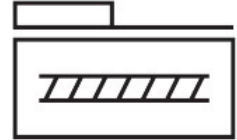
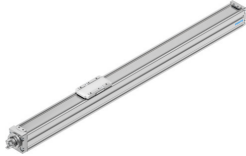


# Ball screw axis ELGC-BS-KF-32-500-8P

Part number: 8061481

**FESTO**



## Data sheet

| Feature  | Value   |
|--|---|
| Working stroke                                     | 500 mm  |
| Size   | 32  |
| Stroke reserve                                     | 0 mm  |
| Reversing backlash                                 | 0.15 mm   |
| Screw diameter                                     | 8 mm  |
| Spindle pitch                                      | 8 mm/U  |
| 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  |
| Position sensing                                   | For proximity sensor<br>For inductive proximity sensors   |
| Max. acceleration                                  | 15 m/s <sup>2</sup>   |
| Max. rotational speed                              | 4500 rpm  |
| Max. speed   | 0.6 m/s   |
| Repetition accuracy                                | ±0.015 mm   |
| Duty cycle   | 100%  |
| LABS (PWIS) conformity                             | VDMA24364 zone III  |
| Suitability for the production of Li-ion batteries | Product corresponds to Festo's internal product definition for use in battery production: Metals with more than 1% by mass of copper, zinc or nickel are excluded from use. The exceptions are nickel in steel, chemically nickel-plated surfaces, circuit boards, cables, electrical plug connectors and coils |
| Cleanroom class                                    | 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 the end positions                 | 0.25 mJ   |
| Note on the impact energy in the end positions     | At maximum speed of the reference run of 0.01 m/s   |
| 2nd moment of area Iy                              | 38000 mm <sup>4</sup>   |

| Feature  | Value                                |
|--|--------------------------------------|
| 2nd moment of area Iz  | 45000 mm <sup>4</sup>                |
| No-load torque at maximum travel speed                                     | 0.04 Nm                              |
| No-load torque at minimum travel speed                                     | 0.02 Nm                              |
| Max. force Fy  | 356 N                                |
| Max. force Fz  | 356 N                                |
| Max. force Fy total axis   | 150 N                                |
| Max. force Fz total axis   | 300 N                                |
| Fy with theoretical service life of 100 km (from a guide perspective only) | 1310 N                               |
| Fz with theoretical service life of 100 km (from a guide perspective only) | 1310 N                               |
| Max. torque Mx   | 1.3 Nm                               |
| Max. torque My   | 1.1 Nm                               |
| Max. torque Mz   | 1.1 Nm                               |
| Max. moment Mx total axis  | 1.3 Nm                               |
| Max. moment My total axis  | 1.1 Nm                               |
| Max. moment Mz total axis  | 1.1 Nm                               |
| Mx with theoretical service life of 100 km (from a guide perspective only) | 5 Nm                                 |
| My with theoretical service life of 100 km (from a guide perspective only) | 4 Nm                                 |
| Mz with theoretical service life of 100 km (from a guide perspective only) | 4 Nm                                 |
| Distance between slide surface and guide center                            | 31.4 mm                              |
| Max. radial force on actuator shaft  | 75 N                                 |
| Max. feed force Fx   | 40 N                                 |
| Torsion moment of inertia It   | 1700 mm <sup>4</sup>                 |
| Mass moment of inertia JH per meter of stroke                              | 0.02218 kgcm <sup>2</sup>            |
| Mass moment of inertia JL per kg of payload                                | 0.016211 kgcm <sup>2</sup>           |
| Mass moment of inertia JO  | 0.00274 kgcm <sup>2</sup>            |
| Feed constant  | 8 mm/U                               |
| Reference service life   | 5000 km                              |
| Maintenance interval   | Life-time lubrication                |
| Moving mass  | 83.4 g                               |
| Additional weight per 10 mm stroke   | 18 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   | V25                                  |
| Material of end caps   | Die cast aluminum, painted           |
| Profile material   | Wrought aluminum alloy, anodized     |
| Note on materials  | 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                                |