

# Electric cylinder ESBF-BS-50-100-5P

Part number: 8022590

FESTO



 General operating condition

## Data sheet

Feature	Value
Working stroke	100 mm
Size	50
Stroke	100 mm
Piston rod thread	M16x1.5
Reversing backlash theoretical	30 µm
Spindle diameter	20 mm
Spindle pitch	5 mm/U
Torsional backlash at piston rod +/-	0.15 deg
Based on standard	ISO 15552
Mounting position	Any
Piston-rod end	Male thread
Type of motor	Stepper motor Servo motor
Position detection	Via proximity switch
Design	Electric cylinder with ball screw
Spindle type	Ball screw
Symbol	00991941
Protection against torque/guide	With plain-bearing guide
Max. acceleration	5 m/s <sup>2</sup>
Max. rotational speed	3600 rpm
Max. speed	0.33 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
Suitable for use with food	See supplementary material information
Relative air humidity	0 - 95%
Degree of protection	IP40
Ambient temperature	0 °C ... 60 °C
Max. drive torque	4.8 Nm
Max. radial force at drive shaft	300 N
Max. feed force Fx	5000 N
Frictional torque independent of load	0.3 Nm
Reference value effective load, horizontal	500 kg
Reference value effective load, vertical	500 kg

Feature	Value
Mass moment of inertia JH per metre of stroke	1.0187 kgcm <sup>2</sup>
Mass moment of inertia JL per kg of working load	0.0063 kgcm <sup>2</sup>
Mass moment of inertia JO	0.1453 kgcm <sup>2</sup>
Maintenance interval	Lifetime lubrication
Moving mass for 0 mm stroke	793 g
Additional moving mass per 10 mm stroke	35 g
Basic weight for 0 mm stroke	1982 g
Additional weight per 10 mm stroke	65 g
Type of mounting	With female thread Or accessories
Interface code, actuator	D50
Note on materials	RoHS compliant
Material cover	Wrought aluminium alloy, smooth anodised
Material piston rod	High-alloy stainless steel
Material screws	Galvanised steel
Material ball screw nut	Bearing steel
Material spindle	Bearing steel
Material cylinder barrel	Smooth-anodised wrought aluminium alloy