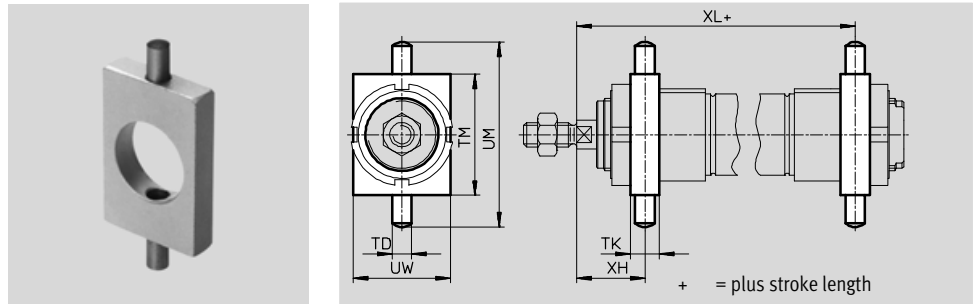
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (→ also FN 940082) using appropriate media.

Round cylinders DSNU/ESNU

Accessories

Swivel mounting WBN

Material:
Galvanised steel
Free of copper and PTFE
RoHS-compliant
Cannot be used on the bearing cap in combination with bellows kit DADB.

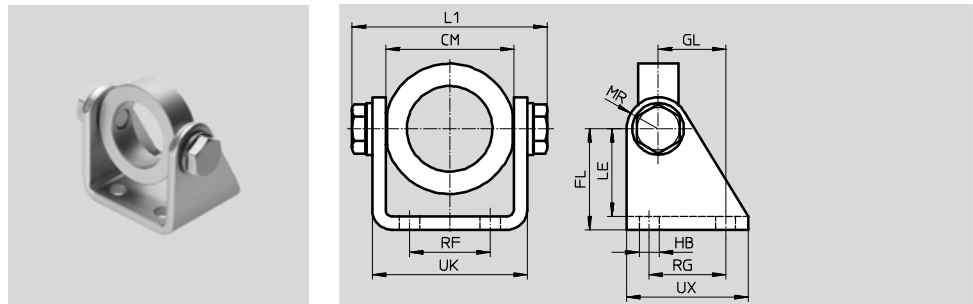


| Dimensions and ordering data | | | | | | | | | | | | |
|------------------------------|----|----|----|-----|----|------|-------|-------|-------------------|--------|---------------|------------------|
| For Ø | TD | TK | TM | UM | UW | XH | XL | | CRC ¹⁾ | Weight | Part No. | Type |
| [mm] | Ø | | | | | | | -KP | | [g] | | |
| 32 | 8 | 12 | 50 | 76 | 40 | 28 | 109.5 | 163 | 2 | 130 | 195863 | WBN-32 |
| 40 | 10 | 15 | 60 | 92 | 50 | 31.5 | 126.1 | 193.6 | 2 | 240 | 195864 | WBN-40 |
| 50 | 12 | 20 | 80 | 116 | 65 | 34 | 140.2 | 216.7 | 2 | 610 | 195865 | WBN-50/63 |
| 63 | 12 | 20 | 80 | 116 | 65 | 35 | 149.2 | 233.7 | 2 | 610 | 195865 | WBN-50/63 |

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

Swivel mounting SBN

Material:
Mounting ring: Wrought aluminium alloy, anodised
Bearing: Bronze
Screws: Galvanised steel
Bracket: Steel
Cannot be used on the bearing cap in combination with bellows kit DADB.



| Dimensions and ordering data | | | | | | | | | | | | | | | |
|------------------------------|----------|----|----|----|-------|----|----|----|----|------|----|-------------------|--------|---------------|------------------|
| For Ø | CM | FL | GL | HB | L1 | LE | MR | RF | RG | UK | UX | CRC ¹⁾ | Weight | Part No. | Type |
| [mm] | | | | | max. | | | | | | | | [g] | | |
| 32 | 46.1+0.2 | 40 | 27 | 9 | 72.2 | 35 | 13 | 28 | 30 | 56.1 | 50 | 2 | 295 | 539924 | SBN-32 |
| 40 | 57.1+0.2 | 45 | 30 | 9 | 88.2 | 39 | 14 | 36 | 34 | 69.1 | 54 | 2 | 465 | 539925 | SBN-40 |
| 50/63 | 70.1+0.4 | 50 | 34 | 9 | 102.2 | 44 | 16 | 42 | 35 | 82.1 | 65 | 2 | 670 | 539926 | SBN-50/63 |

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

Round cylinders DSNU/ESNU

Accessories

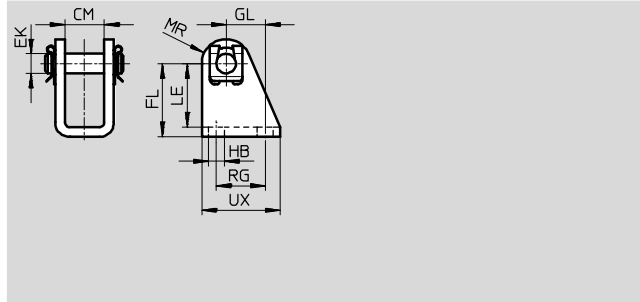
Clevis foot LBN/CRLBN

Material:

LBN: Galvanised steel

CRLBN: High-alloy stainless steel

Free of copper and PTFE



| Dimensions and ordering data | | | | | | | | | |
|------------------------------|------|----|--------------|------|-----|----|----|----|----|
| For Ø | CM | EK | FL | GL | HB | LE | MR | RG | UX |
| [mm] | | Ø | | | | | | | |
| 32 | 16.1 | 10 | 35 +0.4/-0.2 | 18.5 | 6.6 | 31 | 11 | 24 | 35 |
| 40 | 18.1 | 12 | 40 +0.4/-0.2 | 24.5 | 9 | 35 | 13 | 30 | 45 |
| 50, 63 | 21.1 | 16 | 45 +0.5/-0.2 | 28 | 9 | 39 | 14 | 34 | 50 |

| For Ø [mm] | Basic version | | | | High corrosion protection | | | |
|---------------|-------------------|------------|---------------|------------------|---------------------------|------------|---------------|--------------------|
| | CRC ¹⁾ | Weight [g] | Part No. | Type | CRC ¹⁾ | Weight [g] | Part No. | Type |
| 32 | 1 | 109 | 195860 | LBN-32 | 4 | 107 | 195866 | CRLBN-32 |
| 40 | 1 | 192 | 195861 | LBN-40 | 4 | 184 | 195867 | CRLBN-40 |
| 50, 63 | 1 | 302 | 195862 | LBN-50/63 | 4 | 289 | 195868 | CRLBN-50/63 |

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





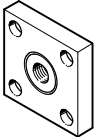
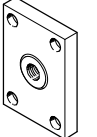
Particularly high corrosion stress. Outdoor exposure under extreme corrosive conditions. Parts exposed to aggressive media, for instance in the chemical or food industries. These applications may need to be supported by special tests (→ also FN 940082) using appropriate media.




| Ordering data – Mounting attachments | | | | Technical data → Internet: clevis foot | | | |
|--------------------------------------|-------|--------------|---------------|--|-------|--------------|---------------|
| Designation | For Ø | Part No. | Type | Designation | For Ø | Part No. | Type |
| 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 |

Round cylinders DSNU/ESNU

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 | | |
| 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 | | |
| 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 | | |


| 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 CRSGS | | | | Rod clevis CRSG | | | |
|  | 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 | | |
| Self-aligning rod coupler CRFK | | | | | | | |
|  | 32 | 2305778 | CRFK-M10x1,25 | | | | |
| | 40 | 2305779 | CRFK-M12x1,25 | | | | |
| | 50 | 2490673 | CRFK-M16x1,5 | | | | |
| | 63 | | | | | | |

Round cylinders DSNU/ESNU

Accessories

FESTO

| Ordering data – One-way flow control valves | | | | Technical data → Internet: grl | | | |
|---|---|-----------------|--------------|--------------------------------|------------------------------|--------|-----------------------------|
| | Connection | | Material | Part No. | Type | | |
| | Thread | For tubing O.D. | | | | | |
| For exhaust air | | | | | | | |
|  | G $\frac{1}{8}$ | 3 | Metal design | 193142 | GRLA- $\frac{1}{8}$ -QS-3-D | | |
| | | 4 | | 193143 | GRLA- $\frac{1}{8}$ -QS-4-D | | |
| | | 6 | | 193144 | GRLA- $\frac{1}{8}$ -QS-6-D | | |
| | | 8 | | 193145 | GRLA- $\frac{1}{8}$ -QS-8-D | | |
| | G $\frac{1}{4}$ | 6 | | 193146 | GRLA- $\frac{1}{4}$ -QS-6-D | | |
| | | 8 | | 193147 | GRLA- $\frac{1}{4}$ -QS-8-D | | |
| | | 10 | | 193148 | GRLA- $\frac{1}{4}$ -QS-10-D | | |
| | G $\frac{3}{8}$ | 6 | | 193149 | GRLA- $\frac{3}{8}$ -QS-6-D | | |
| | | 8 | | 193150 | GRLA- $\frac{3}{8}$ -QS-8-D | | |
| | | 10 | | 193151 | GRLA- $\frac{3}{8}$ -QS-10-D | | |
| | For supply air | | | | | | |
| |  | G $\frac{1}{8}$ | | 3 | Metal design | 193156 | GRLZ- $\frac{1}{8}$ -QS-3-D |
| 4 | | | 193157 | GRLZ- $\frac{1}{8}$ -QS-4-D | | | |
| 6 | | | 193158 | GRLZ- $\frac{1}{8}$ -QS-6-D | | | |
| 8 | | | 193159 | GRLZ- $\frac{1}{8}$ -QS-8-D | | | |

| Ordering data – One-way flow control valves, corrosion-resistant | | | | Technical data → Internet: crgla | |
|---|-----------------|---------------------|---|----------------------------------|--------------------------|
| | Connection | | Material | Part No. | Type |
| | Thread | For push-in fitting | | | |
| For exhaust air | | | | | |
|  | G $\frac{1}{8}$ | CRQS/CRQSL/CRQST | Electrolytically polished stainless steel casting | 161404 | CRGRLA- $\frac{1}{8}$ -B |
| | G $\frac{1}{4}$ | | | 161405 | CRGRLA- $\frac{1}{4}$ -B |
| | G $\frac{3}{8}$ | | | 161406 | CRGRLA- $\frac{3}{8}$ -B |

Round cylinders DSNU/ESNU

Accessories

FESTO

Bellows kit DADB



| General technical data | | | | | |
|--|-------------------------|---|------------|------------|------------|
| Type DADB-S1- | | 32 | 40 | 50 | 63 |
| Max. cylinder stroke range ¹⁾ | DSNU [mm] | 10 ... 500 | 10 ... 500 | 10 ... 500 | 10 ... 500 |
| | ESNU ²⁾ [mm] | 10 ... 50 | 10 ... 50 | 10 ... 50 | 10 ... 50 |
| Type of mounting | | Via threaded pin | | | |
| Mounting position | | Any | | | |
| Resistance to media | | Dust, chips, oil, grease, fuel (→ Internet: media resistance) | | | |
| Ambient temperature ³⁾ | [°C] | -10 ... +80 | | | |
| Protection class | | IP54 | | | |
| Corrosion resistance class CRC ⁴⁾ | | 3 | | | |

1) In combination with the bellows kit DADB.

2) Slight change in the spring return force.

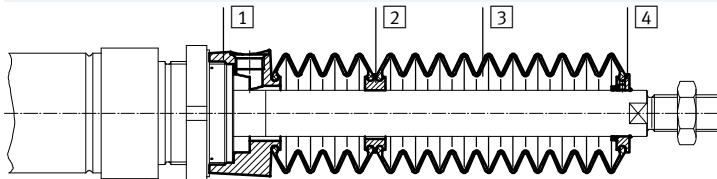
3) Note operating range of proximity sensors and cylinder.

4) Corrosion resistance class 3 as per Festo standard 940 070

Components with heavy corrosion exposure. Externally visible components in direct contact with normal industrial atmosphere or media such as solvents and cleaning agents, where the surface requirement is predominantly functional.

Materials

Sectional view



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

| Weight [g] | | | | |
|------------------------------|-----|-----|-----|-----|
| Type DADB-S1- Stroke [mm] | 32 | 40 | 50 | 63 |
| 10 ... 50 | 29 | 34 | 55 | 55 |
| 51 ... 125 | 41 | 49 | 75 | 75 |
| 126 ... 175 | 51 | 60 | 89 | 89 |
| 176 ... 250 | 66 | 78 | 113 | 113 |
| 251 ... 300 | 79 | 93 | 131 | 131 |
| 301 ... 350 | 92 | 108 | 149 | 149 |
| 351 ... 375 | 92 | 108 | 151 | 151 |
| 376 ... 425 | 104 | 122 | 169 | 169 |
| 426 ... 475 | 117 | 137 | 187 | 187 |
| 476 ... 500 | 117 | 137 | 189 | 189 |

Round cylinders DSNU/ESNU

Accessories

FESTO

Travel velocity v as a function of tubing length l

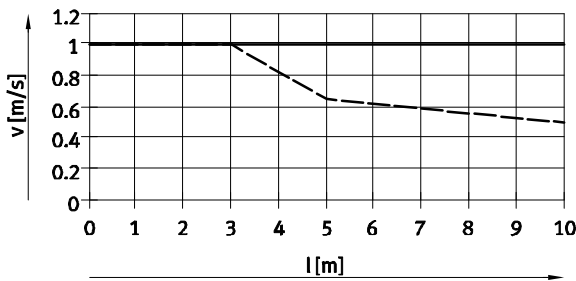


The bellows kit is a leak-free system. To prevent unwanted media being drawn in, the supply and exhaust air must be ducted via a pressure compensation hole in the connection

part **1**. The pressure generated in the bellows kit by the positioning motion is primarily defined by travel velocity

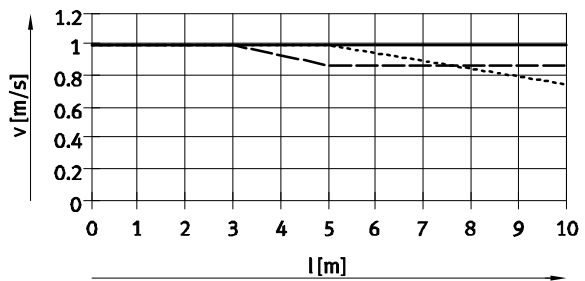
and tubing length. The recommended tubing length based on the travel velocity of the drive can be read from the graph.

Advancing



— Ø 32/50/63
- - - Ø 40

Returning



— Ø 32
- - - Ø 40
..... Ø 50/63

-  - 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-G ¹ / ₈ -8-I |
| | | 578376 | NPQH-DK-G18-Q8-P10 |
| | | 578362 | NPQH-D-G18-S8-P10 |
| 50, 63 | 12 | 186350 | QS-G ¹ / ₄ -12 |
| | | 578344 | NPQH-D-G14-Q12-P10 |
| | | 578366 | NPQH-D-G14-S12-P10 |

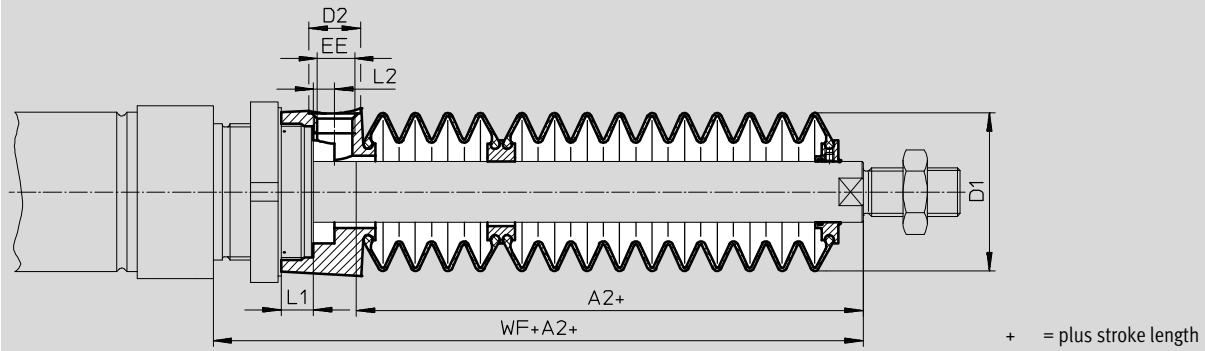
Round cylinders DSNU/ESNU

Accessories

FESTO

Dimensions

Download CAD data → www.festo.com



| Ø Stroke [mm] | 32 | | | | | | 40 | | | | | | | |
|---------------------|------------------|------------|----|------|------|-----|-------|------------------|------------|----|------|-----|-----|-------|
| | A2 ¹⁾ | D1 max. | D2 | EE | L1 | L2 | WF+A2 | A2 ¹⁾ | D1 max. | D2 | EE | L1 | L2 | WF+A2 |
| 10 ... 50 | 30 | 38 | 14 | G1/8 | 12.9 | 5.4 | 64 | 29 | 46 | 14 | G1/8 | 8.1 | 5.4 | 68 |
| 51 ... 125 | 48 | | | | | | 82 | 44 | | | | | | 83 |
| 126 ... 175 | 63 | | | | | | 97 | 57 | | | | | | 96 |
| 176 ... 250 | 82 | | | | | | 116 | 73 | | | | | | 112 |
| 251 ... 300 | 97 | | | | | | 131 | 87 | | | | | | 126 |
| 301 ... 350 | 113 | | | | | | 147 | 101 | | | | | | 140 |
| 351 ... 375 | 115 | | | | | | 149 | 102 | | | | | | 141 |
| 376 ... 425 | 131 | | | | | | 165 | 116 | | | | | | 155 |
| 426 ... 475 | 147 | | | | | | 181 | 131 | | | | | | 170 |
| 476 ... 500 | 149 | | | | | | 183 | 132 | | | | | | 171 |

| Ø Stroke [mm] | 50/63 | | | | | | |
|---------------------|------------------|------------|----|------|-------|----|---------|
| | A2 ¹⁾ | D1 max. | D2 | EE | L1 | L2 | WF+A2 |
| 10 ... 50 | 30 | 57 | 17 | G1/4 | 10.65 | 7 | 74/75 |
| 51 ... 125 | 48 | | | | | | 92/93 |
| 126 ... 175 | 58 | | | | | | 102/103 |
| 176 ... 250 | 77 | | | | | | 121/122 |
| 251 ... 300 | 88 | | | | | | 132/133 |
| 301 ... 350 | 99 | | | | | | 143/144 |
| 351 ... 375 | 106 | | | | | | 150/151 |
| 376 ... 425 | 117 | | | | | | 161/162 |
| 426 ... 475 | 128 | | | | | | 172/173 |
| 476 ... 500 | 135 | | | | | | 179/180 |

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

Round cylinders DSNU/ESNU

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:
 DSNU-32-320-PPV-A-MQ-...
 Dimension for the corresponding K8 value (see table):
 113 mm
 Complete type designation for the standard cylinder:
 DSNU-32-320-PPV-A-MQ-...-113K8
 Associated bellows kit:
 DADB-S1-32-S301-350

| Cylinder data | | | Bellows kit | |
|---------------|-------------|------------------|-------------|---------------------|
| ∅ | Stroke | Dimension for K8 | Part No. | Type |
| [mm] | [mm] | [mm] | | |
| 32 | 10 ... 50 | 30 | 553441 | DADB-S1-32-S10-50 |
| | 51 ... 125 | 48 | 553443 | DADB-S1-32-S51-125 |
| | 126 ... 175 | 63 | 553445 | DADB-S1-32-S126-175 |
| | 176 ... 250 | 82 | 553447 | DADB-S1-32-S176-250 |
| | 251 ... 300 | 97 | 553449 | DADB-S1-32-S251-300 |
| | 301 ... 350 | 113 | 553451 | DADB-S1-32-S301-350 |
| | 351 ... 375 | 115 | 553453 | DADB-S1-32-S351-375 |
| | 376 ... 425 | 131 | 553455 | DADB-S1-32-S376-425 |
| | 426 ... 475 | 147 | 553457 | DADB-S1-32-S426-475 |
| | 476 ... 500 | 149 | 553459 | DADB-S1-32-S476-500 |


| Cylinder data | | | Bellows kit | |
|---------------|-------------|------------------|-------------|---------------------|
| ∅ | Stroke | Dimension for K8 | Part No. | Type |
| [mm] | [mm] | [mm] | | |
| 40 | 10 ... 50 | 29 | 553461 | DADB-S1-40-S10-50 |
| | 51 ... 125 | 44 | 553463 | DADB-S1-40-S51-125 |
| | 126 ... 175 | 57 | 553465 | DADB-S1-40-S126-175 |
| | 176 ... 250 | 73 | 553467 | DADB-S1-40-S176-250 |
| | 251 ... 300 | 87 | 553469 | DADB-S1-40-S251-300 |
| | 301 ... 350 | 101 | 553471 | DADB-S1-40-S301-350 |
| | 351 ... 375 | 102 | 553473 | DADB-S1-40-S351-375 |
| | 376 ... 425 | 116 | 553475 | DADB-S1-40-S376-425 |
| | 426 ... 475 | 131 | 553477 | DADB-S1-40-S426-475 |
| | 476 ... 500 | 132 | 553479 | DADB-S1-40-S476-500 |


| | | | | |
|----|-------------|-----|--------|---------------------|
| 50 | 10 ... 50 | 30 | 553481 | DADB-S1-50-S10-50 |
| | 51 ... 125 | 48 | 553483 | DADB-S1-50-S51-125 |
| | 126 ... 175 | 58 | 553485 | DADB-S1-50-S126-175 |
| | 176 ... 250 | 77 | 553487 | DADB-S1-50-S176-250 |
| | 251 ... 300 | 88 | 553489 | DADB-S1-50-S251-300 |
| | 301 ... 350 | 99 | 553491 | DADB-S1-50-S301-350 |
| | 351 ... 375 | 106 | 553493 | DADB-S1-50-S351-375 |
| | 376 ... 425 | 117 | 553495 | DADB-S1-50-S376-425 |
| | 426 ... 475 | 128 | 553497 | DADB-S1-50-S426-475 |
| | 476 ... 500 | 135 | 553499 | DADB-S1-50-S476-500 |


| | | | | |
|----|-------------|-----|--------|---------------------|
| 63 | 10 ... 50 | 30 | 553501 | DADB-S1-63-S10-50 |
| | 51 ... 125 | 48 | 553503 | DADB-S1-63-S51-125 |
| | 126 ... 175 | 58 | 553505 | DADB-S1-63-S126-175 |
| | 176 ... 250 | 77 | 553507 | DADB-S1-63-S176-250 |
| | 251 ... 300 | 88 | 553509 | DADB-S1-63-S251-300 |
| | 301 ... 350 | 99 | 553511 | DADB-S1-63-S301-350 |
| | 351 ... 375 | 106 | 553513 | DADB-S1-63-S351-375 |
| | 376 ... 425 | 117 | 553515 | DADB-S1-63-S376-425 |
| | 426 ... 475 | 128 | 553517 | DADB-S1-63-S426-475 |
| | 476 ... 500 | 135 | 553519 | DADB-S1-63-S476-500 |


Round cylinders DSNU/ESNU

Accessories

| Ordering data – Proximity sensors, round design, magneto-resistive | | | | | | | Technical data → Internet: smto | |
|---|------------------|-----------------------|---------|---------------------|----------------------|----------|---------------------------------|----------------------------|
| Assembly | Switching output | Electrical connection | | Cable length [m] | Connection direction | Part No. | Type | |
| | | Cable | Plug M8 | | | | | |
| N/O contact | | | | | | | | |
|  | Via accessories | PNP | 3-wire | – | 2.5 | In-line | 152836 | SMT0-4U-PS-K-LED-24 |
| | | | – | 3-pin | – | In-line | 152742 | SMT0-4U-PS-S-LED-24 |
| | | NPN | 3-wire | – | 2.5 | In-line | 152837 | SMT0-4U-NS-K-LED-24 |
| | | | – | 3-pin | – | In-line | 152743 | SMT0-4U-NS-S-LED-24 |

| Ordering data – Proximity sensors, round design, magnetic reed | | | | | | | Technical data → Internet: smeo | |
|---|-----------------------|---------|---------------------|----------------------|---------------|--------------------------|---------------------------------|--|
| Assembly | Electrical connection | | Cable length [m] | Connection direction | Part No. | Type | | |
| | Cable | Plug M8 | | | | | | |
| N/O contact | | | | | | | | |
|  | Via accessories | 3-wire | – | 2.5 | In-line | 36198 | SME0-4U-K-LED-24 | |
| | | | 5 | In-line | 175401 | SME0-4U-K5-LED-24 | | |
| | | – | 3-pin | – | In-line | 151526 | SME0-4U-S-LED-24-B | |

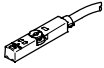
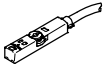
| Ordering data – Proximity sensors, round design, magnetic reed, corrosion-resistant | | | | | | | Technical data → Internet: crsmeo | |
|---|-----------------------|---------|---------------------|----------------------|----------|---------------|-----------------------------------|--|
| Assembly | Electrical connection | | Cable length [m] | Connection direction | Part No. | Type | | |
| | Cable | Plug M8 | | | | | | |
| N/O contact | | | | | | | | |
|  | Via accessories | 3-wire | – | 2.5 | In-line | 161775 | CRSMEO-4-K-LED-24 | |

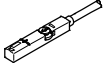
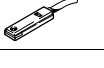
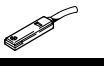
| Ordering data – Mounting kits for proximity sensors SME0/SMT0/CRSMEO | | | | | Technical data → Internet: crsmbr | |
|---|-------|--|--|--|-----------------------------------|------------------|
| Designation | For Ø | | | | Part No. | Type |
| Mounting kit CRSMBR, corrosion-resistant | | | | | | |
|  | 32 | | | | 163888 | CRSMBR-32 |
| | 40 | | | | 163889 | CRSMBR-40 |
| | 50 | | | | 163890 | CRSMBR-50 |
| | 63 | | | | 163891 | CRSMBR-63 |


Round cylinders DSNU/ESNU

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 |
| | | | Cable, 3-wire | 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 – Mounting kits for proximity sensors SME/SMT-8 | | | | | Technical data → Internet: smbr |
|---|-------|----------|-----------|--|---------------------------------|
| Designation | For Ø | Part No. | Type | | |
| Mounting kit SMBR-8 | | | | | |
|  | 32 | 175097 | SMBR-8-32 | | |
| | 40 | 175098 | SMBR-8-40 | | |
| | 50 | 175099 | SMBR-8-50 | | |
| | 63 | 175100 | SMBR-8-63 | | |

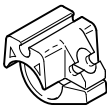
Round cylinders DSNU/ESNU



Accessories

FESTO

| Ordering data – Proximity sensors for C-slot, magneto-resistive | | | | | | Technical data → Internet: smt | |
|---|-----------------------------------|------------------|---|------------------|---------------|-----------------------------------|--|
| | Type of mounting | Switching output | Electrical connection, connection direction | Cable length [m] | Part No. | Type | |
| N/O contact | | | | | | | |
|  | Insertable in the slot from above | PNP | Cable, 3-wire, in-line | 2.5 | 551373 | SMT-10M-PS-24V-E-2,5-L-OE | |
| | | | Plug M8x1, 3-pin, in-line | 0.3 | 551375 | SMT-10M-PS-24V-E-0,3-L-M8D | |
| | | | Plug M8x1, 3-pin, lateral | 0.3 | 551376 | SMT-10M-PS-24V-E-0,3-Q-M8D | |

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

| Ordering data – Mounting kits for proximity sensors SME/SMT-10 | | | | | Technical data → Internet: smbr | | |
|---|-------|--|--|--|---------------------------------|-------------------|--|
| Designation | For Ø | | | | Part No. | Type | |
| Mounting kit SMBR-10 | | | | | | | |
|  | 32 | | | | 175105 | SMBR-10-32 | |
| | 40 | | | | 175106 | SMBR-10-40 | |
| | 50 | | | | 175107 | SMBR-10-50 | |
| | 63 | | | | 175108 | SMBR-10-63 | |

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

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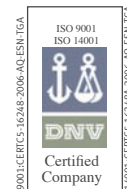
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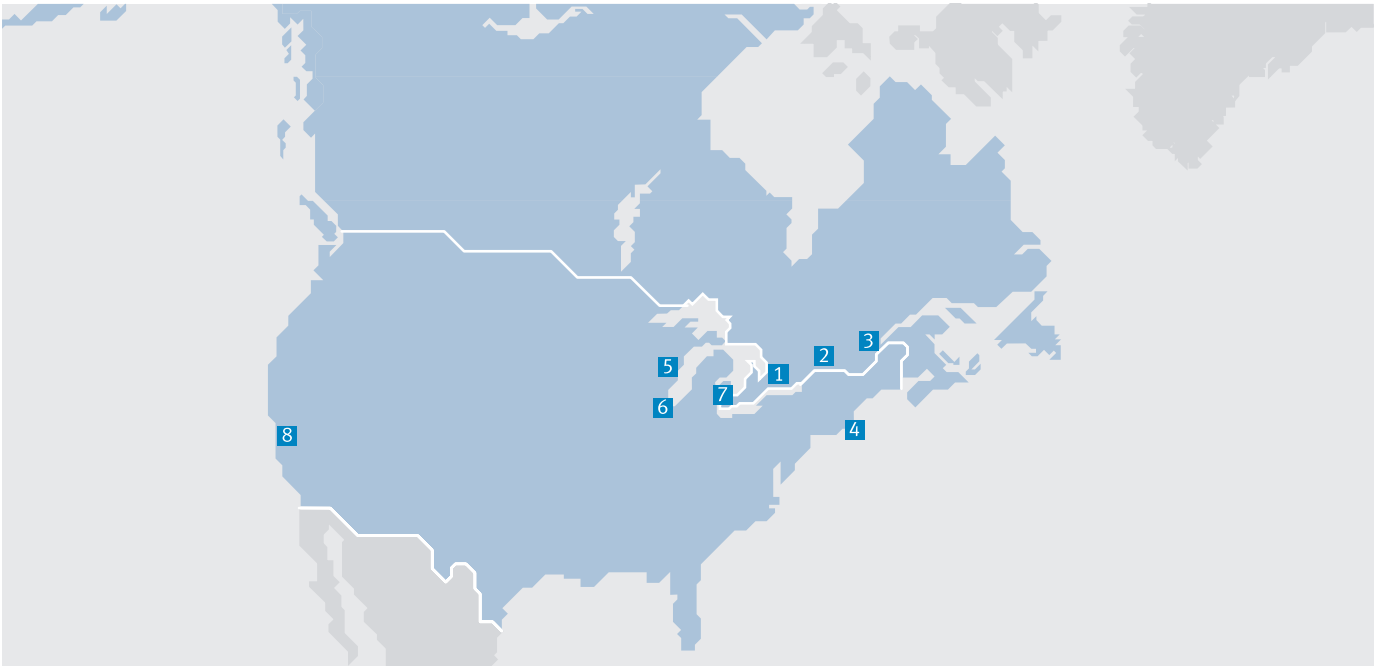


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