



Data sheet

Piston rod thread M6 M10x1.25 Torsional backlash at piston rod +/- Based on standard ISO 15552 Cushioning Elastic cushioning rings/plates at both ends Self-adjusting pneumatic end-position cushioning pneumatic pendurous position Optional Conforms to standard ISO 15552 Piston-rod end Piston-rod end Piston piston rod Tie rod Cylinder barrel Position detection Via proximity switch Variants For unfubricated operation Bellows on bearing cap Hard scraper Extended male piston rod Low friction for balancer applications Metal scraper With protection against rotation Uniform, slow movement Low friction Through piston rod Heat-resistant seals max. 120°C Sintered bearing Temperature range 40 to 80°C Piston end Operating pressure Operating pressure Operating pressure	Feature	Value
Piston rod thread M6 M10x1.25 Torsional backlash at piston rod +/- 0.65 deg0.65 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 Optional Conforms to standard ISO 15552 Piston-rod end Piston Piston rod Female thread Design Piston Piston rod Tie rod Cylinder barrel Via proximity switch Position detection Variants Por unlubricated operation Bellows on bearing cap Hard scraper Extended male piston rod thread Piston rod with female thread Extended piston rod Low friction for balancer applications Metal scraper With protection against rotation Uniform, slow movement Low friction Uniform, slow movement Low friction Through piston rod Heat-resistant seals max. 120°C Sintered bearing Temperature range 0 to 150°C Temperature range 40 to 80°C Piston rod at one end O,1 MPa1.2 MPa O,1 bar12 bar	Stroke	1 mm2800 mm
M10x1.25 Torsional backlash at piston rod +/- Design Design Position detection Variants For unlubricated operation Bellows on bearing cap Hard scraper Extended male piston rod thread Extended piston rod th	Piston diameter	32 mm
Based on standard Cushioning Elastic cushioning rings/plates at both ends Self-adjusting pneumatic end-position cushioning Pneumatic cushioning, adjustable at both ends Mounting position Optional Conforms to standard ISO 15552 Piston-rod end Male thread Female thread Design Piston of Tie rod (Vinder barrel Position detection Variants For unlubricated operation Bellows on bearing cap Hard scraper Extended male piston rod thread Piston rod with female thread Extended male piston rod with female thread Extended piston rod Low friction for balancer applications Metal scraper With protection against rotation Uniform, slow movement Low friction Through piston rod Heat-resistant seals max. 120°C Sintered bearing Temperature range 0 to 150°C Temperature range 40 to 80°C Piston rod at end Operating pressure Operating pressure Operating pressure	Piston rod thread	
Elastic cushioning self-adjusting pneumatic end-position cushioning pneumatic oushioning pneumatic end-position cushioning pneumatic send-position cushioning pneumatic send-position cushioning pneumatic send-position cushioning adjustable at both ends Mounting position optional standard ISO 15552 Piston-rod end Male thread Female thread Design Piston Piston rod Tie rod Cylinder barrel Position detection Via proximity switch Variants For unlubricated operation Bellows on bearing cap Hard scraper Extended male piston rod thread Piston rod with female thread Extended Piston rod with female Piston rod with	Torsional backlash at piston rod +/-	-0.65 deg0.65 deg
Self-adjusting pneumatic end-position cushioning Pneumatic cushioning, adjustable at both ends Mounting position Optional Conforms to standard ISO 15552 Piston-rod end Male thread Female thread Design Piston rod Tie rod Cylinder barrel Position detection Variants Por unlubricated operation Bellows on bearing cap Hard scraper Extended male piston rod thread Piston rod Extended male piston rod thread Piston rod with female thread Extended male piston rod Low friction for balancer applications Metal scraper With protection against rotation Uniform, slow movement Low friction Through piston rod Heat-resistant seals max. 120°C Sintered bearing Temperature range 0 to 150°C Temperature range -40 to 80°C Piston rod at one end Operating pressure Operating pressure	Based on standard	ISO 15552
Conforms to standard Piston-rod end Male thread Female thread Design Piston Piston rod Tie rod Cylinder barrel Position detection Variants Por unlubricated operation Bellows on bearing cap Hard scraper Extended male piston rod thread Piston rod with female thread Extended piston rod Low friction for balancer applications Metal scraper With protection against rotation Uniform, slow movement Low friction Through piston rod Heat-resistant seals max. 120°C Sintered bearing Temperature range 0 to 150°C Temperature range -40 to 80°C Piston rod at one Operating pressure Operating pressure Ison 1552 Male thread Female thread Female thread Extended piston rod Low friction for balancer applications Metal scraper With protection against rotation Uniform, slow movement Low friction Through piston rod Heat-resistant seals max. 120°C Sintered bearing Temperature range 0 to 150°C Temperature range -40 to 80°C Piston rod at one end Operating pressure	Cushioning	Self-adjusting pneumatic end-position cushioning
Piston-rod end Male thread Female thread Design Piston Piston rod Tie rod Cylinder barrel Position detection Via proximity switch Variants For unlubricated operation Bellows on bearing cap Hard scraper Extended male piston rod thread Piston rod with female thread Extended piston rod Low friction for balancer applications Metal scraper With protection against rotation Uniform, slow movement Low friction Through piston rod Heat-resistant seals max. 120°C Sintered bearing Temperature range 0 to 150°C Temperature range -40 to 80°C Piston rod at one end Operating pressure On MPa1.2 MPa On Market On Ma	Mounting position	optional
Pesign Piston Piston rod Tie rod Cylinder barrel Position detection Via proximity switch Variants For unlubricated operation Bellows on bearing cap Hard scraper Extended male piston rod thread Piston rod with female thread Extended piston rod Low friction for balancer applications Metal scraper With protection against rotation Uniform, slow movement Low friction Through piston rod Heat-resistant seals max. 120°C Sintered bearing Temperature range 0 to 150°C Temperature range 1 to 150°C Temperature range -40 to 80°C Piston rod at one end Operating pressure Operating pressure One MPa12 MPa O.1 bar12 bar	Conforms to standard	ISO 15552
Piston rod Tie rod Cylinder barrel Position detection Via proximity switch Variants For unlubricated operation Bellows on bearing cap Hard scraper Extended male piston rod thread Piston rod with female thread Extended piston rod Low friction for balancer applications Metal scraper With protection against rotation Uniform, slow movement Low friction Through piston rod Heat-resistant seals max. 120°C Sintered bearing Temperature range 0 to 150°C Temperature range -40 to 80°C Piston rod at one end Operating pressure 0.01 MPa1.2 MPa 0.1 bar12 bar	Piston-rod end	· · · · · · · · · · · · · · · · · · ·
Variants For unlubricated operation Bellows on bearing cap Hard scraper Extended male piston rod thread Piston rod with female thread Extended piston for balancer applications Metal scraper With protection against rotation Uniform, slow movement Low friction Through piston rod Heat-resistant seals max. 120°C Sintered bearing Temperature range 0 to 150°C Temperature range -40 to 80°C Piston rod at one end Operating pressure On MPa1.2 MPa On Mar1.2 bar	Design	Piston rod Tie rod
Bellows on bearing cap Hard scraper Extended male piston rod thread Piston rod with female thread Extended piston rod Low friction for balancer applications Metal scraper With protection against rotation Uniform, slow movement Low friction Through piston rod Heat-resistant seals max. 120°C Sintered bearing Temperature range 0 to 150°C Temperature range -40 to 80°C Piston rod at one end Operating pressure On 1 MPa1.2 MPa On 1 bar12 bar	Position detection	Via proximity switch
0.1 bar12 bar	Variants	Bellows on bearing cap Hard scraper Extended male piston rod thread Piston rod with female thread Extended piston rod Low friction for balancer applications Metal scraper With protection against rotation Uniform, slow movement Low friction Through piston rod Heat-resistant seals max. 120°C Sintered bearing Temperature range 0 to 150°C Temperature range -40 to 80°C
Mode of operation Double-acting	Operating pressure	
	Mode of operation	Double-acting

Feature	Value
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)
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 °C150 °C
Impact energy in end positions	0.4 J
Cushioning length	20 mm
Theoretical force at 0.6 MPa (6 bar, 87 psi), return stroke	415 N
Theoretical force at 0.6 MPa (6 bar, 87 psi), advance stroke	415 N483 N
Additional weight per piston rod extension of 10 mm	9 g
Additional weight per piston rod thread extension of 10 mm	6 g
Type of mounting	Via female thread With accessories Either:
Pneumatic connection	G1/8
Note on materials	RoHS-compliant
Material cover	Die-cast aluminium, coated
Material piston seal	FPM 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	FPM HNBR PE TPE-U(PU)
Buffer seal material	FPM TPE-U(PU)
Cushioning boss material	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	Stainless-steel casting