

Toothed belt axis

ELGA-TB-KF-70-500-0H

Part number: 8041853

FESTO

With recirculating ball bearing guide



Data sheet

Feature	Value
Effective diameter of drive pinion	28.65 mm
Working stroke	500 mm
Size	70
Stroke reserve	0 mm
Toothed-belt stretch	0.213 %
Toothed-belt pitch	3 mm
Assembly position	Any
Guide	Recirculating ball bearing guide
Design structure	Electromechanical linear axis With toothed belt
Motor type	Stepper motor Servomotor
Measuring method: displacement encoder	Incremental
Max. acceleration	50 m/s ²
Max. speed	5 m/s
Repetition accuracy	±0,08 mm
Duty cycle	100 %
PWIS conformity	VDMA24364 zone III
Protection class	IP40
Ambient temperature	-10 ... 60 °C
Area moment of inertia 2nd degree Iy	146.05E+03 mm ⁴
Area moment of inertia 2nd degree Iz	459.29E+03 mm ⁴
Max. drive torque	5.02 Nm
Max. force Fy	1,500 N
Max. force Fz	1,850 N
Max. idling displacement resistance	41.9 N
Max. torque Mx	16 Nm
Max. torque My	132 Nm
Max. torque Mz	132 Nm
Max. feed force Fx	350 N
No-load driving torque	0.6 Nm
Torsional mass moment of inertia It	103.88E+03 mm ⁴
Mass moment of inertia JH per meter of stroke	0.19 kgcm ²
Mass moment of inertia JL per kg of working load	2.05 kgcm ²
Mass moment of inertia, JO	2.43 kgcm ²
Mass moment of inertia JW for additional slide	1.86 kgcm ²
Feed constant	90 mm/U
Lubrication interval, distance dependent	1,000 km
Slide weight	0.9 kg
Additional slide weight	0.74 kg
Basic weight for 0 mm stroke	2.97 kg
Additional weight per 10 mm stroke	0.039 kg
Material of profile	Wrought Aluminum alloy Anodized

Feature	Value
Materials note	Conforms to RoHS
Material cover tape	Stainless steel strip
Material drive cover	Wrought Aluminum alloy Anodized
Material guide slide	Stainless steel
Material guide rail	Stainless steel
Material pulleys	High alloy steel, non-corrosive
Material slide	Wrought Aluminum alloy Anodized
Material toothed belt clamping piece	Stainless steel casting
Material toothed belt	polychloroprene with glass cord and nylon coating