

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	100 µm
Screw diameter	32 mm
Spindle pitch	5 mm/U...32 mm/U
Max. angle of rotation of the piston rod +/-	0.5 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	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 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	250 mJ
Max. driving torque	11.86 Nm...32.82 Nm
Max. torque Mx	0 Nm
Max. torque My	79.2 Nm
Max. torque Mz	79.2 Nm
Max. radial force on actuator shaft	900 N
Max. feed force Fx	6000 N...12500 N
No-load driving torque	0.797 Nm...1.484 Nm
Guide value for payload, horizontal	1000 kg
Guide value for payload, vertical	500 kg
Mass moment of inertia JH per meter of stroke	6.261 kgcm ² ...6.7192 kgcm ²
Mass moment of inertia JL per kg of payload	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 at 0 mm stroke	2408 g
Additional moving mass per 10 mm stroke	23.6 g
Basic weight with 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 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