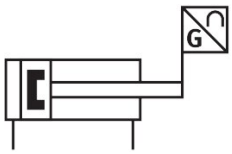
Linear drive
DFPI-320- -

Part number: 5106115



General operating condition

Data sheet

Overall data sheet – Individual values depend upon your configuration.

Feature	Value
Size of valve actuator	320
Stroke	40 mm ... 990 mm
Piston diameter	320 mm
Based on standard	ISO 15552
Cushioning	No cushioning
Mounting position	Any
Mode of operation	Double-acting
Design	Piston Piston rod Tie rod 1 Cylinder barrel
Position detection	Via integrated displacement encoder
Symbol	00992807
Functional principle of measuring system	Potentiometer
Reverse polarity protection	Yes
Operating pressure	0.3 MPa ... 0.8 MPa
Operating pressure	3 bar ... 8 bar
Operating pressure	43.5 psi ... 116 psi
Nominal operating pressure	0.6 MPa
Nominal operating pressure	6 bar
Analogue output	4 - 20 mA
Operational voltage range DC	9 V ... 30 V
Recommended wiper current	‹0.1 µA
Max. wiper current, short-time	10000 µA
Power supply	2-wire
Approval	RCM
KC mark	KC-EMV
CE mark (see declaration of conformity)	To EU EMC Directive To EU Explosion Protection Directive (ATEX) In accordance with EU RoHS Directive
UKCA marking (see declaration of conformity)	To UK RoHS instructions
Explosion protection	Zone 1 (ATEX) Zone 2 (ATEX) Zone 21 (ATEX) Zone 22 (ATEX)
ATEX category gas	II 2G

Feature	Value
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)
Continuous shock resistance to DIN/IEC 68 Part 2-82	Tested to severity level 2
LABS (PWIS) conformity	VDMA24364 zone III
Storage temperature	-20 °C ... 80 °C
Relative air humidity	5 - 100% Condensing Non-condensing
Degree of protection	IP65 IP67 IP69K NEMA 4
Vibration resistance to DIN/IEC 68 Part 2-6	Tested to severity level 2
Ambient temperature	-20 °C ... 80 °C
Impact energy in end positions	2.4 J
Theoretical force at 0.6 MPa (6 bar, 87 psi), return stroke	46385 N
Theoretical force at 0.6 MPa (6 bar, 87 psi), advance stroke	48255 N
Air consumption on return stroke per 10 mm	5.412 l
Air consumption on advance stroke per 10 mm	5.63 l
Moving mass for 0 mm stroke	16500 g
Additional moving mass per 10 mm stroke	227 g
Basic weight for 0 mm stroke	57700 g ... 59400 g
Additional weight per 10 mm stroke	582 g
Hysteresis	0.4 mm
Non-dependent linearity	±0.05 %
Repetition accuracy in ± %FS	1 %FS
Repetition accuracy in ± mm	0.7 mm
Electrical connection	Cable connector M16x1.5 M12x1 Straight plug connector/screw terminal Straight plug With specific accessories
Pneumatic connection	G3/8 G1/2 For tubing O.D. 8 mm With specific accessories
Note on materials	RoHS compliant
Material end cap	Coated wrought aluminium alloy
Material underneath cover	Die-cast aluminium, coated
Material electrical connection	Brass, nickel-plated High-alloy stainless steel
Material piston rod	High-alloy stainless steel
Material piston rod wiper	NBR
Pipe material	High-alloy stainless steel
Material tubing	Packaging unit
Material screws	Coated steel High-alloy stainless steel
Material static seals	NBR
Material fitting	Brass, nickel-plated High-alloy stainless steel
Material tie rod	High-alloy stainless steel
Material cylinder barrel	Smooth-anodised wrought aluminium alloy