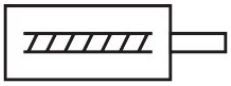
Electric cylinder
ESBF-BS-50-100-10P

Part number: 8022593





Data sheet

Feature	Value
Working stroke	100 mm
Size	50
Stroke	100 mm
Piston rod thread	M16x1.5
Reversing backlash	30 µm
Screw diameter	20 mm
Spindle pitch	10 mm/U
Max. angle of rotation of the piston rod +/-	0.15 deg
Based on norm	ISO 15552
Mounting position	Any
Piston rod end	External thread
Motor type	Stepper motor Servo motor
Position sensing	Via proximity switch
Structural design	Electric cylinder with ball screw
Spindle type	Ball screw
Protection against torsion/guide	With plain bearing-guide
Max. acceleration	15 m/s²
Max. rotational speed	3600 rpm
Max. speed	0.67 m/s
Repetition accuracy	±0.01 mm
Duty cycle	100%
Corrosion resistance class (CRC)	2 - Moderate corrosion stress
LABS (PWIS) conformity	VDMA24364 Zone III
Storage temperature	-20 °C...60 °C
For use in the food industry	See supplementary material information
Relative air humidity	0 - 95%
Degree of protection	IP40
Ambient temperature	0 °C...60 °C
Max. driving torque	9.2 Nm
Max. radial force on actuator shaft	300 N
Max. feed force Fx	5000 N

Feature	Value
No-load driving torque	0.3 Nm
Guide value for payload, horizontal	500 kg
Guide value for payload, vertical	500 kg
Mass moment of inertia JH per meter of stroke	1.0427 kgcm²
Mass moment of inertia JL per kg of payload	0.0253 kgcm²
Mass moment of inertia JO	0.1603 kgcm²
Maintenance interval	Lifetime lubrication
Moving mass at 0 mm stroke	793 g
Additional moving mass per 10 mm stroke	35 g
Basic weight with 0 mm stroke	1982 g
Additional weight per 10 mm stroke	65 g
Type of mounting	With internal thread or accessories
Interface code, actuator	D50
Note on materials	RoHS compliant
Cover material	Wrought aluminum alloy, smooth-anodized
Piston rod material	high-alloy stainless steel
Material of screws	Galvanized steel
Ball screw nut material	Bearing steel
Spindle material	Bearing steel
Material of cylinder barrel	Wrought aluminum alloy, smooth-anodized