



IoT Gateway & HMI Solutions

Connect.Convert.Monitor.

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## Specifications

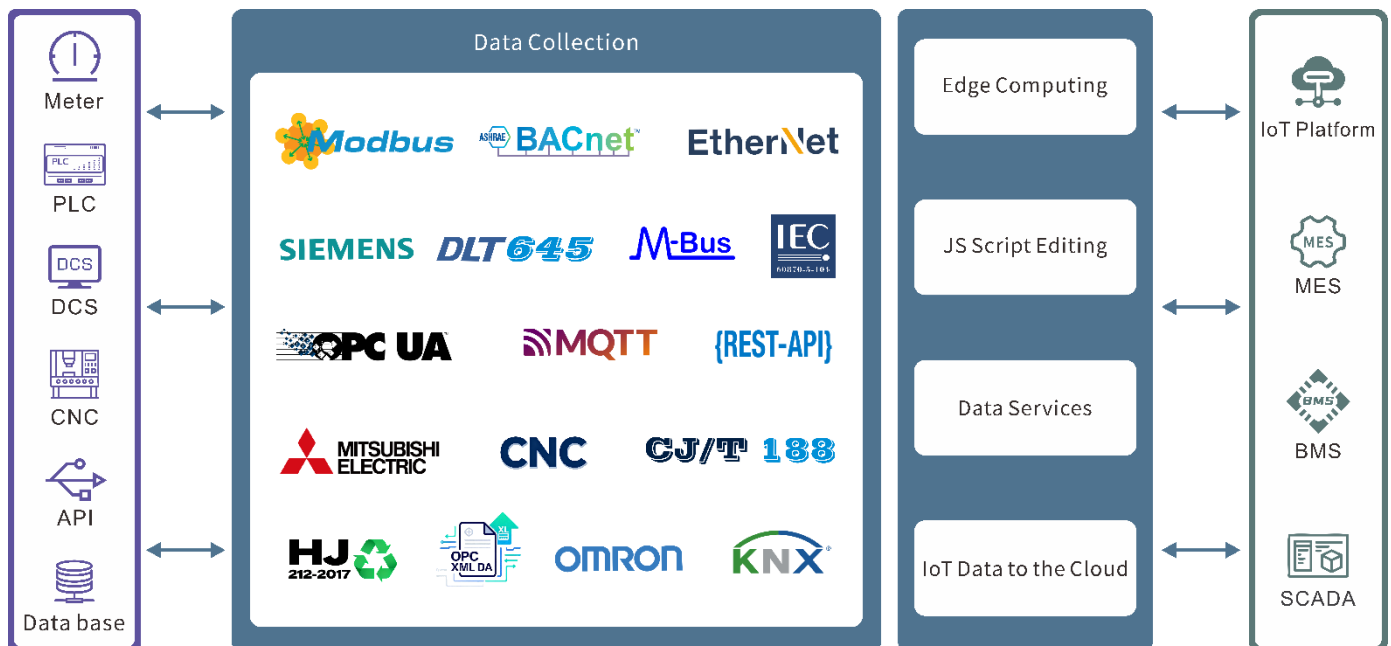
- Fully Isolated RS485 Interface
- 100M/10M Ethernet Port
- Multi-protocol Support: Modbus, BACnet, OPC UA, IEC104, DLT/645, S7, and more.
- Supports MQTT Cloud Communication
- Web Service for Online Monitoring
- Alarm Setting and Push Notifications
- Edge Computing Support
- JavaScript Scripting for Logic Control
- Remote Monitoring and Firmware Upgrades
- Edge Storage and Web SCADA Configuration
- All-in-one: Covers the functions of BACnet and Modbus gateways.



## Product Features

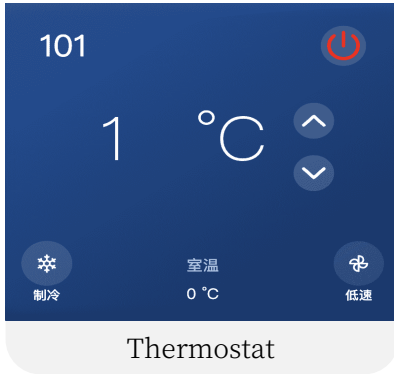
The IoT Gateway is an industrial data acquisition device for IIoT, acting as a bridge between field devices and cloud platforms, SCADA, and MES systems. It features built-in standard drivers and supports proprietary protocol integration, exposing data via Modbus, BACnet, and OPC UA. Data is transmitted to the cloud via MQTT and HTTP, providing a unified interface, ideal for digital factories, smart buildings, and energy management. It also integrates a time-series database and Web SCADA, enabling edge data storage and monitoring.

## Application diagram

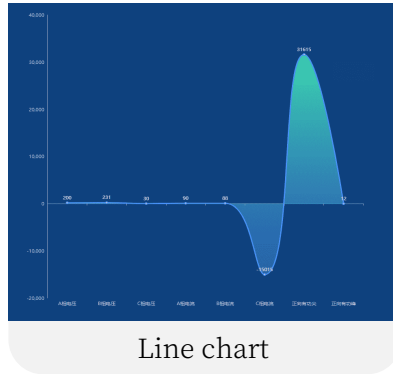


## Edge storage & Web SCADA

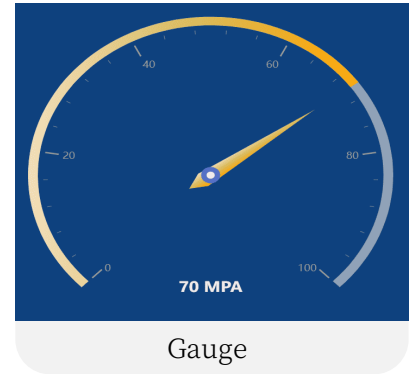
- Up to 128GB edge time-series data storage
- Aggregated query interface
- Built-in H5 web configuration



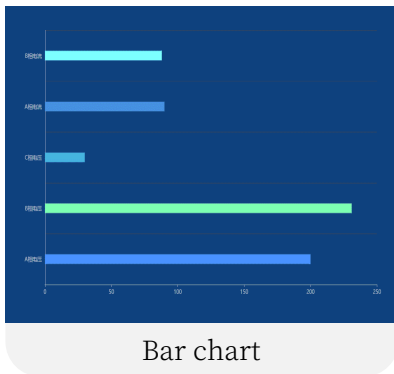
Thermostat



Line chart



Gauge



Bar chart

ID	描述	时间	状态	值
Device1.lag0001		2025-03-04 09:03:40	Good	0.0000
Device1.lag0001		2025-03-04 09:03:40	Good	0.0000
Device1.lag0001		2025-03-04 09:03:40	Good	0.0000
Device1.lag0001		2025-03-04 09:03:40	Good	0.0000
Device1.lag0001		2025-03-04 09:03:40	Good	0.0000

Data table

冬夏模式: 夏

空调箱启停:  OFF

风机启停:  OFF

自动控制开:  OFF

Button group

## Value-added cloud services **thingslot**



Gateway Management



Cloud Webscada



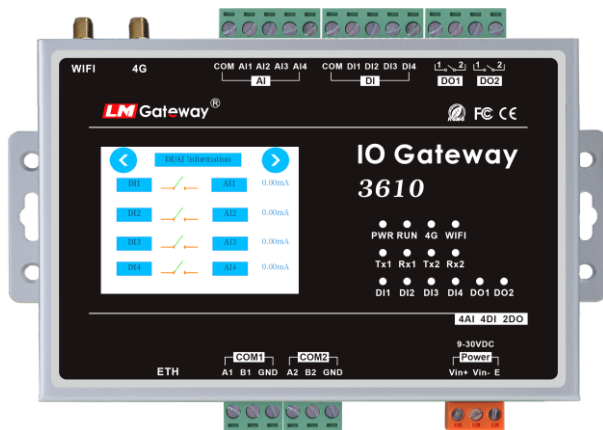
Data APIs



APP



Scan to log in



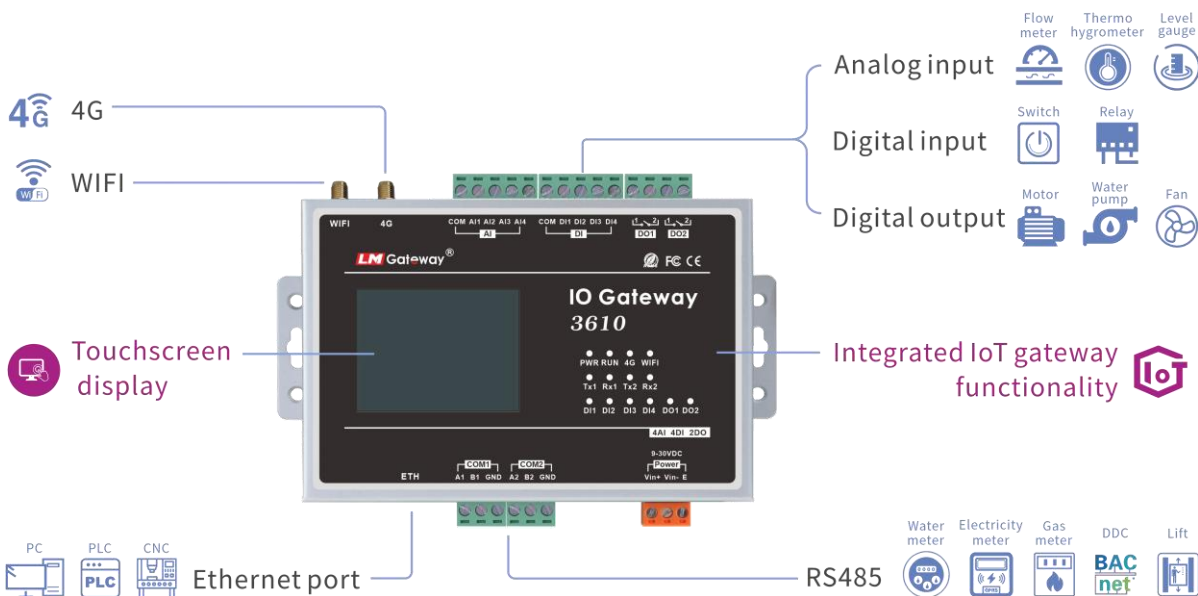
## Specifications

- 3-core Cortex-A7 + Cortex-M0, up to 1.5GHz max frequency
- 2 x RS485
- 1 x 10/100 Mbit Ethernet Interfaces
- 4AI+4DI+2DO
- Multi-protocol Support: Modbus, BACnet, OPC UA, IEC104, DLT/645, S7, and more
- Supports MQTT Cloud Communication
- Web Service for Online Monitoring
- Alarm Setting and Push Notifications
- Edge Computing Support
- JavaScript Scripting for Logic Control
- Remote Monitoring and Firmware Upgrades
- Supports counting
- Operating Temp: -40 to 85°C
- Supports 4G and WiFi
- Supports up to 1024 Data Points



## Product Specifications

Connection	Wired/WIFI/4G
DI	Opto-isolated digital input, PNP type, 12-30V = logic "1"
DO	2 relay outputs, normally open, 7A (AC 250V), 5A (DC 30V)
AI	0-20 mA, 4-20 mA, 0-10 VDC, 10-bit resolution
Serial Ports	2 fully isolated RS485 ports
Ethernet	1 × 10/100 Mbps port
Mounting	DIN rail mounting
Display	No display / 2.4-inch touchscreen display



# IoT Gateway Catalog

<b>IoTmini Gateway</b>	<b>101-IoTmini</b>	1xLAN 1xRS485	Supports up to 256 data points Optional built-in WiFi version	
	<b>103-IoTmini</b>	1xLAN 1xRS485	Built-in 4G wireless Supports up to 256 data points	
	<b>201-IoTmini</b>	1xLAN 2xRS485	Supports up to 256 data points Optional built-in WiFi version	
	<b>203-IoTmini</b>	1xLAN 2xRS485	Built-in 4G wireless Supports up to 256 data points	
<b>IoTlite Gateway</b>	<b>101-IoTlite</b>	1xLAN 1xRS485	Supports up to 1024 data points Optional built-in WiFi version	
	<b>103-IoTlite</b>	1xLAN 1xRS485	Built-in 4G wireless Supports up to 1024 data points	
	<b>201-IoTlite</b>	1xLAN 2xRS485	Supports up to 1024 data points Optional built-in WiFi version	
	<b>203-IoTlite</b>	1xLAN 2xRS485	Built-in 4G wireless Supports up to 1024 data points	
	<b>3510-IoTlite</b>	1xLAN 2xRS485 <b>4AI+4DI+2DO</b>	<b>Expandable I/O</b> ; supports 4G and Wi-Fi Supports up to 1,024 data points	
	<b>3610-IoTlite</b>	1xLAN 2xRS485 <b>4AI+4DI+2DO</b>	<b>Expandable I/O</b> ; supports 4G and Wi-Fi Supports up to 1,024 data points 2.4-inch touchscreen	
	<b>331-IoTlite</b>	2xLAN 2xRS485 <b>1xMbus</b>	Supports up to 128 slave devices	
<b>IoT Gateway</b>	<b>402-IoT</b>	2xLAN 4xRS485	Edge storage (8G) WebSCADA	Supports up to 1024 data points
	<b>404-IoT</b>	2xLAN 4xRS485	Edge storage (8G) WebSCADA	Supports up to 2048 data points Optional built-in WiFi version
	<b>403L-IoT</b>	2xLAN 4xRS485	Edge storage (8G) WebSCADA	Built-in 4G wireless Supports up to 2048 data points
	<b>403-IoT</b>	2xLAN 4xRS485	Edge storage (8G) WebSCADA	Built-in 4G wireless Supports up to 5000 data points
	<b>403H-IoT</b>	2xLAN 4xRS485	Edge storage (128G) WebSCADA	Built-in 4G wireless Supports up to 10000 data points
	<b>414-IoT</b>	2xLAN 4xRS485	Edge storage (8G) WebSCADA	Supports up to 5000 data points Optional built-in WiFi version
	<b>414H-IoT</b>	2xLAN 4xRS485	Edge storage (128G) WebSCADA	Supports up to 10000 data points
	<b>503-IoT</b>	2xLAN 4xRS485	Edge storage (8G) WebSCADA	Built-in 5G wireless Supports up to 5000 data points
<b>Software Gateway</b>	<b>IoServer</b>	Communicate by the computer's serial port, ethernet port, according to the project needs to provide data point authorization		



## Features

- 4.3", 7", 10.1", 12.1", and 15.6" capacitive touchscreens
- TFT Color Display with LED Backlight
- Capacitive Multi-touch
- 64-bit CPU, 2.0 GHz
- 2 x 10/100 Mbit Ethernet Interfaces
- 2 x RS485
- Multi-protocol Support: Modbus, BACnet, OPC UA, IEC104, DLT/645, S7, and more
- Supports MQTT Cloud Communication
- Web Service for Online Monitoring
- Alarm Setting and Push Notifications
- Edge Computing Support
- JavaScript Scripting for Logic Control
- Remote Monitoring and Firmware Upgrades
- Edge Storage and Web SCADA Configuration
- Supports 2048 Data Points for Read/Write

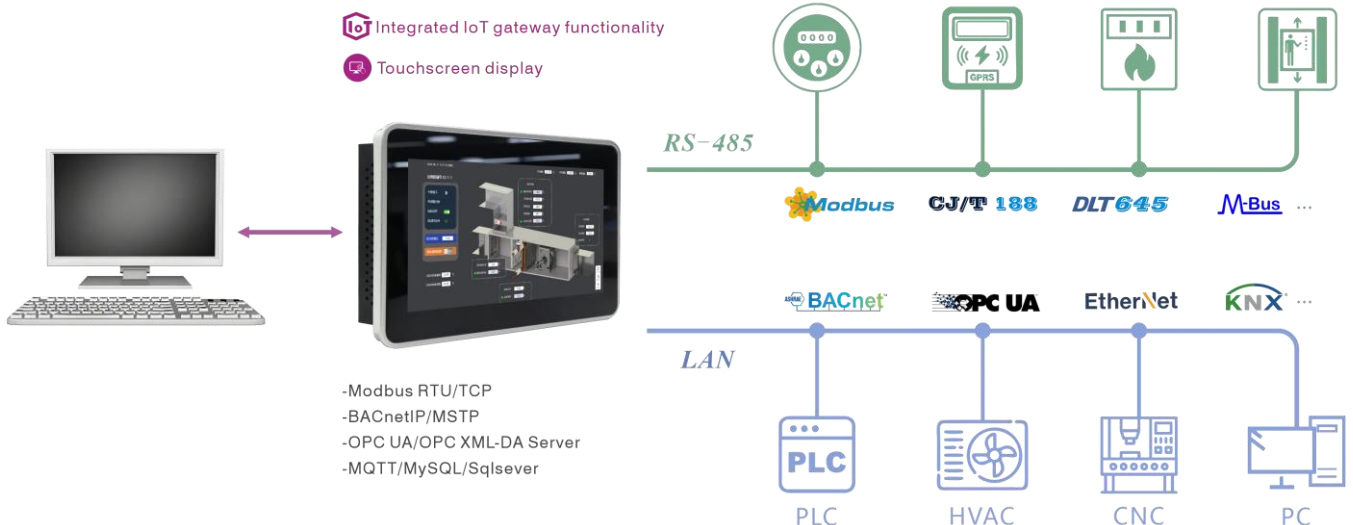


## Product Features

The HMI Gateway is a touchscreen-integrated gateway featuring a web-based HMI with a capacitive touchscreen and TFT color display. It includes built-in data acquisition drivers (including private protocols) and provides data as Modbus, BACnet, and OPC UA services. Utilizing MQTT and HTTP for cloud communication, it offers a unified data interface, making it ideal for digital factories, smart buildings, and energy management.

## Application diagram

Seamless integration with SCADA/MES systems and any open cloud platform.





## Specifications

- Fully Isolated RS485 Interface (RS232 Multiplexed)
- 100M/10M Ethernet Port
- Modbus to BACnet: Supports nine BACnet object types: AI, AO, AV, BI, BO, BV, MSI, MSO, and MSV
- BACnet Services Includes bad value retention or zero-setting capability.
- BACnet Services Supports COV (Change of Value) reporting
- Web Service for Online Monitoring
- Supports up to 5,000 Data Points



## Features of Modbus to BACnet Gateway (Single Protocol)

**Protocol Conversion:** The gateway converts data from Modbus protocol to BACnet protocol, enabling management and monitoring by BACnet-supported systems. It translates Modbus RTU or Modbus TCP requests and responses into BACnet objects and facilitates corresponding data transfer.

**Device Interconnectivity:** Seamlessly integrates Modbus devices (such as PLCs, energy meters, sensors, etc.) into BACnet networks, allowing unified monitoring and management.

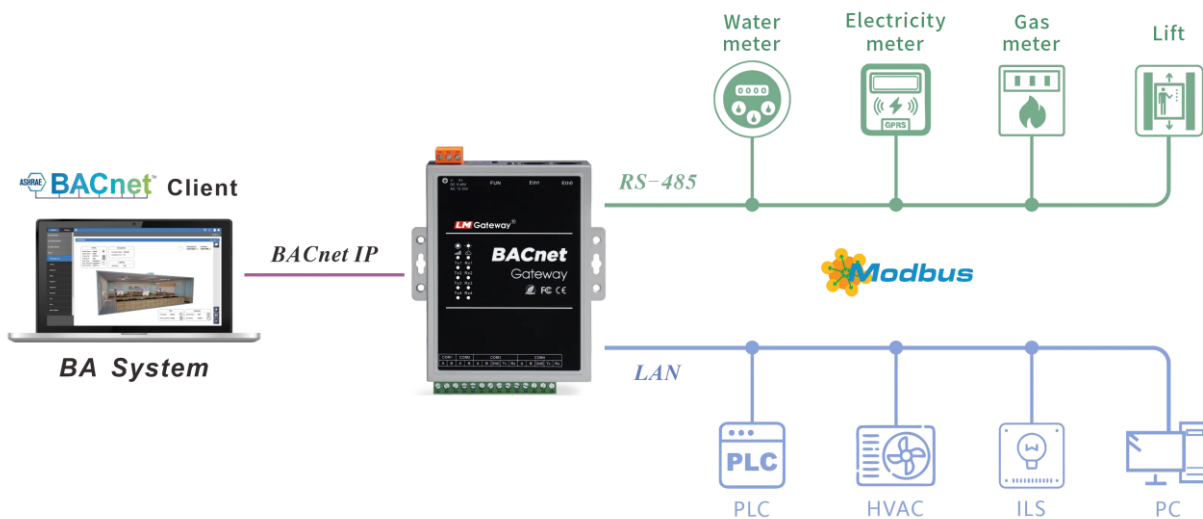
**Data Mapping:** Based on user-configured parameters, the gateway maps Modbus data to corresponding BACnet objects. This ensures that the status and data of Modbus devices are accurately represented within the BACnet network.

**Modbus Data Acquisition:** Supports four Modbus data areas: 0X, 1X, 3X, and 4X. Compatible with multiple data types including bool, bit, bits, int, and float.

**BACnet Services:** Supports nine BACnet object types: AI, AO, AV, BI, BO, BV, MSI, MSO, and MSV. Features bad value retention or zero-setting capability and supports COV (Change of Value).

**Real-time Data Acquisition & Monitoring:** The gateway enables real-time data exchange, allowing BACnet systems to continuously acquire data from Modbus devices for real-time monitoring, alarm triggering, and control.

**Web-based Configuration:** An intuitive web configuration and monitoring interface





### Features:

- Quad-core A9, 1.4 GHz
- Fully isolated RS485 (RS232 multiplexed) interface
- 10/100 Mbps Ethernet interface
- Supports concurrent multi-master Modbus routing
- Supports Modbus RTU data acquisition and Modbus TCP services
- supports last-value hold on communication failure
- Web-based online monitoring
- Firmware upgrade supported
- Operating temperature: -40 to 85°C
- Supports up to 5,000 data points



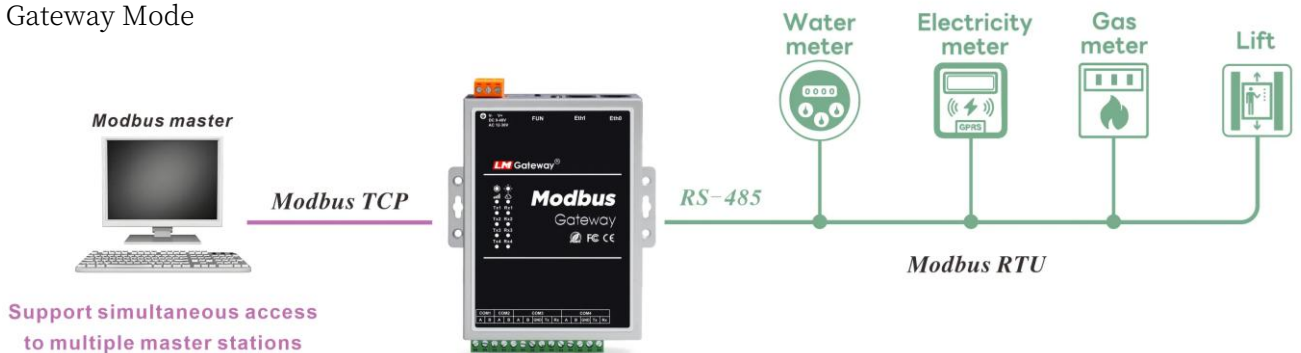
### Product Overview

The Modbus Gateway can function as a data acquisition gateway, actively collecting data from field devices via the Modbus RTU protocol while providing a Modbus TCP server interface. It enables host systems to uniformly access data over Ethernet for centralized forwarding.

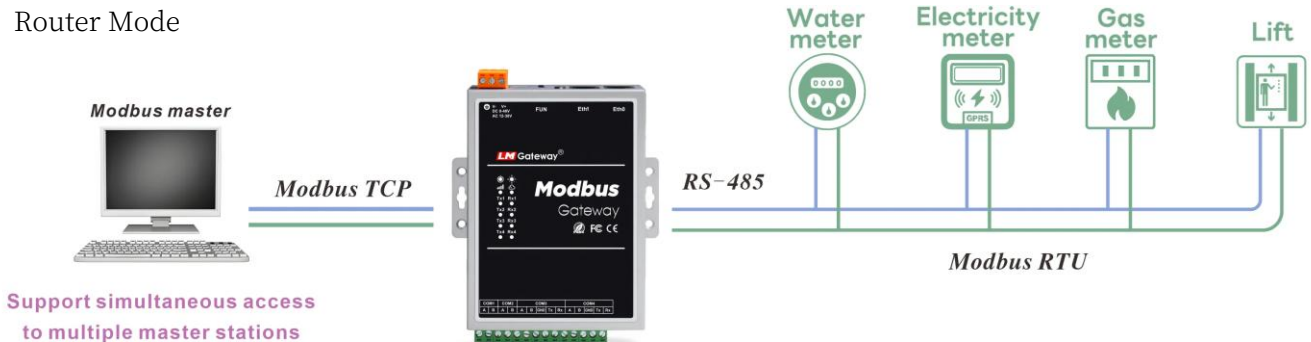
It can also operate as a Modbus router, supporting multiple TCP clients and handling concurrent Modbus TCP requests from multiple masters, converting them into Modbus RTU requests for communication with field devices.

### Working Mode

- Gateway Mode



- Router Mode



GREEN is request message  
BLUE is return message



## Specifications

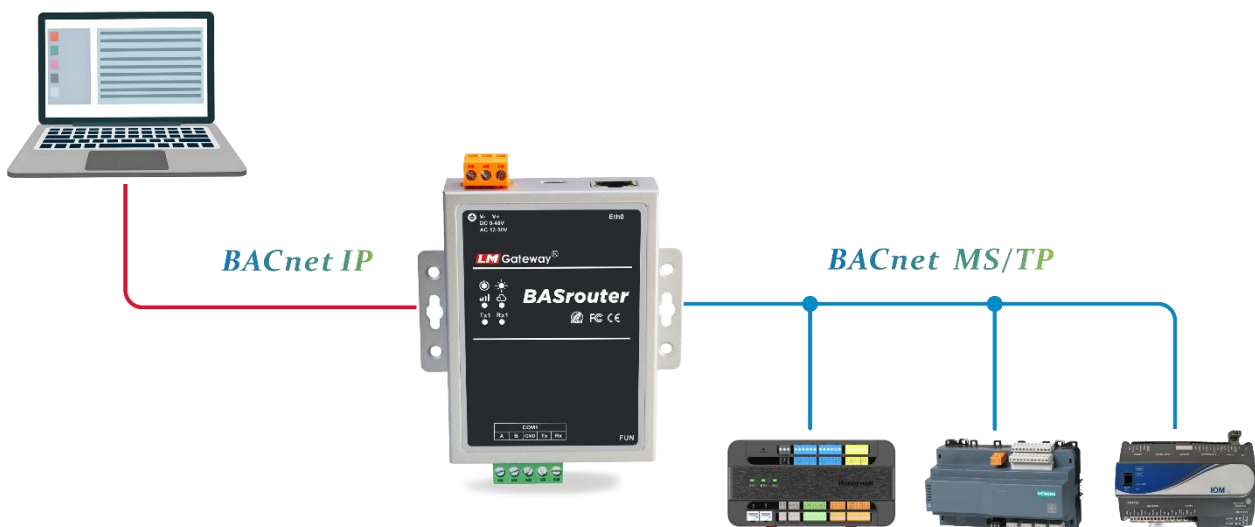
- Fully Isolated RS485 Interface
- 10/100 Mbps Ethernet Port
- BACnet MS/TP to BACnet IP
- Firmware Upgrade Support
- Integrated BBMD
- Online Monitoring Support



## Product Features

The LM BACnet Router is a device commonly used in BACnet-based building automation systems. It provides essential communication routing functionality between BACnet/IP networks and BACnet MS/TP buses. Configuration and monitoring are easily performed via a web interface.

## Application diagram



No. | Protocol Name | Description

## Standard Protocol

1. Modbus RTU
2. Modbus Ascii
3. Modbus TCP
4. Modbus RTU\_over\_TCP
5. OPC UA
6. OPC DA
7. OPC XML DA
8. BACnet IP
9. BACnet MS/TP
10. BACnet router
11. CJ188
12. CJ188\_over\_TCP
13. MBus\_EnergyMeter
14. MBus\_EN1434

## PLC

1. Mitsubishi Fx3U
2. Mitsubishi Fx485
3. MC\_Qna-3EBinary
4. MC\_Qna-1EBinary
5. Siemens S7-200 PPI
6. Siemens S7
7. FetchWrite
8. Allen\_Bradley\_DF1
9. AB NET
10. HOSTLINK-FINS
11. HOSTLINK-CMODE
12. OMRON\_FINS
13. Mewtocol
14. EtherNet/IP

## IEC

1. IEC104
2. IEC61850

## Database

1. SQL Server
2. MySQL
3. Access

## IT

1. MQTT Client
2. HTTP Client