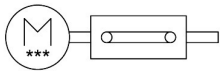
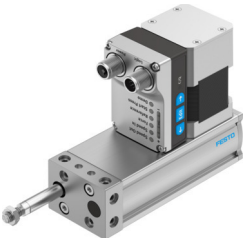


# Electric cylinder unit

## EPCE-TB-45-50-FL-MF-ST-M-H1-PLK-AA

Part number: 8101546

FESTO



### Data sheet

Feature	Value
Drive pinion effective diameter	10.18 mm
Size	45
Stroke	50 mm
Stroke reserve	0 mm
Piston rod thread	M6
Toothed belt elongation	0.31 %
Toothed belt pitch	2 mm
Mounting position	Any
Position sensing	Motor encoder
Structural design	Electric actuator with toothed belt With integrated drive
Protection against torsion/guide	With plain-bearing guide
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	9 m/s <sup>2</sup>
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	3 A
Logic max. current consumption	300 mA
DC nominal voltage	24 V
Nominal current	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
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 (PWIS) conformity	VDMA24364 zone III
Storage temperature	-20 °C...60 °C
Relative air humidity	0 - 90 %
Degree of protection	IP40
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 service life	500 km
Moving mass	110 g
Moving mass at 0 mm stroke	87 g
Additional moving mass per 10 mm stroke	4.55 g
Product weight	960 g
Basic weight with 0 mm stroke	813 g
Additional weight per 10 mm stroke	29 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®, 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	Speed 32 bit Position 32 bit Force 32 bit
IO-Link®, data memory required	0.5 KB
Input switching logic	PNP (positive switching)

Feature	Value
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
Type of mounting	With through-hole With internal thread With centering sleeve With accessories
Note on materials	RoHS-compliant
Toothed belt material	Polychloroprene with glass fiber