FEATURES

- Extended Temperature Range: —65°C to +125°C.
- Outstanding resistance to humidity
- Exceeds humidity cycling requirements of MIL-H-12554.
- Dual collector pick-off assures outstanding vibration and shock performance.
- Shaft supported front and rear by precision sleeve bearings.
- Housing: high temperature, moisture resistant, thermo-setting plastic.
- Custom design capability is available to satisfy your most demanding and difficult special requirements.
- Performance of the Model 3415 is guaranteed by the Bourns Reliability Program, which includes individual inspection to published electrical and physical characteristics.

STANDARD RESISTANCES

<table>
<thead>
<tr>
<th>Resistance (Ohms)</th>
<th>Part Number*</th>
<th>Resolution (Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>34155-1-500</td>
<td>0.333</td>
</tr>
<tr>
<td>100</td>
<td>34155-1-101</td>
<td>0.105</td>
</tr>
<tr>
<td>200</td>
<td>34155-1-201</td>
<td>0.159</td>
</tr>
<tr>
<td>500</td>
<td>34155-1-501</td>
<td>0.128</td>
</tr>
<tr>
<td>1,000</td>
<td>34155-1-102</td>
<td>0.005</td>
</tr>
<tr>
<td>2,000</td>
<td>34155-1-202</td>
<td>0.015</td>
</tr>
</tbody>
</table>

* The last three digits of the part number represent the resistance in standard code.

Resistance (Ohms) | Part Number* | Resolution (Percent) |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5,000</td>
<td>34155-1-500</td>
<td>0.076</td>
</tr>
<tr>
<td>10,000</td>
<td>34155-1-100</td>
<td>0.062</td>
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<td>20,000</td>
<td>34155-1-200</td>
<td>0.047</td>
</tr>
<tr>
<td>50,000</td>
<td>34155-1-500</td>
<td>0.039</td>
</tr>
<tr>
<td>100,000</td>
<td>34155-1-104</td>
<td>0.033</td>
</tr>
</tbody>
</table>
STANDARD 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 .......................... 50 to 100,000 ohms
Resistance Tolerance* ...................... ±5%
Linearity (independen** ........................ ±5%
Resolution .................................. See standard resistance table
Effective electrical angle* .................. 360° ±5°
Absolute Minimum Resistance* ............... 10 or 0.1%, whichever is greater
Noise* .................................. 1000 maximum

Power Rating:
70°C .................................. 4 watts
125°C .................................. 6 watt

Dielectric Strength .................. MIL-R-12934
See Level ................................ 1,000 with AC minimum
75,000 volts .......................... 200 with AC maximum
Insulation Resistance, 500 volts DC* ....... 1,000 megohms minimum

ENVIRONMENTAL CHARACTERISTICS

Operating Temperature Range ............... -45° to +125°C
Humidity .................................. MIL-R-12934, humidity rating
Vibration .................................. MIL-R-12934, 10g's
Wiper Buoyce .......................... 0.2 millicent evaluation
Wiper Shift .......................... 1.5% minimum
Shock .................................. MIL-R-12934, 50g's
Wiper Buoyce and Wiper Shift ............... Same as vibration

Load Life .................................. MIL-R-12934, 1,000 hours
Resistance Shift .......................... 2% maximum
Sand and Dust .................. MIL-S-6772
Fog .................. MIL-C-6772
Salt Spray .................. MIL-R-12934

MECHANICAL AND PHYSICAL CHARACTERISTICS

Mechanical Angle* .................. Continues
Shaft Rotation* .................................. 601 in. T.I.R.
Shaft End Play* .......................... .003 in. T.I.R.
Shaft Tidal Play* .......................... .004 in. T.I.R.
Relational Life .......................... 1,000,000 shaft revolutions
Torsion* .................................. 1.5 oz-in. maximum
Rumbling .................................. 1.0 oz-in. maximum
(644 75%, for each additional cap
Ganging .................................. 8 caps maximum
Weight .................................. Approximately 3 oz.
Terminals ................................ Gold-plated terminals
Markings* .................................. Manufacturer's name and part number,
resistance value and tolerance, linearity tolerance, wiring diagram and data code.

NOTES

* 100% or statistical sample inspection performed to insure highest quality.
Specifications are subject to change without notice.

NOTES:
1. ADD 500 to 280 BVM FOR EACH ADDITIONAL UNIT.
2. LOCKWASHER AND HEX NUT TO BE SUPPLIED WITH EACH UNIT.

BOURNS, INC. TRIMAPIT PRODUCTS DIVISION
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