

Toothed belt axis

ELGA-TB-KF-120-500-0H

Part number: 8041865

FESTO

With recirculating ball bearing guide



Data sheet

Feature	Value
Effective diameter of drive pinion	52.52 mm
Working stroke	500 mm
Size	120
Stroke reserve	0 mm
Toothed-belt stretch	0.21 %
Toothed-belt pitch	5 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	1,264.58E+03 mm ⁴
Area moment of inertia 2nd degree Iz	4,365.79E+03 mm ⁴
Max. drive torque	34.1 Nm
Max. force Fy	5,500 N
Max. force Fz	6,890 N
Max. idling displacement resistance	76.2 N
Max. torque Mx	104 Nm
Max. torque My	680 Nm
Max. torque Mz	680 Nm
Max. feed force Fx	1,300 N
No-load driving torque	2.8 Nm
Torsional mass moment of inertia It	435.68E+03 mm ⁴
Mass moment of inertia JH per meter of stroke	2.15 kgcm ²
Mass moment of inertia JL per kg of working load	6.9 kgcm ²
Mass moment of inertia, JO	40.99 kgcm ²
Mass moment of inertia JW for additional slide	28.91 kgcm ²
Feed constant	165 mm/U
Lubrication interval, distance dependent	1,000 km
Slide weight	4.19 kg
Additional slide weight	3.24 kg
Basic weight for 0 mm stroke	15.68 kg
Additional weight per 10 mm stroke	0.106 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	Heat-treatment steel
Material guide rail	Heat-treatment steel corrotec coated
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