

ISO cylinder DSBG-...-50-

Part number: 1646707

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 Tie rod 1 Cylinder barrel
Position detection	Via proximity switch
Symbol	00991217 00991218 00991235 00991237 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 Additional PTFE piston guide
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

Feature	Value
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	0.8 J ... 1 J
Cushioning length	22 mm
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 piston seal	Fluoro rubber HNBR TPE-U(PU)
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	Wrought aluminium alloy POM
Material cylinder barrel	Smooth-anodised wrought aluminium alloy
Material nut	Galvanised steel High-alloy stainless steel
Material rod wiper	Brass PTFE-reinforced
Material bearing	Bronze Metal polymer compound POM
Material collar nut	Galvanised steel
Material tie rod	High-alloy steel High-alloy stainless steel
Material swivel mounting	Cast stainless steel

Feature	Value
Material bellows	NBR Process automation