

Belt driven linear actuator ELGA-TB-G-80- -

Part number: 570503

FESTO



Data sheet

Feature	Value
Drive pinion effective diameter	39.79 mm
Working stroke	50 mm...8500 mm
Size	80
Toothed belt pitch	5 mm
Mounting position	Any
Guide	Plain-bearing 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	277000 mm ⁴
2nd moment of area Iz	907000 mm ⁴
Max. driving 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. no-load resistance to shifting	50 N
Max. torque Mx	10 Nm
Max. torque My	60 Nm
Max. torque 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
No-load driving torque	1 Nm
Torsion moment of inertia I_t	108000 mm ⁴
Mass moment of inertia J_H per meter of stroke	0.093 kgcm ²
Mass moment of inertia J_L per kg of payload	3.96 kgcm ²
Mass moment of inertia J_O	6.66 kgcm ²
Feed constant	125 mm/U
Reference service life	5000 km
Slide weight	1.1 kg
Basic weight with 0 mm stroke	4000 g
Additional weight per 10 mm stroke	35.6 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 strip steel
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