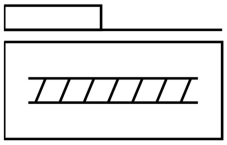
# Ball screw linear actuator ELGT-BS-90-350-20P

Part number: 8124424



## Data sheet

| Feature | Value |
|---|---|
| Working stroke | 350 mm |
| Size | 90 |
| Stroke reserve | 0 mm |
| Reversing backlash | 150 µm |
| Screw diameter | 15 mm |
| Spindle pitch | 20 mm/U |
| Mounting position | Any |
| Guide | Recirculating ball bearing guide |
| Structural design | Electromechanical linear axis<br>with ball screw |
| Motor type | Stepper motor<br>Servo motor |
| Spindle type | Ball screw |
| Variants | Metals with copper, zinc or nickel 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/s² |
| Max. rotational speed | 3000 1/min |
| 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 | Metals with more than 1% copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils |
| Cleanroom class | Class 6 according to ISO 14644-1 |
| Degree of protection | IP20 |
| Ambient temperature | 0 °C...50 °C |
| Continuous feed force | 810 N |
| 2nd moment of area Iy | 631000 mm⁴ |
| 2nd moment of area Iz | 1948000 mm⁴ |
| No-load torque at maximum travel speed | 0.2 Nm |

| Feature | Value |
|---|---|
| No-load torque at minimum travel speed | 0.04 Nm |
| Max. force Fy | 4710 N |
| Max. force Fz | 5600 N |
| Fy with theoretical service life of 100 km (from a guide perspective only) | 17352 N |
| Fz with theoretical service life of 100 km (from a guide perspective only) | 20631 N |
| Max. torque Mx | 65 Nm |
| Max. torque My | 51 Nm |
| Max. torque Mz | 51 Nm |
| Mx with theoretical service life of 100 km (from a guide perspective only) | 239 Nm |
| My with theoretical service life of 100 km (from a guide perspective only) | 188 Nm |
| Mz with theoretical service life of 100 km (from a guide perspective only) | 188 Nm |
| Max. radial force on actuator shaft | 290 N |
| Max. feed force Fx | 810 N |
| Torsion moment of inertia It | 151000 $mm^4$ |
| 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 | 0.2291 $kgcm^2$ |
| Feed constant | 20 mm/U |
| Moving mass | 1645 g |
| Product weight | 7934 g |
| Basic weight with 0 mm stroke | 4353 g |
| Additional weight per 10 mm stroke | 104 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 |