

Ball screw axis ELGA-BS-KF-120-200-0H-25P-ML

Part number: 8041844

FESTO



General operating condition

Data sheet

| Feature | Value |
|--|--|
| Working stroke | 200 mm |
| Size | 120 |
| Stroke reserve | 0 mm |
| Screw diameter | 25 mm |
| Spindle pitch | 25 mm/U |
| Mounting position | Any |
| Guide | Recirculating ball bearing |
| Structural design | Electromechanical linear axis With ball screw |
| Motor type | Stepper motor Servo motor |
| Spindle type | Ball screw |
| Symbol | 00991211 |
| Measuring principle of linear potentiometer | 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 ly | 1240000 mm ⁴ |
| 2nd moment of area lz | 3800000 mm ⁴ |
| No-load torque at maximum travel speed | 1.64 Nm |
| No-load torque at minimum travel speed | 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 with theoretical service life of 100 km (from a guide perspective only) | 20240 N |
| Fz with theoretical service life of 100 km (from a guide perspective only) | 25355 N |
| Max. torque Mx | 104 Nm |
| Max. torque My | 680 Nm |
| Max. torque Mz | 680 Nm |
| Max. moment Mx total axis | 104 Nm |

| Feature | Value |
|--|--------------------------------------|
| Max. moment My total axis | 680 Nm |
| Max. moment Mz total axis | 680 Nm |
| Mx with theoretical service life of 100 km (from a guide perspective only) | 383 Nm |
| My with theoretical service life of 100 km (from a guide perspective only) | 2502 Nm |
| Mz with theoretical service life of 100 km (from a guide perspective only) | 2502 Nm |
| Distance between slide surface and guide center | 87 mm |
| Max. radial force on actuator shaft | 500 N |
| Max. feed force Fx | 3400 N |
| Torsion moment of inertia It | 247000 mm ⁴ |
| Mass moment of inertia JH per meter of stroke | 2.756 kgcm ² |
| Mass moment of inertia JL per kg of payload | 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 (load moved) | 0.05% of axis length, maximum 0.5 mm |
| Static deflection (load at standstill) | 0.1 % of axis length |
| Material of end caps | Wrought aluminum alloy Anodized |
| Profile material | Wrought aluminum alloy Anodized |
| Note on materials | RoHS compliant |
| Cover strip material | Stainless strip steel |
| Drive cover material | Wrought aluminum alloy Anodized |
| Slide carriage material | Steel |
| Guide rail material | Steel |
| Slide material | Wrought aluminum alloy Anodized |
| Ball screw nut material | Steel |
| Spindle material | Steel |