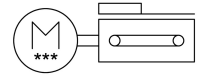# Toothed belt axis unit ELGS-TB-KF-45-1500-ST-M-H1-PLK-AA

Part number: 8083672

FESTO

Data sheet

Feature	Value
Drive pinion effective diameter	19.1 mm
Working stroke	1500 mm
Size	45
Stroke reserve	0 mm
Toothed belt elongation	0.187 %
Toothed belt pitch	2 mm
Mounting position	Horizontal
Guide	Recirculating ball bearing guide
Structural design	Electromechanical linear axis with toothed belt With integrated drive
Position sensing	Motor encoder For proximity sensor
Rotor position sensor	Absolute encoder, single-turn
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/s²
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
DC nominal voltage	24 V
Nominal current	5.3 A
Parameterization interface	IO-Link® User interface

Feature	Value
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
Vibration resistance	Transport application test with severity level 1 as per FN 942017-4 and EN 60068-2-6
Shock resistance	Shock test with severity level 1 as per FN 942017-5 and EN 60068-2-27
LABS (PWIS) conformity	VDMA24364 zone III
Storage temperature	-20 ºC...60 ºC
Relative air humidity	0 - 90 %
Degree of protection	IP40
Ambient temperature	0 ºC...50 ºC
Note on ambient temperature	Above an ambient temperature of 30ºC, the power must be reduced by 2% per K.
2nd moment of area Iy	140000 mm⁴
2nd moment of area Iz	170000 mm⁴
Max. force Fy	300 N
Max. force Fz	600 N
Max. torque Mx	5.5 Nm
Max. torque My	4.7 Nm
Max. torque Mz	4.7 Nm
Max. feed force Fx	75 N
Guide value for payload, horizontal	2.5 kg
Torsion moment of inertia It	8500 mm⁴
Feed constant	60 mm/U
Moving mass	169 g
Moving mass at 0 mm stroke	169 g
Slide weight	55 g
Product weight	5240 g
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®, protocol version	Device V 1.1
IO-Link®, communication mode	COM3 (230.4 kBd)
IO-Link®, port class	A
IO-Link®, number of ports	1
IO-Link®, process data content OUT	1 bit (move in) 1 bit (move out) 1 bit (quit error)
IO-Link®, process data content IN	1 bit (state device) 1 bit (state move) 1 bit (state in) 1 bit (state out)
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)
IO-Link®, Connection technology	Plug
Logic interface, connection type	Plug
Logic interface, connection technology	M12x1, A-coded as per EN 61076-2-101

Feature	Value
Permissible voltage fluctuations	+/- 15 %
Power supply, type of connection	Plug
Power supply, connection technology	M12x1, T-coded as per EN 61076-2-111
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IO-Link®, data memory required	0,5 kB
Input switching logic	PNP (positive switching)
IO-Link®, Connection technology	Plug
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
Material of end caps	Die cast aluminum, painted
Profile material	Wrought aluminum alloy, anodized
Note on materials	RoHS-compliant
Cover strip material	Stainless steel strip
Drive cover material	Die cast aluminum, painted
Slide carriage material	Tempered steel
Guide rail material	Tempered steel
Belt pulley material	High-alloy stainless steel
Toothed belt material	Polychloroprene with glass fiber