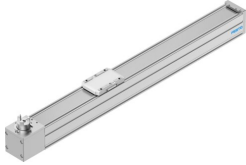


# Belt driven linear actuator ELGC-TB-KF-60-500

Part number: 8062778

FESTO



 [General operating condition](#)

## Data sheet

| Feature  | Value  |
|--|--|
| Drive pinion effective diameter  | 24.83 mm   |
| Working stroke   | 500 mm   |
| Size   | 60   |
| Stroke reserve   | 0 mm   |
| Toothed belt pitch   | 3 mm   |
| Mounting position  | Any  |
| Guide  | Recirculating ball bearing guide                                   |
| Structural design  | with toothed belt  |
| Motor type   | Stepper motor<br>Servo motor                                       |
| Symbol   | 00991212   |
| Position sensing   | For proximity sensor<br>For inductive proximity sensors            |
| Max. acceleration  | 15 m/s <sup>2</sup>  |
| Max. speed   | 1.5 m/s  |
| Repetition accuracy  | ±0.1 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 7 according to ISO 14644-1                                   |
| Storage temperature  | -20 °C ... 60 °C   |
| Degree of protection   | IP40   |
| Ambient temperature  | 0 °C ... 50 °C   |
| Impact energy in the end positions   | 2.5E-4 J   |
| Note on the impact energy in the end positions                             | At maximum speed of the reference run of 0.01 m/s                  |
| 2nd moment of area Iy  | 441000 mm <sup>4</sup>   |
| 2nd moment of area Iz  | 542000 mm <sup>4</sup>   |
| Max. driving torque  | 1.49 Nm  |
| Max. force Fy  | 3641 N   |
| Max. force Fz  | 3641 N   |
| Max. force Fy total axis   | 600 N  |
| Max. force Fz total axis   | 1800 N   |
| Fy with theoretical service life of 100 km (from a guide perspective only) | 13400 N  |
| Fz with theoretical service life of 100 km (from a guide perspective only) | 13400 N  |
| Max. no-load resistance to shifting  | 15.6 N   |
| Max. torque Mx   | 29.1 Nm  |

| Feature  | Value   |
|--|---|
| Max. torque My   | 31.8 Nm   |
| Max. torque Mz   | 31.8 Nm   |
| Max. moment Mx total axis  | 29.1 Nm   |
| Max. moment My total axis  | 31.8 Nm   |
| Max. moment Mz total axis  | 31.8 Nm   |
| Mx with theoretical service life of 100 km (from a guide perspective only) | 107 Nm  |
| My with theoretical service life of 100 km (from a guide perspective only) | 117 Nm  |
| Mz with theoretical service life of 100 km (from a guide perspective only) | 117 Nm  |
| Distance between slide surface and guide center                            | 54.6 mm   |
| Max. feed force Fx   | 120 N   |
| No-load driving torque   | 0.194 Nm  |
| Torsion moment of inertia It   | 29800 mm <sup>4</sup>   |
| Mass moment of inertia JH per meter of stroke                              | 0.0851 kgcm <sup>2</sup>  |
| Mass moment of inertia JL per kg of payload                                | 1.5411 kgcm <sup>2</sup>  |
| Mass moment of inertia JO  | 0.8804 kgcm <sup>2</sup>  |
| Feed constant  | 78 mm/U   |
| Reference service life   | 5000 km   |
| Maintenance interval   | Life-time lubrication   |
| Moving mass  | 482 g   |
| Slide weight   | 139 g   |
| Product weight   | 3901 g  |
| Basic weight with 0 mm stroke  | 1775 g  |
| Additional weight per 10 mm stroke   | 43 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   | T42   |
| Material of end caps   | Die cast aluminum, painted  |
| Profile material   | Wrought aluminum alloy, anodized  |
| Note on materials  | RoHS-compliant  |
| Cover strip material   | Stainless steel strip   |
| Drive cover material   | Die cast aluminum, painted  |
| Slide carriage material  | Steel   |
| Guide rail material  | Steel   |
| Belt pulley material   | High-alloy stainless steel  |
| Slide material   | Die-cast aluminum   |
| Toothed belt material  | Polychloroprene or nitrile rubber (NBR) with glass cord and nylon coating |