

LoRaWAN® Solenoid Valve Controller

UC51x Series

Milesight



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

Besides ultra-low-power LoRaWAN® technology, UC51x series also provides built-in solar pannel and high-capacity battery power supply for long-term 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
- Two pulse water meter interfaces for flow monitoring
- Transmission distance up to 15 km 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 MHz)/20dBm (915 MHz)/19dBm (470 MHz)
Sensitivity	-137dBm @300bps
Working Mode	UC511: OTAA/ABP Class A, Class B, Class C UC512: OTAA/ABP Class A, Class B

Data Interfaces

Interface Type	M12 A-Coded Male
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Solenoid Interface

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

Pulse Interface

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

Power Supply	UC511: Solar powered + 2 × 2550mAh chargeable battery UC512: 3 × 9000 mAh replaceable Li-SOCl ₂ battery
Operating Temperature	-20°C to +60°C
Ingress Protection	IP67
Dimension	116 × 116 × 45.5 mm (4.56 × 4.56 × 1.79 in)
Installation	Wall or Pole Mounting

Approvals

Regulatory	CE, FCC, RoHS
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