

Remote Temperature Sensor 2 Probes



The **Remote Temperature Sensor 2 Probes** is dedicated to temperature measurement in buildings, and transmits data over a public or private LoRaWAN® radio network.

APPLICATIONS

- Industrial processes: supervision of equipment temperatures and water piping.
- Maintenance of building equipment (residential, tertiary): monitoring of the hot water network (DHW), supervision of heating installations,
- Indoor or outdoor environment.

BENEFITS & FEATURES

- LoRaWAN®, Class A.
- Easy to install and use.
- 2 remote temperature probes; IPx7 waterproof probe; stainless steel tip for better reactivity; diameter less than 6mm, blue and red colour markings.
- Waterproof for protected indoor or outdoor environments
- 12 years of autonomy.

CERTIFICATION

- CE, RoHS



The remote 2-probe temperature sensor allows remote temperature reading at two points in a boiler room, DHW production, cooling tower or cold room installation. The sensors can be placed against the pipes (and insulated with insulating tape) or inserted in the immersion sleeve.

The data transmission on the public or private LoRaWAN® network is done periodically or immediately in case of alert following the exceeding of minimum or maximum temperature thresholds.

Installation and commissioning are quick and easy.

The sensor is equipped with:

- a switch (ILS) allowing activation or deactivation,
- LEDs to monitor the configuration and association on the network.

Each sensor is identified by a QR code on the label and an NFC tag in the box

Powered by a 3.6V/3600mAh battery, the autonomy of the sensor for a capacity of 85% used is at least 12 years, with 1 transmission every 2 hours.

By default, the sensor is configured for batch mode reporting of the temperature of probe 1 and probe 2 every hour with a measurement every 10 minutes.

The battery voltage level is monitored and remotely updated every 7 days.

THE LARGEST IOT PRODUCTS RANGE FOR YOUR PROJECT

nke WATTECO is a European leader in the design and manufacture of intelligent IoT devices to fit to all remote reading and data collection solutions.

nke WATTECO is a LoRa Alliance® member.

TECHNICAL CHARACTERISTICS

RADIOFREQUENCY	
Frequency	EU: 863-870 MHz
Emitted power	14 dBm
Sensitivity	-140 dBm
FIRMWARE	
Protocol	LoRaWAN TM , Class A
Measurement periodicity	10mn to 24h (configurable)
Transmission interval	Immediate following measurement or batch at 30mn to 48h (configurable)
Data compression	By differential coding (configurable)
Activation method	Activation by Personalization (ABP) or Over-The-Air Activation (OTAA)
Data encryption	AES128
TEMPERATURE MEASUREMENT	
Beach	25°C to +90°C (temporarily +110°C)
Accuracy	0.2°C in the nominal range (+40°C +90°C); otherwise ± 1°C in the extended range (+10°C +40°C) and (+90°C +110°C)
Resolution (in nominal range)	0,1°C
ALERTS	
Temperature	Minimum or maximum thresholds (configurable) in the measurement range in 1°C steps
FOOD	
Voltage	Lithium battery 3.6V / 3600mAh on holder (battery can be changed after removing the cover) Transmitted battery voltage level (configurable in 0.1V steps)
Autonomy (in a range of +10°C to +25°C)	At least 12 years: batch mode with 1 transmission every 2 hours
USER INTERFACE	
ILS + LED switch	Monitoring of association on the network; signalling of sensor status; visible closed sensor
Temperature sensors	To be installed in a pocket or against a pipe under insulating wrapping
BOX	
Dimensions / weight - Sealing	92x92xw.56mm / 200grs - IP55 (IPx7 probes)
Material	ABS UL94-V0HB
Attachment	2 screws and 2 dowels (supplied)
TEMPERATURE	
Operation	20°C / +50°C
Storage	0°C / +30°C; +0%rH / +60%rH
STANDARDS & REGULATIONS	
EN, 61000-4-2 EN 300-220-1 V2-4-1, EN 301 489 V1-6-1 CE, RoHS	



PRODUCT NUMBER

REFERENCE	DESCRIPTION
50-70-163	LoRaWAN [®] OUTDOOR TEMPERATURE SENSOR