

Product Manual

Release : September 22, 2023

Version : V1.2



Figure 1. 4 CH 1-10V Dimming Module

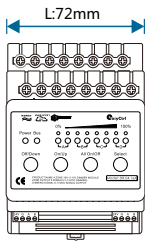


Figure 2. Dimensional Drawing - Front View

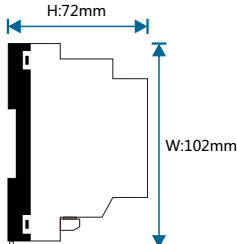


Figure 3. Dimensional Drawing - Side View

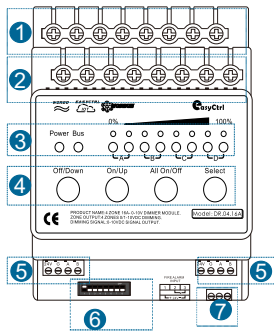


Figure 4. Product Information

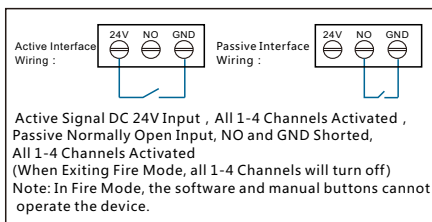


Figure 5. Fire Interface Description

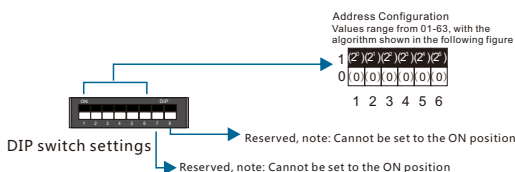


Figure 6. Address DIP Switch Table 1

Product Overview

4 CH 1-10V 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 and Bus network disconnection alarm function.
- Supports RS485/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.
- 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

- 0-10V Output Terminals: Two terminals per group (one positive, one negative), totaling 4 groups. The aperture can accommodate 4 square millimeters of wire.
- Relay Output Terminals: Adopts a one-in-one-out configuration, totaling 4 channels. The aperture can accommodate 4 square millimeters of wire.
- LED Indicators:
 - Power: Power indicator light
 - Bus: Network indicator light; steady on indicates normal network connection, slow blinking indicates abnormal network connection.
 - 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.
- 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.
- Bus Interface: 24V, G, A, B.
- 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.
- 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 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-DR.04.16A*1/User Manual*1/Certificate of Conformity*1

1 2 3 4 5 6 7 8								ON OFF	
ID01	ID02	ID03	ID04	ID05	ID06	ID07	ID08		
ID09	ID10	ID11	ID12	ID13	ID14	ID15	ID16		
ID17	ID18	ID19	ID20	ID21	ID22	ID23	ID24		
ID25	ID26	ID27	ID28	ID29	ID30	ID31	ID32		
ID33	ID34	ID35	ID36	ID37	ID38	ID39	ID40		
ID41	ID42	ID43	ID44	ID45	ID46	ID47	ID48		
ID49	ID50	ID51	ID52	ID53	ID54	ID55	ID56		
ID57	ID58	ID59	ID60	ID61	ID62	ID63			

Figure 7. Address Dip Switch Table 2

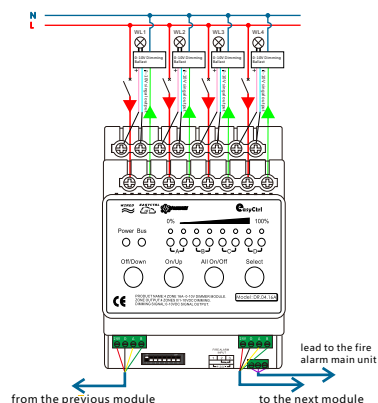


Figure 8. Product Wiring Diagram



Figure 9

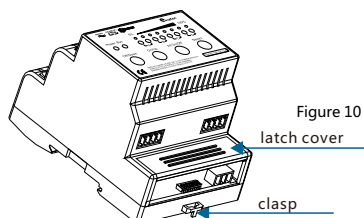


Figure 10

Figure 11

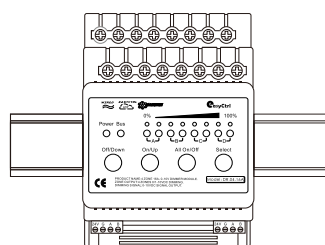


Figure 12

Figure 9-12. Installation Drawing

Technical Parameters

Basic Parameters

Operating Voltage	24VDC \pm 10%
Dynamic Power Consumption	\leq 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

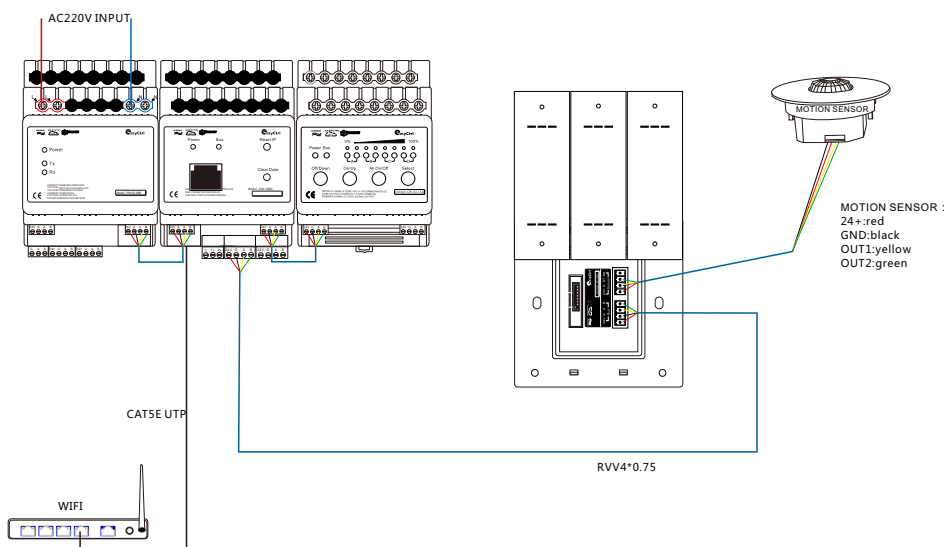
External Environment

Operating Temperature	-5°C~45°C
Operating Relative Humidity	\leq 90%
Storage Temperature	-20°C~60°C
Storage Relative Humidity	\leq 93%

Product Specifications

Dimensions (L*W*H)	72 mm*102 mm*72 mm
Net Weight	\leq 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

Technical support

Service Hotline: 86-18029750069

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

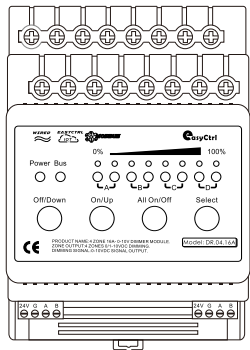
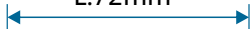
Email:ceshi@easyctrlgz.com

website: http://www.easyctrlgz.com

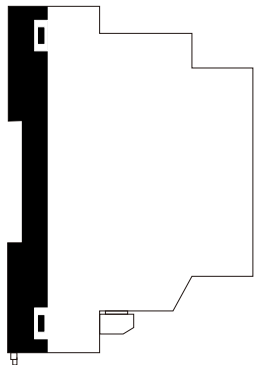


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This manual may be changed or updated without prior notice.

L:72mm



H:72mm



W:102mm

