

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

Part number: 570502

FESTO



 [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 ... 8500 mm
Size	70
Toothed-belt pitch	3 mm
Mounting position	Any
Guide	Plain-bearing guide
Design	Electromechanical linear axis With toothed belt
Type of motor	Stepper motor Servo motor
Symbol	00991212
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
2nd moment of area ly	147000 mm <sup>4</sup>
2nd moment of area lz	425000 mm <sup>4</sup>
Max. drive torque	5 Nm
Max. force Fy	80 N
Max. force Fz	400 N
Max. force Fy total axis	80 N
Max. force Fz total axis	400 N
Max. idle running transfer resistance	35 N
Max. moment Mx	5 Nm
Max. moment My	30 Nm
Max. moment Mz	10 Nm
Max. moment Mx total axis	5 Nm
Max. moment My total axis	30 Nm
Max. moment Mz total axis	10 Nm
Max. feed force Fx	350 N
Frictional torque independent of load	0.5 Nm
Torsional mass moment of inertia It	71500 mm <sup>4</sup>

Feature	Value
Mass moment of inertia JH per metre of stroke	0.019 kgcm <sup>2</sup>
Mass moment of inertia JL per kg of working load	2.05 kgcm <sup>2</sup>
Mass moment of inertia JO	1.75 kgcm <sup>2</sup>
Feed constant	90 mm/U
Reference service life	5000 km
Weight of slide	570 g
Basic weight for 0 mm stroke	2160 g
Additional weight per 10 mm stroke	26.4 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	POM
Material guide rail	Anodised wrought aluminium alloy
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 Polychloroprene or nitrile rubber (NBR) with glass cord and nylon coating