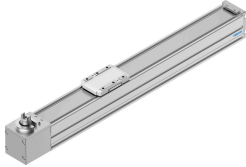


# Belt driven linear actuator ELGC-TB-KF-45-300

Part number: 8062769

FESTO



## Data sheet

Feature	Value
Drive pinion effective diameter	19.1 mm
Working stroke	300 mm
Size	45
Stroke reserve	0 mm
Toothed belt elongation	0.187 %
Toothed belt pitch	2 mm
Mounting position	Any
Guide	Recirculating ball bearing guide
Structural design	Electromechanical linear axis with toothed belt
Motor type	Stepper motor Servo motor
Measuring principle of linear potentiometer	Incremental
Position sensing	For proximity sensor For inductive proximity 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	Metals with more than 1% 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
Degree of protection	IP40
Ambient temperature	0 °C...50 °C
Impact energy in the end positions	0,13 mJ
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	300 N

Feature	Value
Max. force Fz	600 N
Max. force Fy total axis	880 N
Max. force Fz total axis	880 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
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
Maintenance interval	Life-time lubrication
Moving mass	169 g
Moving mass at 0 mm stroke	169 g
Slide weight	55 g
Product weight	1448 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 steel strip
Drive cover material	Die cast aluminum, painted
Slide carriage material	Tempered steel
Guide rail material	Tempered steel
Belt pulley material	High-alloy stainless steel
Slide material	Die-cast aluminum
Toothed belt material	Polychloroprene with glass fiber