# /Outdoor Pulse counter



**This device from Lansen is a plug-and-play pulse counter transmitter and can be mounted outdoors or in harsh environments thanks to its IP65-casing.**

**The device is highly configurable to fit specific needs and suit every installation and can easily be configured wirelessly.**

LAN-WMBUS-O-P | LAN-900-0014

## PERFORMANCE

The device uses only the highest quality components to ensure the best performance and service life. The two internal antennas, which are perpendicular to each other for maximum range in all directions, are optimized for 868MHz and fine-tuned for mounting on concrete, wood or plaster.

## PULSE COUNTER

The device counts pulses from one meter. This meter could be, for example, water meter, electricity meter (connected to the S0-port), gas meter etc. Our advanced debouncing algorithm makes sure that only correct pulses are counted for highest possible reliability.

## MEASUREMENTS

The total number of pulses is sent periodically using wMBUS protocol and this makes the sensor ideal for integration in data collecting systems. Data sent by the device is protected using the AES128 encryption compliant with OMS standard.

## FEATURES

- Continuously battery level monitoring. Low level warning is issued when battery is nearing depletion
- OMS 4 synchronous message, sending data pseudo random to avoid collisions
- Easy and quick installation
- High accuracy real-time clock for minimum time drift
- Set starting pulse value to synchronize value with a meter
- Supports up to three due dates (historic values)
- Soldered battery for maximum reliability
- Fully compliant with Lansen repeaters and gateways

## CONFIGURATION

The pulse counter can be configured wirelessly using a Lansen configuration USB-dongle with our program, Lansen Configurator. Below is a list of a couple of parameters which can be configured on the pulse counter:

- Number of pulses per value increments, for example, 1000 pulses = 1kWh
- Adjustable transmission interval
- Possibility to save up to three due dates (historic values) with daily, weekly, monthly, or yearly intervals
- Set starting pulse value to synchronize with a meter
- Possibility to set meter information such as serial number, type and measurement unit to match the connected meter
- Synchronize internal clock

## FIRMWARE

| | |
|---|---|
| MODES | Configurable C, T or S |
| INTERVAL | Configurable 10s - 1h |
| ENCRYPTION | AES128 encryption OMS mode 5, Profile A. Configurable ON/OFF |
| AES | KEY Changeable |
| STANDARD | T1-Mode, 5 min (20s for -DB version). Encryption ON. |

## DATA CONFIGURATION

| | |
|---|---|
| SENSOR TYPE | Water, electricity, HCA, gas, etc. All types available according to EN-13757-3 |
| VALUE FORMAT | 0,001 - 10000 Wh/pulse 0,001 - 10000 L/pulse etc. All settings available according to EN-13757-3 |
| METER TYPES | All settings available according to EN-13757-3 |
| DUE DATES | Max three due dates possible with daily, weekly, monthly, or yearly saving intervals |

## WARNINGS

| | |
|---|---|
| BATTERY | Low battery |

## POWER/LIFETIME

| | |
|---|---|
| POWER SUPPLY | 3.6V Li-SOCl2 |
| VOLTAGE | 2.4 to 3.6V |
| LIFE TIME | 16 years* |
| RADIO | 14 dBm (7 dBm for -DB) output power to antenna |

## GENERAL INFORMATION

| | |
|---|---|
| STANDARDS | 2014/53/EU (RED) EN 13757-3/4:2013, OMS 4.0.2 |
| TEMPERATURE | -40 °C to +85 °C |
| COLOR | Signal white |
| MATERIAL | PC UV stabilized plastic |
| SIZE (W x H x D) | 55 x 91 x 43 mm + M12 cable gland. |
| IP | 65 |
| MINIMUM PULSE | 5 ms (other setting on request) |
| REAL-TIME CLOCK | Onboard RTC. Typical MAX drift 30 minutes / year at -15 °C to +55 °C |

## OTHER

| | |
|---|---|
| CONTACT VOLTAGE | 3,6 to 2,5V |
| CONTACT CURRENT | 4uA |

## DEVICES

| | |
|---|---|
| LAN-WMBUS-O-P-DB | Single pulse counter device, drive by version (on request) |
| LAN-WMBUS-O-P | Single pulse counter device |

**The expected battery lifetime stated is based on simulations and true measurements at the stated recommended temperatures and is valid to the best of our ability but not a guarantee. The calculations and measurements can be sent upon request for your reference.*

V 2.0

*Specifications in this document are subject to change without notice.*