



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

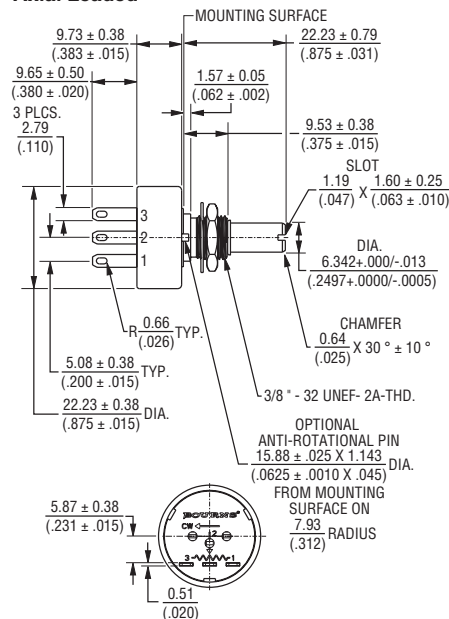
Mechanical Angle	Continuous, Stops (340 ° +8 °, -0 °) available
Torque (Starting & Running) ²	0.40 N-cm (0.5 oz.-in.) max.
Mounting	170-200 N-cm (15-18 lb.-in.) maximum
Shaft Runout	0.13 mm (0.005 in.) T.I.R.
Shaft End Play	0.13 mm (0.005 in.) T.I.R.
Shaft Radial Play	0.13 mm (0.005 in.) T.I.R.
Backlash	0.1 ° maximum
Weight	18 gm (6539 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.

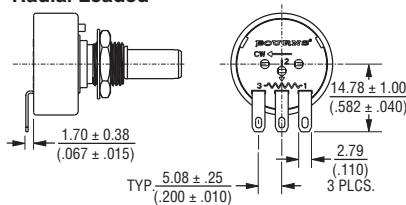
² 2.82 N-cm (4.0 oz.-in.) max. at -40 °C.

Product Dimensions

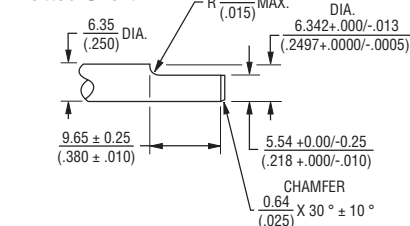
Axial Leaded



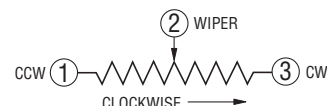
Radial Leaded



Flatted Shaft



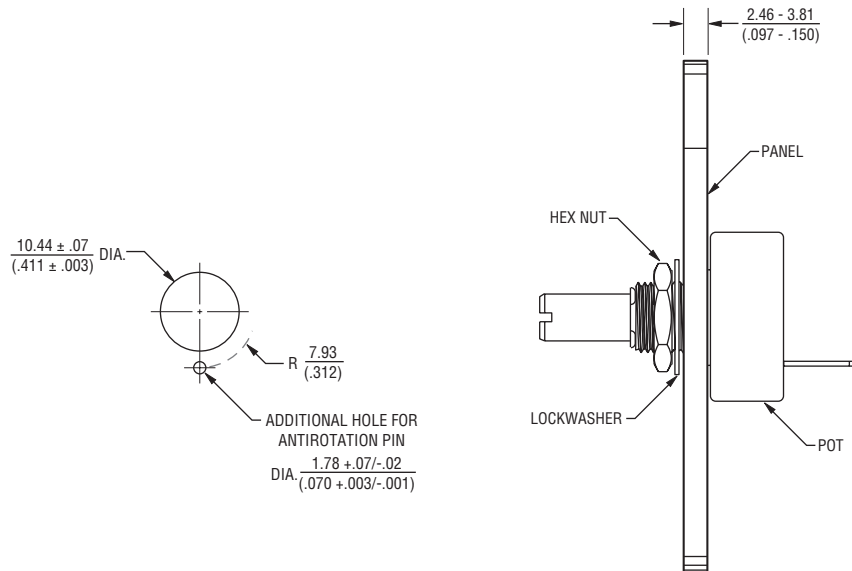
DIMENSIONS: $\frac{\text{MM}}{(\text{INCHES})}$



6630 - Precision Potentiometer

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Panel Thickness Dimensions



Anti-rotation pin hole is shown at six o'clock position for reference only. The actual location is determined by the customer's application. Refer to the front view of the potentiometer to see the location of the optional A/R pin.

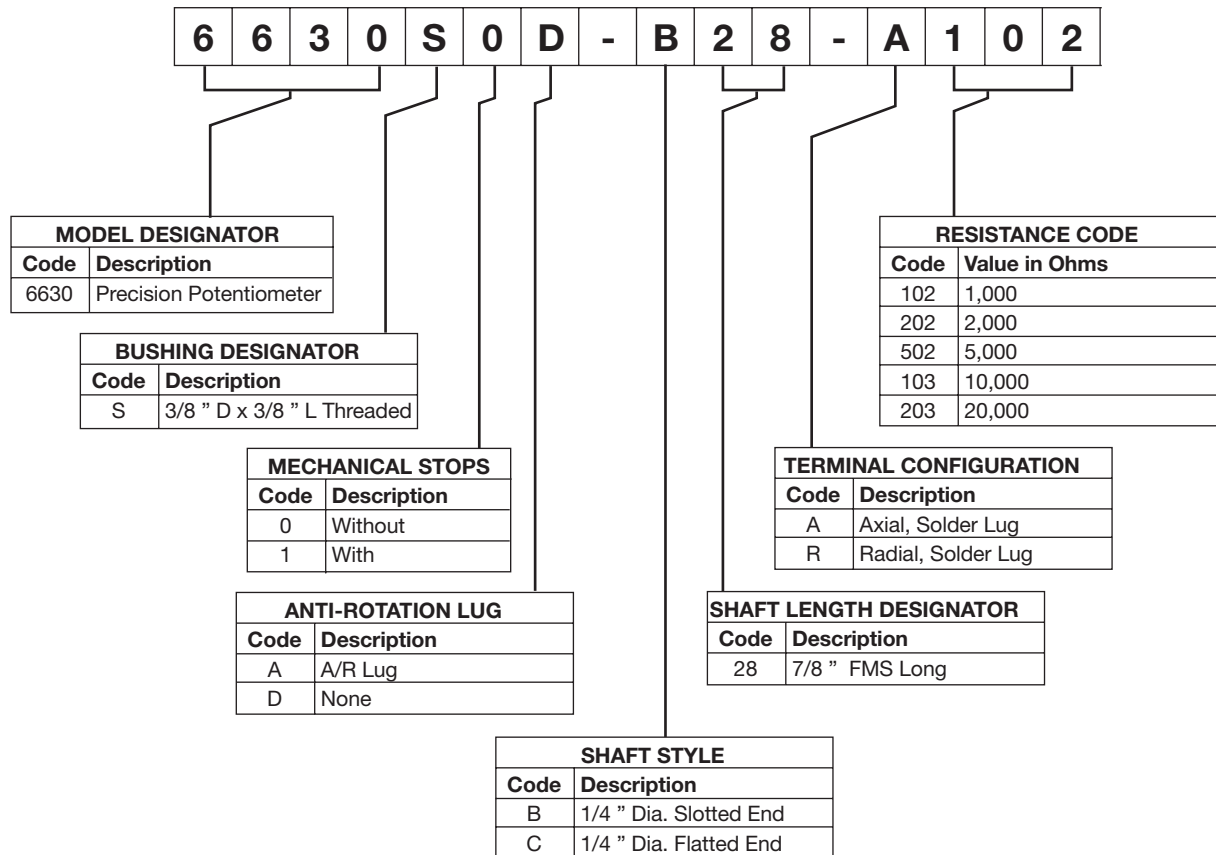
Panel thickness and hole diameters are recommended for best fit. However, customers may adjust the dimensions to suit their specific application.

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

6630 - Precision Potentiometer

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How To Order



REV. 10/11

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