

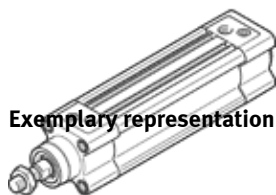
Standards-based cylinder

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	M16x1,5 M10
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
Working pressure	0.1 ... 12 bar
Mode of operation	double-acting
CE symbol (see declaration of conformity)	according to EU-Ex protection guideline (ATEX)
UKCA marking (see declaration of conformity)	To UK EX instructions
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
Explosion protection certification outside the EU	EPL Db (GB) EPL Gb (GB)
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
PWIS conformity	VDMA24364-B1/B2-L VDMA24364 zone III
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
Additional weight per piston rod extension of 10 mm	25 g
Additional weight per piston rod thread extension of 10 mm	14 g
Mounting type	with internal (female) thread with accessories Optional
Pneumatic connection	G1/4
Materials note	Conforms to RoHS
Material cover	Coated die-cast aluminium
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 Aluminum 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

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