

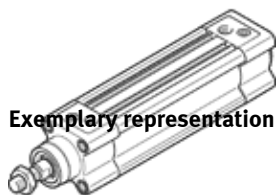
standards-based cylinder

DSBC-...-50- -

Part number: 1463770

★ Core product range

FESTO



Exemplary representation

Data sheet

Overall data sheet – Individual values depend upon your configuration.

| Feature | Value |
|---|--|
| Stroke | 1 ... 2,800 mm |
| Piston diameter | 50 mm |
| Piston rod thread | M10 M16x1,25 |
| Max. angular deflection of piston rod +/- | -0.45 ... 0.45 deg |
| Based on the standard | ISO 15552 |
| Cushioning | P: Flexible cushioning rings/plates at both ends PPS: Self-adjusting pneumatic end-position cushioning PPV: Pneumatic cushioning adjustable at both ends |
| Assembly position | Any |
| Conforms to standard | ISO 15552 |
| Piston-rod end | Male thread Female thread |
| Design structure | Piston Piston rod Profile barrel |
| Position detection | For proximity sensor |
| Variants | For unlubricated operation Clamping unit attached End position locking at both ends End position locking, rear End-position locking, front Increased chemical resistance Bellows on bearing cap Hard wiper seal Extended male piston rod thread Female thread on piston rod Extended piston rod Metal wiper seal With protection against rotation Constant slow movement Low-friction Through piston rod Heat resistant seals, max. 120°C Sensor slots on 3 profile sides Temperature range 0 - 150 °C Temperature range -40 - 80 °C Single-ended piston rod Low friction for balancer applications |
| Mode of operation of clamping unit | Retracting Advancing Static Released through compressed air Frictional clamping via spring force |

| Feature | Value |
|--|---|
| Static holding force of clamping unit | 1,400 N |
| Axial backlash of clamping unit | 0.8 mm |
| Clamping unit release pressure | 0.3 MPa 3 bar |
| Mode of operation of end-position locking | Positive locking by stop cylinder Released through compressed air |
| Static holding force of end-position locking | 2,000 N |
| Axial backlash of end-position locking | 1.3 mm |
| Unlocking pressure (MPa) | ≥ 0.15 MPa |
| Unlocking pressure | ≥ 1.5 bar |
| Locking pressure (MPa) | ≤ 0.05 MPa |
| Locking pressure | ≤ 0.5 bar |
| Operating pressure MPa | 0.01 ... 1.2 MPa |
| Operating pressure | 0.1 ... 12 bar |
| Mode of operation | double-acting |
| CE mark (see declaration of conformity) | to EU directive explosion protection (ATEX) |
| ATEX category Gas | II 2G |
| ATEX category Dust | II 2D |
| Explosion ignition protection type Gas | Ex h IIC T4 Gb |
| Explosion ignition protection type Dust | Ex h IIIC T120°C Db |
| Explosion-proof ambient temperature | -20°C \leq Ta \leq +60°C |
| Operating medium | Compressed air in accordance with ISO8573-1:2010 [7:4:4] |
| Note on operating and pilot medium | Lubricated operation possible (subsequently required for further operation) |
| Corrosion resistance classification CRC | 2 - Moderate corrosion stress 3 - High corrosion stress |
| Ambient temperature | -40 ... 150 °C |
| Impact energy in end positions | 0.3 ... 1 J |
| Cushioning length | 0 ... 22 mm |
| Max. torque for protection against rotation | 1.5 Nm |
| Theoretical force at 0.6 MPa (6 bar, 87 psi), retracting | 990 N |
| Theoretical force at 0.6 MPa (6 bar, 87 psi), advance | 990 ... 1,178 N |
| Moving mass with 0 mm stroke | 365 g |
| Additional weight per 10 mm stroke | 56 g |
| Basic weight for 0 mm stroke | 1,190 g |
| Additional mass factor per 10 mm of stroke | 25 g |
| Mounting type | with internal (female) thread with accessories Optional |
| Pneumatic connection | G1/4 |
| Materials note | Contains PWIS substances Conforms to RoHS |
| Material cover | Die-cast aluminium, coated |
| Material spring | Spring steel High alloy steel, non-corrosive |
| Clamping unit housing material | Anodised wrought aluminium alloy |
| Housing end-position locking material | Anodised wrought aluminium alloy |
| Material piston seal | FPM HNBR TPE-U(PU) |
| Clamping jaws clamping unit material | Brass |
| Clamping unit piston material | POM |
| Piston end-position locking material | Steel, hardened |
| Material piston | Wrought Aluminium alloy |
| Material piston rod | high-alloy stainless steel, hard chrome plated High alloy steel High alloy steel, non-corrosive |
| Material piston rod wiper seal | FPM HNBR PE TPE-U(PU) |

| Feature | Value |
|--------------------------|---|
| Buffer seal material | FPM TPE-U(PU) |
| Cushion piston material | Aluminium POM |
| Material cylinder barrel | Smooth-anodised wrought aluminium alloy |
| Material nut | steel, galvanized |
| Rod wiper seal material | Brass PTFE reinforced |
| Material bearing | Bronze Metal polymer compound POM |
| Material of flange screw | steel, galvanized |
| Material bellows | NBR PA |