

Toothed belt axis unit ELGS-TB-KF-60-

Part number: 8083557

FESTO



Data sheet

Feature	Value
Effective diameter of drive pinion	24.83 mm
Working stroke	50 mm...2000 mm
Size	60
Stroke reserve	0 mm
Toothed-belt stretch	0.124 %
Toothed-belt pitch	3 mm
Mounting position	Horizontal
Guide	Recirculating ball bearing guide
Design	Electromechanical linear axis With toothed belt With integrated drive
Position detection	Motor encoder Via proximity switch
Rotor position sensor	Absolute single-turn encoder
Rotor position sensor, encoder measuring principle	Magnetic
Temperature monitoring	Switch-off for excessive temperature Integrated precise CMOS temperature sensor with analogue output
Additional functions	User interface Integrated end-position sensing
Display	LED
Max. acceleration	6 m/s ²
Max. speed	1.04 m/s...1.3 m/s
Repetition accuracy	±0.1 mm
Features of digital logic outputs	Configurable
Duty cycle	100%
Insulation protection class	B
Max. current digital logic outputs	100 mA
Max. current consumption	5.3 A
Max. current consumption, logic	0.3 A
Nominal voltage DC	24 V
Nominal current	5.3 A
Permissible voltage fluctuations	+/- 15%
Power supply, connection type	Plugs

Feature	Value
power supply, connection system	M12x1, T-coded according to EN 61076-2-111
Power supply, number of pins/wires	4
Approval	RCM trademark
CE mark (see declaration of conformity)	To EU EMC Directive In accordance with EU RoHS Directive
LABS (PWIS) conformity	VDMA24364 zone III
Storage temperature	-20 °C...60 °C
Relative air humidity	0 - 90%
Degree of protection	IP40
Ambient temperature	0 °C...50 °C
Note on ambient temperature	Power must be reduced by 2% per K at ambient temperatures above 30°C.
2nd moment of area Iy	441000 mm ⁴
2nd moment of area Iz	542000 mm ⁴
Max. force Fy	3641 N
Max. force Fz	3641 N
Fy at theoretical life value of 100 km (only guide consideration)	13400 N
Fz at theoretical life value of 100 km (only guide consideration)	13400 N
Mx at theoretical life value of 100 km (only guide consideration)	107 Nm
My at theoretical life value of 100 km (only guide consideration)	117 Nm
Mz at theoretical life value of 100 km (only guide consideration)	117 Nm
Max. feed force Fx	65 N
Reference value effective load, horizontal	4 kg
Feed constant	78 mm/U
Moving mass	482 g
Moving mass for 0 mm stroke	482 g
Weight of slide	139 g
Product weight	3815 g...11555 g
Basic weight for 0 mm stroke	2955 g
Additional weight per 10 mm stroke	43 g
Dynamic deflection (moving load)	0.05% of the axis length, max. 0.5 mm
Static deflection (load in standstill)	0.1% of the axis length
Number of digital logic outputs 24 V DC	2
Number of digital logic inputs	2
Working range of logic input	24 V
Features of logic input	Configurable Not galvanically isolated
IO-Link, Process data content OUT	Move in 1 bit Move out 1 bit Quit Error 1 bit Move intermediate 1 bit
IO-Link, Process data content IN	State Device 1 bit State In 1 bit State Intermediate 1 bit State Move 1 bit State Out 1 bit
IO-Link, Service data IN	32-bit force 32-bit position 32-bit speed
IO-Link, Data storage required	0.5 KB
Switching logic for inputs	NPN (negative switching) PNP (positive switching)
Logic interface, connection type	Plug
Logic interface, connection technology	M12x1, A-coded according to EN 61076-2-101
Logic interface, number of pins/wires	8

Feature	Value
Type of mounting	Via female thread Via centring sleeve and pin With accessories
Material end cap	Painted die cast aluminium
Material profile	Anodised wrought aluminium alloy
Note on materials	RoHS-compliant
Material cover tape	Stainless steel strip
Material guide slide	Tempered steel
Material guide rail	Tempered steel
Material toothed belt	Polychloroprene with glass fibre