



## Features

- Bushing mount
- Shaft supported by front sleeve bearing
- Non-standard features and specifications available

# 6657 - Precision Potentiometer

### Electrical Characteristics<sup>1</sup>

Standard Resistance Range .....	1K to 100K ohms
Resistance Tolerance .....	±10%
Independent Linearity .....	±1%
Resolution .....	Essentially infinite
Effective Electrical Angle .....	340° ±3°
End Voltage .....	0.5% maximum
Output Smoothness .....	0.1%
Power Rating (Voltage Limited By Power Dissipation or 300 VAC, Whichever is Less)	
+70°C .....	1.5 watts
+125°C .....	0 watt
Dielectric Withstanding Voltage .....	MIL-STD-202, Method 301
Sea Level .....	750 VAC minimum
Insulation Resistance (500 VDC) .....	1,000 megohms minimum

### Environmental Characteristics<sup>1</sup>

Operating Temperature	
Static Operation Temperature Range .....	-65°C to +125°C
Dynamic Operation Temperature Range .....	+1°C to +125°C
Temperature Coefficient .....	±500ppm/°C maximum
Vibration .....	15G
Wiper Bounce .....	0.1 millisecond maximum
Total Resistance Shift .....	±5% maximum
Voltage Ratio Shift .....	±0.5% maximum
Shock .....	50G
Wiper Bounce .....	0.1 millisecond maximum
Total Resistance Shift .....	±5% maximum
Voltage Ratio Shift .....	±0.5% maximum
Load Life .....	1,000 hours, 1.5 watts
Total Resistance Shift .....	±10% maximum
Rotational Life (No Load) .....	10,000,000 shaft revolutions
Total Resistance Shift .....	±10% maximum
Moisture Resistance .....	MIL-STD-202, Method 106
Total Resistance Shift .....	±15% maximum

### Mechanical Characteristics<sup>1</sup>

Mechanical Angle .....	Continuous
Backlash .....	0.1° maximum
Shaft Runout .....	0.001 in. (0.025mm) T.I.R.
Shaft End Play .....	0.005 in. (0.13mm) T.I.R.
Shaft Radial Play .....	0.005 in. (0.13mm) T.I.R.
Torque (Starting & Running) .....	0.5 oz.-in. (0.40 Ncm) maximum

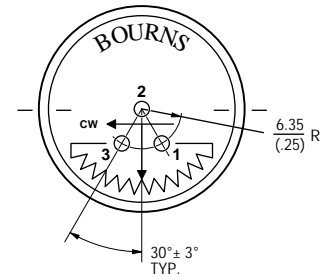
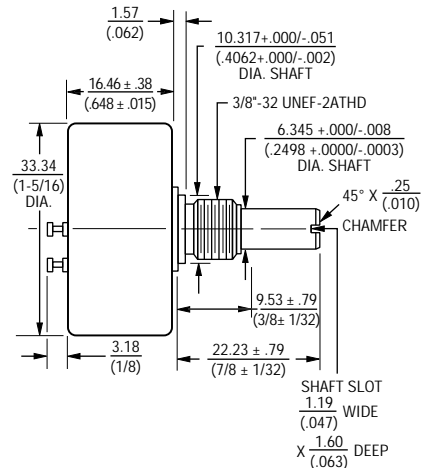
<sup>1</sup> At room ambient: +25°C nominal and 50% relative humidity nominal, except as noted.

### Recommended Part Numbers

Part Number*	Resistance (Ω)
6657S-1-102	1,000
6657S-1-202	2,000
6657S-1-502	5,000
6657S-1-103	10,000

BOLD-FACE LISTINGS ARE IN STOCK AND READILY AVAILABLE THROUGH DISTRIBUTION.

FOR OTHER OPTIONS CONSULT FACTORY.



TOLERANCES: EXCEPT WHERE NOTED  
 DECIMALS: .XX ± .25 (0.010), .XXX ± .13 (0.005)  
 FRACTIONS: ±1/64  
 DIMENSIONS: MM (IN.)

