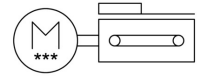


Toothed belt axis unit ELGS-TB-KF-45-300-ST-M-H1-PLK-AA

Part number: 8083666

FESTO



Data sheet

Feature	Value
KC characters	KC EMC
Drive pinion effective diameter	19.1 mm
Shock resistance	Shock test with severity level 1 as per FN 942017-5 and EN 60068-2-27
Logic input specification	Based on IEC 61131-2, type 1
Insulation protection class	B
Max. cable length	15 m outputs 15 m inputs 20 m for IO-Link® operation
Parameterization interface	IO-Link® User interface
Relative air humidity	0 - 90 %
Rotor position sensor	Absolute encoder, single-turn
Permissible voltage fluctuations	+/- 15 %
Homing	Fixed stop block positive Fixed stop block, negative
Note on ambient temperature	Above an ambient temperature of 30°C, the power must be reduced by 2% per K.
Input switching logic	PNP (positive switching)
Rotor position sensor measuring principle	Magnetic
Position sensing	Motor encoder For proximity sensor
Display	LED
Vibration resistance	Transport application test with severity level 1 as per FN 942017-4 and EN 60068-2-6
Switching logic at outputs	PNP (positive switching)
Characteristics of digital logic outputs	Configurable Not galvanically isolated
Ready status indication	LED
Characteristics of logic input	Configurable Not galvanically isolated
Logic interface, connection type	Plug
Logic interface, connection technology	M12x1, A-coded as per EN 61076-2-101
Power supply, connection pattern	00995989
Power supply, connection technology	M12x1, T-coded as per EN 61076-2-111
Logic interface, connection pattern	00992264
Power supply, type of connection	Plug
Number of digital logic inputs	2
Number of digital logic outputs 24 V DC	2

Feature	Value
Power supply, number of pins/wires	4
Max. current of digital logic outputs	100 mA
Guide value for payload, horizontal	2.5 kg
Logic interface, number of poles/wires	8
DC nominal voltage	24 V
Work range of logic input	24 V
Storage temperature	-20 °C ... 60 °C
Rotor position sensor resolution	16 bit
Nominal current	5.3 A
Max. current consumption	5300 mA
IO-Link®, process data width IN	2 Byte
IO-Link®, minimum cycle time	1 ms
IO-Link®, SIO mode support	Yes
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®, communication mode	COM3 (230.4 kBd)
IO-Link®, process data width OUT	2 Byte
Protection class	III
IO-Link®, protocol version	Device V 1.1
IO-Link®, number of ports	1
IO-Link®, port class	A
IO-Link®, Connection technology	Plug
IO-Link®, data memory required	500 byte
Working stroke	300 mm
Size	45
Stroke reserve	0 mm
Toothed belt elongation	0.187 %
Toothed belt pitch	2 mm
Type code	ELGS
Mounting position	Horizontal
Guide	Recirculating ball bearing guide
Design	Electromechanical linear axis with toothed belt With integrated drive
Motor type	Stepper motor
Symbol	00997293
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
Max. acceleration	6 m/s ²
Max. speed	1.2 m/s
Repetition accuracy	±0.1 mm
Duty cycle	100%
CE marking (see declaration of conformity)	As per EU EMC directive As per EU RoHS directive
Degree of protection	IP40
Ambient temperature	0 °C ... 50 °C

Feature	Value
Certification	RCM compliance mark
2nd moment of area Iy	140000 mm ⁴
2nd moment of area Iz	170000 mm ⁴
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
Torsion moment of inertia It	8500 mm ⁴
Feed constant	60 mm/U
Moving mass	169 g
Moving mass at 0 mm stroke	169 g
Slide weight	55 g
Product weight	2480 g
Material of end caps	Die cast aluminum, painted
Profile material	Wrought aluminum alloy, anodized
Note on materials	Contains paint-wetting impairment substances 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
Slide material	Die-cast aluminum
Toothed belt material	Polychloroprene with glass fiber