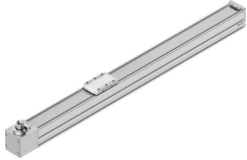


# Belt driven linear actuator ELGC-TB-KF-45-500

Part number: 8062770

FESTO



 [General operating condition](#)

## Data sheet

Feature	Value
Drive pinion effective diameter	19.1 mm
Working stroke	500 mm
Size	45
Stroke reserve	0 mm
Toothed belt pitch	2 mm
Mounting position	Any
Guide	Recirculating ball bearing
Structural design	Electromechanical linear axis With toothed belt
Motor type	Stepper motor Servo motor
Symbol	00991212
Position sensing	Via proximity switch For inductive sensors
Max. acceleration	15 m/s <sup>2</sup>
Max. speed	1.2 m/s
Repetition accuracy	±0.1 mm
Duty cycle	100%
LABS (PWIS) conformity	VDMA24364 Zone III
Suitability for the production of Li-ion batteries	Suitable for battery production with reduced Cu/Zn/Ni values (F1a)
Cleanroom suitability, measured according to ISO 14644-14	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	1.25E-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	140000 mm <sup>4</sup>
2nd moment of area Iz	170000 mm <sup>4</sup>
Max. driving torque	0.716 Nm
Max. force Fy	880 N
Max. force Fz	880 N
Max. force Fy total axis	300 N
Max. force Fz total axis	600 N
Fy with theoretical service life of 100 km (from a guide perspective only)	3240 N
Fz with theoretical service life of 100 km (from a guide perspective only)	3240 N
Max. no-load resistance to shifting	7.8 N

Feature	Value
Max. torque Mx	5.5 Nm
Max. torque My	4.7 Nm
Max. torque Mz	4.7 Nm
Max. moment Mx total axis	5.5 Nm
Max. moment My total axis	4.7 Nm
Max. moment Mz total axis	4.7 Nm
Mx with theoretical service life of 100 km (from a guide perspective only)	20 Nm
My with theoretical service life of 100 km (from a guide perspective only)	17 Nm
Mz with theoretical service life of 100 km (from a guide perspective only)	17 Nm
Distance between slide surface and guide center	42.8 mm
Max. feed force Fx	75 N
No-load driving torque	0.075 Nm
Torsion moment of inertia It	8500 mm <sup>4</sup>
Mass moment of inertia JH per meter of stroke	0.0281 kgcm <sup>2</sup>
Mass moment of inertia JL per kg of payload	0.9119 kgcm <sup>2</sup>
Mass moment of inertia JO	0.1862 kgcm <sup>2</sup>
Feed constant	60 mm/U
Reference service life	5000 km
Maintenance interval	Lifetime lubrication
Moving mass	169 g
Slide weight	55 g
Product weight	1906 g
Basic weight with 0 mm stroke	760 g
Additional weight per 10 mm stroke	23 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	V32
Material of end caps	Die cast aluminum, painted
Profile material	Wrought aluminum alloy, anodized
Note on materials	RoHS compliant
Cover strip material	Stainless strip steel
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 or nitrile rubber (NBR) with glass cord and nylon coating