FEATURES

- Unique INFINITRON® conductive plastic element provides essentially infinite resolution.
- Rotational life: 10,000,000 shaft revolutions.
- Standard linearity 0.5% — special linearities available.
- Output smoothness: 0.1% standard.
- Outstanding resistance to humidity — exceeds moisture resistance requirements of MIL-R-39023.
- Exclusive termination technique insures low end resistance and definite effective electrical angle.
- Custom design capability is available to satisfy your most demanding and difficult special requirements.
- Temperature coefficient: ±200 ppm/°C.

STANDARD RESISTANCES

<table>
<thead>
<tr>
<th>Resistance (ohms)</th>
<th>Part Number*</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td>35713-1-001</td>
</tr>
<tr>
<td>1,000</td>
<td>35716-1-002</td>
</tr>
<tr>
<td>2,000</td>
<td>35716-1-002</td>
</tr>
<tr>
<td>5,000</td>
<td>35716-1-002</td>
</tr>
<tr>
<td>10,000</td>
<td>35716-1-009</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Resistance (ohms)</th>
<th>Part Number*</th>
</tr>
</thead>
<tbody>
<tr>
<td>20,000</td>
<td>35716-1-003</td>
</tr>
<tr>
<td>50,000</td>
<td>35716-1-003</td>
</tr>
<tr>
<td>100,000</td>
<td>35716-1-004</td>
</tr>
<tr>
<td>200,000</td>
<td>35716-1-004</td>
</tr>
<tr>
<td>500,000</td>
<td>35716-1-004</td>
</tr>
</tbody>
</table>

*The last three digits of the part number represent the resistance in standard code.
Model 3571 Conductive Plastic Element Potentiometer

STANDARD SPECIFICATIONS

SPECIFICATIONS LISTED BELOW ARE FOR STANDARD MODEL. MODIFICATIONS OF ALL TYPES (MECHANICAL, ELECTRICAL, ENVIRONMENTAL) CAN BE CUSTOMIZED TO YOUR SPECIAL REQUIREMENTS.

ELECTRICAL CHARACTERISTICS

- Resistance Range: 500 to 100,000 ohms
- Resistance Tolerance: ±5%
- Linearity (Independent Standard): ±0.5% maximum
- Best Practice: Consult factory
- Production: Essentially inflect
- Effect of electrical angle*: 1.0000 (±10°, ±2°)
- Minimum Voltage: 0.1% minimum
- Output Smootness: 0.1% maximum
- Noise: 100 ohms or 2% CMR maximum available as 3751-15-445.

Power Rating (25 Volts Maximum)
- 70°C: 1.5 watts
- 100°C: 0.5 watts

Dielectric Strength
- MIL-R-39023
- See Level: 1.000 volts AC minimum
- 70,000 volts: 400 volts AC minimum
- Insulation Resistance, 500 volts DC*: 1,000 megohms minimum

ENVIRONMENTAL CHARACTERISTICS

Operating Temperature Range: -55° to +125°F

Temperature Coefficient:
Specific temperature coefficient with variable depending on the resistance value of the potentiometer and the temperature range in which it will be used. In general, the temperature coefficient values of Bourns conductive plastic potentiometers is ±0.5% per °F.

When requesting with values, please specify the resistance values of the potentiometer to be used and the temperature range required for your application.

(When potentiometers are used as voltage dividers, the resistance change due to temperature coefficient does not affect the wiper output as a ratio of the total applied voltage. Therefore, temperature coefficient should not be considered a major or significant specification in this type application.)

- Humidity: MIL-R-39023 Moisture Resistance
- MIL-R-39023, 100% RH
- Vibration: MIL-R-39023, 100g
- Shock: MIL-R-39023, 100g
- Vibration and Shock: MIL-E-5272
- Same as vibration
- Load Data: MIL-R-39023, 1,000 hours
- Salt and Dust: MIL-E-5272
- Fogging: MIL-E-5272
- Salt Spray: MIL-E-5272

MECHANICAL AND PHYSICAL CHARACTERISTICS

- Mechanical Angle: 1.00° (±2°, ±2°)
- Shaft Rotation: 1.000 in. T.I.R.
- Shaft End Play*: 0.000 in. T.I.R.
- Shaft End Play*: 0.002 in. T.I.R.
- Pilot Diameter Runout*: 0.000 in. T.I.R.
- Relative Life: 10,000,000 shaft revolutions
- Step Strength: 96 oz.-in. minimum
- Torque: 96 oz.-in. minimum
- Diameter and Running: 0.4 oz.-in. maximum
- Weight: Approximately 0.7 oz.
- Terminates: Gold-plated
- Markings: Manufacturer's name and part number, resistance value and tolerance, linearity tolerance, wiring diagram, and data code.

NOTES

- 120% or statistical sample resistance performed to ensure highest quality.
- 010, 015, 020, 025, 030, 040, 050, 075, 090, 099, 120, 175, 200, 250, 299, 300, 400, 500

Specifications are subject to change without notice.

BOURNS, INC., TRIMPOT PRODUCTS DIVISION
3300 COLUMBIA AVENUE, RIVERSIDE, CALIFORNIA 92507

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