

Wireless CO₂, temperature and humidity sensor

Monitor live environmental conditions in each room or zone.

Our wireless multi-sensors measure and monitor the ambient air quality and thermal conditions in each room or zone within a building. The small, solar-powered sensors use ultra-low power wireless technology, making them easy to install and very low maintenance.

Features



Measures ambient carbon dioxide (CO₂), temperature and relative humidity:

- CO₂ 0-2550PPM (+/- 125PPM)
- Temperature 0-51°C (+/- 0.5°C)
- Humidity 0-100% RH (+/- 5%)



Reports every 5 minutes when solar-powered or 15 minutes when battery-powered.



Solar-powered using ambient room light – optimally angled to absorb light – with a battery back-up for periodic low-light conditions. Batteries typically last up to 10 years.

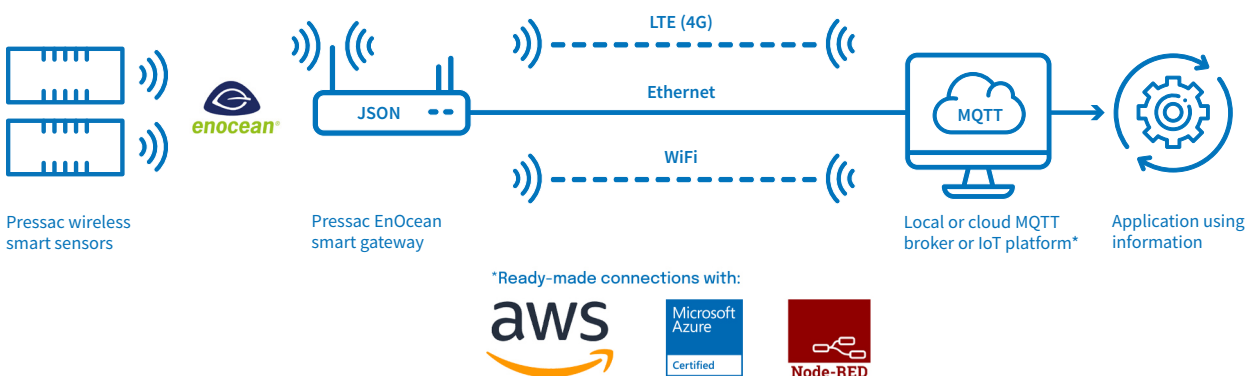


Transmit data wirelessly via EnOcean wireless protocol, which uses internationally approved, licence-free ISM bands

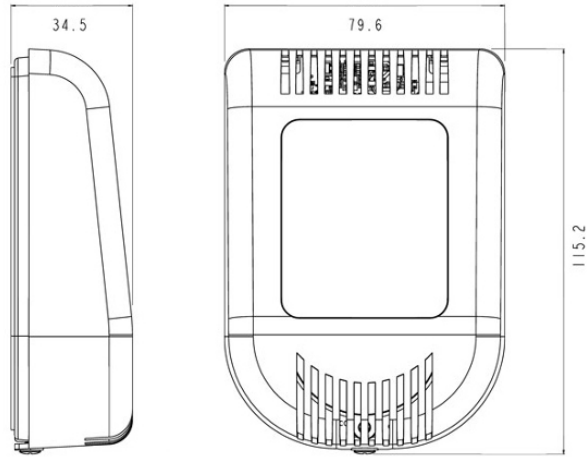


Integrating sensor data

Our smart gateway receives near real-time data from all sensors within range, converts the raw data into an easy-to-use JSON format, then publishes it using MQTT protocol. Data can be sent - via Ethernet, LTE (4G) or WiFi – to any local or cloud MQTT broker; securely to IBM Watson IoT, Microsoft Azure IoT Hub or AWS IoT Core; directly into Google Sheets; or to a Node-RED application.



Technical specification



Measurement	<p>Transmission rate: reports every 5 minutes when powered by solar and 15 minutes when powered by battery</p> <p>Measurement range:</p> <ul style="list-style-type: none"> • CO₂ 0-2550PPM (accuracy +/- 125PPM) • Temperature 0-51°C (accuracy +/- 0.5°C) • Humidity 0-100% RH (accuracy +/- 5%)
Power specification	<p>Power: solar – amorphous silicon solar cells - with a back-up battery for periodic low-light conditions</p> <p>Battery type: 3.6v A size non rechargeable Lithium</p> <p>Typical battery life: up to 10 years (dependent on ambient light conditions and use)</p>
Wireless specification	<p>Protocol: EnOcean</p> <p>Radio frequency:</p> <ul style="list-style-type: none"> • 868 MHz for Europe and other countries adopting RED • 902 MHz for USA (FCC specification) and Canada (IC specification) • 928 MHz for Japan (ARIB specification) <p>Range: up to 30 metres in buildings and 300 metres in free field</p> <p>Telegram type: 4BS</p> <p>EnOcean Equipment Profile (EEP): A5-09-04</p> <p>Interoperability: EnOcean certification 2.0</p> <p>Maximum power output: 3dBm</p>
Enclosure specification	<p>Material: ABS plastic</p> <p>IP rating: IP2X</p> <p>Dimensions: 115 x 80 x 35 mm (approx)</p>
Installation	<p>Fixing: screws to wall – screws provided</p> <p>Positioning: head height on an internal wall, away from heat or ventilation sources recommended</p> <p>Operating temperature: -5°C to +55°C</p> <p>Storage temperature: -20°C to +55°C</p> <p>Environment: indoor</p> <p>Calibration: manual or auto recalibrates every 8 days. Automatic background calibration (ABC)</p>
Compliance	CE approved, RoHS compliant, WEE directive compliant, FCC compliant
Part number	60_CO2_SLR_TMP_HUM_[868]-[902]-[928]

