

Electric cylinder EPRF-BS-55-100-10P-F-M1

Part number: 8211888

FESTO



Data sheet

| Feature | Value |
|--|--|
| Size | 55 |
| Stroke | 100 mm |
| Stroke reserve | 0 mm |
| Piston rod thread | M8 |
| Reversing backlash | 100 µm |
| Screw diameter | 16 mm |
| Spindle pitch | 10 mm/U |
| Max. angle of rotation of the piston rod +/- | 0.7 deg |
| Mounting position | Any |
| Piston rod end | Internal thread |
| Motor type | Servo motor |
| Position sensing | None |
| Structural design | Electric cylinder with ball screw |
| Spindle type | Ball screw drive |
| Protection against torsion/guide | With plain-bearing guide |
| Max. actuator speed | 3000 rpm |
| Max. acceleration | 15 m/s ² |
| Max. speed | 500 m/s |
| Max. homing speed | 0.01 m/s |
| Repetition accuracy | ±0.02 mm |
| Duty cycle | 100% |
| Vibration resistance | Transport application test with severity level 1 as per FN 942017-4 and EN 60068-2-6 |
| Shock resistance | Shock test with severity level 1 as per FN 942017-5 and EN 60068-2-27 |
| Corrosion resistance class (CRC) | 4 - Particularly high corrosion stress |
| LABS (PWIS) conformity | VDMA24364 zone III |
| Storage temperature | -20 °C...60 °C |
| Relative air humidity | 0 - 95 % Non-condensing |
| Degree of protection | IP69K |
| Ambient temperature | -10 °C...60 °C |
| Impact energy in the end positions | 72 mJ |

| Feature | Value |
|---|----------------------------|
| Max. driving torque | 5.21 Nm |
| Max. torque Mx | 0 Nm |
| Max. torque My | 18.8 Nm |
| Max. torque Mz | 18.8 Nm |
| Max. radial force on actuator shaft | 175 N |
| Max. feed force Fx | 3000 N |
| No-load driving torque | 0.377 Nm |
| Guide value for payload, horizontal | 300 kg |
| Guide value for payload, vertical | 150 kg |
| Mass moment of inertia JH per meter of stroke | 0.3386 kgcm ² |
| Mass moment of inertia JL per kg of payload | 0.0253 kgcm ² |
| Mass moment of inertia JO | 0.0576 kgcm ² |
| Reference service life | 5000 km |
| Maintenance interval | Life-time lubrication |
| Moving mass at 0 mm stroke | 529 g |
| Additional moving mass per 10 mm stroke | 11.1 g |
| Basic weight with 0 mm stroke | 1988 g |
| Additional weight per 10 mm stroke | 51.4 g |
| Type of mounting | With internal thread |
| Note on materials | RoHS-compliant |
| Cover cap material | High-alloy stainless steel |
| Cover material | High-alloy stainless steel |
| Seals material | TPE-U(PU) |
| Material of dynamic seals | TPE-U(PU) |
| Housing material | High-alloy stainless steel |
| Piston rod material | High-alloy stainless steel |
| Ball screw nut material | Steel |
| Spindle material | Roller bearing steel |
| Material of cylinder barrel | High-alloy stainless steel |