

Toothed belt axis ELGA-TB-G-80- -

Part number: 570503

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	Plain-bearing guide
Design	Electromechanical linear axis With toothed belt
Type of motor	Stepper motor Servo motor
Max. acceleration	50 m/s ²
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 Iy	277000 mm ⁴
2nd moment of area Iz	907000 mm ⁴
Max. drive torque	16.9 Nm
Max. force Fy	200 N
Max. force Fz	800 N
Max. force Fy total axis	200 N
Max. force Fz total axis	800 N
Max. idle running transfer resistance	50 N
Max. moment Mx	10 Nm
Max. moment My	60 Nm
Max. moment Mz	20 Nm
Max. moment Mx total axis	10 Nm
Max. moment My total axis	60 Nm
Max. moment Mz total axis	20 Nm
Max. feed force Fx	800 N

Feature	Value
Frictional torque independent of load	1 Nm
Torsional mass moment of inertia I_t	108000 mm ⁴
Mass moment of inertia J_H per metre of stroke	0.093 kgcm ²
Mass moment of inertia J_L per kg of working load	3.96 kgcm ²
Mass moment of inertia J_O	6.66 kgcm ²
Feed constant	125 mm/U
Reference service life	5000 km
Weight of slide	1.1 kg
Basic weight for 0 mm stroke	4000 g
Additional weight per 10 mm stroke	35.6 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	Stainless steel casting
Material toothed belt	Polychloroprene with glass filament and nylon coating Polyurethane with steel cord and nylon cover