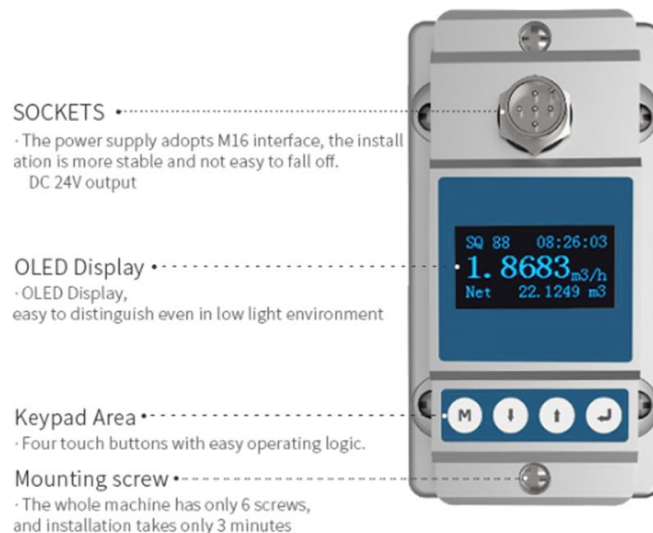


Electricity Consumption Kit Installation Guide

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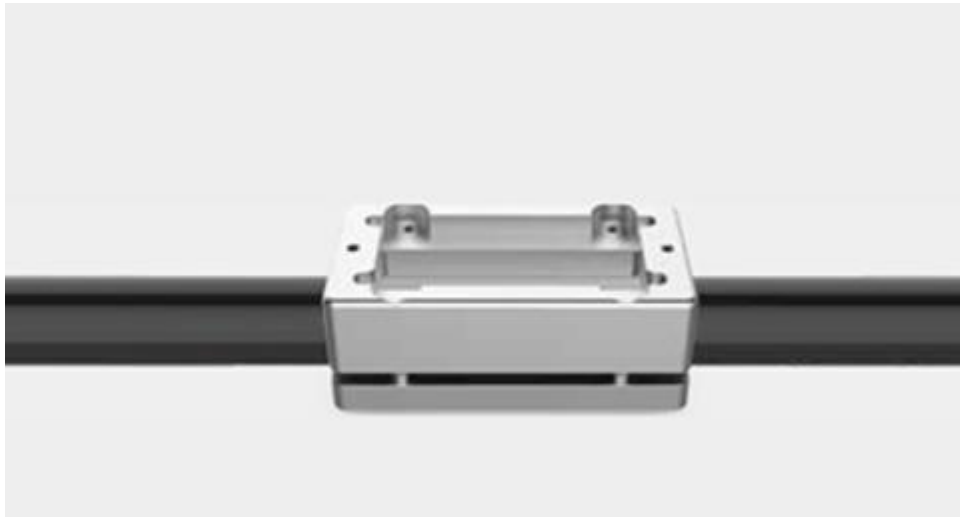
Ultrasonic Water Flowmeter



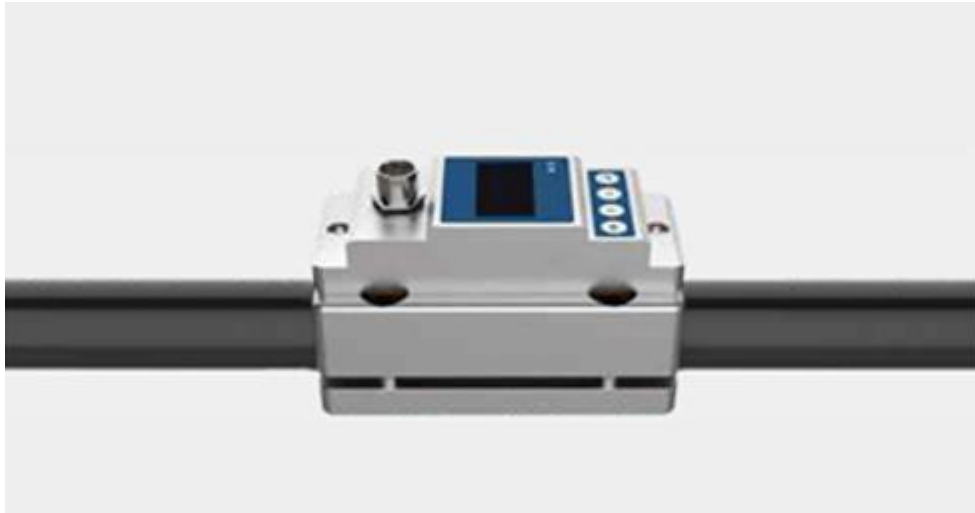
Step 1 Clean the Tube: make sure no dirt, paint, or other stains on the surface of the tube



Step 2 Install the bracket: Align flow meter to the pipe position, install screw on top part of the bracket, the bottom part of the bracket will automatically connect with the top part, tighten the four M4 screws.



Step 3 Install ETM: take the cover off the sensor, put the flow meter into Upper bracket, and tighten two M4 screws.



Step 4 Connect the Cable: take out the cable, connect it to the socket, and tighten up.



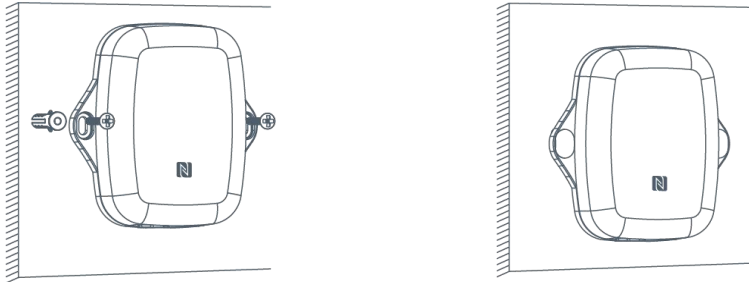
Step 5 Run the ETM: please refer to the manual for cable connection; Power on and see if the SQ > 50 which indicates that measurement has been stable.



Water Leakage Sensor

Main Device Installation

1. Attach the main device to the wall and mark the two holes in the wall. The connecting line of two holes must be a horizontal line.
2. Drill the holes according to the marks and screw the wall plugs into the wall.
3. Mount the main device to the wall via mounting screws.
4. Cover the mounting screws with screw caps.



Besides, it can also be mounted to a wall via 3M tape or be mounted to a pole via cable-tie.

Sensor Installation

The sensing cable consists of two black sensing wires and polyethylene. When the water covers the cable, touching sensing cables (soaking water length ≥ 3 cm and depth ≥ 1 mm), the device will send leakage alarms. It's important to note that this sensing cable does not pinpoint the exact location of the leakage.



1. Connect Sensing Cable to Main Device

Connect the connector on one end of the sensing cable to the main device connector, then tighten the connectors. Please note that the sensing cable comes with only one connector and does not support the connection of additional sensing cables to extend the detection length. If you need to expand the length, please contact us to customize the cable length or purchase a sensing cable with connectors on both ends to replace the default one.



2. Install the Sensing Cable

- a) Select the installation location to detect the leakage. The sensing cable can be wrapped around pipes, routed along to walls or placed on the floors. Ensure that the surfaces of the installation location are clean and free of debris, dirt, adhesive residues, water droplets, and other contaminants.

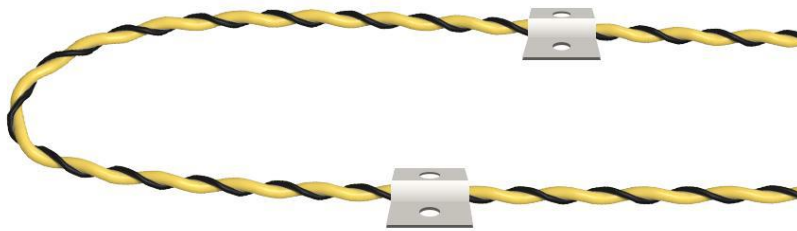
Note:

1) Installation location should be away from foot traffic, sharp objects and areas where heavy items rolling, dropping on the cable.

2) Keep the cable away from air-conditioning outlet or moist places to avoid error alarm report.

b) Install the sensing cable at the designated installation locations.

Install cable to floors/walls: attach the sensing cable to the installation location without a gap and fix it tightly with cable clips. Do not fix the cable with glue or metal which may affect the detection sensitivity.



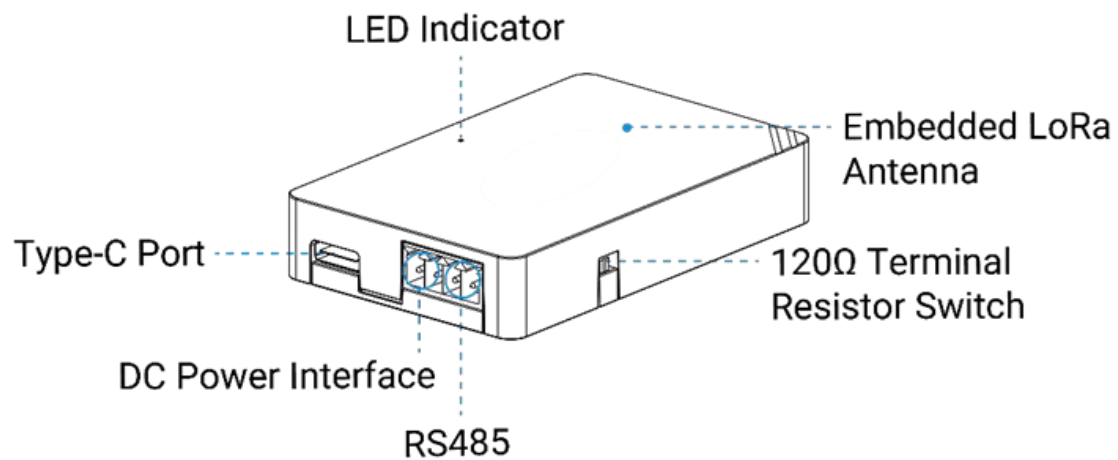
Install cable to pipes: wrap the sensing cable around the pipe and fix it tightly with cable ties. When installed, the cable can't be twined or accumulated together.



Note: to ensure best LoRaWAN® communication, keep the device away from metal objects and obstacles. Besides, the connectors should be kept away from the water to avoid error alarm report.

- c) After removing the cable from the leakage location, dry the cable and ensure the leakage status back to "Normal". The cable can be reused in other places.
- d) Although the sensing cable can resist dust and dirt, it is recommended to clean the cable regularly to maintain optimal detection sensitivity. When cleaning, remove the sensing cable from the device connector, then use alcohol or soap water to clean the cable and hang it to dry.

Converter



120Ω Terminal Resistor Switch: the device will add a 120Ω termination resistor to avoid data-corrupting reflections if RS485 data rate is high or cable length is long.

LED and Reset Button

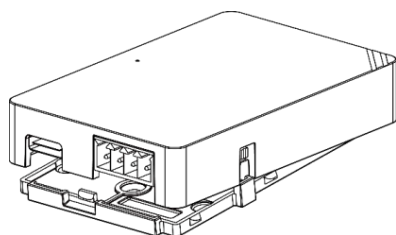
The reset button is inside the device.

Function	Action	LED Indication
Work Status	System is functioning properly	Static On
	Fail to acquire data from data interfaces	Slowly Blinks
	Device upgrade or system error	Static On
Reboot	Press and hold the button for more than 3 seconds.	Slowly Blinks
Reset	Press and hold the button for more than 10 seconds.	Quickly Blinks

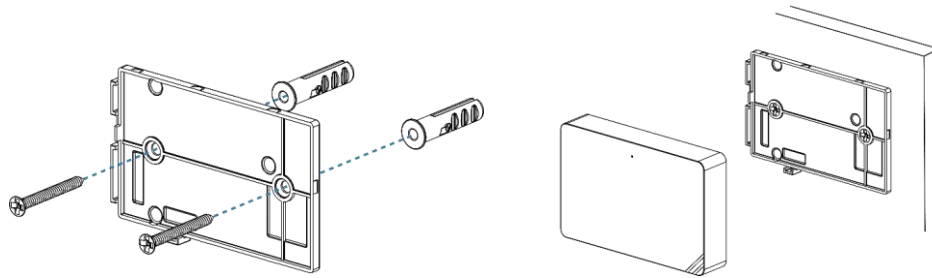
Installation

UC100 device can be placed on a desktop or mounted to a wall.

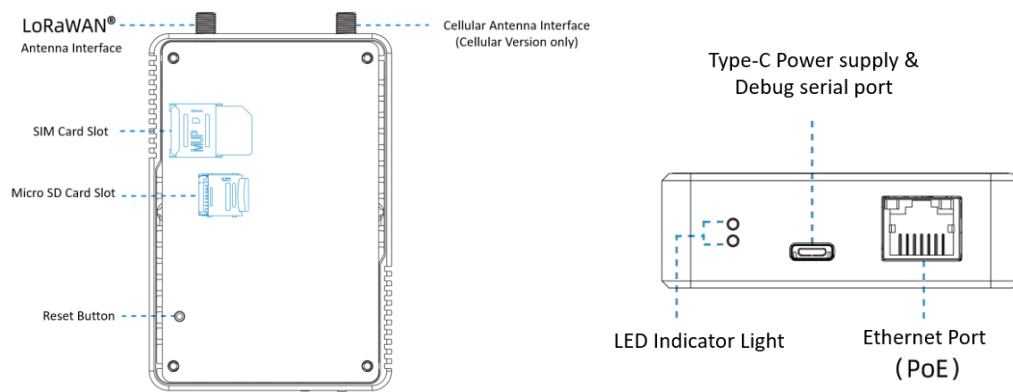
1. Take off the back cover of UC100 device, and fix the wall plugs into the wall according to the drilling position as referred.



2. Screw the cover on the mounting positions and install back the device.



Gateway



LED Type	Indicator	Status	Description
SYS	System status	off	The system is booting up
		Green light	Constant light: System is operating normally
		Red light	System error
LoRa	LoRa status	off	Packet forwarding mode inactive
		Green light	Packet forwarding mode active
ETH	Link status (orange light)	off	Not connected/ Disconnect
		Constant light	Connected
		flickering	Data is transmitting
	Data transmission status (green light)	Constant light	100 Mbps mode
		off	Other transmission rate mode

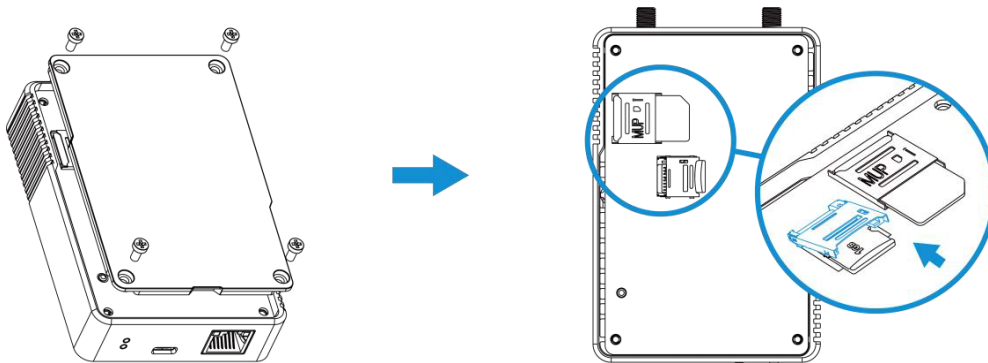
Restoration Button

Function	Description	
	Light Status	Operation Guidance
Reset to the factory settings	Constant light	Press and hold the restoration button for more than 5 seconds
	Green constant light→flickering	Release the button and wait
	Off→constant light	Restore gateway to factory settings

SIM Card & Micro SD Card Installation

松开螺丝取下设备上盖，将 SIM 卡或 Micro SD 卡插入对应卡槽。

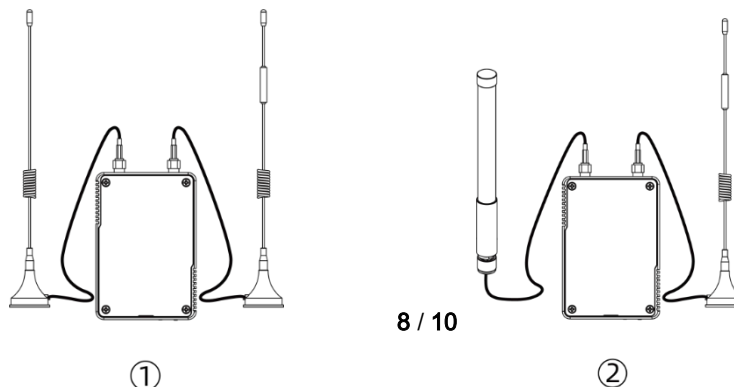
注意：网关不支持热拔插，拔插卡前请将设备断电。



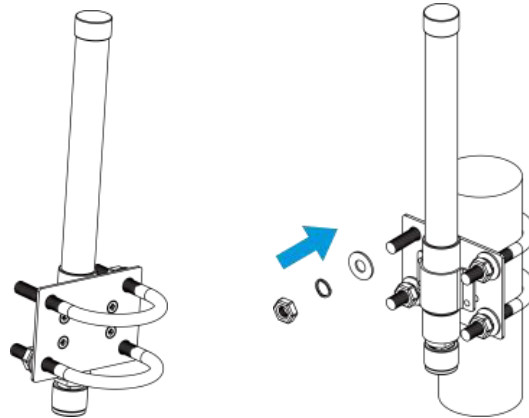
Antenna Installation

将 LoRa®天线或蜂窝天线旋进天线接口。

注意：天线应垂直安装并远离障碍物。



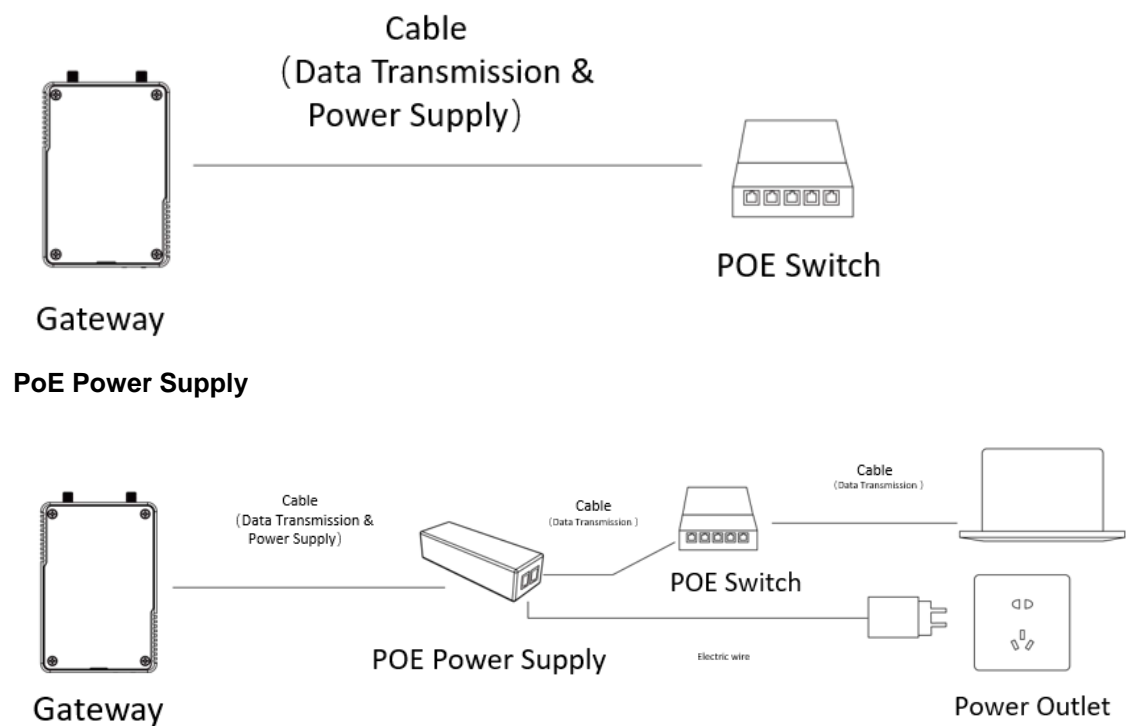
固定玻璃钢天线时，请将天线穿过卡箍并旋紧螺丝固定，再将天线卡箍用 U 形螺栓固定到目标杆上，用螺母、弹垫和平垫锁紧。



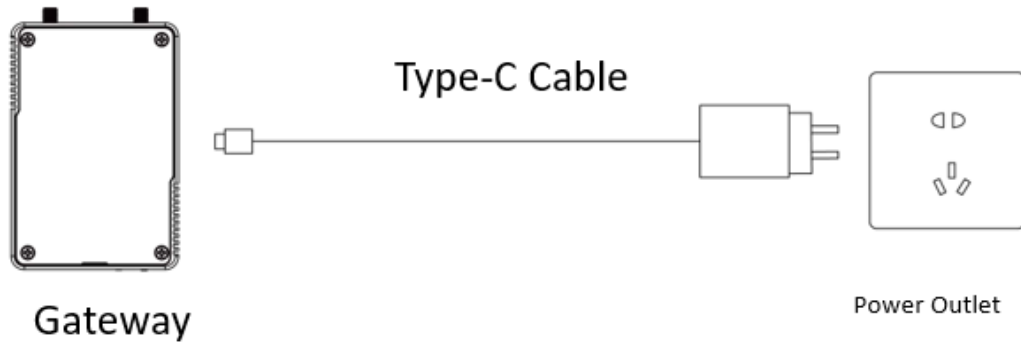
Power Supply

The Gateway 支持 PoE 802.3af 标准，可使用 PoE 交换机或 Type-C 5V 供电，可任选一种方式。若同时接入 Type-C 和 PoE 网口，优先使用 PoE 网口供电。

POE Switch Power Supply



Type-C 接口供电

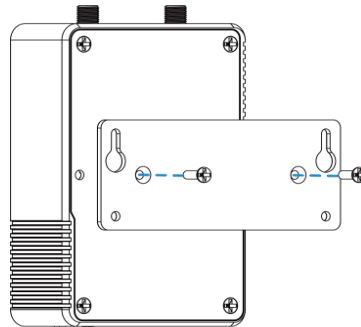


注意：上电时必须先将网关端的网线接好再接 PoE 供电设备，否则可能损坏 PoE 供电设备或网关。

Installation

设备支持桌面放置或壁挂安装。安装前请确保配件已全部安装，产品已完成配置并断电。 1.

使用 2 颗 M3 安装板固定螺丝将壁挂安装板固定到设备上。



2. 在墙上根据壁挂安装板的孔位钻 4 个孔（孔位如下图虚线所示），将膨胀螺栓打入墙内。

3. 先用上方 2 颗 M3 壁挂螺丝将设备固定（注意不要完全锁紧），再锁入剩余 2 颗螺丝，

最后全部锁紧完成安装。

