



## Features

- Snap-in mounting
- Space saving - extends only 5/8" behind most panels
- Easy one-hole, snap-in mounting
- Digital dial provides excellent readability

**BOURNS®**

## 3610 - 10-Turn Precision Knobpot®

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

Standard Resistance Range .....	100 to 100 K ohms
Total Resistance Tolerance .....	±5 %
Effective Electrical Angle .....	3600 ° nominal
Absolute Minimum Resistance.....	1 ohm or 0.1 % maximum (whichever is greater)
Noise.....	100 ohms ENR maximum
Dielectric Withstanding Voltage (MIL-STD-202, Method 301)	
Sea Level .....	1,000 VAC minimum
70,000 Feet.....	400 VAC minimum
Power Rating (Voltage Limited By Power Dissipation or 385 VAC, Whichever is Less)	
+25 °C.....	1.5 watts
+85 °C.....	0 watt
Insulation Resistance (500 VDC).....	1,000 megohms minimum
Resolution .....	See recommended part numbers
Accuracy (Correlation of Dial Readout to Voltage Ratio Output) .....	±0.5 % voltage ratio
Repeatability of Dial Readout .....	±0.1 % voltage ratio

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

Operating Temperature Range.....	+1 °C to +85 °C
Storage Temperature Range.....	-25 °C to +85 °C
Temperature Coefficient Over Storage Temperature Range <sup>2</sup> .....	±50 ppm/°C maximum/wire
Vibration .....	10 G
Wiper Bounce.....	0.1 millisecond maximum
Total Resistance Shift .....	±2 % maximum
Voltage Ratio Shift .....	±0.2 % maximum
Shock .....	50 G
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) .....	50,000 shaft revolutions
Total Resistance Shift .....	±2 % maximum
Moisture Resistance (MIL-STD-202, Method 103, Condition B)	
Total Resistance Shift .....	±2 % maximum
IP Rating.....	IP 60

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

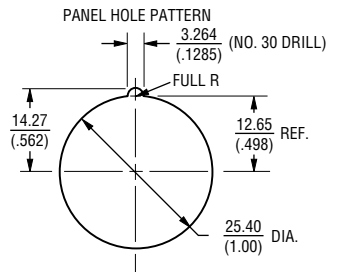
Stop Strength.....	14 N-cm (20 oz.-in.) minimum
Mechanical Angle .....	3600 ° +20 °, -0 °
Torque (Starting).....	0.71 to 4.94 N-cm (1.0 to 7.0 oz.-in.) maximum
Torque (Running).....	4.94 N-cm (7.0 oz.-in.) maximum
Variation.....	0.71 N-cm (1.0 oz.-in.) maximum
Backlash .....	1.0 ° maximum
Weight.....	Approximately 20 gm
Terminals.....	Gold-plated J-Hooks
Soldering Condition	
Manual Soldering.....	96.5Sn/3.0Ag/0.5Cu solid wire or no-clean rosin cored wire; 370 °C (700 °F) max. for 3 seconds
Wave Soldering.....	96.5Sn/3.0Ag/0.5Cu solder with no-clean flux; 260 °C (500 °F) max. for 5 seconds
Wash processes.....	Not recommended
Markings .....	Manufacturer's name and part number, resistance value and tolerance, wiring diagram, and date code.

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

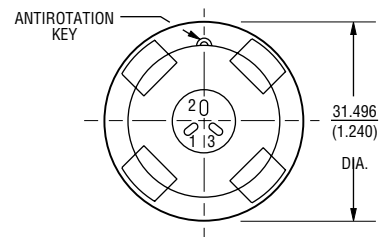
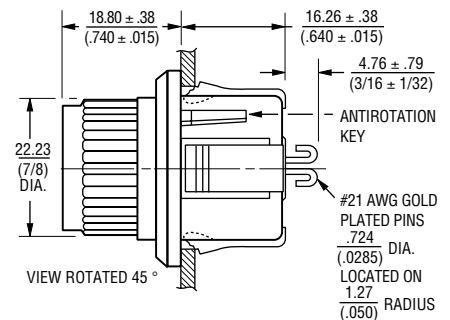
### Recommended Part Numbers

Part Number	Resistance (Ω)	Resolution (%)
<b>3610S-1-102</b>	<b>1,000</b>	<b>.035</b>
<b>3610S-1-502</b>	<b>5,000</b>	<b>.027</b>
<b>3610S-1-103</b>	<b>10,000</b>	<b>.022</b>

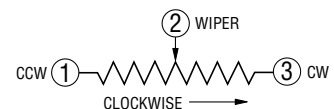
**BOLDFACE** LISTINGS ARE IN STOCK AND READILY AVAILABLE THROUGH DISTRIBUTION.  
FOR OTHER OPTIONS CONSULT FACTORY.



NOTES:  
1. SNAP-IN MOUNTING CUP ACCOMMODATES PANEL THICKNESS  
    .64 THRU 1.98 (NO. 22GA  
    (.025) (.078) AND 3.18 (.125)  
    THRU NO. 14GA)



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



REV. 10/08

"Knobpot" is a registered trademark of Bourns, Inc.  
Specifications are subject to change without notice.  
Customers should verify actual device performance in their specific applications.