

Compact cylinder ADN-50- -

Part number: 536309



 General operating condition

Data sheet

Overall data sheet – Individual values depend upon your configuration.

Feature	Value
Stroke	1 mm ... 400 mm
Piston diameter	50 mm
Cushioning	Elastic cushioning rings/plates at both ends Self-adjusting pneumatic end-position cushioning
Mounting position	optional
Conforms to standard	ISO 21287
Design	Piston Piston rod Profile barrel
Position detection	Via proximity switch
Variants	EX protection approval (ATEX) Metals with copper, zinc or nickel by mass as main constituent are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils. Improved running performance Extended male piston rod thread Custom thread on the piston rod Extended piston rod With protection against rotation High corrosion protection Dust protection Uniform, slow movement Low friction Through piston rod Through, hollow piston rod Heat-resistant seals max. 120°C Laser etched rating plate Temperature range -40 to 80°C Piston rod at one end
Operating pressure	0.06 MPa ... 1 MPa
Operating pressure	0.6 bar ... 10 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 certification outside the EU	EPL Db (GB) EPL Gb (GB)
Explosion protection	Zone 1 (ATEX) Zone 1 (UKEX) Zone 2 (ATEX) Zone 21 (ATEX) Zone 21 (UKEX) Zone 22 (ATEX)

Feature	Value
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
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	0 - No corrosion stress 2 - Moderate corrosion stress 3 - high corrosion stress
LABS (PWIS) conformity	VDMA24364-B1/B2-L VDMA24364 zone III
Suitability for the production of Li-ion batteries	Suitable for battery production according to the Festo internal definition of the degree of severity F1A with restrictions regarding the use of Cu/Zn/Ni
Ambient temperature	-40 °C ... 120 °C
Theoretical force at 0.6 MPa (6 bar, 87 psi), return stroke	1057 N
Theoretical force at 0.6 MPa (6 bar, 87 psi), advance stroke	1057 N ... 1178 N
Additional weight per piston rod extension of 10 mm	16 g
Additional weight per piston rod thread extension of 10 mm	9 g
Type of mounting	Either: With through-hole Via female thread With accessories
Pneumatic connection	G1/8
Note on materials	RoHS-compliant
Material collar screws	Steel
Material cover	Anodised wrought aluminium alloy
Material piston rod	High-alloy steel
Material cylinder barrel	Smooth-anodised wrought aluminium alloy