



SMART ROOM CO₂, TEMPERATURE, HUMIDITY SENSOR WITH HALO

TP-RS-CO2HT-BMS-H FEATURES

- Modern, slimline design with simple and informative HALO LED indication
- Accurate measurement of internal room CO₂, temperature & humidity
- BACnet MS/TP & Modbus RTU communications
- Polygiene® anti-microbial product protection
- Quick and simple installation

Featuring a sleek, modern and slimline design and using NDIR technology for CO₂ measurement, the sensor exposes the CO₂, relative humidity and temperature environmental measurements directly onto a BACnet MS/TP or Modbus RTU RS485 network.

The sensors also incorporate in-built, networkable I/O with 1 x Digital Output (DO) and 1 x Digital Input (DI) allowing flexible on/off environmental and non-environmental control loops to be set up via the BACnet communications.

Quick release button, tamperproof features and pluggable terminals aid the install process and maintenance of the sensors.

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.

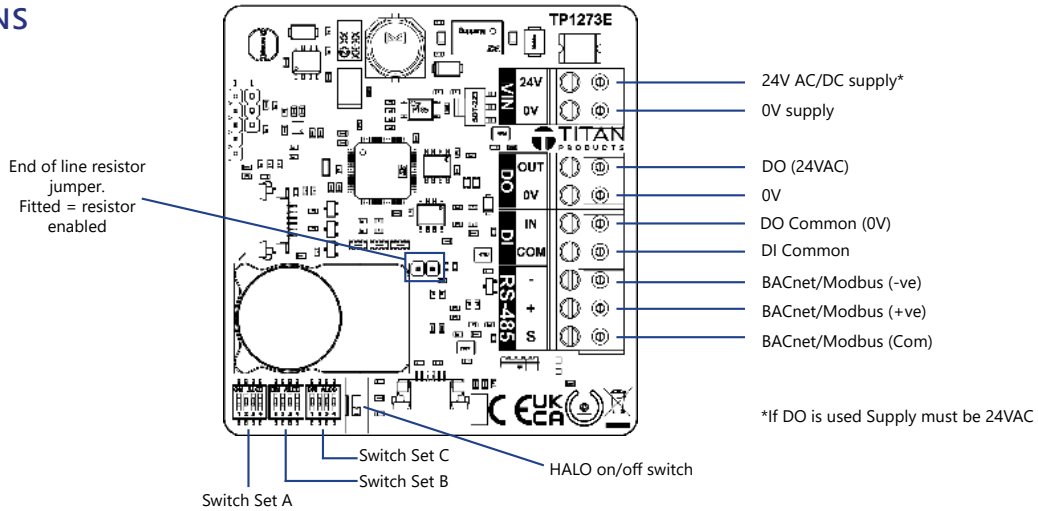
Easily addressed via the on-board DIP switches, the sensors are ideal for a wide range of applications that require accurate, networkable monitoring across open systems along with control on demand in building types such as schools, universities, retail, offices and leisure centres.

SPECIFICATION

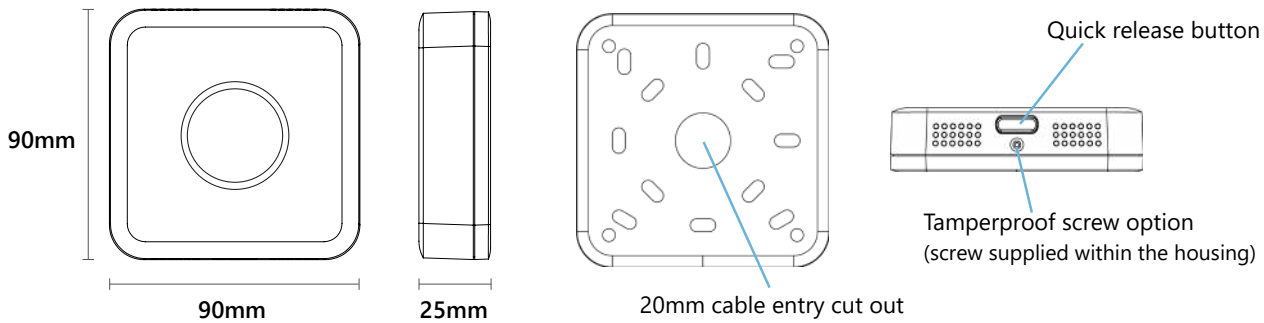
Material:	ABS (Flame retardant)
Power Supply:	24VAC/DC +/- 10% (AC supply required if using DO)
Power Consumption:	40mA (Does not include DO load if used)
Outputs:	BACnet MS/TP or Modbus RTU 1 x DO rated at 80mA
Inputs:	1 x DI
Accuracy:	CO ₂ : 50ppm +/- 2% of reading Humidity: +/- 2%RH Temperature: +/- 0.2°C
CO ₂ Sensing:	NDIR
IP Protection:	IP30
Mounting Location:	Wall mounted, 1.5m from floor level
Environmental Conditions:	-10 to 60°C 0 to 95%RH Non-condensing
Connections:	Pluggable screw terminals for 0.3 to 1.5mm cable
Recommended Supply Cable:	Screened, twin twisted pair 0.75mm to 1mm. Screen earthed at controller end only.
Recommended Communication Cable:	Belden 3106A or 9841 (0.2mm ²) Twisted Pair with Drain wire and foil wrap or equivalent Must Be suitable for RS485 Standard
BACnet Baud Rates:	9600, 19200, 38400, 76800
Modbus Baud Rates:	9600, 19200, 38400, 57600
Country of Origin:	UK
Product Code:	TP-RS-CO2RHT-BMS -H



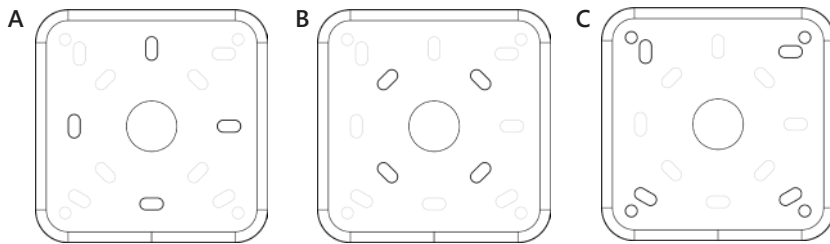
CONNECTIONS



DIMENSIONS



Mounting Options



Option:	Mounting type:	Screw required:
A	Standard UK back box	M3.5 countersunk screw
B	Standard European back box	M3.5 countersunk screw
C	Direct to wall (no back box)	No. 6 (3.5mm counter-sunk wood screw)

CO2

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.

LED HALO Setup

The Halo LED colour thresholds can be altered via the BACnet settings. As a factory default the LED settings are set to:

Green	ON less than 800 ppm
Yellow	ON between 800ppm and 1000ppm
Red	ON above 1000ppm

Note: Please see full BACnet manual for all BACnet points and more details.

The Halo LED can be turned on/off using the switch on the PCB. See Connections diagram.

For further install and setup information please see Setup & Install Guide.