

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 Characteristics¹

| | |
|--------------------------------------------------------------------------------------------------|------------------------------------------------------|
| 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 Characteristics¹

| | |
|------------------------------------------------------------------------------|------------------------------|
| 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 Characteristics¹

| | |
|------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| 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. |

¹At 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.

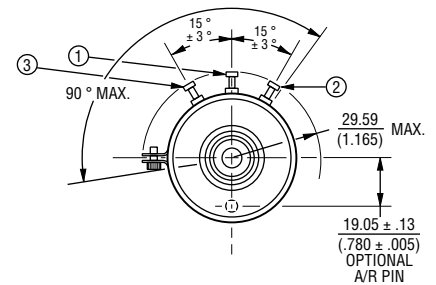
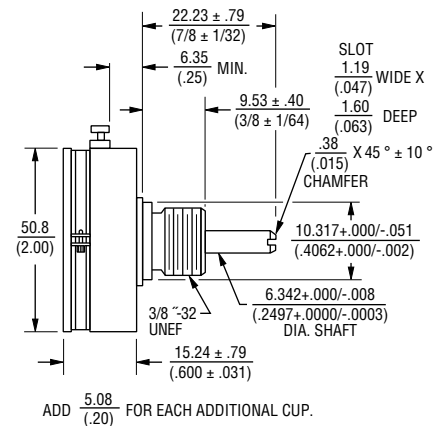
FOR OTHER OPTIONS CONSULT FACTORY.



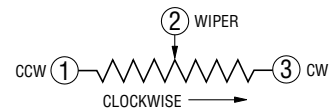
WARNING
Cancer and Reproductive Harm
www.P65Warnings.ca.gov

*RoHS Directive 2015/863, Mar 31, 2015 and Annex. Specifications are subject to change without notice. Users should verify actual device performance in their specific applications. The products described herein and this document are subject to specific legal disclaimers as set forth on the last page of this document, and at www.bourns.com/docs/legal/disclaimer.pdf.

Product Dimensions



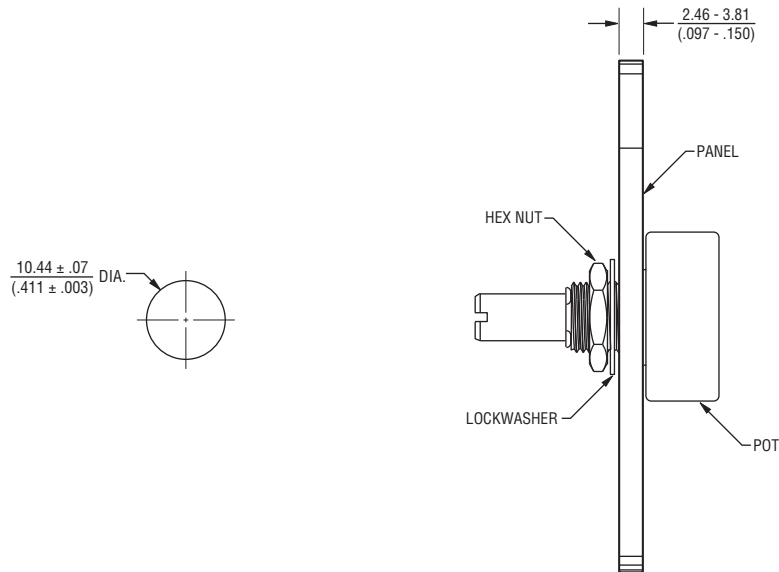
TOLERANCES: EXCEPT WHERE NOTED
DECIMALS: .XX $\frac{.51}{(.020)}$, .XXX $\frac{.13}{(.005)}$
FRACTIONS: 1/64
DIMENSIONS: $\frac{MM}{(IN.)}$



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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: $\pm \frac{0.127}{(.005)}$

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Users should verify actual device performance in their specific applications.

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