



thin~~x~~tra

Connected AirWits CO2 Datasheet

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Connected AirWits CO2

RC1, RC2, RC4, RC7

 Battery Included  CO2 Level Monitoring  Temperature  Humidity  Sigfox Bidirectional Communication

The Connected AirWits CO2 is a carbon dioxide (CO2), temperature, and humidity metering device to monitor air quality remotely. The device sends the measurement data in configurable time intervals (typically every 30 min) through the Thinxtra OG Network, powered by Sigfox.

- Measures the CO2 level, temperature and humidity,
- Measurement interval can be configured remotely via the network from 11 minutes to ~24 hours,
- Sends the data every 30 min via the OG Network,
- Sigfox Single-zone capable (RC1, RC2, RC4 & RC7),
- CO2 range: 0 ~5,000 ppm (parts per million)
- Temperature range: 0 ~ 60 °C,
- Humidity range: 0 ~ 95 %,
- 5 years battery with 30 minute measurement interval,
- Simple installation,
- Maintenance-free (plug n play), ultra low cost,
- 1-year warranty



Applications



Indoor
ventilation
monitoring



Indoor
CO2 level
monitoring



Indoor
temperature
monitoring



Indoor
humidity
monitoring

Manufactured by

Connected
Inventions



thinxtra
thinxtra.com/airwits-co2

Mechanics / Design

| | |
|-----------------------|------------------------------------------------------------------------------------|
| Housing | ABS plastic |
| IP rating | IP20 - For indoor use only |
| Operating Temperature | 0 °C to +60 °C |
| Dimensions | 100 x 100 x 27 mm |
| Weight | 186 g (including batteries) |
| Mounting Options | Wall mounting plate (Screws not included, A2 Self-Tapping Screw is recommended) |
| Labelling | External Label - QR code and text |

Components & Sensors

| | |
|--------------------|--------------------------------------------------------------------------------------------|
| Sigfox Transceiver | Single-region RC1,2,4,7 - Bi-directional comms - Class 0u |
| Sigfox Antenna | Internal helical antenna |
| Power switch | Power device on and off via discreet micro switch |
| CO2 Sensor | Range: 0 ... 5,000 ppm (parts per million) Accuracy: ±50ppm +3% of the reading at 25 °C |
| Temperature Sensor | Range: 0 to 60 °C Accuracy: ±0.2 °C between 0 - 60 °C |
| Humidity Sensor | Range: 0 to 95 % Accuracy: ±2% |

Battery

| | |
|--------------------------|----------------------------------------------------------------|
| Battery type | Battery pack consisting of 3x AA (3.6V) FANSO 18505H batteries |
| Quantity per device | 1 battery pack |
| Replaceable | It is possible but not recommended - Contact Thinxtra |
| Included with device | Yes, pre-installed |
| Battery capacity | 12,000 mAh |
| Battery life | 5 years |
| Battery life assumptions | 30 minute measurement interval |

Functionality

| | |
|-----------------------------------|-------------------------------------------------------------------------------------------------------|
| Data Communicated in each message | Current CO2 level in ppm (parts per million), Current temperature in °C, Current humidity in %. |
| Sensor Measurement Interval | Configurable from 11 minutes to ~24 hours. |
| Configuration updates | Device requests new settings approximately every 24 hours via a Sigfox downlink |

Integration

| | |
|----------------------------|------------------|
| Foxer IoT - Optional | Frontend and API |
| Airwits Insight - Optional | Frontend and API |

Visuals



Mounting Bracket Included (Mounting screws not included)