

Kombi-Sky-RHT-CO2-TVOC-DP

Indoor air quality transmitter

A good indoor climate increases comfort, maintains health and secures the value of the property. Clean and adequate indoor air increases the satisfaction of building users and the productivity of work. For this purpose we have designed Kombi-Sky-RHT-CO2-TVOC-DP, a wireless and economical multi-sensor indoor air quality transmitter.

Kombi-Sky measures temperature, humidity, carbon dioxide (CO2) concentration, total volatile organic compound (TVOC) concentration and differential pressure. This LoRa based Sky radio device is not compatible with the LoRaWAN infrastructure. If LoRaWAN is needed, choose the Kombi-LWEU device instead of Kombi-Sky.



APPLICATIONS

Indoor air quality

PRODUCT HIGHLIGHTS AND FEATURES

Economical and effective multi-sensor transmitter

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

Sky radio enables excellent indoor coverage with only one Cell2 base station in a building

Does not require attention after installation. No parameter configuration is normally required.



Kombi-Sky-RHT-CO2-TVOC-DP



General Specifications

| | |
|----------------------------|--|
| Enclosure | ABS+PC, white painted |
| Environmental Protection | IP20 |
| Weight | ~210 g, including batteries |
| External Dimensions | 75 mm x 48 mm x 105 mm (WHD) |
| Rated Operating Conditions | -30...+60°C, non-condensing |
| Allowed Storage Conditions | -40...+80°C, without batteries, non-condensing |

Power Supply

| | |
|-----------------------|--|
| Internal Battery Type | 3 pcs LR6 (AA 1.5 V alkaline). For the estimated battery life, high quality batteries should be used, e.g. Energizer EN91. |
| Typical Battery Life | 3 years with 30 minutes transmission interval |
| External Power Supply | Micro USB type B, 5 ± 0.5 V, max 200 mA, no suspend function |

Measuring and data transmission

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|----------------------|---|
| Interval | Configurable: 5min / 10min / 15min / 20min / 30min / 1h / 2h / 3h / 4h / 6h |
| Radio | Nokeval Sky radio technology |
| Antenna | Internal |
| Frequency Band | 433.05 – 434.79 MHz |
| Transmission Power | Max +10 dBm E.R.P. |
| Range, Line-of-sight | Depends on installation location and environment, in good conditions 10 km |
| Range, Indoor | Typically 30...300 m, depending on materials and structures |

Temperature measurement

| | |
|-------------------|---|
| Sensor | High-accuracy semiconductor sensor, Swiss |
| Measurement Range | -40...+125°C |
| Accuracy | Typically ±0.1°C (+20...+60 °C) |

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Humidity measurement

| | |
|-------------------|---|
| Sensor | High-accuracy semiconductor sensor, Swiss |
| Measurement Range | 0...100 %RH |
| Accuracy | Typically ± 2 %RH (+0...+80°C, 0...100 %RH) |

Carbon dioxide concentration

| | |
|-------------------|---|
| Sensor | NDIR sensor |
| Measurement Range | 400...5000 ppm |
| Accuracy | Typically ± 45 ppm + 3% rdg |
| Autocalibration | Must see fresh air (unoccupied room) once a week for some hours |

Total volatile organic compound concentration

| | |
|-------------------|-----------------------------|
| Sensor | Semiconductor sensor, Swiss |
| Measurement Range | 0.3...30 ppm |
| Accuracy | Typically $\pm 15\%$ |

Differential pressure measurement

| | |
|-------------------|----------------------------------|
| Sensor | High-accuracy flow sensor, Swiss |
| Measurement Range | -125...+125 Pa |
| Accuracy | Typically ± 0.08 Pa + 3% rdg |