

Wireless thermometer, hygrometer, barometer for external probe, Sigfox IoT

code: W7811



The device measures the temperature and humidity from an external probe on the cable - you can [choose it from an optional accessory](#). In comparison with sensor [W3811](#) the sensor W7811 is additionally equipped with an internal sensor of atmospheric pressure. The sensor is characterized by a simple and compact design with the possibility of installation directly into the measured space. Model with external cable probe is also suitable for measurements in areas where the risk of poor reception sigfox. The probe can be placed at the measurement point and the device itself where is able to reach a better signal. The probe length must not exceed 30 meters. The probe 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).

Highlights:

- 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](#).

Technical data

| | |
|---|---|
| TEMPERATURE SENSOR | |
| Measuring range | according to the connected probe Digi/E |
| Accuracy | according to the connected probe Digi/E |
| Resolution | 0.1 °C |
| Response time t90 of temperature measurement (temperature step 20°C, air flow approximately 1m/s) | according to the connected probe Digi/E |

| | |
|------------------------------------|---|
| HUMIDITY SENSOR | |
| Measuring range | according to the connected probe Digi/E |
| Accuracy | according to the connected probe Digi/E |
| Resolution | 0.1% RH |
| DEW POINT | |
| Measuring range | according to the connected probe Digi/E |
| Accuracy | according to the connected probe Digi/E |
| Resolution | according to the connected probe Digi/E |
| 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 atmospheric pressure sensor, 1x connectable temperature+humidity probe |
| 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 | IP54 |
| Dimensions | 126 x 89 x 40mm |
| Weight (including batteries) | 150g |
| Warranty | 3 years |