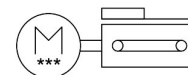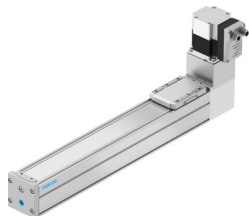# Toothed belt axis unit
ELGS-TB-KF-60-300-ST-M-H1-PLK-AA
Part number: 8083571

Data sheet

Feature	Value
Drive pinion effective diameter	24.83 mm
Working stroke	300 mm
Size	60
Stroke reserve	0 mm
Toothed belt elongation	0.124 %
Toothed belt pitch	3 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	1.17 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

Feature	Value
Parameterization interface	IO-Link® 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 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	441000 mm⁴
2nd moment of area Iz	542000 mm⁴
Max. force Fy	3641 N
Max. force Fz	3641 N
Fy with theoretical service life of 100 km (from a guide perspective only)	13400 N
Fz with theoretical service life of 100 km (from a guide perspective only)	13400 N
Mx with theoretical service life of 100 km (from a guide perspective only)	107 Nm
My with theoretical service life of 100 km (from a guide perspective only)	117 Nm
Mz with theoretical service life of 100 km (from a guide perspective only)	117 Nm
Max. feed force Fx	65 N
Guide value for payload, horizontal	4 kg
Feed constant	78 mm/U
Moving mass	482 g
Moving mass at 0 mm stroke	482 g
Slide weight	139 g
Product weight	4245 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

Feature	Value
Logic interface, connection technology	M12x1, A-coded as per EN 61076-2-101
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 steel strip
Slide carriage material	Tempered steel
Guide rail material	Tempered steel
Toothed belt material	Polychloroprene with glass fiber