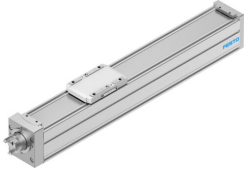


# Ball screw axis ELGC-BS-KF-60-100-12P

Part number: 8061491

FESTO



General operating condition

## Data sheet

Feature	Value
Working stroke	100 mm
Size	60
Stroke reserve	0 mm
Reversing backlash theoretical	150 µm
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
Symbol	00991211
Position detection	Via proximity switch Via inductive sensors
Max. acceleration	15 m/s <sup>2</sup>
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	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	0.001 J
Note on the impact energy in the end positions	At maximum homing speed of 0.01 m/s
2nd moment of area ly	441000 mm <sup>4</sup>
2nd moment of area lz	542000 mm <sup>4</sup>
Idle torque at v <sub>max</sub>	0.246 Nm
Idle torque at v <sub>min</sub>	0.042 Nm
Max. force F <sub>y</sub>	3641 N
Max. force F <sub>z</sub>	3641 N
Max. force F <sub>y</sub> total axis	600 N

Feature	Value
Max. force Fz total axis	1800 N
Fy at theoretical life value of 100 km (only guide consideration)	13400 N
Fz at theoretical life value of 100 km (only guide consideration)	13400 N
Max. moment Mx	29.1 Nm
Max. moment My	31.8 Nm
Max. moment Mz	31.8 Nm
Max. moment Mx total axis	29.1 Nm
Max. moment My total axis	31.8 Nm
Max. moment Mz total axis	31.8 Nm
Mx at theoretical life value of 100 km (only guide consideration)	107 Nm
My at theoretical life value of 100 km (only guide consideration)	117 Nm
Mz 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 Fx	200 N
Torsional mass moment of inertia It	29800 mm <sup>4</sup>
Mass moment of inertia JH per metre of stroke	0.10779 kgcm <sup>2</sup>
Mass moment of inertia JL per kg of working load	0.036476 kgcm <sup>2</sup>
Mass moment of inertia JO	0.02235 kgcm <sup>2</sup>
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 ball screw nut	Steel
Material spindle	Steel