

# Toothed belt axis EGC-80- -TB-KF

Part number: 556814

**FESTO**



## Data sheet

Feature	Value
Effective diameter of drive pinion	28.65 mm
Working stroke	50 mm...8500 mm
Size	80
Toothed-belt pitch	3 mm
Mounting position	optional
Guide	Recirculating ball bearing guide
Design	Electromechanical linear axis With toothed belt
Type of motor	Stepper motor Servo motor
Functional principle of measuring system	Incremental
Max. acceleration	50 m/s <sup>2</sup>
Max. speed	5 m/s
Repetition accuracy	±0.08 mm
Duty cycle	100%
CE mark (see declaration of conformity)	To EU Explosion Protection Directive (ATEX)
UKCA marking (see declaration of conformity)	To UK EX instructions
Explosion protection certification outside the EU	EPL Db (GB) EPL Gb (GB)
Explosion protection	Zone 1 (ATEX) Zone 1 (UKEX) Zone 2 (ATEX) Zone 21 (UKEX)
ATEX category gas	II 2G
Explosion ignition protection type for gas	Ex h IIC T4 Gb
Explosion 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 <sup>4</sup>
2nd moment of area Iz	116000000 mm <sup>4</sup>
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 at theoretical life value of 100 km (only guide consideration)	11236 N
Fz at theoretical life value of 100 km (only guide consideration)	11237 N
Max. idle running transfer resistance	28 N
Max. moment Mx	36 Nm
Max. moment My	97 Nm...228 Nm
Max. moment 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 at theoretical life value of 100 km (only guide consideration)	133 Nm
My at theoretical life value of 100 km (only guide consideration)	357 Nm...840 Nm
Mz at theoretical life value of 100 km (only guide consideration)	357 Nm...840 Nm
Max. feed force Fx	350 N
Torsional mass moment of inertia It	551000 mm <sup>4</sup>
Mass moment of inertia JH per metre of stroke	0.19 kgcm <sup>2</sup>
Mass moment of inertia JL per kg of working load	2.05 kgcm <sup>2</sup>
Feed constant	90 mm/U
Reference service life	5000 km
Pneumatic connection, clamping unit	M5
Material end cap	Anodised wrought aluminium alloy
Material profile	Anodised wrought aluminium alloy
Note on materials	RoHS-compliant
Material drive cover	Anodised wrought aluminium alloy
Material guide slide	Steel
Material guide rail	Steel
Material pulleys	High-alloy stainless steel
Material slide	Anodised wrought aluminium alloy
Material toothed belt clamping piece	Stainless steel casting
Material toothed belt	Polyurethane with steel cord and nylon cover Polychloroprene or nitrile rubber (NBR) with glass cord and nylon coating