Features

- Bushing mount
- Excellent resolution
- High rotational life
- Non-standard features and specifications available

6637 - Precision Potentiometer

Electrical Characteristics

- Standard Resistance Range: 1 K to 100 K ohms
- Total Resistance Tolerance: ±10 %
- Independent Linearity: ±1 %
- Effective Electrical Angle: 340 ° ±3 °
- End Voltage: 0.5 % maximum
- Output Smoothness: ±0.1 % maximum
- 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 watt; +125 °C, 0 watt
- Insulation Resistance (500 VDC): 1,000 megohms minimum
- Resolution: Essentially infinite

Environmental Characteristics

- Operating Temperature Range: -40 °C to +125 °C
- Storage Temperature Range: -65 °C to +125 °C
- Temperature Coefficient Over Storage Temperature Range: ±500 ppm/°C maximum
- Vibration: ±15 G
- Shock: ±50 G
- Total Resistance Shift: ±5 % maximum
- Voltage Ratio Shift: ±0.5 % maximum
- Total Resistance Shift: ±5 % maximum
- Voltage Ratio Shift: ±0.5 % maximum
- Load Life: 1,000 hours, 1 watt
- Total Resistance Shift: ±10 % maximum
- Rotational Life (No Load): 10,000,000 shaft revolutions
- Total Resistance Shift: ±10 % maximum
- Moisture Resistance (MIL-STD-202, Method 106)
- Total Resistance Shift: ±15 % maximum
- IP Rating: IP 40

Mechanical Characteristics

- Mechanical Angle: 360 ° (Continuous, CW)
- Torque (Starting & Running): 0.40 N-cm (0.5 oz.-in.) maximum
- Mounting: 170-200 N-cm (15-18 lb.-in.) maximum
- Shaft Runout: 0.025 mm (0.001 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: 16 gm
- Terminals: Rear turret type
- Terminals: Wiper
- Terminals: Shaft Slot
- Soldering Condition: Manual Soldering, Wave Soldering
- Wave Soldering: 96.5Sn/3.0Ag/0.5Cu solder with no-clean flux
- Wash processes: Not recommended
- Marking: Manufacturer’s name and part number, resistance value and tolerance, linearity tolerance, wiring diagram, and date code.
- Ganging (Multiple Section Potentiometers): 1 up maximum
- Hardware: One lockwasher (H-37-2) and one mounting nut (H-38-2) is shipped with each potentiometer.

Product Dimensions

- 6637: 7/8” (22 mm) DIA.

Recommended Part Numbers

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Resistance (Ω)</th>
</tr>
</thead>
<tbody>
<tr>
<td>66375-1-102</td>
<td>1,000</td>
</tr>
<tr>
<td>66375-1-502</td>
<td>5,000</td>
</tr>
<tr>
<td>66375-1-103</td>
<td>10,000</td>
</tr>
</tbody>
</table>

Panel Thickness Dimensions

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

Panel thickness: 10.44 ± .07 (0.411 ± .003) DIA.

Hole diameters: 2.46 - 3.81 (.097 - .150)
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