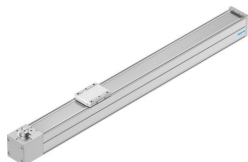


Toothed belt axis ELGC-TB-KF-80-1800

Part number: 8062794

FESTO



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 | optional |
| Guide | Recirculating ball bearing guide |
| Design | Electromechanical linear axis With toothed belt |
| Type of motor | Stepper motor Servo motor |
| Position detection | Via proximity switch Via inductive sensors |
| Max. acceleration | 15 m/s ² |
| 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 the internal product definition from Festo 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, printed 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 end positions | 0.75 mJ |
| 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 ⁴ |
| 2nd moment of area Iz | 1660000 mm ⁴ |
| Max. drive 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 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 |
| 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 ⁴ |
| Mass moment of inertia JH per metre of stroke | 0.1927 kgcm ² |
| Mass moment of inertia JL per kg of working load | 2.793 kgcm ² |
| Mass moment of inertia JO | 2.912 kgcm ² |
| Feed constant | 105 mm/U |
| Reference service life | 5000 km |
| Maintenance interval | Life-time 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 oder Nitrilkautschuk (NBR) mit Glascord und Nylonüberzug |