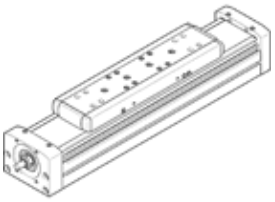
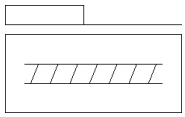
spindle axis
ELGA-BS-KF-80-300-0H-10P-ML

Part number: 8041824

FESTO

With recirculating ball bearing guide





Data sheet

Feature	Value
Working stroke	300 mm
Size	80
Stroke reserve	0 mm
Spindle diameter	15 mm
Spindle pitch	10 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 spindle
Measuring method: displacement encoder	Incremental
Max. acceleration	15 m/s2
Max. speed	3,000 1/min 0.5 m/s
Repetition accuracy	±0,02 mm
Protection class	IP40
Ambient temperature	-10 ... 60 °C
Area moment of inertia 2nd degree Iy	310E+03 mm4
Area moment of inertia 2nd degree Iz	977E+03 mm4
No-load torque at maximum travel speed	0.55 Nm
No-load torque at minimum travel speed	0.3 Nm
Max. force Fy	2,500 N
Max. force Fz	3,050 N
Fy with theoretical service life of 100 km (from a guide perspective only)	9,200 N
Fz with theoretical service life of 100 km (from a guide perspective only)	11,224 N
Max. torque Mx	36 Nm
Max. torque My	228 Nm
Max. torque Mz	228 Nm
Mx with theoretical service life of 100 km (from a guide perspective only	132 Nm
My with theoretical service life of 100 km (from a guide perspective only)	839 Nm
Mz with theoretical service life of 100 km (from a guide perspective only)	839 Nm
Max. radial force at drive shaft	250 N
Max. feed force Fx	1,600 N
Torsional mass moment of inertia It	67.3E+03 mm4
Mass moment of inertia JH per metre of stroke	0.346 kgcm2
Mass moment of inertia JL per kg of working load	0.0253 kgcm2
Mass moment of inertia, JO	0.097 kgcm2
Feed constant	10 mm/U
Moving mass	1,370 g
Additional slide weight	1,110 g
Additional weight per 10 mm stroke	46.5 g
Dynamic deflection (load moved)	0.05% of the axis length, max. 0.5 mm

Feature	Value
Static deflection (load at standstill)	0.1% of the axis length
Material of end caps	Wrought Aluminium alloy Anodised
Material of profile	Wrought Aluminium alloy Anodised
Materials note	Contains PWIS substances Conforms to RoHS
Material drive cover	Wrought Aluminium alloy Anodised
Material guide slide	Steel
Material guide rail	Steel
Material slide	Wrought Aluminium alloy Anodised
Material spindle nut	Steel
Material spindle	Steel