

# ISO cylinder DSBC-...-50- -

Part number: 1463770



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
Max. angle of rotation of the piston rod +/-	-0.45 deg ... 0.45 deg
Based on norm	ISO 15552
Cushioning	Elastic cushioning rings/pads 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	External thread Internal thread
Structural design	Piston Piston rod Profile barrel
Position sensing	Via proximity switch
Symbol	00991217 00991218 00991235 00991237 00991257 00991258 00991907 00991910 00992970 00992971
Variants	Stroke adjustment advancing Weld spatter protection Extended external thread piston rod 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
Method of operation clamping unit	Retracting Advancing Static Release through compressed air Frictional clamping via spring force
Static holding force of clamping unit	1400 N
Axial backlash clamping unit	0.8 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 Release 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 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) 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 3 - High corrosion stress
LABS (PWIS) conformity	VDMA24364-B1/B2-L VDMA24364 Zone III
Ambient temperature	-40 °C ... 150 °C
Impact energy in the end positions	0.3 J ... 1 J
Cushioning length	0 mm ... 22 mm
Max. torque for protection against rotation	1.5 Nm
Theoretical force at 6 bar, retracting	990 N
Theoretical force at 6 bar, advancing	990 N ... 1178 N
Weight surcharge per 10 mm piston rod extension	25 g
Weight surcharge per 10 mm piston rod thread extension	14 g
Type of mounting	With internal thread With accessories
Pneumatic connection	G1/4
Note on materials	RoHS compliant
Cover material	Die-cast aluminum, coated
Material of spring	Spring steel high-alloy stainless steel
Clamping unit housing material	Wrought aluminum alloy, anodized

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