LPC Low Wattage Resistors (TW, STW)

Technical Information

**Style TW** – Vitreous Enamelled low wattage resistor

**Style STW** – Silicone cement coated low wattage resistor

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### Introduction

The range of LPC Low Wattage Resistors are available from 6 to 30 watts. They are RoHS Compliant and are mounted by means of the wire connection leads direct to terminal panels with radial or axial leads. They are available as fixed resistors only.

### General Notes

**Ohmic Values**

The range of ohmic values & dimensions available are shown below. You may select any ohmic value between the max and min values. Other values and tolerances are available on request.

<table>
<thead>
<tr>
<th>Type</th>
<th>TW 6</th>
<th>TW 9</th>
<th>TW 12</th>
<th>TW 20</th>
<th>TW 25</th>
<th>TW 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rating (Watts)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Min</td>
<td>1R0</td>
<td>1R0</td>
<td>2R0</td>
<td>4R7</td>
<td>10R0</td>
<td>10R0</td>
</tr>
<tr>
<td>Max - TW</td>
<td>1K0</td>
<td>1K5</td>
<td>1K8</td>
<td>3K3</td>
<td>3K9</td>
<td>4K7</td>
</tr>
<tr>
<td>Max - STW</td>
<td>1K0</td>
<td>2K2</td>
<td>3K3</td>
<td>4K7</td>
<td>4K7</td>
<td>10K0</td>
</tr>
<tr>
<td>Dimension A (mm)</td>
<td>19.8</td>
<td>35.7</td>
<td>45.2</td>
<td>50.8</td>
<td>60.3</td>
<td>73.0</td>
</tr>
</tbody>
</table>

**Tolerance:**

- Over 10R ±5%
- Less than or equal to 10R ±10%

### Product Details

The low wattage resistors are of small diameter ceramic tubes with tinned nickel leads. The ceramic formers are non-hygroscopic, will withstand severe thermal shock and have a thermal coefficient of expansion that matches the component parts of the resistor. Resistance wires are of nickel-chromium alloy and the winding is uniform throughout the length of the tube to prevent 'hot-spots' on load.

Style TW—Vitreous Enamelled low wattage resistors. The resistance wire is embedded in vitreous enamel and fired in finely controlled automatic tunnel kilns. This results in highly reliable resistors.

Style STW—Silicone Cement coated low wattage resistors. These are similar to the TW range of vitreous enamelled low wattage resistors except the finish coating is matt silicone cement and applies mainly to resistors using finer wires. The cement is cured at a much lower temperature and provides a tough, moisture-proof coating and complete protection to the winding. The operating temperature is the same as the enamel but the process enables resistors of higher ohmic values to be obtained.

### Maximum Operating Voltages

As a general rule voltage should be limited to a maximum of 1KV per 25mm of winding. However, if the resistor is mounted on a non-insulated material 2KV should be regarded as the absolute maximum.

### High Power & Oval Section Resistors

LPC also manufacture ranges of high power and oval section resistors. For details please contact our technical staff or see our website.