

## Product Manual

Release: July 27, 2023

Version: V1.6



Figure 1. 4 CH 5A Thyristor Dimming Module

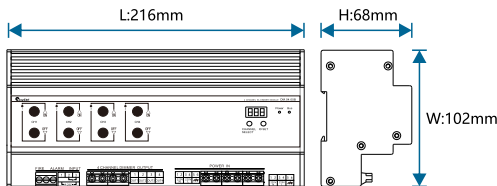


Figure 2. Dimensional Drawing - Front View Figure 3. Dimensional Drawing - Sideview

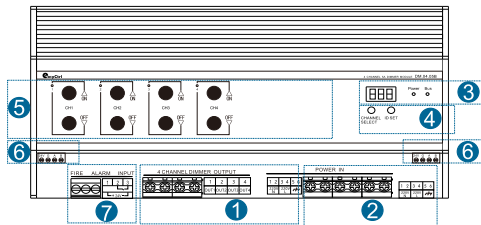


Figure 4. Product Information

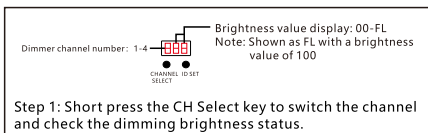


Figure 5. Description of dimmer brightness status query

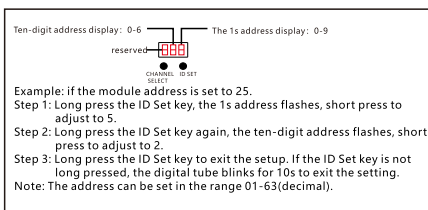


Figure 6. Address setup instructions

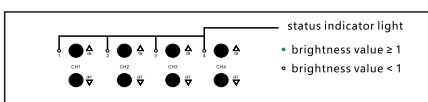


Figure 7. Dimmer status indicator light

## Product Overview

4 CH 5A Thyristor Dimming module (see Figure 1), serve as a system dimmer execution unit, typically installed in a distribution box. It is used to control halogen lamps, incandescent lamp, fluorescent lamp, LED light and shade adjustment, switch function.

## Function Description

- Standard 35mm DIN rail installation: Occupies 12P module units.
- Adopt leading edge TRIAC dimmer, provide 4 CH 5A leading edge dimmer.
- The total power of 4 channels is 3600W, single channel can independently control 1100W dimmer lamps
- Supports setting the initial power-on state for each circuit (on, off, or previous power state).
- With relay protection, multiple temperature protection, over temperature automatic protection function.
- Returns the actual dimmer status of each circuit to the monitoring center immediately after executing scene commands.
- Dimmer accuracy 10000 level, 4 dimmer curves can be set, matching different types of lamps.
- With local and remote programming and testing functions.
- Equipped with manual buttons, circuit, and operation status indicators for convenient local maintenance.
- Includes a fire protection interface with one normally open passive and one active 24V connection.
- Supports online firmware updates and Bus network disconnection alarm function.
- Supports RS485/YC-BUS communication.

## Precautions

- Use CAT5E or RVV4\*0.75 four-core wire for bus wiring.
- Do not connect the AB signal of the bus interface incorrectly, otherwise the bus signal will be abnormal.
- The current of each output circuit must not exceed 5A, and the total power of circuits must not exceed 3600W.
- To protect the equipment and load, it is recommended to connect a 16A circuit breaker for each circuit.

## Product Information

Product Dimensions: See Figures 2 and 3

Product Wiring: See Figure 9

Product Information: See Figure 4

- Dimmer output terminal: 1-4 circuit, aperture can be connected to 4 square mm wire.
- Dimmer input terminal: AC220V input, with ground terminal, aperture can be connected to 4 square mm wires.
- LED indicator light and digital tube
  - Power: Power indicator light.
  - Bus: Network indicator light; steady on indicates normal network connection, slow blinking indicates abnormal network connection. The color is yellow.
  - Digital tube: Used for address display, address setting display, dimmer brightness status display.
- Function Keys:
  - CHANNEL SELECT key: Dimmer channel status query, short press to switch dimmer channel (see Figure 5);
  - ID SET key: Address setting 01-63, setting method (see Figure 6).
- Brightness adjustment key and status indicator:
  - ON key: Short press to start the 5s gradual brightness to 100%, long press the brightness value gradually increases.
  - OFF key: Short press to turn off the 5s gradual brightness to 0%, long press the brightness value gradually decreasing.
  - Status indicator: Dimmer value  $\geq 1$ , the status indicator is green, less than 1 status indicator off (see Figure 7).
- Bus interface (YC-BUS) : 24V, G, A, B, no input, left in right out, right in left out.
- Fire interface: (see Figure 8)

## Product Installation

See Figures 10-12

- Step 1. Secure the 35mm rail with screws.
- Step 2. Hold the 4 CH 5A Thyristor Dimming module at a 45 degree angle with both hands, and the bottom of the module is clamped against the guide rail. The whole module is pressed to the guide rail at a 90 degree angle, and the module is slid until it is in the correct position.

## Safety Warning

- Each dimmer circuit requires a suitable circuit breaker or fuse.
- Tightening torque should not exceed 0.4 Nm.
- Input power wire: Max 4mm<sup>2</sup>; Load wire: Max 4mm<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

- DM.04.05B\*1/User Manual\*1/Certificate of Conformity\*1

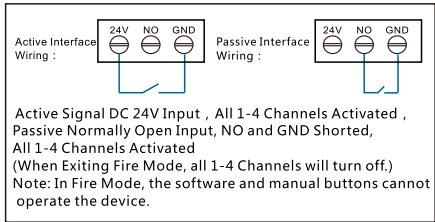


Figure 8. Fire Interface Description

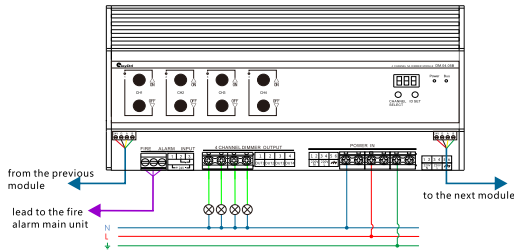


Figure 9. Product Wiring Diagram



Figure 10

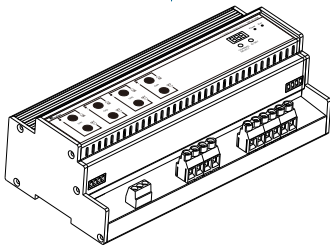


Figure 11

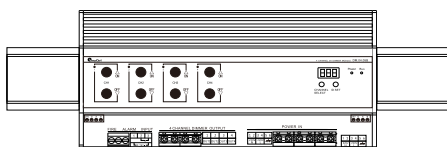


Figure 12

## Technical Parameters

### Basic Parameters

|                   |                                                                                                     |
|-------------------|-----------------------------------------------------------------------------------------------------|
| Operating Voltage | 24VDC±10%                                                                                           |
| Rated Consumption | ≤2W                                                                                                 |
| Input Voltage     | AC 220~250V(50/60Hz)                                                                                |
| Output Circuit    | 4 CH leading edge dimmer.                                                                           |
| Rated Current     | 5A(single channel), 4 channels total power 3600W                                                    |
| Bus Interface     | bus interface*2                                                                                     |
| Load Type         | Incandescent lamp, halogen lamp, incandescent lamp, front phase control electronic transformer, etc |
| Protection        | circuit breaker for each circuit                                                                    |

### External Environment

|                             |          |
|-----------------------------|----------|
| Operating Temperature       | -5℃~45℃  |
| Operating Relative Humidity | ≤90%     |
| Storage Temperature         | -20℃~60℃ |
| Storage Relative Humidity   | ≤93%     |

### Product Specifications

|                      |                                                       |
|----------------------|-------------------------------------------------------|
| Dimensions ( L*W*H ) | 216 mm*102 mm*68 mm                                   |
| Net Weight           | ≤1228 g/pcs                                           |
| Enclosure Material   | brushed aluminum shell technology                     |
| Installation Method  | standard 35mm DIN rail mounting<br>(see Figure 10-12) |
| Protection Level     | NONE                                                  |

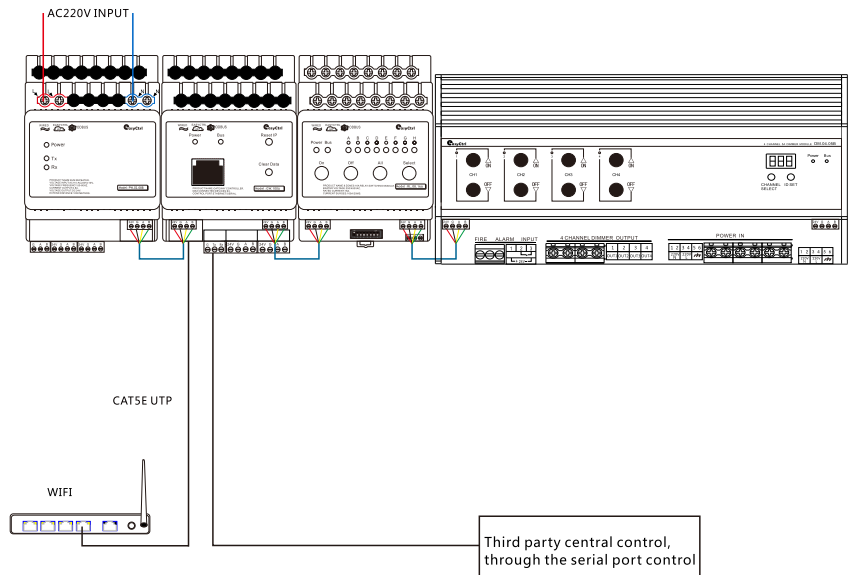
### System Diagram



Notebook



Mobile terminal  
(IOS/Android)



### 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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This manual may be changed or updated without prior notice.

## 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             |