

Toothed belt axis unit ELGS-TB-KF-45-600-ST-M-H1-PLK-AA

Part number: 8083668

FESTO



Data sheet

Feature	Value
Drive pinion effective diameter	19.1 mm
Working stroke	600 mm
Size	45
Stroke reserve	0 mm
Toothed belt elongation	0.187 %
Toothed belt pitch	2 mm
Mounting position	Horizontal
Guide	Recirculating ball bearing
Structural design	Electromechanical linear axis With toothed belt With integrated actuator
Position sensing	Motor encoder Via proximity switch
Rotor position sensor	Absolute single-turn encoder
Rotor position sensor measuring principle	Magnetic
Temperature monitoring	Shutdown in the event of over 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	1.2 m/s
Repetition accuracy	±0.1 mm
Characteristics of digital logic outputs	Configurable Not galvanically isolated
Duty cycle	100%
Insulation protection class	B
Max. current of digital logic outputs	100 mA
Max. current consumption	5.3 A
Logic max. current consumption	0.3 A
DC nominal voltage	24 V
Nominal current	5.3 A
Parameterization interface	IO-Link®

Feature	Value
	User interface
Permissible voltage fluctuations	+/-15%
Power supply, type of connection	Plug
Power supply, connection technology	M12x1, T-coded as per EN 61076-2-111
Power supply, number of pins/wires	4
Certification	RCM compliance mark
CE marking (see declaration of conformity)	As per EU EMC directive As per 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	Above an ambient temperature of 30°C, the power must be reduced by 2% per K.
2nd moment of area Iy	140000 mm ⁴
2nd moment of area Iz	170000 mm ⁴
Max. force Fy	880 N
Max. force Fz	880 N
Fy with theoretical service life of 100 km (from a guide perspective only)	3240 N
Fz with theoretical service life of 100 km (from a guide perspective only)	3240 N
Mx with theoretical service life of 100 km (from a guide perspective only)	20 Nm
My with theoretical service life of 100 km (from a guide perspective only)	17 Nm
Mz with theoretical service life of 100 km (from a guide perspective only)	17 Nm
Max. feed force Fx	75 N
Guide value for payload, horizontal	2.5 kg
Feed constant	60 mm/U
Moving mass	169 g
Moving mass at 0 mm stroke	169 g
Slide weight	55 g
Product weight	3170 g
Dynamic deflection (load moved)	0.05% of axis length, maximum 0.5 mm
Static deflection (load at standstill)	0.1 % of axis length
Number of digital logic outputs 24 V DC	2
Number of digital logic inputs	2
Work range of logic input	24 V
Characteristics 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 contents IN	32-bit force 32-bit position 32-bit speed
IO-Link®, data memory required	0.5 KB
Input switching logic	PNP (positive switching)
Logic interface, connection type	Plug
Logic interface, connection technology	M12x1, A-coded as per EN 61076-2-101

Feature	Value
Logic interface, number of poles/wires	8
Type of mounting	With internal thread With centering sleeve and pin With accessories
Material of end caps	Die cast aluminum, painted
Profile material	Wrought aluminum alloy, anodized
Note on materials	RoHS compliant
Cover strip material	Stainless strip steel
Slide carriage material	Quenched and tempered steel
Guide rail material	Quenched and tempered steel
Toothed belt material	Neoprene with glass fiber