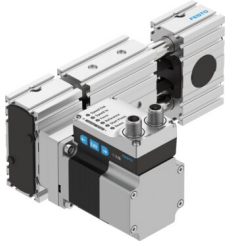


# Toothed belt axis unit

## ELGE-TB-35-100-0H-ST-M-H1-PLK-AA-AT-FR

FESTO

Part number: 8083931



[PDF](#) General operating condition

## Data sheet

Feature	Value
Effective diameter of drive pinion	18.46 mm
Working stroke	100 mm
Size	35
Toothed-belt stretch	0.094 %
Toothed-belt pitch	2 mm
Mounting position	Horizontal
Guide	Recirculating ball bearing guide
Design	Electromechanical linear axis With toothed belt With integrated drive
Type of motor	Stepper motor
Symbol	00997293
Position detection	Motor encoder Via proximity switch
Referencing	Positive fixed stop block Negative fixed stop block
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
Ready status indication	LED
Max. acceleration	8.5 m/s <sup>2</sup>
Max. speed	0.72 m/s
Speed "Speed press"	0.024 m/s
Repetition accuracy	±0.1 mm
Features of digital logic outputs	Configurable Not galvanically isolated
Duty cycle	100%
Insulation protection class	B
Max. current digital logic outputs	100 mA
Max. current consumption	5300 mA
Max. current consumption, logic	0.3 A
Nominal voltage DC	24 V
Nominal current	5.3 A

Feature	Value
Parameterisation interface	IO-Link User interface
Rotor position transducer resolution	16 bit
Permissible voltage fluctuations	+/- 15%
Power supply, connection type	Plugs
power supply, connection system	M12x1, T-coded according to EN 61076-2-111
Power supply, number of pins/wires	4
Power supply, connection pattern	00995989
Approval	RCM trademark
KC mark	KC-EMV
CE mark (see declaration of conformity)	To EU EMC Directive In accordance with EU RoHS Directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC To UK RoHS instructions
Vibration resistance	Transport application test with severity level 2 to FN 942017-4 and EN 60068-2-6
Shock resistance	Shock test with severity level 2 to FN 942017-5 and EN 60068-2-27
LABS (PWIS) conformity	VDMA24364 zone III
Storage temperature	-20 °C ... 60 °C
Relative air humidity	0 - 90%
Degree of protection	IP20
Protection class	III
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	3770 mm <sup>4</sup>
2nd moment of area Iz	4190 mm <sup>4</sup>
Max. force Fy	50 N
Max. force Fz	50 N
Max. moment Mx	2.5 Nm
Max. moment My	8 Nm
Max. moment Mz	8 Nm
Max. feed force Fx	50 N
Reference value effective load, horizontal	2.8 kg
Feed constant	58 mm/U
Reference service life	5000 km
Maintenance interval	Life-time lubrication
Additional moving mass per 10 mm stroke	0.31 g
Product weight	2740 g
Number of digital logic outputs 24 V DC	2
Number of digital logic inputs	2
Specification logic input	Based on IEC 61131-2, type 1
Working range of logic input	24 V
IO-Link, SIO-Mode support	Yes
Features of logic input	Configurable Not galvanically isolated
IO-Link, Protocol version	Device V 1.1
IO-Link, communication mode	COM3 (230.4 kBaud)
IO-Link, Port class	A
IO-Link, Number of ports	Device 1
IO-Link, Process data length OUT	2 bytes
IO-Link, Process data content OUT	Move in 1 bit Move out 1 bit Quit Error 1 bit Move intermediate 1 bit

Feature	Value
IO-Link, Process data length IN	2 bytes
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, Min. cycle time	1 ms
IO-Link, Data storage required	500 Byte
Max. cable length	15 m outputs 15 m inputs 20 m with IO-Link® operation
Switching logic for outputs	PNP (positive switching)
Switching logic for inputs	PNP (positive switching)
IO-Link, connection technology	Plugs
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
Logic interface, plug pattern	00992264
Type of mounting	Profile mounting
Material profile	Anodised wrought aluminium alloy
Note on materials	RoHS-compliant
Material drive cover	Anodised wrought aluminium alloy
Material pulleys	High-alloy stainless steel
Material slide	Anodised wrought aluminium alloy
Material toothed belt clamping piece	Beryllium bronze
Material toothed belt	Polychloroprene with glass filament and nylon coating