easyCtrl®

YC-GW.100A
Smart Gateway Host

Product Manual
Release : November 7, 2023
Version : V1.3

Figure 1. Smart Gateway Host

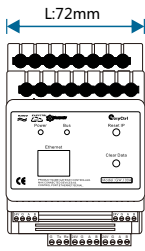| L:72mm	H:68mm

W:102mm

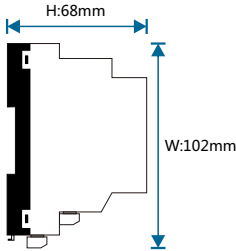Figure 2. Dimensional Drawing - Front View   Figure 3. Dimensional Drawing -Sideview
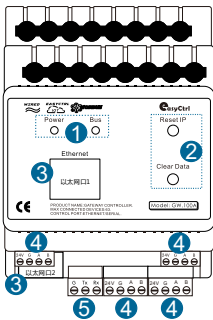

Figure 4. Product Information

YC-BUS communication format:
192.168.1.230:6000 UDP
192.168.1.230:6003 TCP

Modbus TCPcommunication format :
192.168.1.230:502 TCP

Note: The above communication format, the port is fixed and cannot be modified, and the IP can be modified.
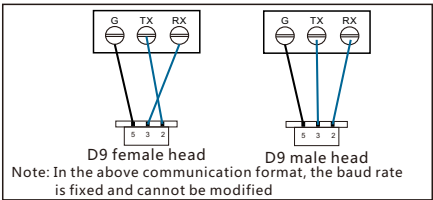
Figure 5.Ethernet communication format

G	TX	RX		G	TX	RX

5 3 2   5 3 2

D9 female head   D9 male head

Note: In the above communication format, the baud rate is fixed and cannot be modified

Figure 6.232 Serial Port cable connections

Product Overview

Smart Gateway Host (see Figure 1) serves as a system core control unit, typically installed in a distribution box near the control room. It is mainly responsible for the connection between the control unit and the execution unit, and provides external network ports and serial ports through programming to meet various control requirements, and is linked with third-party systems, such as various types of central control, configuration software, and third-party cloud platforms.

Function Description

- Standard 35mm DIN rail installation: Occupies 4P module units.
- Using ARM32 bit processor as the core, built-in linux system, fast computing, high performance, small size.
- Built-in clock, scenario, and logic module functions.
- Supports one set of latitude and longitude functions to achieve sunrise and sunset timing control.
- Supports the networking of 250 gateways and data exchange between gateways.
- Supports open private protocol TCP/UDP/RS232 serial port control.
- A maximum of 63 YC-BUS slave devices can be networked.
- Support industry standard protocol MODBUS TCP control.
- Supports the import and export of network transfer gateway projects, and the gateway can store backup projects.
- Can control relay, Siemens, Advantech, Delta and other configuration software.
- Supports online firmware updates and Bus network disconnection alarm function.
- Supports YC-BUS communication.

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 Indicators:
- Power : Power indicator light(red light).
- Bus: Network indicator light(yellow light); steady on indicates normal network connection, slow blinking indicates abnormal network connection.
2. Function Keys:
- Reset IP key: Long press for about 6 seconds, restore the default IP (192.168.1.230), the bus light blinks, release the button, wait for the end of the blinking, the time is about (1-2 minutes).
- Clear Data: Long press for about 6 seconds, gateway data clear key, the bus light blinks, release the button, wait for the end of the blinking, the time is about (1-2 minutes).
  Note :IP reset key and data clear key are independent functions and do not affect each other.
3. Ethernet port: network communication port, default IP address:192.168.1.230, supports YC-BUS communication and Modubus TCP communication .
4. Bus Interface:
  24V, G, A, B, the upper two for the bus cascade interface, the lower two for the bus output interface, single port when used, the longest distance can be extended to 400 meters.
5. External serial port(See Figure 6) :
- 232 serial port, used to receive external instructions, when through central control control, it is used to link the slave equipment of the gateway .
- Serial communication format: Baud rate: 115200, Test bit: N, Stop bit: 1, serial port only support YC-BUS communication, not support Modbus RTU communication.

Product Installation

See Figures 9-12
● Step 1. Secure the 35mm rail with screws.
● Step 2. Remove the snap-on cover from the Smart Gateway Host.
● 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 ⚠ 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

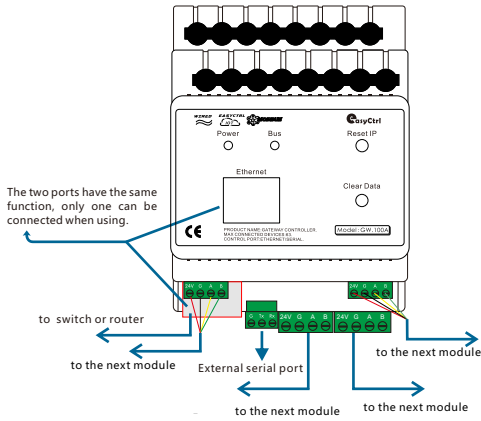- YC-GW.100A*1/User Manual*1/Certificate of Conformity*1

The two ports have the same function, only one can be connected when using.

to switch or router
to the next module
External serial port
to the next module
to the next module
to the next module

Figure 7. Product Wiring Diagram

Figure 8

latch cover
clasp
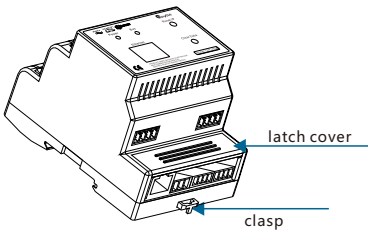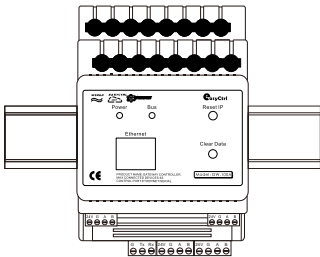
Figure 9

Figure 10

Figure 8-10.installation drawing

Technical support

Service Hotline: 86-18029750069

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

Email:ceshi@easyctrlgz.com

website: http://www.easyctrlgz.com

Technical Parameters

Basic Parameters

Operating Voltage	24VDC±10%
Maximum Power Consumption	≤1.3W
Bus Interface	bus interface*4
Ethernet Port	ethernet port*2,when using, choose one of two
Slave Equipment	supports networking of 63 YC-BUS slave devices
Control Panel	2 * running indicator lights , 2 * function Keys
External Interface	1 * RS232 serial port

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*102 mm*68 mm
Net Weight	≤194 g/pcs
Enclosure Material	flame retardantPP
Installation Method	standard 35mm DIN rail mounting **(see Figure 8-10)**
Protection Level	IP20

System Diagram

Notebook

Mobile terminal (IOS/Android)

AC220V INPUT

MOTION SENSOR

MOTION SENSOR :
24+:red
GND:black
OUT1:yellow
OUT2:green

CAT5E UTP

RVV4*0.75

WIFI
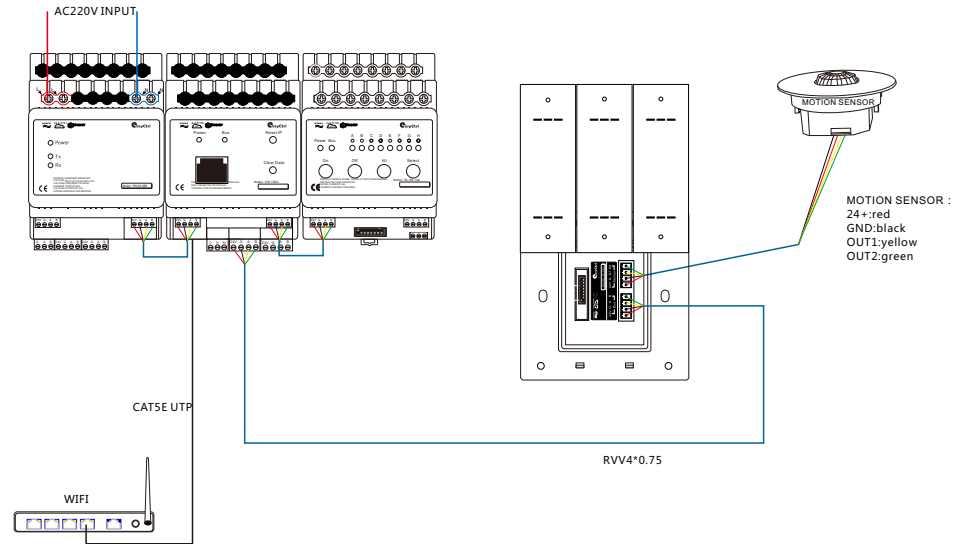
Bus Specification

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