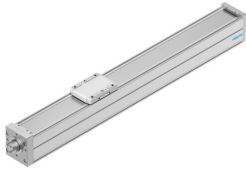


Ball screw axis ELGC-BS-KF-80-800-16P

Part number: 8061504

FESTO



General operating condition

Data sheet

| Feature | Value |
|---|--|
| Working stroke | 800 mm |
| Size | 80 |
| Stroke reserve | 0 mm |
| Reversing backlash theoretical | 150 µm |
| Spindle diameter | 16 mm |
| Spindle pitch | 16 mm/U |
| Mounting position | optional |
| Guide | Recirculating ball bearing guide |
| Design | Electromechanical linear axis With ball screw |
| Type of motor | Stepper motor Servo motor |
| Spindle type | Ball screw drive |
| Symbol | 00991211 |
| Position detection | Via proximity switch Via inductive sensors |
| Max. acceleration | 15 m/s ² |
| Max. rotational speed | 3750 rpm |
| Max. speed | 1 m/s |
| Repetition accuracy | ±0.01 mm |
| Duty cycle | 100% |
| LABS (PWIS) conformity | VDMA24364 zone III |
| Suitability for the production of Li-ion batteries | Suitable for battery production with reduced Cu/Zn/Ni values (F1a) |
| Cleanroom suitability, measured according to ISO 14644-14 | 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 | 0.002 J |
| Note on the impact energy in the end positions | At maximum homing speed of 0.01 m/s |
| 2nd moment of area ly | 1370000 mm ⁴ |
| 2nd moment of area lz | 1660000 mm ⁴ |
| Idle torque at v _{max} | 0.396 Nm |
| Idle torque at v _{min} | 0.095 Nm |
| Max. force F _y | 5543 N |
| Max. force F _z | 5543 N |
| Max. force F _y total axis | 900 N |

| Feature | Value |
|---|---------------------------------------|
| 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. 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. radial force at drive shaft | 500 N |
| Max. feed force Fx | 350 N |
| Torsional mass moment of inertia It | 90500 mm ⁴ |
| Mass moment of inertia JH per metre of stroke | 0.35257 kgcm ² |
| Mass moment of inertia JL per kg of working load | 0.064846 kgcm ² |
| Mass moment of inertia JO | 0.07856 kgcm ² |
| Feed constant | 16 mm/U |
| Reference service life | 5000 km |
| Maintenance interval | Life-time lubrication |
| Moving mass | 978 g |
| Additional weight per 10 mm stroke | 88 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 | High-alloy stainless steel |
| Material drive cover | Painted die cast aluminium |
| Material guide slide | Steel |
| Material guide rail | Steel |
| Material slide | Die-cast aluminium |
| Material ball screw nut | Steel |
| Material spindle | Steel |