

LoRaWAN™ TEMPERATURE-HUMIDITY SENSOR



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

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 23 years autonomy
- Temperature and Humidity measure
 - ✓ Range : 0°C / +40°C ; 0%rH / 100%rH
 - ✓ Accuracy: +/-0,5°C ; +/-5%rH
 - ✓ Resolution: 0,2°C ; 0,5%rH
- Data compression for batch report

QUALITY & RELIABILITY

- RoHS compliant
- CE Compliant
- FCC Compliant



The TEMPERATURE HUMIDITY 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:

- ON/OFF
- Min & Max temperature
- Min & Max humidity
- Anti-tamper (against opening and detachment)

The measured temperature, humidity 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 23 years when measuring 8 times per day and transmitting data one time per day.

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 ; US: 902-928
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)	+/- 5
Resolution (°C)	0,2
Range (°C)	0 / +40
HUMIDITY MEASURE	
Accuracy (%)	+/- 5
Resolution (%)	0,5
Range (%rH)	0 / 100
POWER	
Power supply	3,6V / 3600mAh lithium battery
Battery Autonomy	5 years: 2 measures / hour and 1 transmit / day 9.5 years: 1 measure / hour and 1 transmit / day 23 years: 8 measures / day and 1 transmit / day
INTERFACE	
LED Indicator	Network pairing & configuration
Switches	Reset, ON/OFF
ALARMS	
Temperature	Min/Max value – Programmable from 0°C to 40°C in 1°C step
Humidity	Min/Max value – Programmable from 0%rH to 100%rH in 1%rH 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
50-70-0xx	LoRaWAN™ TEMPERATURE HUMIDITY SENSOR