

Linear drive DFPI-320- -

Part number: 5106115

FESTO



Data sheet

| 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 | optional |
| Mode of operation | Double-acting |
| Design | Piston Piston rod Tie rod Cylinder barrel |
| Position detection | With integrated displacement encoder |
| Functional principle of measuring system | Potentiometer |
| Reverse polarity protection | yes |
| Operating pressure | 0.3 MPa...0.8 MPa 3 bar...8 bar 43.5 psi...116 psi |
| Nominal operating pressure | 0.6 MPa 6 bar |
| Analogue output | 4 - 20 mA |
| Operational voltage range DC | 9 V...30 V |
| Recommended wiper current | 0.1 μ A |
| Max. wiper current, short-time | 10 mA |
| Power supply | 2-wire |
| Approval | RCM trademark |
| 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 instructions for EMC To UK EX instructions To UK RoHS instructions |

| Feature | Value |
|--|---|
| Explosion protection | Zone 1 (ATEX) Zone 2 (ATEX) Zone 21 (ATEX) 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 T1 20°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 | 2-pin 3-pin 4-pin 5-pin A-coded 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 | Nickel-plated brass High-alloy stainless steel |
| Material piston rod | High-alloy stainless steel |
| Material piston rod wiper | NBR |
| Pipe material | High-alloy stainless steel |

| Feature | Value |
|--------------------------|---|
| Material tubing | PE |
| Material screws | Coated steel High-alloy stainless steel |
| Material static seals | NBR |
| Material fitting | Nickel-plated brass High-alloy stainless steel |
| Material tie rod | High-alloy stainless steel |
| Material cylinder barrel | Smooth-anodised wrought aluminium alloy |