

1-1/4" DIAMETER / 10-TURN / DIGITAL WIREWOUND

- Easy single-hole mounting with recessed cup provided
- Digital dial provides excellent readability
- Cost saving; pre-phased

BOURNS

FOR ORDERING INFORMATION SEE PAGE 45 .

Model 3650

Knobpot® Precision Potentiometer

Electrical Characteristics¹

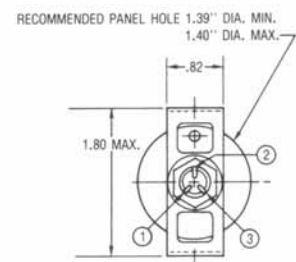
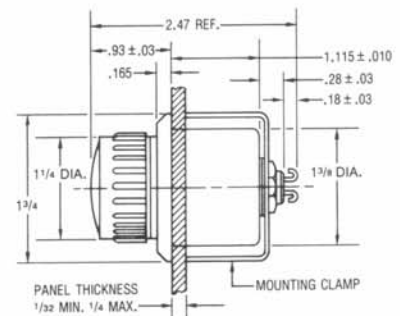
Standard Resistance Range	100 to 100K Ω
Resistance Tolerance	$\pm 3\%$
Accuracy (Correlation of Dial Readout to Voltage Ratio Output)	
100 to 200 Ω	$\pm 0.20\%$ voltage ratio
500 to 5K Ω	$\pm 0.15\%$ voltage ratio
10K to 20K Ω	$\pm 0.12\%$ voltage ratio
50K to 100K Ω	$\pm 0.10\%$ voltage ratio
Repeatability of Dial Readout	$\pm 0.05\%$ voltage ratio
Resolution	See table page 110
Effective Electrical Angle	3600° nominal
Absolute Minimum Resistance	1 Ω or 0.1% maximum (whichever is greater)
Noise	100 Ω ENR maximum
Power Rating (Voltage Limited By Power Dissipation or 500 VAC, Whichever is Less)	
+25°C	2.5 watts
+85°C	0 watt
Dielectric Withstanding Voltage	MIL-STD-202, Method 301
Sea Level	1,000 VAC minimum
70,000 Feet	250 VAC minimum
Insulation Resistance (500 VDC)	1,000 megohms minimum

Environmental Characteristics¹

Operating Temperature	
Static Operation Temperature Range	-25°C to +85°C
Dynamic Operation Temperature Range	+1°C to +85°C
Temperature Coefficient ²	± 50 ppm/°C maximum/wire
Moisture Resistance	MIL-STD-202, Method 103, Condition B
Total Resistance Shift	$\pm 2\%$ maximum
Vibration	10G
Wiper Bounce	0.1 millisecond maximum
Total Resistance Shift	$\pm 2\%$ maximum
Voltage Ratio Shift	$\pm 0.2\%$ maximum
Shock	50G
Wiper Bounce	0.1 millisecond maximum
Total Resistance Shift	$\pm 2\%$ maximum
Voltage Ratio Shift	$\pm 0.2\%$ maximum
Load Life	1,000 hours, 2.5 watts
Total Resistance Shift	$\pm 2\%$ maximum
Rotational Life (No Load)	100,000 revolutions
Total Resistance Shift	$\pm 4\%$ maximum

Mechanical Characteristics¹

Mechanical Angle	3600° +10°, - 0°
Stop Strength	48 oz-in. minimum
Torque	
Starting	1.0 to 15.0 oz-in. maximum
Running	15.0 oz-in. maximum
Variation	3.0 oz-in. maximum
Backlash	1.0° maximum
Weight	Approximately 4 oz.
Terminals	Gold-plated J-Hooks
Markings	Manufacturer's name and part number, resistance value and date code

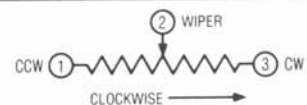


NOTE: LOCKWASHER HEX NUT AND 2 MOUNTING CLAMPS SUPPLIED WITH EACH UNIT.

TOLERANCES: EXCEPT WHERE NOTED

DECIMALS: .XX $\pm$.010, .XXX $\pm$.005

FRACTIONS: $\pm 1/64$ DIMENSIONS: IN.



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

²Consult factory for complete specification details.

Specifications are subject to change without notice.