CARBON

Indoor Air Quality   I   Energy Monitoring

Carbone Dioxide (CO_2), Temperature, Humidity

Carbon measures the CO2 level and continuously monitors air quality to visually alert occupants when it is time to ventilate to renew indoor air. With its temperature and humidity sensors, Carbon also analyzes the ambient parameters of the building. Carbon integrates the iZiAiR air quality and hygrothermal comfort algorithm to easily study each indoor environment and identify possible improvements. Thanks to its wireless communication module, data can be accessed remotely, simply from a smartphone or a computer screen *.

PRODUCT BENEFITS

- NDIR CO2 sensor with performances validated by an independent laboratory
- LED indicator to visualize the CO2 level
- Lithium batteries, autonomy 10 years **: no repeated battery change, no electrical connection necessary
- Robust product totally sealed and cannot be dismantled
- Anti-theft fixing device for wall mounting
- Quick and easy installation
- No maintenance required

APPLICATIONS

- Monitoring of Indoor Air Quality in tertiary and residential buildings
- Supervision of ambient parameters at work (offices, meeting rooms)

CARBON

FUNCTIONS

- Measurement of Indoor Air Quality
    - Carbon Dioxide (CO_2)

- Measurement of ambient parameters
    - Temperature
    - Relative humidity

- Central button
    - Short press: instant Air Quality (display by the indicator light)
    - Long press: instantaneous measurement and transmission

- Configuration and diagnostics of the product locally (NFC) or remotely (downlink)

- **iZiAiR** Indoor Air Quality Index

    CO2 level display by indicator light (configurable)

    ◆ Very good

    ◆ Average

    ◆ Warning

SPECIFICATIONS

Carbon Dioxide (CO_2)
Technology: Non-Dispersive InfraRed (NDIR)
Resolution: 20ppm
Accuracy: ±(50 ppm + 3% of measuring range)
Measurement range: 0 – 5000ppm

Temperature
Resolution: 0.1°C
Accuracy: ±0.3°C
Measurement range: -30°C / +70°C

Humidity
Resolution: 0.5% R.H.
Accuracy: ±2% R.H.
Measurement range: 0 - 100% R.H.

Frequency of measurements

- Every 10 minutes (configurable)

Data transmission mode

- Real time
- Datalog (gather measurements in a single message)
- Alerts on threshold

Network pairing / Operation / CO_2 indicator
3x LED: Green / Orange / Red

Power supply
3x integrated lithium batteries (5850 mAh)

Battery life
10 years in typical use

Dimensions: 105 x 105 x 30 mm

Weight: 120g

Conditions of use
Indoor environment
Temperature: 0°C to + 50°C
Relative humidity: 0% RH to 95% RH

Type of mounting
- Wall-mounted
- Freestanding

Wireless protocol
- LoRaWAN (868 MHz)
- Sigfox (RC1)
- EnOcean (868 MHz)
Other wireless protocols studied on request

PRODUCT REFERENCES

Carbon (LoRaWAN): I420LR_FND_S

Carbon (Sigfox): I420SF_FND_S

Carbon (EnOcean): I420EO_FND_S

CONTENT OF THE BOX

- 1 device
- 1 anti-theft wall bracket
- 1 standalone installation bracket
- 2 screws and nylon wall plugs
- 3M® double-sided adhesive attachment

CERTIFICATION

CE