

# Belt driven linear actuator ELGA-TB-KF-120- -

Part number: 8024916

**FESTO**



## Data sheet

Feature	Value
Drive pinion effective diameter	52.52 mm
Working stroke	50 mm...8500 mm
Size	120
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	5500 N
Max. force Fz	6890 N
Max. force Fy total axis	5500 N
Max. force Fz total axis	6890 N
Fy with theoretical service life of 100 km (from a guide perspective only)	20240 N
Fz with theoretical service life of 100 km (from a guide perspective only)	25355 N
Max. torque Mx	104 Nm
Max. torque My	680 Nm
Max. torque Mz	680 Nm
Max. moment Mx total axis	104 Nm
Max. moment My total axis	680 Nm
Max. moment Mz total axis	680 Nm
Mx with theoretical service life of 100 km (from a guide perspective only)	383 Nm

Feature	Value
My with theoretical service life of 100 km (from a guide perspective only)	2502 Nm
Mz with theoretical service life of 100 km (from a guide perspective only)	2502 Nm
Distance between slide surface and guide center	70 mm
Max. feed force Fx	1000 N...1300 N
Feed constant	165 mm/U
Reference service life	5000 km
Slide weight	4.19 kg
Additional slide weight	3.24 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	Tempered steel
Guide rail material	Tempered steel Corroprotect coated
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