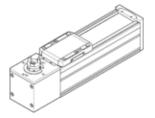
Toothed belt axis **ELGC-TB-KF-80-1800** Part number: 8062794



Data sheet

Feature	Value
Effective diameter of drive pinion	33.42 mm
Working stroke	1,800 mm
Size	80
Stroke reserve	0 mm
Toothed-belt stretch	0.2 %
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
Position detection	For proximity sensor
	For inductive sensors
Max. acceleration	15 m/s2
Max. speed	1.5 m/s
Repetition accuracy	±0,1 mm
Duty cycle	100 %
PWIS conformity	VDMA24364 zone III
RSBP classification to CD-0033	F1a
Cleanroom class	ISO class 7
Protection class	IP40
Ambient temperature	0 50 °C
Impact energy in end positions	0.75 mJ
Note on the impact energy it the end positions	At maximum homing speed of 0.01 m/s
Area moment of inertia 2nd degree ly	1,370E+03 mm4
Area moment of inertia 2nd degree Iz	1,660E+03 mm4
Max. drive torque	4.178 Nm
Max. force Fy	900 N
Max. force Fz	2,700 N
Fy for the guide calculation for a service life of 5000 km or 5 million cycles	5,543 N
-	5,543 N
Fy with theoretical service life of 100 km (from a guide perspective only)	20,400 N
Fz with theoretical service life of 100 km (from a guide perspective only)	20,400 N
Max. idling displacement resistance	24.7 N
Max. torque Mx	59.8 Nm
Max. torque My	56.2 Nm
Max. torque Mz	56.2 Nm
Mx for the guide calculation for a service life of 5000 km or 5 million cycles	
, , , , , , , , , , , , , , , , , , , ,	56.2 Nm
Mz for the guide calculation for a service life of 5000 km or 5 million cycles	56.2 Nm
Mx with theoretical service life of 100 km (from a guide perspective only	220 Nm
My with theoretical service life of 100 km (from a guide perspective only)	207 Nm
Mz with theoretical service life of 100 km (from a guide perspective only)	207 Nm
Distance between the slide surface and the centre of the guide	72.5 mm

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FESTO

Feature	Value	
Max. feed force Fx	250 N	
No-load driving torque	0.413 Nm	
Torsional mass moment of inertia It	90.5E+03 mm4	
Mass moment of inertia JH per meter of stroke	0.1927 kgcm2	
Mass moment of inertia JL per kg of working load	2.793 kgcm2	
Mass moment of inertia, JO	2.912 kgcm2	
Feed constant	105 mm/U	
Maintenance interval	Life-time lubrication	
Moving mass	901 g	
Moving mass with 0 mm stroke	901 g	
Slide weight	272 g	
Product weight	16,611 g	
Basic weight for 0 mm stroke	3,500 g	
Additional weight per 10 mm stroke	73 g	
Dynamic deflection (load moved)	0.05% of the axis length, max. 0.5 mm	
Static deflection (load at standstill)	0.1% of the axis length	
Interface code, actuator	T46	
Material of end caps	Die-cast aluminium, painted	
Material of profile	Anodised wrought aluminium alloy	
Materials note	Conforms to RoHS	
Material cover tape	Stainless steel strip	
Material drive cover	Die-cast aluminium, painted	
Material guide slide	Heat-treatment steel	
Material guide rail	Heat-treatment steel	
Material pulleys	High alloy steel, non-corrosive	
Material slide	Aluminum die cast	
Material toothed belt	Polychloroprene with glass fibers	