Electric cylinder
EPRF-BS-45- -

Part number: 8211887

Data sheet

Feature	Value
Size	45
Stroke	24 mm...800 mm
Stroke reserve	0 mm
Piston rod thread	M6 M10x1.25
Reversing backlash	100 µm
Screw diameter	12 mm
Spindle pitch	5 mm/U...10 mm/U
Max. angle of rotation of the piston rod +/-	0.7 deg
Mounting position	Any
Piston rod end	External thread Internal thread
Motor type	Servo motor
Position sensing	None
Structural design	Electric cylinder with ball screw
Spindle type	Ball screw drive
Protection against torsion/guide	With plain-bearing guide
Max. actuator speed	6000 rpm
Max. acceleration	5 m/s²...15 m/s²
Max. speed	500 m/s...1000 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
Relative air humidity	0 - 95 % Non-condensing
Degree of protection	IP69K

Feature	Value
Ambient temperature	-10 °C...60 °C
Impact energy in the end positions	24 mJ
Max. driving torque	0.97 Nm...1.9 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...0.185 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 kgcm²...0.1217 kgcm²
Mass moment of inertia JL per kg of payload	0.0063 kgcm²...0.0253 kgcm²
Mass moment of inertia JO	0.0171 kgcm²...0.0175 kgcm²
Reference service life	5000 km
Maintenance interval	Life-time 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	1091 g...1559 g
Additional weight per 10 mm stroke	37.7 g
Type of mounting	with through-hole and rear mounting bracket With through-hole With mounting bracket with internal thread and rear mounting bracket With internal thread with trunnion mounting on end cap
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	Roller bearing steel
Material of cylinder barrel	High-alloy stainless steel