

# Toothed belt axis ELGA-TB-KF-120- -

Part number: 8024916

FESTO



 General operating condition

## Data sheet

Overall data sheet – Individual values depend upon your configuration.

Feature	Value
Effective diameter of drive pinion	52.52 mm
Working stroke	50 mm ... 8500 mm
Size	120
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>	5500 N
Max. force F <sub>z</sub>	6890 N
Max. force F <sub>y</sub> total axis	5500 N
Max. force F <sub>z</sub> total axis	6890 N
F <sub>y</sub> at theoretical life value of 100 km (only guide consideration)	20240 N
F <sub>z</sub> at theoretical life value of 100 km (only guide consideration)	25355 N
Max. moment M <sub>x</sub>	104 Nm
Max. moment M <sub>y</sub>	680 Nm
Max. moment M <sub>z</sub>	680 Nm
Max. moment M <sub>x</sub> total axis	104 Nm
Max. moment M <sub>y</sub> total axis	680 Nm
Max. moment M <sub>z</sub> total axis	680 Nm
M <sub>x</sub> at theoretical life value of 100 km (only guide consideration)	383 Nm
M <sub>y</sub> at theoretical life value of 100 km (only guide consideration)	2502 Nm
M <sub>z</sub> at theoretical life value of 100 km (only guide consideration)	2502 Nm
Distance between slide surface and guide centre	70 mm
Max. feed force F <sub>x</sub>	1000 N ... 1300 N

Feature	Value
Feed constant	165 mm/U
Reference service life	5000 km
Weight of slide	4190 g
Weight of additional slide	3240 g
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	Tempered steel
Material guide rail	Tempered steel Corroprotect coated
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 or nitrile rubber (NBR) with glass cord and nylon coating