easyCtrl®

YC-DM.02.10B
2 CH 10A Thyristor Dimming Module

Product Manual
Release : July 27, 2023
Version : V1.3

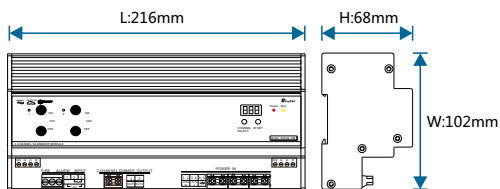Figure 1. 2 CH 10A Thyristor Dimming Module

L:216mm H:68mm W:102mm

Figure 2. Dimensional Drawing - Front View   Figure 3. Dimensional Drawing -Sideview
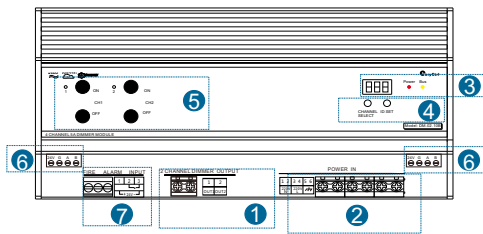
Figure 4. Product Information

Brightness value display: 00-FL
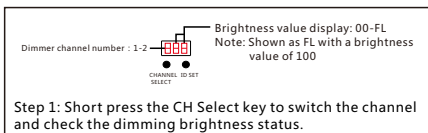Note: Shown as FL with a brightness value of 100
Dimmer channel number : 1-2
CHANNEL ID SET
SELECT

Step 1: Short press the CH Select key to switch the channel and check the dimming brightness status.

Figure 5. Description of dimmer brightness status query

Ten-digit address display : 0-6   The 1s address display : 0-9
reserved
CHANNEL ID SET
SELECT

Example: if the module address is set to 25.
Step 1: Long press the ID Set key, the 1s address flashes, short press to adjust to 5.
Step 2: Long press the ID Set key again, the ten-digit address flashes, short press to adjust to 2.
Step 3: Long press the ID Set key to exit the setup. If the ID Set key is not long pressed, the digital tube blinks for 10s to exit the setting.
Note: The address can be set in the range 01-63(decimal).

Figure 6. Address setup instructions
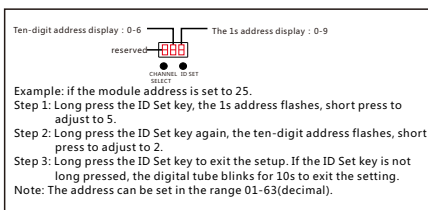
status indicator light
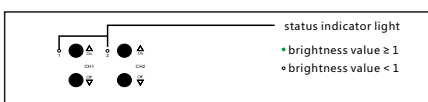• brightness value ≥ 1
• brightness value < 1
CH1   CH2

Figure 7.dimmerstatus indicator light

Product Overview

2 CH 10A 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 2 CH 10A leading edge dimmer.
- The total power of 2 channels is 3600W, single channel can independently control 2200W 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, 2 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 10A, 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

1. Dimmer output terminal: 1-2 circuit, aperture can be connected to 4 square mm wire.
2. Dimmer input terminal: AC220V input, with ground terminal, aperture can be connected to 4 square mm wires.
3. 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.
4. Function Keys:
- CHANNAI 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).
5. 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 ≥1 , the status indicator is green, less than 1 status indicator off (see Figure 7).
6. Bus interface (YC-BUS) : 24V, G, A, B, no input, left in right out, right in left out.
7. Fire interface: (see Figure 8)

Product Installation

See Figures 10-12
- Step 1. Secure the 35mm rail with screws.
- Step 2. Hold the 2 CH 10A 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 ⚠
WARNING

- Each dimmer circuit requires a suitable circuit breaker or fuse.
- Tightening torque should not exceed 0.4 Nm.
- Input power wire: Max 4mm²; Load wire: Max 1mm².
- 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

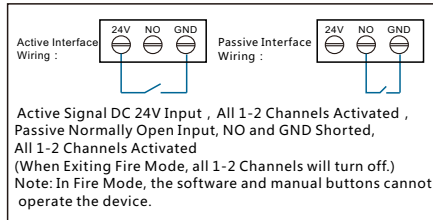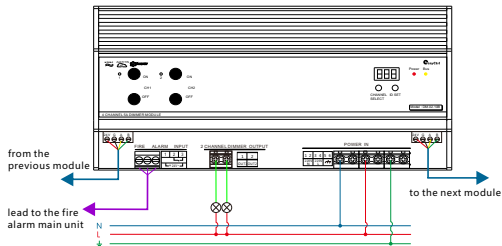- YC-DM.02.10B*1/User Manual*1/Certificate of Conformity*1

Active Interface Wiring : | 24V NO GND | Passive Interface Wiring : | 24V NO GND

Active Signal DC 24V Input , All 1-2 Channels Activated ,
Passive Normally Open Input, NO and GND Shorted,
All 1-2 Channels Activated
(When Exiting Fire Mode, all 1-2 Channels will turn off.)
Note: In Fire Mode, the software and manual buttons cannot operate the device.

Figure 8. Fire Interface Description

from the previous module

lead to the fire alarm main unit

to the next module

Figure 9. Product Wiring Diagram

Figure 10
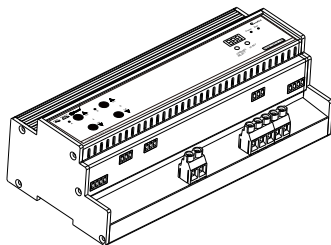
Figure 11

Figure 12

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

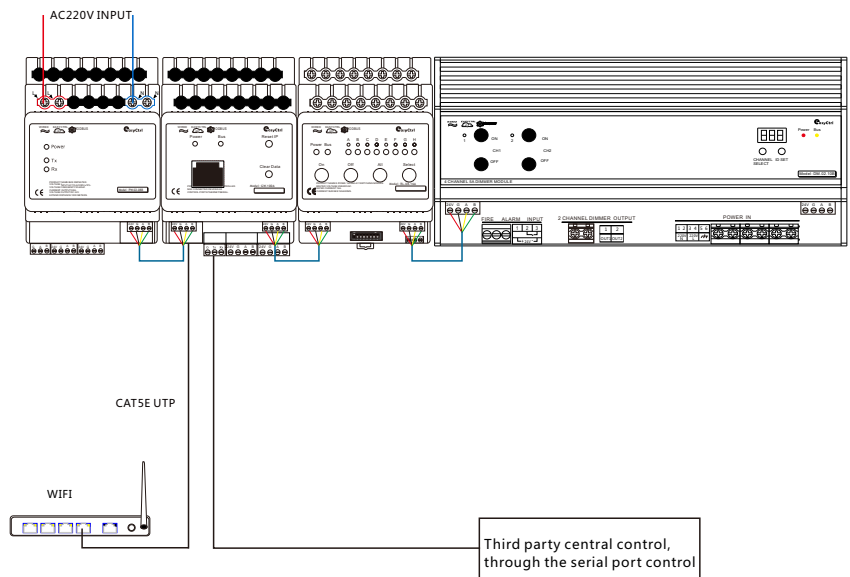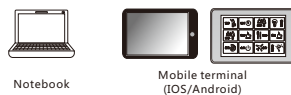|	
Operating Voltage	24VDC±10%
Maximum Power Consumption	≤1.5W
Input Voltage	AC 220~250V(50/60Hz)
Output Circuit	2 CH leading edge dimmer.
Rated Current	10A(single channel), 2 channels total power 3600W
Bus Interface	bus interface*2
Load Type	Incandescent lamp, halogen lamp, incandescent lamp, front phase control electronic transformer, etc
Protection	circuit breaker for each circuit

External Environment

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

Product Specifications

Dimensions (L*W*H)	216 mm*102 mm*68 mm
Net Weight	≤1182 g/pcs
Enclosure Material	brushed aluminum shell technology
Installation Method	standard 35mm DIN rail mounting **(see Figure 10-12)**
Protection Level	NONE

System Diagram

Notebook

Mobile terminal (IOS/Android)

AC220V INPUT

CAT5E UTP

WIFI

Third party central control, through the serial port control

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