

Electric cylinder EPCC-BS-45-

Part number: 5428878

FESTO



Data sheet

Feature	Value
Size	45
Stroke	25 mm...300 mm
Stroke reserve	0 mm
Piston rod thread	M10x1.25
Reversing backlash theoretical	100 µm
Spindle diameter	10 mm
Spindle pitch	3 mm/U...10 mm/U
Torsional backlash at piston rod +/-	1 deg
Mounting position	optional
Piston-rod end	Male thread Female thread
Type of motor	Stepper motor Servo motor
Position detection	Via proximity switch
Design	Electric cylinder With ball screw drive
Spindle type	Ball screw drive
Protection against torque/guide	With plain-bearing guide
Max. acceleration	5 m/s ² ...15 m/s ²
Max. rotational speed	3600 rpm
Max. speed	0.08 m/s...0.6 m/s
Max. homing speed	0.01 m/s
Repetition accuracy	±0.02 mm
Duty cycle	100%
Corrosion resistance class CRC	0 - No corrosion stress
LABS (PWIS) conformity	VDMA24364 zone III
Suitability for the production of Li-ion batteries	Product corresponds to the internal product definition from Festo for use in battery production:Metals with more than 1% by mass of copper, zinc or nickel are excluded from use.The exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils
Cleanroom class	Class 9 according to ISO 14644-1
Storage temperature	-20 °C...60 °C

Feature	Value
Relative air humidity	0 - 95% Non-condensing
Degree of protection	IP40
Ambient temperature	0 °C...60 °C
Impact energy in end positions	0.012 J
Max. drive torque	0.4 Nm...0.9 Nm
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
Frictional torque independent of load	0.08 Nm...0.16 Nm
Reference value effective load, horizontal	60 kg
Reference value effective load, vertical	30 kg
Mass moment of inertia JH per metre of stroke	0.0503 kgcm ² ...0.0711 kgcm ²
Mass moment of inertia JL per kg of working load	0.0023 kgcm ² ...0.0253 kgcm ²
Mass moment of inertia JO	0.0109 kgcm ² ...0.0153 kgcm ²
Maintenance interval	Life-time lubrication
Moving mass for 0 mm stroke	179 g...521 g
Additional moving mass per 10 mm stroke	4.9 g...17.2 g
Basic weight for 0 mm stroke	555 g...1592 g
Additional weight per 10 mm stroke	41 g...53 g
Type of mounting	Via female thread With accessories
Note on materials	RoHS-compliant
Material housing	Wrought aluminium alloy Smooth anodised
Material piston rod	High-alloy stainless steel
Material spindle nut	Steel
Material spindle	Rolled steel