FEATURES

- SILVERWELD® termination eliminates vulnerable single wire termination
- High temperature performance +125°C
- Outstanding resistance to humidity. Exceeds humidity cycling requirements of MIL-R-12934
- Housing: high temperature, moisture resistant, thermosetting plastic
- 100% contact pressure control assures low noise and long rotational life
- Performance of the Model 3520 is guaranteed by Bourns Reliability Assurance Program which includes individual inspection to published electrical and physical characteristics
- Custom design capability is available to satisfy your most demanding and difficult special requirements

STANDARD RESISTANCES

<table>
<thead>
<tr>
<th>Resistance (ohms)</th>
<th>Part Number*</th>
<th>Resolution (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>35305-1-250</td>
<td>0.077</td>
</tr>
<tr>
<td>50</td>
<td>35305-1-500</td>
<td>0.077</td>
</tr>
<tr>
<td>100</td>
<td>35305-1-100</td>
<td>0.072</td>
</tr>
<tr>
<td>200</td>
<td>35305-1-200</td>
<td>0.063</td>
</tr>
<tr>
<td>500</td>
<td>35305-1-500</td>
<td>0.045</td>
</tr>
<tr>
<td>1,000</td>
<td>35305-1-100</td>
<td>0.026</td>
</tr>
<tr>
<td>2,000</td>
<td>35305-1-200</td>
<td>0.018</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Resistance (ohms)</th>
<th>Part Number*</th>
<th>Resolution (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,000</td>
<td>35305-1-500</td>
<td>0.032</td>
</tr>
<tr>
<td>10,000</td>
<td>35305-1-100</td>
<td>0.017</td>
</tr>
<tr>
<td>20,000</td>
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<td>0.013</td>
</tr>
<tr>
<td>50,000</td>
<td>35305-1-500</td>
<td>0.018</td>
</tr>
<tr>
<td>75,000</td>
<td>35305-1-750</td>
<td>0.014</td>
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<tr>
<td>100,000</td>
<td>35305-1-100</td>
<td>0.014</td>
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<tr>
<td>250,000</td>
<td>35305-1-250</td>
<td>0.012</td>
</tr>
</tbody>
</table>

*The last three digits in the part number represent the resistance in standard code.
Model 3520 Wirewound Potentiometer

**SPECIFICATIONS**

THE SPECIFICATIONS LISTED BELOW ARE FOR THE STANDARD MODEL. MODIFICATIONS OF ALL TYPES (MECHANICAL, ELECTRICAL AND ENVIRONMENTAL) CAN BE CUSTOM ENGINEERED TO YOUR SPECIFIC REQUIREMENTS.

**ELECTRICAL CHARACTERISTICS**
- Resistance Range: 250 to 250K ohms
- Resistance Tolerance: ±0.5%
- Linearity (Independently): ±0.5%
- Resolution: See Standard Resistance Table
- Effective Electrical Angle: 180° (+10°, -10°)
- Absolute Minimum Resistance: 10 or 0.1%, whichever is greater
- Motor*: 1000 maximum
- Power Rating: 370°C
- 1.5 watt
- 125°C
- 0 watt
- Dielectric Strength: MIL-8-22594
- See Table
- Dielectric Strength: 1500 volts AC minimum
- 6000 volts AC minimum
- Insulation Resistance: 500 VAC DC
- 1200 megohms minimum

**ENVIRONMENTAL CHARACTERISTICS**
- Operating Temperature Range: -40°C to +125°C
- Temperature Coefficient of Offset: 20 PPM/°C maximum
- Humidity: MIL-A-82254, Humidity Cycling
- Vibration: MIL-A-82254, 20G
- Vibration: 0.1 million acceleration maximum
- Motor Shift: 0.1%, maximum
- Shock: MIL-A-82254, 10G
- Shock (with Motor Shift): Same as vibration
- Load Life: MIL-A-82254, 1000 Hours
- Motor Shift: 2.5%, maximum

**MECHANICAL AND PHYSICAL CHARACTERISTICS**
- Mechanical Angle*: 180° (+10°, -10°)
- Shaft Runout*: 0.002 in. T.I.R.
- Shaft End Play*: 0.005 in. T.I.R.
- Shaft Hardness*: 350 ± 10° H.R.
- Rotational Life**: >1,000,000 shaft revolutions
- Stop Duration: 48 oz.-in. minimum
- Torque*: Starting: 0.6 oz.-in. maximum
- Running: 0.6 oz.-in. maximum
- Gaging: 2 caps maximum
- Weight: Approximately 0.7 oz.
- Terminals: Gold plated solder lugs

**NOTES**
- 100% or statistical sampling inspection performed to insure highest quality.
- *Clause (manufacturer's name and part number, resistance value and tolerance, linearity tolerance, wiring diagram and data code)

Specifications are subject to change without notice.

![Diagram of Model 3520 Wirewound Potentiometer](image)

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**Bourns, Inc., Trimmer Products Division**
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