

# Toothed belt axis ELGA-TB-KF-70- -

Part number: 8024914



 General operating condition

## Data sheet

Overall data sheet – Individual values depend upon your configuration.

Feature	Value
Effective diameter of drive pinion	28.65 mm
Working stroke	50 mm ... 5000 mm
Size	70
Toothed-belt pitch	3 mm
Mounting position	Any
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>	1500 N
Max. force F <sub>z</sub>	1850 N
Max. force F <sub>y</sub> total axis	1500 N
Max. force F <sub>z</sub> total axis	1850 N
F <sub>y</sub> at theoretical life value of 100 km (only guide consideration)	5520 N
F <sub>z</sub> at theoretical life value of 100 km (only guide consideration)	6808 N
Max. moment M <sub>x</sub>	16 Nm
Max. moment M <sub>y</sub>	132 Nm
Max. moment M <sub>z</sub>	132 Nm
Max. moment M <sub>x</sub> total axis	16 Nm
Max. moment M <sub>y</sub> total axis	132 Nm
Max. moment M <sub>z</sub> total axis	132 Nm
M <sub>x</sub> at theoretical life value of 100 km (only guide consideration)	59 Nm
M <sub>y</sub> at theoretical life value of 100 km (only guide consideration)	486 Nm
M <sub>z</sub> at theoretical life value of 100 km (only guide consideration)	486 Nm
Distance between slide surface and guide centre	37 mm
Max. feed force F <sub>x</sub>	260 N ... 350 N

<b>Feature</b>	<b>Value</b>
Feed constant	90 mm/U
Reference service life	5000 km
Weight of slide	900 g
Weight of additional slide	740 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	Stainless steel
Material guide rail	Stainless steel
Material pulleys	High-alloy stainless steel
Material slide	Anodised wrought aluminium alloy
Material toothed belt clamping piece	Cast stainless steel
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