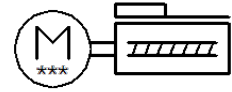
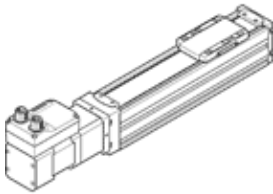


spindle axis unit

ELGS-BS-KF-45-600-10P-ST-M-H1-PLK-AA

Part number: 8083475

FESTO



Data sheet

| Feature | Value |
|---|---|
| Working stroke | 600 mm |
| Size | 45 |
| Stroke reserve | 0 mm |
| Spindle diameter | 10 mm |
| Spindle pitch | 10 mm/U |
| Assembly position | Any |
| Guide | Recirculating ball bearing guide |
| Design structure | Electromechanical linear axis with recirculating ball bearing spindle With integrated drive |
| Motor type | Stepper motor |
| Spindle type | Ball screw |
| Position detection | Motor encoder For proximity sensor |
| Referencing | Fixed stop block positive Fixed stop block negative |
| Rotor position sensor | Absolute single turn encoder |
| Rotary position encoder measuring principle | Magnetic |
| Temperature monitoring | Shutdown at over-temperature Integrated precise CMOS temperature sensor with analogue output |
| Additional functions | User interface Integrated end-position sensing |
| Display | LED |
| Ready status display | LED |
| Max. acceleration | 5 m/s ² |
| Max. speed | 0.25 m/s |
| Repetition accuracy | ±0,015 mm |
| Digital logic output characteristics | configurable Not electrically isolated |
| Duty cycle | 100 % |
| Insulation protection class | B |
| Max. current, digital logic outputs | 100 mA |
| Max. current consumption | 3 A |
| Nominal voltage DC | 24 V |
| Nominal current | 3 A |
| Parameters configuring interface | IO-Link User interface |
| Rotor position encoder resolution | 16 Bit |
| Permissible voltage fluctuation | +/- 15 % |
| Power supply, type of connection | Plug |
| Power supply, connection technology | M12x1, T-coded to EN 61076-2-111 |
| Power supply, number of pins/wires | 4 |
| Authorisation | RCM Mark |
| KC mark | KC-EMV |
| CE mark (see declaration of conformity) | to EU directive for EMC in accordance with EU RoHS directive |

| Feature | Value |
|--|--|
| UKCA marking (see declaration of conformity) | To UK instructions for EMC To UK RoHS instructions |
| Vibration resistance | Transport application test with severity level 1 as per FN 942017-4 and EN 60068-2-6 |
| Shock resistance | Shock test with severity level 1 in accordance with FN 942017-5 and EN 60068-2-27 |
| PWIS conformity | VDMA24364 zone III |
| Storage temperature | -20 ... 60 °C |
| Relative air humidity | 0 - 90 % |
| Protection class | IP40 |
| Safety class | III |
| Ambient temperature | 0 ... 50 °C |
| Note on ambient temperature | Above an ambient temperature of 30 °C, the power must be reduced by 2% per K. |
| Area moment of inertia 2nd degree Iy | 140E+03 mm ⁴ |
| Area moment of inertia 2nd degree Iz | 170E+03 mm ⁴ |
| Max. force Fy | 300 N |
| Max. force Fz | 600 N |
| Fy with theoretical service life of 100 km (from a guide perspective only) | 1,104 N |
| Fz with theoretical service life of 100 km (from a guide perspective only) | 2,208 N |
| Max. torque Mx | 5.5 Nm |
| Max. torque My | 4.7 Nm |
| Max. torque Mz | 4.7 Nm |
| Mx with theoretical service life of 100 km (from a guide perspective only) | 20 Nm |
| My with theoretical service life of 100 km (from a guide perspective only) | 17 Nm |
| Mz with theoretical service life of 100 km (from a guide perspective only) | 17 Nm |
| Max. feed force Fx | 100 N |
| Reference value for working load, horizontal | 10 kg |
| Reference value for working load, vertical | 5 kg |
| Torsional mass moment of inertia It | 8.5E+03 mm ⁴ |
| Feed constant | 10 mm/U |
| Moving mass | 220 g |
| Product weight | 3,514 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 |
| Number of 24 V DC digital logic outputs | 2 |
| Number of digital logic inputs | 2 |
| Specification, logic input | Based on IEC 61131-2, type 1 |
| Logic input working range | 24 V |
| IO-Link, SIO mode support | Yes |
| Logic input characteristics | configurable Not electrically isolated |
| IO-Link, protocol | Device V 1.1 |
| IO-Link, communication mode | COM3 (230.4 kbd) |
| IO-Link, port type | A |
| IO-Link, number of ports | 1 |
| IO-Link, process data width OUT | 2 Byte |
| IO-Link, process data content OUT | 1 bit (Move in) 1 bit (Move out) 1 bit (Quit Error) |
| IO-Link, process data width IN | 2 Byte |
| IO-Link, process data content IN | 1 bit (State Device) 1 bit (State Move) 1 bit (State in) 1 bit (State out) |
| IO-Link, Service data contents IN | 32 bit Force 32 bit Position 32 bit Speed |
| IO-Link, minimum cycle time | 1 ms |
| IO-Link, data memory required | 0.5 Kilobyte |
| Max. line length | 15 m outputs |

| Feature | Value |
|--|--|
| | 15 m inputs 20 m with IO-Link operation |
| Switching logic, outputs | PNP (positive-switching) |
| Input circuit logic | PNP (positive-switching) |
| IO-Link, connection technology | Plug |
| Logic interface, connection type | Plug |
| Logic interface, connection technology | M12x1, A-coded in accordance with EN 61076-2-101 |
| Logic interface, number of poles/wires | 8 |
| Logic interface, connection pattern | 00992264 |
| Material of end caps | Die-cast aluminium, painted |
| Material of profile | Anodised wrought aluminium alloy |
| Materials note | Conforms to RoHS |
| Material cover tape | High alloy steel, non-corrosive |
| Material drive cover | Die-cast aluminium, painted |
| Material guide slide | Steel |
| Material guide rail | Steel |
| Material slide | Aluminium die cast |
| Material spindle nut | Steel |
| Material spindle | Steel |