

# Toothed belt axis

## ELGA-TB-KF-80-1200-0H

Part number: 8041863

FESTO

With recirculating ball bearing guide



## Data sheet

Feature	Value
Effective diameter of drive pinion	39.79 mm
Working stroke	1,200 mm
Size	80
Stroke reserve	0 mm
Toothed-belt stretch	0.168 %
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 <sup>2</sup>
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	257.18E+03 mm <sup>4</sup>
Area moment of inertia 2nd degree Iz	913.66E+03 mm <sup>4</sup>
Max. drive torque	15.92 Nm
Max. force Fy	2,500 N
Max. force Fz	3,050 N
Max. idling displacement resistance	50.3 N
Max. torque Mx	36 Nm
Max. torque My	228 Nm
Max. torque Mz	228 Nm
Max. feed force Fx	800 N
No-load driving torque	1 Nm
Torsional mass moment of inertia It	159.25E+03 mm <sup>4</sup>
Mass moment of inertia JH per meter of stroke	0.93 kgcm <sup>2</sup>
Mass moment of inertia JL per kg of working load	3.96 kgcm <sup>2</sup>
Mass moment of inertia, JO	9.82 kgcm <sup>2</sup>
Mass moment of inertia JW for additional slide	7.61 kgcm <sup>2</sup>
Feed constant	125 mm/U
Lubrication interval, distance dependent	1,000 km
Slide weight	1.9 kg
Additional slide weight	1.53 kg
Basic weight for 0 mm stroke	4.7 kg
Additional weight per 10 mm stroke	0.051 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