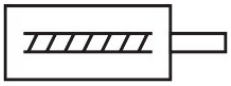
Electric cylinder
EPRF-BS-86-300-15P-F-M1

Part number: 8211897





Data sheet

Feature	Value
Size	86
Stroke	300 mm
Stroke reserve	0 mm
Piston rod thread	M12
Reversing backlash theoretical	100 µm
Spindle diameter	32 mm
Spindle pitch	15 mm/U
Torsional backlash at piston rod +/-	0.5 deg
Mounting position	Any
Piston-rod end	Female thread
Type of motor	Servo motor
Position detection	None
Design	Electric cylinder with ball screw
Spindle type	Ball screw
Protection against torque/guide	With plain-bearing guide
Max. drive speed	2000 rpm
Max. acceleration	15 m/s²
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 to FN 942017-4 and EN 60068-2-6
Shock resistance	Shock test with severity level 1 to FN 942017-5 and EN 60068-2-27
Corrosion resistance class CRC	4 - Very high corrosion stress
LABS (PWIS) conformity	VDMA24364 zone III
Storage temperature	-20 °C...60 °C
Suitable for use with food	See declaration of conformity
Relative air humidity	0 - 95% Non-condensing
Degree of protection	IP69K
Ambient temperature	-10 °C...60 °C

Feature	Value
Impact energy in end positions	250 mJ
Max. drive torque	32.28 Nm
Max. moment Mx	0 Nm
Max. moment My	79.2 Nm
Max. moment Mz	79.2 Nm
Max. radial force at drive shaft	900 N
Max. feed force Fx	12500 N
Frictional torque independent of load	1.087 Nm
Reference value effective load, horizontal	1000 kg
Reference value effective load, vertical	500 kg
Mass moment of inertia JH per metre of stroke	6.6645 kgcm²
Mass moment of inertia JL per kg of working load	0.057 kgcm²
Mass moment of inertia JO	1.4303 kgcm²
Reference service life	5000 km
Maintenance interval	Lifetime lubrication
Moving mass for 0 mm stroke	2408 g
Additional moving mass per 10 mm stroke	23.6 g
Basic weight for 0 mm stroke	7141 g
Additional weight per 10 mm stroke	104.3 g
Type of mounting	With female thread
Note on materials	RoHS compliant
Material cover cap	High-alloy stainless steel
Material cover	High-alloy stainless steel
Material seals	TPE-U(PU)
Material dynamic seals	TPE-U(PU)
Material housing	High-alloy stainless steel
Material piston rod	High-alloy stainless steel
Material ball screw nut	Steel
Material spindle	Bearing steel
Material cylinder barrel	High-alloy stainless steel