



**BOURNS®**

## Features

- Snap-in or bushing mount options
- Standard resistance values available
- 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	
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 50 % relative humidity nominal, except as noted.

### Recommended Part Numbers

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

Part Number	Resistance (Ω)	Resolution (%)
3610S-2-102	1,000	.035
3610S-2-502	5,000	.027
3610S-2-103	10,000	.022

**BOLDFACE LISTINGS ARE IN STOCK AND READILY AVAILABLE THROUGH DISTRIBUTION.**

FOR OTHER OPTIONS AND RESISTANCE VALUES, PLEASE CONSULT THE FACTORY.

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## Product Dimensions

### 3610S-1



### 3610S-2



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

