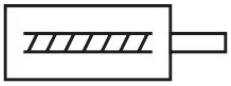
Electric cylinder
ESBF-LS-50-300-4P

Part number: 8022603





Data sheet

Feature	Value
Working stroke	300 mm
Size	50
Stroke	300 mm
Piston rod thread	M16x1.5
Reversing backlash	100 µm
Screw diameter	20 mm
Spindle pitch	4 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 lead screw spindle
Spindle type	Lead screw
Protection against torsion/guide	With plain bearing-guide
Max. acceleration	2.5 m/s²
Max. rotational speed	750 rpm
Max. speed	0.2 m/s
Repetition accuracy	±0.05 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...50 °C
Max. driving torque	4.8 Nm
Max. radial force on actuator shaft	300 N
Max. feed force Fx	1600 N

Feature	Value
No-load driving torque	0.3 Nm
Guide value for payload, horizontal	160 kg
Guide value for payload, vertical	160 kg
Mass moment of inertia JH per meter of stroke	1.2382 kgcm²
Mass moment of inertia JL per kg of payload	0.004 kgcm²
Mass moment of inertia JO	0.1407 kgcm²
Moving mass at 0 mm stroke	532 g
Additional moving mass per 10 mm stroke	13 g
Basic weight with 0 mm stroke	1716 g
Additional weight per 10 mm stroke	67 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