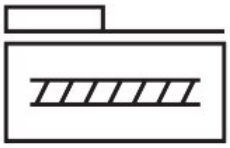
Ball screw axis
ELGA-BS-KF-80-200-0H-10P-ML

Part number: 8041823



General operating condition

Data sheet

Feature	Value
Working stroke	200 mm
Size	80
Stroke reserve	0 mm
Screw diameter	15 mm
Spindle pitch	10 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
Symbol	00991211
Measuring principle of linear potentiometer	Incremental
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
Degree of protection	IP40
Ambient temperature	-10 °C ... 60 °C
2nd moment of area Iy	310000 mm⁴
2nd moment of area Iz	977000 mm⁴
No-load torque at maximum travel speed	0.55 Nm
No-load torque at minimum travel speed	0.3 Nm
Max. force Fy	2500 N
Max. force Fz	3050 N
Max. force Fy total axis	2500 N
Max. force Fz total axis	3050 N
Fy with theoretical service life of 100 km (from a guide perspective only)	9200 N
Fz with theoretical service life of 100 km (from a guide perspective only)	11224 N
Max. torque Mx	36 Nm
Max. torque My	228 Nm
Max. torque Mz	228 Nm
Max. moment Mx total axis	36 Nm

Feature	Value
Max. moment My total axis	228 Nm
Max. moment Mz total axis	228 Nm
Mx with theoretical service life of 100 km (from a guide perspective only)	132 Nm
My with theoretical service life of 100 km (from a guide perspective only)	839 Nm
Mz with theoretical service life of 100 km (from a guide perspective only)	839 Nm
Distance between slide surface and guide center	60 mm
Max. radial force on actuator shaft	250 N
Max. feed force Fx	1600 N
Torsion moment of inertia It	67300 mm⁴
Mass moment of inertia JH per meter of stroke	0.346 kgcm²
Mass moment of inertia JL per kg of payload	0.0253 kgcm²
Mass moment of inertia JO	0.097 kgcm²
Feed constant	10 mm/U
Reference service life	5000 km
Moving mass	1370 g
Additional weight per 10 mm stroke	46.5 g
Dynamic deflection (load moved)	0.05% of axis length, maximum 0.5 mm
Static deflection (load at standstill)	0.1 % of axis length
Material of end caps	Wrought aluminum alloy Anodized
Profile material	Wrought aluminum alloy Anodized
Note on materials	RoHS compliant
Cover strip material	Stainless strip steel
Drive cover material	Wrought aluminum alloy Anodized
Slide carriage material	Steel
Guide rail material	Steel
Slide material	Wrought aluminum alloy Anodized
Ball screw nut material	Steel
Spindle material	Steel