

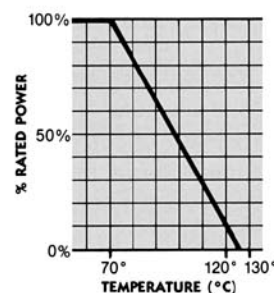


# CONDUCTIVE PLASTIC SINGLE-TURN PRECISION POTENTIOMETERS

## SERVO MOUNT/BALL BEARING MODEL 1821

SERVO MODEL	1821
<b>ELECTRICAL</b>	
Theoretical Electrical Travel	350°
Normal Resistance Range	2K to 125K
Extended Resistance Range <sup>(1)</sup>	750Ω to 300K
Resistance Tolerance: Standard %	± 10
Best Practical %	± 5
Power Rating At 70°C, Derating To 0 At 125°C (Watts)	3.0
Linearity, Independent, Tolerance, Standard %	± 0.15
Best Practical %	± 0.04
Output Smoothness Max. (% Of Applied Voltage)	0.1
End Voltage Max. (% Of Total Applied Voltage)	0.5
Insulation Resistance At 500 VDC, Min. (Megohms)	1000
Dielectric Withstanding Voltage (Volts RMS)	1000
Max. Applied Voltage (Volts DC) <sup>(2)</sup>	400
Temperature Coefficient Of Potentiometer, Max. %/°C	-.07
<b>MECHANICAL</b>	
Total Mechanical Travel	360° Continuous
Mechanical Life, Shaft Revolutions	50 million
Ganged Cups, Max. (Number)	8
Taps, Max., Excluding End Terminations	41
Moment Of Inertia, Per Cup (gm-cm²)	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.	.0015
Dimension For Each Additional Cup	.562 ± .002
<b>ENVIRONMENTAL</b>	
Temperature Range (°C) Standard	- 55 to + 125

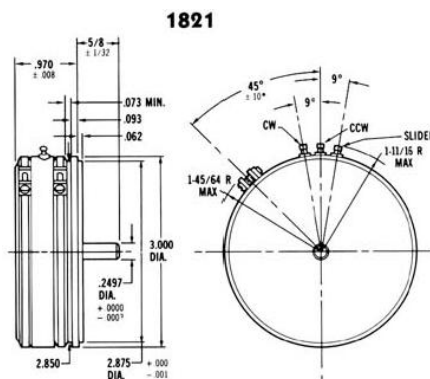
- (1) All specifications listed apply to units with a total resistance within the normal resistance range. Higher or lower resistances may require some degradation of listed specifications because of resistance material composition.
- (2) Not to exceed specified power rating.



ALL MODELS are manufactured to meet or exceed applicable characteristics of MIL-R-39023. For MILITARY-APPROVED (QPL) Listings, see page 52.

### TOLERANCES UNLESS OTHERWISE SPECIFIED:

FRACTIONAL: ± 1/64" DECIMAL: ± .005" ANGULAR: ± 1°



# BEI SENSORS

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