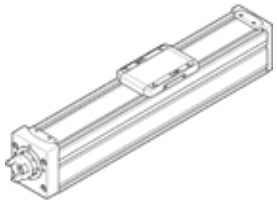
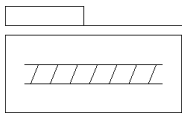
Spindle axis
ELGC-BS-KF-80-1000-16P

Part number: 8061505

FESTO





Data sheet

Feature	Value
Working stroke	1,000 mm
Size	80
Stroke reserve	0 mm
Reversing backlash	0.15 mm
Spindle diameter	16 mm
Spindle pitch	16 mm/U
Assembly position	Any
Guide	Recirculating ball bearing guide
Design structure	Electromechanical linear axis with recirculating ball bearing spindle
Motor type	Stepper motor Servomotor
Spindle type	Ball screw
Position detection	For proximity sensor For inductive sensors
Max. acceleration	15 m/s2
Max. speed	3,750 1/min 1 m/s
Repetition accuracy	±0,01 mm
Duty cycle	100 %
PWIS conformity	VDMA24364 zone III
RSBP classification to CD-0033	F1a
Cleanroom class	ISO class 7
Protection class	IP40
Ambient temperature	0 ... 50 °C
Impact energy in end positions	2 mJ
Note on the impact energy it the end positions	At maximum homing speed of 0.01 m/s
Area moment of inertia 2nd degree Iy	1,370E+03 mm4
Area moment of inertia 2nd degree Iz	1,660E+03 mm4
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	2,700 N
Fy for the guide calculation for a service life of 5000 km or 5 million cycles	5,543 N
Fz for the guide calculation for a service life of 5000 km or 5 million cycles	5,543 N
Fy with theoretical service life of 100 km (from a guide perspective only)	20,400 N
Fz with theoretical service life of 100 km (from a guide perspective only)	20,400 N
Max. torque Mx	59.8 Nm
Max. torque My	56.2 Nm
Max. torque Mz	56.2 Nm
Mx for the guide calculation for a service life of 5000 km or 5 million cycles	59.8 Nm
My for the guide calculation for a service life of 5000 km or 5 million cycles	56.2 Nm
Mz for the guide calculation for a service life of 5000 km or 5 million cycles	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

Feature	Value
Distance between the slide surface and the centre of the guide	72.5 mm
Max. radial force at drive shaft	500 N
Max. feed force Fx	350 N
Torsional mass moment of inertia It	90.5E+03 mm4
Mass moment of inertia JH per meter of stroke	0.35257 kgcm2
Mass moment of inertia JL per kg of working load	0.064846 kgcm2
Mass moment of inertia, JO	0.07856 kgcm2
Feed constant	16 mm/U
Maintenance interval	Life-time lubrication
Moving mass	978 g
Additional weight per 10 mm stroke	88 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
Interface code, actuator	T46
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	Aluminum die cast
Material spindle nut	Steel
Material spindle	Steel