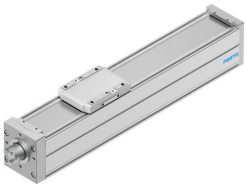
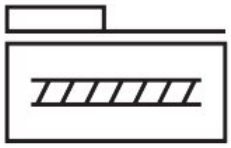
Ball screw axis
ELGC-BS-KF-80-200-16P

Part number: 8061499





Data sheet

Feature	Value
Working stroke	200 mm
Size	80
Stroke reserve	0 mm
Reversing backlash theoretical	0.15 mm
Spindle diameter	16 mm
Spindle pitch	16 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/s²
Max. rotational speed	3750 rpm
Max. speed	1 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	2 mJ
Note on the impact energy in the end positions	At maximum homing speed of 0.01 m/s
2nd moment of area Iy	1370000 mm⁴
2nd moment of area Iz	1660000 mm⁴
Idle torque at vmax	0.396 Nm
Idle torque at vmin	0.095 Nm

Feature	Value
Max. force Fy	5543 N
Max. force Fz	5543 N
Max. force Fy total axis	900 N
Max. force Fz total axis	2700 N
Fy at theoretical life value of 100 km (only guide consideration)	20400 N
Fz at theoretical life value of 100 km (only guide consideration)	20400 N
Max. moment Mx	59.8 Nm
Max. moment My	56.2 Nm
Max. moment Mz	56.2 Nm
Max. moment Mx total axis	59.8 Nm
Max. moment My total axis	56.2 Nm
Max. moment Mz total axis	56.2 Nm
Mx at theoretical life value of 100 km (only guide consideration)	220 Nm
My at theoretical life value of 100 km (only guide consideration)	207 Nm
Mz at theoretical life value of 100 km (only guide consideration)	207 Nm
Distance between slide surface and guide centre	72.5 mm
Max. radial force at drive shaft	500 N
Max. feed force Fx	350 N
Torsional mass moment of inertia It	90500 mm^4
Mass moment of inertia JH per metre of stroke	0.35257 $kgcm^2$
Mass moment of inertia JL per kg of working load	0.064846 $kgcm^2$
Mass moment of inertia JO	0.07856 $kgcm^2$
Feed constant	16 mm/U
Reference service life	5000 km
Maintenance interval	Life-time lubrication
Moving mass	978 g
Additional weight per 10 mm stroke	88 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	T46
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