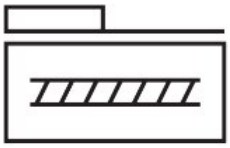
Ball screw axis
ELGT-BS-160-400-10P

Part number: 8124515



General operating condition

Data sheet

Feature	Value
Working stroke	400 mm
Size	160
Stroke reserve	0 mm
Reversing backlash	≤150 µm
Screw diameter	20 mm
Spindle pitch	10 mm/U
Mounting position	Any
Guide	Recirculating ball bearing guide
Structural design	Electromechanical linear axis with ball screw
Motor type	Stepper motor Servo motor
Spindle type	Ball screw
Symbol	00991211
Variants	Metals with copper, zinc or nickel by mass as main constituent are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils.
Max. acceleration	15 m/s²
Max. rotational speed	3000 rpm
Max. speed	0.5 m/s
Repetition accuracy	±0.02 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 8 according to ISO 14644-1
Degree of protection	IP20
Ambient temperature	0 °C ... 50 °C
Continuous feed force	1575 N
2nd moment of area Iy	1411000 mm⁴
2nd moment of area Iz	1.5257E7 mm⁴
No-load torque at maximum travel speed	0.4 Nm
No-load torque at minimum travel speed	0.2 Nm
Max. force Fy	9550 N
Max. force Fz	11370 N
Fy with theoretical service life of 100 km (from a guide perspective only)	35183 N
Fz with theoretical service life of 100 km (from a guide perspective only)	41887 N

Feature	Value
Max. torque Mx	600 Nm
Max. torque My	560 Nm
Max. torque Mz	560 Nm
Mx with theoretical service life of 100 km (from a guide perspective only)	2210 Nm
My with theoretical service life of 100 km (from a guide perspective only)	2063 Nm
Mz with theoretical service life of 100 km (from a guide perspective only)	2063 Nm
Max. radial force on actuator shaft	340 N
Max. feed force Fx	1575 N
Torsion moment of inertia It	726000 mm⁴
Mass moment of inertia JH per meter of stroke	0.809 kgcm²
Mass moment of inertia JL per kg of payload	0.0253 kgcm²
Mass moment of inertia JO	0.3175 kgcm²
Feed constant	10 mm/U
Moving mass	3855 g
Product weight	17066 g
Basic weight with 0 mm stroke	9564 g
Additional weight per 10 mm stroke	188 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	T46
Material of end caps	Die cast aluminum, painted
Profile material	Wrought aluminum alloy, anodized
Note on materials	RoHS-compliant
Drive cover material	Die cast aluminum, painted
Slide carriage material	Steel
Guide rail material	Steel
Slide material	Wrought aluminum alloy, anodized
Ball screw nut material	Steel
Spindle material	Steel