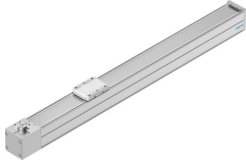


# Belt driven linear actuator ELGC-TB-KF-80-1500

Part number: 8062793

**FESTO**



## Data sheet

| Feature  | Value   |
|--|---|
| Drive pinion effective diameter                    | 33.42 mm  |
| Working stroke                                     | 1500 mm   |
| Size   | 80  |
| Stroke reserve                                     | 0 mm  |
| Toothed belt pitch                                 | 3 mm  |
| Mounting position                                  | Any   |
| Guide  | Recirculating ball bearing guide  |
| Structural design                                  | Electromechanical linear axis with toothed belt   |
| Motor type   | Stepper motor<br>Servo motor  |
| 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 | Product corresponds to Festo's internal product definition for use in battery production: Metals with more than 1% by mass of copper, zinc or nickel are excluded from use. The exceptions are nickel in steel, chemically nickel-plated surfaces, circuit boards, cables, electrical plug connectors and coils |
| Cleanroom class                                    | 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                 | 0.75 mJ   |
| 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                              | 1370000 mm <sup>4</sup>   |
| 2nd moment of area Iz                              | 1660000 mm <sup>4</sup>   |
| Max. driving torque                                | 4.178 Nm  |
| Max. force Fy                                      | 5543 N  |

| Feature  | Value  |
|--|--|
| Max. force Fz  | 5543 N   |
| Max. force Fy total axis   | 900 N  |
| Max. force Fz total axis   | 2700 N   |
| Fy with theoretical service life of 100 km (from a guide perspective only) | 20400 N  |
| Fz with theoretical service life of 100 km (from a guide perspective only) | 20400 N  |
| Max. no-load resistance to shifting  | 24.7 N   |
| Max. torque Mx   | 59.8 Nm  |
| Max. torque My   | 56.2 Nm  |
| Max. torque Mz   | 56.2 Nm  |
| Max. moment Mx total axis  | 59.8 Nm  |
| Max. moment My total axis  | 56.2 Nm  |
| Max. moment Mz total axis  | 56.2 Nm  |
| Mx with theoretical service life of 100 km (from a guide perspective only) | 220 Nm   |
| My with theoretical service life of 100 km (from a guide perspective only) | 207 Nm   |
| Mz with theoretical service life of 100 km (from a guide perspective only) | 207 Nm   |
| Distance between slide surface and guide center                            | 72.5 mm  |
| Max. feed force Fx   | 250 N  |
| No-load driving torque   | 0.413 Nm   |
| Torsion moment of inertia It   | 90500 mm <sup>4</sup>  |
| Mass moment of inertia JH per meter of stroke                              | 0.1927 kgcm <sup>2</sup>   |
| Mass moment of inertia JL per kg of payload                                | 2.793 kgcm <sup>2</sup>  |
| Mass moment of inertia JO  | 2.912 kgcm <sup>2</sup>  |
| Feed constant  | 105 mm/U   |
| Reference service life   | 5000 km  |
| Maintenance interval   | Life-time lubrication  |
| Moving mass  | 901 g  |
| Slide weight   | 272 g  |
| Product weight   | 14426 g  |
| Basic weight with 0 mm stroke  | 3500 g   |
| Additional weight per 10 mm stroke   | 73 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   |
| 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 oder Nitrilkautschuk (NBR) mit Glascord und Nylonüberzug |