#### Product datasheet

# Indoor air quality sensor

## Measure all aspects of air quality with a single sensor.

Our air-quality sensor measures carbon dioxide  $(CO_2)$ , 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 (CO<sub>2</sub>), total volatile organic compounds (TVOC), particulates (PM1/PM2.5/PM4/PM10), temperature and relative humidity:

- CO<sub>2</sub> 0-5000 ppm
- PM1/2.5/4/10 1-511 μg/m3
- VOC Index 1-500
- Temperature -10-50°C
- Humidity 0-100% RH

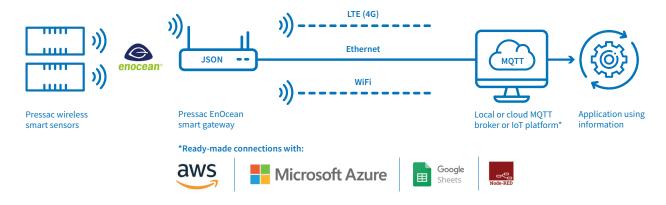


Reports room conditions every 5-60 minutes (configurable)

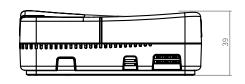


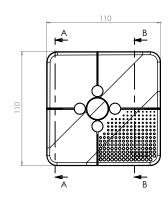
### Integrating sensor data

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.



# **Technical specification**





Measurement	Transmission rate: reports every 5-60 minutes (default 15 minutes) with a random +/-2 minutes to avoid data transmission collisions  Measurement range:  CO <sub>2</sub> 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	Power: 5V USB to DC mains adapter (supplied)
Wireless specification	Protocol: EnOcean Radio frequency:  • 868 MHz for Europe and other countries adopting RED Range: up to 30 metres in buildings and 300 metres in free field Telegram type: VLD EnOcean Equipment Profile (EEP): D2-14-58 Security: 128 AES encryption configurable ON/OFF
Enclosure specification	Material: ABS plastic IP rating: IP2X Dimensions: 110 x 110 x 39 mm (approx)
Installation	Fixing: Screws to wall – screws provided – or rubber feet for desktop  Recommended Positioning: head height on an internal wall, away from heat or ventilation sources  Operating temperature: -10°C to +55°C  Storage temperature: -20°C to +55°C  Environment: indoor  Calibration: CO <sub>2</sub> sensor requires calibration before use. Auto recalibrates every 7 days.
Compliance	CE approved, RoHS compliant, WEE directive compliant, FCC compliant, RESET AIR accredited
Part number	SR_LIN_IAQ_E868























