



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

- Bushing mount
- Integral clockface readout
- Cost saving; pre-phased
- Highly readable clockface readout

BOURNS

FOR ORDERING INFORMATION SEE PAGE 45 .

Model 3640

Knobpot® Precision Potentiometer

Electrical Characteristics¹

Standard Resistance Range	100 to 100KΩ
Resistance Tolerance	± 3%
Accuracy (Correlation of Dial Readout to Voltage Ratio Output)	
100 to 200Ω	± 0.20% voltage ratio
500 to 5KΩ	± 0.15% voltage ratio
10KΩ	± 0.12% voltage ratio
15K to 250KΩ	± 0.10% voltage ratio
Repeatability of Dial Readout	± 0.05% voltage ratio
Resolution	See table page 94
Effective Electrical Angle	3600° nominal
Absolute Minimum Resistance	1Ω or 0.1% maximum (whichever is greater)
Noise	100Ω 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

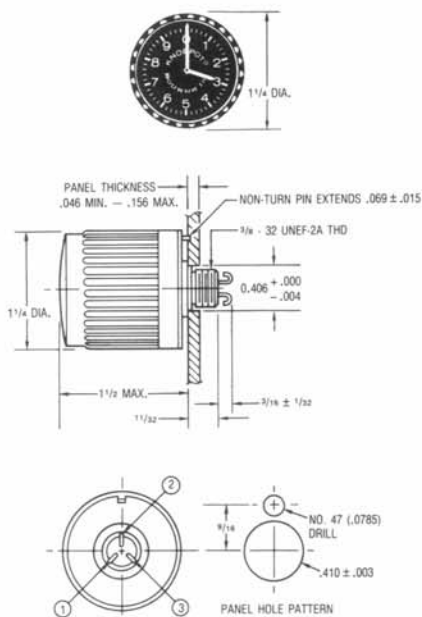
Operating Temperature	
Static Operation Temperature Range	-65°C to +85°C
Dynamic Operation Temperature Range	+1°C to +85°C
Temperature Coefficient ²	± 50ppm/°C maximum/wire
Moisture Resistance	MIL-STD-202, Method 103, Condition B
Total Resistance Shift	± 2% maximum
Vibration	10G
Wiper Bounce	0.1 millisecond maximum
Total Resistance Shift	± 2% maximum
Voltage Ratio Shift	± 0.2% maximum
Shock	50G
Wiper Bounce	0.1 millisecond maximum
Total Resistance Shift	± 2% maximum
Voltage Ratio Shift	± 0.2% maximum
Load Life	1,000 hours, 1.5 watts
Total Resistance Shift	± 2% maximum
Rotational Life (No Load)	100,000 shaft revolutions
Total Resistance Shift	± 4% maximum

Mechanical Characteristics¹

Mechanical Angle	3600° + 10°, - 0°
Stop Strength	48 oz-in. minimum
Torque	
Starting	1.0 to 10.0 oz-in. maximum
Running	10.0 oz-in. maximum
Variation	3.0 oz-in. maximum
Weight	Approximately 1.75 oz.
Terminals	Gold-plated J-Hooks
Markings	Manufacturer's name and part number, resistance value and date code

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

²Consult factory for complete specification details.



NOTE: LOCKWASHER AND
HEX NUT SUPPLIED
WITH EACH UNIT.

TOLERANCES: EXCEPT WHERE NOTED

DECIMALS: .XX ± .010 , .XXX ± .005

FRACTIONS: ± 1/64 DIMENSIONS: IN.

