

# Solenoid Valve Controller

UC51x Series



UC51x series LoRaWAN<sup>®</sup> 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<sup>®</sup> 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<br>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),<br>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<br>2. 19000mAh replaceable Li-SOCL <sub>2</sub> battery |
| Installation          | Wall or Pole Mounting   |

## ◆ Ordering Information

| Model  | Power Supply   |
|--|--|
| UC511-DI-868M  | <ol style="list-style-type: none"> <li>1. Solar powered (5V, 1W)</li> <li>2. 2 × 2550mAh chargeable battery</li> <li>3. 5-24 VDC powered by M12 connector</li> </ol> |
| UC512-DI-868M  | 19000mAh replaceable Li-SoCl <sub>2</sub> battery  |
| <p><b>Remark:</b></p> <p>"-915M"/"-868M"/"-470M" in the model refers to different LoRaWAN® Frequency in option for different countries/regions, (e.g.)</p> <p>"-915M": KR920/AS923/AU915/US915</p> <p>"-868M": IN865/EU868/RU864</p> <p>"-470M": CN470</p> |  |