

Toothed belt axis ELGR-TB-45-500-0H

Part number: 8083780

FESTO



 [General operating condition](#)

Data sheet

Feature	Value
Effective diameter of drive pinion	24.83 mm
Working stroke	500 mm
Size	45
Toothed-belt stretch	0.08 %
Toothed-belt pitch	3 mm
Mounting position	Any
Guide	Recirculating ball bearing guide
Design	Electromechanical linear axis With toothed belt
Type of motor	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. drive torque	1.24 Nm
Max. force Fy	100 N
Max. force Fz	100 N
Max. idle running transfer resistance	16.1 N
Max. feed force Fx	100 N
Frictional torque independent of load	0.2 Nm
Mass moment of inertia JH per metre of stroke	0.11 kgcm ²
Mass moment of inertia JL per kg of working load	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
Material profile	Wrought aluminium alloy anodised

Feature	Value
Note on materials	RoHS compliant
Material drive cover	Wrought aluminium alloy anodised
Material pulleys	High-alloy stainless steel
Material slide	Wrought aluminium alloy anodised
Material toothed belt clamping piece	Beryllium copper
Material toothed belt	Polychloroprene or nitrile rubber (NBR) with glass cord and nylon coating