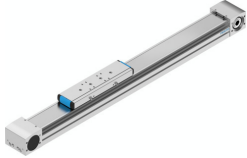


Toothed belt axis ELGA-TB-KF-80-500-0H

Part number: 8041859

FESTO



 General operating condition

Data sheet

| Feature | Value |
|---|--|
| Effective diameter of drive pinion | 39.79 mm |
| Working stroke | 500 mm |
| Size | 80 |
| Stroke reserve | 0 mm |
| Toothed-belt pitch | 5 mm |
| Mounting position | optional |
| Guide | Recirculating ball bearing guide |
| Design | Electromechanical linear axis With toothed belt |
| Type of motor | Stepper motor Servo motor |
| Functional principle of measuring system | Incremental |
| Max. acceleration | 50 m/s ² |
| Max. speed | 5 m/s |
| Repetition accuracy | ±0.08 mm |
| Duty cycle | 100% |
| LABS (PWIS) conformity | VDMA24364 zone III |
| Degree of protection | IP40 |
| Ambient temperature | -10 °C ... 60 °C |
| 2nd moment of area Iy | 257180 mm ⁴ |
| 2nd moment of area Iz | 913660 mm ⁴ |
| Max. drive torque | 15.92 Nm |
| Max. force Fy | 2500 N |
| Max. force Fz | 3050 N |
| Max. force Fy total axis | 2500 N |
| Max. force Fz total axis | 3050 N |
| Fy at theoretical life value of 100 km (only guide consideration) | 9200 N |
| Fz at theoretical life value of 100 km (only guide consideration) | 11224 N |
| Max. idle running transfer resistance | 50.3 N |
| Max. moment Mx | 36 Nm |
| Max. moment My | 228 Nm |
| Max. moment Mz | 228 Nm |
| Max. moment Mx total axis | 36 Nm |
| Max. moment My total axis | 228 Nm |
| Max. moment Mz total axis | 228 Nm |
| Mx at theoretical life value of 100 km (only guide consideration) | 132 Nm |

| Feature | Value |
|---|---|
| My at theoretical life value of 100 km (only guide consideration) | 839 Nm |
| Mz at theoretical life value of 100 km (only guide consideration) | 839 Nm |
| Distance between slide surface and guide centre | 50 mm |
| Max. feed force Fx | 800 N |
| Frictional torque independent of load | 1 Nm |
| Torsional mass moment of inertia It | 159250 mm ⁴ |
| Mass moment of inertia JH per metre of stroke | 0.93 kgcm ² |
| Mass moment of inertia JL per kg of working load | 3.96 kgcm ² |
| Mass moment of inertia JO | 9.82 kgcm ² |
| Mass moment of inertia JW for additional slide | 7.61 kgcm ² |
| Feed constant | 125 mm/U |
| Reference service life | 5000 km |
| Weight of slide | 1900 g |
| Weight of additional slide | 1530 g |
| Basic weight for 0 mm stroke | 4700 g |
| Additional weight per 10 mm stroke | 51 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 |
| Material profile | Wrought aluminium alloy Anodised |
| Note on materials | RoHS-compliant |
| Material cover tape | Stainless steel strip |
| Material drive cover | Wrought aluminium alloy Anodised |
| Material guide slide | Stainless steel |
| Material guide rail | Stainless steel |
| Material pulleys | High-alloy stainless steel |
| Material slide | Wrought aluminium alloy Anodised |
| Material toothed belt clamping piece | Stainless steel casting |
| Material toothed belt | Polychloroprene or nitrile rubber (NBR) with glass cord and nylon coating |