

ISO cylinder DSBC-...-50- -

Part number: 1463770

FESTO



General operating condition

Data sheet

Overall data sheet – Individual values depend upon your configuration.

Feature	Value
Stroke	1 mm ... 2800 mm
Piston diameter	50 mm
Piston rod thread	M16x1.5 M10
Torsional backlash at piston rod +/-	-0.45 deg ... 0.45 deg
Based on standard	ISO 15552
Cushioning	Elastic cushioning rings/plates at both ends Self-adjusting pneumatic end-position cushioning Pneumatic cushioning, adjustable at both ends
Mounting position	Any
Conforms to standard	ISO 15552
Piston-rod end	Male thread Female thread
Design	Piston Piston rod Profile barrel
Position detection	Via proximity switch
Symbol	00991217 00991218 00991235 00991237 00991257 00991258 00991907 00991910 00992970 00992971
Variants	Advancing stroke adjustment Weld spatter protection Extended male piston rod thread Piston rod with external hexagon Low friction for balancer applications Metal scraper Module for reaching a specific end position in case of a pressure failure Reinforced piston rod Uniform, slow movement Low friction Through, hollow piston rod Sensor slots on 3 profile sides Additional PTFE piston guide

Feature	Value
Mode of operation clamping unit	retracting advancing static Released through compressed air Frictional clamping with spring force
Static holding force of clamping unit	1400 N
Axial backlash of clamping unit	0.8 mm
Clamping unit release pressure	0.3 MPa
Clamping unit release pressure	3 bar
Mode of operation end-position locking	Positive interlocking with stop cylinder Released through compressed air
Static holding force of end-position locking	2000 N
Axial backlash end-position locking	1.3 mm
Unlocking pressure	≥0.15 MPa
Unlocking pressure	≥1.5 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 mark (see declaration of conformity)	To EU Explosion Protection Directive (ATEX)
UKCA marking (see declaration of conformity)	To UK EX instructions
Explosion 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 dust	II 2D
Explosion ignition protection type for gas	Ex h IIC T4 Gb
Explosion ignition protection type for dust	Ex h IIIC T120°C Db
Explosion ambient temperature	-20°C ≤ Ta ≤ +60°C
Explosion protection certification outside the EU	EPL Db (GB) EPL Gb (GB)
Operating medium	Compressed air to ISO 8573-1:2010 [7:4:4]
Note on operating and pilot medium	Lubricated operation possible (in which case lubricated operation will always be required)
Corrosion resistance class CRC	2 - Moderate corrosion stress 3 - high corrosion stress
LABS (PWIS) conformity	VDMA24364-B1/B2-L VDMA24364 zone III
Ambient temperature	-40 °C ... 150 °C
Impact energy in end positions	0.3 J ... 1 J
Cushioning length	0 mm ... 22 mm
Max. torque for protection against torsion	1,5 Nm
Theoretical force at 0.6 MPa (6 bar, 87 psi), return stroke	990 N
Theoretical force at 0.6 MPa (6 bar, 87 psi), advance stroke	990 N ... 1178 N
Additional weight per piston rod extension of 10 mm	25 g
Additional weight per piston rod thread extension of 10 mm	14 g
Type of mounting	With female thread With accessories
Pneumatic connection	G1/4
Note on materials	RoHS compliant
Material cover	Coated die-cast aluminium
Material spring	Spring steel High-alloy stainless steel

Feature	Value
Clamping unit housing material	Anodised wrought aluminium alloy
Material housing end-position locking	Anodised wrought aluminium alloy
Material piston seal	Fluoro rubber HNBR TPE-U(PU)
Material clamping jaws clamping unit	Brass
Piston clamping unit material	POM
Material piston end-position locking	Hardened steel
Material piston	Wrought aluminium alloy
Material piston rod	High-alloy stainless steel, hard chrome-plated High-alloy steel High-alloy stainless steel
Material piston rod wiper	Fluoro rubber HNBR Packaging unit TPE-U(PU)
Buffer seal material	Fluoro rubber TPE-U(PU)
Material of cushioning boss	Aluminium POM
Material cylinder barrel	Smooth-anodised wrought aluminium alloy
Material nut	Galvanised steel
Material rod wiper	Brass PTFE-reinforced TPE-E
Material bearing	Bronze Metal polymer compound POM
Material collar screws	Galvanised steel
Material bellows	NBR Process automation