

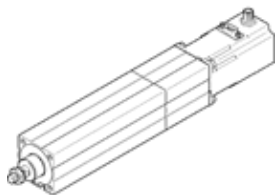
# electric cylinder

## EPCO-40-100-12.7P-ST-E

Part number: 1472619

FESTO

Mechanical linear drive with piston rod and fixed stepper motor.



### Data sheet

Feature	Value
Size	40
Stroke	100 mm
Stroke reserve	0 mm
Piston rod thread	M10x1,25
Reversing backlash	0.1 mm
Stepper angle at full step	1.8 deg
Stepper angle tolerance	±5 %
Spindle diameter	12.7 mm
Spindle pitch	12.7 mm/U
Max. angular deflection of piston rod +/-	1 deg
Assembly position	Any
Piston-rod end	Male thread
Motor type	Stepper motor
Design structure	Electric cylinder With ball screw
Spindle type	Ball screw
Protection against torque/guide	with plain-bearing guide
Rotor position sensor	Incremental encoder
Rotary position encoder interface	RS422 TTL AB-channel + zero index
Rotary position encoder measuring principle	Optical
Max. acceleration	10 m/s <sup>2</sup>
Max. speed	0.46 m/s
Repetition accuracy	±0,02 mm
Duty cycle	100 %
Insulation protection class	B
Nominal operating voltage DC	24 V
Nominal motor current	4.2 A
Authorisation	RCM Mark c UL us - Recognized (OL)
CE mark (see declaration of conformity)	to EU directive for EMC
Corrosion resistance classification CRC	1 - Low corrosion stress
Storage temperature	-20 ... 60 °C
Relative air humidity	0 - 85 % non-condensing
Protection class	IP40
Ambient temperature	0 ... 50 °C
Impact energy in end positions	0.0004 J
Max. torque Mx	0 Nm
Max. torque My	3.3 Nm
Max. torque Mz	3.3 Nm
Max. feed force Fx	250 N
Reference value for working load, horizontal	40 kg
Reference value for working load, vertical	20 kg
Mass moment of inertia JH per metre of stroke	0.167 kgcm <sup>2</sup>

Feature	Value
Mass moment of inertia JL per kg of working load	0.0409 kgcm <sup>2</sup>
Mass moment of inertia, JO	0.3375 kgcm <sup>2</sup>
Moving mass with 0 mm stroke	415 g
Additional weight per 10 mm stroke	55 g
Basic weight for 0 mm stroke	2,585 g
Additional mass factor per 10 mm of stroke	4.9 g
Electrical connector system	Plug
Mounting type	with internal (female) thread with accessories
Materials note	Contains PWIS substances Conforms to RoHS
Material cover	Wrought Aluminium alloy Smooth anodised
Material housing	Wrought Aluminium alloy Smooth anodised
Material piston rod	High alloy steel, non-corrosive
Material spindle nut	Steel
Material spindle	Roller bearing steel
Material cylinder barrel	Wrought Aluminium alloy Smooth anodised