TITAN PRODUCTS

Simplify the Complex®

TPZ-NET WIRELESS ROOM CO2, TEMP & HUMIDITY SENSOR

TP-RS-CO2RHT-TPZ FEATURES

- Modern, slimline design
- Accurate measurement of internal room temperature, humidity & CO2 wirelessly transmitted for on-premise BMS integration
- Simple and informative HALO LED indication
- Polygiene® anti-microbial product protection
- Cable free, quick and simple installation

TPZNET

Featuring a sleek, modern and slimline design, the TP-RS-CO2RHT-TPZ Gen 3 CO2, humidity and temperature sensor is designed to measure internal CO2, 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 CO2 levels within the space for the end user to understand at a glance.

Incorporating automatic background calibration features, the CO2 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 pro-actively 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
Accuracy:	CO2: 50ppm +/- 2% of reading Humidity: +/- 2%RH Temperature: +/- 0.2°C
CO2 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.

UK CA CE 🗑

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.

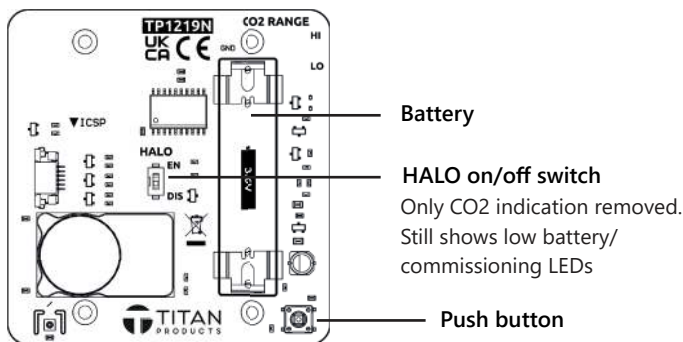| Transmission Interval (minutes)	2, 5, 10, **15**, 30, 60
Change of value (temp °C)	**0.5**, 1.0, 2.0, 3.0, 4.0 5.0
Change of value (humidity)	3%, **5%**, 10%, 15%, 20%, 25%
Change of value (CO2)	25ppm, **50ppm**, 75ppm, 100ppm, 150ppm, 200ppm, 250ppm

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

LED HALO

The LED HALO provides visual indication when:

- In commissioning mode
- Communication failure
- Low battery

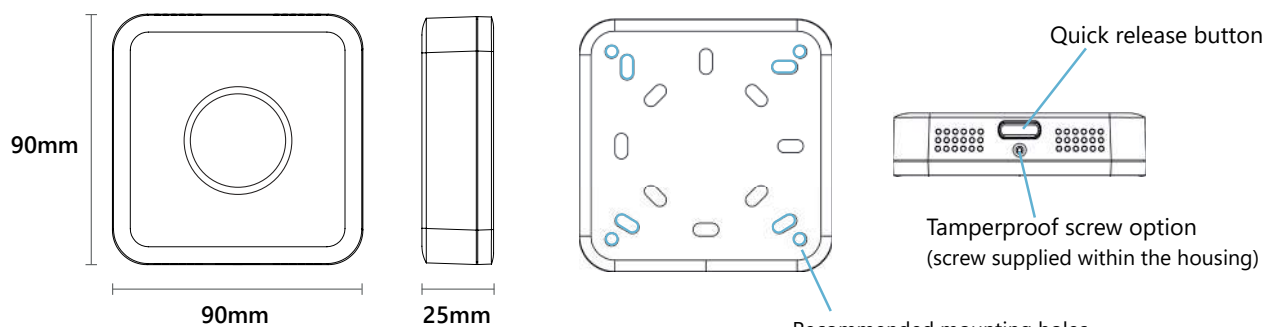For CO2 indication the LED HALO will flash:

Green = CO2 PPM < 800.

Yellow = CO2 PPM 800 to 1000

Red = CO2 PPM >1000

For further information refer to the *LED indication guide*

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

Battery

HALO on/off switch
Only CO2 indication removed. Still shows low battery/ commissioning LEDs

Push button

The sensors are supplied with a battery tab in place. Remove this before attempting to commission the device.

If replacing the battery please ensure the battery is inserted into the device in the correct polarity (as illustrated on board).

RESET

To reset the device remove the battery, hold the internal push button down, insert the battery and then release the push button once the HALO flashes white. The device is now ready to be commissioned on to a new or existing network.

DIMENSIONS

90mm

90mm   25mm

Quick release button

Tamperproof screw option
(screw supplied within the housing)

Recommended mounting holes
for direct to wall (no back box)
Required screws: No. 6 (3.5mm countersunk wood screw

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