



RL.16.16A
16 CH 16A Relay Switch Module

Product Manual
Release: September 22, 2022
Version: V1.5



Figure 1. 16 CH 16A Relay Switch Module

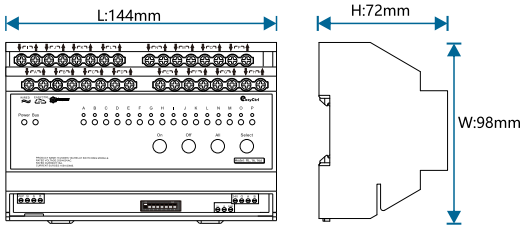


Figure 2. Dimensional Drawing - Front View Figure 3. Dimensional Drawing -Sideview

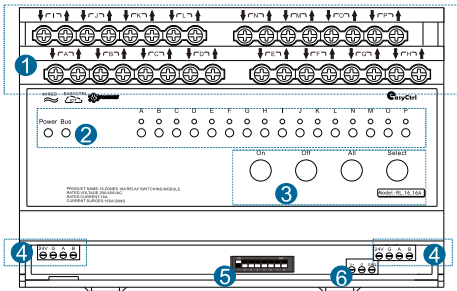


Figure 4. Product Information

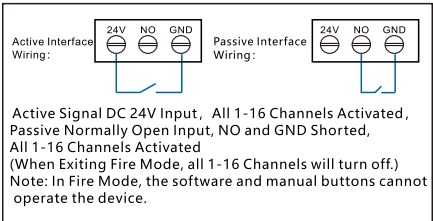


Figure 5. Fire Interface Description

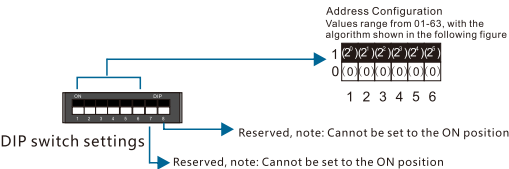


Figure 6. Address DIP Switch Table 1

Product Overview

The 16 CH 16A Relay Switch Module (see Figure 1) serves as a system switch execution unit, typically installed in a distribution box. It can control the switching of lights, the on/off state of devices, the on/off state of passive dry contacts, the opening and closing of strong or weak current curtains, the hot/cold valve of water-cooled air conditioning, and the switching between high/medium/low fan speeds.

Function Description

- Standard 35mm DIN rail installation: Occupies 8P module units.
- Equipped with Tyco dual-contact relays, providing 16-channel 16A relay switching.
- Each circuit can independently control devices up to 3520W.
- 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.
- Includes two interlock modes for controlling eight sets of curtains.
- Includes three interlock mode for controlling the low, medium, and high-speed settings of four central air conditioners.
- Returns the actual switch status of each circuit to the monitoring center immediately after executing scene commands.
- 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.
- 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. Relay Output Wiring Terminals: Use a one-in-one-out method; the hole diameter can accommodate 4 square mm wire.
 2. 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; lit indicates the relay is engaged, off indicates the relay is disconnected.
 3. Function Keys:
 - On: Short press to turn on the relay.
 - Off: Short press to turn off the relay.
 - All: Select all relays.
 - Select: Select a single relay.
 4. Bus Interface: 24V, G, A, B.
 5. Setting Address:
 - (See Figures 6-7) Refer to the address setting dip switch table to set the dip switch to the corresponding address.
 6. 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 16 CH 16A Relay Switch 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

- RL.16.16A*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

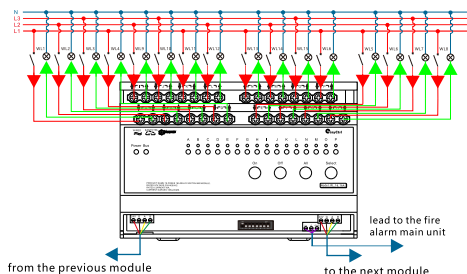


Figure 8. Product Wiring Diagram



Figure 9

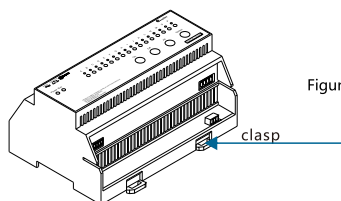


Figure 10

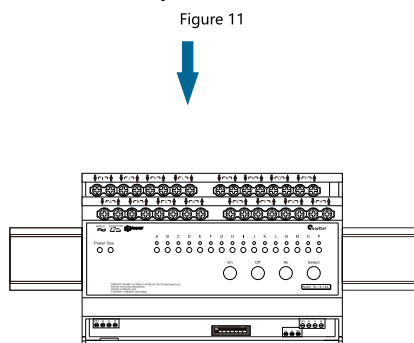


Figure 11

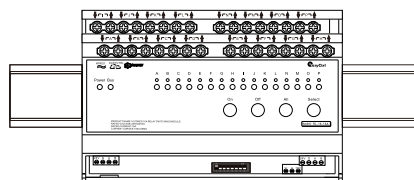


Figure 12

Figure 9-12.installation drawing

Technical 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



2025 Guangzhou Easyctrl Intelligent Technology Co., Ltd. All rights reserved.
This manual may be changed or updated without prior notice.

Technical Parameters

Basic Parameters

Operating Voltage	24VDC $\pm$ 10%
Maximum Power Consumption	$\leq$ 3.7W
Rated Voltage	250/400VAC
Output Circuit	16-channel relay
Relay	Tyco double-contact relay
Rated Current	16A (single channel), Surge current capability: 165A/20ms (single channel)
Switching Cycles	no-load: 5,000,000 cycles, load: 3,000,000 cycles
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)	144 mm*98 mm*72 mm
Net Weight	$\leq$ 602 g/pcs
Enclosure Material	flame retardant PP
Installation Method	standard 35mm DIN rail mounting (see Figure 9-12)
Protection Level	IP20

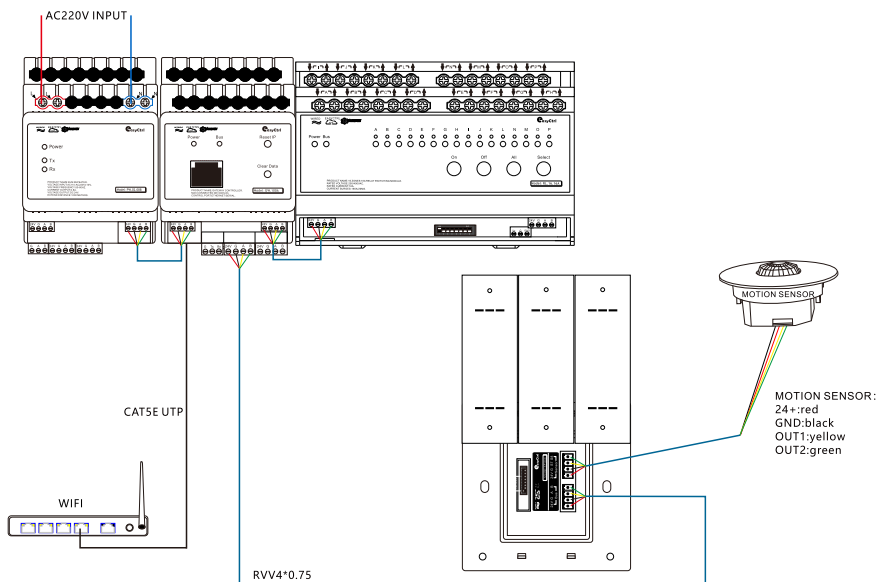
System Diagram



Notebook



Mobile terminal
(iOS/Android)



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