

# Toothed belt axis ELGA-TB-KF-80- -

Part number: 8024915

**FESTO**



## Data sheet

Feature	Value
Effective diameter of drive pinion	39.79 mm
Working stroke	50 mm...8500 mm
Size	80
Toothed-belt pitch	5 mm
Mounting position	optional
Guide	Recirculating ball bearing guide
Design	Electromechanical linear axis With toothed belt
Type of motor	Stepper motor Servo motor
Functional principle of measuring system	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 F <sub>y</sub>	2500 N
Max. force F <sub>z</sub>	3050 N
Max. force F <sub>y</sub> total axis	2500 N
Max. force F <sub>z</sub> total axis	3050 N
F <sub>y</sub> at theoretical life value of 100 km (only guide consideration)	9200 N
F <sub>z</sub> at theoretical life value of 100 km (only guide consideration)	11224 N
Max. moment M <sub>x</sub>	36 Nm
Max. moment M <sub>y</sub>	228 Nm
Max. moment M <sub>z</sub>	228 Nm
Max. moment M <sub>x</sub> total axis	36 Nm
Max. moment M <sub>y</sub> total axis	228 Nm
Max. moment M <sub>z</sub> total axis	228 Nm
M <sub>x</sub> at theoretical life value of 100 km (only guide consideration)	132 Nm
M <sub>y</sub> at theoretical life value of 100 km (only guide consideration)	839 Nm

Feature	Value
Mz at theoretical life value of 100 km (only guide consideration)	839 Nm
Distance between slide surface and guide centre	50 mm
Max. feed force Fx	600 N...800 N
Feed constant	125 mm/U
Reference service life	5000 km
Weight of slide	1.9 kg
Weight of additional slide	1.53 kg
Dynamic deflection (moving load)	0.05% of the axis length, max. 0.5 mm
Static deflection (load in standstill)	0.1% of the axis length
Material profile	Anodised wrought aluminium alloy
Note on materials	RoHS-compliant
Material cover tape	Stainless steel strip
Material drive cover	Anodised wrought aluminium alloy
Material guide slide	Stainless steel
Material guide rail	Stainless steel
Material pulleys	High-alloy stainless steel
Material slide	Anodised wrought aluminium alloy
Material toothed belt clamping piece	Stainless steel casting
Material toothed belt	Polyurethane with steel cord and nylon cover Polyurethane with steel cord Polychloroprene oder Nitrilkautschuk (NBR) mit Glascord und Nylonüberzug