

# /Outdoor temperature & humidity sensor

This second-generation outdoor temperature and humidity sensor delivers faster, more accurate readings with its improved housing. With an IP65 rating, UV resistance and a 14-year battery life, it guarantees reliable long-term performance in any outdoor environment.

LAN-WMBUS-O2-TH | LAN-900-0028



## KEY BENEFITS

Dual antennas ensure strong signal coverage in all directions, delivering reliable outdoor performance even in challenging environments.

Transmits temperature and humidity data every 90 seconds, with up to 14 years of maintenance-free battery life.

OMS-compliant wireless M-Bus enables seamless integration with existing systems, including drive-by and remote data collection setups.

Includes current, hourly and daily average values; OMS 4 synchronization minimizes signal collisions for dependable, scalable deployments.

## TEMPERATURE MEASUREMENT

The on-board temperature sensor is highly accurate with typical accuracy of  $\pm 0.2$  °C.

Temperature is sent as current, average hour, and average 24 hours.

## HUMIDITY MEASUREMENT

The on-board humidity sensor is highly accurate with typical accuracy of  $\pm 2$  %RH over the full span, 0 to 100 %RH.

Humidity is sent as current, average hour, and average 24 hours.

## INSTALLATION

The device is waterproof and resistant to raining water. The device should, if possible, still be mounted protected from rain and sunlight.

The device is started using a simple magnet so the enclosure does not need to be opened.



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## FIRMWARE

MODES	C-, T-, or S-mode (selectable on order)
SEND INTERVAL	60s - 1 hour (selectable on order)
SAMPLE INTERVAL	Same as send interval
ENCRYPTION	AES128 encryption OMS mode 5, Profile A. ON/OFF and custom KEY
STANDARD	T1-Mode, 90 seconds. Encryption ON, unique key.

## WARNINGS

BATTERY	Low battery
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## POWER/LIFETIME

POWER SUPPLY	ER17505 3.6V Li-SOCI2, battery
VOLTAGE	2.4 to 3.6V
LIFESPAN	14* years typical, depending on configuration and operating temperature
RADIO	14 dBm (25 mW) output power to two differential antennas ERP typical: 12.4 dBm (17.38 mW)
BATTERY	Soldered battery

## SENSORS

TEMPERATURE TYP ACC	RANGE: -40 °C to +85 °C ±0.20 °C at 0 °C to +85 °C ±0.30 °C at -40 °C to +85 °C Note: Even better accuracy possible on request
HUMIDITY TYP ACC	RANGE: 0 to 100 %RH ±2 %RH

## GENERAL INFORMATION

STANDARDS	2014/53/EU (RED) EN 13757-3/4:2013, OMS 4.0.2
MATERIAL	Signal white PC UV stabilized plastic
SIZE (W x H x D)	95 x 65 x 55 mm
INGRESS PROTECTION	IP65

## OPERATING CONDITIONS

RADIO TRANSMITTER	Max: -30 °C to +85 °C. Recommended -20 °C to +50 °C
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## DEVICES

LAN-WMBUS-O2-TH	Outdoor temperature & humidity transmitter
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*\*The expected battery lifetime stated is based on simulations and true measurements at 25 °C and is valid to the best of our ability but not a guarantee. The calculations and measurements can be sent upon request for your reference*