IoT wireless thermometer, hygrometer, barometer, LoRaWAN network

code: W7910



The W7910 sensor with LoRaWAN network output measures the temperature, humidity and atmospheric pressure from the built-in internal sensors and can be installed directly in the measured environment thanks to its IP65-rated enclosure. LoRa devices are powered by a replaceable battery with a lifespan of up to 10 years (3 years standard).

Measured values are transmitted wirelessly at adjustable intervals (from 5 minutes to 24 hours) to the COMET Cloud storage, where they are accessible to users via computer or mobile device. The sensors offer remote configuration from the COMET Cloud and feature the capability to monitor up to two alarm thresholds, with any exceedance signaled by an alert sent to the user.

Key Features

- Wireless transmission of measured values and alarm states
- Battery-powered with low battery indicator (battery life up to 10 years)
- Remote device configuration via COMET Cloud
- IP65-rated enclosure
- Calibration certificate with declared metrological traceability of standards according to CSN EN ISO/IEC 17025
- Preconfigured Gateway available as an accessory at extra cost. For ease of use, we offer the pre-configured LoRaWAN Gateway, which is fully ready for communication with COMET Cloud and our sensors. This option simplifies the setup process and saves time for users

With a newly purchased wireless sensor with LoRaWAN connectivity, you receive 1 year of COMET Cloud for free; an additional year of operation in COMET Cloud then requires 1 credit.

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 5-10-15-20-30 minutes, 1-2-3-4-6-8-12-24 hours
Operating frequency	Europe 863-870 MHz
Maximum transmission power	25 mW (14 dBm)
Typical range of transmitter	15 km in the field, 2 km in the city (sensor in building)
Antenna	internal, gain 2,15 dBi
Maximum receiver sensitivity	-136 dBm @BW=125 kHz, SF=12
Power	Lithium battery 3.6 V, AA size
Protection class	IP65
Dimensions	126 x 89 x 40mm
Weight (including batteries)	150g
Warranty	3 years