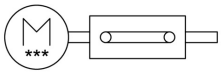
Electric cylinder unit
EPCE-TB-45-20-FL-ST-M-H1-PLK-AA

Part number: 8101540





Data sheet

Feature	Value
Drive pinion effective diameter	10.18 mm
Size	45
Stroke	20 mm
Stroke reserve	0 mm
Piston rod thread	M6
Toothed belt elongation	0.31 %
Toothed belt pitch	2 mm
Mounting position	Any
Piston rod end	External thread
Motor type	Stepper motor
Position sensing	Motor encoder
Structural design	Electric actuator with toothed belt With integrated drive
Symbol	00997342
Protection against torsion/guide	With plain-bearing guide
Homing	Fixed stop block positive Fixed stop block, negative
Rotor position sensor	Absolute encoder, single-turn
Rotor position sensor measuring principle	Magnetic
Additional functions	User interface Integrated end-position sensing
Display	LED
Ready status indication	LED
Max. acceleration	9 m/s²
Max. speed	0.44 m/s
Repetition accuracy	±0.05 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	3000 mA
DC nominal voltage	24 V
Nominal current	3 A
Parameterization interface	IO-Link® User interface

Feature	Value
Rotor position sensor resolution	16 bit
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
Power supply, connection pattern	00995989
Certification	RCM compliance mark
KC characters	KC EMC
CE marking (see declaration of conformity)	As per EU EMC directive As per 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 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
Corrosion resistance class (CRC)	0 - No corrosion stress
LABS conformity	VDMA24364 zone III
Storage temperature	-20 °C ... 60 °C
Relative air humidity	0 - 90 %
Degree of protection	IP40
Protection class	III
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.
Impact energy in the end positions	0.003 J
Max. torque Mx	0 Nm
Max. torque My	0.4 Nm
Max. torque Mz	0.4 Nm
Max. feed force Fx	85 N
Guide value for payload, horizontal	5 kg
Guide value for payload, vertical	2.5 kg
Feed constant	32 mm/U
Reference value, running performance	200 km
Maintenance interval	Life-time lubrication
Moving mass at 0 mm stroke	83 g
Additional weight per 10 mm stroke	29 g
Basic weight with 0 mm stroke	775 g
Product weight	833 g
Additional moving mass per 10 mm stroke	0.455 g
Number of digital logic outputs 24 V DC	2
Number of digital logic inputs	2
Logic input specification	Based on IEC 61131-2, type 1
Work range of logic input	24 V
Characteristics of logic input	Configurable Not galvanically isolated
IO-Link®, SIO mode support	Yes
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 width OUT	2 Byte
IO-Link®, process data content OUT	1 bit (move in) 1 bit (move out) 1 bit (quit error)
IO-Link®, process data width IN	2 Byte

Feature	Value
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®, minimum cycle time	1 ms
IO-Link®, data memory required	500 byte
Max. cable length	15 m outputs 15 m inputs 20 m for IO-Link® operation
Switching logic at outputs	PNP (positive switching)
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
Logic interface, number of poles/wires	8
Logic interface, connection pattern	00992264
Type of mounting	With internal thread With accessories
Note on materials	RoHS-compliant
Cover material	Wrought aluminum alloy, anodized
Housing material	Wrought aluminum alloy, anodized
Piston rod material	High-alloy stainless steel
Toothed belt material	Polychloroprene with glass fiber