

Ball screw axis ELGA-BS-KF-80- -

Part number: 8024919

FESTO



Data sheet

Feature	Value
Working stroke	50 mm...1940 mm
Size	80
Screw diameter	15 mm
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
Measuring principle of linear potentiometer	Incremental
Max. acceleration	15 m/s ²
Max. rotational speed	3000 rpm
Max. speed	0.5 m/s...1 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 I _y	310000 mm ⁴
2nd moment of area I _z	977000 mm ⁴
No-load torque at maximum travel speed	0.55 Nm...0.6 Nm
No-load torque at minimum travel speed	0.3 Nm...0.35 Nm
Max. force F _y	2500 N
Max. force F _z	3050 N
Max. force F _y total axis	2500 N
Max. force F _z total axis	3050 N
F _y with theoretical service life of 100 km (from a guide perspective only)	9200 N
F _z with theoretical service life of 100 km (from a guide perspective only)	11224 N
Max. torque M _x	36 Nm
Max. torque M _y	228 Nm
Max. torque M _z	228 Nm

Feature	Value
Max. moment Mx total axis	36 Nm
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 mm ⁴
Mass moment of inertia JH per meter of stroke	0.346 kgcm ²
Feed constant	10 mm/U...20 mm/U
Reference service life	5000 km
Moving mass	1370 g
Additional slide weight	1110 g
Basic weight with 0 mm stroke	3800 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 steel strip
Drive cover material	Wrought aluminum alloy Anodized
Slide carriage material	Steel
Guide rail material	Steel
Slide material	Wrought aluminum alloy Anodized
Spindle nut material	Steel
Spindle material	Steel