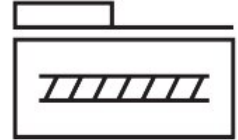
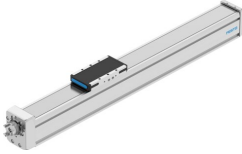


Ball screw axis

ELGD-BS-KF-60-500-0H-5P

Part number: 8192257

FESTO



Data sheet

Feature	Value
Working stroke	500 mm
Size	60
Stroke reserve	0 mm
Ball screw reversing backlash	±0.02 mm
Screw diameter	12 mm
Spindle pitch	5 mm/U
Mounting position	Any
Guide	Recirculating ball bearing
Structural design	Electromechanical linear axis With ball screw
Motor type	Stepper motor Servo motor
Spindle type	Ball screw
Measuring principle of linear potentiometer	Incremental
Position sensing	For inductive sensors
Max. acceleration	15 m/s ²
Max. rotational speed	3656 rpm
Max. speed	0.3 m/s
Repetition accuracy	±0.01 mm
Duty cycle	100%
LABS (PWIS) conformity	VDMA24364-C1-L
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 4 according to ISO 14644-1 (with vacuum insert) Class 7 according to ISO 14644-1
Storage temperature	-20 °C...60 °C
Degree of protection	IP40
Ambient temperature	0 °C...60 °C
Impact energy in the end positions	0.001 J
Note on the impact energy in the end positions	At maximum speed of the reference run of 0.01 m/s
2nd moment of area Iy	508600 mm ⁴
2nd moment of area Iz	685700 mm ⁴
No-load torque at maximum travel speed	0.107 Nm

Feature	Value
No-load torque at minimum travel speed	0.045 Nm
Max. force Fy	2200 N
Max. force Fz	2200 N
Max. force Fy total axis	930 N
Max. force Fz total axis	1300 N
Fy with theoretical service life of 100 km (from a guide perspective only)	9208 N
Fz with theoretical service life of 100 km (from a guide perspective only)	9208 N
Max. torque Mx	37 Nm
Max. torque My	15 Nm
Max. torque Mz	15 Nm
Max. moment Mx total axis	31 Nm
Max. moment My total axis	34 Nm
Max. moment Mz total axis	26 Nm
Mx with theoretical service life of 100 km (from a guide perspective only)	157 Nm
My with theoretical service life of 100 km (from a guide perspective only)	60 Nm
Mz with theoretical service life of 100 km (from a guide perspective only)	60 Nm
Distance between slide surface and guide center	60 mm
Max. radial force on actuator shaft	230 N
Max. feed force Fx	1550 N
Torsion moment of inertia It	52300 mm ⁴
Mass moment of inertia JH per meter of stroke	0.15716 kgcm ²
Mass moment of inertia JL per kg of payload	0.00633 kgcm ²
Mass moment of inertia JO	0.0635 kgcm ²
Feed constant	5 mm/U
Reference service life	5000 km
Maintenance interval	Lifetime lubrication
Moving mass	535 g
Product weight	4474 g
Basic weight with 0 mm stroke	1774 g
Additional weight per 10 mm stroke	54 g
Dynamic deflection (load moved)	0.05% of axis length, maximum 0.5 mm
Static deflection (load at standstill)	0.1 % of axis length
Interface code, actuator	T42
Material of end caps	Aluminum gravity die-cast, painted
Profile material	Wrought aluminum alloy, anodized
Note on materials	RoHS compliant
Cover strip material	high-alloy stainless steel
Drive cover material	Aluminum gravity die-cast, painted
Slide carriage material	Steel
Guide rail material	Steel
Slide material	Wrought aluminum alloy
Ball screw nut material	Steel
Spindle material	Steel