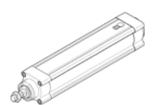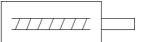# electric cylinder
# ESBF-BS-100-400-20P
Part number: 574121

**FESTO**

With ball screw, electrically actuated spindle that converts the rotary
motion of the motor into linear motion of the piston rod.

# Data sheet

| Feature | Value |
|---|---|
| Size | 100 |
| Stroke | 400 mm |
| Piston rod thread | M20x1,5 |
| Reversing backlash | 30 µm |
| Spindle diameter | 40 mm |
| Spindle pitch | 20 mm/U |
| Max. angular deflection of piston rod +/- | 0.5 deg |
| Based on the standard | ISO 15552 |
| Assembly position | Any |
| Piston-rod end | Male thread |
| Motor type | Servomotor |
| Position detection | For proximity sensor |
| Design structure | Electro-cylinder with ball screw |
| Spindle type | Ball screw spindle |
| Protection against torque/guide | with plain-bearing guide |
| Max. acceleration | 15 m/s2 |
| Max. speed | 0.65 m/s |
| Repetition accuracy | ±0,01 mm |
| Duty cycle | 100 % |
| Corrosion resistance classification CRC | 2 - Moderate corrosion stress |
| PWIS conformity | VDMA24364 zone III |
| Storage temperature | -20 ... 60 °C |
| Food-safe | See Supplementary material information |
| Relative air humidity | 0 - 95 % |
| Protection class | IP40 |
| Ambient temperature | 0 ... 60 °C |
| Max. drive torque | 63.7 Nm |
| Max. radial force at drive shaft | 1,100 N |
| Max. feed force Fx | 17,000 N |
| No-load driving torque | 0.9 Nm |
| Reference value for working load, horizontal | 1,700 kg |
| Reference value for working load, vertical | 1,700 kg |
| Mass moment of inertia JH per metre of stroke | 19.31 kgcm2 |
| Mass moment of inertia JL per kg of working load | 0.10132 kgcm2 |
| Mass moment of inertia, JO | 5.0504 kgcm2 |
| Moving mass with 0 mm stroke | 8,786 g |
| Additional mass factor per 10 mm of stroke | 132 g |
| Basic weight for 0 mm stroke | 11,123 g |
| Additional weight per 10 mm stroke | 193 g |
| Mounting type | with internal (female) thread or accessories |
| Interface code, actuator | D100 |
| Materials note | Conforms to RoHS |

| Feature | Value |
| --- | --- |
| Material cover | Die-cast aluminium, coated |
| Material piston rod | High alloy steel, non-corrosive |
| Material screws | Galvanised steel |
| Material spindle nut | Roller bearing steel |
| Material spindle | Roller bearing steel |
| Material cylinder barrel | Smooth-anodised wrought aluminium alloy |