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- Wide variety of applications for handling functions
- Minimal installation space required
- Stroke end positions can be varied according to the depth of engagement of the cylinder
- Additional mounting attachments

## Cartridge cylinders EGZ Peripherals overview and type codes





Installation without mounting attachments





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| Mou | inting attachments and acces    | ssories  |                      |         |                      |           |
|-----|---------------------------------|--|----------------------|---------|----------------------|-----------|
|     |                                 | Brief description  | Piston $\varnothing$ | PistonØ | Piston $\varnothing$ | → Page    |
|     |                                 |  | 6 mm                 | 10 mm   | 16 mm                |           |
| 1   | Swivel mounting<br>WBN          | For cylinder housing between two hex nuts  | -                    | -       | •                    | 1 / 2.5-6 |
| 2   | Flange mounting<br>FBN          | For cylinder housing between two hex nuts  | -                    | -       | -                    | 1 / 2.5-5 |
| 3   | Foot mounting<br>HBN            | For cylinder housing between two hex nuts  | -                    |         | -                    | 1 / 2.5-5 |
| 4   | Self-aligning rod coupler<br>FK | For compensating radial and angular deviations   | -                    | -       | -                    | 1 / 2.5-6 |
| 5   | Rod clevis<br>SG                | Permits a swivelling movement of the cylinder in<br>one plane                            | -                    | -       | -                    | 1 / 2.5-6 |
| 6   | Rod eye<br>SGS                  | With spherical bearing   | _                    |         | _                    | 1 / 2.5-6 |
| 7   | Push-in fitting<br>QS           | For connecting compressed air tubing with<br>standard external diameters to CETOP RP54 P |                      |         |                      | Volume 3  |







| Design                        |   |             |    |
|-------------------------------|---|-------------|----|
| Piston $\varnothing$          | 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 environme | ental conditions |         |    |    |
|-------------------------|------------------|---------|----|----|
| Piston $\varnothing$    |                  | 6       | 10 | 16 |
| Operating pressure      | [bar]            | 1.5 8   |    |    |
| Ambient temperature     | [°C]             | -20 +80 |    |    |

| Forces and permitted applied load [N] |      |     |     |      |     |    |      |     |     |
|---------------------------------------|------|-----|-----|------|-----|----|------|-----|-----|
| Piston Ø                              | 6    | 6   |     |      |     |    | 16   |     |     |
| Stroke                                | 5    | 10  | 15  | 5    | 10  | 15 | 5    | 10  | 15  |
| Theoretical force at 6 bar, advancing | 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 |     |     | 0.15 |     |    | 0.20 |     |     |
| rod                                   |      |     |     |      |     |    |      |     |     |

#### Materials



| ( | Cylinder     |                      |
|---|--------------|----------------------|
| [ | 1 Housing    | Brass, nickel-plated |
| [ | 2 Cover      | Polyacetal           |
| [ | 3 Piston rod | High-alloy steel     |

2.5

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| Ø               | AM | B1  | BE      | D1<br>Ø | EE | КК | 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 |

1 O-ring

+ = plus stroke length

| Ø               | L4  | L5  | L6   | Y    | ,<br>,   | ZY   | =©1 | =©2 |
|-----------------|-----|-----|------|------|----------|------|-----|-----|
|                 | – Y | – Y | – Y  | min. | max.     |      |     |     |
| [mm]            | +1  | -1  | +1   |      | + stroke |      | h13 | h13 |
| 61)             | 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  |
| 16              | 13  | 16  | 21   | 8    | 6        | 20.5 | 8   | 19  |

5 mm stroke
 10 and 15 mm stroke

| Ordering data <sup>1)</sup> |          |           |                            |          |           |
|-----------------------------|----------|-----------|----------------------------|----------|-----------|
| Stroke                      | Part No. | Туре      | Stroke                     | Part No. | Туре      |
| [mm]                        |          |           | [mm]                       |          |           |
| Piston $\varnothing$ 6 mm   |          |           | Piston $\varnothing$ 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              | 1        |           |                            |          |           |
| 5                           | 15 039   | EGZ-16-5  |                            |          |           |
| 10                          | 15 040   | EGZ-16-10 |                            |          |           |
| 15                          | 15 041   | EGZ-16-15 |                            |          |           |

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

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Download CAD data → www.festo.com/en/engineering

Accessories

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| is and ordering | g data            |                         |   |  |   |   |   |   |   |   |   |   |
|-----------------|-------------------|-------------------------|---|--|---|---|---|---|---|---|---|---|
| Minimum         | AB                | AH                      | AO  | AT   | AU  | R1  | TR  | US  | CRC <sup>1)</sup>   | Weight  | Part No.  | Туре  |
| stroke          | Ø                 |                         |   |  |   |   |   |   |   |   |   |   |
| lengths         |                   |                         |   |  |   |   |   |   |   |   |   |   |
|                 |                   |                         |   |  |   |   |   |   |   | [g]   |   |   |
| 5               | 5.5               | 20                      | 6   | 4  | 14  | 13  | 32  | 42  | 2   | 40  | 5 125   | HBN-12/16X1   |
| 7               | 6.6               | 25                      | 8   | 5  | 17  | 20  | 40  | 54  | 2   | 90  | 5 127   | HBN-20/25X1   |
|                 | Minimum<br>stroke | stroke Ø<br>lengths 5.5 | Minimum<br>stroke<br>lengthsAB<br>ØAH55.520 | Minimum<br>stroke<br>lengthsAB<br>ØAH<br>AOAO55.5206 | Minimum<br>stroke<br>lengthsAB<br>ØAH<br>AB<br>AHAO<br>AO<br>AT55.52064 | Minimum<br>stroke<br>lengthsAB<br>ØAH<br>AHAO<br>AOAT<br>AUAU55.5206414 | Minimum<br>stroke<br>lengthsAB<br>ØAH<br>AHAO<br>AO<br>ATAU<br>AU<br>R155.520641413 | Minimum<br>stroke<br>lengthsAB<br>ØAH<br>AHAO<br>AOAT<br>AUAU<br>R1R1<br>TR55.52064141332 | Minimum<br>stroke<br>lengthsAB<br>ØAH<br>AHAO<br>AOAT<br>AUAU<br>AUR1<br>R1TR<br>TRUS55.5206414133242 | Minimum<br>stroke<br>lengthsAB<br>ØAH<br>AHAO<br>ACAT<br>AUAU<br>AUR1<br>AUTR<br>AUUS<br>CRC1)55.52064141332422 | Minimum<br>stroke<br>lengthsAB<br>ØAH<br>AB<br>PAO<br>AD<br>ATAU<br>AT<br>AUR1<br>AU<br>R1TR<br>RUS<br>VS<br>CRC1CRC1<br>Weight<br>[g]55.5206414133242240 | Minimum<br>stroke<br>lengthsAB<br>ØAH<br>AAO<br>AAT<br>AUAU<br>AUR1<br>R1TR<br>RUS<br>CRC1CRC1<br>R1<br>R1Weight<br>Part No.Part No.55.52064141332422405125 |

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 cooling or lubricating agents.

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

Material: Steel Free of copper, PTFE and silicone





Cylinders with piston rods
Screw-in/screw-on cylinders

| Dimensio | ons and ordering             | g data  |    |    |    |    |                   |           |                 |
|----------|------------------------------|---------|----|----|----|----|-------------------|-----------|-----------------|
| For Ø    | Minimum<br>stroke<br>lengths | AB<br>Ø | AT | TF | UF | UR | CRC <sup>1)</sup> | Weight    | Part No. Type   |
| 10       | 5                            | 5.5     | 4  | 40 | 53 | 30 | 2                 | [g]<br>25 | 5 130 FBN-12/16 |
| 16       | 7                            | 6.6     | 5  | 50 | 68 | 40 | 2                 | 45        | 5 131 FBN-20/25 |

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 cooling or lubricating agents.



#### Dimensions and ordering data

| For Ø | Minimum<br>stroke<br>lengths | TD<br>Ø | ТК | TM | UM | UW | Weight | Part No. Type   |
|-------|------------------------------|---------|----|----|----|----|--------|-----------------|
|       |                              | m6      |    |    |    |    | [g]    |                 |
| 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 at   | tachments |        |               |                   |          | Technical data 🗲 1 / 10.3 |
|-----------------|-------------------|-----------|--------|---------------|-------------------|----------|---------------------------|
| Designation     | For $\varnothing$ | Part No.  | Туре   | Designation   | For $\varnothing$ | Part No. | Туре                      |
| Rod eye SGS     |                   |           |        | Rod clevis SG |                   |          |                           |
|                 | 10                | 9 253     | SGS-M4 |               | 10                | 6 5 3 2  | SG-M4                     |
|                 |                   |           |        |               |                   |          |                           |
| Self-aligning r |                   |           |        |               | •                 |          |                           |
|                 | 10                | 6 528     | FK-M4  |               |                   |          |                           |
|                 | 16                | 30 984    | FK-M5  |               |                   |          |                           |
|                 |                   | •         |        |               |                   |          |                           |

Cylinders with piston rods Screw-in/screw-on cylinders

2.5



Core Range

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