**Wi-Temp L or XL**

The Wi-Temp L or XL series is a two input thermistors based temperature sensor with wireless mesh network communication output. This module is compatible with the Mesh Gate L or XL.

### Features
- **Wireless communication on license free 2.4 GHz-transmit RF power max EIRP: 10 dBm (10 mW) for L, 18 dBm (60 mW) for XL**
- 2 thermistors 10 kΩ thermal resistor, encapsulated probe immune to moisture and condensation.

### Advantages
- Fast & easy mounting
- Compact
- Ideal for retrofit applications
- Battery powered: 3 X AA size
- Gateway interface: RS232
- Modbus RTU
- Internal integrated antenna.

### Applications
- Energy audit & diagnostic
- Building energy management.

### Application domain
- Energy & Automation.

### Sensor characteristic

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>$T_{PM}$</td>
<td>Temperature measuring range</td>
<td>- 30 .. 230 °F, - 34 .. 110 °C</td>
</tr>
<tr>
<td>$\varepsilon_T$</td>
<td>Temperature error</td>
<td>± 1 °F, ± 0.56 °C</td>
</tr>
<tr>
<td>G</td>
<td>Sensitivity</td>
<td>± 0.18 °F, ± 0.1 °C</td>
</tr>
<tr>
<td></td>
<td>Sensor cable length</td>
<td>2.4 m</td>
</tr>
<tr>
<td></td>
<td>Interval setting</td>
<td>5 .. 30 minutes</td>
</tr>
</tbody>
</table>

### Power

- **External DC input voltage** 4.5 to 30 V
- **Internal DC input voltage** 4.5 V

### Radio characteristic

- **RF frequency range** 2405 .. 2480 MHz
- **Standards** IEEE 802.15.4
- **Programmable in 16 channels**
- **Channel spacing 5 MHz**
- **Unlicensed ISM band worldwide**
- **Data rate** 250 kbps
- **(WI-Temp L) range to Mesh Gate or Mesh Node (indoor, line of sight)** 140 m
- **(WI-Temp XL) range to Mesh Gate or Mesh Node (indoor, line of sight)** 260 m

### General data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>$T_A$</td>
<td>Ambient operating temperature (90 % rH)</td>
<td>- 10 .. + 55 °C</td>
</tr>
<tr>
<td>$T_S$</td>
<td>Ambient storage temperature</td>
<td>- 25 .. + 85 °C</td>
</tr>
<tr>
<td>m</td>
<td>Mass with 3 x AA batteries</td>
<td>170 g</td>
</tr>
<tr>
<td></td>
<td>without batteries</td>
<td>80 g</td>
</tr>
<tr>
<td></td>
<td>RF certification</td>
<td>CE, FCC, IC</td>
</tr>
</tbody>
</table>

### Note
1) Batteries are not included in the 5 year warranty. LEM is not liable for any improper use of the batteries (i.e. leakage etc.).
Wi-Temp L or XL

**Typical battery life time**

The battery life depends on Interval setting and other environmental parameters.
The values below are indicative and may change according to usage conditions and battery choice.

Interval setting: 300 s (5’)
Battery capacity: 2160 mAh (AA size Alkaline, 80 % x 2700 mAh)
Battery life time (theoretical): 9 years

Important notice: alkaline batteries have typical shelf life of 7 years @ 21°C, 80 % of initial capacity.
For more long-term applications, alkaline batteries may be replaced, to advantage, by Lithium batteries
(typical shelf life of 15 years @ 21°C, 90 % of initial capacity).
Dimensions Wi-Temp L or XL (in mm.)

Power Supply: AC Adaptor

Please order separately the AC Power Supply according to the table below.

<table>
<thead>
<tr>
<th>Reference name</th>
<th>Description</th>
<th>LEM code</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC Adaptor EU</td>
<td>AC Power Supply for EU</td>
<td>90.D2.98.004.0</td>
</tr>
<tr>
<td>AC Adaptor UK</td>
<td>AC Power Supply for UK</td>
<td>90.D2.98.005.0</td>
</tr>
<tr>
<td>AC Adaptor US/JP</td>
<td>AC Power Supply for US &amp; Japan</td>
<td>90.D2.98.003.0</td>
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