



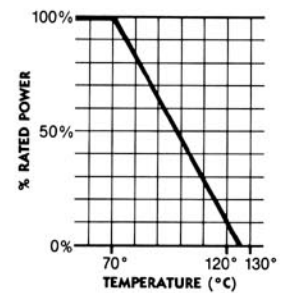
SERVO MOUNT/BALL BEARING MODEL 4504

7/8" TO 2" DIAMETER SERVO MOUNT

HYBRID 3, 5 AND 10-TURN PRECISION POTENTIOMETERS

SERVO MODEL	4504
ELECTRICAL	
Theoretical Electrical Travel	1080°
Normal Resistance Range	1K to 30K
Extended Resistance Range ⁽¹⁾	500 Ω to 60K
Resistance Tolerance: Standard %	± 5
Best Practical %	± 3
Power Rating At 70°C, Derating To 0 at 125°C (Watts)	3.0
Linearity, Independent, Tolerance, Standard %	± 0.25
Best Practical %	± 0.075
Output Smoothness Max. (% Of Applied Voltage)	0.25
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) ⁽²⁾	1000
Temperature Coefficient Of Potentiometer, Max. %/°C	± .007
Tap Spacing Minimum	16°
MECHANICAL	
Total Mechanical Travel	1080° + 10° - 0°
Mechanical Life, Shaft Revolutions	5 million
Ganged Cups, Max. (Number)	3
Taps, Max., Excluding End Terminations	35
Moment Of Inertia, Per Cup (gm-cm ²)	6.5
Weight: Single Cup (oz.)	3.0
Each Additional Cup (oz.)	1.9
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	.963 ± .002
Stop Strength Static (oz.-in)	750
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 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

4504

