

Ball screw axis ELGT-BS-160-450-10P

Part number: 8124516

FESTO



 [General operating condition](#)

Data sheet

| Feature | Value |
|---|--|
| Working stroke | 450 mm |
| Size | 160 |
| Stroke reserve | 0 mm |
| Reversing backlash theoretical | ≤150 μm |
| Spindle diameter | 20 mm |
| Spindle pitch | 10 mm/U |
| Mounting position | Any |
| Guide | Recirculating ball bearing guide |
| Design | Electromechanical linear axis With ball screw |
| Type of motor | Stepper motor Servo motor |
| Spindle type | Ball screw |
| Symbol | 00991211 |
| 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 | Suitable for battery production with reduced Cu/Zn/Ni values (F1a) |
| Cleanroom suitability, measured according to ISO 14644-14 | Class 8 according to ISO 14644-1 |
| Degree of protection | IP20 |
| Ambient temperature | 0 °C ... 50 °C |
| Continuous feed force | 1575 N |
| 2nd moment of area Iy | 1411000 mm ⁴ |
| 2nd moment of area Iz | 1.5257E7 mm ⁴ |
| Idle torque at v _{max} | 0.4 Nm |
| Idle torque at v _{min} | 0.2 Nm |
| Max. force F _y | 9550 N |
| Max. force F _z | 11370 N |
| F _y at theoretical life value of 100 km (only guide consideration) | 35183 N |
| F _z at theoretical life value of 100 km (only guide consideration) | 41887 N |

| Feature | Value |
|---|---------------------------------------|
| Max. moment Mx | 600 Nm |
| Max. moment My | 560 Nm |
| Max. moment Mz | 560 Nm |
| Mx at theoretical life value of 100 km (only guide consideration) | 2210 Nm |
| My at theoretical life value of 100 km (only guide consideration) | 2063 Nm |
| Mz at theoretical life value of 100 km (only guide consideration) | 2063 Nm |
| Max. radial force at drive shaft | 340 N |
| Max. feed force Fx | 1575 N |
| Torsional mass moment of inertia It | 726000 mm ⁴ |
| Mass moment of inertia JH per metre of stroke | 0.809 kgcm ² |
| Mass moment of inertia JL per kg of working load | 0.0253 kgcm ² |
| Mass moment of inertia JO | 0.3175 kgcm ² |
| Feed constant | 10 mm/U |
| Moving mass | 3855 g |
| Product weight | 18004 g |
| Basic weight for 0 mm stroke | 9564 g |
| Additional weight per 10 mm stroke | 188 g |
| Dynamic deflection (moving load) | 0.05% of the axis length, max. 0.5 mm |
| Static deflection (load in standstill) | 0.1% of the axis length |
| Interface code, actuator | T46 |
| Material end cap | Painted die cast aluminium |
| Material profile | Anodised wrought aluminium alloy |
| Note on materials | RoHS compliant |
| Material drive cover | Painted die cast aluminium |
| Material guide slide | Steel |
| Material guide rail | Steel |
| Material slide | Anodised wrought aluminium alloy |
| Material ball screw nut | Steel |
| Material spindle | Steel |