



## 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>

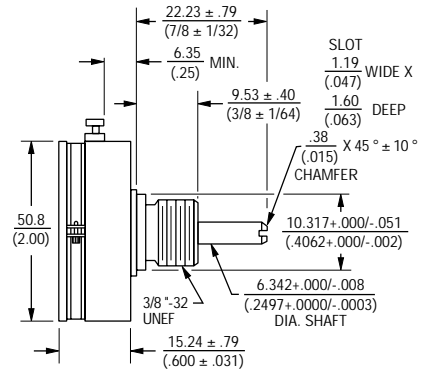
Operating Temperature Range	-65 °C to +125 °C
Storage Temperature Range	+1 °C to +125 °C
Temperature Coefficient Over Storage Temperature Range	±5 % TRS
Vibration	15 G
Wiper Bounce	0.1 millisecond maximum
Total Resistance Shift	±2 % maximum
Shock	60 G
Wiper Bounce	0.1 millisecond maximum
Load Life	1,000 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>

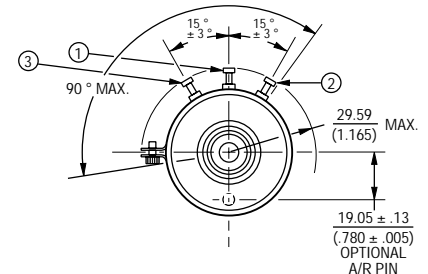
Mechanical Angle	Continuous
Torque (Starting & Running)	0.53 N-cm (0.75 oz.-in.) maximum
Mounting	14-16 N-cm (20-23 oz.-in.) maximum
Shaft Runout	0.025 mm (0.001 in.) T.I.R.
Shaft End Play	0.08 mm (0.003 in.) T.I.R.
Shaft Radial Play	0.10 mm (0.004 in.) T.I.R.
Backlash	0.1 ° maximum
Weight	90 gm
Terminals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

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

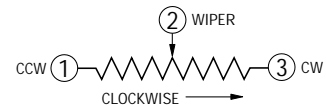
### Product Dimensions



ADD  $\frac{5.08}{(20)}$  FOR EACH ADDITIONAL CUP.



TOLERANCES: EXCEPT WHERE NOTED  
 DECIMALS: .XX ±  $\frac{.51}{(0.020)}$ , .XXX  $\frac{.13}{(0.005)}$   
 FRACTIONS: ±1/64  
 DIMENSIONS:  $\frac{MM}{(IN.)}$



### Recommended Part Numbers

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

**BOLD**FACE LISTINGS ARE IN STOCK AND READILY AVAILABLE THROUGH DISTRIBUTION.

FOR OTHER OPTIONS CONSULT FACTORY.