

LoRaWAN™ TEMPERATURE SENSOR INDOOR



The Temperature sensor is a LoRaWAN™ Class A wireless sensor device that measures and transmit over long distance ambient temperature.

APPLICATIONS

- HVAC (Heating, Ventilating and Air Conditioning)
- Building management
- Logistic / storage
- Data center / IT server room

BENEFITS & KEY FEATURES

- LoRaWAN™, Class A
- Easy to use and deploy
- Up to 10 years autonomy
- Temperature measure
 - ✓ Range : 0°C / +40°C
 - ✓ Accuracy : +/-0,3°C
 - ✓ Resolution : 0,2°C
- Data compression for batch report

QUALITY & RELIABILITY

- RoHS compliant
- CE Compliant



The TEMPERATURE SENSOR from nke Watteco is an easy-to-use wireless sensor operating from any wireless network using the LoRaWAN™ protocol.

The wireless sensor has the following alarm capabilities:

- Min & Max temperature
- Anti-tamper (against opening and detachment)

The sensor is equipped with a switch (ILS) allowing activation and deactivation (ON/OFF), a BUZZER and an LED to follow the configuration and association on the network and providing information on the status of the sensor.

The measured temperature and battery voltage parameters can be locally stored, concatenated and compressed. This unique batch mechanism significantly reduce the amount of data transmission.

Powered through a Lithium battery, it allows an autonomy up to 10 years when measuring 2 times per hour and transmitting data one time per hour (default configuration in compressed mode).

NKE WATTECO, YOUR PARTNER IN SMART SENSORS & ACTUATORS

We are a European leader in designing and manufacturing highly reliable and low power consumption smart sensors, actuators and multiprotocol remote data solutions.

nke Watteco is an adopter member of the LoRa® Alliance

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TECHNICAL CHARACTERISTICS

RF TRANSCEIVER	
Frequency (MHz)	EU: 863-870
Transmit Power (dBm)	+14
Receiver Sensitivity (dBm)	-140
FIRMWARE	
Protocol	LoRaWAN™, Class A
Transmission cycles	10mn, 1h, 12h or defined by network
Activation method	Activation by Personalization (ABP) Over-The-Air Activation (OTAA)
Data encryption	AES128
TEMPERATURE MEASURE	
Accuracy (°C)	+/- 0,3
Resolution (°C)	0,2
Range (°C)	0 / +40
POWER	
Power supply	3,6V / 3600mAh lithium battery
Autonomy within a +10°C to +25°C temperature range	>10 years: 2 measures / hour and 1 transmit / hour (compressed) = 9 years: 1 measure / 10 minutes and 1 transmit / hour (compressed)
INTERFACE	
LED & BUZZER	Network pairing & configuration, sensor status.
Switches	Reset, ON/OFF
ALARMS	
Temperature	Min/Max value – Programmable from 0°C to 40°C in 1°C step
ON/OFF	
Anti-tamper	Against opening and detachment
MECHANICAL FEATURES	
Dimension (mm)	80x80x25
ENVIRONMENTAL	
Operating temperature (°C)	0 / +40
Storage	+10°C / +30°C ; +20%rH / +60%rH
DIRECTIVES & STANDARD	
EN, 61000-4-2 EN 300-220-1 V2-4-1, EN 301 489 V1-6-1 CE, RoHS recommendation compliant	



ORDERING INFORMATION

REFERENCE	MODEL DESCRIPTION
50-70-085	LoRaWAN™ TEMPERATURE SENSOR INDOOR