



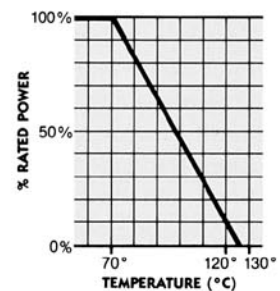
# BUSHING MOUNT/SLEEVE BEARING MODEL 3705

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

BUSHING MODEL	3705
<b>ELECTRICAL</b>	
Actual Electrical Travel	1080° + 1° - 0°
Normal Resistance Range	50 Ω to 100K
Extended Resistance Range <sup>(1)</sup>	5 Ω to 250K
Resistance Tolerance: Standard %	± 3
Best Practical %	± 1
Power Rating At 70°C, Derating To 0 at 125°C (Watts)	5.0
Linearity, Independent, Tolerance, Standard %	± 0.2
Best Practical %	± 0.04
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	13°
<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	52
Moment Of Inertia, Per Cup (gm-cm <sup>2</sup> )	7
Weight: Single Cup (oz.)	3.3
Each Additional Cup (oz.)	1.6
Torque, Max. Per Cup (oz.-in)	1.5
Pilot Diameter Runout, Max.	.0015
Lateral Runout, Max.	.0025
Shaft Runout, Max.	.001
Shaft Radial Play, Max.	.002
Shaft End Play, Max.	.005
Dimension For Each Additional Cup	.943 ± .005
Stop Strength Static (oz.-in)	1000
<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.

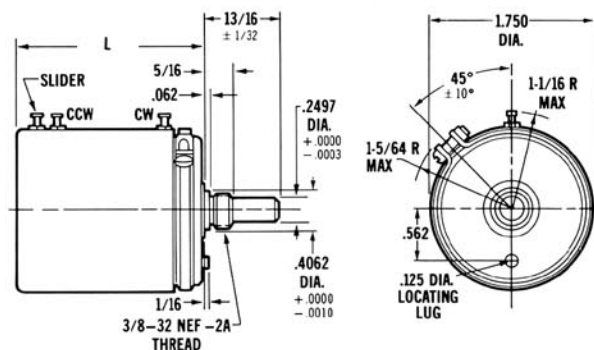
(2) Not to exceed specified power rating.



**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°

LENGTHS		
MODEL	NUMBER OF TURNS	LENGTH DIMENSION L
3205	3	.960 ± .006
3206		.960 ± .006
3605		1.148 ± .007
3705		1.148 ± .007
3208	5	1.103 ± .006
3209		1.103 ± .006
3202	10	1.460 ± .006
3203		1.460 ± .006
3232		1.460 ± .006
3233		1.460 ± .006
3602		1.925 ± .007
3702		1.925 ± .007



3705