

Description

The extremely power saving EnOcean RF transmitter module is optimized for realization of wireless and maintenance free temperature sensors, or room operating panels including set point dial and occupancy button with a minimum number of external components. The module provides an integrated calibrated temperature sensor and supports a plug-in humidity sensor.

Power supply is provided by a small pre-installed solar cell, an external energy harvester, or an external 3V battery. An energy storage element is installed to bridge periods with no supply from the energy harvester. The module provides a user configurable cyclic wake up. After wake up a radio telegram will be transmitted in case of a significant change of measured temperature or set point values or if the external occupancy button is pressed. In case of no relevant input change a redundant retransmission signal is sent after a user configurable number of wake-ups to announce all current values.

Applications

EnOcean Occupancy Sensors are suitable for renovation, upgrade, and new construction projects.

- Private & Open Offices
- Corridors & Hallways
- Classrooms & Gymnasiums
- Warehouse Spaces & Manufacturing Areas
- Patient Care Rooms
- Transportation Terminals
- Retail & Grocery Stores



Features

- Communicates wirelessly with other *EnergyCenter* and EnOcean devices
- Supports a plug-in humidity sensor
- Maintenance free! Integrated solar cells enable indoor light energy harvesting to power the device
- Wireless sensors eliminate the need to run additional wiring so installation can be completed in a matter of minutes
- Energy harvesting wireless solution provides limitless supplies of energy and unrivaled flexibility
- Failsafe operation: installed energy storage element bridges periods with no supply from the energy harvester
- Temperature sensors communicate wirelessly with other connected *EnergyCenter* and EnOcean-enabled devices to trigger changes, such as HVAC setback

Specifications

POWER SUPPLY

- Pre-installed solar cell

ANTENNA

- Pre-installed whip antenna

FREQUENCY

- 902.875 MHz

RADIATED OUTPUT POWER

- Typ. 92 dB μ V/m / typ. 101 dB μ V/m / 99 dB μ V/m

DATA RATE / MODULATION TYPE

- 125 kbps / ASK

START-UP TIME WITH EMPTY ENERGY STORAGE

- Typ. <2.5 min @ 400 lux, 25 °C

INITIAL OPERATION TIME IN DARKNESS @25 °C¹

- Typ. 4 days, if energy storage fully charged
- Wake-up every 100 s, transmission every 1000 s on average

INPUT CHANNELS

- Internal: temperature sensor, LRN button
- External via 20 pin connector: occupancy button, set point dial, HSM 100

TEMPERATURE SENSOR

- Measurement range 0-40 °C, resolution 0.16 K
- Accuracy typ. ± 0.5 K between 17 °C and 27 °C, typ. ± 1 K between 0 °C and 40 °C

TRANSMISSION INDICATOR

- 1x LED

MODULE DIMENSIONS

- 4.5 x 2.75 x 1 in

OPERATING TEMPERATURE¹

- -20 up to +60 °C

¹Full performance is achieved after several days of operation (up to two weeks) at good illumination level. Performance degrades over life time, especially if energy storage is exposed to higher temperatures. Each 10 K drop in temperature doubles the expected life span.



Indoor use only



enocean®

Ordering Information

SKU	Description
A05-02-1107-01	Autani Wireless Wall-Mount Temperature & Humidity Sensor
A05-02-1107-02	Autani Wireless Wall-Mount Temperature Sensor
EnOcean Wireless Accessories <i>For additional information, see the individual product's data sheet.</i>	
A02-22-0213-01	Single Rocker Pad, Wireless, 902MHz, White
A02-22-0214-01	Double Rocker Pad, Wireless, 902MHz, White
A07-22-0404-01	Key Card Switch, Self-powered Wireless Occupancy Detection, 902MHz, White
A05-22-0161-01	Door/Window Sensor, Self-powered wireless contact, 902MHz, White
A05-22-0163-01	Occupancy Sensor, Ceiling Mounted, Wireless, 902MHz, White
A05-22-0164-01	Occupancy Sensor, Wall Mounted, Wireless, 902MHz, White