



## Industrial Modbus RTU 8-ch Relay Module, RS485 Bus, Multi Protection

SKU 114110027

This is an industrial 8-ch relay module controlled via RS485 bus, utilizing Modbus RTU protocol.

### Key Features

- Configurable device address (1~255), multi devices can be cascaded on RS485 bus
- Features flash-on, flash-off function, by passing argument to the command, it is possible to turn on the relay for a while and then close it automatically
- Onboard unibody power supply isolation, provides stable isolated voltage, needs no extra power supply for the isolated terminal
- Onboard unibody ADI magnetical isolation, allows signal isolation, high reliability, strong anti-interference, low power consumption
- Onboard TVS (Transient Voltage Suppressor), effectively suppress surge voltage and transient spike voltage in the circuit, lightning-proof & anti-electrostatic
- Onboard Optocoupler isolation, prevent the relay from being interfered by high-voltage circuit
- Reverse-proof circuit, prevent the circuit from being damaged accidentally by incorrect connection
- High quality relay, contact rating:  $\leq 10A$  250VAC/30VDC
- Rail-mounted ABS plastic enclosure, easy to install, safe to use
- 3 LEDs for indicating the MCU status and signal transeiving status

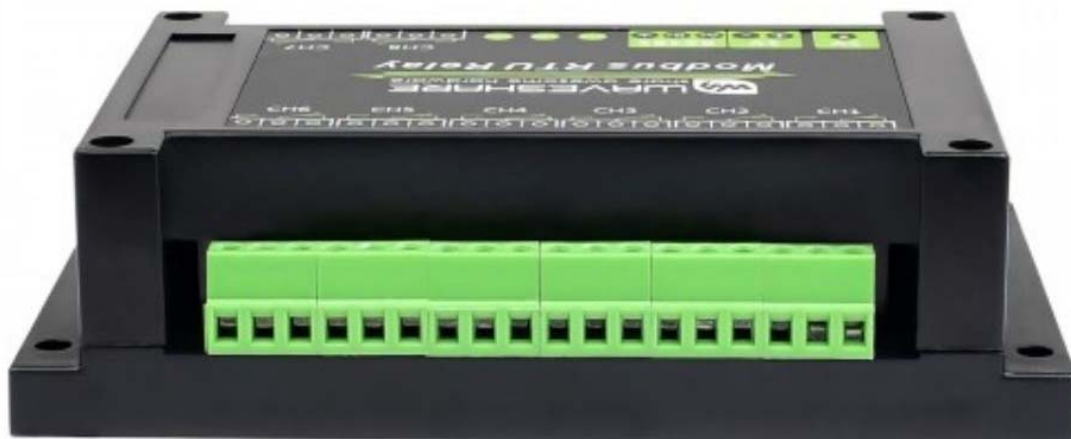
## Description

This is an industrial 8-ch relay module controlled via RS485 bus, utilizing Modbus RTU protocol. It features embedded protection circuits such as power isolation, ADI magnetical isolation, and TVS diode, etc. It also comes with an ABS enclosure. The Modbus RTU Relay is very easy to use. Due to its fast communication, stability, reliability, and safety, it is an ideal choice for industrial control equipments and/or applications with high communication requirement.

For more information about hooking up, please click [here](#).

## Specification

- Power supply voltage: 5V
  - Communication interface: RS485
  - Baudrate: 4800, 9600, 19200, 38400, 57600, 115200, 128000, 256000
  - Default communication format: 9600, N, 8, 1
  - Relay channels: 8
  - Contact form: 1NO 1NC
  - Communication protocol: Standard Modbus RTU protocol
  - RS485 address: 1~255
  - RS485 terminal protection: 600W lightning-proof and surge-suppress, 15KV ESD protection (reserved 120R balancing resistor solder pads)
  - LED indicators:
- STA: MCU indicator, keep flashing when the MCU normally working
  - TXD: TX indicator, light up when sending data
  - RXD: RX indicator, light up when receiving data



# Hardware Analysis



## RS485 Communication

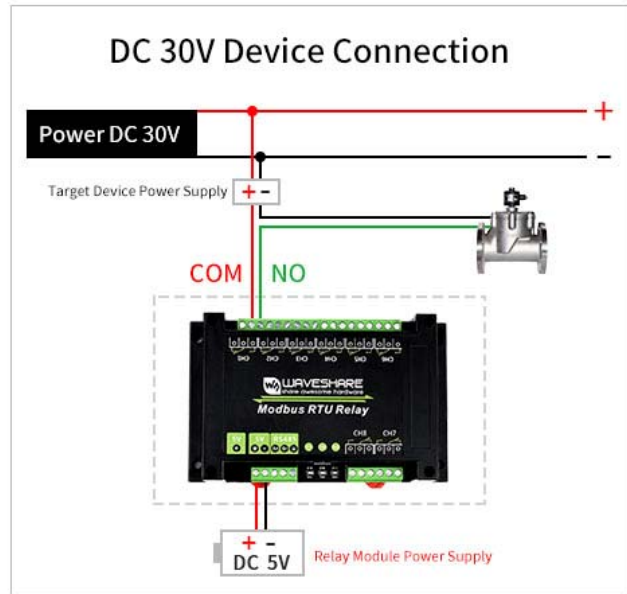
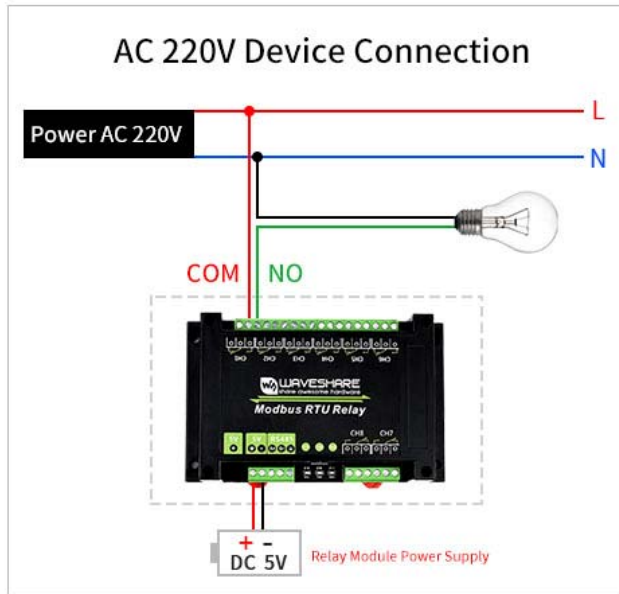
**Configurable Device Address (1~255), Multi Devices Can Be Cascaded On RS485 Bus**

In Case Of Many Devices Are Cascaded, Or Communication Distance Is Quite Long, It Is Necessary To Use RS485 Repeaters



# Relay Connection

Contact Rating Of The Onboard Relay Up To 10A 250VAC/30VDC  
Directly Controlling 220VAC Home Appliances, Or Devices Below 30VDC



# Applications



## Industrial Control

Valve control, pump station control, unattended industrial control system



## Smart Home

Controlling appliances like air conditioner, access control, purifier, water heater, and so on



## Intelligent Agriculture

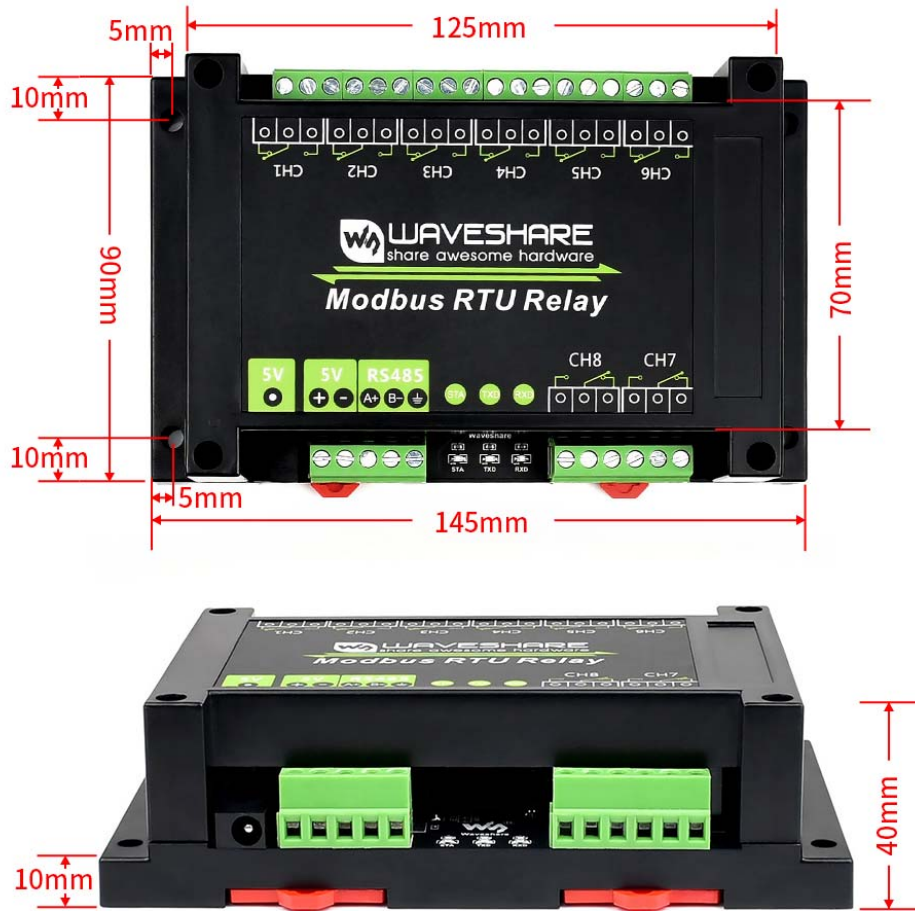
Controlling door curtain motor, air blower, and so on



## Breeding & Farming

Controlling ventilator, lighting, water supply, feeding system, and so on

# Dimensions



# Part List

- Modbus RTU Relay x1
- Power adapter US plug 5V/2A 5.5/2.1 x1
- Power adapter EU head x1

# ECCN/HTS

HSCODE	8536411000
UPC	

<https://www.seeedstudio.com/Industrial-Modbus-RTU-8-ch-Relay-Module-RS485-Bus-Multi-Protection-p-4439.html/2-20-20>