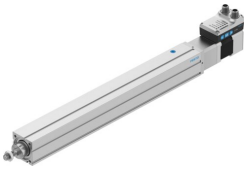
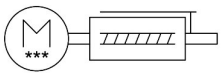
Electric cylinder unit
EPCS-BS-45-300-3P-A-ST-M-H1-PLK-AA

Part number: 8118280





Data sheet

Feature	Value
Size	45
Stroke	300 mm
Stroke reserve	0 mm
Piston rod thread	M10x1.25
Screw diameter	10 mm
Spindle pitch	3 mm/U
Mounting position	Any
Structural design	Electric cylinder With ball screw With integrated actuator
Spindle type	Ball screw
Protection against torsion/guide	With plain bearing-guide
Rotor position sensor	Absolute single-turn encoder
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	1.5 m/s²
Max. speed	0.074 m/s
Repetition accuracy	±0.02 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	0.3 A
DC nominal voltage	24 V
Nominal current	3 A
Parameterization interface	IO-Link® User interface

Feature	Value
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
Cleanroom suitability, measured according to ISO 14644-14	Class 9 according to ISO 14644-1
Storage temperature	-20 °C...60 °C
Relative air humidity	0 - 90% Non-condensating
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.
Max. torque Mx	0 Nm
Max. torque My	2.9 Nm
Max. torque Mz	2.9 Nm
Max. radial force on actuator shaft	180 N
Max. feed force Fx	450 N
Guide value for payload, horizontal	60 kg
Guide value for payload, vertical	23 kg
Moving mass at 0 mm stroke	179 g
Additional moving mass per 10 mm stroke	4.9 g
Product weight	2415 g
Basic weight with 0 mm stroke	1185 g
Additional weight per 10 mm stroke	41 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®, number of ports	1
IO-Link®, process data width 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
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®, minimum cycle time	1 ms
IO-Link®, data memory required	0.5 KB
Input switching logic	NPN (negative switching)

Feature	Value
	PNP (positive switching)
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 internal thread With accessories
Note on materials	RoHS compliant
Ball screw nut material	Steel
Spindle material	Bearing steel