# 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

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|---|---|
| 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 |