Kube-Sky-RHT-CO2

Kube-Sky-RHT-CO2 is a wireless indoor temperature, humidity and carbon dioxide transmitter. With it's simple look, Kube-Sky-RHT-CO2 will look great in e.g. office spaces.

Kube-Sky-RHT-CO2 uses LoRa technology which enables very long-range radio coverage in wireless battery-operated device.

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	160 g with batteries
Internal battery type	2 pcs LR6 (AA 1.5 V alkaline)
Battery life	Typically 4 years (with default settings). For the estimated battery life, high quality batteries should be used, e.g. Energizer EN91.

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

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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

Carbon dioxide concentration

Measurement range	400...5000 ppm
Accuracy	±50 ppm + 3% of reading
Autocalibration	Must see fresh air (unoccupied room) once a week. The minimum time spent in the fresh air should be at least five measurement intervals.