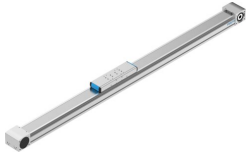


Toothed belt axis ELGA-TB-KF-120-1500-0H

Part number: 8041870

FESTO



 General operating condition

Data sheet

| Feature | Value |
|---|--|
| Effective diameter of drive pinion | 52.52 mm |
| Working stroke | 1500 mm |
| Size | 120 |
| Stroke reserve | 0 mm |
| Toothed-belt pitch | 5 mm |
| Mounting position | Any |
| 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 | 1264580 mm ⁴ |
| 2nd moment of area Iz | 4365790 mm ⁴ |
| Max. drive torque | 34.1 Nm |
| Max. force Fy | 5500 N |
| Max. force Fz | 6890 N |
| Max. force Fy total axis | 5500 N |
| Max. force Fz total axis | 6890 N |
| Fy at theoretical life value of 100 km (only guide consideration) | 20240 N |
| Fz at theoretical life value of 100 km (only guide consideration) | 25355 N |
| Max. idle running transfer resistance | 76.2 N |
| Max. moment Mx | 104 Nm |
| Max. moment My | 680 Nm |
| Max. moment Mz | 680 Nm |
| Max. moment Mx total axis | 104 Nm |
| Max. moment My total axis | 680 Nm |
| Max. moment Mz total axis | 680 Nm |
| Mx at theoretical life value of 100 km (only guide consideration) | 383 Nm |

| Feature | Value |
|---|---|
| My at theoretical life value of 100 km (only guide consideration) | 2502 Nm |
| Mz at theoretical life value of 100 km (only guide consideration) | 2502 Nm |
| Distance between slide surface and guide centre | 70 mm |
| Max. feed force Fx | 1300 N |
| Frictional torque independent of load | 2.8 Nm |
| Torsional mass moment of inertia It | 435680 mm ⁴ |
| Mass moment of inertia JH per metre of stroke | 2.15 kgcm ² |
| Mass moment of inertia JL per kg of working load | 6.9 kgcm ² |
| Mass moment of inertia JO | 40.99 kgcm ² |
| Mass moment of inertia JW for additional slide | 28.91 kgcm ² |
| Feed constant | 165 mm/U |
| Reference service life | 5000 km |
| Weight of slide | 4190 g |
| Weight of additional slide | 3240 g |
| Basic weight for 0 mm stroke | 15680 g |
| Additional weight per 10 mm stroke | 106 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 | Tempered steel |
| Material guide rail | Tempered steel Corrotect coated |
| Material pulleys | High-alloy stainless steel |
| Material slide | Wrought aluminium alloy anodised |
| Material toothed belt clamping piece | Cast stainless steel |
| Material toothed belt | Polychloroprene or nitrile rubber (NBR) with glass cord and nylon coating |