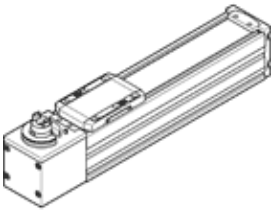
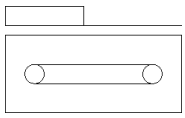
toothed belt axis
ELGC-TB-KF-45-1200

Part number: 8062774





Data sheet

Feature	Value
Effective diameter of drive pinion	19.1 mm
Working stroke	1,200 mm
Size	45
Stroke reserve	0 mm
Toothed-belt stretch	0.187 %
Toothed-belt pitch	2 mm
Assembly position	Any
Guide	Recirculating ball bearing guide
Design structure	Electromechanical linear axis With toothed belt
Motor type	Stepper motor Servomotor
Measuring method: displacement encoder	Incremental
Position detection	For proximity sensor For inductive sensors
Max. acceleration	15 m/s2
Max. speed	1.2 m/s
Repetition accuracy	±0,1 mm
Duty cycle	100 %
PWIS conformity	VDMA24364 zone III
RSBP classification to CD-0033	F1a
Cleanroom class	ISO class 7
Protection class	IP40
Ambient temperature	0 ... 50 °C
Impact energy in end positions	0.125 mJ
Note on the impact energy it the end positions	At maximum homing speed of 0.01 m/s
Area moment of inertia 2nd degree Iy	140E+03 mm4
Area moment of inertia 2nd degree Iz	170E+03 mm4
Max. drive torque	0.716 Nm
Max. force Fy	300 N
Max. force Fz	600 N
Fy for the guide calculation for a service life of 5000 km or 5 million cycles	880 N
Fz for the guide calculation for a service life of 5000 km or 5 million cycles	880 N
Fy with theoretical service life of 100 km (from a guide perspective only)	3,240 N
Fz with theoretical service life of 100 km (from a guide perspective only)	3,240 N
Max. idling displacement resistance	7.8 N
Max. torque Mx	5.5 Nm
Max. torque My	4.7 Nm
Max. torque Mz	4.7 Nm
Mx for the guide calculation for a service life of 5000 km or 5 million cycles	5.5 Nm
My for the guide calculation for a service life of 5000 km or 5 million cycles	4.7 Nm
Mz for the guide calculation for a service life of 5000 km or 5 million cycles	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 the slide surface and the centre of the guide	42.8 mm

Feature	Value
Max. feed force Fx	75 N
No-load driving torque	0.075 Nm
Torsional mass moment of inertia It	8.5E+03 mm4
Mass moment of inertia JH per metre of stroke	0.0281 kgcm2
Mass moment of inertia JL per kg of working load	0.9119 kgcm2
Mass moment of inertia, JO	0.1862 kgcm2
Feed constant	60 mm/U
Maintenance interval	Life-time lubrication
Moving mass	169 g
Moving mass with 0 mm stroke	169 g
Slide weight	55 g
Product weight	3,510 g
Basic weight for 0 mm stroke	760 g
Additional weight per 10 mm stroke	23 g
Dynamic deflection (load moved)	0.05% of the axis length, max. 0.5 mm
Static deflection (load at standstill)	0.1% of the axis length
Interface code, actuator	V32
Material of end caps	Die-cast aluminium, painted
Material of profile	Anodised wrought aluminium alloy
Materials note	Conforms to RoHS
Material cover tape	Stainless steel strip
Material drive cover	Die-cast aluminium, painted
Material guide slide	Heat-treatment steel
Material guide rail	Heat-treatment steel
Material pulleys	High alloy steel, non-corrosive
Material slide	Aluminium die cast
Material toothed belt	Polychloroprene with glass fibres