

Product Manual

Release: September 22, 2023  
Version: V1.2



Figure 1. Bus Coupler

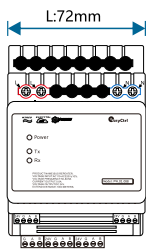


Figure 2. Dimensional Drawing - Front View

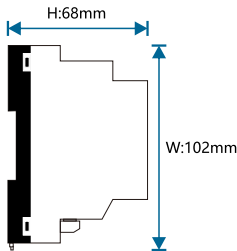


Figure 3. Dimensional Drawing -Sideview

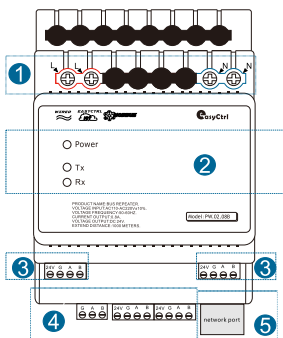


Figure 4. Product Information

## Product Overview

Bus Coupler (see Figure 1) serves as a system power supply unit, typically installed in a distribution box. DIN rail installation, occupies 4P module units. It serves as a junction box-to-junction box cascading module. When the bus cascade exceeds 400 meters, this module must be additionally equipped. It features a 4-port expansion capability and provides a 24V/800mA power supply, which can deliver power to up to 6 devices.

## Function Description

- Standard 35mm DIN rail installation: Occupies 4P module units.
- AC 110~250V (50/60Hz) wide voltage supply.
- Utilizes industrial-grade DC-DC isolated power module, providing 24V/800mA output.
- Equipped with isolated protection circuits, supports hot-swapping, and includes overvoltage and overload protection.
- Suitable for networking in systems with bus, tree, or star topologies when connecting distribution boxes.
- Features strong anti-interference capability, long transmission distance, and high speed (9600 baud rate).
- Effectively extends the bus length by up to 400 meters.

## 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 5

Product Information: See Figure 4

- 220V access: AC 220V input mode, aperture can be connected to  $\phi 4$  wire.
  - LED Indicators:
    - Power: Power indicator light.
    - Tx: Bus signal sending indicator light
    - Rx: Bus signal receiving indicator light
  - Bus Interface: 24V、G、A、B, Regardless of in and out, left in and right out, right in and left out, the maximum transmission distance is 200 meters.
  - Bus Interface:
    - G、A、B the maximum transmission distance is 200 meters, which is used for bus signal input.
    - 24V、G、A、B the maximum transmission distance is 200 meters, which is used for bus signal output.
  - Bus network port:
    - Using 568B wiring mode, line order: 1. orange white, 2. orange, 3. green white, 4. blue, 5. blue white, 6. green, 7. brown white, 8 brown, a total of one network port, left in and right out, right in and left out, can be used to access the bus network port device.
- Note: Network port line order definition, see page 2, bus specification.

## Product Installation

See Figures 6-8

- Step 1. Secure the 35mm rail with screws.
- Step 2. Remove the snap-on cover from the bus coupler.
- 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.
- Input power wire: Max 4mm<sup>2</sup>; Load wire: Max 1mm<sup>2</sup>.
- 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

- PW.02.08B\*1/User Manual\*1/Certificate of Conformity\*1

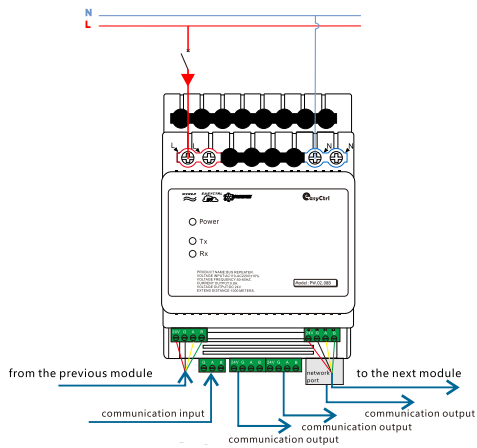


Figure 5. Product Wiring Diagram



Figure 6

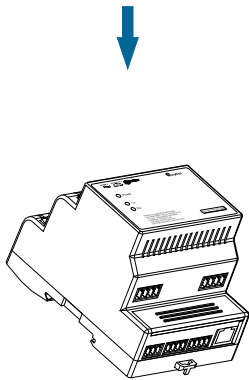


Figure 7

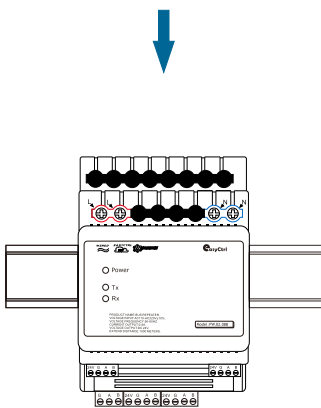


Figure 8

Figure 6-8.installation drawing

## Technical Parameters

### Basic Parameters

|                   |                                                                                               |
|-------------------|-----------------------------------------------------------------------------------------------|
| Power Input       | AC 110~220V(50/60Hz)                                                                          |
| Output Voltage    | 24VDC±10%                                                                                     |
| Output Current    | 0.8A/800mA                                                                                    |
| Extend Distance   | effectively extend the distance by 400 meters                                                 |
| Bus Interface     | 5* bus interface, single interface extension 400 meters                                       |
| Bus Port          | 1*RJ45 network port (with indicator light), Class B wiring (single port extension 400 meters) |
| Transmission Rate | 9600 baud rate                                                                                |
| Protection        | overload and overvoltage protection                                                           |

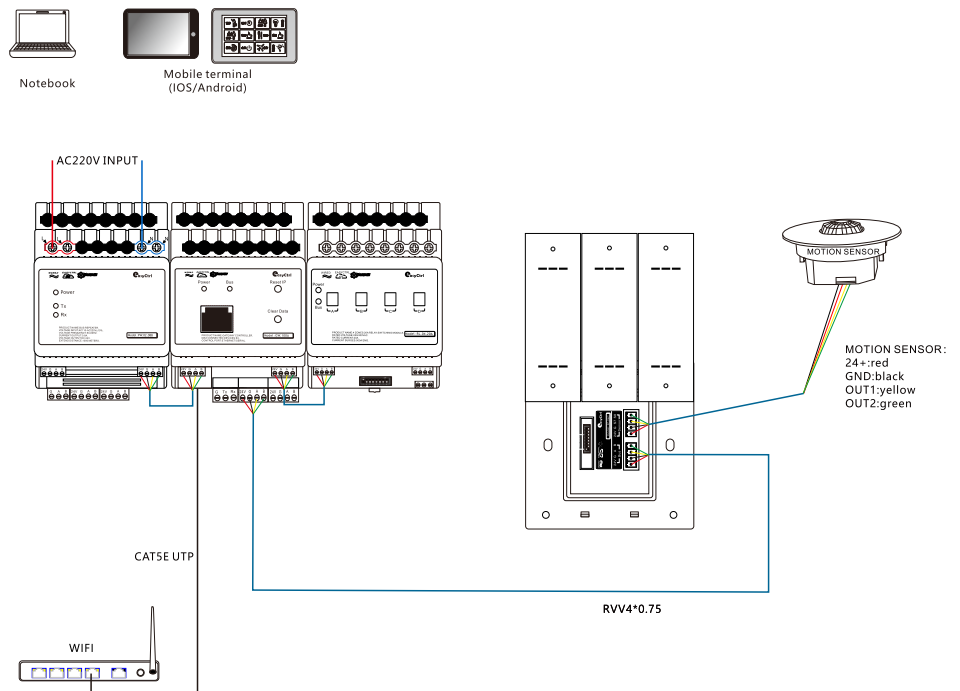
### External Environment

|                             |            |
|-----------------------------|------------|
| 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          | ≤233 g/pcs                                          |
| Enclosure Material  | flame retardantPP                                   |
| Installation Method | standard 35mm DIN rail mounting<br>(see Figure 6-8) |
| Protection Level    | NONE                                                |

### 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)

Email: ceshi@easyctrlgz.com

website: <http://www.easyctrlgz.com>



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