



YC-GW.200A
IOT Smart Gateway

Product Manual

Release : September 21, 2023

Version : V1.4



Figure 1. IOT Smart Gateway

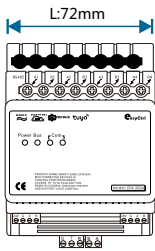


Figure 2. Dimensional Drawing - Front View

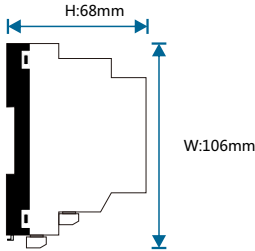


Figure 3. Dimensional Drawing -Sideview

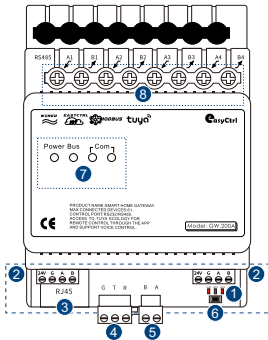


Figure 4. Product Information

YC-BUS communication format:
192.168.1.210:13096 UDP
192.168.1.210:13099 TCP
Modbus TCPcommunication format :
192.168.1.210:502 TCP
Note : The above communication format, the port is fixed and cannot be modified, and the IP can be modified.

Figure 5. Ethernet Communication Format

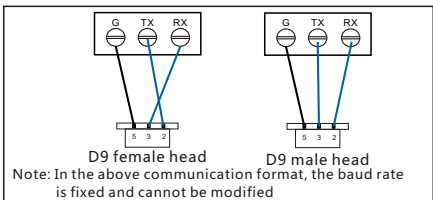


Figure 6. 232 Serial Port Cable Connections

Product Overview

The IOT Smart Gateway (see Figure 1) serves as a system core control unit, typically installed in a distribution box near the control room. GW200A has rich hardware interfaces and powerful computing and processing capabilities. It adopts industrial-grade chips and designs, which are stable and reliable. It can integrate and convert various popular communication protocols based on RS485 and RS232, TCP/IP, UDP protocol, ModbusRTU/TCP, etc. And it can be upgraded and customized according to the actual needs to achieve a real intelligent solution.

Function Description

- Standard 35mm DIN rail installation: Occupies 4P module units.
- Multiple third-party control devices can be integrated and docked at the same time through serial port or network.
- It has a third party independent serial communication interface.
- Docking standard Modbus RTU/TCP, programmable RS232/485, TCP/IP or UDP, etc.
- Can be integrated to control background music, home theater and other equipment.
- Can be integrated with conference/central control system/hotel RCU system.
- Can be integrated with security alarm and access control system.
- Supports local/remote debugging and configuration.
- Support reset button.
- It can access tuyu ecology, APP remote control, and support voice control.
- Supports 61 YC-BUS slave devices.

Precautions

- Use CAT5E or RVV4*0.75 four-core wire for bus wiring.
- After installation, check all connections to ensure they are correctly connected.

Product Information

Product Dimensions: See Figures 2 and 3

Product Wiring: See Figure 7

Product Information: See Figure 4

1. LED 1/2/3 Indicators :
 - LED1 : Plug-in indicator (for custom functions).
 - LED2 : Bus status indicator (After connecting or disconnecting the bus device, the indicator blinks three times quickly and then steady on. Steady on indicates normal network connection).
 - LED3 : External network indicator (steady on indicates normal network connection).
2. Bus extension interface : 24V、G、A、B、
3. RJ45 network port : The gateway accesses the LAN or Ethernet through this port and supports Modbus TCP and TCP/UDP private protocols. Default IP : Automatically obtained.
4. RS232 interface : The main control port, the third-party central control device to control the bus device under the YC-BUS, the communication interface : 115200,N,8,1.
5. Rs485 interface (Com5) : Different brands of 485 devices can be controlled programmatically.
6. Reset key function :
 - Short press once and then long press again, the gateway IP is set to automatic acquisition, and the default password is restored (password) ;
 - Short press three times and then long press again, the gateway IP is set to 192.168.1.210, and the default password is restored (password) ;
 - Short press five times and then long press again , remove tuyu binding function.Note: the gateway software version is D230428V1.82.18 or above
Note: Short press interval is less than one second, long press is more than three seconds, long press the indicator (LED1, LED2, LED3) will flash to indicate that the reset is taking place.
7. Power/Bus/Com indicator light
 - Power : power light,
 - Bus : Number of bus devices statistics indicator light (after the module is powered on, it will always blink, the number of total device ID, the number of times the indicator blinks).
 - Left Com : Com1-Com3 interface indicator light(is A1,B1\A2,B2\A3,B3 interface indicator light,blinks every time data is sent or received).
 - Right Com : Com4-Com5 interface indicator light(is A4,B4\A5,B5 interface indicator light , blinks every time data is sent or received).
8. RS485 interface(Com1~4) : 485 devices of different brands can be controlled by programming.
Note: When using the dial switch and the fire port, it is necessary to remove the baffle in the dotted frame. The method of removing the baffle is to press the baffle down with your finger and then drag it back to take it out.

Product Installation

See Figures 8-10

- Step 1. Secure the 35mm rail with screws.
- Step 2. Remove the snap-on cover from the IOT Smart Gateway.
- Step 3. Press the entire module onto the rail and slide it until it is in the correct position, then snap the cover into place.

Safety Warning

- Tightening torque should not exceed 0.4 Nm.
- Installation location: Distribution box.
- Do not connect the YC-BUS interface incorrectly, as it may damage the equipment.
- The YC-BUS interface must not be connected to AC power; otherwise, it will damage all devices on the bus.
- Ensure a good ventilation environment.
- Do not expose to rain, contact with other liquids, or corrosive gases.

Packing List

- YC-GW.200A*1/User Manual*1/Certificate of Conformity*1

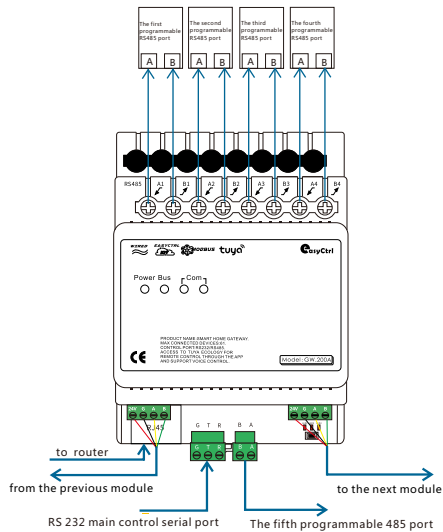


Figure 7. Product Wiring Diagram



Figure 8

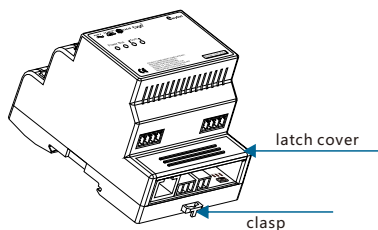


Figure 9

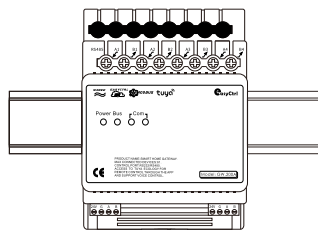


Figure 10

Figure 8-10.Installation Drawing

Technical Parameters

Basic Parameters

Operating Voltage	24VDC±10%
Maximum Power Consumption	≤1.3W
Bus Interface	bus interface*2
Bus Port	bus port*1(with indicator light)
Slave Equipment	supports 61 YC-BUS slave devices
Control Key	reset key*2
Programmable Serial Port	RS 485 serial port * 5
Main Control Serial Port	RS 232 serial port * 1

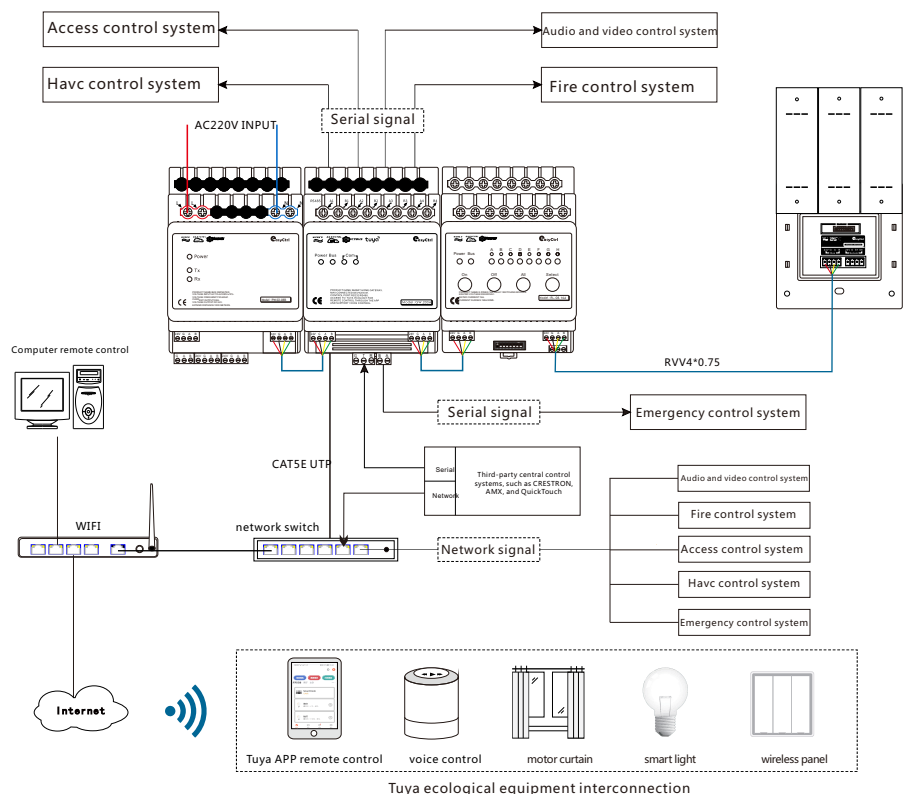
External Environment

Operating Temperature	-5°C~45°C
Operating Relative Humidity	≤90%
Storage Temperature	-20°C~60°C
Storage Relative Humidity	≤93%

Product Specifications

Dimensions (L*W*H)	72 mm*106 mm*68 mm
Net Weight	≤198 g/pcs
Enclosure Material	flame retardantPP
Installation Method	standard 35mm DIN rail mounting (see Figure 8-10)
Protection Level	IP20

System Diagram



Bus Specification

Bus interface	4-core wire : RVV4*0.75	UTP : CAT5/CAT5E
24V	RED	BROWN WHITE/BROWN
GND	BLACK	BLUE WHITE/BLUE
A	YELLOW	ORANGE WHITE/GREEN WHITE
B	GREEN	ORANGE/GREEN

Technical support

Service Hotline: 86-18029750069

working hours: 9:00-12:00,13:00-18:00,From Monday to Friday)

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