

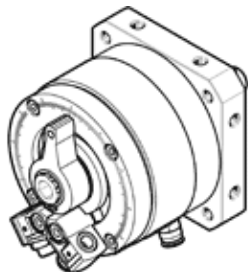
Semi-rotary actuator

DSMI-25-270-A-B

Part number: 561690

FESTO

with integrated displacement encoder. Optional endposition sensing via proximity sensors type SME/SMT-10F-...-KL.



Data sheet

| Feature | Value |
|--|---|
| Rotation angle adjustment range | 0 ... 270 deg |
| Stroke shortening in the end-positions | 5° |
| Smallest positioning stroke | 5° for positioning 15° with Soft Stop |
| Piston diameter | 25 mm |
| Swivel angle | 0 ... 272 deg |
| Cushioning | P: Flexible cushioning rings/plates at both ends |
| Mounting position, positioning | Any |
| Mounting position, soft stop | Horizontal |
| Measuring method: displacement encoder | Analog |
| Design structure | Drive shaft with ball bearing Rotary vane |
| Position detection | For proximity sensor With integrated angular displacement encoder |
| Operating pressure MPa | 0.2 ... 1 MPa |
| Working pressure, positioning / soft stop | 4 ... 8 bar |
| Max. swivel frequency at 0.6 MPa (6 bar, 87 psi) | 2 Hz |
| Max. travel speed | 2,000 deg/s |
| Min. travel speed | 50 deg/s |
| Typical short stroke positioning time, horizontal | 0,15/0,25 s |
| Typical long stroke positioning time, horizontal | 0,35/0,60 s |
| Connection resistance | 5 kOhm |
| Recommended wiper current | < 1 µA |
| Mode of operation | double-acting |
| Max. operating voltage, DC | 42 V |
| Max. intermittent wiper current | 10 mA |
| Max. current consumption | 4 mA |
| Nominal operating voltage DC | 10 V |
| Connection resistance tolerance | 20 % |
| Permissible voltage fluctuation | < 1 % |
| CE symbol (see declaration of conformity) | according to EU-EMV guideline in accordance with EU RoHS directive |
| UKCA marking (see declaration of conformity) | To UK instructions for EMC To UK RoHS instructions |
| Operating medium | Compressed air in accordance with ISO8573-1:2010 [6:4:4] |
| Note on operating and pilot medium | Lubricated operation not possible |
| Continuous shock resistance per DIN/IEC 68, parts 2 - 82 | Tested in accordance with severity level 2 |
| Corrosion resistance classification CRC | 0 - No corrosion stress |
| PWIS conformity | VDMA24364-B2-L |
| Protection class | IP65 to IEC 60529 |
| Vibration resistance per DIN/IEC 68, parts 2 - 6 | Tested in accordance with severity level 2 |
| Ambient temperature | -10 ... 60 °C |

| Feature | Value |
|--|------------------------------------|
| Impact energy in end positions | 0.05 Nm |
| Max. axial force | 50 N |
| Max. mass moment of inertia, horizontal | 0.03 kgm ² |
| Max. mass moment of inertia, vertical | 0.03 kgm ² |
| Max. radial force | 120 N |
| Min. mass moment of inertia, horizontal | 0.0015 kgm ² |
| Min. mass moment of inertia, vertical | 0.0015 kgm ² |
| Theoretical torque at 0.6 MPa (6 bar, 87 psi) | 5 Nm |
| Product weight | 1,080 g |
| Angle resolution | ≤ 0.1 deg |
| Output signal | Analog |
| Independent linearity | 0,0025 |
| Repetition accuracy, positioning | +/- 0,3 deg |
| Repetition accuracy, soft stop end-position | < 0,2 deg |
| Repetition accuracy, soft stop intermediate position | +/- 2 deg |
| Electrical connection, displacement encoder | 4-pin |
| Cable length | 30 m |
| Mounting type | with internal (female) thread |
| Pneumatic connection | M5 |
| Material of measuring system housing | Wrought Aluminum alloy Anodized |
| Material stop lever | Wrought Aluminum alloy Anodized |
| Material of drive shaft | Steel, nickel-plated |
| Material fixed stop | Steel |
| Material housing | Wrought Aluminum alloy Anodized |
| Material measuring system coupling | TPE-U(PU) |
| Material woodruff key | Steel |
| Material swivel vane | PET-reinforced |
| Material connector housing | PA-reinforced |
| Material cylinder barrel | Wrought Aluminum alloy |