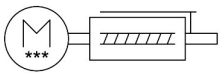
Electric cylinder unit
EPCS-BS-45-50-3P-A-ST-M-H1-PLK-AA

Part number: 8118275



General operating condition

Data sheet

Feature	Value
Size	45
Stroke	50 mm
Stroke reserve	0 mm
Piston rod thread	M10x1.25
Reversing backlash theoretical	100 µm
Spindle diameter	10 mm
Spindle pitch	3 mm/U
Torsional backlash at piston rod +/-	1 deg
Mounting position	optional
Piston-rod end	Male thread
Type of motor	Stepper motor
Design	Electric cylinder With ball screw drive With integrated drive
Spindle type	Ball screw drive
Symbol	00997294
Protection against torque/guide	With plain-bearing guide
Referencing	Positive fixed stop block Negative fixed stop block Reference switch
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	1.5 m/s²
Max. speed	0.074 m/s
Speed "Speed press"	0.01 m/s
Repetition accuracy	±0.02 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	3000 mA

Feature	Value
Max. current consumption, logic	0.3 A
Nominal voltage DC	24 V
Nominal current	3 A
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 1 to FN 942017-4 and EN 60068-2-6
Shock resistance	Shock test with severity level 1 to FN 942017-5 and EN 60068-2-27
Corrosion resistance class CRC	0 - No corrosion stress
LABS (PWIS) conformity	VDMA24364 zone III
Cleanroom class	Class 9 according to ISO 14644-1
Storage temperature	-20 °C ... 60 °C
Relative air humidity	0 - 90% Non-condensing
Degree of protection	IP40
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.
Max. moment Mx	0 Nm
Max. moment My	2.9 Nm
Max. moment Mz	2.9 Nm
Max. radial force at drive shaft	180 N
Max. feed force Fx	450 N
Reference value effective load, horizontal	60 kg
Reference value effective load, vertical	23 kg
Maintenance interval	Life-time lubrication
Moving mass for 0 mm stroke	179 g
Additional moving mass per 10 mm stroke	4.9 g
Product weight	1390 g
Basic weight for 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
Specification logic input	Based on IEC 61131-2, type 1
Working range of logic input	24 V
Features 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 kBaud)
IO-Link, Port class	A
IO-Link, Number of ports	1

Feature	Value
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
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	NPN (negative switching) PNP (positive switching)
Switching logic for inputs	NPN (negative switching) PNP (positive switching)
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	Via female thread With accessories
Note on materials	RoHS-compliant
Material housing	Smooth-anodised wrought aluminium alloy
Material piston rod	High-alloy stainless steel
Material spindle nut	Steel
Material spindle	Rolled steel