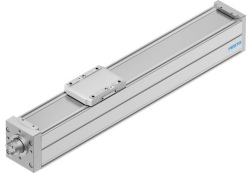


# Ball screw linear actuator ELGC-BS-KF-80-400-16P

Part number: 8061501

FESTO



## Data sheet

| Feature  | Value   |
|--|---|
| Working stroke   | 400 mm  |
| Size   | 80  |
| Stroke reserve   | 0 mm  |
| Screw diameter   | 16 mm   |
| Spindle pitch  | 16 mm/U                                       |
| Type code  | ELGC  |
| Mounting position  | Any   |
| Guide  | Recirculating ball bearing guide              |
| Structural design  | Electromechanical linear axis with ball screw |
| Motor type   | Stepper motor<br>Servo motor                  |
| Spindle type   | Ball screw drive                              |
| Symbol   | 00991211                                      |
| Max. acceleration  | 15 m/s <sup>2</sup>                           |
| Max. rotational speed  | 3750 1/min                                    |
| Max. speed   | 1 m/s   |
| Repetition accuracy  | ±0.01 mm                                      |
| Degree of protection   | IP40  |
| Ambient temperature  | 0 °C ... 50 °C                                |
| 2nd moment of area Iy  | 1370000 mm <sup>4</sup>                       |
| 2nd moment of area Iz  | 1660000 mm <sup>4</sup>                       |
| No-load torque at maximum travel speed                                     | 0.396 Nm                                      |
| No-load torque at minimum travel speed                                     | 0.095 Nm                                      |
| Max. force Fy  | 900 N   |
| Max. force Fz  | 2700 N  |
| Fy with theoretical service life of 100 km (from a guide perspective only) | 3312 N  |
| Fz with theoretical service life of 100 km (from a guide perspective only) | 9936 N  |
| Max. torque Mx   | 59.8 Nm                                       |
| Max. torque My   | 56.2 Nm                                       |
| Max. torque Mz   | 56.2 Nm                                       |
| Mx with theoretical service life of 100 km (from a guide perspective only) | 220 Nm  |
| My with theoretical service life of 100 km (from a guide perspective only) | 207 Nm  |
| Mz with theoretical service life of 100 km (from a guide perspective only) | 207 Nm  |
| Max. feed force Fx   | 350 N   |

| Feature  | Value  |
|--|--|
| Torsion moment of inertia $I_t$                  | 90500 mm <sup>4</sup>  |
| Mass moment of inertia $J_H$ per meter of stroke | 0.35257 kgcm <sup>2</sup>                                      |
| Mass moment of inertia $J_L$ per kg of payload   | 0.064846 kgcm <sup>2</sup>                                     |
| Mass moment of inertia $J_O$                     | 0.07856 kgcm <sup>2</sup>                                      |
| Feed constant                                    | 16 mm/U  |
| Moving mass                                      | 978 g  |
| Additional weight per 10 mm stroke               | 88 g   |
| Dynamic deflection (load moved)                  | 0.05% of axis length, maximum 0.5 mm                           |
| Static deflection (load at standstill)           | 0.1 % of axis length   |
| Interface code, actuator                         | T46  |
| Material of end caps                             | Die cast aluminum, painted                                     |
| Profile material                                 | Wrought aluminum alloy, anodized                               |
| Note on materials                                | Contains paint-wetting impairment substances<br>RoHS-compliant |
| Cover strip material                             | High-alloy stainless steel                                     |
| Drive cover material                             | Die cast aluminum, painted                                     |
| Slide carriage material                          | Steel  |
| Guide rail material                              | Steel  |
| Slide material                                   | Die-cast aluminum  |
| Spindle nut material                             | Steel  |
| Spindle material                                 | Steel  |