



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

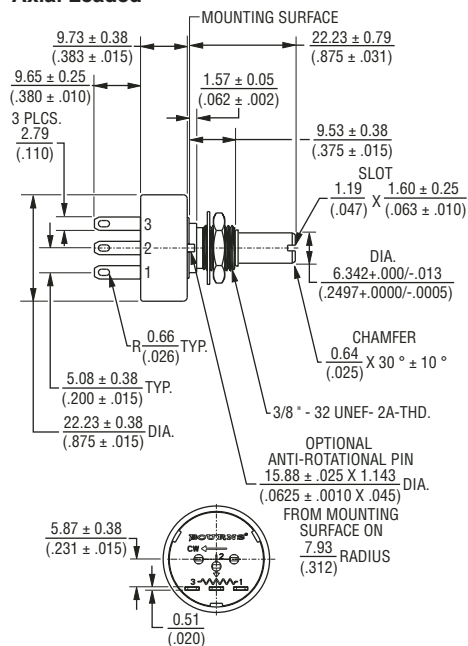
Mechanical Angle	Continuous, Stops (340° +8°, -0°) available
Torque (Starting & Running) ²	0.40 N-cm (0.5 oz.-in.) max.
Mounting	170-200 N-cm (15-18 lb.-in.) maximum
Shaft Runout	0.13 mm (0.005 in.) T.I.R.
Shaft End Play	0.13 mm (0.005 in.) T.I.R.
Shaft Radial Play	0.13 mm (0.005 in.) T.I.R.
Backlash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

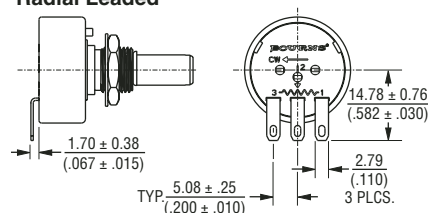
² 2.82 N-cm (4.0 oz.-in.) max. at -40 °C.

Product Dimensions

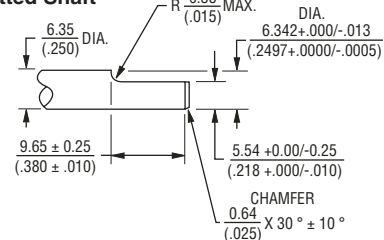
Axial Leaded



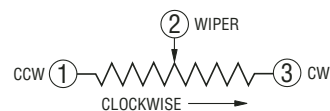
Radial Leaded



Flatted Shaft



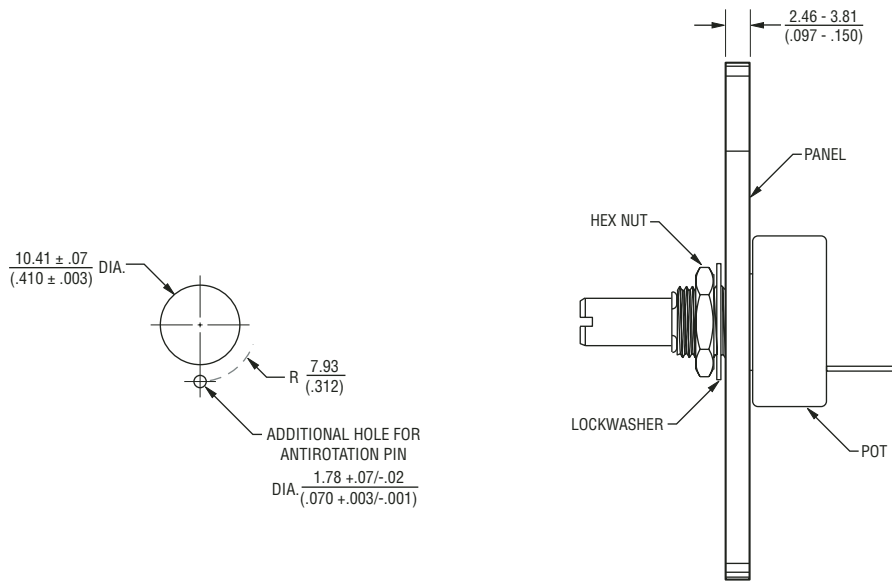
DIMENSIONS:
MM
(INCHES)



6630 - Precision Potentiometer

BOURNS®

Panel Thickness Dimensions



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

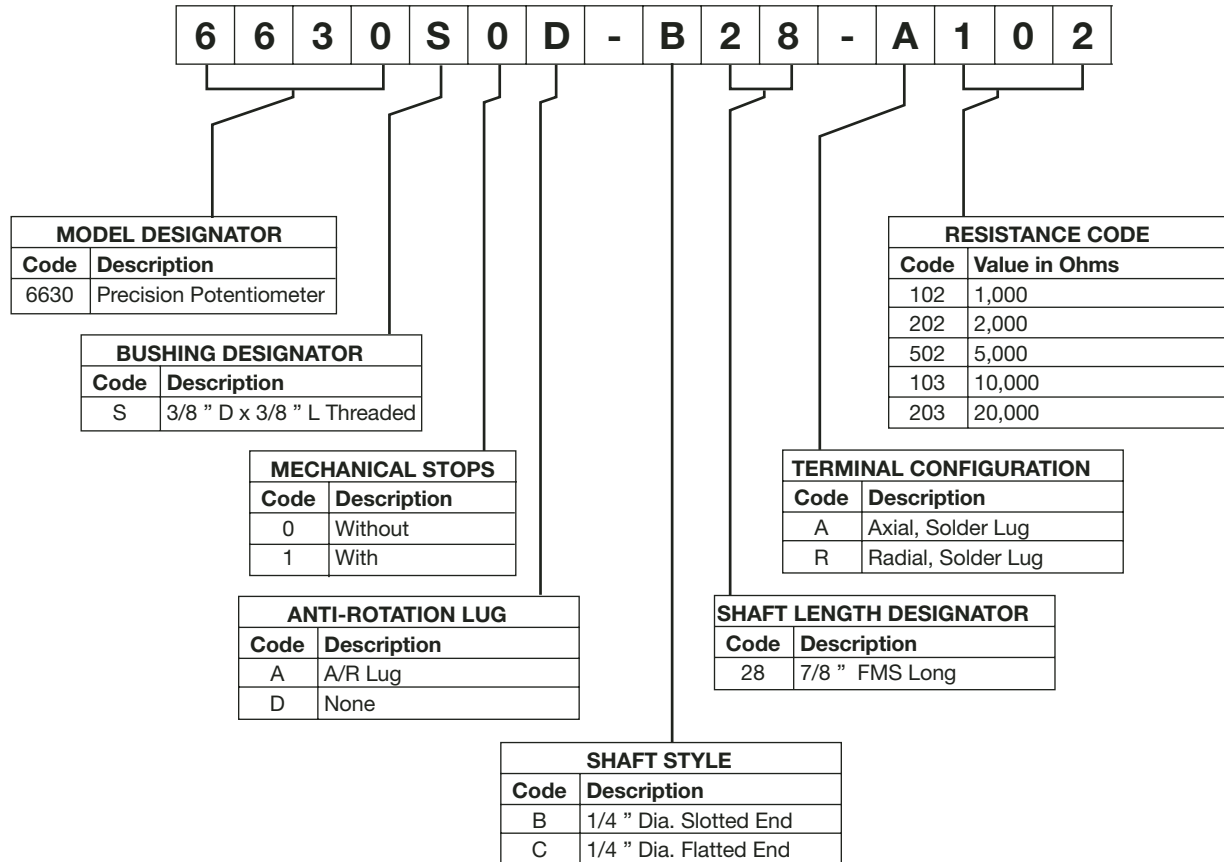
TOLERANCES: $\pm \frac{0.127}{(.005)}$

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

6630 - Precision Potentiometer

BOURNS®

How To Order



Asia-Pacific:

Tel: +886-2 2562-4117 • Fax: +886-2 2562-4116

Europe:

Tel: +41-41 768 5555 • Fax: +41-41 768 5510

The Americas:

Tel: +1-951 781-5500 • Fax: +1-951 781-5700

www.bourns.com