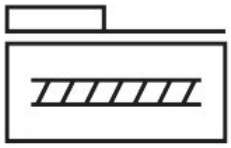
Ball screw axis
ELGA-BS-KF-70-300-0H-10P-ML

Part number: 8041818





Data sheet

Feature	Value
Working stroke	300 mm
Size	70
Stroke reserve	0 mm
Spindle diameter	12 mm
Spindle pitch	10 mm/U
Mounting position	optional
Guide	Recirculating ball bearing guide
Design	Electromechanical linear axis With ball screw
Type of motor	Stepper motor Servo motor
Spindle type	Ball screw
Functional principle of measuring system	Incremental
Max. acceleration	15 m/s²
Max. rotational speed	3000 rpm
Max. speed	0.5 m/s
Repetition accuracy	±0.02 mm
Duty cycle	100%
LABS (PWIS) conformity	VDMA24364 zone III
Degree of protection	IP40
Ambient temperature	-10 °C...60 °C
2nd moment of area Iy	165000 mm⁴
2nd moment of area Iz	472000 mm⁴
Idle torque at vmax	0.24 Nm
Idle torque at vmin	0.17 Nm
Max. force Fy	1500 N
Max. force Fz	1850 N
Max. force Fy total axis	1500 N
Max. force Fz total axis	1850 N
Fy at theoretical life value of 100 km (only guide consideration)	5520 N
Fz at theoretical life value of 100 km (only guide consideration)	6808 N
Max. moment Mx	16 Nm

Feature	Value
Max. moment My	132 Nm
Max. moment Mz	132 Nm
Max. moment Mx total axis	16 Nm
Max. moment My total axis	132 Nm
Max. moment Mz total axis	132 Nm
Mx at theoretical life value of 100 km (only guide consideration)	59 Nm
My at theoretical life value of 100 km (only guide consideration)	486 Nm
Mz at theoretical life value of 100 km (only guide consideration)	486 Nm
Distance between slide surface and guide centre	51 mm
Max. radial force at drive shaft	220 N
Max. feed force Fx	650 N
Torsional mass moment of inertia It	28300 mm^4
Mass moment of inertia JH per metre of stroke	0.142 $kgcm^2$
Mass moment of inertia JL per kg of working load	0.0253 $kgcm^2$
Mass moment of inertia JO	0.038 $kgcm^2$
Feed constant	10 mm/U
Reference service life	5000 km
Moving mass	804 g
Additional weight per 10 mm stroke	33 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
Material end cap	Wrought aluminium alloy Anodised
Material profile	Wrought aluminium alloy Anodised
Note on materials	RoHS-compliant
Material cover tape	Stainless steel strip
Material drive cover	Wrought aluminium alloy Anodised
Material guide slide	Steel
Material guide rail	Steel
Material slide	Wrought aluminium alloy Anodised
Material ball screw nut	Steel
Material spindle	Steel