SiMAP® wireless sensor for measuring indoor carbon dioxide, temperature and relative humidity

MRCTHIF-3

MRCTHIF is a battery operated wireless indoor room sensor at 433 MHz frequency band. It measures carbon dioxide, temperature and relative humidity. Measurement data transmitting period is 10 minutes. In normal conditions the average power consumption of the sensor is less than 50uA. 2,2Ah battery is calculated to last about five 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: < 50uA (Tx / 10 min.)
Operating temp. 10...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:
Carbon dioxide ± 50ppm (must be exposed to fresh air (400ppm) weekly)
Temperature ± 0,3°C, (0..+60 °C)
Humidity ± 3 % RH, (20...80% @25 °C)

Enclosure:

W x H x D:	80mm x 85mm x 17mm
Weight (inc. battery):	74g
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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