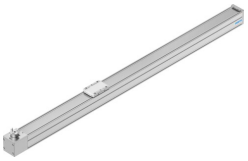
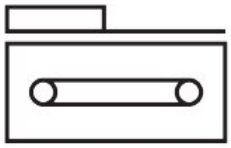
Toothed belt axis
ELGC-TB-KF-60-1200

Part number: 8062782





General operating condition

Data sheet

Feature	Value
Effective diameter of drive pinion	24.83 mm
Working stroke	1200 mm
Size	60
Stroke reserve	0 mm
Toothed-belt pitch	3 mm
Mounting position	Any
Guide	Recirculating ball bearing guide
Design	Electromechanical linear axis With toothed belt
Type of motor	Stepper motor Servo motor
Symbol	00991212
Position detection	Via proximity switch For inductive sensors
Max. acceleration	15 m/s²
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	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 end positions	2.5E-4 J
Note on the impact energy in the end positions	At maximum homing speed of 0.01 m/s
2nd moment of area Iy	441000 mm⁴
2nd moment of area Iz	542000 mm⁴
Max. drive torque	1.49 Nm
Max. force Fy	3641 N
Max. force Fz	3641 N
Max. force Fy total axis	600 N
Max. force Fz total axis	1800 N
Fy at theoretical life value of 100 km (only guide consideration)	13400 N
Fz at theoretical life value of 100 km (only guide consideration)	13400 N
Max. idle running transfer resistance	15.6 N

Feature	Value
Max. moment Mx	29.1 Nm
Max. moment My	31.8 Nm
Max. moment Mz	31.8 Nm
Max. moment Mx total axis	29.1 Nm
Max. moment My total axis	31.8 Nm
Max. moment Mz total axis	31.8 Nm
Mx at theoretical life value of 100 km (only guide consideration)	107 Nm
My at theoretical life value of 100 km (only guide consideration)	117 Nm
Mz at theoretical life value of 100 km (only guide consideration)	117 Nm
Distance between slide surface and guide centre	54.6 mm
Max. feed force Fx	120 N
Frictional torque independent of load	0.194 Nm
Torsional mass moment of inertia It	29800 mm⁴
Mass moment of inertia JH per metre of stroke	0.0851 kgcm²
Mass moment of inertia JL per kg of working load	1.5411 kgcm²
Mass moment of inertia JO	0.8804 kgcm²
Feed constant	78 mm/U
Reference service life	5000 km
Maintenance interval	Lifetime lubrication
Moving mass	482 g
Weight of slide	139 g
Product weight	6878 g
Basic weight for 0 mm stroke	1775 g
Additional weight per 10 mm stroke	43 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	T42
Material end cap	Painted die cast aluminium
Material profile	Anodised wrought aluminium alloy
Note on materials	RoHS compliant
Material cover tape	Stainless steel strip
Material drive cover	Painted die cast aluminium
Material guide slide	Steel
Material guide rail	Steel
Material pulleys	High-alloy stainless steel
Material slide	Die-cast aluminium
Material toothed belt	Polychloroprene or nitrile rubber (NBR) with glass cord and nylon coating