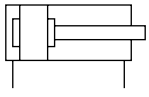
**Piston rod cylinders → Mini cylinder**

# Mini cylinder, Series ICM

**► Ø 8 - 32 mm ► Ports: M5 - G 1/8 ► double-acting ► cushioning: elastic ► corrosion-resistant ► with integrated rear eye ► Piston rod: external thread ► suitable for use in food processing**

P132_042_b



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| | |
|---|---|
| Compressed air connection | internal thread |
| Working pressure min./max. | 1.5 bar / 10 bar |
| Ambient temperature min./max. | -20°C / +70°C |
| Medium temperature min./max. | -20°C / +70°C |
| Medium | Compressed air |
| Max. particle size | 50 µm |
| Oil content of compressed air | 0 mg/m³ |
| Pressure for determining piston forces | 6,3 bar |

| Materials: | |
|---|---|
| Cylinder tube | Stainless steel |
| Piston rod | Stainless steel |
| Front cover | Polyoxymethylene |
| End cover | Polyoxymethylene |
| Connection thread | Stainless steel |
| Seal | Acrylonitrile Butadiene Rubber |
| Nut for cylinder mounting | Polyamide |
| Nut for piston rod | Stainless steel |
| Scraper | Acrylonitrile Butadiene Rubber |
| Lubricant | ISO 21469 (NSF-H1) |

**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 air pressure must remain constant during the life cycle.
- Use only the approved oils from Bosch Rexroth, see chapter „Technical information“.
- nut MR 3 included in supply

| **Piston Ø** | | **[mm]** | **8** | **10** | **12** | **16** | **20** |
|---|---|---|---|---|---|---|---|
| Retracting piston force | | [N] | 24 | 42 | 53 | 109 | 166 |
| Extracting piston force | | [N] | 32 | 49 | 71 | 127 | 198 |
| Weight | 0 mm stroke | [kg] | 0.025 | 0.035 | 0.048 | 0.054 | 0.08 |
| | +10 mm stroke | [kg] | 0.003 | 0.004 | 0.005 | 0.005 | 0.01 |
| Stroke max. | | [mm] | 80 | 80 | 100 | 100 | 200 |

| **Piston Ø** | | **[mm]** | **25** | **32** | | | |
|---|---|---|---|---|---|---|---|
| Retracting piston force | | [N] | 260 | 435 | | | |
| Extracting piston force | | [N] | 309 | 506 | | | |
| Weight | 0 mm stroke | [kg] | 0.1 | 0.26 | | | |
| | +10 mm stroke | [kg] | 0.014 | 0.022 | | | |
| Stroke max. | | [mm] | 200 | 250 | | | |

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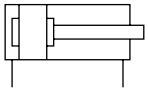
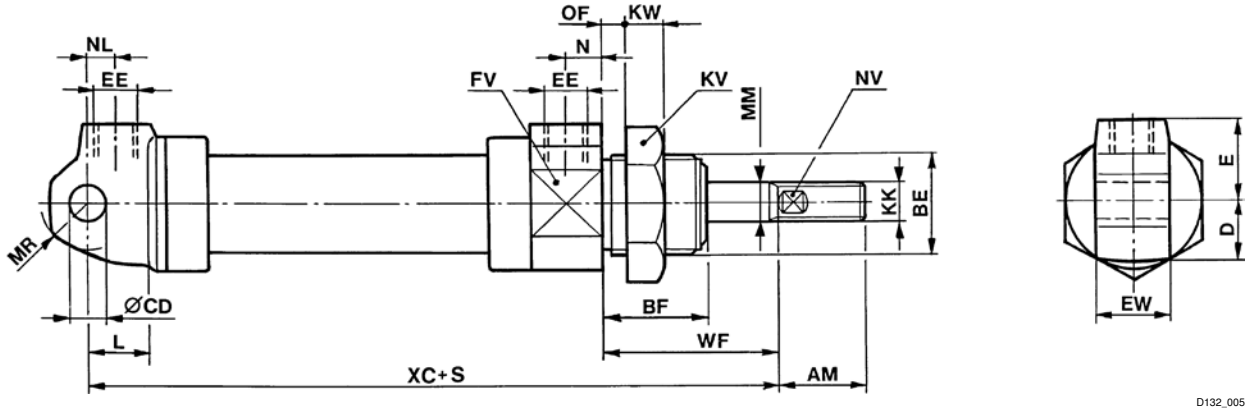


| | Piston Ø<br>Piston rod thread<br>Ports | 8<br>M4<br>M5 | 10<br>M4<br>M5 | 12<br>M6<br>M5 | 16<br>M6<br>M5 | 20<br>M8<br>G 1/8 |
|---|---|---|---|---|---|---|
| | Stroke 12 | 1320801000 | **1321001000** | **1321201000** | **1321601000** | **1322001000** |
| | 25 | 1320802000 | 1321002000 | **1321202000** | **1321602000** | **1322002000** |
| | 50 | 1320805000 | 1321005000 | **1321205000** | **1321605000** | **1322005000** |
| | 80 | 1320808000 | 1321008000 | **1321208000** | **1321608000** | **1322008000** |
| | 100 | - | - | 1321210000 | **1321610000** | **1322010000** |
| | 125 | - | - | - | - | **1322012000** |
| | 160 | - | - | - | - | **1322016000** |
| | 200 | - | - | - | - | **R402001221** |
| | 250 | - | - | - | - | - |
| | **Piston Ø<br>Piston rod thread<br>Ports** | **25<br>M10x1,25<br>G 1/8** | **32<br>M10x1,25<br>G 1/8** | | | |
| | Stroke 12 | **1322501000** | - | | | |
| | 25 | **1322502000** | **1323202000** | | | |
| | 50 | **1322505000** | **1323205000** | | | |
| | 80 | **1322508000** | **1323208000** | | | |
| | 100 | **1322510000** | **1323210000** | | | |
| | 125 | **1322512000** | **1323212000** | | | |
| | 160 | **1322516000** | **1323216000** | | | |
| | 200 | **R402001225** | **1323220000** | | | |
| | 250 | - | **R402001226** | | | |

**Dimensions**




S = stroke

| Piston Ø | AM<br>+0/-2 | BE | BF | CD<br>H11 | D | E | EE | EW<br>d13 | FV | KK | KV | KW | L |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 12 | M12x1,25 | 14 | 4 | 7.5 | 12 | M5 | 8 | 14 | M4 | 17 | 7 | 7 |
| 10 | 12 | M12x1,25 | 14 | 4 | 8 | 12 | M5 | 8 | 16 | M4 | 17 | 7 | 7 |
| 12 | 16 | M16x1,5 | 20 | 6 | 10 | 13.5 | M5 | 12 | 20 | M6 | 24 | 7 | 9 |
| 16 | 16 | M16x1,5 | 20 | 6 | 12 | 14 | M5 | 12 | 24 | M6 | 24 | 7 | 9 |
| 20 | 20 | M22x1,5 | 22 | 8 | 15 | 18 | G1/8 | 16 | 30 | M8 | 30 | 8 | 12 |
| 25 | 22 | M22x1,5 | 22 | 8 | 17 | 18 | G1/8 | 16 | 34 | M10x1,25 | 30 | 8 | 12 |
| 32 | 22 | M30x1,5 | 29 | 10 | 22.5 | 24 | G1/8 | 26 | 46 | M10x1,25 | 41 | 11 | 13 |

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| Piston Ø | MM | MR | N | NL | NV | OF 1) | WF ±1,2 | XC ±1 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 4 | 5 | 5 | 12 | 3 | 4.5 | 16 | 64 | | | | | |
| 10 | 4 | 5 | 5 | 12 | 3 | 4.5 | 16 | 64 | | | | | |
| 12 | 6 | 7.5 | 5 | 7 | 4 | 10 | 22 | 62 | | | | | |
| 16 | 6 | 7.5 | 5 | 6 | 4 | 10 | 22 | 58 | | | | | |
| 20 | 8 | 10 | 8 | 7 | 6 | 10 | 24 | 73 | | | | | |
| 25 | 10 | 10 | 8 | 6.5 | 8 | 10 | 28 | 77 | | | | | |
| 32 | 12 | 15 | 10 | 10.5 | 11 | 14 | 38 | 98 | | | | | |

1) Max.