

## IoT Wireless Temperature and CO2 Sensor, powered by Sigfox

code: W8810



The device measures the temperature and concentration of CO<sub>2</sub> from an internal sensors.

The measured values are sent in an adjustable time interval (10 min to 24 h) by radio transmission in the [Sigfox network](#) to the [COMET Cloud](#), from which the user can view them using a personal computer or mobile device.

The instrument can monitor up to 2 alarm limits of the measured variable. Exceeding these limits is indicated by sending an emergency message. [COMET Cloud](#) transmits this alarm message via e-mail to the selected user. The device is suitable for applications that tolerate the delay of information delivered by Sigfox (max. 10 min).

### Highlights:

- wireless transmission of measured values and alarm states
- two slots for batteries for longer operation time
- battery power (C size 3.6 V) with low battery indication (battery life up to 7 years)
- input for external power
- remote setting of the device from [COMET Cloud](#) (maximum once a day)
- IP20
- Traceable calibration certificate in accordance with EN ISO / IEC 17025

### The availability of Sigfox network in a particular location

[Check your Sigfox network availability](#) before you buy your device. COMET devices in the Sigfox network can be used anywhere in the RC1 zone. Learn more about [Sigfox \(RC\) Radio Zones](#).

### Possibility to [extend the measuring range](#) for an additional charge:

- Measuring range: 0 to 10 000 ppm
- Accuracy: 100 ppm + 5% of the measured value at 25 °C and 1013 hPa

### Données techniques

|   |  |
|---|--|
| TEMPERATURE SENSOR  |  |
| Measuring range   | -20 to +60 °C                          |
| Accuracy  | ±0.4 °C                                |
| Resolution  | 0.1 °C                                 |
| Response time t90 of temperature measurement (temperature step 20°C, air flow approximately 1m/s) | t90 < 8 min (temperature change 20 °C) |
| CO2 SENSOR  |  |
| Measuring range   | 0 to 5000 ppm                          |

|                               |   |
|-------------------------------|---|
| Accuracy                      | ±(50ppm +2% from reading) at 25°C and 1013hPa   |
| Resolution                    | 1 ppm   |
| GENERAL TECHNICAL DATA        |   |
| Operating temperature         | -20 to +60 °C   |
| Channels                      | internal sensor for temperature and CO <sub>2</sub>   |
| Message transmission interval | adjustable 10 minutes, 20 minutes, 30 minutes, 1 hour, 3 hours, 6 hours, 12 hours, 24 hours |
| Operating frequency           | 868 MHz   |
| Maximum transmission power    | 25mW  |
| Sigfox radiation class        | 0U  |
| Radio configuration zone      | RC1 (operation is possible in Europe, Iran, Oman and South Africa)                          |
| Typical range of transmitter  | 50 km in the field, 3 km in the city  |
| Power                         | Lithium battery 3.6 V, C size, capacity 8.5 Ah  |
| Protection class              | IP20  |
| Number of battery slots       | 2   |
| Dimensions                    | 179 x 134 x 45 mm   |
| Weight (including batteries)  | 340g  |
| Warranty                      | 3 years   |