

Belt driven linear actuator ELGA-TB-G-120- -

Part number: 570504

FESTO



Data sheet

Feature	Value
Drive pinion effective diameter	52.52 mm
Working stroke	50 mm...8500 mm
Size	120
Toothed belt pitch	5 mm
Mounting position	Any
Guide	Sliding guide
Structural design	Electromechanical linear axis with toothed belt
Motor type	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. driving 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. no-load resistance to shifting	114 N
Max. torque Mx	20 Nm
Max. torque My	120 Nm
Max. torque 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
No-load driving torque	3 Nm
Torsion moment of inertia I_t	481000 mm ⁴
Mass moment of inertia J_H per meter of stroke	0.21 kgcm ²
Mass moment of inertia J_L per kg of payload	6.9 kgcm ²
Mass moment of inertia J_O	32 kgcm ²
Feed constant	165 mm/U
Reference service life	5000 km
Slide weight	3.06 kg
Basic weight with 0 mm stroke	11800 g
Additional weight per 10 mm stroke	74.5 g
Dynamic deflection (load moved)	0.05% of axis length, maximum 0.5 mm
Static deflection (load at standstill)	0.1 % of axis length
Profile material	Wrought aluminum alloy, anodized
Note on materials	RoHS-compliant
Cover strip material	Stainless steel strip
Drive cover material	Wrought aluminum alloy, anodized
Slide carriage material	POM
Guide rail material	Wrought aluminum alloy, anodized
Belt pulley material	High-alloy stainless steel
Slide material	Wrought aluminum alloy, anodized
Toothed belt clamping component material	Cast stainless steel
Toothed belt material	Polychloroprene with glass cord and nylon coating Polyurethane with steel cord and nylon cover