

# electric cylinder

## ESBF-BS-40-300-16P

Part number: 8022583

☆ Core product range

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	40
Stroke	300 mm
Piston rod thread	M12x1,25
Reversing backlash	40 µm
Spindle diameter	16 mm
Spindle pitch	16 mm/U
Max. angular deflection of piston rod +/-	0.2 deg
Based on the standard	ISO 15552
Assembly position	Any
Piston-rod end	Male thread
Motor type	Stepper motor 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	25 m/s <sup>2</sup>
Max. speed	1.33 m/s
Repetition accuracy	±0,01 mm
Duty cycle	100 %
Corrosion resistance classification CRC	2 - Moderate corrosion stress
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	7.7 Nm
Max. radial force at drive shaft	130 N
Max. feed force Fx	3,000 N
No-load driving torque	0.2 Nm
Reference value for working load, horizontal	300 kg
Reference value for working load, vertical	300 kg
Mass moment of inertia JH per metre of stroke	0.5225 kgcm <sup>2</sup>
Mass moment of inertia JL per kg of working load	0.06485 kgcm <sup>2</sup>
Mass moment of inertia, JO	0.1249 kgcm <sup>2</sup>
Moving mass with 0 mm stroke	467 g
Additional weight per 10 mm stroke	47 g
Basic weight for 0 mm stroke	1,237 g
Additional mass factor per 10 mm of stroke	26 g
Mounting type	with internal (female) thread or accessories
Interface code, actuator	D40
Materials note	Contains PWIS substances

Feature	Value
	Conforms to RoHS
Material cover	Wrought Aluminium alloy Smooth anodised
Material piston rod	High alloy steel, non-corrosive
Material screws	Steel Galvanised
Material spindle nut	Roller bearing steel
Material spindle	Roller bearing steel
Material cylinder barrel	Wrought Aluminium alloy Smooth anodised