



General operating condition

## Data sheet

Overall data sheet – Individual values depend upon your configuration.

| Feature                                      | Value   |
|--|---|
| Stroke                                       | 1 mm 2800 mm  |
| Piston diameter                              | 32 mm   |
| Piston rod thread                            | M6<br>M10x1.25  |
| Max. angle of rotation of the piston rod +/- | -0.65 deg 0.65 deg  |
| Based on norm                                | ISO 15552   |
| Cushioning                                   | Elastic cushioning rings/pads at both ends<br>Self-adjusting pneumatic end-position cushioning<br>Pneumatic cushioning, adjustable at both ends   |
| Mounting position                            | Any   |
| Conforms to standard                         | ISO 15552   |
| Piston rod end                               | External thread<br>Internal thread  |
| Structural design                            | Piston Piston rod Profile barrel  |
| Position sensing                             | For proximity sensor  |
| Symbol                                       | 00991217<br>00991218<br>00991235<br>00991237<br>00991257<br>00991258<br>00991907<br>00991910<br>00992970  |
| Variants                                     | Extended external thread piston rod Internal thread on piston rod Extended piston rod Low friction for balancer applications Metal scraper With anti-twist protection Uniform, slow movement Low friction Through piston rod Heat-resistant seals max. 120°C Sensor slots on 3 profile sides Temperature range 0 to + 150°C Temperature range -40 to 80°C Piston rod at one end |

| Feature  | Value  |
|--|--|
| Method of operation clamping unit                      | Retracting Advancing   |
|  | Static   |
|  | Released by means of compressed air                                      |
|  | Frictional clamping via spring force                                     |
| Static holding force of clamping unit                  | 600 N  |
| Axial backlash clamping unit                           | 0.5 mm   |
| Clamping unit release pressure                         | 0.3 MPa  |
| Clamping unit release pressure                         | 3 bar  |
| Method of operation end-position locking               | Positive locking by stop cylinder<br>Released by means of compressed air |
| Static holding force of end-position locking           | 500 N  |
| Axial backlash end-position locking                    | 1.3 mm   |
| Unlocking pressure                                     | ≥0.25 MPa  |
| Unlocking pressure                                     | ≥2.5 bar   |
| Locking pressure                                       | ≤0.05 MPa  |
| Locking pressure                                       | ≤0.5 bar   |
| Operating pressure                                     | 0.01 MPa 1.2 MPa   |
| Operating pressure                                     | 0.1 bar 12 bar   |
| Mode of operation                                      | Double-acting  |
| CE marking (see declaration of conformity)             | as per EU explosion protection directive (ATEX)                          |
| UKCA marking (see declaration of conformity)           | acc. to UK EX instructions   |
| Explosion prevention and protection                    | Zone 1 (ATEX)  |
|  | Zone 1 (UKEX)  |
|  | Zone 2 (ATEX) Zone 21 (ATEX)   |
|  | Zone 21 (UKEX)   |
|  | Zone 22 (ATEX)   |
| ATEX category gas                                      | II 2G  |
| ATEX category for dust                                 | II 2D  |
| Type of ignition protection for gas                    | Ex h IIC T4 Gb   |
| Type of (ignition) protection for dust                 | Ex h IIIC T120°C Db  |
| Explosive ambient temperature                          | -20°C <= Ta <= +60°C   |
| Explosion protection certification outside the EU      | EPL Db (GB)<br>EPL Gb (GB)   |
| Operating medium                                       | Compressed air as per ISO 8573-1:2010 [7:4:4]                            |
| Information on operating and pilot media               | Operation with oil lubrication possible (required for further use)       |
| Corrosion resistance class (CRC)                       | 2 - Moderate corrosion stress<br>3 - High corrosion stress               |
| LABS (PWIS) conformity                                 | VDMA24364-B1/B2-L<br>VDMA24364 zone III                                  |
| Ambient temperature                                    | -40 °C 150 °C  |
| Impact energy in the end positions                     | 0.1 J 0.4 J  |
| Cushioning length                                      | 0 mm 17 mm   |
| Max. torque for protection against rotation            | 0.8 Nm   |
| Theoretical force at 6 bar, retracting                 | 415 N  |
| Theoretical force at 6 bar, advancing                  | 415 N 483 N  |
| Additional moving mass per 10 mm stroke                | 8 g 18 g   |
| Weight surcharge per 10 mm piston rod extension        | 9 g  |
| Weight surcharge per 10 mm piston rod thread extension | 6 g  |
| Type of mounting                                       | With internal thread   |
|  | With accessories   |
| Pneumatic connection                                   | G1/8   |
| Note on materials                                      | RoHS-compliant   |
| Cover material   | Die-cast aluminum, coated  |
| Material of spring                                     | Spring steel<br>High-alloy stainless steel                               |

| Feature                               | Value  |
|---------------------------------------|--|
| Clamping unit housing material        | Wrought aluminum alloy, anodized   |
| Housing end-position locking material | Wrought aluminum alloy, anodized   |
| Piston seal material                  | FPM<br>HNBR<br>TPE-U(PU)   |
| Clamping jaws clamping unit material  | Brass  |
| Piston clamping unit material         | POM  |
| Piston end-position locking material  | High-alloy steel   |
| Material of piston                    | Wrought aluminum alloy   |
| Piston rod material                   | high-alloy stainless steel, hard chrome plated<br>High-alloy steel<br>High-alloy stainless steel |
| Piston rod wiper material             | FPM<br>HNBR<br>PE<br>TPE-U(PU)   |
| Buffer seal material                  | FPM<br>TPE-U(PU)   |
| Cushion piston material               | Aluminum<br>POM  |
| Material of cylinder barrel           | Wrought aluminum alloy, smooth-anodized  |
| Nut material                          | Steel, galvanized  |
| Rod wiper material                    | Brass<br>PTFE-reinforced<br>TPE-E  |
| Material of bearing                   | Bronze<br>Metal polymer compound<br>POM  |
| Flange screws material                | Steel, galvanized  |
| Bellows material                      | NBR<br>PA  |