

# Belt driven linear actuator ELGA-TB-KF-80- -

Part number: 8024915

**FESTO**



## Data sheet

Feature	Value
Drive pinion effective diameter	39.79 mm
Working stroke	50 mm...8500 mm
Size	80
Toothed belt pitch	5 mm
Mounting position	Any
Guide	Recirculating ball bearing guide
Structural design	Electromechanical linear axis with toothed belt
Motor type	Stepper motor Servo motor
Measuring principle of linear potentiometer	Incremental
Max. acceleration	50 m/s <sup>2</sup>
Max. speed	5 m/s
Repetition accuracy	±0.08 mm
Duty cycle	100%
LABS (PWIS) conformity	VDMA24364 zone III
Degree of protection	IP40
Ambient temperature	-10 °C...60 °C
Max. force Fy	2500 N
Max. force Fz	3050 N
Max. force Fy total axis	2500 N
Max. force Fz total axis	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
Max. moment Mx total axis	36 Nm
Max. moment My total axis	228 Nm
Max. moment Mz total axis	228 Nm
Mx with theoretical service life of 100 km (from a guide perspective only)	132 Nm

Feature	Value
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
Distance between slide surface and guide center	50 mm
Max. feed force Fx	600 N...800 N
Feed constant	125 mm/U
Reference service life	5000 km
Slide weight	1.9 kg
Additional slide weight	1.53 kg
Dynamic deflection (load moved)	0.05% of axis length, maximum 0.5 mm
Static deflection (load at standstill)	0.1 % of axis length
Profile material	Wrought aluminum alloy, anodized
Note on materials	RoHS-compliant
Cover strip material	Stainless steel strip
Drive cover material	Wrought aluminum alloy, anodized
Slide carriage material	Stainless steel
Guide rail material	Stainless steel
Belt pulley material	High-alloy stainless steel
Slide material	Wrought aluminum alloy, anodized
Toothed belt clamping component material	Cast stainless steel
Toothed belt material	Polyurethane with steel cord and nylon cover Polyurethane with steel cord Polychloroprene oder Nitrilkautschuk (NBR) mit Glascord und Nylonüberzug