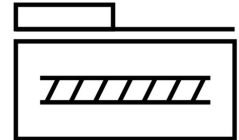
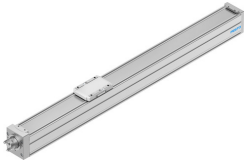


# Spindle axis ELGC-BS-KF-60-600-12P

Part number: 8061496

FESTO



 [General operating condition](#)

## Data sheet

| Feature                                            | Value                                                                                                                                                                                                                             |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Working stroke                                     | 600 mm                                                                                                                                                                                                                            |
| Size                                               | 60                                                                                                                                                                                                                                |
| Stroke reserve                                     | 0 mm                                                                                                                                                                                                                              |
| Reversing backlash theoretical                     | 150 µm                                                                                                                                                                                                                            |
| Spindle diameter                                   | 12 mm                                                                                                                                                                                                                             |
| Spindle pitch                                      | 12 mm/U                                                                                                                                                                                                                           |
| Mounting position                                  | optional                                                                                                                                                                                                                          |
| Guide                                              | Recirculating ball bearing guide                                                                                                                                                                                                  |
| Design                                             | Electromechanical linear axis<br>With ball screw                                                                                                                                                                                  |
| Type of motor                                      | Stepper motor<br>Servo motor                                                                                                                                                                                                      |
| Spindle type                                       | Ball screw drive                                                                                                                                                                                                                  |
| Symbol                                             | 00991211                                                                                                                                                                                                                          |
| Position detection                                 | Via proximity switch<br>Via inductive sensors                                                                                                                                                                                     |
| Max. acceleration                                  | 15 m/s <sup>2</sup>                                                                                                                                                                                                               |
| Max. rotational speed                              | 4000 rpm                                                                                                                                                                                                                          |
| Max. speed                                         | 0.8 m/s                                                                                                                                                                                                                           |
| Repetition accuracy                                | ±0.01 mm                                                                                                                                                                                                                          |
| Duty cycle                                         | 100%                                                                                                                                                                                                                              |
| LABS (PWIS) conformity                             | VDMA24364 zone III                                                                                                                                                                                                                |
| Suitability for the production of Li-ion batteries | Metals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed 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 end positions                     | 0.001 J                                                                                                                                                                                                                           |
| Note on the impact energy in the end positions     | At maximum homing speed of 0.01 m/s                                                                                                                                                                                               |
| 2nd moment of area Iy                              | 441000 mm <sup>4</sup>                                                                                                                                                                                                            |
| 2nd moment of area Iz                              | 542000 mm <sup>4</sup>                                                                                                                                                                                                            |
| Idle torque at vmax                                | 0.246 Nm                                                                                                                                                                                                                          |
| Idle torque at vmin                                | 0.042 Nm                                                                                                                                                                                                                          |
| Max. force Fy                                      | 3641 N                                                                                                                                                                                                                            |

| Feature                                                           | Value                                 |
|-------------------------------------------------------------------|---------------------------------------|
| Max. force Fz                                                     | 3641 N                                |
| Max. force Fy total axis                                          | 600 N                                 |
| Max. force Fz total axis                                          | 1800 N                                |
| Fy at theoretical life value of 100 km (only guide consideration) | 13400 N                               |
| Fz at theoretical life value of 100 km (only guide consideration) | 13400 N                               |
| Max. moment Mx                                                    | 29.1 Nm                               |
| Max. moment My                                                    | 31.8 Nm                               |
| Max. moment Mz                                                    | 31.8 Nm                               |
| Max. moment Mx total axis                                         | 29.1 Nm                               |
| Max. moment My total axis                                         | 31.8 Nm                               |
| Max. moment Mz total axis                                         | 31.8 Nm                               |
| Mx at theoretical life value of 100 km (only guide consideration) | 107 Nm                                |
| My at theoretical life value of 100 km (only guide consideration) | 117 Nm                                |
| Mz at theoretical life value of 100 km (only guide consideration) | 117 Nm                                |
| Distance between slide surface and guide centre                   | 54.6 mm                               |
| Max. radial force at drive shaft                                  | 230 N                                 |
| Max. feed force Fx                                                | 200 N                                 |
| Torsional mass moment of inertia It                               | 29800 mm <sup>4</sup>                 |
| Mass moment of inertia JH per metre of stroke                     | 0.10779 kgcm <sup>2</sup>             |
| Mass moment of inertia JL per kg of working load                  | 0.036476 kgcm <sup>2</sup>            |
| Mass moment of inertia JO                                         | 0.02235 kgcm <sup>2</sup>             |
| Feed constant                                                     | 12 mm/U                               |
| Reference service life                                            | 5000 km                               |
| Maintenance interval                                              | Life-time lubrication                 |
| Moving mass                                                       | 525 g                                 |
| Additional weight per 10 mm stroke                                | 51 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                                          | T42                                   |
| 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 spindle nut                                              | Steel                                 |
| Material spindle                                                  | Steel                                 |