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.

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

Nokeval made to measure
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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

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, PM10, raw counts for 16 size bins
PM10 range	0.01...1 500 000 µg/m3