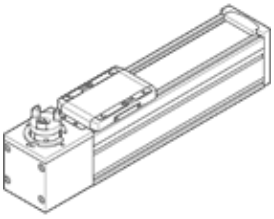
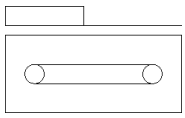
toothed belt axis
ELGC-TB-KF-60-600

Part number: 8062779

FESTO





Data sheet

Feature	Value
Effective diameter of drive pinion	24.83 mm
Working stroke	600 mm
Size	60
Stroke reserve	0 mm
Toothed-belt stretch	0.124 %
Toothed-belt pitch	3 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	1.5 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	0.25 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	441E+03 mm4
Area moment of inertia 2nd degree Iz	542E+03 mm4
Max. drive torque	1.49 Nm
Max. force Fy	600 N
Max. force Fz	1,800 N
Fy for the guide calculation for a service life of 5000 km or 5 million cycles	3,641 N
Fz for the guide calculation for a service life of 5000 km or 5 million cycles	3,641 N
Fy with theoretical service life of 100 km (from a guide perspective only)	13,400 N
Fz with theoretical service life of 100 km (from a guide perspective only)	13,400 N
Max. idling displacement resistance	15.6 N
Max. torque Mx	29.1 Nm
Max. torque My	31.8 Nm
Max. torque Mz	31.8 Nm
Mx for the guide calculation for a service life of 5000 km or 5 million cycles	29.1 Nm
My for the guide calculation for a service life of 5000 km or 5 million cycles	31.8 Nm
Mz for the guide calculation for a service life of 5000 km or 5 million cycles	31.8 Nm
Mx with theoretical service life of 100 km (from a guide perspective only	107 Nm
My with theoretical service life of 100 km (from a guide perspective only)	117 Nm
Mz with theoretical service life of 100 km (from a guide perspective only)	117 Nm
Distance between the slide surface and the centre of the guide	54.6 mm

Feature	Value
Max. feed force Fx	120 N
No-load driving torque	0.194 Nm
Torsional mass moment of inertia It	29.8E+03 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
Maintenance interval	Life-time lubrication
Moving mass	482 g
Moving mass with 0 mm stroke	482 g
Slide weight	139 g
Product weight	4,326 g
Basic weight for 0 mm stroke	1,775 g
Additional weight per 10 mm stroke	43 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	T42
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