Solenoid Valve Controller

UC51x Series

UC51x series LoRaWAN® wireless solenoid valve controller is a device used to remotely control DC latching solenoids of the valve. It contains 2 solenoid interfaces and 1 pulse interface, which can be easily controlled locally or remotely.

Besides ultra-low-power LoRaWAN® technology, UC51x series also provides both solar and built-in battery power supply for uninterrupted operation. For outdoor applications, it equips with IP67-rated enclosure and M12 connectors to protect from water and dust under harsh environments.

◆ Features

- Compatible with standard DC latching solenoids
- OPEN/CLOSE control by mobile APP locally or commands remotely
- One pulse water meter interface for flow monitoring
- Transmission distance up to 11km with line of sight
- Waterproof design including IP67 case and M12 connectors
- Solar powered and built-in chargeable battery
- Quick wireless configuration via NFC
- Time and flow control via Milesight IoT Cloud

◆ Specifications

Wireless Transmission	
Technology	LoRaWAN®
Frequency	CN470/IN865/EU868/RU864/US915/AU915/KR920/AS923
Tx Power	16dBm(868)/20dBm(915)/19dBm(470)
Sensitivity	-137dBm @300bps
Working Mode	UC511: Class A, Class C UC512: Class A

Data Interfaces	
Interface Type	M12 A-Coded Male

Solenoid Interface	
Ports	2 × Solenoid Interfaces
Solenoid Support	2 wires 12V DC latching solenoids
Cable Length	1.5m (by default)

Pulse Interface	
Ports	2 × Pulse Interfaces, support 2 pulse meters
Logical Level	Low: 0~0.9V, High: 2.5~3.3V
Cable Length	1.5m (by default)

Operation	
Power On & Off	Mobile APP(via NFC), PC software(via USB Type-C), power button (Internal), Cable Connection
Configuration	Mobile APP(via NFC) or PC software(via USB Type-C)

Physical Characteristics	
Operating Temperature	-20°C to +60°C
Ingress Protection	IP67
Dimension	120.1 × 120.1× 55.4 mm (4.73 × 4.73 × 2.18 in)
Power Connector	M12 A-Coded Male
Power Supply	1. Solar powered + Rechargeable battery + 5-24 VDC supply 2. 19000mAh replaceable Li-SOCL$_2$ battery
Installation	Wall or Pole Mounting

◆ Ordering Information

Model	Power Supply
UC511-DI-868M	1. Solar powered (5V, 1W) 2. 2 × 2550mAh chargeable battery 3. 5-24 VDC powered by M12 connector
UC512-DI-868M	19000mAh replaceable Li-SoCl$_2$ battery
Remark: "-915M"/"-868M"/"-470M" in the model refers to different LoRaWAN® Frequency in option for different countries/regions, (e.g.) "-915M": KR920/AS923/AU915/US915 "-868M": IN865/EU868/RU864 "-470M": CN470	