

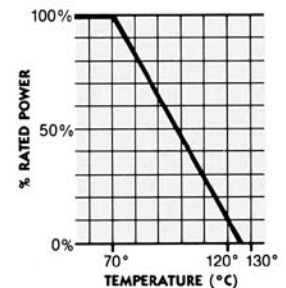
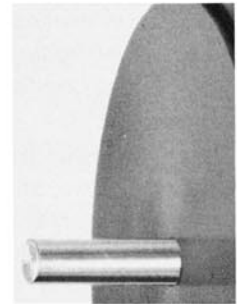


SERVO MOUNT/BALL BEARING
MODEL 1801

WIREWOUND SINGLE-TURN PRECISION POTENTIOMETERS

SERVO MODEL	1801
ELECTRICAL	
Actual Electrical Travel	$358^\circ \pm 1^\circ$
Normal Resistance Range	100 Ω to 100K
Extended Resistance Range (1)	25 Ω to 250K
Resistance Tolerance: Standard %	± 3
Best Practical %	± 1
Power Rating At 70°C, Derating To 0 At 125°C (Watts)	7.0
Linearity, Independent, Tolerance, Standard %	± 0.15
Best Practical %	± 0.05
Equivalent Noise Resistance (ENR) Max. (Ohms)	100
End Voltage Max. (% Of Total Applied Voltage)	
Insulation Resistance At 500 VDC, Min. (Megohms)	1000
Dielectric Withstanding Voltage (Volts RMS)	1000
Max. Applied Voltage (Volts DC)(2)	400
Temperature Coefficient Of Potentiometer, Max. % / °C	$\pm .007$
MECHANICAL	
Total Mechanical Travel	
Mechanical Life, Shaft Revolutions	2 million
Ganged Cups, Max. (Number)	8
Taps, Max., Excluding End Terminations	41
Moment Of Inertia, Per Cup (gm-cm ²)	8.5
Weight: Single Cup (oz.)	6.5
Each Additional Cup (oz.)	1.4
Torque, Max. Per Cup (oz.-in)	1.0
Pilot Diameter Runout, Max.	.0015
Lateral Runout, Max.	.003
Shaft Runout, Max.	.001
Shaft Radial Play, Max.	.002
Shaft End Play, Max.	.004
Dimension For Each Additional Cup	.562 \pm .002
ENVIRONMENTAL	
Temperature Range (°C) Standard	-55 to +125

- (1) All specifications listed apply to units with a total resistance within the normal resistance range. Higher or lower resistances may require some degradation of listed specifications because of resistance wire composition or size.
- (2) Not to exceed specified power rating.



THEORETICAL RESOLUTION—For typical coil characteristics by model number and resistance value, see Resolution Tables, page 52.

ALL MODELS are manufactured to meet or exceed applicable characteristics of MIL-R-12934. For MILITARY-APPROVED (QPL) Listings, see page 52.

TOLERANCES UNLESS OTHERWISE SPECIFIED:

FRACTIONAL: $\pm 1/64"$ DECIMAL: $\pm .005"$ ANGULAR: $\pm 1^\circ$

1801

