

Pulse Counter

Featuring LoRaWAN®

EM300-DI



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

Wireless Transmission	
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	
GPIO	
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 Characteristics	
Power Supply	1 × 4000 mAh ER18505 Li-SOCL ₂ 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

* Tested under laboratory conditions and for guideline purposes only.

