

## Wireless thermometer, hygrometer barometer, Sigfox IoT

code: W7810



The device measures the temperature, humidity and atmospheric pressure from the built-in internal sensors. It is characterized by a simple compact design with the possibility of installation directly into the measured space. The sensor can be used [with a suitable sensor cap](#) even in more demanding conditions.

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).

- wireless transmission of measured values and alarm states
- battery power with low battery indication (battery life 4 months to 7 years)
- external power with [optional accessories](#)
- remote setting of the device from COMET Cloud (maximum once a day)
- IP65
- 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](#).

**With a newly purchased wireless sensor with Sigfox connectivity, you receive 1 year of [COMET Cloud](#) for free; an additional year of operation in [COMET Cloud](#) then requires [2 credits](#).**

### Technical data

|                                                                                                   |                                   |
|---------------------------------------------------------------------------------------------------|-----------------------------------|
| TEMPERATURE SENSOR                                                                                |                                   |
| Measuring range                                                                                   | -30 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) | 10 minutes                        |
| HUMIDITY SENSOR                                                                                   |                                   |
| Measuring range                                                                                   | 0 to 100 % RH                     |
| Accuracy                                                                                          | ±1.8 % RH from 0 to 90 % at 23 °C |

|                                    |                                                                                             |
|------------------------------------|---------------------------------------------------------------------------------------------|
| Resolution                         | 0.1% RH                                                                                     |
| DEW POINT                          |                                                                                             |
| Measuring range                    | -60 to +60 °C                                                                               |
| Accuracy                           | ±1.5 °C at ambient temperature T <25 °C and RH >30 %                                        |
| Resolution                         | 0.1 °C                                                                                      |
| ATMOSPHERIC PRESSURE SENSOR SENSOR |                                                                                             |
| Measuring range                    | 600 to 1100 hPa                                                                             |
| Accuracy                           | ±1.3 hPa at 23 °C from 800 to 1100 hPa                                                      |
| Resolution                         | 0.1 hPa                                                                                     |
| GENERAL TECHNICAL DATA             |                                                                                             |
| Operating temperature              | -30 to +60 °C                                                                               |
| Channels                           | internal sensor of temperature, humidity sensor and atmospheric pressure                    |
| Message transmission interval      | adjustable 10 minutes, 20 minutes, 30 minutes, 1 hour, 3 hours, 6 hours, 12 hours, 24 hours |
| Alarm message sending interval     | 10 minutes                                                                                  |
| 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, AA size                                                              |
| Protection class                   | IP65                                                                                        |
| Dimensions                         | 126 x 89 x 40mm                                                                             |
| Weight (including batteries)       | 150g                                                                                        |
| Warranty                           | 3 years                                                                                     |