YC-DR.04.16A.485

4 CH 0-10V Dimming Module

Product Manual

Release : September 22, 2023

Version : V1.2

Figure 1. 4 CH 0-10V Dimming Module

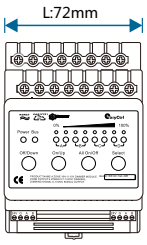


Figure 2. Dimensional Drawing - Front View

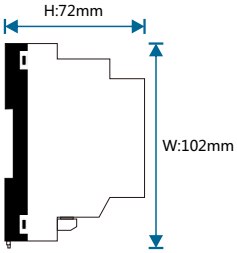


Figure 3. Dimensional Drawing -Sideview

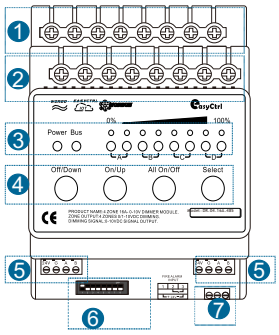


Figure 4. Product Information

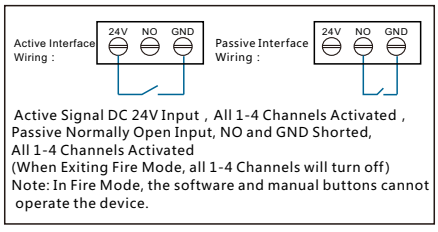


Figure 5. Fire Interface Description

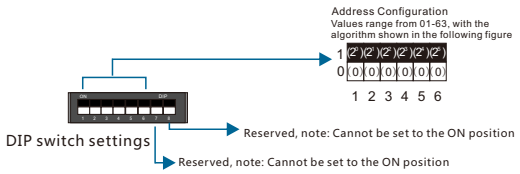


Figure 6. Address DIP Switch Table 1

Product Overview

4 CH 0-10V Dimming Module (See Figure 1), serves as a system dimming execution unit, typically installed in a distribution box, using DIN rail mounting. It occupies 4P module units. It provides 4 channels of fluorescent lamp dimming, compatible with 0/1-10V dimmable electronic ballasts for LED lights, enabling brightness adjustment and switch control of the lighting.

Function Description

- Standard 35mm DIN rail installation: Occupies 4P module units.
- Supports 0-10VDC signal control for LED dimming, provides 4 channels of 16A switching.
- Maximum current for 0-10V signal is 40mA (per channel).
- Supports setting the initial power-on state for each circuit (on, off, or previous power state).
- Features sequential delay startup for multiple circuits to prevent power grid surges from simultaneous startup.
- Dimming interface includes ±2 kV ESD protection, with short-circuit and overcurrent protection.
- Returns the actual dimmer status of each circuit to the monitoring center immediately after executing scene commands.
- With local and remote programming and testing functions.
- Includes a fire protection interface with one normally open passive and one active 24V connection.
- Supports online firmware updates .
- Supports RS485 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.
- The current for each output circuit must not exceed 16A.
- 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 8
Product Information: See Figure 4

1. 0-10V Output Terminals: Two terminals per group (one positive, one negative), totaling 4 groups. The aperture can accommodate 4 square millimeters of wire.
2. Relay Output Terminals: Adopts a one-in-one-out configuration, totaling 4 channels. The aperture can accommodate 4 square millimeters of wire.
3. LED Indicators:
- Power: Power indicator light
- Bus: Default off in RS485 mode.
- Small Round Light: Circuit selection indicator light • Large Round Light: Relay status indicator light; It indicates the relay is engaged, off indicates the relay is disconnected.
4. Function Keys:
- Off/Down: Short press to turn off dimming, long press to gradually decrease brightness.
- On/Up: Short press to turn on dimming, long press to gradually increase brightness.
- All On/off: Short press to turn all dimming on/off.
- Select: Select single-channel dimming.
5. Bus Interface: 24V, G, A, B.
6. Setting Address:
- Step 1: (See Figure 8) Remove the latch cover; it requires some force to pull it out.
- Step 2: (See Figures 6-7) Refer to the address setting dip switch table to set the dip switch to the corresponding address.
- Step 3: After setting the address, remember to replace the latch cover.
7. Fire Interface:
- Fire Center: Provides a normally closed signal to engage all 4 circuits; provides a normally open signal to disconnect all 4 circuits, with priority over software and manual control (see Figure 5).

Product Installation

See Figures 9-12

- Step 1. Secure the 35mm rail with screws.
- Step 2. Remove the snap-on cover from the 4 CH 1-10V Dimming Module.
- 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

- Each relay 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 RS485 BUS interface incorrectly, as it may damage the equipment.
- The RS485 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-DR.04.16A.485*1/User Manual*1/Certificate of Conformity*1

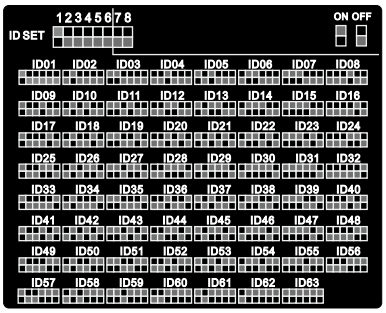


Figure 7. Address Dip Switch Table 2

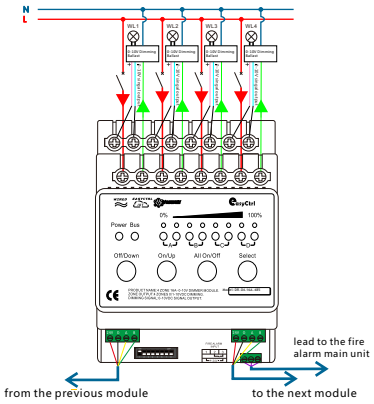


Figure 8. Product Wiring Diagram

Figure 9

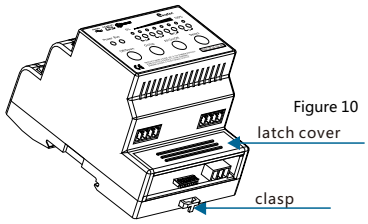


Figure 10

Figure 11

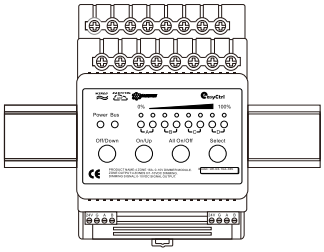


Figure 12

Figure 9-12. Installation Drawing

Technical support

Service Hotline: 86-18029750069

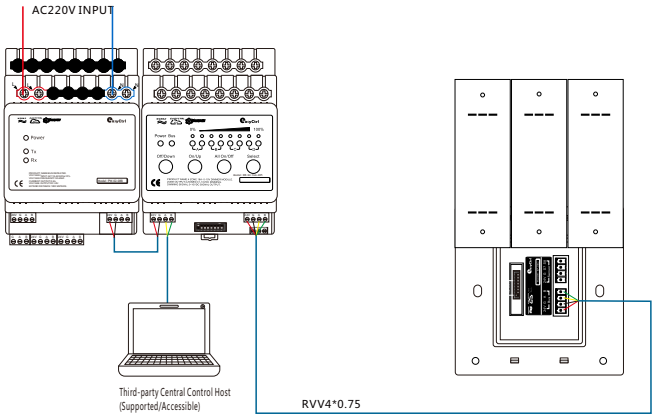
working hours: 9:00-12:00,13:00-18:00,From Monday to Friday)

Email:ceshi@easyctrlgz.com

website: http://www.easyctrlgz.com

Technical Parameters

Basic Parameters	
Operating Voltage	24VDC±10%
Dynamic Power Consumption	≤2.5W
Rated Current	250/400VAC
Output Circuit	0-10V output, maximum current 40mA (per channel)
Relay	4 relay outputs, 16A/3520W (per channel)
Switching Cycles	no-load: 5,000,000 cycles， load: 3,000,000 cycles
Bus Interface	bus interface*2
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)	72 mm*102 mm*72 mm
Net Weight	≤316 g/pcs
Enclosure Material	flame retardant PP
Installation Method	standard 35mm DIN rail mounting **(see Figure 9-12)**
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