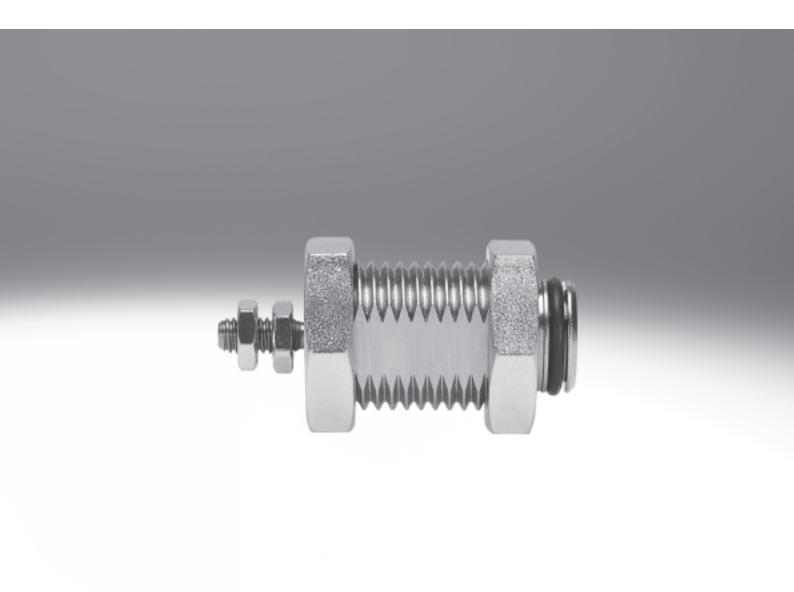
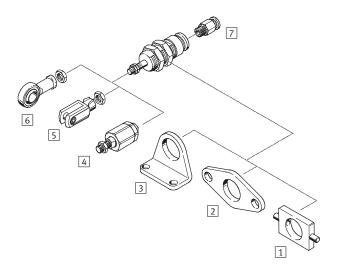
### Cartridge cylinders EGZ

### **FESTO**

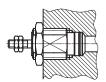


## Cartridge cylinders EGZ Peripherals overview and type codes

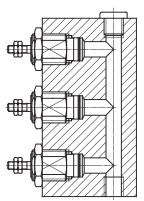




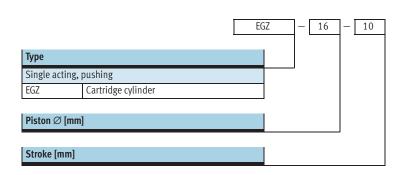
Installation without mounting attachments



Minimal installation space required



| Mou | nting attachments and acces     | sories  |                  |                   |                   |                 |
|-----|---------------------------------|---|------------------|-------------------|-------------------|-----------------|
|     |                                 | Brief description   | Piston ∅<br>6 mm | Piston ∅<br>10 mm | Piston ∅<br>16 mm | → Page/Internet |
| 1   | Swivel mounting<br>WBN          | For cylinder housing between two hex nuts                             | -                | •                 | •                 | 6               |
| 2   | Flange mounting<br>FBN          | For cylinder housing between two hex nuts                             | -                | -                 | -                 | 5               |
| 3   | Foot mounting<br>HBN            | For cylinder housing between two hex nuts                             | -                | -                 | -                 | 5               |
| 4   | Self-aligning rod coupler<br>FK | For compensating radial and angular deviations                        | -                | •                 | •                 | 6               |
| 5   | Rod clevis<br>SG                | Permits a swivelling movement of the cylinder in one plane            | -                | -                 | _                 | 6               |
| 6   | Rod eye<br>SGS                  | With spherical bearing  | -                | •                 | -                 | 6               |
| 7   | Push-in fitting<br>QS           | For connecting compressed air tubing with standard external diameters | •                | •                 |                   | quick star      |



# Cartridge cylinders EGZ Technical data

**FESTO** 

#### Function





- **D** - Diameter 6 ... 16 mm



Stroke length 5 ... 15 mm



| General technical data        |   |             |    |  |  |  |  |
|-------------------------------|---|-------------|----|--|--|--|--|
| Piston ∅                      | 6   | 10          | 16 |  |  |  |  |
| Pneumatic connection          | M3  | M5          | M5 |  |  |  |  |
| End of piston rod Male thread | M3  | M4          | M5 |  |  |  |  |
| Operating medium              | Filtered compressed air, lubricated or un | nlubricated |    |  |  |  |  |
| Constructional design         | Piston                                    |             |    |  |  |  |  |
|                               | Piston rod                                |             |    |  |  |  |  |
| Cushioning                    | None                                      |             |    |  |  |  |  |
| Position sensing              | None                                      |             |    |  |  |  |  |
| Type of mounting              | With lock nut                             |             |    |  |  |  |  |
|                               | With accessories                          |             |    |  |  |  |  |
| Mounting position             | Any                                       |             |    |  |  |  |  |

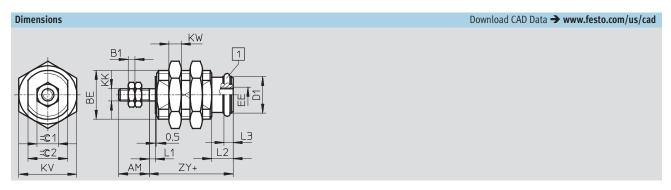
| Operating and environmenta | Operating and environmental conditions |         |    |    |  |  |  |  |  |  |  |
|----------------------------|--|---------|----|----|--|--|--|--|--|--|--|
| Piston ∅                   |  | 6       | 10 | 16 |  |  |  |  |  |  |  |
| Operating pressure         | [bar]                                  | 1.5 8   |    |    |  |  |  |  |  |  |  |
| Ambient temperature        | [°C]                                   | -20 +80 |    |    |  |  |  |  |  |  |  |

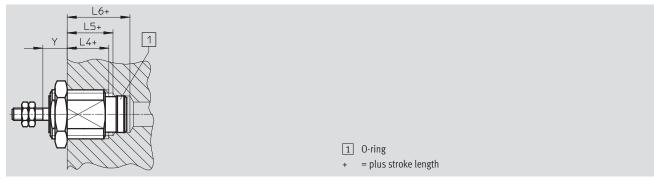
| Forces and permitted applied load [N] |      |      |     |      |     |      |     |     |     |  |
|---------------------------------------|------|------|-----|------|-----|------|-----|-----|-----|--|
| Piston $\varnothing$                  | 6    | 5    |     | 10   |     |      | 16  |     |     |  |
| Stroke                                | 5    | 10   | 15  | 5    | 10  | 15   | 5   | 10  | 15  |  |
| Theoretical force at 6 bar, advancing | 14   | 14   |     | 42   |     |      | 109 |     |     |  |
| Spring return force                   | 1.5  | 2.1  | 1.6 | 4    | 3.5 | 3    | 10  | 8.8 | 7.5 |  |
| Maximum applied load at the piston    | 0.10 | 0.10 |     | 0.15 |     | 0.20 |     |     |     |  |
| rod                                   |      |      |     |      |     |      |     |     |     |  |

3 2

| Cyli | nder              |                      |
|------|-------------------|----------------------|
| 1    | Housing           | Brass, nickel-plated |
| 2    | Cover             | Polyacetal           |
| 3    | Piston rod        | High-alloy steel     |
| -    | Note on materials | Conforms to RoHS     |

Materials Sectional view





| Ø               | AM | B1  | BE      | D1<br>Ø | EE | KK | KV  | KW  | L1  | L2 | L3  |
|-----------------|----|-----|---------|---------|----|----|-----|-----|-----|----|-----|
| [mm]            |    |     |         | H7/f8   |    |    | h13 |     |     |    |     |
| 6 <sup>1)</sup> | 7  | 1.8 | M10x1   | 7.6     | M3 | M3 | 13  | 3.5 | 1.5 | 6  | 2.4 |
| 6 <sup>2)</sup> |    |     |         |         |    |    |     |     |     |    |     |
| 10              | 10 | 2.2 | M16x1.5 | 12      | M5 | M4 | 19  | 4   | 2   | 7  | 3   |
| 16              | 12 | 2.7 | M22x1.5 | 18.5    | M5 | M5 | 27  | 5   | 2   | 9  | 3.5 |

| Ø               | L4  | L5  | L6   | ١    | ′        | ZY   | <b>=</b> ©1 | <b>=</b> ©2 |
|-----------------|-----|-----|------|------|----------|------|-------------|-------------|
|                 | – Y | – Y | – Y  | min. | max.     |      |             |             |
| [mm]            | +1  | -1  | +1   |      | + stroke |      | h13         | h13         |
| 6 <sup>1)</sup> | 9   | 11  | 15.5 | 6    | 5        | 15   | 5.5         | 8           |
| 6 <sup>2)</sup> | 11  | 13  | 17.5 | 6    | 7        | 17   |             |             |
|                 |     |     |      |      | -        |      |             |             |
| 10              | 11  | 13  | 18.5 | 7    | 6        | 17.5 | 7           | 13          |

 <sup>5</sup> mm stroke
 10 and 15 mm stroke

| Ordering data <sup>1)</sup> |                  |                |          |           |
|-----------------------------|------------------|----------------|----------|-----------|
| Stroke                      | Part No. Type    | Stroke         | Part No. | Туре      |
| [mm]                        |                  | [mm]           |          |           |
| Piston ∅ 6 mm               |                  | Piston ∅ 10 mm |          |           |
| 5                           | 15 033 EGZ-6-5   | 5              | 15 036   | EGZ-10-5  |
| 10                          | 15 034 EGZ-6-10  | 10             | 15 037   | EGZ-10-10 |
| 15                          | 15 035 EGZ-6-15  | 15             | 15 038   | EGZ-10-15 |
|                             |                  |                |          |           |
| Piston Ø 16 mm              |                  |                |          |           |
| 5                           | 15 039 EGZ-16-5  |                |          |           |
| 10                          | 15 040 EGZ-16-10 |                |          |           |
| 15                          | 15 041 EGZ-16-15 |                |          |           |

<sup>1)</sup> Two hex nuts each for the male cylinder thread and for the piston thread are included in the scope of delivery.

# Cartridge cylinders EGZ Accessories

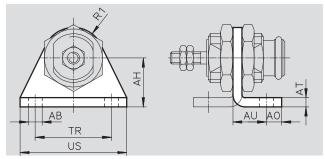
**FESTO** 

Foot mounting HBN for piston  $\varnothing$  10, 16 mm

Material: Steel

Free of copper, PTFE and silicone





| Dimensio | imensions and ordering data  |         |    |    |    |    |    |    |    |                   |            |          |             |  |
|----------|------------------------------|---------|----|----|----|----|----|----|----|-------------------|------------|----------|-------------|--|
| For Ø    | Minimum<br>stroke<br>lengths | AB<br>Ø | АН | AO | AT | AU | R1 | TR | US | CRC <sup>1)</sup> | Weight [g] | Part No. | Type        |  |
| 10       | 5                            | 5.5     | 20 | 6  | 4  | 14 | 13 | 32 | 42 | 2                 | 40         | 5 125    | HBN-12/16X1 |  |
| 16       | 7                            | 6.6     | 25 | 8  | 5  | 17 | 20 | 40 | 54 | 2                 | 90         | 5 127    | HBN-20/25X1 |  |

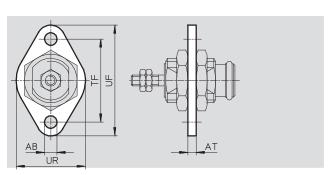
1) Corrosion resistance class 2 according to Festo standard 940 070 Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as

Flange mounting FBN for piston  $\varnothing$  10, 16 mm

Material: Steel

Free of copper, PTFE and silicone





| Dimensio | imensions and ordering data  |         |    |    |    |    |                   |            |                 |  |  |  |  |  |
|----------|------------------------------|---------|----|----|----|----|-------------------|------------|-----------------|--|--|--|--|--|
| For Ø    | Minimum<br>stroke<br>lengths | AB<br>∅ | AT | TF | UF | UR | CRC <sup>1)</sup> | Weight [g] | Part No. Type   |  |  |  |  |  |
| 10       | 5                            | 5.5     | 4  | 40 | 53 | 30 | 2                 | 26         | 5 130 FBN-12/16 |  |  |  |  |  |
| 16       | 7                            | 6.6     | 5  | 50 | 68 | 40 | 2                 | 52         | 5 131 FBN-20/25 |  |  |  |  |  |

<sup>1)</sup> Corrosion resistance class 2 according to Festo standard 940 070 Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents.

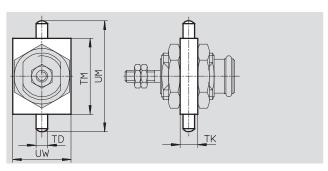
# Cartridge cylinders EGZ Accessories

**FESTO** 

Swivel mounting WBN for piston  $\varnothing$  10, 16 mm

Material: Tempered steel





| Dimension | imensions and ordering data  |               |    |    |    |    |            |                 |  |  |  |  |  |  |
|-----------|------------------------------|---------------|----|----|----|----|------------|-----------------|--|--|--|--|--|--|
| For Ø     | Minimum<br>stroke<br>lengths | TD<br>∅<br>m6 | TK | TM | UM | UW | Weight [g] | Part No. Type   |  |  |  |  |  |  |
| 10        | 9                            | 6             | 8  | 38 | 58 | 25 | 50         | 8 609 WBN-12/16 |  |  |  |  |  |  |
| 16        | 10                           | 6             | 8  | 46 | 66 | 30 | 70         | 8 610 WBN-20/25 |  |  |  |  |  |  |

| Ordering data    | - Piston rod attach | ments    |        |               | Techr | nical data 🚽 | Internet: piston-rod attachment |
|------------------|---------------------|----------|--------|---------------|-------|--------------|---------------------------------|
| Designation      | For Ø               | Part No. | Туре   | Designation   | For Ø | Part No.     | Туре                            |
| Rod eye SGS      |                     |          |        | Rod clevis SG |       |              |                                 |
| ~ <b>®</b>       | 10                  | 9 253    | SGS-M4 |               | 10    | 6 532        | SG-M4                           |
|                  |                     |          |        | •             |       |              |                                 |
| Self-aligning ro | d coupler FK        |          |        |               |       |              |                                 |
| <i>─</i> ₹       | 10                  | 6 528    | FK-M4  |               |       |              |                                 |
|                  | 16                  | 30 984   | FK-M5  |               |       |              |                                 |
|                  |                     |          |        |               |       |              |                                 |

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### **Festo North America**

#### **Festo Regional Contact Center**

5300 Explorer Drive Mississauga, Ontario L4W 5G4 Canada

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#### **USA Headquarters**

Festo Corporation 395 Moreland Road P.O. Box 18023 Hauppauge, NY 11788, USA www.festo.com/us

#### **USA Sales Offices**

#### Appleton

North 922 Tower View Drive, Suite N Greenville, WI 54942, USA

#### Boston

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#### **New York**

395 Moreland Road Hauppauge, NY 11788, USA

#### Silicon Valley

4935 Southfront Road, Suite F Livermore, CA 94550, USA

#### **United States**



**USA Headquarters, East**: Festo Corp., 395 Moreland Road, Hauppauge, NY 11788 Phone: 1.631.435.0800; Fax: 1.631.435.8026;

Email: info@festo-usa.com www.festo.com/us

#### Canada



Headquarters: Festo Inc., 5300 Explorer Drive, Mississauga, Ontario L4W 5G4 Phone: 1.905.624.9000; Fax: 1.905.624.9001; Email: festo.canada@ca.festo.com

#### Mexico



Headquarters: Festo Pneumatic, S.A., Av. Ceylán 3, Col. Tequesquinahuac, 54020 Tlalnepantla, Edo, de México Phone: 011 52 [55] 53 21 66 00; Fax: 011 52 [55] 53 21 66 65; Email: festo.mexico@mx.festo.com www.festo.com/mx

#### Central USA

Festo Corporation 1441 East Business Center Drive Mt. Prospect, IL 60056, USA Phone: 1.847.759.2600 Fax: 1 847 768 9480



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