



BOURNS®

Features

- Lower profile than Model 6639
- Essentially infinite resolution
- Excellent rotational life
- High quality, rugged construction
- Recommended for HMI applications
- Cost and space saving

- Optional anti-rotation lug
- Optional mechanical stop

6630 - Precision Potentiometer

Electrical Characteristics¹

Standard Resistance Range.....	1K to 20K ohms
Total Resistance Tolerance.....	±15 %
Independent Linearity.....	±2.0 %
Effective Electrical Angle.....	340 ° +3 °
End Voltage.....	0.5 % maximum
Output Smoothness.....	0.1 %
Dielectric Withstanding Voltage (MIL-STD-202, Method 301) Sea Level.....	750 VAC minimum
Power Rating (Voltage Limited By Power Dissipation or 300 VAC, Whichever is Less) +70 °C.....	1.0 watt
+125 °C.....	0 watt
Insulation Resistance (500 VDC).....	10 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.....	±500 ppm/°C maximum
Vibration.....	15 G
Wiper Bounce.....	0.1 millisecond maximum
Total Resistance Shift.....	±5 %
Voltage Ratio Shift.....	±0.5 %
Shock.....	50 G
Wiper Bounce.....	0.1 millisecond maximum
Total Resistance Shift.....	±5 %
Voltage Ratio Shift.....	±0.5 %
Load Life.....	1,000 hours, 1 watt
Total Resistance Shift.....	±10 %
Rotational Life (No Load).....	5,000,000 shaft revolutions
Total Resistance Shift.....	±10 % maximum
Moisture Resistance (MIL-STD-202, Method 106) Total Resistance Shift.....	±15 %
IP Rating.....	IP 40

Mechanical Characteristics¹

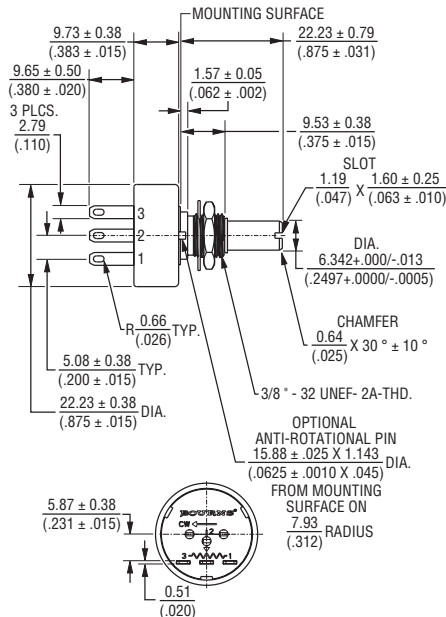
Mechanical Angle.....	Continuous, Stops (340 ° +8 °, -0 °) available
Torque (Starting & Running) ²	0.40 N-cm (0.5 oz.-in.) max.
Mounting.....	170-200 N-cm (15-18 lb.-in.) maximum
Shaft Runout.....	0.13 mm (0.005 in.) T.I.R.
Shaft End Play.....	0.13 mm (0.005 in.) T.I.R.
Shaft Radial Play.....	0.13 mm (0.005 in.) T.I.R.
Backlash.....	0.1 ° maximum
Weight.....	18 gm (6639 Servo Mount), 24 gm (6639 Bushing Mount)
Terminals.....	Axial and radial solder lugs
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 Pots).....	1 cup maximum
Hardware.....	One lockwasher (H-37-2) and one mounting nut (H-38-2) is shipped with potentiometer.

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

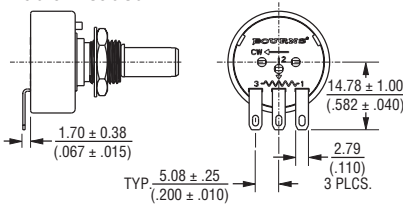
² 2.82 N-cm (4.0 oz.-in.) max. at -40 °C.

Product Dimensions

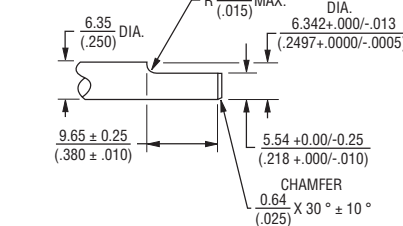
Axial Leaded



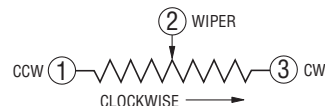
Radial Leaded



Flatted Shaft



DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

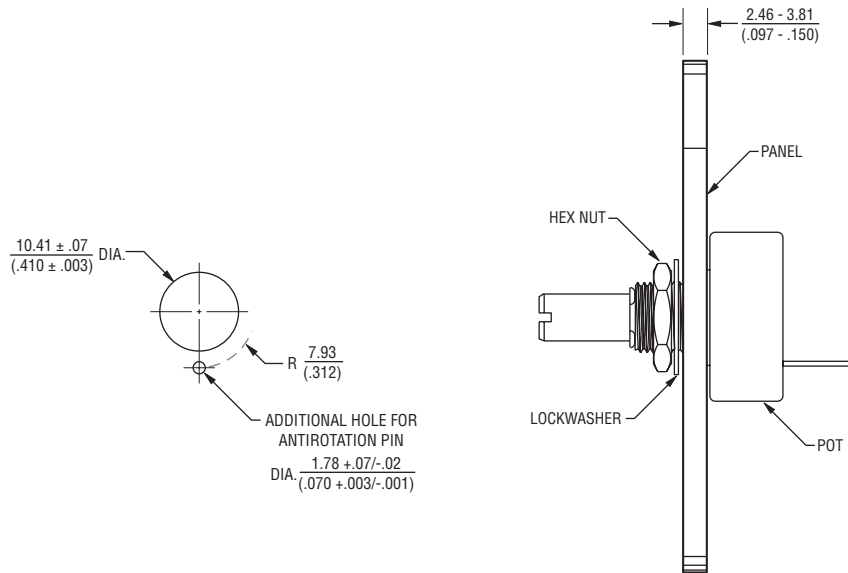


*RoHS Directive 2002/95/EC Jan 27, 2003 including Annex Specifications are subject to change without notice. Customers should verify actual device performance in their specific applications.

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Panel Thickness Dimensions



DIMENSIONS: $\frac{\text{MM}}{\text{(INCHES)}}$

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

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How To Order

