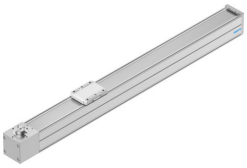
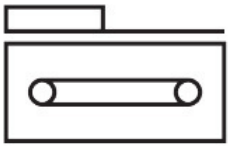
Toothed belt axis
ELGC-TB-KF-80-2000

Part number: 8062795





General operating condition

Data sheet

Feature	Value
Effective diameter of drive pinion	33.42 mm
Working stroke	2000 mm
Size	80
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
Symbol	00991212
Position detection	Via proximity switch Via 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 according to the Festo internal definition of the degree of severity F1A with restrictions regarding the use of Cu/Zn/Ni
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 end positions	7.5E-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	1370000 mm⁴
2nd moment of area Iz	1660000 mm⁴
Max. drive 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 at theoretical life value of 100 km (only guide consideration)	20400 N
Fz at theoretical life value of 100 km (only guide consideration)	20400 N

Feature	Value
Max. idle running transfer resistance	24.7 N
Max. moment Mx	59.8 Nm
Max. moment My	56.2 Nm
Max. moment 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 at theoretical life value of 100 km (only guide consideration)	220 Nm
My at theoretical life value of 100 km (only guide consideration)	207 Nm
Mz at theoretical life value of 100 km (only guide consideration)	207 Nm
Distance between slide surface and guide centre	72.5 mm
Max. feed force Fx	250 N
Frictional torque independent of load	0.413 Nm
Torsional mass moment of inertia It	90500 mm^4
Mass moment of inertia JH per metre of stroke	0.1927 $kgcm^2$
Mass moment of inertia JL per kg of working load	2.793 $kgcm^2$
Mass moment of inertia JO	2.912 $kgcm^2$
Feed constant	105 mm/U
Reference service life	5000 km
Maintenance interval	Life-time lubrication
Moving mass	901 g
Weight of slide	272 g
Product weight	18068 g
Basic weight for 0 mm stroke	3500 g
Additional weight per 10 mm stroke	73 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	T46
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