

TP-DS-CO2RHT-BMS

Duct Mount CO₂, Temp, Humidity, Sensor

- Duct Mount Installation
- CO₂, Temperature, and Humidity
- BACnet MS/TP & Modbus RTU
- IP 65
- NDIR CO₂ Sensor
- 24V AC / DC Power Supply
- ASHRAE Compliant Accuracy Specs
- Quick and Simple Installation



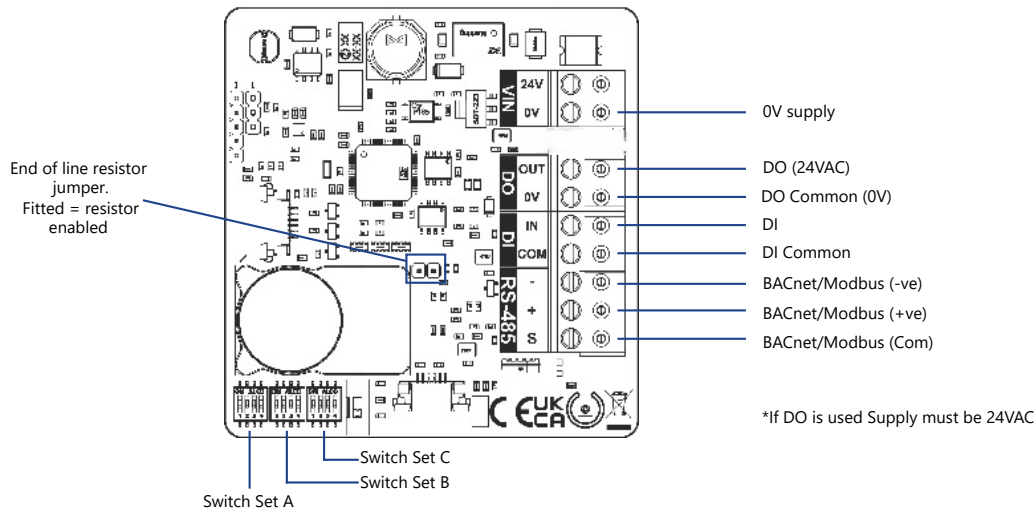
Product Overview:

Featuring a robust housing for duct applications, the TPDS-CO₂RHT-BMS uses NDIR technology for CO₂ measuring and 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. The CO₂ sensor employs Automatic Calibration Technology to continuously adjust the calibration base to correct for changes in the background concentration levels and sensor drift. The CO₂ sensor calibration algorithm starts after the first 24 hours of operation and continuously monitors and automatically adjusts the sensor calibration over the lifetime of the product. Easily addressed via the on-board DIP switches, the sensors are ideal for a wide range of applications.

Specifications:

Material	Flame Retardant Polycarbonate
Supply	24V AC/DC +/-10% (AC Supply Required if Using DO)
Power Consumption	30mA (Does Not Include DO Load if Used)
Outputs	BACnet MS/TP or Modbus RTU 1x DO Rated at 80mA
Inputs	1x DI
Accuracy	CO ₂ : 50ppm +/-2% of Reading Humidity: +/- 2%RH Temperature: +/- 0.35F (+/- 0.2C)
CO₂ Sensing	NDIR
IP Protection	IP65
Environmental	14 to 140F 0-95% RH Non-Condensing
Connections	Pluggable Screw Terminals
BACnet Baud Rates	9600, 19200, 38400, 76800
Modbus Baud Rates	9600, 19200, 38400, 57600
Product Codes	TP-DS-CO2RHT-BMS

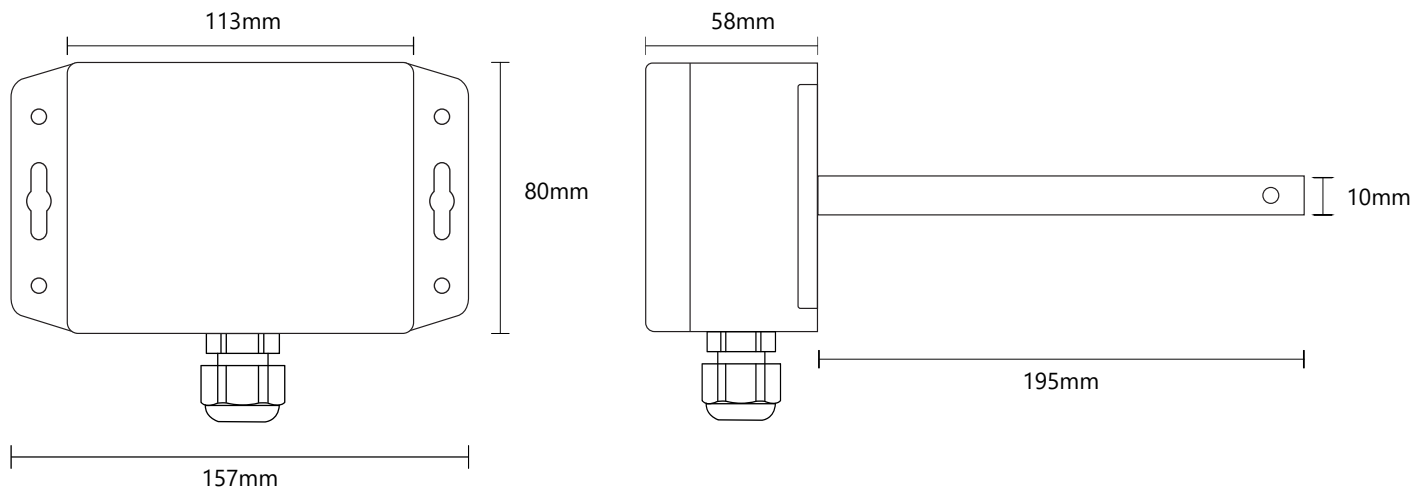
Connections:



Automatic Background Calibration:

AGS 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.

Dimensions:



- The sensor must be installed by a competent and suitably qualified person and maintained within its stated operating environment
- Sensor cables should be segregated from any mains carrying conductors and electrical noise emitting equipment such as fluorescent lighting.
- Ensure correct screw sizes are used.
- Do not spray any liquid or cleaning products directly onto the ventilated housing.
- Do not blow directly on to the CO₂ cell within the sensor, this can damage the cell membrane and could cause incorrect readings.