



## SERVO MOUNT/BALL BEARING MODEL 3504

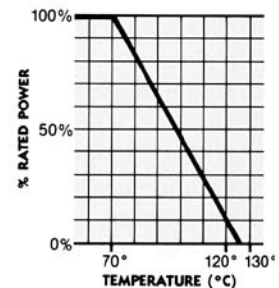
## 7/8" TO 2" DIAMETER SERVO MOUNT

## WIREWOUND 3, 5 AND 10-TURN PRECISION POTENTIOMETERS

SERVO MODEL	3504
<b>ELECTRICAL</b>	
Actual Electrical Travel	1080° + 1° - 0°
Normal Resistance Range	50 Ω to 50K
Extended Resistance Range <sup>(1)</sup>	5 Ω to 150K
Resistance Tolerance: Standard %	± 3
Best Practical %	± 1
Power Rating At 70°C, Derating To 0 at 125°C (Watts)	3.0
Linearity, Independent, Tolerance, Standard %	± 0.25
Best Practical %	± 0.05
Equivalent Noise Resistance (ENR) Max. (Ohms)	100
End Voltage Max. (% Of Total Applied Voltage)	Within linearity tolerance
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	1080° + 4° - 0°
Mechanical Life, Shaft Revolutions	2 million
Ganged Cups, Max. (Number)	3
Taps, Max., Excluding End Terminations	35
Moment Of Inertia, Per Cup (gm-cm <sup>2</sup> )	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
<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 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: ± 1/64" DECIMAL: ± .005" ANGULAR: ± 1°

### 3504

#### LENGTHS

MODEL	NUMBER OF TURNS	LENGTH DIMENSION L
3204	3	1.070 ± .006
3504		1.388 ± .007
3704		1.231 ± .007
3207	5	1.213 ± .006
3507		1.610 ± .007
3201	10	1.570 ± .006
3501		2.165 ± .007
3701		2.008 ± .007

