



## TPZ-NET WIRELESS ROOM CO<sub>2</sub>, TEMP & HUMIDITY SENSOR

### TP-RS-CO2RHT-TPZ FEATURES

- Modern, slimline design
- Accurate measurement of internal room temperature, humidity & CO<sub>2</sub> wirelessly transmitted for on-premise BMS integration
- Simple and informative HALO LED indication
- Polygiene® anti-microbial product protection
- Cable free, quick and simple installation



Featuring a sleek, modern and slimline design, the TP-RS-CO2RHT-TPZ Gen 3 CO<sub>2</sub>, humidity and temperature sensor is designed to measure internal CO<sub>2</sub>, relative humidity and temperature conditions and wirelessly transmit these environmental conditions to a parent Titan TPZ-Net co-ordinator for on-premise BMS integration.

The battery powered sensors remove the need for wiring to the unit making it extremely simple and cost effective to install. Self-healing, mesh networking can be achieved through adding TPZ-Net Repeaters to the network.

The HALO LED provides a simple yet informative visual indication of CO<sub>2</sub> levels within the space for the end user to understand at a glance.

Incorporating automatic background calibration features, the CO<sub>2</sub> sensor is ideal for ventilation on demand applications where internal occupancy levels can vary throughout the working period such as in schools, offices and retail outlets.

All room housings within the Gen 3 product line incorporate certified Polygiene® product protection, designed to proactively inhibit the growth of bacteria on the sensor surface.

### SPECIFICATION

Material:	ABS (Flame retardant)
Supply:	3.6V 2600mAh lithium thionyl battery (supplied with product)
Battery Life:	Up to 5 years (depending on transmission intervals)
Outputs:	Wireless
Transmission Range:	Up to 30-60 meters depending on building type
Frequency:	2.4GHz
Transmission Power:	8dBm (EIRP 10mW)
Accuracy:	CO <sub>2</sub> : 50ppm +/- 2% of reading Humidity: +/- 2%RH Temperature: +/- 0.2°C
CO <sub>2</sub> Sensing:	NDIR
IP Protection:	IP30
Mounting Location:	Wall mounted 1.5m from floor level
Environmental Conditions:	-10 to +60°C 0-95% RH Non-Condensing
Country of Origin:	UK
Product Codes:	TP-RS-CO2RHT-TPZ

**Note: It is strongly recommended a site survey is carried out prior to installing a TPZ-Net system.**



## SELECTABLE VALUES

The sensors will transmit at the selected interval (eg every 15 minutes) or if the change of value occurs (eg temperature rose by 1 °C) before the next scheduled transmission.

Transmission Interval (minutes)	2, 5, 10, <b>15</b> , 30, 60
Change of value (temp °C)	<b>0.5</b> , 1.0, 2.0, 3.0, 4.0 5.0
Change of value (humidity)	3%, <b>5%</b> , 10%, 15%, 20%, 25%
Change of value (CO2)	25ppm, <b>50ppm</b> , 75ppm, 100ppm, 150ppm, 200ppm, 250ppm

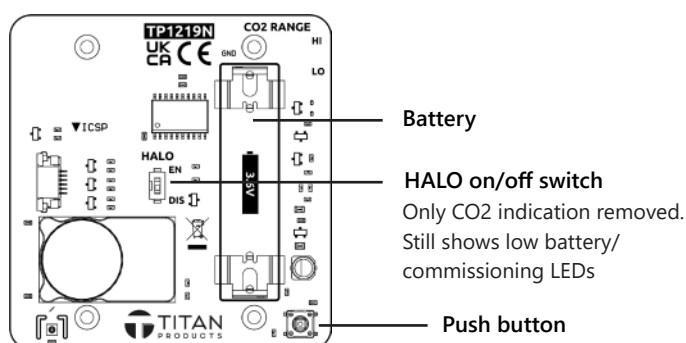
Default settings are shown in bold.

*Any changes from the defaults will impact battery life - in particular a more regular transmission interval and a smaller value of change for CO2 will reduce battery life*

## CO2 OPERATION

**Automatic Background Calibration (ABC):** Titan CO2 sensors are supplied pre-calibrated and will auto calibrate every 7 days thereafter using automatic background calibration. To maintain calibration and long-term accuracy stability, the sensor should be exposed to low, unoccupied CO2 levels (typically 400ppm) at least once every 7 days.

## CONNECTIONS



## LED HALO

The LED HALO provides visual indication when:

- In commissioning mode
- Communication failure
- Low battery

For CO2 indication the LED HALO will flash:

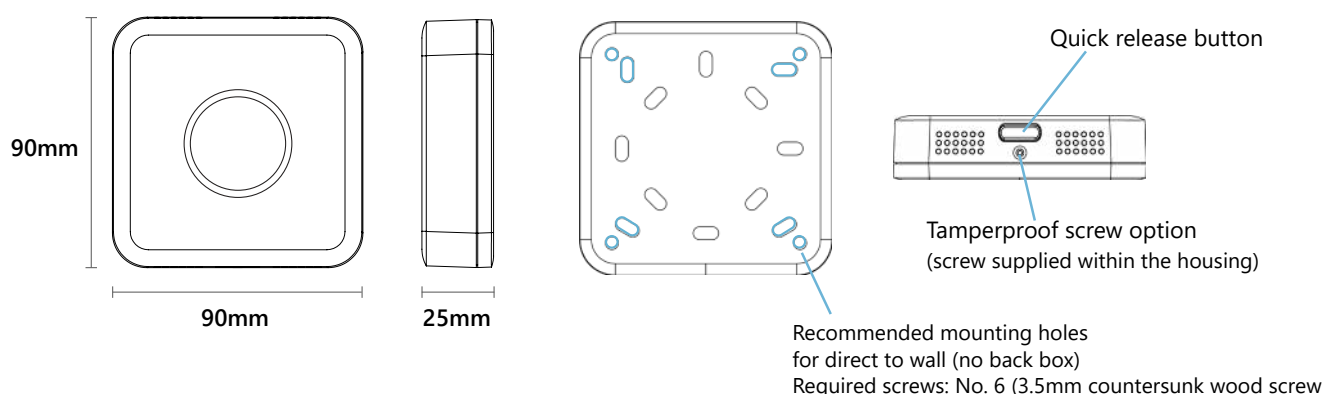
Green = CO2 PPM < 800.

Yellow = CO2 PPM 800 to 1000

Red = CO2 PPM > 1000

For further information refer to the *LED indication guide*

## DIMENSIONS



## INSTALLATION AND MAINTENANCE

- The sensor must be installed by a competent and suitably qualified person and maintained within its stated operating environment
- The room sensor should be mounted in the space at approximately 1.5m from floor level, away from the effects of direct sunlight, radiators and supply air ducts.
- Ensure correct screw sizes are used.
- Sensors should be installed after the space has been plastered, decorated and any flooring fitted.
- Do not spray any liquid or cleaning products directly onto the ventilated housing.
- Do not obstruct air flow vents.

For further install and setup information please contact [technical@titanproducts.com](mailto:technical@titanproducts.com)