



**BOURNS®**

## Features

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

## 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>

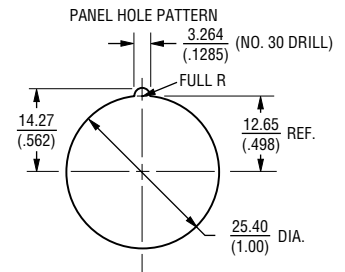
Stop Strength .....	14 N-cm (20 oz.-in.) minimum
Mechanical Angle .....	3600 ° +20 °, -0 °
Torque (Starting) .....	0.71 to 4.94 N-cm (1.0 to 7.0 oz.-in.) maximum
Torque (Running) .....	4.94 N-cm (7.0 oz.-in.) maximum
Variation .....	0.71 N-cm (1.0 oz.-in.) maximum
Backlash .....	1.0 ° maximum
Weight .....	Approximately 20 gm
Terminals .....	Gold-plated J-Hooks
Soldering Condition .....	Recommended hand soldering using Sn95/Ag5 no clean solder, 0.025" wire diameter. Maximum temperature 399 °C (750 °F) for 3 seconds. No wash process to be used with no clean flux.
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

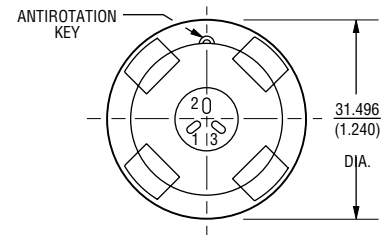
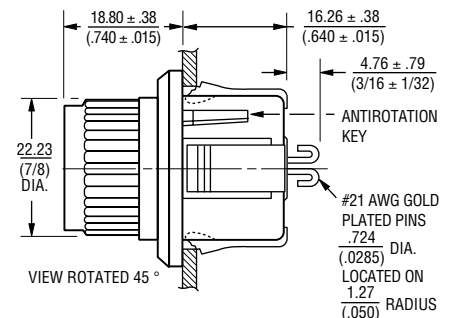
Part Number	Resistance (Ω)	Resolution (%)
<b>3610S-1-102</b>	<b>1,000</b>	<b>.035</b>
<b>3610S-1-502</b>	<b>5,000</b>	<b>.027</b>
<b>3610S-1-103</b>	<b>10,000</b>	<b>.022</b>

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

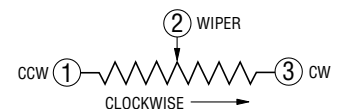


#### NOTES:

- SNAP-IN MOUNTING CUP ACCOMMODATES PANEL THICKNESS  
 $\frac{.64}{(.025)}$  THRU  $\frac{1.98}{(.078)}$  (NO. 22GA)  
 THRU NO. 14GA) AND  $\frac{3.18}{(.125)}$



TOLERANCES: EXCEPT WHERE NOTED  
 DECIMALS: .XX ±  $\frac{.25}{(.010)}$ , .XXX ±  $\frac{.13}{(.005)}$   
 FRACTIONS: ±1/64  
 DIMENSIONS:  $\frac{MM}{(IN.)}$



REV. 07/06

"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.