

Ball screw axis

ELGC-BS-KF-60-300-12P

Part number: 8061493

FESTO



Data sheet

Feature	Value
Working stroke	300 mm
Size	60
Stroke reserve	0 mm
Reversing backlash theoretical	0.15 mm
Spindle diameter	12 mm
Spindle pitch	12 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 drive
Position detection	Via proximity switch Via inductive sensors
Max. acceleration	15 m/s ²
Max. rotational speed	4000 rpm
Max. speed	0.8 m/s
Repetition accuracy	±0.01 mm
Duty cycle	100%
LABS (PWIS) conformity	VDMA24364 zone III
Suitability for the production of Li-ion batteries	Product corresponds to the internal product definition from Festo for use in battery production: Metals with more than 1% by mass of copper, zinc or nickel are excluded from use. The exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils
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	1 mJ
Note on the impact energy in the end positions	At maximum homing speed of 0.01 m/s
2nd moment of area Iy	441000 mm ⁴

Feature	Value
2nd moment of area Iz	542000 mm ⁴
Idle torque at v _{max}	0.246 Nm
Idle torque at v _{min}	0.042 Nm
Max. force F _y	3641 N
Max. force F _z	3641 N
Max. force F _y total axis	600 N
Max. force F _z total axis	1800 N
F _y at theoretical life value of 100 km (only guide consideration)	13400 N
F _z at theoretical life value of 100 km (only guide consideration)	13400 N
Max. moment M _x	29.1 Nm
Max. moment M _y	31.8 Nm
Max. moment M _z	31.8 Nm
Max. moment M _x total axis	29.1 Nm
Max. moment M _y total axis	31.8 Nm
Max. moment M _z total axis	31.8 Nm
M _x at theoretical life value of 100 km (only guide consideration)	107 Nm
M _y at theoretical life value of 100 km (only guide consideration)	117 Nm
M _z at theoretical life value of 100 km (only guide consideration)	117 Nm
Distance between slide surface and guide centre	54.6 mm
Max. radial force at drive shaft	230 N
Max. feed force F _x	200 N
Torsional mass moment of inertia I _t	29800 mm ⁴
Mass moment of inertia J _H per metre of stroke	0.10779 kgcm ²
Mass moment of inertia J _L per kg of working load	0.036476 kgcm ²
Mass moment of inertia J _O	0.02235 kgcm ²
Feed constant	12 mm/U
Reference service life	5000 km
Maintenance interval	Life-time lubrication
Moving mass	525 g
Additional weight per 10 mm stroke	51 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	High-alloy stainless steel
Material drive cover	Painted die cast aluminium
Material guide slide	Steel
Material guide rail	Steel
Material slide	Die-cast aluminium
Material spindle nut	Steel
Material spindle	Steel