



# EM300-DI

## Pulse Counter Featuring LoRaWAN®





### Count, Conserve, Control

EM300-DI is a compact LoRaWAN® pulse counter which transforms traditional water meters into wireless intelligent meters. With IP67 waterproof design, it is applicable in various harsh application environments.

In addition to LoRaWAN® technology with low power consumption, it has a built-in high-capacity battery available for several years without replacement. Moreover, EM300-DI is compatible with both Milesight LoRaWAN® gateway and Milesight IoT Cloud to achieve remote monitoring and visualized smart data management to achieve the purpose of saving water. It is suitable for both indoor and outdoor applications such as agricultural irrigation, industrial water use, property meter reading and numerous scenarios.

#### Features

- Flexible counting configuration to enable, stop, clear accumulated values
- Support digital filtering that filters interference signals to ensure more accurate counters
- Support to calculate water consumption and send water flow/outage alarms
- Embedded with temperature and humidity sensors for environment monitoring
- IP67 waterproof enclosure for harsh environment applications
- Ultra-wide-distance transmission up to line of sight of 10km

- Store more than 1000 historical records and support retransmission to prevent data loss
- Support Milesight D2D protocol to enable ultra-low latency and direct control without gateways
- A built-in 4000 mAh replaceable battery and works for 5 years without replacement
- Equipped with NFC for easily configuration
- Compliant with standard LoRaWAN® gateways and network servers
- Quick and easy management with Milesight IoT Cloud solution

## **♦** Specifications

| ▼ Specification       |   |  |
|-----------------------|---|--|
| Wireless Transmissio  | n   |  |
| Technology            | LoRaWAN®, Milesight D2D   |  |
| Frequency             | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4                       |  |
| Tx Power              | 16dBm(868 MHz)/20dBm(915 MHz)/19dBm(470 MHz)                                  |  |
| Sensitivity           | -137dBm @300bps   |  |
| Mode                  | OTAA/ABP Class A  |  |
| Measurement           |   |  |
| GPI0                  |   |  |
| Port                  | 1 × GPIO Interface, Dry Contact   |  |
| Work Mode             | Pulse Counter, Digital Input  |  |
| Input Frequency       | ≤ 2000 Hz   |  |
| Minimum Pulse Width   | 250 μs  |  |
| Cable Length          | 1 m (Customizable)  |  |
| Applicable Meters     | Reed switches meters or any other passive pulse meters                        |  |
| Temperature           |   |  |
| Range                 | -30°C to + 70°C   |  |
| Accuracy              | 0°C to + 70°C (+/- 0.3°C), -30°C to 0°C (+/- 0.6°C)                           |  |
| Resolution            | 0.1°C   |  |
| Humidity              |   |  |
| Range                 | 0% RH to 100% RH  |  |
| Accuracy              | 10% to 90% RH (+/- 3%), below 10% and above 90% RH (+/- 5%)                   |  |
| Resolution            | 0.5% RH   |  |
| Operation             |   |  |
| Power On & Off        | NFC, Power Button (Internal)  |  |
| Configuration         | NFC Configuration via Mobile App  |  |
| Advanced Feature      | Milesight D2D Controller, Data Storage, Data Retransmission,                  |  |
|                       | Temperature Threshold Alarms, Water Flow/Outage Alarms                        |  |
| Physical Characterist | ics   |  |
| Power Supply          | 1 × 4000 mAh ER18505 Li-SOCL <sub>2</sub> Battery (extendable to 2 batteries) |  |
| Battery Life*         | 5 years (10 min interval, 25°C)   |  |

| Operating Temperature | -30°C to +70°C  |
|-----------------------|---|
| Relative Humidity     | ≤95% (non-condensing)                                     |
| Material & Color      | ABS + PC, White   |
| Ingress Protection    | IP67  |
| Dimension             | 105.6 × 85.2 × 27 mm (4.15 × 3.35 × 1.06 in)              |
| Installation          | Wall Screw Mounting, 3M Tape Mounting, Cable-Tie Mounting |

<sup>\*</sup> Tested under laboratory conditions and for guideline purposes only.

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