Belt driven linear actuator
EGC-50- -TB-KF

Part number: 556812

Data sheet

Feature	Value
Drive pinion effective diameter	18.46 mm
Working stroke	50 mm...1900 mm
Size	50
Toothed belt pitch	2 mm
Mounting position	Any
Guide	Recirculating ball bearing guide
Structural design	Electromechanical linear axis with toothed belt
Motor type	Stepper motor Servo motor
Max. acceleration	50 m/s²
Max. speed	3 m/s
Repetition accuracy	±0.08 mm
Duty cycle	100%
CE marking (see declaration of conformity)	as per EU explosion protection directive (ATEX)
UKCA marking (see declaration of conformity)	acc. to UK EX instructions
Explosion protection certification outside the EU	EPL Db (GB) EPL Gb (GB)
Explosion prevention and protection	Zone 1 (ATEX) Zone 1 (UKEX) Zone 2 (ATEX) Zone 21 (UKEX)
ATEX category gas	II 2G
Type of ignition protection for gas	Ex h IIC T4 Gb
Explosive ambient temperature	-10°C <= Ta <= +60°C
LABS (PWIS) conformity	VDMA24364 zone III
Degree of protection	IP40
Ambient temperature	-10 °C...60 °C
2nd moment of area Iy	84000 mm⁴
2nd moment of area Iz	114000 mm⁴
Max. force Fy	650 N
Max. force Fz	650 N
Max. force Fy total axis	650 N

Feature	Value
Max. force Fz total axis	650 N
Fy with theoretical service life of 100 km (from a guide perspective only)	2395 N
Fz with theoretical service life of 100 km (from a guide perspective only)	2395 N
Max. no-load resistance to shifting	8 N
Max. torque Mx	3.5 Nm
Max. torque My	10 Nm
Max. torque Mz	10 Nm
Max. moment Mx total axis	3.5 Nm
Max. moment My total axis	10 Nm
Max. moment Mz total axis	10 Nm
Mx with theoretical service life of 100 km (from a guide perspective only)	13 Nm
My with theoretical service life of 100 km (from a guide perspective only)	37 Nm
Mz with theoretical service life of 100 km (from a guide perspective only)	37 Nm
Max. feed force Fx	50 N
Torsion moment of inertia It	42500 mm^4
Mass moment of inertia JH per meter of stroke	0.026 $kgcm^2$
Mass moment of inertia JL per kg of payload	0.85 $kgcm^2$
Feed constant	58 mm/U
Reference service life	5000 km
Material of end caps	Wrought aluminum alloy Anodized
Profile material	Wrought aluminum alloy Anodized
Note on materials	RoHS-compliant
Drive cover material	Wrought aluminum alloy Anodized
Slide carriage material	Steel
Guide rail material	Steel
Belt pulley material	High-alloy stainless steel
Slide material	Wrought aluminum alloy Anodized
Toothed belt clamping component material	Nickel-plated
Toothed belt material	Polychloroprene oder Nitrilkautschuk (NBR) mit Glascord und Nylonüberzug