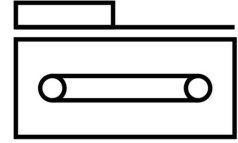
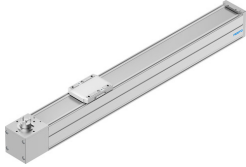


# Belt driven linear actuator ELGC-TB-KF-80-500

Part number: 8062788

FESTO



[PDF](#) General operating condition

## Data sheet

Feature	Value
Drive pinion effective diameter	33.42 mm
Working stroke	500 mm
Size	80
Stroke reserve	0 mm
Toothed belt pitch	3 mm
Mounting position	Any
Guide	Recirculating ball bearing guide
Structural design	Electromechanical linear axis with toothed belt
Motor type	Stepper motor Servo motor
Symbol	00991212
Position sensing	For proximity sensor For inductive proximity sensors
Max. acceleration	15 m/s <sup>2</sup>
Max. speed	1.5 m/s
Repetition accuracy	±0.1 mm
Duty cycle	100%
LABS (PWIS) conformity	VDMA24364 zone III
Suitability for the production of Li-ion batteries	Metals with more than 1% by mass of copper, zinc or nickel by mass are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils
Cleanroom class	Class 7 according to ISO 14644-1
Storage temperature	-20 °C ... 60 °C
Degree of protection	IP40
Ambient temperature	0 °C ... 50 °C
Impact energy in the end positions	7.5E-4 J
Note on the impact energy in the end positions	At maximum speed of the reference run of 0.01 m/s
2nd moment of area Iy	1370000 mm <sup>4</sup>
2nd moment of area Iz	1660000 mm <sup>4</sup>
Max. driving torque	4.178 Nm
Max. force Fy	5543 N
Max. force Fz	5543 N
Max. force Fy total axis	900 N
Max. force Fz total axis	2700 N
Fy with theoretical service life of 100 km (from a guide perspective only)	20400 N

Feature	Value
Fz with theoretical service life of 100 km (from a guide perspective only)	20400 N
Max. no-load resistance to shifting	24.7 N
Max. torque Mx	59.8 Nm
Max. torque My	56.2 Nm
Max. torque Mz	56.2 Nm
Max. moment Mx total axis	59.8 Nm
Max. moment My total axis	56.2 Nm
Max. moment Mz total axis	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 slide surface and guide center	72.5 mm
Max. feed force Fx	250 N
No-load driving torque	0.413 Nm
Torsion moment of inertia It	90500 mm <sup>4</sup>
Mass moment of inertia JH per meter of stroke	0.1927 kgcm <sup>2</sup>
Mass moment of inertia JL per kg of payload	2.793 kgcm <sup>2</sup>
Mass moment of inertia JO	2.912 kgcm <sup>2</sup>
Feed constant	105 mm/U
Reference service life	5000 km
Maintenance interval	Life-time lubrication
Moving mass	901 g
Slide weight	272 g
Product weight	7142 g
Basic weight with 0 mm stroke	3500 g
Additional weight per 10 mm stroke	73 g
Dynamic deflection (load moved)	0.05% of axis length, maximum 0.5 mm
Static deflection (load at standstill)	0.1 % of axis length
Interface code, actuator	T46
Material of end caps	Die cast aluminum, painted
Profile material	Wrought aluminum alloy, anodized
Note on materials	RoHS-compliant
Cover strip material	Stainless steel strip
Drive cover material	Die cast aluminum, painted
Slide carriage material	Steel
Guide rail material	Steel
Belt pulley material	High-alloy stainless steel
Slide material	Die-cast aluminum
Toothed belt material	Polychloroprene with glass fiber