electric cylinder
ESBF-BS-100-300-5P
Part number: 574116

FESTO

With ball screw, electrically actuated spindle that converts the rotary
motion of the motor into linear motion of the piston rod.

Data sheet

Feature	Value
Size	100
Stroke	300 mm
Piston rod thread	M20x1,5
Reversing backlash	30 µm
Spindle diameter	40 mm
Spindle pitch	5 mm/U
Max. angular deflection of piston rod +/-	0.5 deg
Based on the standard	ISO 15552
Assembly position	Any
Piston-rod end	Male thread
Motor type	Servomotor
Position detection	For proximity sensor
Design structure	Electro-cylinder with ball screw
Spindle type	Ball screw spindle
Protection against torque/guide	with plain-bearing guide
Max. acceleration	5 m/s2
Max. speed	0.17 m/s
Repetition accuracy	±0,01 mm
Duty cycle	100 %
Corrosion resistance classification CRC	2 - Moderate corrosion stress
PWIS conformity	VDMA24364 zone III
Storage temperature	-20 ... 60 °C
Food-safe	See Supplementary material information
Relative air humidity	0 - 95 %
Protection class	IP40
Ambient temperature	0 ... 60 °C
Max. drive torque	16.9 Nm
Max. radial force at drive shaft	1,100 N
Max. feed force Fx	17,000 N
No-load driving torque	0.7 Nm
Reference value for working load, horizontal	1,700 kg
Reference value for working load, vertical	1,700 kg
Mass moment of inertia JH per metre of stroke	18.978 kgcm2
Mass moment of inertia JL per kg of working load	0.00633 kgcm2
Mass moment of inertia, JO	4.6963 kgcm2
Moving mass with 0 mm stroke	8,786 g
Additional mass factor per 10 mm of stroke	132 g
Basic weight for 0 mm stroke	11,123 g
Additional weight per 10 mm stroke	193 g
Mounting type	with internal (female) thread or accessories
Interface code, actuator	D100
Materials note	Conforms to RoHS

Feature	Value
Material cover	Die-cast aluminium, coated
Material piston rod	High alloy steel, non-corrosive
Material screws	Galvanised steel
Material spindle nut	Roller bearing steel
Material spindle	Roller bearing steel
Material cylinder barrel	Smooth-anodised wrought aluminium alloy