Smart Metering | Smart Building | Smart Industry

SIGFOX™ INDOOR TEMPERATURE SENSOR

The TEMPERATURE sensor is a SIGFOX™ wireless sensor operating on battery that measures and transmit over long distance indoor temperature.

APPLICATIONS

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

BENEFITS & KEY FEATURES

- SIGFOX™
- Easy to use and deploy
- Differential data compression for temperature batch report
- Up to 12 years autonomy (data compression mode)
- Temperature and Humidity measure
  - ✓ Range : 0°C / +40°C
  - ✓ Accuracy: +/-0,5°C
  - ✓ Resolution: 0,1°C

QUALITY & RELIABIITY

- RoHS compliant
- CE Compliant

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

The sensor is easy to deploy and maintain :

- NFC tag for identification (Part type, serial number and manufacturing number)
- Magnetic switch to activate/de-activate the sensor

The INDOOR TEMPERATURE SENSOR has the following alarm capabilities:

- ON/OFF
- Low battery voltage
- Min & Max temperature
- Anti-tamper (against opening and detachment).

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

Powered through a 3.6V/3600mAh Lithium battery, in data-compressed mode it allows an autonomy up to 12 years when measuring 1 times per hour and transmitting data one time per day.

The configuration of the transmitter can be done at factory or on-site allowing the choice of measurement cycle, measurement, information frame radio-transmission periodicity, alarms threshold values, data compression 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.

SIGFOX™
INDOOR TEMPERATURE SENSOR

TECHNICAL CARACTERISTICS

RF TRANSCEIVER	
Frequency (MHz)	EU: 868-870
Transmit Power (dBm)	+14
Receiver Sensitivity (dBm)	-126
FIRMWARE	
Protocol	SIGFOX™
Data encryption	AES128
Measurement cycles	From 1h to 48h in 1h step
Measurement frame transmission cycles	From 2h to 48h in 1h step
Information frame transmission cycles	From 0 day to 30 days in 1day step
Alarm detection	yes or no
Data compression	yes (differential coding) or no
Unified degree days measurement	Activate / de-activate
Alarm level	Battery level: 0,1V to 3,6V by 0,1V step Temperature min and max: 0°C to +40°C by 1°C step
TEMPERATURE MEASURE	
Accuracy (°C)	+/- 0,5
Resolution (°C)	0,1
Range (°C)	0 / +40
POWER	
Power supply	3,6V / 3600mAh lithium battery
Autonomy within a +10°C to +25°C temperature range	12 years: Data compressed / 1 measure per hour / 1 transmit per day 9 years: Data not compressed / 1 measure per hour / 1 transmit per day 5 years: Data compressed / 1 measure every 10mn / 1 transmit per day
INTERFACE	
NFC Tag	Part number, serial number and manufacturing number
Buzzer Indicator	Network pairing / unpairing & local configuration
Magnetic Switch	ON/OFF
ALARMS	
ON/OFF	Transmitted instantaneously
Low battery	Transmitted at information frame rate
Temperature	Transmitted instantaneously
Anti-tamper	Against opening and detachment; transmitted instantaneously
MECHANICAL FEATURES	
Dimension (mm)	80x80x25
ENVIRONMENTAL	
Operating temperature (°C)	0 / +40
Storage (°C ; rH)	+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
50-09-037	SIGFOX™ INDOOR TEMPERATURE SENSOR

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