

## ZED-THL-M

### ZigBee sensor for temperature, humidity and light



#### Key Features

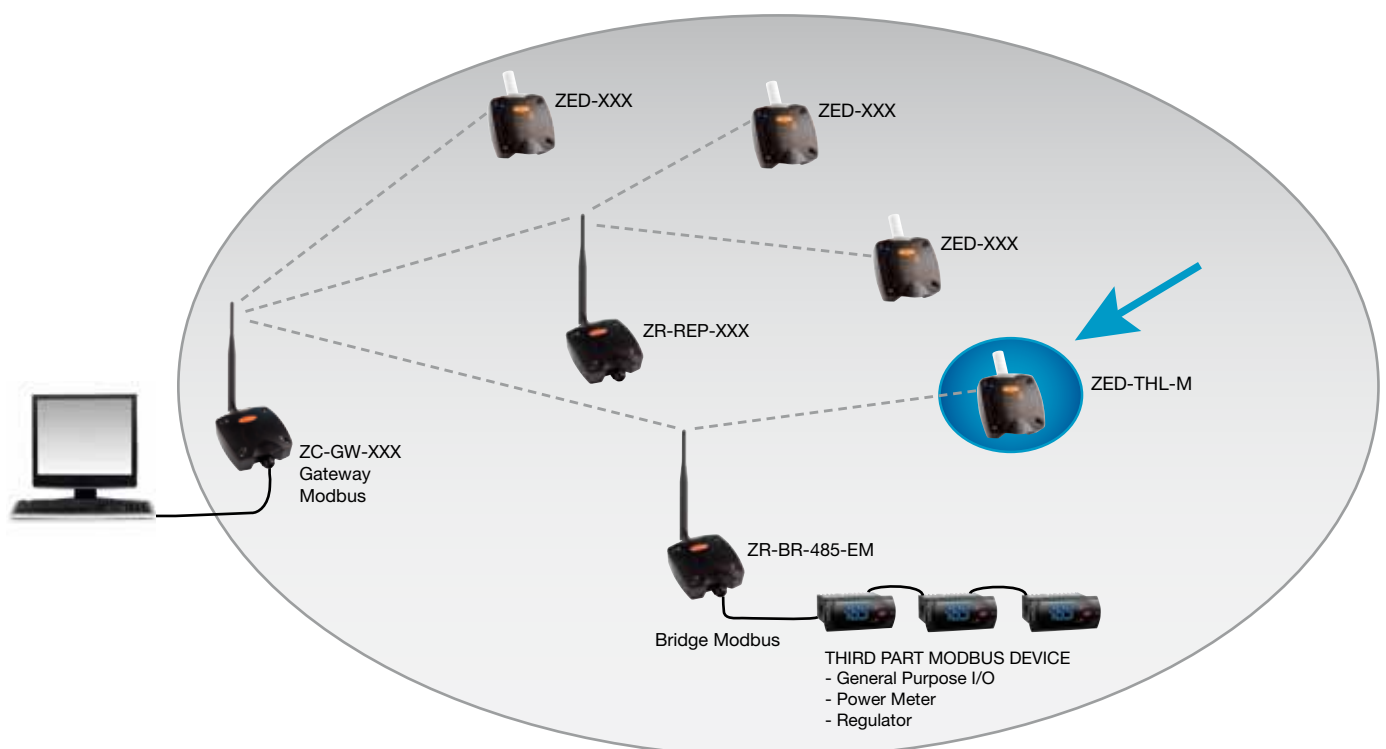
- Temperature, humidity and light measurements for indoor/outdoor use
- Alarm thresholds
- Sampling and transmission rates are configurable
- Battery powered
- Long life battery
- Internal antenna

The ZED-THL-M is a battery powered device which perform temperature, humidity and light measurements at the same time and send them at regular intervals to a Gateway of the 4-noks products family.

This device may be configured to manage alarm thresholds for exceeding maximum or minimum levels of measures. It is also possible to adjust the sampling and data transmission rate to improve battery life.

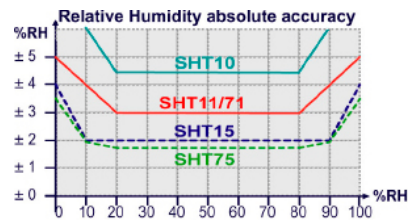
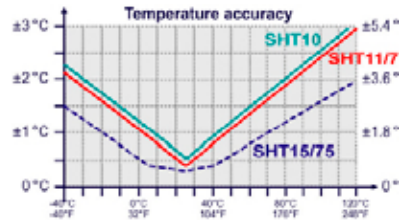
The sensors are protected into a plastic material case such as Gore-Tex in order to let only air entering and no water. Because of its high degree IP protection, ZED-THL-M can also be used outdoor.

#### Typical Application

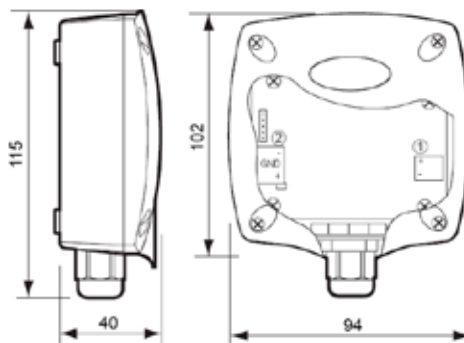


## Technical Specs

General characteristics	Chip Ember EM250 Compatible IEEE 802.15.4 Stack EmberZnet3.4.x (ZigBee PRO) Modbus/RTU Device address settable via internal dip-switch
RF characteristics	Frequency: 2405 MHz $\pm$ 2480 MHz Modulation: DSSS Nominal transmission power: 2mW (3 dBm) Reception sensitivity: -95 dBm Internal antenna gain: 0 dB Coverage outdoor/indoor: 100m/30m
Supply	AA high energy density lithium battery 3,6V/2000mAh Battery life: 3 years in case of 1 transmission per minute at 20°C
Temperature/Humidity Sensor	Sensor used: Sensirion SMD SHT11 series Temperature measurement range: from -40 to 120°C Reading accuracy inside measurement range: $\pm$ 1,5°C max. (view graph) Temperature measurements in tenth degrees Humidity measurement range: from 0 to 100% RH%, Reading accuracy $\pm$ 5 RH% max. (view graph)
Light/Sensor	Sensor used: Agilent ADPS-9002 Error : $\pm$ 5% in the range between 10 and 1000 Lux
Environment parameters	Operating temperature: -10 $\pm$ +60°C; <80% U.R. not condensing Storage temperature: -20 $\pm$ +70°C; <80% U.R. not condensing Degree of protection: IP 55
Compliant with 2006/95/EEC, 89/336/EEC, 99/5/EEC directives Reference Norms:	ETSI EN 300 328: Radio Compatibility for digitals wide band transmissions ETSI EN 301 489: Radio Compatibility EN 61000-6-2: Electromagnetic Compatibility - Emissions EN 61000-6-3: Electromagnetic Compatibility - Immunity EN 60950-1: Electric Safety



## Dimensions (mm)



 ZB-Connection is a 4-noks brand

4-noks is a  ZigBee Member

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**4-noks**<sup>®</sup>

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