

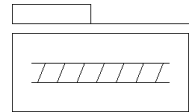
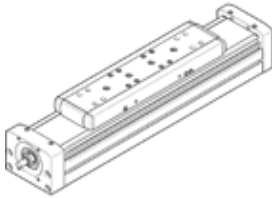
# spindle axis

## ELGA-BS-KF-70-100-0H-10P-ML

Part number: 8041816

**FESTO**

With recirculating ball bearing guide



## Data sheet

| Feature  | Value  |
|--|--|
| Working stroke   | 100 mm   |
| Size   | 70   |
| Stroke reserve   | 0 mm   |
| Spindle diameter   | 12 mm  |
| Spindle pitch  | 10 mm/U  |
| Assembly position  | Any  |
| Guide  | Recirculating ball bearing guide   |
| Design structure   | Electromechanical linear axis<br>with recirculating ball bearing spindle |
| Motor type   | Stepper motor<br>Servomotor  |
| Spindle type   | Ball screw spindle   |
| Measuring method: displacement encoder                                     | Incremental  |
| Max. acceleration  | 15 m/s <sup>2</sup>  |
| Max. speed   | 3,000 1/min<br>0.5 m/s   |
| Repetition accuracy  | ±0,02 mm   |
| Protection class   | IP40   |
| Ambient temperature  | -10 ... 60 °C  |
| Area moment of inertia 2nd degree Iy                                       | 165E+03 mm <sup>4</sup>  |
| Area moment of inertia 2nd degree Iz                                       | 472E+03 mm <sup>4</sup>  |
| No-load torque at maximum travel speed                                     | 0.24 Nm  |
| No-load torque at minimum travel speed                                     | 0.17 Nm  |
| Max. force Fy  | 1,500 N  |
| Max. force Fz  | 1,850 N  |
| Fy with theoretical service life of 100 km (from a guide perspective only) | 5,520 N  |
| Fz with theoretical service life of 100 km (from a guide perspective only) | 6,808 N  |
| Max. torque Mx   | 16 Nm  |
| Max. torque My   | 132 Nm   |
| Max. torque Mz   | 132 Nm   |
| Mx with theoretical service life of 100 km (from a guide perspective only) | 59 Nm  |
| My with theoretical service life of 100 km (from a guide perspective only) | 486 Nm   |
| Mz with theoretical service life of 100 km (from a guide perspective only) | 486 Nm   |
| Max. radial force at drive shaft   | 220 N  |
| Max. feed force Fx   | 650 N  |
| Torsional mass moment of inertia It  | 28.3E+03 mm <sup>4</sup>   |
| Mass moment of inertia JH per metre of stroke                              | 0.142 kgcm <sup>2</sup>  |
| Mass moment of inertia JL per kg of working load                           | 0.0253 kgcm <sup>2</sup>   |
| Mass moment of inertia, JO   | 0.038 kgcm <sup>2</sup>  |
| Feed constant  | 10 mm/U  |
| Moving mass  | 804 g  |
| Additional weight per 10 mm stroke   | 33 g   |
| 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  |

| Feature              | Value  |
|----------------------|--|
| Material of end caps | Wrought Aluminium alloy<br>Anodised          |
| Material of profile  | Wrought Aluminium alloy<br>Anodised          |
| Materials note       | Contains PWIS substances<br>Conforms to RoHS |
| Material drive cover | Wrought Aluminium alloy<br>Anodised          |
| Material guide slide | Steel  |
| Material guide rail  | Steel  |
| Material slide       | Wrought Aluminium alloy<br>Anodised          |
| Material spindle nut | Steel  |
| Material spindle     | Steel  |