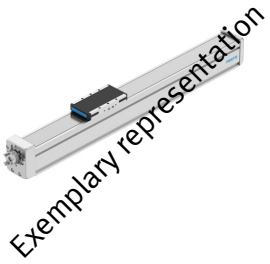
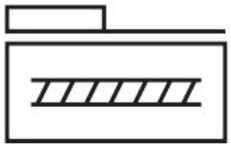
Ball screw axis
ELGD-BS-KF-60- -

Part number: 8176874





General operating condition

Data sheet

Overall data sheet – Individual values depend upon your configuration.

Feature	Value
Working stroke	50 mm ... 1000 mm
Size	60
Stroke reserve	0 mm
Reversing backlash	150 µm
Screw diameter	12 mm
Spindle pitch	5 mm/U ... 10 mm/U
Mounting position	Any
Guide	Recirculating ball bearing guide
Structural design	with ball screw
Motor type	Stepper motor Servo motor
Spindle type	Ball screw drive
Symbol	00991211
Measuring principle of linear potentiometer	Incremental
Position sensing	For inductive proximity sensors
Max. acceleration	15 m/s²
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-C1-L
Suitability for the production of Li-ion batteries	Suitable for battery production with reduced Cu/Zn/Ni values (F1a)
Storage temperature	-20 °C ... 60 °C
For use in the food industry	See supplementary material information
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 mm⁴
2nd moment of area Iz	685700 mm⁴
No-load torque at maximum travel speed	0.107 Nm ... 0.14 Nm
No-load torque at minimum travel speed	0.045 Nm ... 0.047 Nm
Max. force Fy	2200 N ... 4075 N
Max. force Fz	2200 N ... 4079 N

Feature	Value
Max. force Fy total axis	930 N ... 1650 N
Max. force Fz total axis	1300 N ... 2750 N
Fy with theoretical service life of 100 km (from a guide perspective only)	9208 N ... 18415 N
Fz with theoretical service life of 100 km (from a guide perspective only)	9208 N ... 18415 N
Max. torque Mx	37 Nm ... 65 Nm
Max. torque My	15 Nm ... 141 Nm
Max. torque Mz	15 Nm ... 139 Nm
Max. moment Mx total axis	36 Nm ... 70 Nm
Max. moment My total axis	34 Nm ... 85 Nm
Max. moment Mz total axis	26 Nm ... 45 Nm
Mx with theoretical service life of 100 km (from a guide perspective only)	157 Nm ... 314 Nm
My with theoretical service life of 100 km (from a guide perspective only)	60 Nm ... 500 Nm
Mz with theoretical service life of 100 km (from a guide perspective only)	60 Nm ... 500 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 mm⁴
Mass moment of inertia JH per meter of stroke	0.15716 kgcm²
Mass moment of inertia JL per kg of payload	0.00633 kgcm² ... 0.02533 kgcm²
Mass moment of inertia JO	0.0635 kgcm² ... 0.06995 kgcm²
Feed constant	5 mm/U ... 10 mm/U
Reference service life	5000 km
Maintenance interval	Life-time lubrication
Moving mass	555 g ... 810 g
Product weight	2044 g ... 7686 g
Basic weight with 0 mm stroke	1774 g ... 2286 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
Spindle nut material	Steel
Spindle material	Steel