

Belt driven linear actuator ELGR-TB-45-500-0H

Part number: 8083780

FESTO



 [General operating condition](#)

Data sheet

Feature	Value
Drive pinion effective diameter	24.83 mm
Working stroke	500 mm
Size	45
Toothed belt elongation	0.08 %
Toothed belt pitch	3 mm
Mounting position	Any
Guide	Recirculating ball bearing guide
Structural design	Electromechanical linear axis with toothed belt
Motor type	Stepper motor Servo motor
Symbol	00991212
Max. acceleration	50 m/s ²
Max. speed	1 m/s ... 3 m/s
Repetition accuracy	±0.1 mm
Duty cycle	100%
LABS (PWIS) conformity	VDMA24364 zone III
Degree of protection	IP20
Ambient temperature	-10 °C ... 50 °C
2nd moment of area Iy	15700 mm ⁴
2nd moment of area Iz	17940 mm ⁴
Max. driving torque	1.24 Nm
Max. force Fy	100 N
Max. force Fz	100 N
Max. no-load resistance to shifting	16.1 N
Max. feed force Fx	100 N
No-load driving torque	0.2 Nm
Mass moment of inertia JH per meter of stroke	0.11 kgcm ²
Mass moment of inertia JL per kg of payload	1.54 kgcm ²
Feed constant	78 mm/U
Reference service life	5000 km
Additional moving mass per 10 mm stroke	0.69 g
Product weight	5730 g
Additional weight per 10 mm stroke	50 g
Profile material	Wrought aluminum alloy Anodized

Feature	Value
Note on materials	RoHS-compliant
Drive cover material	Wrought aluminum alloy Anodized
Belt pulley material	High-alloy stainless steel
Slide material	Wrought aluminum alloy Anodized
Toothed belt clamping component material	Beryllium bronze
Toothed belt material	Polychloroprene with glass cord and nylon coating