

Ball screw axis ELGT-BS-120-350-20P

Part number: 8124497

FESTO



 General operating condition

Data sheet

| Feature | Value |
|--|--|
| Working stroke | 350 mm |
| Size | 120 |
| Stroke reserve | 0 mm |
| Reversing backlash | ≤150 μm |
| Screw diameter | 15 mm |
| Spindle pitch | 20 mm/U |
| Mounting position | Any |
| Guide | Recirculating ball bearing |
| Structural design | Electromechanical linear axis With ball screw |
| Motor type | 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 | 1 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 | 805 N |
| 2nd moment of area Iy | 966000 mm ⁴ |
| 2nd moment of area Iz | 6011000 mm ⁴ |
| No-load torque at maximum travel speed | 0.3 Nm |
| No-load torque at minimum travel speed | 0.08 Nm |
| Max. force Fy | 6800 N |
| Max. force Fz | 8090 N |
| Fy with theoretical service life of 100 km (from a guide perspective only) | 25051 N |
| Fz with theoretical service life of 100 km (from a guide perspective only) | 29804 N |

| Feature | Value |
|--|--------------------------------------|
| Max. torque Mx | 300 Nm |
| Max. torque My | 310 Nm |
| Max. torque Mz | 310 Nm |
| Mx with theoretical service life of 100 km (from a guide perspective only) | 1105 Nm |
| My with theoretical service life of 100 km (from a guide perspective only) | 1142 Nm |
| Mz 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 Fx | 805 N |
| Torsion moment of inertia It | 506000 mm ⁴ |
| Mass moment of inertia JH per meter of stroke | 0.2522 kgcm ² |
| Mass moment of inertia JL per kg of payload | 0.1013 kgcm ² |
| Mass moment of inertia JO | 0.2654 kgcm ² |
| Feed constant | 20 mm/U |
| Moving mass | 2036 g |
| Product weight | 9502 g |
| Basic weight with 0 mm stroke | 5235 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 |
| Ball screw nut material | Steel |
| Spindle material | Steel |