

Belt driven linear actuator EGC-80- -TB-KF

Part number: 556814

FESTO



Data sheet

Feature	Value
Drive pinion effective diameter	28.65 mm
Working stroke	50 mm...8500 mm
Size	80
Toothed belt pitch	3 mm
Mounting position	Any
Guide	Recirculating ball bearing
Structural design	Electromechanical linear axis With toothed belt
Motor type	Stepper motor Servo motor
Measuring principle of linear potentiometer	Incremental
Max. acceleration	50 m/s ²
Max. speed	5 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	844000 mm ⁴
2nd moment of area Iz	116000000 mm ⁴
Max. force Fy	3050 N
Max. force Fz	3050 N

Feature	Value
Max. force Fy total axis	3050 N
Max. force Fz total axis	3050 N
Fy with theoretical service life of 100 km (from a guide perspective only)	11236 N
Fz with theoretical service life of 100 km (from a guide perspective only)	11237 N
Max. no-load resistance to shifting	28 N
Max. torque Mx	36 Nm
Max. torque My	97 Nm...228 Nm
Max. torque Mz	97 Nm...228 Nm
Max. moment Mx total axis	36 Nm
Max. moment My total axis	97 Nm...228 Nm
Max. moment Mz total axis	97 Nm...228 Nm
Mx with theoretical service life of 100 km (from a guide perspective only)	133 Nm
My with theoretical service life of 100 km (from a guide perspective only)	357 Nm...840 Nm
Mz with theoretical service life of 100 km (from a guide perspective only)	357 Nm...840 Nm
Max. feed force Fx	350 N
Torsion moment of inertia It	551000 mm ⁴
Mass moment of inertia JH per meter of stroke	0.19 kgcm ²
Mass moment of inertia JL per kg of payload	2.05 kgcm ²
Feed constant	90 mm/U
Reference service life	5000 km
Pneumatic port on clamping unit	M5
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	Cast stainless steel
Toothed belt material	Polyurethane with steel cord and nylon cover Polychloroprene or nitrile rubber (NBR) with glass cord and nylon coating