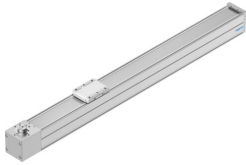


# Toothed belt axis ELGC-TB-KF-80-1800

Part number: 8062794

FESTO



General operating condition

## Data sheet

| Feature   | Value  |
|---|--|
| Effective diameter of drive pinion                                | 33.42 mm   |
| Working stroke  | 1800 mm  |
| Size  | 80   |
| Stroke reserve  | 0 mm   |
| Toothed-belt pitch  | 3 mm   |
| Mounting position   | Any  |
| Guide   | Recirculating ball bearing guide                                   |
| Design  | Electromechanical linear axis<br>With toothed belt                 |
| Type of motor   | Stepper motor<br>Servo motor                                       |
| Symbol  | 00991212   |
| Position detection  | Via proximity switch<br>For inductive 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 end positions                                    | 7.5E-4 J   |
| Note on the impact energy in the end positions                    | At maximum homing speed 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. drive torque   | 4.178 Nm   |
| Max. force Fy   | 5543 N   |
| Max. force Fz   | 5543 N   |
| Max. force Fy total axis  | 900 N  |
| Max. force Fz total axis  | 2700 N   |
| Fy at theoretical life value of 100 km (only guide consideration) | 20400 N  |
| Fz at theoretical life value of 100 km (only guide consideration) | 20400 N  |
| Max. idle running transfer resistance                             | 24.7 N   |

| Feature   | Value   |
|---|---|
| Max. moment Mx  | 59.8 Nm   |
| Max. moment My  | 56.2 Nm   |
| Max. moment 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 at theoretical life value of 100 km (only guide consideration) | 220 Nm  |
| My at theoretical life value of 100 km (only guide consideration) | 207 Nm  |
| Mz at theoretical life value of 100 km (only guide consideration) | 207 Nm  |
| Distance between slide surface and guide centre                   | 72.5 mm   |
| Max. feed force Fx  | 250 N   |
| Frictional torque independent of load                             | 0.413 Nm  |
| Torsional mass moment of inertia It                               | 90500 mm <sup>4</sup>   |
| Mass moment of inertia JH per metre of stroke                     | 0.1927 kgcm <sup>2</sup>  |
| Mass moment of inertia JL per kg of working load                  | 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  | Lifetime lubrication  |
| Moving mass   | 901 g   |
| Weight of slide   | 272 g   |
| Product weight  | 16611 g   |
| Basic weight for 0 mm stroke                                      | 3500 g  |
| Additional weight per 10 mm stroke                                | 73 g  |
| Dynamic deflection (moving load)                                  | 0.05% of the axis length, max. 0.5 mm                                     |
| Static deflection (load in standstill)                            | 0.1% of the axis length   |
| Interface code, actuator  | T46   |
| Material end cap  | Painted die cast aluminium  |
| Material profile  | Anodised wrought aluminium alloy  |
| Note on materials   | RoHS compliant  |
| Material cover tape   | Stainless steel strip   |
| Material drive cover  | Painted die cast aluminium  |
| Material guide slide  | Steel   |
| Material guide rail   | Steel   |
| Material pulleys  | High-alloy stainless steel  |
| Material slide  | Die-cast aluminium  |
| Material toothed belt   | Polychloroprene or nitrile rubber (NBR) with glass cord and nylon coating |