

Ball screw axis ELGA-BS-KF-120-800-0H-25P-ML

Part number: 8041849

FESTO



General operating condition

Data sheet

| Feature | Value |
|---|--|
| Working stroke | 800 mm |
| Size | 120 |
| Stroke reserve | 0 mm |
| Spindle diameter | 25 mm |
| Spindle pitch | 25 mm/U |
| Mounting position | Any |
| Guide | Recirculating ball bearing guide |
| Design | Electromechanical linear axis With ball screw |
| Type of motor | Stepper motor Servo motor |
| Spindle type | Ball screw |
| Symbol | 00991211 |
| Functional principle of measuring system | Incremental |
| Max. acceleration | 15 m/s ² |
| Max. rotational speed | 3600 rpm |
| Max. speed | 1.5 m/s |
| Repetition accuracy | ±0.02 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 | 1240000 mm ⁴ |
| 2nd moment of area Iz | 3800000 mm ⁴ |
| Idle torque at v _{max} | 1.64 Nm |
| Idle torque at v _{min} | 1 Nm |
| Max. force F _y | 5500 N |
| Max. force F _z | 6890 N |
| Max. force F _y total axis | 5500 N |
| Max. force F _z total axis | 6890 N |
| F _y at theoretical life value of 100 km (only guide consideration) | 20240 N |
| F _z at theoretical life value of 100 km (only guide consideration) | 25355 N |
| Max. moment M _x | 104 Nm |
| Max. moment M _y | 680 Nm |
| Max. moment M _z | 680 Nm |
| Max. moment M _x total axis | 104 Nm |

| Feature | Value |
|---|---------------------------------------|
| 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 |
| 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 | 87 mm |
| Max. radial force at drive shaft | 500 N |
| Max. feed force Fx | 3400 N |
| Torsional mass moment of inertia It | 247000 mm ⁴ |
| Mass moment of inertia JH per metre of stroke | 2.756 kgcm ² |
| Mass moment of inertia JL per kg of working load | 0.1583 kgcm ² |
| Mass moment of inertia JO | 1.038 kgcm ² |
| Feed constant | 25 mm/U |
| Reference service life | 5000 km |
| Moving mass | 4459 g |
| Additional weight per 10 mm stroke | 101 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 end cap | Wrought aluminium alloy anodised |
| 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 | Steel |
| Material guide rail | Steel |
| Material slide | Wrought aluminium alloy anodised |
| Material ball screw nut | Steel |
| Material spindle | Steel |