

Spindle axis

ELGA-BS-KF-80-500-0H-20P-ML

Part number: 8041833

FESTO

With recirculating ball bearing guide



Data sheet

| Feature | Value |
|--|--|
| Working stroke | 500 mm |
| Size | 80 |
| Stroke reserve | 0 mm |
| Spindle diameter | 15 mm |
| Spindle pitch | 20 mm/U |
| Assembly position | Any |
| Guide | Recirculating ball bearing guide |
| Design structure | Electromechanical linear axis with recirculating ball bearing spindle |
| Motor type | Stepper motor Servomotor |
| Spindle type | Ball screw actuator |
| Measuring method: displacement encoder | Incremental |
| Max. acceleration | 15 m/s ² |
| Max. speed | 3,000 1/min 1 m/s |
| Repetition accuracy | ±0,02 mm |
| PWIS conformity | VDMA24364 zone III |
| Protection class | IP40 |
| Ambient temperature | -10 ... 60 °C |
| Area moment of inertia 2nd degree Iy | 310E+03 mm ⁴ |
| Area moment of inertia 2nd degree Iz | 977E+03 mm ⁴ |
| No-load torque at maximum travel speed | 0.6 Nm |
| No-load torque at minimum travel speed | 0.35 Nm |
| Max. force Fy | 2,500 N |
| Max. force Fz | 3,050 N |
| Fy with theoretical service life of 100 km (from a guide perspective only) | 9,200 N |
| Fz with theoretical service life of 100 km (from a guide perspective only) | 11,224 N |
| Max. torque Mx | 36 Nm |
| Max. torque My | 228 Nm |
| Max. torque Mz | 228 Nm |
| Mx with theoretical service life of 100 km (from a guide perspective only) | 132 Nm |
| My with theoretical service life of 100 km (from a guide perspective only) | 839 Nm |
| Mz with theoretical service life of 100 km (from a guide perspective only) | 839 Nm |
| Max. radial force at drive shaft | 250 N |
| Max. feed force Fx | 1,600 N |
| Torsional mass moment of inertia It | 67.3E+03 mm ⁴ |
| Mass moment of inertia JH per meter of stroke | 0.346 kgcm ² |
| Mass moment of inertia JL per kg of working load | 0.1013 kgcm ² |
| Mass moment of inertia, JO | 0.097 kgcm ² |
| Feed constant | 20 mm/U |
| Moving mass | 1,370 g |
| Additional slide weight | 1,110 g |
| Additional weight per 10 mm stroke | 46.5 g |

| Feature | Value |
|--|---------------------------------------|
| Dynamic deflection (load moved) | 0.05% of the axis length, max. 0.5 mm |
| Static deflection (load at standstill) | 0.1% of the axis length |
| Material of end caps | Wrought Aluminum alloy Anodized |
| Material of profile | Wrought Aluminum alloy Anodized |
| Materials note | Conforms to RoHS |
| Material drive cover | Wrought Aluminum alloy Anodized |
| Material guide slide | Steel |
| Material guide rail | Steel |
| Material slide | Wrought Aluminum alloy Anodized |
| Material spindle nut | Steel |
| Material spindle | Steel |