

## Features

- 51 mm (2 ") diameter, single-turn conductive plastic
- Excellent resolution
- High rotational life
- Bushing mount
- Gangable up to 10 cups

- Non-standard features and specifications available
- Ball bearings

## 6674 - Precision Potentiometer

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

Standard Resistance Range.....	1 K to 100 K ohms
Total Resistance Tolerance.....	±10 %
Independent Linearity.....	±0.25 %
Effective Electrical Angle.....	350 ° ±2 °
End Voltage.....	0.1 % maximum (0.2 % at 2 K ohms, 0.4 % at 1 K ohms)
Output Smoothness.....	0.1 %
Dielectric Strength (VRMS)	
Sea Level.....	1,000 VAC minimum
Power Rating (Voltage Limited By Power Dissipation or 350 VAC, Whichever is Less)	
+70 °C.....	2 watts
+125 °C.....	0 watt
Insulation Resistance (300 VDC).....	1,000 megohms minimum
Resolution.....	Essentially infinite

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

Operating Temperature Range.....	-40 °C to +125 °C
Storage Temperature Range.....	-65 °C to +125 °C
Temperature Coefficient Over Storage Temperature Range.....	±5 % TRS
Vibration.....	15 G
Wiper Bounce.....	0.1 millisecond maximum
Total Resistance Shift.....	±2 % maximum
Shock 60 G	
Wiper Bounce.....	0.1 millisecond maximum
Load Life.....	1,000 hours, 1.5 watts
Total Resistance Shift.....	±10 % maximum
Rotational Life (No Load).....	25,000,000 shaft revolutions
Total Resistance Shift.....	±10 % maximum
Moisture Resistance (MIL-STD-202, Method 106)	
Total Resistance Shift.....	±10 % maximum
IP Rating.....	IP 40

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

Mechanical Angle.....	Continuous
Torque (Starting & Running).....	0.53 N-cm (0.75 oz.-in.) maximum
Mounting.....	14-16 N-cm (20-23 oz.-in.) maximum
Shaft Runout.....	0.025 mm (0.001 in.) T.I.R.
Shaft End Play.....	0.08 mm (0.003 in.) T.I.R.
Shaft Radial Play.....	0.10 mm (0.004 in.) T.I.R.
Backlash.....	0.1 ° maximum
Weight 90 gm	
Terminals.....	Side exit turret terminals
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
Marking.....	Manufacturer's name and part number, resistance value and tolerance, linearity tolerance, wiring diagram, and date code
Ganging (Multiple Section Potentiometers).....	10 cup maximum
Hardware.....	One lockwasher (H-37-2) and one mounting nut (H-38-2) is shipped with each potentiometer.

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

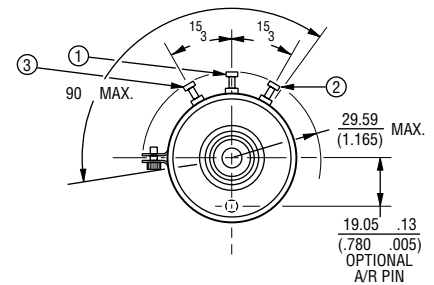
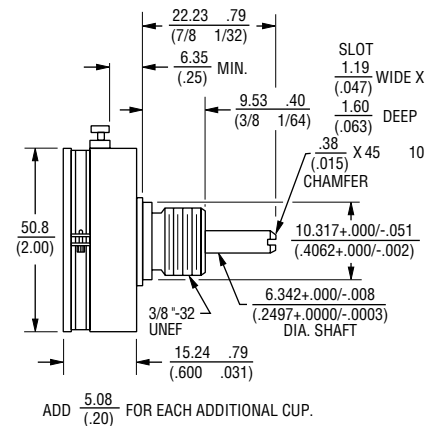
### Recommended Part Numbers

Part Number*	Resistance (Ω)
6674S-1-102	1,000
6674S-1-502	5,000
6674S-1-103	10,000

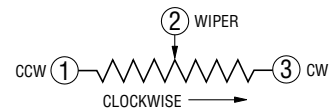
**BOLDFACE** LISTINGS ARE IN STOCK AND READILY AVAILABLE THROUGH DISTRIBUTION.

FOR OTHER OPTIONS CONSULT FACTORY.

### Product Dimensions



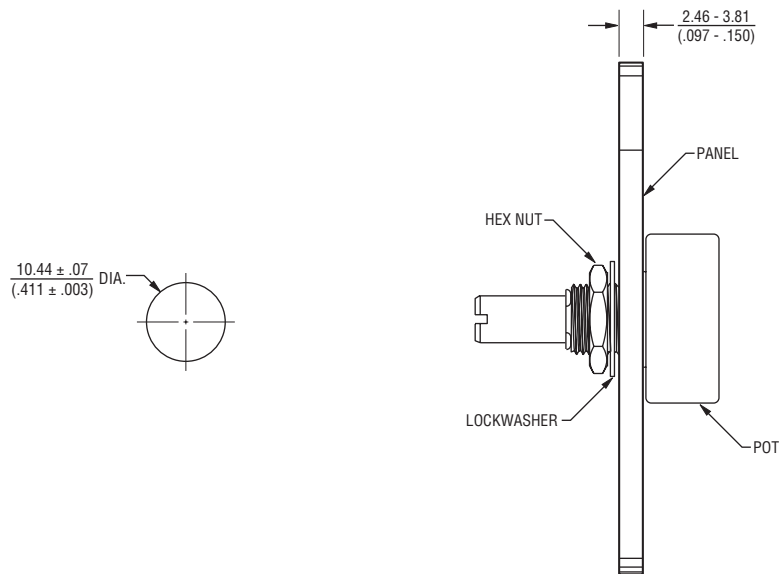
TOLERANCES: EXCEPT WHERE NOTED  
 DECIMALS: .XX  $\frac{.51}{(.020)}$ , .XXX  $\frac{.13}{(.005)}$   
 FRACTIONS: 1/64  
 DIMENSIONS:  $\frac{MM}{(IN.)}$



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**BOURNS®**

## Panel Thickness Dimensions



Panel thickness and hole diameters are recommended for best fit. However, customers may adjust the dimensions to suit their specific application.

DIMENSIONS:  $\frac{\text{MM}}{\text{(INCHES)}}$  TOLERANCES:  $\pm \frac{0.127}{(.005)}$

REV. 10/11

Specifications are subject to change without notice.  
Customers should verify actual device performance in their specific applications.