

# Ball screw linear actuator ELGA-BS-KF-80-100-0H-10P-ML

Part number: 8041822

FESTO



## Data sheet

Feature	Value
Working stroke	100 mm
Size	80
Stroke reserve	0 mm
Screw diameter	15 mm
Spindle pitch	10 mm/U
Type code	ELGA
Mounting position	Any
Guide	Recirculating ball bearing guide
Structural design	Electromechanical linear axis with ball screw
Motor type	Stepper motor Servo motor
Spindle type	Ball screw
Symbol	00991211
Measuring principle of linear potentiometer	Incremental
Max. acceleration	15 m/s <sup>2</sup>
Max. rotational speed	3000 1/min
Max. speed	0.5 m/s
Repetition accuracy	±0.02 mm
Degree of protection	IP40
Ambient temperature	-10 °C ... 60 °C
2nd moment of area Iy	310000 mm <sup>4</sup>
2nd moment of area Iz	977000 mm <sup>4</sup>
No-load torque at maximum travel speed	0.55 Nm
No-load torque at minimum travel speed	0.3 Nm
Max. force Fy	2500 N
Max. force Fz	3050 N
Fy with theoretical service life of 100 km (from a guide perspective only)	9200 N
Fz with theoretical service life of 100 km (from a guide perspective only)	11224 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

Feature	Value
Max. radial force on actuator shaft	250 N
Max. feed force Fx	1600 N
Torsion moment of inertia It	67300 mm <sup>4</sup>
Mass moment of inertia JH per meter of stroke	0.346 kgcm <sup>2</sup>
Mass moment of inertia JL per kg of payload	0.0253 kgcm <sup>2</sup>
Mass moment of inertia JO	0.097 kgcm <sup>2</sup>
Feed constant	10 mm/U
Moving mass	1370 g
Additional slide weight	1110 g
Additional weight per 10 mm stroke	46.5 g
Dynamic deflection (load moved)	0.05% of axis length, maximum 0.5 mm
Static deflection (load at standstill)	0.1 % of axis length
Material of end caps	Wrought aluminum alloy Anodized
Profile material	Wrought aluminum alloy Anodized
Note on materials	Contains paint-wetting impairment substances RoHS-compliant
Drive cover material	Wrought aluminum alloy Anodized
Slide carriage material	Steel
Guide rail material	Steel
Slide material	Wrought aluminum alloy Anodized
Spindle nut material	Steel
Spindle material	Steel