

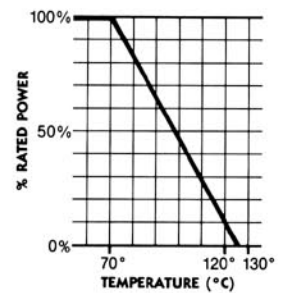


SERVO MOUNT/BALL BEARING  
MODEL 4501

HYBRID 3, 5 AND 10-TURN  
PRECISION POTENTIOMETERS

SERVO MODEL	4501
<b>ELECTRICAL</b>	
Theoretical Electrical Travel	3600°
Normal Resistance Range	3K to 100K
Extended Resistance Range <sup>(1)</sup>	2K to 200K
Resistance Tolerance: Standard %	± 5
Best Practical %	± 3
Power Rating At 70°C, Derating To 0 at 125°C (Watts)	5.0
Linearity, Independent, Tolerance, Standard %	± 0.15
Best Practical %	± 0.05
Output Smoothness Max. (% Of Applied Voltage)	0.15
End Voltage Max. (% Of Total Applied Voltage)	0.25
Insulation Resistance At 500 VDC, Min. (Megohms)	1000
Dielectric Withstanding Voltage (Volts RMS)	1000
Max. Applied Voltage (Volts DC) <sup>(2)</sup>	1000
Temperature Coefficient Of Potentiometer, Max. %/°C	± .007
Tap Spacing Minimum	16°
<b>MECHANICAL</b>	
Total Mechanical Travel	3600° + 10° - 0°
Mechanical Life, Shaft Revolutions	5 million
Ganged Cups, Max. (Number)	2
Taps, Max., Excluding End Terminations	110
Moment Of Inertia, Per Cup (gm-cm <sup>2</sup> )	11
Weight: Single Cup (oz.)	4.0
Each Additional Cup (oz.)	2.5
Torque, Max. Per Cup (oz.-in)	1.0
Pilot Diameter Runout, Max.	.001
Lateral Runout, Max.	.0015
Shaft Runout, Max.	.001
Shaft Radial Play, Max.	.001
Shaft End Play, Max.	.005
Dimension For Each Additional Cup	1.740 ± .002
Stop Strength Static (oz.-in)	750
<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°

**LENGTHS**

MODEL	NUMBER OF TURNS	LENGTH DIMENSION L
4204	3	1.070 ± .006
4504		1.388 ± .007
4704		1.231 ± .007
4207	5	1.213 ± .006
4507		1.610 ± .007
4201	10	1.570 ± .006
4501		2.165 ± .007
4701		2.008 ± .007

**4501**

