

# CARBON

## Indoor Air Quality | Energy Monitoring

Carbone Dioxide (CO<sub>2</sub>), Temperature, Humidity



**Carbon** measures the CO<sub>2</sub> 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 CO<sub>2</sub> sensor with performances validated by an independent laboratory
- LED indicator to visualize the CO<sub>2</sub> 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)

\* Optional subscription fees may apply \*\* Lifetime for standard use. Battery life may vary

**UNITRONIC** 

UNITRONIC GmbH  
Hellersbergstraße 10a  
41460 Neuss

Telefon 02131 – 7529180  
Telefax 02131 – 75291850  
info@unitronic.de

PART OF  
**LAGERCANTZ GROUP**



# CARBON

## FUNCTIONS

- Measurement of Indoor Air Quality
  - o Carbon Dioxide (CO<sub>2</sub>)
- Measurement of ambient parameters
  - o Temperature
  - o Relative humidity
- Central button
  - o Short press: instant Air Quality (display by the indicator light)
  - o Long press: instantaneous measurement and transmission
- Configuration and diagnostics of the product locally (NFC) or remotely (downlink)
- **iZiAIR** Indoor Air Quality Index

CO<sub>2</sub> level display by indicator light (configurable)



Very good



Average



Warning

## SPECIFICATIONS

### Carbon Dioxide (CO<sub>2</sub>)

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<sub>2</sub> 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