

Indoor air quality sensor

Measure all aspects of air quality with a single sensor.

Our air-quality sensor measures carbon dioxide (CO₂), volatile organic compounds (VOCs) and particulate matter (PM) levels, as well as temperature and humidity in a room. These small, discreet sensors can be mounted on a wall or table. Producing near real-time, highly accurate data which you can use to ensure your indoor air quality is at optimum levels at all times.

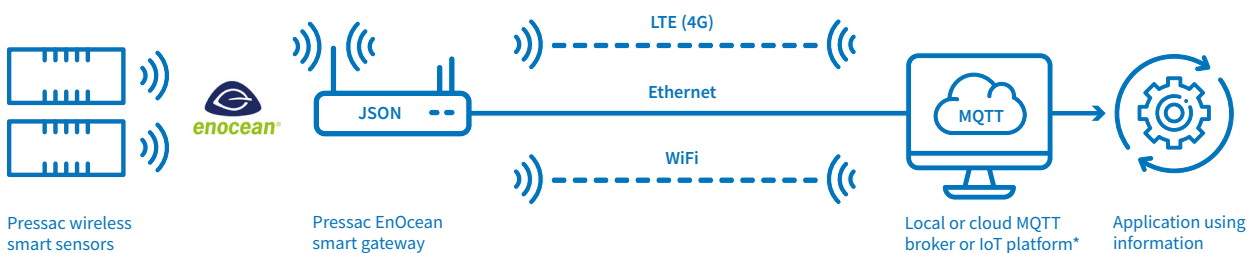
Features

- Measures ambient carbon dioxide (CO₂), total volatile organic compounds (TVOC), particulates (PM1/PM2.5/PM4/PM10), temperature and relative humidity:
 - CO₂ 0-5000 ppm
 - PM1/2.5/4/10 1-511 µg/m³
 - VOC Index 1-500
 - Temperature -10-50°C
 - Humidity 0-100% RH
- Reports room conditions every 5-60 minutes (configurable)



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 Microsoft Azure IoT Hub or AWS IoT Core; directly into Google Sheets; or to a Node-RED application.



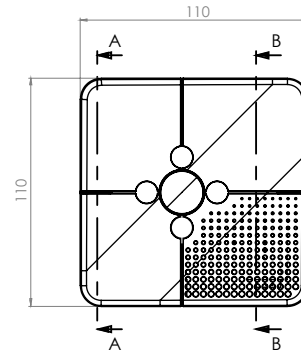
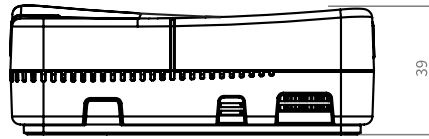
*Ready-made connections with:



Microsoft Azure



Technical specification



Measurement	<p>Transmission rate: reports every 5-60 minutes (default 15 minutes) with a random +/- 2 minutes to avoid data transmission collisions</p> <p>Measurement range:</p> <ul style="list-style-type: none"> CO₂ 0-5000 ppm (accuracy +/- 60 ppm +5% of reading) PM1/2.5/4/10 1-511 µg/m³ (accuracy for 1 and 2.5 µm +/- 10 µg/m³ at less than 100 µg/m³ and +/- 10% of reading greater than 100 µg/m³. Accuracy for 4 and 10 µm +/- 25 µg/m³ at less than 100 µg/m³ and +/- 25% of reading greater than 100 µg/m³) VOC Index value between 1-500 (accuracy +/- 15 % of reading for index) Temperature -10-50°C (accuracy +/- 0.5°C) Humidity 0-100% RH (accuracy +/- 5%)
Power specification	<p>Power: 5V USB to DC mains adapter (supplied)</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 <p>Range: up to 30 metres in buildings and 300 metres in free field</p> <p>Telegram type: VLD</p> <p>EnOcean Equipment Profile (EEP): D2-14-58</p> <p>Security: 128 AES encryption configurable ON/OFF</p>
Enclosure specification	<p>Material: ABS plastic</p> <p>IP rating: IP2X</p> <p>Dimensions: 110 x 110 x 39 mm (approx)</p>
Installation	<p>Fixing: Screws to wall – screws provided – or rubber feet for desktop</p> <p>Recommended Positioning: head height on an internal wall, away from heat or ventilation sources</p> <p>Operating temperature: -10°C to +55°C</p> <p>Storage temperature: -20°C to +55°C</p> <p>Environment: indoor</p> <p>Calibration: CO₂ sensor requires calibration before use. Auto recalibrates every 7 days.</p>
Compliance	CE approved, RoHS compliant, WEE directive compliant, FCC compliant
Part number	SR_LIN_IAQ_E868

