

Electric cylinder ESBF-LS-50-400-4P

Part number: 8022604

FESTO



 General operating condition

Data sheet

| Feature | Value |
|--|---|
| Working stroke | 400 mm |
| Size | 50 |
| Stroke | 400 mm |
| Piston rod thread | M16x1.5 |
| Reversing backlash theoretical | 100 µm |
| Spindle diameter | 20 mm |
| Spindle pitch | 4 mm/U |
| Torsional backlash at piston rod +/- | 0.15 deg |
| Based on standard | ISO 15552 |
| Mounting position | Any |
| Piston-rod end | Male thread |
| Type of motor | Stepper motor Servo motor |
| Position detection | Via proximity switch |
| Design | Electric cylinder with lead screw spindle |
| Spindle type | Lead screw |
| Symbol | 00991941 |
| Protection against torque/guide | With plain-bearing guide |
| Max. acceleration | 2.5 m/s ² |
| Max. rotational speed | 750 rpm |
| Max. speed | 0.2 m/s |
| Repetition accuracy | ±0.05 mm |
| Duty cycle | 100% |
| Corrosion resistance class CRC | 2 - Moderate corrosion stress |
| LABS (PWIS) conformity | VDMA24364 zone III |
| Storage temperature | -20 °C ... 60 °C |
| Suitable for use with food | See supplementary material information |
| Relative air humidity | 0 - 95% |
| Degree of protection | IP40 |
| Ambient temperature | 0 °C ... 50 °C |
| Max. drive torque | 4.8 Nm |
| Max. radial force at drive shaft | 300 N |
| Max. feed force Fx | 1600 N |
| Frictional torque independent of load | 0.3 Nm |
| Reference value effective load, horizontal | 160 kg |
| Reference value effective load, vertical | 160 kg |

| Feature | Value |
|--|--|
| Mass moment of inertia JH per metre of stroke | 1.2382 kgcm ² |
| Mass moment of inertia JL per kg of working load | 0.004 kgcm ² |
| Mass moment of inertia JO | 0.1407 kgcm ² |
| Moving mass for 0 mm stroke | 532 g |
| Additional moving mass per 10 mm stroke | 13 g |
| Basic weight for 0 mm stroke | 1716 g |
| Additional weight per 10 mm stroke | 67 g |
| Type of mounting | With female thread Or accessories |
| Interface code, actuator | D50 |
| Note on materials | RoHS compliant |
| Material cover | Wrought aluminium alloy, smooth anodised |
| Material piston rod | High-alloy stainless steel |
| Material screws | Galvanised steel |
| Material ball screw nut | Bearing steel |
| Material spindle | Bearing steel |
| Material cylinder barrel | Smooth-anodised wrought aluminium alloy |