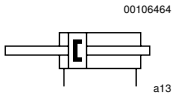
**Piston rod cylinder → Standard cylinders**

# Mini cylinder, ISO 6432, Series MNI

**► Ø 16 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: elastic ► corrosion-protected ► Piston rod: through, external thread ► ATEX optional**




| | |
|---|---|
| Standards | ISO 6432 |
| Compressed air connection | internal thread |
| Working pressure min./max. | 1.5 bar / 10 bar |
| Ambient temperature min./max. | -25°C / +80°C |
| Medium temperature min./max. | -25°C / +80°C |
| Medium | Compressed air |
| Max. particle size | 50 µm |
| Oil content of compressed air | 0 mg/m³ - 5 mg/m³ |
| Pressure for determining piston forces | 6,3 bar |

| Materials: | |
|---|---|
| Cylinder tube | Stainless steel |
| Piston rod | Stainless steel |
| Piston | Brass, Aluminum |
| Front cover | Aluminum, anodized |
| End cover | Aluminum, anodized |
| Seal | Acrylonitrile Butadiene Rubber; Polyurethane |
| Nut for cylinder mounting | Steel, galvanized |
| Nut for piston rod | Steel, galvanized |
| Scraper | Polyurethane |

**Technical Remarks**

- The pressure dew point must be at least 15 °C under ambient and medium temperature and may not exceed 3 °C.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- Clamping piece for magnetic field sensor necessary
- ATEX-certified cylinders are available at Bosch Rexroth sales centres
- ATEX ID: II 2G c IIB T4 II 2D c IP65 T125°C X
- The operating temperature range for ATEX-certified cylinders is -20°C to +50°C.
- Warning: The piston rod halves must not be twisted against one another!

| **Piston Ø** | | **[mm]** | **16** | **20** | **25** | | |
|---|---|---|---|---|---|---|---|
| Retracting piston force | | [N] | 109 | 166 | 260 | | |
| Extracting piston force | | [N] | 109 | 166 | 260 | | |
| Impact energy | | [J] | 0.14 | 0.23 | 0.35 | | |
| Weight | 0 mm stroke | [kg] | 0.091 | 0.182 | 0.317 | | |
| | +10 mm stroke | [kg] | 0.0063 | 0.0102 | 0.0155 | | |
| Stroke max. | | [mm] | 800 | 1100 | 1300 | | |
| Working pressure min./max. | | [bar] | 1 - 10 | 1 - 10 | 1 - 10 | | |

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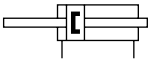
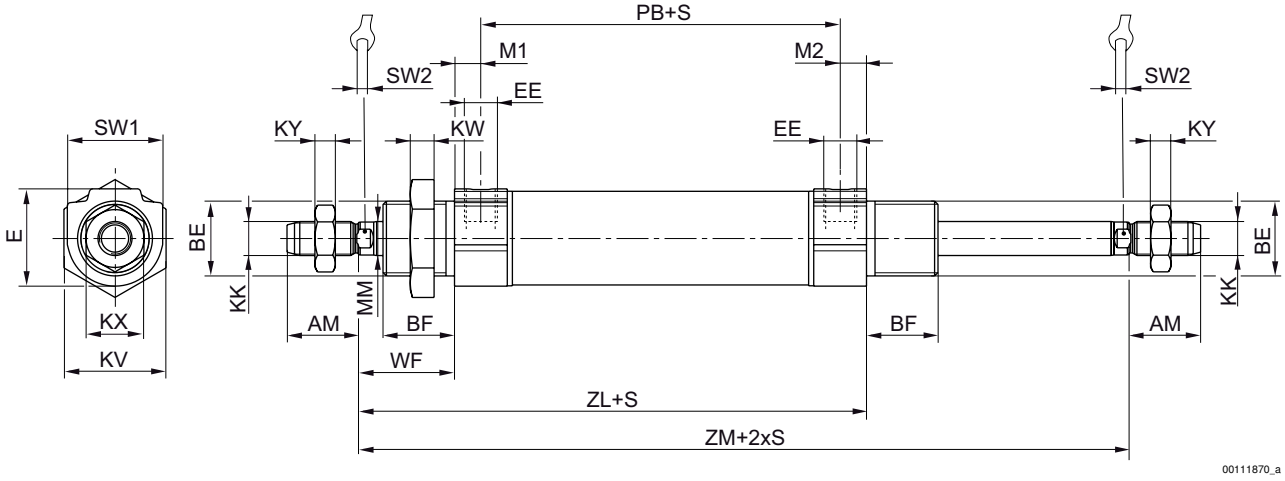
**► Ø 16 - 25 mm ► Ports: M5 - G 1/8 ► double-acting ► with magnetic piston ► cushioning: elastic ► corrosion-protected ► Piston rod: through, external thread ► ATEX optional**

| | Piston Ø<br>Piston rod thread<br>Ports<br>Piston rod Ø | 16<br>M6<br>M5<br>6 | 20<br>M8<br>G 1/8<br>8 | 25<br>M10x1,25<br>G 1/8<br>10 | | |
|---|---|---|---|---|---|---|
|  | Stroke 10 | **0822382001** | 0822383001 | 0822384001 | | |
| | 25 | **0822382002** | **0822383002** | 0822384002 | | |
| | 50 | **0822382003** | **0822383003** | **0822384003** | | |
| | 80 | **0822382004** | **0822383004** | 0822384004 | | |
| | 100 | **0822382005** | **0822383005** | **0822384005** | | |
| | 125 | **0822382006** | **0822383006** | 0822384006 | | |
| | 160 | 0822382007 | 0822383007 | 0822384007 | | |
| | 200 | 0822382008 | 0822383008 | 0822384008 | | |
| | 250 | - | 0822383009 | 0822384009 | | |
| | 320 | - | 0822383010 | 0822384010 | | |
| | 400 | - | - | 0822384011 | | |
| | 500 | - | - | 0822384012 | | |
| other versions can be ordered from Bosch Rexroth sales offices | | | | | | |

**Dimensions**




S = stroke

| Piston Ø | AM –2 | BE | BF | E | EE | KK | KV | KW | KX | KY | MM f8 | M1/M2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16 | 16 | M16x1,5 | 16 | 19 | M5 t=5 | M6 | 22 | 6 | 10 | 3.2 | 6 | 4.8 |
| 20 | 20 | M22x1,5 | 18 | 28 | G1/8 t=8 | M8 | 30 | 7 | 13 | 4 | 8 | 7 |
| 25 | 22 | M22x1,5 | 21 | 28 | G1/8 t=8 | M10x1,25 | 30 | 7 | 17 | 6 | 10 | 7 |

| Piston Ø | PB ±1 | SW 1 | SW 2 | WF ±1,4 | ZL ± 1,7 | ZM +0/-2,5 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16 | 47 | 19 | 5 | 22 | 78.5 | 102.5 | | | | | | | |
| 20 | 51 | 28 | 6 | 24 | 90.5 | 116.4 | | | | | | | |
| 25 | 55 | 28 | 8 | 28 | 98.5 | 128.2 | | | | | | | |