







LoRaWANTM WATER SENS'O



Water Sens'O is a LoRaWAN™, Class A sensor radio transmitting data index and alarms from water meter

APPLICATIONS

- Wireless AMR Smart metering
- Management of water resource.

BENEFITS & KEY FEATURES

- LoRaWANTM, Class A
- Easy to use and deploy
- Detect and monitor:
 - Water leakage
 - Water reverse flow
 - ✓ Min/Max water flow every 24hours
 - Water meter risk of freezing
 - Water consumption histogram
- Alarm thresholds and transmit periodicity programmable over the air
- Data compression for batch report
- IP68
- Up to 15 years autonomy

QUALITY & RELIABIITY

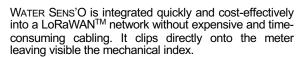
- CE Compliant
- RoHS compliant
- Radio-equipment directive 2014/53/UE

The Class A LoRaWANTM WATER SENS'O from nke Watteco is a long range, low power consumption, high performance and high quality wireless sensor transmitting index data from water meters.

WATER SENS'O has the data processing capabilities to transmit the water consumption histogram and the min/max water flow every 24hours. It also alerts you in case of:

- Water leakage
- Water reverse flow
- Water Sens'O removal from water meter

The configuration of WATER SENS'O can be done over the air via the LoRaWANTM network allowing the remote setting of the transmit periodicity from 4 to 120 hours as well as the choice of the alarms threshold values (leakage, reverse flow).



It operates with commercial meter products such as ARAD composite volumetric water meters type DN15 & DN20

The measured parameters are locally stored, concatenated and compressed. This unique batch mechanism significantly reduce the amount of data transmission for demanding water consumption histogram applications and drastically increase the autonomy.

Powered through a lithium battery, it allows an autonomy up to 15 years when transmitting data one time per day.



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









LoRaWANTM WATER SENS'O

TECHNICAL CHARACTERISTICS

| RF TRANSCEIVER | | | |
|--|--|--|--|
| Frequency (MHz) | EU: 863-870 US: 902-928 (On demand) | | |
| Transmit Power (dBm) | +14 | | |
| Receiver Sensitivity (dBm) | -140 | | |
| FIRMWARE | | | |
| Protocol | LoRaWAN™, Class A | | |
| Transmission cycles | 10mn, 1h, 12h or defined by network | | |
| Data history | Available | | |
| Data processing | Water leakage detection Water reverse flow detection Water meter risk of freezing detection Min/Max water flow computation every 24hours Water consumption histogram computation | | |
| Activation method | Activation by Personalization (ABP) Over-The-Air Activation (OTAA) | | |
| Data encryption | AES128 | | |
| Power supply | 3,6V / 3600mAh 3,6V lithium battery | | |
| Autonomy | 15 years for 1 transmission per day | | |
| ALARMS | | | |
| Water reverse flow | Alarm level can be adjusted over the air during operation | | |
| Water leakage | Alarm level can be adjusted over the air during operation | | |
| Water Sens'O module removal from meter | | | |
| ENVIRONMENTAL | | | |
| Operating temperature (°C) | -20 / +50 | | |
| Storage temperature (°C) | -10 / +30 | | |

DIRECTIVES & STANDARD

EN, 61000-4-2 EN 300-220-1 V2-4-1, EN 301 489 V1-6-1 CE and RoHS recommendation compliant







| MECHANICAL FEATURES | | |
|----------------------------|----------------|--|
| IP Class | IP68 | |
| Dimension – L x W x H (mm) | 97x76.23x105.5 | |

ORDERING INFORMATION

| REFERE | NCE DESCRIPTION | |
|----------|----------------------|-------|
| 50-70-01 | 11 LoRaWAN™ Water Se | ens'O |

