easyCtrl®

YC-DALI.16B.485
DALI Dimming Module

Product Manual
Release : May 13, 2024
Version : V1.0


Figure1. DALI Dimming Module
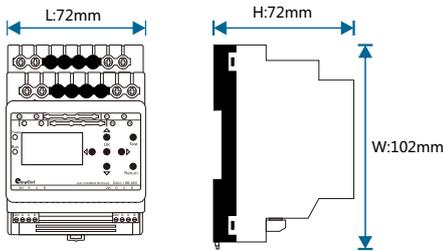
Figure 2. Dimensional Drawing - Front View   Figure 3. Dimensional Drawing -Sideview
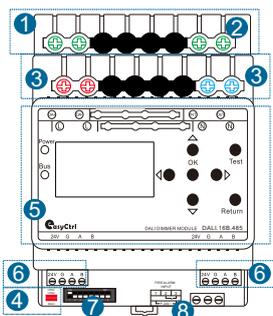

Figure 4. Product Information

Active Interface Wiring :
Passive Interface Wiring :

Active Signal DC 24V Input，All 1-16 Channels Activated，
Passive Normally Open Input, NO and GND Shorted,
All 1-16 Channels Activated
(When Exiting Fire Mode, the Brightness Remains Fully OFF)
Note: In Fire Mode, the software and manual buttons cannot
operate the device.
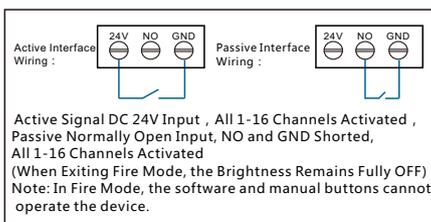
Figure 5. Fire Interface Description

Address Configuration
Values range from 01-63, with the
algorithm shown in the following figure

DIP switch settings
Reserved, note: Cannot be set to the ON position
Reserved, note: Cannot be set to the ON position
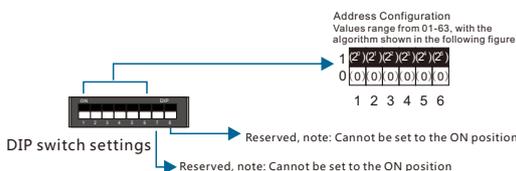
Figure 6. Address DIP Switch Table 1

Product Overview

DALI Dimming Module (see Figure 1), serve as a system dimmer execution unit, typically installed in a distribution box.DALI2.0 dimming execution module support Etron-Net protocol and DALI protocol conversion, support DALI2.0 protocol, built-in DALI power supply module, with a single DALI bus. Up to 64 DALI drive devices are supported, and the dimming and color of 16 control channels can be realized. The module adopts OLED display, which is convenient for engineering configuration.

Function Description

- Standard 35mm DIN rail installation: Occupies 4P module units.
- It can realize the dimmer and color of 16 control channels.
- 30mm X 18mm LCD display
- Supports setting the initial power-on state for each circuit.
- Built-in DALI power supply, with a single DALI bus, support up to 64 DALI driven LED lights.
- With a manual control button, the switch of the circuit can be manually controlled when the network fails.
- 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 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.
- DALI output wiring is non-linear, but if multiple drivers are connected hand in hand, it needs to be connected in the same direction, and no crossover cables are allowed.
- Support DALI2.0 protocol

Product Information

Product Dimensions: See Figures 2 and 3
Product Wiring: See Figure 8
Product Information: See Figure 4
1. DALI signal output terminal: left is DA+，right is DA-.
2. Relay output: It control DALI drive 220V on/off (only for special DALI drive).
3. DALI power input: AC 220V input, left is live line interface, right is neutral line interface.
4. LED1: DALI power indicator LED2: DALI signal communication lamp (when DALI signal is sent, the LED light will flash slightly)
5. Control Panel Information:
- Power：Power indicator light   • Bus：Default off in RS485 mode.
- △ :move up   • ▽ :move down   • ◁ :move left   • ▷ :move right   • OK:confirm   • Test :test   • Return : return/exit
- LED display: Displays DALI status information.
- For details, see the DALI debugging manual.
6. Bus Interface：24V、G、A、B;
7. 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.
8. Fire Interface:
- Fire Center: Provides a normally closed signal to engage all 16 circuits; provides a normally open signal to disconnect all 16 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 DALI 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 ⚠

- 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-DALI.16B.485*1/User Manual*1/Certificate of Conformity*1

Figure 7. Address Dip Switch Table 2
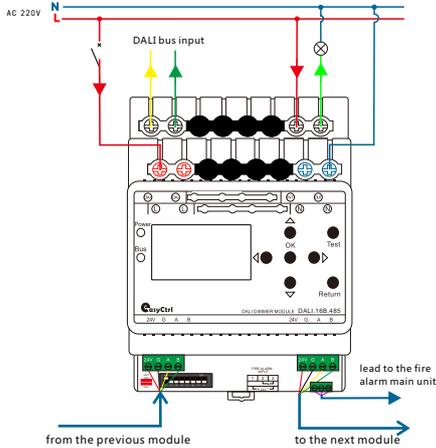
Figure 8. Product Wiring Diagram

Figure 9

Figure 10

latch cover

clasp
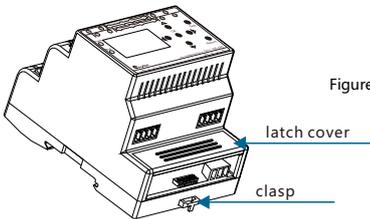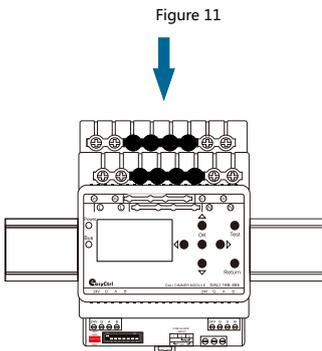
Figure 11

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%
Maximum Power Consumption	≤0.6W
Rated Voltage	220V AC
Output Circuit	64 DALI independent address management
Secondary Interface	1 CH 16A relay output (for special drive processing)
Display Mode	OLED display screen
Switching Cycles	no-load：5,000,000 cycles，load：3,000,000 cycles
Protection	circuit breaker for each circuit

External Environment

Operating Temperature	0˚C~45˚C
Operating Relative Humidity	20%~93% RH
Storage Temperature	-40˚C~60˚C
Storage Relative Humidity	≤93%

Product Specifications

Dimensions (L*W*H)	72 mm*102 mm*72 mm
Net Weight	≤261 g/pcs
Enclosure Material	flame retardantPP
Installation Method	standard 35mm DIN rail mounting **(see Figure 9-12)**
Protection Level	IP20

System Diagram
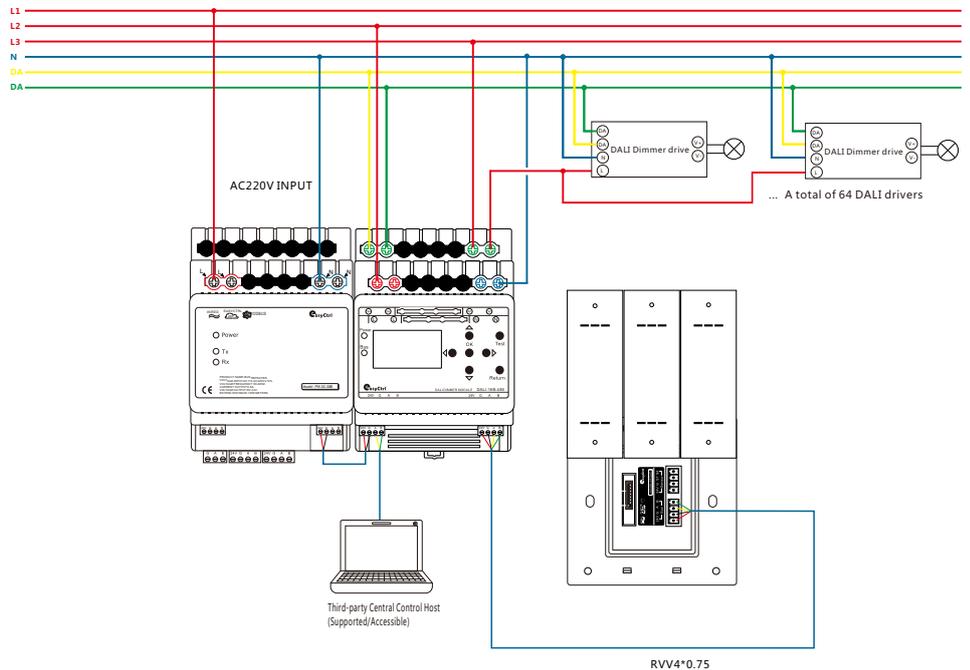
Bus Specification

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