

## IoT Wireless Temperature and CO<sub>2</sub> 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](#).

### Technical data

|                                                                                                   |                                                     |
|---------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| 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)              |
| CO <sub>2</sub> 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 minuteses, 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                                                                                      |