Nokeval

Kube-Sky-RHT-PM0413

Kube-Sky-RHT-PM0413 is a wireless indoor temperature, humidity and 0.4...12.4 µm size particulate matter transmitter. With it's simple look, Kube-Sky-RHT-PM0413 will look great in e.g. office spaces.

Kube-Sky-RHT-PM0413 uses LoRa technology which enables very long-range radio coverage. This model must be powered from an external supply.

Typically used with Nokeval Sky-radio base station but can also be integrated to systems with RS485 Modbus RTU.

Applications

Industry

Buildings and Environment

Product highlights and features

Suitable for measuring temperature and humidity

Especially suitable for long-term indoor air monitoring

Particle size 0.4...12.4 µm

Requires an external operating voltage

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General Specifications

Storage temperature	-30...+60 °C, non-condensing
Operation temperature	0...+60 °C
Operation humidity	0...100 %RH, non-condensing
Protection class	IP20
Enclosure material	Plastic (PC+ABS)
Dimensions	95 mm x 75 mm x 47 mm, Wall mount +1 mm
Weight	150 g

Radio Specifications

Nokeval radio type	Sky-radio
Antenna	Internal
Center requency	433.3...434.5 MHz user adjustable
Bandwidth	max 300 kHz OBW, all transmissions fit within 433.05-434.79 MHz
Transmitting power	max 10 dBm E.R.P.
Open space range	up to 5 km
Indoor range	30 to 300 m typically with default Effort setting

External supply with USB

Connector	Micro USB type B 5 ±0.5 V max 200 mA, no suspend function

External supply with a cable

Connector	Push-in spring connector for 0.2-0.5 mm2 conductors
Voltage	5 ±0.5 V DC
Consumption	Average about 3 mA, momentarily max 200 mA

Temperature measurement

Measurement range	-20...+50 °C
Accuracy	±0,5 °C in the range of +10...+50 °C
Step response time	Approx. 45 mins to 90% of step change, still air

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Humidity measurement

Measurement range	0...100 %RH non-condensing
Accuracy	Typically ±3 %RH at humidity of 20...80 %RH and at temperature of +15...+30 °C

PM0413 measurement

Measurement range	0...1.2 million particles per litre (up to 10,000 particles per second)
Particle sizes	0.4...12.4 µm
Particle type	For max accuracy, assumed to be spherical, density 1.65 g/ml, refractive index 1.5
Values measured	PM1, PM2.5, PM4, PM10, raw counts for 16 size bins
PM10 range	0.01...1 500 000 µg/m3