

SiMAP® wireless sensor for measuring indoor humidity, temperature and atmospheric pressure

MRTHPIF-3

MRTHIF is a battery operated wireless indoor room sensor at 433 MHz frequency band. It measures temperature, relative humidity and atmospheric pressure. Measurement data transmitting period is 10 minutes. In normal conditions the average power consumption of the sensor is less than 20uA. 2,2Ah battery is calculated to last about thirteen years.

Each sensor gets an individual identification and security key. These are set by using SiMAP-gonfigurator and it takes only few seconds. This way the sensor data is individually secured. Up to one thousand wireless sensors can be connected to one base station. Several base stations can be connected together to form a very large system.



Technical specifications:

Power supply: 3V6 AA Litium battery;
e.g. SAFT LS14500 2,6Ah (included)
Power consumption: < 20uA (Tx / 10 min.)
Operating temp. 0...50°C
Operating humid. 0...100 % (non condensing)

Radio:

Frequency: 432 - 434 Mhz
Tx power: 10 mW (period < 0,1%)
Rx sensitivity: -134 dBm
Modulation: Spread spectrum
Range: > 5 km in free air;
indoors depending on structures

Measurements:

Accuracy:
Temperature $\pm 0,3^{\circ}\text{C}$, (0..+60 °C)
Humidity $\pm 3\%$ RH, (20...80% @25 °C)
Air pressure $\pm 3\text{ Pa}$ (diff. to outdoor air)

Enclosure:

W x H x D: 80mm x 85mm x 17mm
Weight (inc. battery): 70g
Material: Polykarbonate plastic
IP class: IP20

Full fills directives 2004/108/EC,
2006/95/EC,1999/5/EC and 2000/299/EC
demands, and is according to standards
EN61000-6-3 (Emission), EN61000-6-2
(Immunity), EN60730, EN300220-2 class 3
and EN301489-3

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