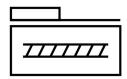
## Ball screw linear actuator ELGT-BS-160-750-10P

Part number: 8124522







General operating condition

## **Data sheet**

| Feature  | Value   |
|--|---|
| Working stroke                                     | 750 mm  |
| Size   | 160   |
| Stroke reserve                                     | 0 mm  |
| Reversing backlash                                 | ≤150 µm   |
| Screw diameter                                     | 20 mm   |
| Spindle pitch                                      | 10 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  |
| 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 <sup>2</sup>   |
| 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 | Metals with more than 1% by mass of 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 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 ly                              | 1411000 mm⁴   |
| 2nd moment of area Iz                              | 1.5257E7 mm⁴  |
| No-load torque at maximum travel speed             | 0.4 Nm  |
| No-load torque at minimum travel speed             | 0.2 Nm  |
| Max. force Fy                                      | 9550 N  |

| Feature  | Value                                |
|--|--------------------------------------|
| Max. force Fz  | 11370 N                              |
| Fy with theoretical service life of 100 km (from a guide perspective only) | 35183 N                              |
| Fz with theoretical service life of 100 km (from a guide perspective only) | 41887 N                              |
| Max. torque Mx   | 600 Nm                               |
| Max. torque My   | 560 Nm                               |
| Max. torque Mz   | 560 Nm                               |
| Mx with theoretical service life of 100 km (from a guide perspective only) | 2210 Nm                              |
| My with theoretical service life of 100 km (from a guide perspective only) | 2063 Nm                              |
| Mz with theoretical service life of 100 km (from a guide perspective only) | 2063 Nm                              |
| Max. radial force on actuator shaft  | 340 N                                |
| Max. feed force Fx   | 1575 N                               |
| Torsion moment of inertia It   | 726000 mm⁴                           |
| Mass moment of inertia JH per meter of stroke                              | 0.809 kgcm²                          |
| Mass moment of inertia JL per kg of payload                                | 0.0253 kgcm <sup>2</sup>             |
| Mass moment of inertia JO  | 0.3175 kgcm <sup>2</sup>             |
| Feed constant  | 10 mm/U                              |
| Moving mass  | 3855 g                               |
| Product weight   | 23630 g                              |
| Basic weight with 0 mm stroke  | 9564 g                               |
| Additional weight per 10 mm stroke   | 188 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                                |