

YC-RL.08.16A 8 CH 16A Relay Switch Module

Product Manual

Release: September 22, 2023

Version: V1.5



Figure 1, 8 CH 16A Relay Switch Module

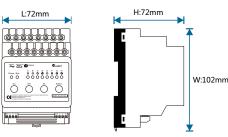


Figure 2. Dimensional Drawing - Front View Figure 3. Dimensional Drawing - Sideview

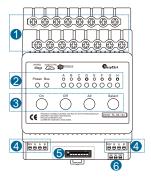
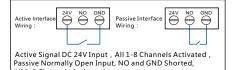


Figure 4. Product Information



All 1-8 Channels Activated (When Exiting Fire Mode, all 1-8 Channels will turn off.)
Note: In Fire Mode, the software and manual buttons cannot

operate the device Figure 5. Fire Interface Description

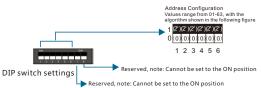


Figure 6. Address DIP Switch Table 1

Product Overview

The 8 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 4P module units
- Equipped with Tyco dual-contact relays, providing 8-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 four sets of curtains.
- Includes three interlock mode for controlling the low, medium, and high-speed settings of two 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 CATSE or RVV4*0.75 four-core wire for hus 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

- 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.
- 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.
- 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 8 circuits; provides a normally open signal to disconnect all 8 circuits, with priority over software and manual control (see Figure 5).

Product Installation

- Step 1. Secure the 35mm rail with screws.
- Step 2. Remove the snap-on cover from the 8 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

YC-RL.08.16A*1/User Manual*1/Certificate of Conformity*1

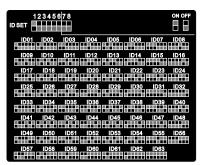


Figure 7. Address Dip Switch Table 2

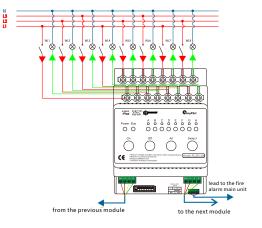


Figure 8. Product Wiring Diagram

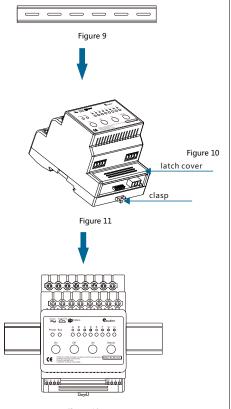


Figure 12

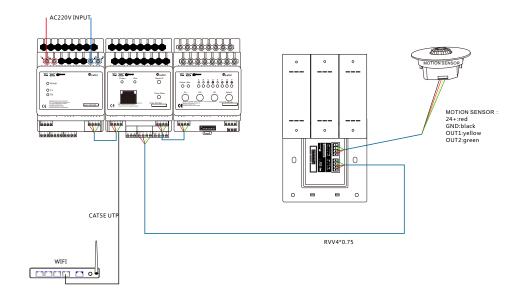
Figure 9-12.installation drawing

Technical Parameters

Basic Parameters	
Operating Voltage	24VDC±10%
Maximum Power Consumption	≤2.2W
Rated Voltage	250/400VAC
Output Circuit	8-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	≤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 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
Α	YELLOW	ORANGE WHITE/GREEN WHITE
В	GREEN	ORANGE/GREEN