The Titan Products Wireless Room CO2 & Temperature Sensor with LED indication is designed to wirelessly monitor the CO2 and temperature levels of a space and transmit the data over a Zigbee wireless network back to the Titan Products Co-ordinator. There is also an option to add a humidity sensing point to the sensor.

The sensor incorporates LED indication. When CO2 levels are below 1000ppm the green LED will flash every 10 seconds. When levels rise above 1000ppm the yellow or red LEDs will flash every second dependant on the CO2 levels in the space to draw attention to the occupant that the levels are rising.

Using a frequency of 2.4GHz the transmission between the TPZRCO2T/L room sensor and co-ordinator is carried out after a timing schedule or a specific change in measurement which is set during commissioning (see below table).

The TPZRCO2T/L is rated at IP20.

Self-healing, mesh networking can be achieved through adding TPZ-Net Repeaters to the network.

**Dimensions**

<table>
<thead>
<tr>
<th>15mm cable entry knockout</th>
<th>29mm</th>
<th>80mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>2x4mm slots at 61mm centres</td>
<td>Fixing holes</td>
<td></td>
</tr>
</tbody>
</table>

Note: The TPZRCO2T/L sensors require 24 hours on a commissioned network for self calibration to take place.

**Operation**

Automatic calibration requires the background CO2 levels to drop to 400ppm at least once during the first 24 hours of power up and at least once every 7 days thereafter. This will become the base rate the CO2 sensor will calibrate to preventing long term drift.

**Installation and Maintenance**

Solvents in the air derived from sources such as paints, cleaning products and adhesives can have a detrimental impact on the sensor cell. All sensors should therefore be installed after the space has been decorated and any flooring fitted. The sensors should also be kept away from adhesives and should the housing require cleaning a dry non-solvent based product must be used. Do not spray any liquid or cleaning products directly onto the ventilated housing. Exposing the sensor to such solvents or moisture will invalidate the product warranty.

**Specification**

- **Power Supply:** 3.6V, 2600mAh lithium thionyl chloride battery
- **Battery Life:** Up to 3 years (depending on transmission intervals
- **Network Technology:** Zigbee
- **Transmission Frequency:** 2.4GHz
- **Transmission Power:** 8dBm
- **Transmission Range:** 30m-60m indoor (depending on building type) 200m outdoor (line of sight)
- **Measurement Accuracy:** +/- 0.5°C (temp)  +/- 50ppm + 2% of reading (CO2)  +/- 3% (humidity)
- **Operating Range:** 0 - 50°C  0 to 2000ppm  0 to 95% non-condensing
- **LED indication levels:** Green <1000ppm  Yellow 1000 - 1500ppm  Red >1500ppm
- **Material:** IP20 flame retardant polycarbonate
- **Dimensions:** 80mm x 90mm x 29mm
- **Country of Origin:** UK
- **Product Codes:** TPZRCO2T/L (temp & CO2)  TPZRCO2HT/L (temp, CO2 & hum)

**Note:** It is strongly recommended a site survey is carried out prior to installing any wireless sensors

**Features**

- Traffic light LED indication for CO2
- Zigbee wireless technology
- Combined CO2, temperature and humidity
- Adjustable transmission timings and values
- Self healing, mesh network technology
- Easy to set up
- Up to 99 sensor points from 30 devices per co-ordinator
- Designed and manufactured in the UK

**Editable Values**

<table>
<thead>
<tr>
<th>Transmission Interval (minutes)</th>
<th>Change of value (CO2)</th>
<th>Change of value (temp °C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>25 ppm</td>
<td>0.5</td>
</tr>
<tr>
<td>15</td>
<td>50 ppm</td>
<td>1.0</td>
</tr>
<tr>
<td>20</td>
<td>75 ppm</td>
<td>2.0</td>
</tr>
<tr>
<td>30</td>
<td>100 ppm</td>
<td>3.0</td>
</tr>
<tr>
<td>60</td>
<td>150 ppm</td>
<td>4.0</td>
</tr>
<tr>
<td>200 ppm</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td>250 ppm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: The TPZRCO2T/L sensors require 24 hours on a commissioned network for self calibration to take place.

**Titan Products are proud members of the Zigbee Alliance.**

For information on Titan Products Zigbee sensors please contact the sales team on +44 (0)161 406 6480