

Ball screw axis

ELGC-BS-KF-32-100-8P

Part number: 8061477

FESTO



Data sheet

Feature	Value
Working stroke	100 mm
Size	32
Stroke reserve	0 mm
Reversing backlash theoretical	0.15 mm
Spindle diameter	8 mm
Spindle pitch	8 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	4500 rpm
Max. speed	0.6 m/s
Repetition accuracy	±0.015 mm
Duty cycle	100%
LABS (PWIS) conformity	VDMA24364 zone III
Suitability for the production of Li-ion batteries	Suitable for battery production with reduced Cu/Zn/Ni values (F1a)
Cleanroom suitability, measured according to ISO 14644-14	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	0.25 mJ
Note on the impact energy in the end positions	At maximum homing speed of 0.01 m/s
2nd moment of area Iy	38000 mm ⁴
2nd moment of area Iz	45000 mm ⁴
Idle torque at vmax	0.04 Nm
Idle torque at vmin	0.02 Nm

Feature	Value
Max. force Fy	356 N
Max. force Fz	356 N
Max. force Fy total axis	150 N
Max. force Fz total axis	300 N
Fy at theoretical life value of 100 km (only guide consideration)	1310 N
Fz at theoretical life value of 100 km (only guide consideration)	1310 N
Max. moment Mx	1.3 Nm
Max. moment My	1.1 Nm
Max. moment Mz	1.1 Nm
Max. moment Mx total axis	1.3 Nm
Max. moment My total axis	1.1 Nm
Max. moment Mz total axis	1.1 Nm
Mx at theoretical life value of 100 km (only guide consideration)	5 Nm
My at theoretical life value of 100 km (only guide consideration)	4 Nm
Mz at theoretical life value of 100 km (only guide consideration)	4 Nm
Distance between slide surface and guide centre	31.4 mm
Max. radial force at drive shaft	75 N
Max. feed force Fx	40 N
Torsional mass moment of inertia It	1700 mm ⁴
Mass moment of inertia JH per metre of stroke	0.02218 kgcm ²
Mass moment of inertia JL per kg of working load	0.016211 kgcm ²
Mass moment of inertia JO	0.00274 kgcm ²
Feed constant	8 mm/U
Reference service life	5000 km
Maintenance interval	Life-time lubrication
Moving mass	83.4 g
Additional weight per 10 mm stroke	18 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	V25
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 ball screw nut	Steel
Material spindle	Steel