

Ball screw axis ELGD-BS-KF-60- -

Part number: 8176874

FESTO



Data sheet

Feature	Value
Working stroke	50 mm...1000 mm
Size	60
Stroke reserve	0 mm
Reversing backlash theoretical	0.15 mm
Spindle diameter	12 mm
Spindle pitch	5 mm/U...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 drive
Position detection	Via inductive sensors
Max. acceleration	15 m/s ²
Max. rotational speed	6667 rpm
Max. speed	0.56 m/s...1.11 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
Degree of protection	IP40
Ambient temperature	0 °C...60 °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	508600 mm ⁴
2nd moment of area Iz	685700 mm ⁴
Idle torque at v _{max}	0.107 Nm...0.14 Nm
Idle torque at v _{min}	0.045 Nm...0.047 Nm

Feature	Value
Max. force Fy	2200 N...4075 N
Max. force Fz	2200 N...4079 N
Max. force Fy total axis	930 N...1650 N
Max. force Fz total axis	1300 N...2750 N
Fy at theoretical life value of 100 km (only guide consideration)	9208 N...18415 N
Fz at theoretical life value of 100 km (only guide consideration)	9208 N...18415 N
Max. moment Mx	37 Nm...65 Nm
Max. moment My	15 Nm...141 Nm
Max. moment Mz	15 Nm...139 Nm
Max. moment Mx total axis	36 Nm...66 Nm
Max. moment My total axis	27 Nm...85 Nm
Max. moment Mz total axis	26 Nm...45 Nm
Mx at theoretical life value of 100 km (only guide consideration)	157 Nm...314 Nm
My at theoretical life value of 100 km (only guide consideration)	60 Nm...500 Nm
Mz at theoretical life value of 100 km (only guide consideration)	60 Nm...500 Nm
Distance between slide surface and guide centre	60 mm
Max. radial force at drive shaft	230 N
Max. feed force Fx	1550 N
Torsional mass moment of inertia It	52300 mm ⁴
Mass moment of inertia JH per metre of stroke	0.15716 kgcm ²
Mass moment of inertia JL per kg of working load	0.00633 kgcm ² ...0.02533 kgcm ²
Mass moment of inertia JO	0.0635 kgcm ² ...0.06995 kgcm ²
Feed constant	5 mm/U...10 mm/U
Reference service life	5000 km
Maintenance interval	Life-time lubrication
Moving mass	555 g...810 g
Basic weight for 0 mm stroke	1774 g...2286 g
Additional weight per 10 mm stroke	54 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	Aluminium gravity die-cast, painted
Material profile	Anodised wrought aluminium alloy
Note on materials	RoHS-compliant
Material cover tape	High-alloy stainless steel
Material drive cover	Aluminium gravity die-cast, painted
Material guide slide	Steel
Material guide rail	Steel
Material slide	Wrought aluminium alloy
Material spindle nut	Steel
Material spindle	Steel