

Toothed belt axis ELGA-TB-G-120- -

Part number: 570504

FESTO



Data sheet

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	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	1230000 mm ⁴
2nd moment of area Iz	4030000 mm ⁴
Max. drive torque	34.2 Nm
Max. force Fy	380 N
Max. force Fz	1600 N
Max. force Fy total axis	380 N
Max. force Fz total axis	1600 N
Max. idle running transfer resistance	114 N
Max. moment Mx	20 Nm
Max. moment My	120 Nm
Max. moment Mz	40 Nm
Max. moment Mx total axis	20 Nm
Max. moment My total axis	120 Nm
Max. moment Mz total axis	40 Nm
Max. feed force Fx	1300 N

Feature	Value
Frictional torque independent of load	3 Nm
Torsional mass moment of inertia I_t	481000 mm ⁴
Mass moment of inertia J_H per metre of stroke	0.21 kgcm ²
Mass moment of inertia J_L per kg of working load	6.9 kgcm ²
Mass moment of inertia J_O	32 kgcm ²
Feed constant	165 mm/U
Reference service life	5000 km
Weight of slide	3.06 kg
Basic weight for 0 mm stroke	11800 g
Additional weight per 10 mm stroke	74.5 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