### FEATURES
- Ideal for current sensing applications
- 1% Tolerance standard, others available
- Fixed resistance measuring point “M”
- Low inductance (non-inductive below 0.25Ω)
- RoHS compliant product available; add “E” suffix to part number to specify

### SPECIFICATIONS
- **Material**
  - Terminals: Tinned Copper Leads
  - Encapsulation: Silicone Molding Compound

- **Derating**
  - Linearily from 100% at +25°C to 0% at +250°C

### Electrical
- **Resistance Range:** 0.005Ω to 0.100Ω standard
- **Standard Tolerance:** ±1%; others available
- **Operating Temperature Range:** -55°C to +200°C
- **Temperature Coefficient of Resistance:** 0°C to 65°C:
  - ±0.015Ω ±50 PPM/°C
  - <0.015Ω ±100 PPM/°C
- **Environmental Performance:**
  - Exceeds the requirements of MIL-PRF-49465
- **Power rating:** Based on 25°C free air rating.
- **Overload:** 5 times rated wattage for 5 seconds.
- **Dielectric withstanding voltage:**
  - 1000 VRMS for 3 and 5 watt; 500 VRMS for 2 watt.
- **Insulation resistance:**
  - Not less than 1000 MΩ.
- **Thermal EMF:**
  - Less than ±2μV/°C
- **Temperature range:** -55°C to 275°C.

### SENSITIVITY

#### Two Terminal Axial

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>2</td>
<td>0.005-0.10</td>
<td>0.416/10.6</td>
<td>0.094/2.4</td>
<td>1.156/29.4</td>
<td>20</td>
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<tr>
<td>13</td>
<td>3</td>
<td>0.005-0.20</td>
<td>0.570/14.5</td>
<td>0.205/5.2</td>
<td>1.310/33.3</td>
<td>20</td>
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<tr>
<td>15</td>
<td>5</td>
<td>0.005-0.25</td>
<td>0.935/23.8</td>
<td>0.330/8.4</td>
<td>1.675/42.5</td>
<td>18</td>
</tr>
</tbody>
</table>

#### Four Terminal Axial

<table>
<thead>
<tr>
<th>Series</th>
<th>Wattage</th>
<th>Ohms</th>
<th>Length</th>
<th>Diam.</th>
<th>“A”</th>
<th>“B”</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>3</td>
<td>0.005-0.1</td>
<td>0.625/15.9</td>
<td>0.200/5.08</td>
<td>1.25/31.8</td>
<td>0.125/3.18</td>
</tr>
<tr>
<td>14</td>
<td>4.5</td>
<td>0.005-0.1</td>
<td>1.060/26.9</td>
<td>0.335/8.51</td>
<td>1.50/38.1</td>
<td>0.200/5.08</td>
</tr>
<tr>
<td>17</td>
<td>7</td>
<td>0.005-0.1</td>
<td>1.500/38.1</td>
<td>0.375/9.53</td>
<td>1.50/38.1</td>
<td>0.200/5.08</td>
</tr>
</tbody>
</table>

Ohmite’s Four-terminal Current-sense Resistors are specifically designed for low-resistance applications requiring the highest accuracy and temperature stability. This four-terminal version of Ohmite’s 10 Series resistor is specially designed for use in a Kelvin configuration, in which a current is applied through two opposite terminals and sensing voltage is measured across the other two terminals.

The Kelvin configuration enables the resistance and temperature coefficient of the terminals to be effectively eliminated. The four terminal design also results in a lower temperature coefficient of resistance and lower self-heating drift which may be experienced on two-terminal resistors. The requirement to connect to the terminals at precise test points is eliminated, allowing for tighter tolerancing on the end application.

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**ORDERING INFORMATION**

**Wattage**

**Terminals**

- Blank = 2 terminals
- + = 4 terminals

**RoHS Compliant**

**Example:**

F = 1%

D = 0.5%

Check product availability at [www.ohmite.com](http://www.ohmite.com)