

## Pulse S0 sensor



The PULSE S0 sensor enables remote metering of water, gas, electricity or heat meters. It transforms existing meters into communicating meters via a public or private LoRaWAN® network.

### APPLICATIONS

- Remote reading of water, gas, electricity or heat meters with a pulse output.
- Remote reading of the load curve.
- Cost-effective and fast solution that turns any meter into a communicating meter.

### BENEFITS & FEATURES

- LoRaWAN®, Class A
- Easy to install and use
- Differential data compression
- 3 years battery life (data compression mode)

### CERTIFICATION

- RoHS, CE, AtEx Zone II (battery)



*Sensors delivered neutral face without marking nke WATTECO*

The PULSE S0 sensor enables remote reading of metering data from the pulse output of water, gas, electricity or heat meters. It transforms existing meters into communicating meters via a public or private LoRaWAN® network.

Installation and commissioning is quick and easy. The sensor has

- a switch to turn it on and off
- 2LEDs to monitor the configuration and association on the network

Metering data can be stored in local memory and compressed before being transmitted over the public or private LoRaWAN® network. This transfer technique is particularly suitable for the transmission of load curves as it considerably reduces the amount of data transmitted while preserving the autonomy of the sensor




When powered by a 3.6V/1.1Ah battery, the sensor has a battery life of 3 years (data compression mode) when configured to perform one measurement per hour and one transmission per day.

### WE HAVE THE RIGHT SENSORS FOR YOUR NEEDS

nke WATTECO is a leading European designer and manufacturer of intelligent radio frequency sensors and actuators as well as multi-protocol remote reading and data collection solutions.

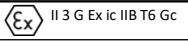
nke WATTECO is a member of the LoRa Alliance®.

## TECHNICAL CHARACTERISTICS

| RADIOFREQUENCY  |   |
|---|---|
| Frequency (MHz)   | EU: 863-870<br>US: 902-928 (on request)                               |
| Transmitted power (dBm)   | +14   |
| Sensitivity (dBm)   | -140  |
| FIRMWARE  |   |
| Protocol  | LoRaWAN®, Class A   |
| Transmission cycles   | 10mn, 1h, 12h or specified by the network                             |
| Data compression  | yes (differential coding) or no                                       |
| Activation method   | Activation by Personalization (ABP)<br>Over-The-Air Activation (OTAA) |
| Data encryption   | AES128  |
| ENTRY   |   |
| Number of entries   | 1   |
| Impedance (MΩ)  | >1  |
| Capacity (nF)   | 1; typical  |
| Voltage(V)  | 0 - 75  |
| Current (mA)  | 3.5   |
| Frequency (Hz)  | 1 - 500   |
| Anti-bounce   | from 0 to 1 minute in 125ms increments                                |
| FOOD  |   |
| Voltage   | 3,6V / 1200mAh - lithium battery - ATEX Zone II certified             |
| Autonomy in a range of +10°C to +25°C   | 3 years - 1 measurement per hour - 1 transmission per day             |
| INTERFACE   |   |
| LEDs  | Configuration and association on the network                          |
| Switch  | Reset, ON/OFF   |
| BOX   |   |
| Dimension (mm)  | 75 x 70 x 21  |
| ENVIRONMENT   |   |
| Operating temperature (°C)  | -20 / +40   |
| Storage temperature (°C)  | 0 / +30   |
| STANDARDS & REGULATIONS   |   |
| EN, 61000-4-2 EN 300-220-1 V2-4-1, EN 301 489 V1-6-1<br>CE, RoHS  |   |
|    |   |

## PRODUCT NUMBER

| REFERENCE | DESCRIPTION   |
|-----------|---|
| 50-70-001 | LoRaWAN® PULSE S0 OUTDOOR SENSOR - ATEX ZONE II CERTIFIED |



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