

Electric cylinder EPRF-BS-86- -

Part number: 8211899

FESTO



Data sheet

Feature	Value
Size	86
Stroke	50 mm...1000 mm
Stroke reserve	0 mm
Piston rod thread	M20x1.5 M12
Reversing backlash theoretical	100 µm
Spindle diameter	32 mm
Spindle pitch	5 mm/U...32 mm/U
Torsional backlash at piston rod +/-	0.5 deg
Mounting position	optional
Piston-rod end	Male thread Female thread
Type of motor	Servo motor
Position detection	Without
Design	Electric cylinder with ball screw
Spindle type	Ball screw drive
Protection against torque/guide	With plain-bearing guide
Max. drive speed	1800 rpm...2000 rpm
Max. acceleration	5 m/s ² ...15 m/s ²
Max. speed	150 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 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
Relative air humidity	0 - 95% Non-condensing
Degree of protection	IP69K

Feature	Value
Ambient temperature	-10 °C...60 °C
Impact energy in end positions	250 mJ
Max. drive torque	11.86 Nm...32.82 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	6000 N...12500 N
Frictional torque independent of load	0.797 Nm...1.484 Nm
Reference value effective load, horizontal	1000 kg
Reference value effective load, vertical	500 kg
Mass moment of inertia JH per metre of stroke	6.261 kgcm ² ...6.7192 kgcm ²
Mass moment of inertia JL per kg of working load	0.0063 kgcm ² ...0.2594 kgcm ²
Mass moment of inertia JO	1.3936 kgcm ² ...1.4369 kgcm ²
Reference service life	5000 km
Maintenance interval	Life-time 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	6280 g...8816 g
Additional weight per 10 mm stroke	104.3 g
Type of mounting	With through-hole and rear mounting bracket With through-hole Via mounting bracket With female thread and rear mounting bracket Via female thread With trunnion mounting on end cap
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	Rolled steel
Material cylinder barrel	High-alloy stainless steel