BOURNS®

Features

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

Model 6674 is currently available, although not recommended for new designs. Model 6657 is preferred.

- Non-standard features and specifications available
- Ball bearings

6674 - Precision Potentiometer

Electrical Characteristics[1]

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[1]

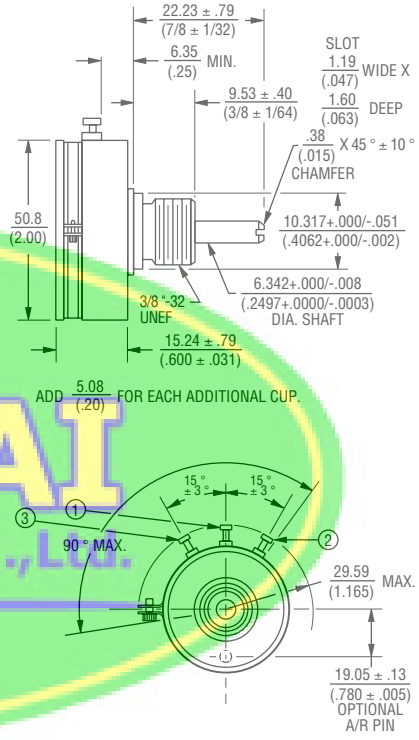
Operating Temperature Range ..... +1 °C to +125 °C
Storage Temperature Range ..... -65 °C to +125 °C
Temperature Coefficient Over Storage Temperature Range ..... ±5 % TRS
Vibration ..... 15 G
Wiper Bounce ..... 0.1 millisecond maximum
Total Resistance Shift ..... ±2 % maximum
Shock ..... 60 G
Wiper Bounce ..... 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[1]

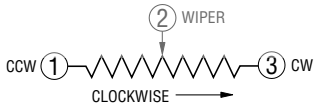
Mechanical Angle ..... Continuous
Torque (Starting & Running) ..... 0.53 N-cm (0.75 oz.-in.) maximum
Mounting ..... 14-16 N-cm (20-23 oz.-in.) maximum
Shaft Runout ..... 0.025 mm (0.001 in.) T.I.R.
Shaft End Play ..... 0.08 mm (0.003 in.) T.I.R.
Shaft Radial Play ..... 0.10 mm (0.004 in.) T.I.R.
Backlash ..... 0.1 ° maximum
Weight ..... 90 gm
Terminals ..... Side exit turret terminals
Soldering Condition ..... 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.
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.

[1] At room ambient: +25 °C nominal and 50 % relative humidity nominal, except as noted.

Product Dimensions



TOLERANCES: EXCEPT WHERE NOTED
DECIMALS: .XX ± .51 (.020), .XXX .13 (.005)
FRACTIONS: ±1/64
DIMENSIONS: MM. (IN.)



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.

REV. 06/06

*RoHS Directive 2002/95/EC Jan 27 2003 including Annex
Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications.

CHAKCHAI Electronics Group Co.,Ltd.