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 Development Platform to achieve remote monitoring and visualized smart data management to achieve the purpose of saving water.

EM300-DI 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 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 and Milesight Development Platform

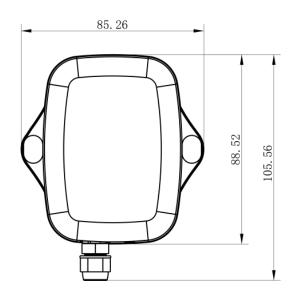
♦ Specifications

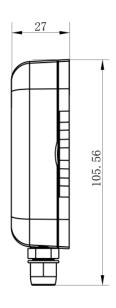
Wireless Transmission		
Technology	LoRaWAN®, Milesight D2D	
Antenna	Internal Antenna	
Frequency	CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4	
Tx Power	16dBm(868 MHz)/20dBm(915 MHz)/19dBm(470 MHz)	
Sensitivity	-137dBm @300bps	
Mode	OTAA/ABP Class A	
Measurement		
GPIO		
Port	1 × GPIO Interface, Dry Contact	
Work Mode	Pulse Counter, Digital Input	
Input Frequency	≤ 2000 Hz	
Minimum Pulse Width	250 µs	
Cable Length	1 m (Customizable)	
Wire Connection	3.5mm	
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	
Others		
LED	1 × LED Indicator (Internal)	
Button	1 × Power/Reset Button (Internal)	
Software		
Power On & Off	NFC, Power Button (Internal)	
Configuration	NFC via Mobile App, Downlink	

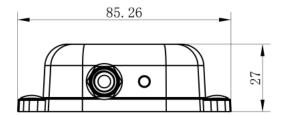
Advanced Feature	Milesight D2D Controller, Data Storage (1,000 entries), Data Retransmission, Data Retrievability, Temperature Threshold Alarms, Water Flow/Outage Alarms	
Physical Characteristics		
Power Supply	1×4000 mAh ER18505 Li-SOCL ₂ Battery (8000 mAh Version Optional)	
Battery Life*	5 years (10 min interval, 25°C)	
Operating Temperature	-30°C to +70°C	
Relative Humidity	≤95% (non-condensing)	
Material & Color	ABS + PC(Flame Retardant), White	
Weight	114.2g (With 1 battery and wire)	
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	
Approvals		
Regulatory	CE, FCC, ISED, RCM, Telec	
Environmental	RoHS	

 $[\]mbox{\ensuremath{^{\star}}}\mbox{\ensuremath{\text{Tested}}}\mbox{\ensuremath{\text{under}}}\mbox{\ensuremath{\text{laboratory}}}\mbox{\ensuremath{\text{conditions}}}\mbox{\ensuremath{\text{and}}}\mbox{\ensuremath{\text{for guideline}}}\mbox{\ensuremath{\text{purposes}}}\mbox{\ensuremath{\text{only}}}\mbox{\ensuremath{\text{conditions}}}\mbox{\ensuremath{\text{and}}}\mbox{\ensuremath{\text{for guideline}}}\mbox{\ensuremath{\text{purposes}}\mbox{\ensuremath{\text{only}}}\mbox{\ensuremath{\text{chall}}}\mbox{\ensuremath{\text{guideline}}}\mbox{\ensuremath{guideline}}\mbox{\ensuremath{\text{guideline}}}\mbox{\ensuremath{\text{guideline}}}$

◆ Dimensions (mm)

















Tel: 86-592-5085280