### Climatic Conditions

**Elcometer 308 & 309 Digital Hygrometers**

The **Elcometer 308 Hygrometer** has been specifically designed for use in very hot climates where the surface temperature of the substrate can exceed the paint manufacturer’s recommended limits for successful painting.

Painting outside recommended limits can have a detrimental affect on the performance and lifetime of the coating. The Elcometer 308 Hygrometer provides a simple and fast measurement of relative humidity and surface temperature.

The **Elcometer 309 Delta T Hygrometer** provides a simple and fast measurement of the two critical climate parameters within coatings:

- **Delta T \((T_\Delta)\):** The difference between the surface temperature \((T_s)\) and the dewpoint temperature \((T_d)\). When \(T_\Delta\) is less than 3°C (5°F) painting should not occur.

- **Relative Humidity (RH):** Expressed as a percentage, RH is the ratio of the amount of water vapour actually held by the air compared to the maximum amount of water vapour the air could hold at a given temperature. Typical maximum RH values specified by paint manufacturers are between 75% and 85%.

### Technical Specification

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<th>Operating Range</th>
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<td>Elcometer 308 Hygrometer</td>
<td>-20°C to +80°C (-4 °F to +176°F)</td>
<td>-20°C to +80°C (-4 °F to +176°F)</td>
<td>0% to 100% RH (±3%)</td>
<td>0.1°C (0.1°F) / 0.1%</td>
<td>2 x AA batteries or via USB Cable</td>
<td>Greater than 40 hours (Backlight off)</td>
<td>180 x 75 x 35mm (7 x 3 x 1.4&quot;)</td>
<td>Elcometer 308 Hygrometer, wrist strap, 2 x AA batteries, protective carry case/pouch with belt clip, RH &amp; surface probe calibration certificate and operating instructions.</td>
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<tr>
<td>Elcometer 309 Delta T Hygrometer</td>
<td>-20°C to +80°C (-4 °F to +176°F)</td>
<td>-20°C to +80°C (-4 °F to +176°F)</td>
<td>0% to 100% RH (±3%) (Default upper limit 75%, user adjustable)</td>
<td>0.1°C (0.1°F) / 0.1%</td>
<td>2 x AA batteries or via USB Cable</td>
<td>Greater than 40 hours (Backlight off)</td>
<td>180 x 75 x 35mm (7 x 3 x 1.4&quot;)</td>
<td>Elcometer 309 Delta T Hygrometer, wrist strap, 2 x AA batteries, protective carry case/pouch with belt clip, RH probe calibration certificate and operating instructions.</td>
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* Basic Calibration Certificate supplied as standard. * at 1m/s

**STANDARDS:**
- BS 7079-84 (Elcometer 309),
- ISO 8502-4 (Elcometer 309)