





Wireless temperature and humidity sensor

Measure and monitor changes in ambient thermal conditions, in real time.

Our wireless multi-sensors measure the ambient temperature and relative humidity in each room, cabinet or zone. The small, solar-powered sensors use ultra-low power wireless technology, making them easy to install and very low maintenance. Optional battery back-up version available for low-light environments.

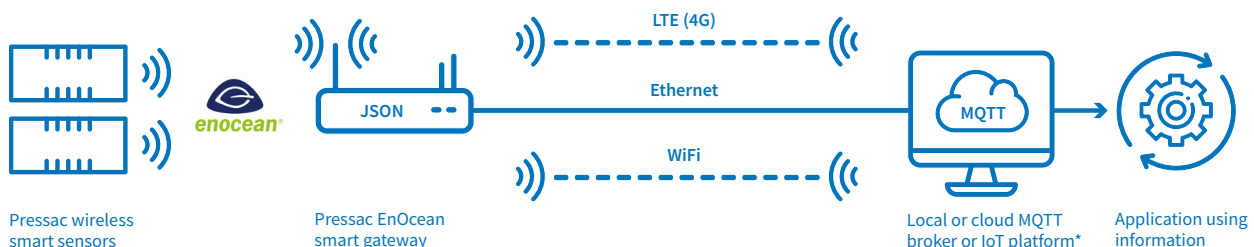
Features

-  Measures ambient temperature and relative humidity:
 - Temperature 0-40°C (+/- 0.5°C)
 - Humidity 0-100% RH (+/- 5%)
-  Live alerts if the temperature changes by more than 0.5 °C or humidity changes by more than 2% and updates every 15 minutes
-  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 and securely – using AES-128 encryption – via EnOcean wireless protocol, which uses internationally approved, licence-free ISM bands



Integrating sensor data

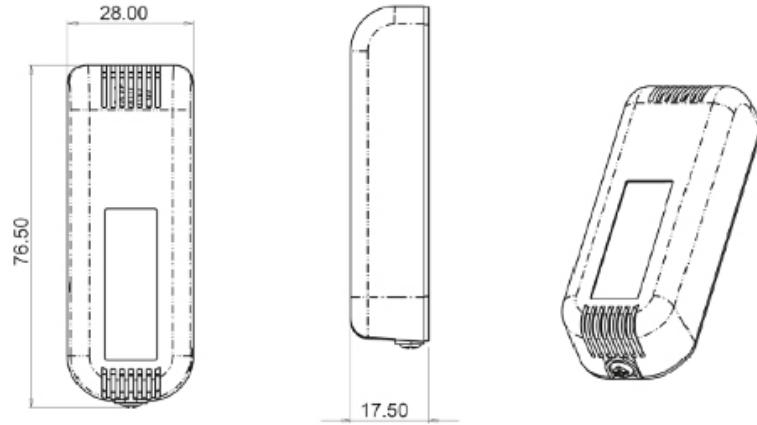
Our smart gateway receives near real-time data from all sensors within range, converts the raw data into an easy-to-use JSON format, then publishes it using MQTT protocol. Data can be sent - via Ethernet, LTE (4G) or WiFi – to any local or cloud MQTT broker; securely to IBM Watson IoT, Microsoft Azure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



*Ready-made connections with:



Technical specification



Measurement	<p>Transmission rate: reports every 100 seconds if the temperature changes by more than 0.5°C or humidity changes by more than 2%, otherwise updates every 15 minutes</p> <p>Measurement range:</p> <ul style="list-style-type: none"> • Temperature 0°C to 40°C (accuracy +/- 0.5°C between 17°C and 27°C otherwise +/- 1°C) • Humidity 0 to 100% RH (accuracy +/- 5% between 30% and 70%)
Power specification	<p>Power:</p> <ul style="list-style-type: none"> • solar – amorphous silicon solar cells • battery back-up for low-light conditions <p>Battery type: CR2354</p> <p>Typical battery life: up to 10 years (dependent on 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): A5-04-01</p> <p>Security: optional secure mode AES-128 encryption</p> <p>Interoperability: EnOcean certification 3.0</p> <p>Maximum power output: 3dBm</p>
Enclosure specification	<p>Material: PC-ABS plastic</p> <p>IP rating: IP2X</p> <p>Dimensions: 76.5 x 28 x 17.5 mm (approx)</p>
Installation	<p>Fixing: adhesive pads or screws provided</p> <p>Positioning: away from heat or ventilation sources recommended</p> <p>Operating temperature: -20°C to +60°C</p> <p>Storage temperature: -20°C to +60°C</p> <p>Environment: indoor</p> <p>Calibration: factory calibrated</p>
Compliance	CE approved, RoHS compliant, FCC compliant
Part number	MS_TEMP_HUM_BAT_[868]-[902]-[928]



If you're looking for a partner who offers quality solutions in high volumes – get in touch
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