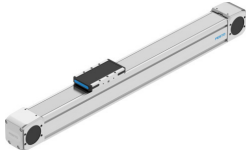


# Toothed belt axis ELGD-TB-KF-60- -

Part number: 8176884

**FESTO**



## Data sheet

Feature	Value
Effective diameter of drive pinion	31.51 mm
Working stroke	50 mm...8500 mm
Size	60
Stroke reserve	0 mm
Toothed-belt pitch	3 mm
Mounting position	optional
Guide	Recirculating ball bearing guide
Design	Electromechanical linear axis With toothed belt
Type of motor	Stepper motor Servo motor
Functional principle of measuring system	Incremental
Position detection	Via inductive sensors
Max. acceleration	50 m/s <sup>2</sup>
Max. speed	3 m/s
Repetition accuracy	±0.04 mm
Duty cycle	100%
LABS (PWIS) conformity	VDMA24364 zone III
Suitability for the production of Li-ion batteries	Product corresponds to the internal product definition from Festo for use in battery production:Metals with more than 1% by mass of copper, zinc or nickel are excluded from use.The exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils
Degree of protection	IP40
Ambient temperature	0 °C...60 °C
Impact energy in end positions	0.13 mJ
Note on the impact energy in the end positions	At maximum homing speed of 0.01 m/s
2nd moment of area Iy	485200 mm <sup>4</sup>
2nd moment of area Iz	730600 mm <sup>4</sup>
Max. drive torque	5.5 Nm
Max. force Fy	2200 N...4400 N
Max. force Fz	2200 N...4400 N
Max. force Fy total axis	1513 N...3026 N

Feature	Value
Max. force Fz total axis	3000 N...3200 N
Fy at theoretical life value of 100 km (only guide consideration)	9208 N...18415 N
Fz at theoretical life value of 100 km (only guide consideration)	9208 N...18415 N
Max. idle running transfer resistance	29.8 N
Max. moment Mx	38 Nm...75 Nm
Max. moment My	15 Nm...150 Nm
Max. moment Mz	15 Nm...140 Nm
Max. moment Mx total axis	68 Nm...119 Nm
Max. moment My total axis	40 Nm...128 Nm
Max. moment Mz total axis	50 Nm...133 Nm
Mx at theoretical life value of 100 km (only guide consideration)	157 Nm...314 Nm
My at theoretical life value of 100 km (only guide consideration)	60 Nm...500 Nm
Mz at theoretical life value of 100 km (only guide consideration)	60 Nm...500 Nm
Distance between slide surface and guide centre	49 mm
Max. feed force Fx	350 N
Torsional mass moment of inertia It	192900 mm <sup>4</sup>
Mass moment of inertia JH per metre of stroke	0.3128 kgcm <sup>2</sup>
Mass moment of inertia JL per kg of working load	2.4822 kgcm <sup>2</sup>
Mass moment of inertia JO	2.1016 kgcm <sup>2</sup> ...2.6749 kgcm <sup>2</sup>
Feed constant	99 mm/U
Reference service life	5000 km
Maintenance interval	Life-time lubrication
Moving mass	490 g...710 g
Product weight	2486 g...2909 g
Basic weight for 0 mm stroke	2486 g...2909 g
Additional weight per 10 mm stroke	49 g
Dynamic deflection (moving load)	0.05% of the axis length, max. 0.5 mm
Static deflection (load in standstill)	0.1% of the axis length
Interface code, actuator	N48
Material end cap	Aluminium gravity die-cast, painted
Material profile	Anodised wrought aluminium alloy
Note on materials	RoHS-compliant
Material cover tape	High-alloy stainless steel
Material drive cover	Aluminium gravity die-cast, painted
Material guide slide	Steel
Material guide rail	Steel
Material pulleys	High-alloy stainless steel
Material slide	Wrought aluminium alloy
Material toothed belt	Polyurethane with steel cord