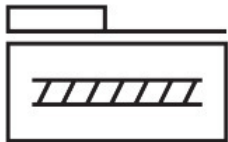


Ball screw axis
ELGT-BS-120-450-10P
Part number: 8124454

FESTO



Data sheet

| Feature | Value |
|--|---|
| Working stroke | 450 mm |
| Size | 120 |
| Stroke reserve | 0 mm |
| Reversing backlash | 150 µm |
| Screw diameter | 16 mm |
| Spindle pitch | 10 mm/U |
| Mounting position | Any |
| Guide | Recirculating ball bearing guide |
| Structural design | Electromechanical linear axis with ball screw |
| Motor type | Stepper motor Servo motor |
| Spindle type | Ball screw |
| Variants | Metals with copper, zinc or nickel by mass as main constituent are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils. |
| Max. acceleration | 15 m/s ² |
| Max. rotational speed | 3000 rpm |
| Max. speed | 0.5 m/s |
| Repetition accuracy | ±0.02 mm |
| Duty cycle | 100% |
| LABS (PWIS) conformity | VDMA24364 zone III |
| Suitability for the production of Li-ion batteries | Product corresponds to Festo's internal product definition for use in battery production:Metals with more than 1% by mass of copper, zinc or nickel are excluded from use.The exceptions are nickel in steel, chemically nickel-plated surfaces, circuit boards, cables, electrical plug connectors and coils |
| Cleanroom class | Class 8 according to ISO 14644-1 |
| Degree of protection | IP20 |
| Ambient temperature | 0 °C...50 °C |
| Continuous feed force | 1265 N |
| 2nd moment of area Iy | 966000 mm ⁴ |
| 2nd moment of area Iz | 6011000 mm ⁴ |

| Feature | Value |
|--|--------------------------------------|
| No-load torque at maximum travel speed | 0.3 Nm |
| No-load torque at minimum travel speed | 0.08 Nm |
| Max. force F _y | 6800 N |
| Max. force F _z | 8090 N |
| F _y with theoretical service life of 100 km (from a guide perspective only) | 25051 N |
| F _z with theoretical service life of 100 km (from a guide perspective only) | 29804 N |
| Max. torque M _x | 300 Nm |
| Max. torque M _y | 310 Nm |
| Max. torque M _z | 310 Nm |
| M _x with theoretical service life of 100 km (from a guide perspective only) | 1105 Nm |
| M _y with theoretical service life of 100 km (from a guide perspective only) | 1142 Nm |
| M _z with theoretical service life of 100 km (from a guide perspective only) | 1142 Nm |
| Max. radial force on actuator shaft | 290 N |
| Max. feed force F _x | 1265 N |
| Torsion moment of inertia I _t | 506000 mm ⁴ |
| Mass moment of inertia J _H per meter of stroke | 0.3453 kgcm ² |
| Mass moment of inertia J _L per kg of payload | 0.0253 kgcm ² |
| Mass moment of inertia J _O | 0.1306 kgcm ² |
| Feed constant | 10 mm/U |
| Moving mass | 2019 g |
| Product weight | 10831 g |
| Basic weight with 0 mm stroke | 5259 g |
| Additional weight per 10 mm stroke | 124 g |
| Dynamic deflection (load moved) | 0.05% of axis length, maximum 0.5 mm |
| Static deflection (load at standstill) | 0.1 % of axis length |
| Interface code, actuator | T46 |
| Material of end caps | Die cast aluminum, painted |
| Profile material | Wrought aluminum alloy, anodized |
| Note on materials | RoHS-compliant |
| Drive cover material | Die cast aluminum, painted |
| Slide carriage material | Steel |
| Guide rail material | Steel |
| Slide material | Wrought aluminum alloy, anodized |
| Spindle nut material | Steel |
| Spindle material | Steel |