

Electric cylinder EPRF-BS-45-50-5P-F-M1

Part number: 8211883

FESTO



Data sheet

Feature	Value
Size	45
Stroke	50 mm
Stroke reserve	0 mm
Piston rod thread	M6
Reversing backlash	100 µm
Screw diameter	12 mm
Spindle pitch	5 mm/U
Max. angle of rotation of the piston rod +/-	0.7 deg
Mounting position	Any
Piston rod end	Internal thread
Motor type	Servo motor
Position sensing	None
Structural design	Electric cylinder with ball screw
Spindle type	Ball screw
Protection against torsion/guide	With plain bearing-guide
Max. actuator speed	6000 rpm
Max. acceleration	5 m/s ²
Max. speed	500 m/s
Max. homing speed	0.01 m/s
Repetition accuracy	±0.02 mm
Duty cycle	100%
Vibration resistance	Transport application test with severity level 1 as per FN 942017-4 and EN 60068-2-6
Shock resistance	Shock test with severity level 1 as per FN 942017-5 and EN 60068-2-27
Corrosion resistance class (CRC)	4 - Particularly high corrosion stress
LABS (PWIS) conformity	VDMA24364 Zone III
Storage temperature	-20 °C...60 °C
For use in the food industry	See declaration of conformity
Relative air humidity	0 - 95% Non-condensating
Degree of protection	IP69K
Ambient temperature	-10 °C...60 °C

Feature	Value
Impact energy in the end positions	24 mJ
Max. driving torque	0.97 Nm
Max. torque Mx	0 Nm
Max. torque My	7 Nm
Max. torque Mz	7 Nm
Max. radial force on actuator shaft	115 N
Max. feed force Fx	1000 N
No-load driving torque	0.128 Nm
Guide value for payload, horizontal	120 kg
Guide value for payload, vertical	60 kg
Mass moment of inertia JH per meter of stroke	0.1142 kgcm ²
Mass moment of inertia JL per kg of payload	0.0063 kgcm ²
Mass moment of inertia JO	0.0171 kgcm ²
Reference service life	5000 km
Maintenance interval	Lifetime lubrication
Moving mass at 0 mm stroke	230 g
Additional moving mass per 10 mm stroke	9.1 g
Basic weight with 0 mm stroke	1309 g
Additional weight per 10 mm stroke	37.7 g
Type of mounting	With internal thread
Note on materials	RoHS compliant
Cover cap material	high-alloy stainless steel
Cover material	high-alloy stainless steel
Seals material	TPE-U(PU)
Material of dynamic seals	TPE-U(PU)
Housing material	high-alloy stainless steel
Piston rod material	high-alloy stainless steel
Ball screw nut material	Steel
Spindle material	Bearing steel
Material of cylinder barrel	high-alloy stainless steel