renatta

Internet of Things Lora Wireless Solutions

- Low-altitude
- Energy
- Mining
- Agriculture

Inovation Quality Service

High Cost-Performance Ratio

Trusted Partner in IoT

renatta

Consider it Done

Renatta is a leading company in the industrial automation sector, dedicated to delivering high-quality products and comprehensive solutions. Renatta is located in the ancient yet modern historical city of Xiamen City. Our offerings include industrial remote controllers, sensors, controllers, and IoT devices. With a strong commitment to independent research and technological innovation, Renatta has amassed 10 years of experience in industrial automation and the Internet of Things, proudly serving over 100 clients.

- Independent research and development innovation
- Scientific management system
- efficient and professional technical services

Leveraging our robust R&D and manufacturing expertise, we consistently deliver tailored products and solutions to our clients,encompassing industrial remote contrbllers, controllers, and IoT products and solutions.

Innovation capability

We are dedicated to fostering continuous innovation, assisting our clients in overcoming challenges, delivering value, and facilitating their sustained growth.

Team work

The company attracts top talent to form highly efficient teams. We collaborate closely with our clients to deliver exceptional value.

Customization

Tailored products and solutions meet the most demanding

+86 172 6820 8207 renattatech@163.com http://www.renatta-tech.com

Continuous Improvement
Customer Focus
Collaboration
Innovation

Innovation ***Integrity***

Collaboration ***Focus***

Focus Achieves Professionalism

Providing Customers with High-Quality

Products and Solutions

Renatta offers products in three categories: industrial automation, IoT, and solutions. We have advanced manufacturing capabilities and hold ISO 9001 certification, along with numerous software copyrights, invention patents, and utility model patents. Our products are extensively utilized in China, Europe, and North America. We address customer challenges and help them achieve value, earning their trust and commendation.

Industry Automation

Specializing in industrial remote control and wireless transmission products and solutions, we provide a range of offerings including industrial remote controllers, remote control panels, wireless I/O devices, sensors, controllers, and more.

IoT

Offers IoT I/O products and networks utilizing wireless communication technologies, including LoRa, LoRaWAN, Zigbee, 4G, and BLE.

Solutions

Delivers integrated solutions for mechanical and electrical control systems, smart districts, smart agriculture, smart street lighting, and smart livestock management.

+86 172 6820 8207

renattatech@163.com

http://www.renatta-tech.com

renatta

Product catalogs

Gateway

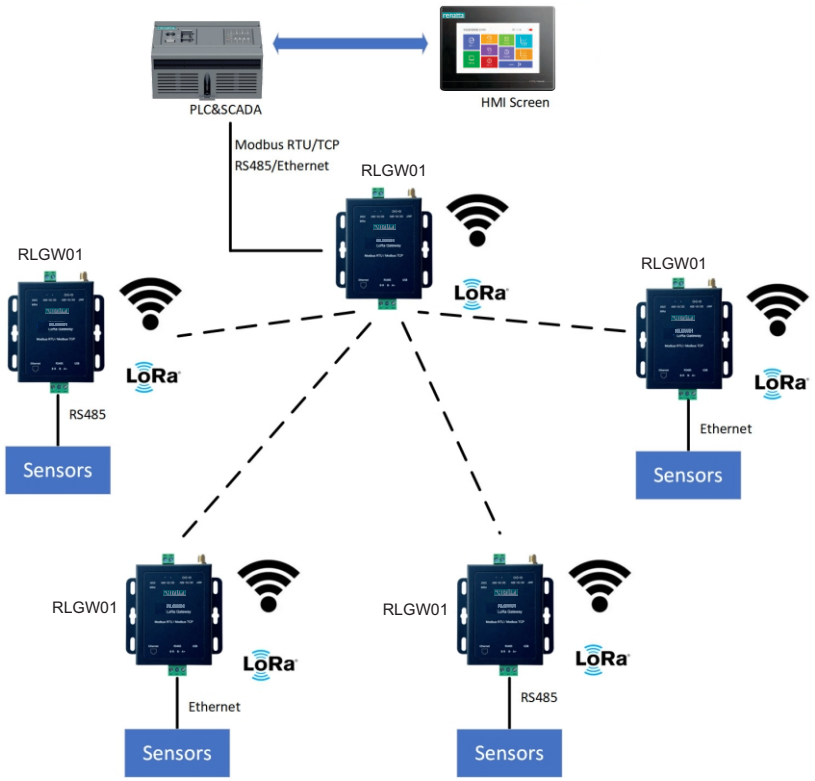
Model	RLGW01	RLGW02
Photo		
Power	10-30VDC	10-30VDC
Wireless	LoRa	LoRa
IO	RS485/TCP iP	RS485
Size(mm)	86X82X25	86X82X25

Nodes

Model	RLPT802	RLPT806	RLPT822	RLPT826
Photo				
Power	Battery	Battery	10-30VDC	10-30VDC
Wireless	LoRaWAN	LoRa	LoRaWAN	LoRa
IO	AI/DI	AI/DI	AI/DI/DO	AI/DI/DO
Size(mm)	164X148X70	164X148X70	86X82X25	86X82X25

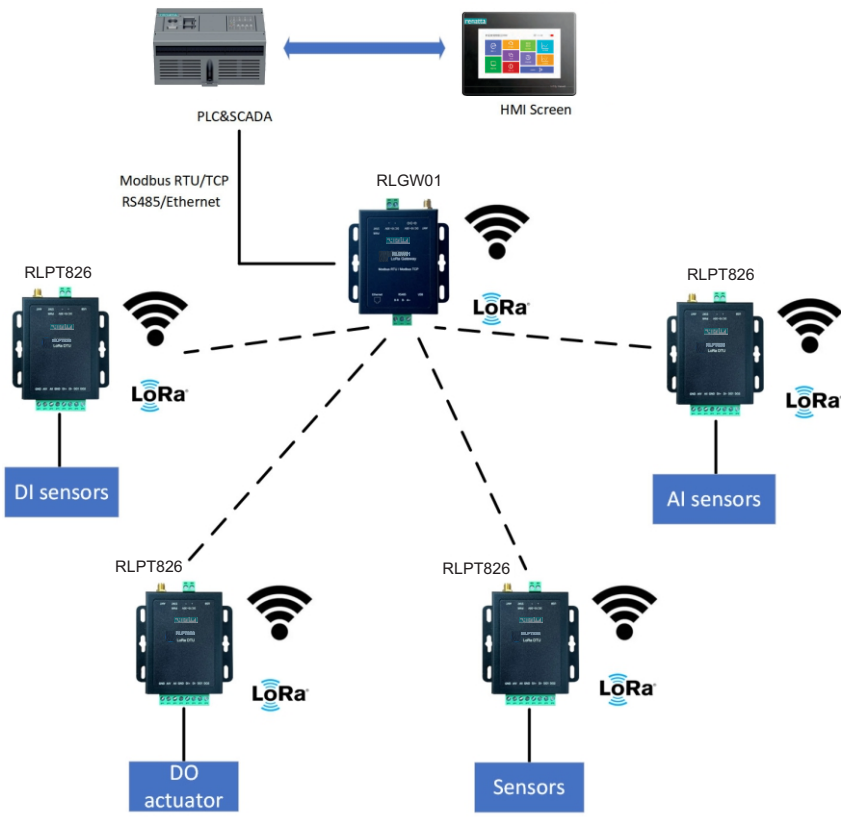
Transparent transmission

The transparent transmission network system composed of RLGW01 can be used in RS485 networks, Modbus TCP networks, or hybrid networks, replacing the original wired network. With simple configuration, a wireless transparent transmission network can be established.



Gateway

The Modbus RTU/TCP network system, centered on the RLGW01 gateway, enables the PLC to access the RLGW01 register table through Modbus. The RLGW01 gateway automatically gathers values from network nodes and updates the register table for the PLC to read. Nodes either send data to RLGW01 at regular intervals or trigger data transmission in response to status change events.



renatta

IIOT Gateway

RLGW01 LoRa Gateway

Product introduction

The RLGW01 LoRa gateway is designed for use in wireless LoRa networks, receiving data from LoRa nodes and outputting it via an RS485 bus. The PLC/SCADA system can access this data through RS485 Modbus RTU. LoRa nodes actively report sensor data to the RLGW01 gateway at regular intervals. The gateway collects and stores this data in a register table, allowing sensor data retrieval by accessing the table. Additionally, the output value of a LoRa node can be controlled by writing to the gateway's register.

The RLGW01 LoRa gateway can also operate in transparent mode, connecting various serial devices or Modbus TCP devices. It replaces the original wired connections in the network with wireless connections without altering the original network configuration. Within the same network, the RLGW01 can connect to both RS485 serial devices and Modbus TCP devices, greatly facilitating user network deployment and connectivity.

RLGW01 LoRa Gateway

Product Specification

- Power supply :10~30VDC
- Configurable channels
- USB-based parameter configuration
- USB-enabled MCU program upgrades
- Long-range and low power consumption
- Supports Modbus RTU/TCP protocol
- Support transparent mode
- AES128 encryption

Industrial Automation,Power Energy,Smart City, Smart Block,Smart Community, Smart Factory

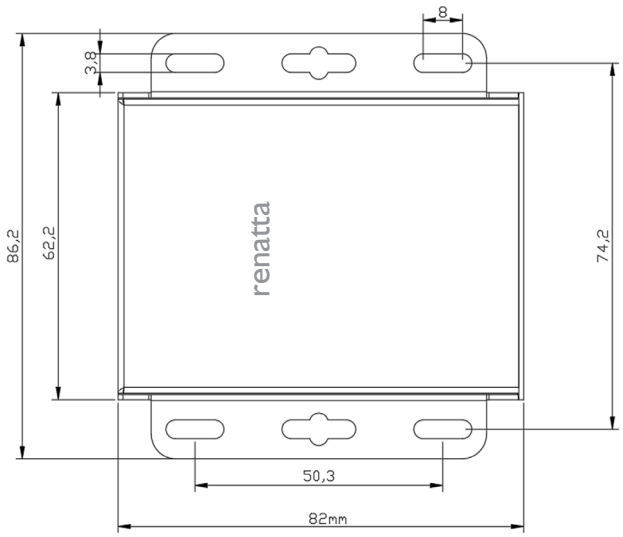
http://www.renatta-tech.com
TEL: +86 172 6820 8207

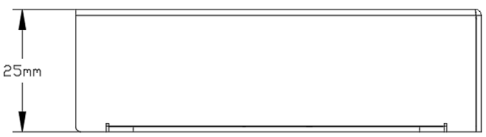
RLGW01 LoRa Gateway

Product Parameters

Name	Content	Remark
Frequency bands	433/470/868/915	MHZ
Antenna	External rod antenna	Optional FRP antenna
Transmit power	20dbm	
Power supply	10-30VDC	
Power adapter	Input 100~240VAC 50/60HZ	
	Output 12VDC/1A	
Maximum current	<300mA	AVG. 120mA@12VDC
		AVG. 60mA@24VDC
Operating temperature	(-40～+85)℃	
Transmission distance	1-10KM	Sunny weather, visual barrier-free up to 10KM
Protection	IP65	
Weight	Approx. 200g	Power adapter not included
Housing material	Galvanized steel	
Size	86X82X25	mm

Product Size





http://www.renatta-tech.com TEL: +86 172 6820 8207

renatta

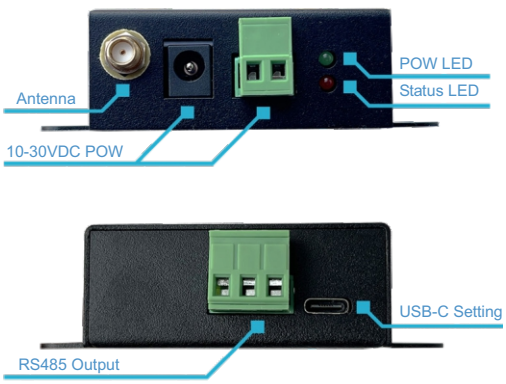
IIOT Gateway

RLGW02 LoRa Gateway

Product introduction

The RLGW02 LoRa gateway is designed for use in wireless LoRa networks, receiving data from LoRa nodes and outputting it via an RS485 bus. The PLC/SCADA system can access this data through RS485 Modbus RTU. LoRa nodes actively report sensor data to the RLGW02 gateway at regular intervals. The gateway collects and stores this data in a register table, allowing sensor data retrieval by accessing the table. Additionally, the output value of a LoRa node can be controlled by writing to the gateway's register.

The RLGW02 LoRa gateway can also operate in transparent mode, connecting various serial devices . It replaces the original wired connections in the network with wireless connections without altering the original network configuration.



RLGW02 LoRa Gateway

Product Specification

- Power supply :10~30VDC
- Configurable channels
- USB-based parameter configuration
- USB-enabled MCU program upgrades
- Long-range and low power consumption
- Supports Modbus RTU/TCP protocol
- Support transparent mode
- AES128 encryption

Industrial Automation,Power Energy,Smart City,
Smart Block,Smart Community, Smart Factory

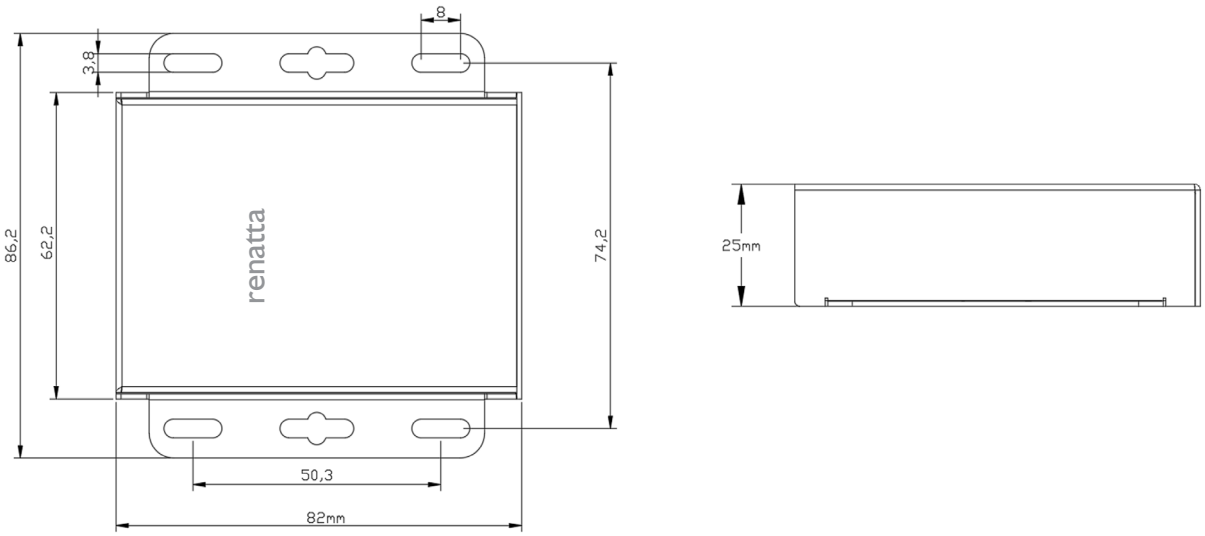
http://www.renatta-tech.com

TEL: +86 172 6820 8207

Product Parameters

Name	Content	Remark
Frequency bands	433/470/868/915	MHZ
Antenna	External rod antenna	Optional FRP antenna
Transmit power	20dbm	
Power supply	10-30VDC	
Power adapter	Input 100~240VAC 50/60HZ	
	Output 12VDC/1A	
Maximum current	<300mA	AVG. 120mA@12VDC
		AVG. 60mA@24VDC
Operating temperature	(-40～+85)℃	
Transmission distance	1-10KM	Sunny weather, visual barrier-free up to 10KM
Protection	IP65	
Weight	Approx. 200g	Power adapter not included
Housing material	Galvanized steel	
Size	86X82X25	mm

Product Size



renatta

IIOT LoRaWAN DTU

RLPT802 Battery Powered

Product introduction

RLPT802 LoRaWAN® wireless DTU monitors AI signals in field. It reports signal value to cloud platform at a configurable time interval and sends alarm message to platform when signal passes beyond alarm threshold or there is a variation of signal. The data is sent with LoRaWAN® communication technology which features long-distance communication and low power consumption.

The device can be configured with PC setting tool via on board TTY serial port. User can configure alarm threshold, network access method OTAA/ABP, network access parameters and etc.

With the corresponding gateway, the device can be connected to all kinds of network servers and IOT platforms such as TTN, AWS and etc.

The battery-powered wireless DTU features a low-power design and has the characteristics of long communication distance, long battery life, high measuring accuracy, no wiring, and is widely used on AI signal monitor occasions.

RLPT802 LoRaWAN

Product Specification

- Lithium thionyl chloride battery(19AH) powered
- LoRaWAN compatible
- Class A/Class C device supported
- Heartbeat report and event drive report
- Supports configuration from cloud platform
- Supports configuration by serial port
- Supports integration with TTN platform

Industrial Automation,Power Energy,Smart City,
Smart Block,Smart Community, Smart Factory

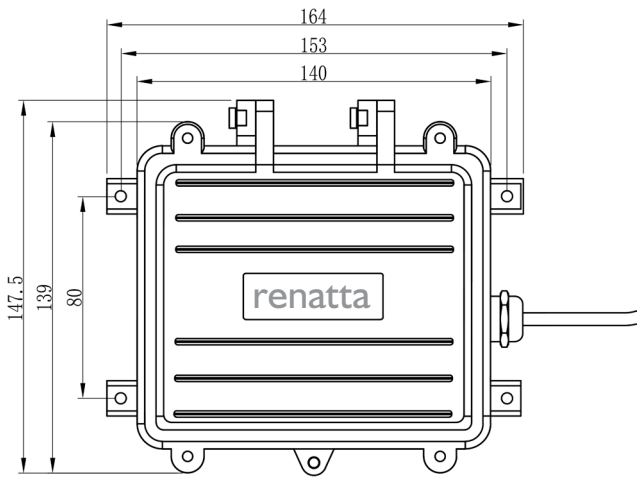
http://www.renatta-tech.com

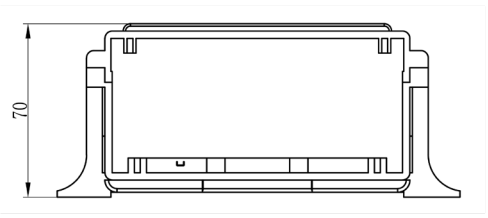
TEL: +86 172 6820 8207

Product Parameters

Name	Parameters	Remarks
Frequency	EU868/US915/CN779/EU433/AU915/CN470/AS923/KR920/IN865	
Access Network Mode	OTAA/ABP	
Antenna	External antenna	
Supported Platform	TTN	
TX Power	20dbm	
Battery	ER34615	19000mAh(Non-rechargeable)
Battery lifespan	3~5 years	Related with sample period and reporting period
Max current	＜200mA	
Protection	IP66	
Sampling time	Default 5min	Configurable
Working temperature	(-20～+85)℃	
Size	164X148X70	mm

Product Size





renatta

IIOT LoRa DTU

RLPT806 Battery Powered

Product introduction

The RLPT806 LoRa DTUs are designed to monitor AI/DI signals efficiently. These DTUs periodically transmit AI/DI data to the gateway according to a set reporting interval. Additionally, they send alerts to the gateway when AI signals exceed the upper alarm limit, fall below the lower alarm limit, or change beyond a specified threshold. Utilizing LoRa wireless communication technology, the DTUs offer long-range and low-power data transmission. The data is sent to a wireless gateway equipped with an RS485 Modbus RTU output. The DTUs are powered by ER34615 lithium thionyl chloride batteries, ensuring reliable operation.

RLPT806 LoRa DTU

Product Specification

- Lithium thionyl chloride battery(19AH) powered
- LoRa compatible
- Heartbeat report and event driven report
- Supports configuration from cloud platform
- Supports configuration by serial port

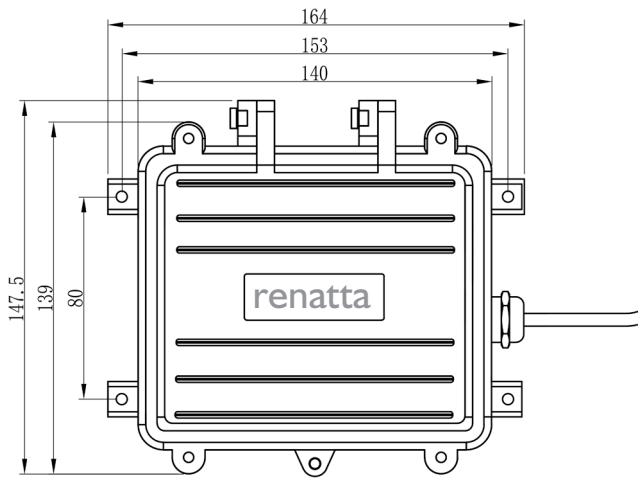
Industrial Automation,Power Energy,Smart City,
Smart Block,Smart Community, Smart Factory

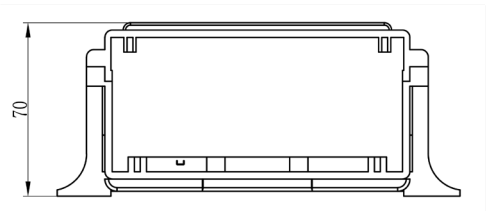
RLPT806 LoRa DTU

Product Parameters

Name	Parameters	Remarks
Frequency	915/868/433/470MHZ	
Antenna	External antenna	
TX Power	20dbm	
Battery	ER34615	19000mAh(Non-rechargeable)
Battery lifespan	3~5 years	Related with sample period and reporting period
Max current	＜200mA	
Protection	IP66	
Sampling time	Default 5min	Configurable
Working temperature	(-20～+85)℃	
Size	164X148X70	mm

Product Size





renatta

IIOT LoRaWAN DTU

RLPT822 AI/DI/DO

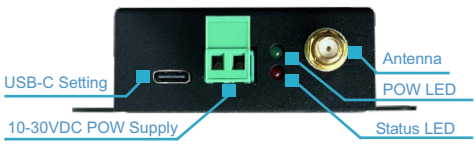
Product introduction

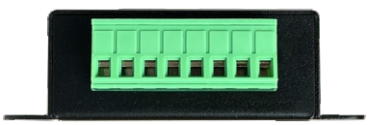
The RLPT822 LoRaWAN DTUs are optimized for the e翩 cient monitoring of AI/DI signals and outputting DO signal. Each DTU is equipped with one AI input (for current or voltage), one DI input, and two DO outputs. These devices periodically transmit AI/DI data to the gateway according to a predefined reporting interval. Additionally, they send alerts when AI signals exceed upper alarm limits, fall below lower limits, or change beyond a specified threshold. The data is sent with LoRaWAN® communication technology which features long-distance

The device can be configured with PC setting tool via USB type C port. User can configure alarm threshold, network access method OTAA/ABP, network access parameters and etc.

With the corresponding gateway, the device can be connected to all kinds of network servers and IOT platforms such as TTN, AWS and etc.

The DTU features a low-power design and has the characteristics of long communication distance, long battery life, high measuring accuracy, no wiring, and is widely used on IO signal M&C occasions.





RLPT822 LoRaWAN

Product Specification

- 10-30VDC powered
- LoRaWAN compatible
- Class A/Class C device supported
- Heartbeat report and event driven report
- Support AI/DI/DO signal
- Supports configuration from cloud platform
- Supports configuration by serial port
- Supports integration with TTN platform

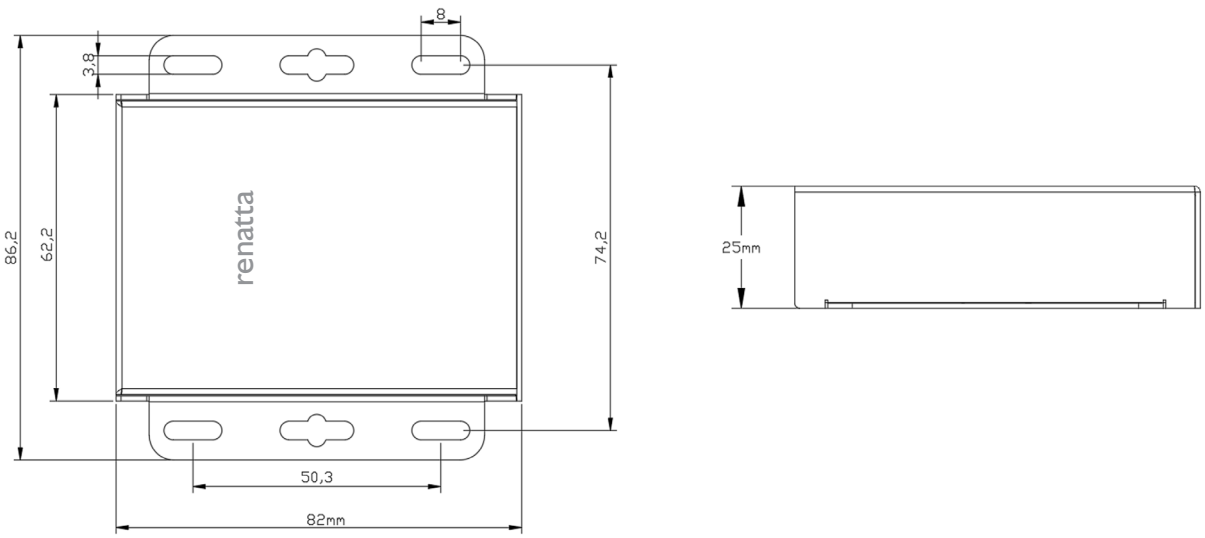
Industrial Automation,Power Energy,Smart City,
Smart Block,Smart Community, Smart Factory

RLPT822 LoRaWAN DTU

Product Parameters

Name	Content	Remark
Band plans	EU868/US915/CN779/EU433/AU915/CN 470/AS923/KR920/IN865	
Access Network Mode	OTAA/ABP	
Antenna	External rod antenna	Magnetic mount antenna optional
Transmit power	20dbm	
Transmission distance	1-10KM	Sunny weather, visual barrier-free up to 10KM
Power supply	10-30VDC	
Maximum current	<200mA	
Configuration port	USB type C	
Operating temperature	(-40 ~ +85)℃	
Protection	IP65	
Weight	Approx. 200g	
Housing material	Galvanized steel	
AI signal	AII:4-20mA	AII and AIV signals can only be connected one at a time.
	AIV:0-5VDC	
DI signal	12-24VDC	The DI signal is an opto-isolated input.
DO signal	Power positive rail	The DO output is a high-side power output
Size	86X82X25	mm

Product Size



renatta

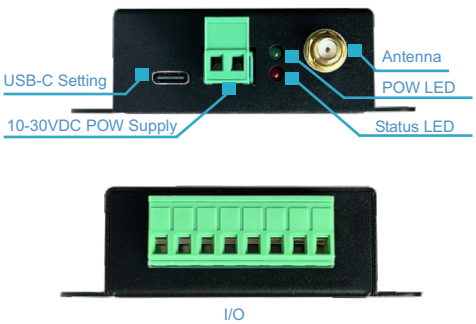
IIOT LoRa DTU

RLPT826 AI/DI/DO

Product introduction

The RLPT826 LoRa DTUs are optimized for the e翱 cient monitoring of AI/DI signals and outputting DO signal. Each DTU is equipped with one AI input (for current or voltage), one DI input, and two DO outputs. These devices periodically transmit AI/DI data to the gateway according to a predefined reporting interval. Additionally, they send alerts when AI signals exceed upper alarm limits, fall below lower limits, or change beyond a specified threshold. Users can set/reset the DO output via the gateway's Modbus register.

Leveraging LoRa wireless communication technology, the DTUs provide long-range, low-power data transmission. Data is sent to a wireless gateway with an RS485 Modbus RTU output. The DTUs operate on a 10-30VDC power supply. Additionally, the AI/DI/DO channels can be customized to meet specific requirements.



RLPT826 LoRa DTU

Product Specification

- 10-30VDC power
- LoRa compatible
- Heartbeat report and event driven report
- Support AI/DI/DO signals
- Support USB configuration
- Low power consumption, long distance

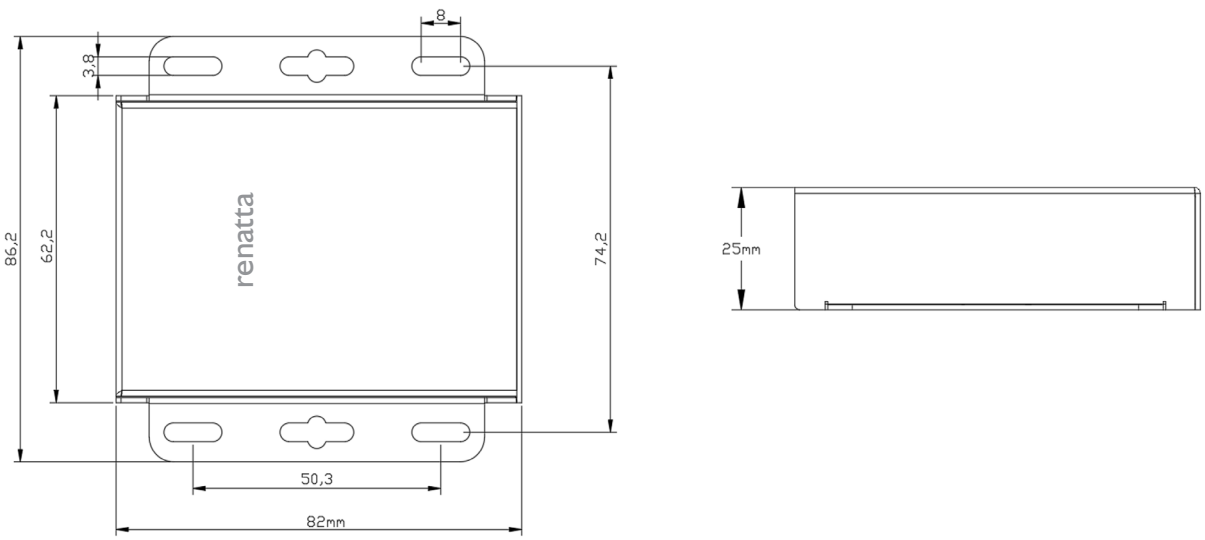
Industrial Automation,Power Energy,Smart City,
Smart Block,Smart Community, Smart Factory

RLPT826 LoRa DTU

Product Parameters

Name	Content	Remark
Frequency bands	433/470/868/915	MHZ
Antenna	External rod antenna	Magnetic mount antenna optional
Transmit power	20dbm	
Transmission distance	1-10KM	Sunny weather, visual barrier-free up to 10KM
Power supply	10-30VDC	
Maximum current	<200mA	
Configuration port	USB type C	
Operating temperature	(-40 ~ +85)℃	
Protection	IP65	
Weight	Approx. 200g	
Housing material	Galvanized steel	
AI signal	AII:4-20mA	AII and AIV signals can only be connected one at a time.
	AIV:0-5VDC	
DI signal	12-24VDC	The DI signal is an opto-isolated input.
DO signal	Power positive rail	The DO output is a high-side power output
Size	86X82X25	mm

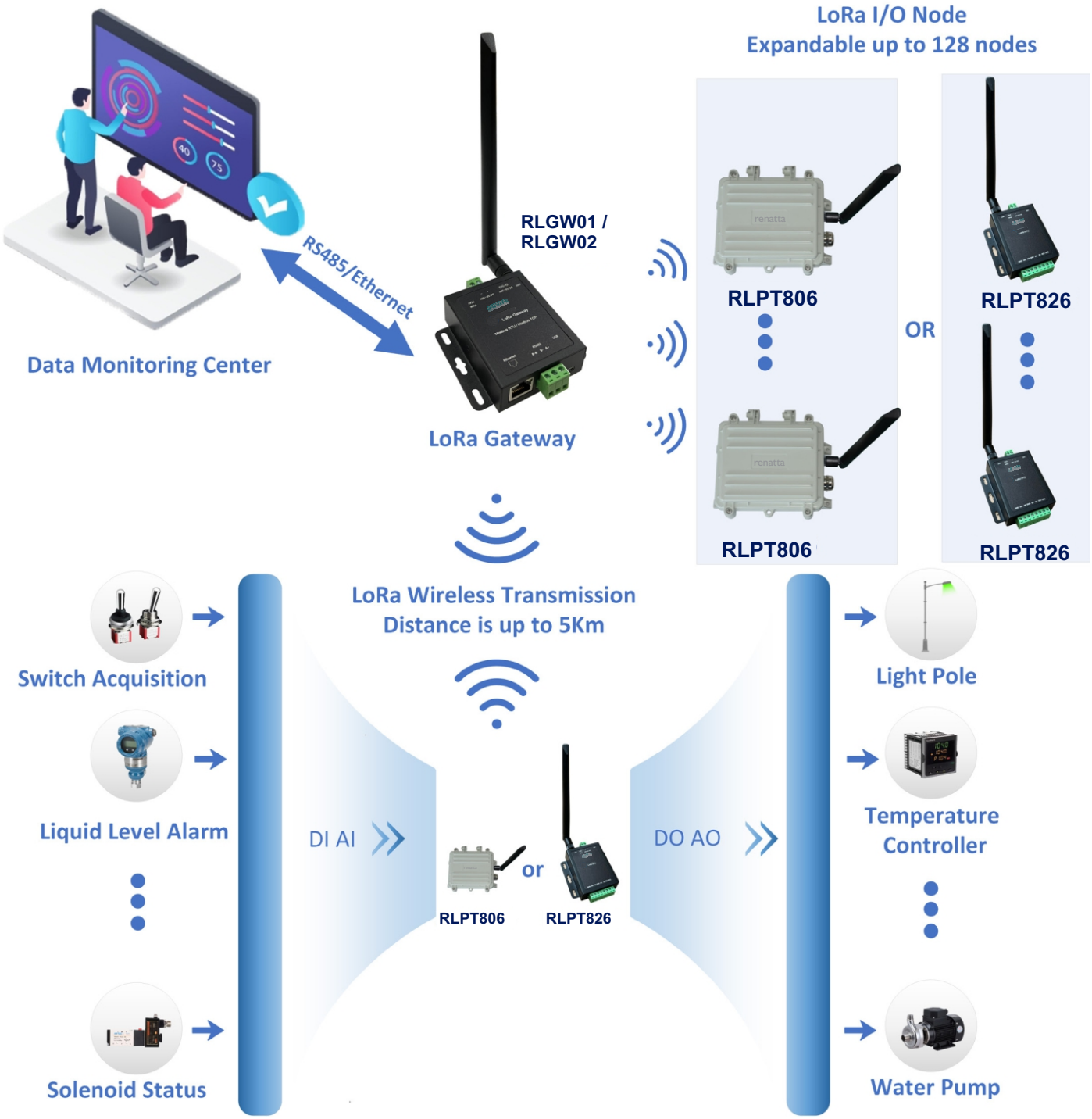
Product Size



renatta

Typical scenario applications

Modbus RTU/TCP Gateway Network

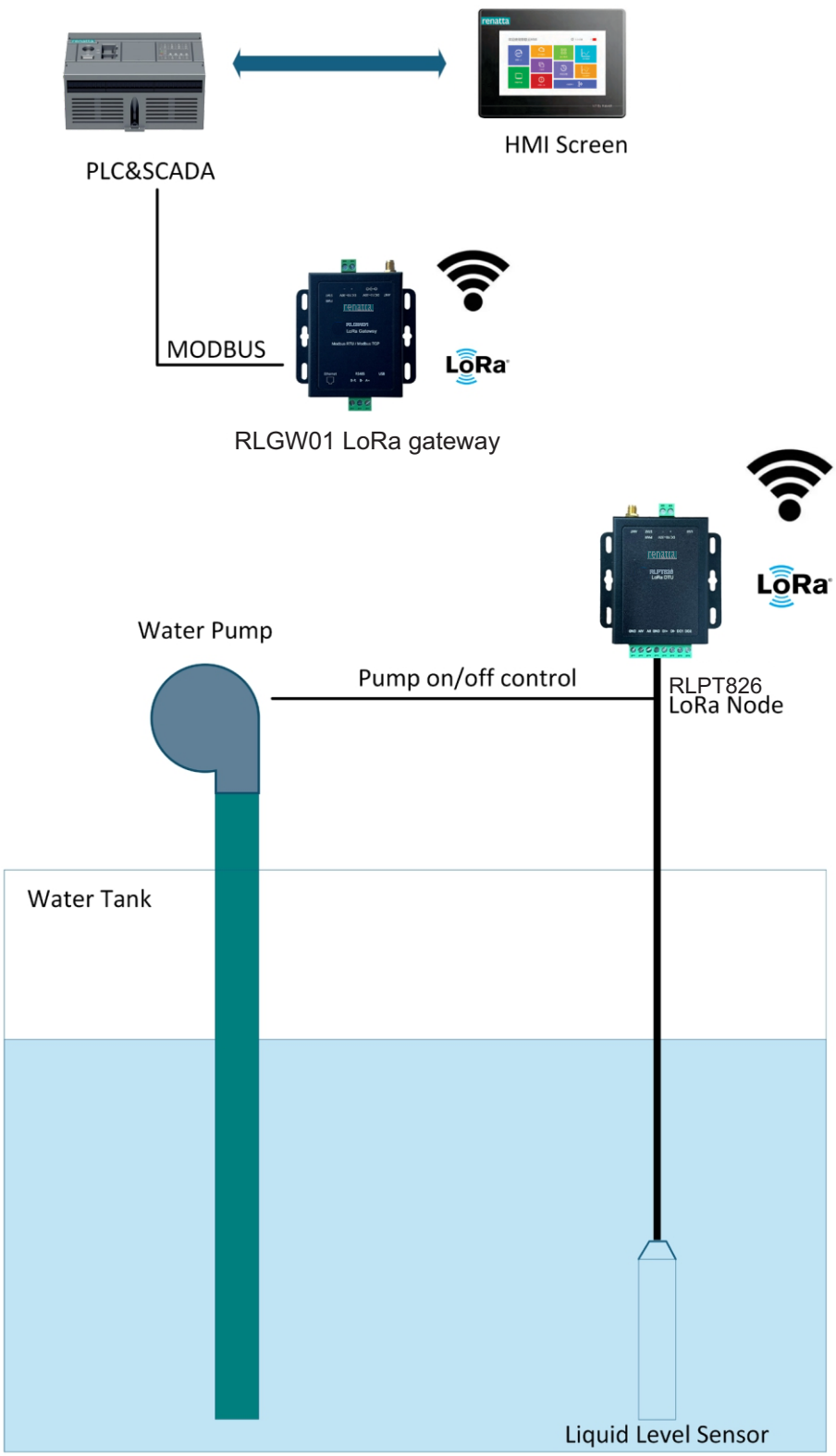


renatta

Typical scenario applications

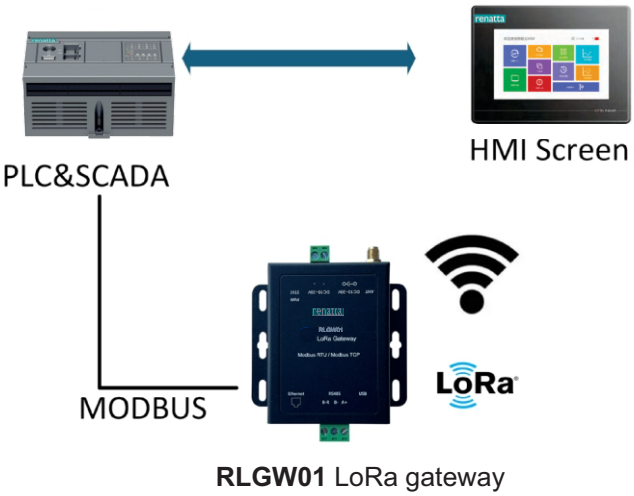
Modbus RTU/TCP Wireless Data Transparent Transmission Network

Typical scenario applications

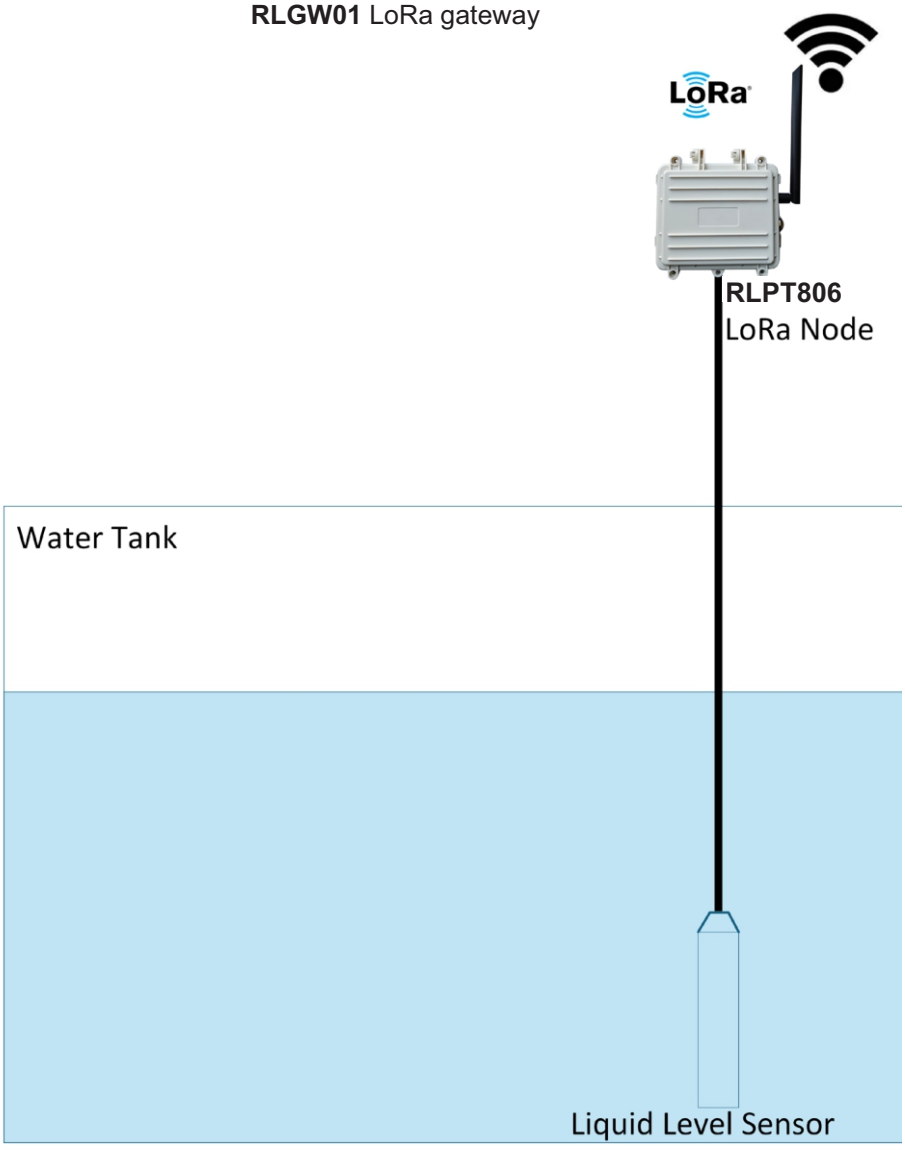


Wireless Water Tank Level Control Solution
With RLPT826

Typical scenario applications



RLGW01 LoRa gateway



Wireless Water Tank Level Control Solution
With RLPT806

Dedicated to becoming a globally recognized automation brand.

renatta

TEL: +86 172 6820 8207

http://www.renatta-tech.com

No. 5-101, Dongkeng Zhongli, Fengxiang Street,
Xiangan District, Xiamen, Fujian, China