



Description:

5V Relay Module with 1 Channel is designed for switching only a single high-powered device from your Arduino. This 1 channel 5V 10A relay control board module with optocoupler modules is compliant with international safety standards, control and load areas isolation trenches it has a single relay genuine. The inputs of 1 Channel 5V 10A Relay Module are isolated to protect any delicate control circuitry. Power input and relay control signals are brought to header pins on the board. It can be used as a single chip module for appliance control and work with both DC and AC signals where you can control the 220V AC load.

Features:

- 1 channel relay module.
- One normally closed contact and one normally open contact.
- High impedance controller pin.
- Default High-level trigger.
- Pull-down circuit for the avoidance of malfunction.
- Power supply indicator lamp.
- Can be controlled various appliances & other Equipment with Large current.
- Standard TTL Level logic controlled.
- The module is compliant with international safety standards.
- With 4 fixed screw holes, hole diameter- 3.1mm, convenient installation and fixation.

Specifications:

- Channel – 1
- Trigger Voltage (VDC) – 5
- Switching Voltage (VAC) – 250@10A
- Switching Voltage (VDC) – 30@10A
- Dimensions: Length×Width×Height = 18×53×16 (mm)

Pin Description:

C = Common: This is the commonly terminal. This terminal will be connected to either of other 2 terminals (NO or NC) based on the state of relay.

NO = Normally Open: As the name indicates this is normally open terminal, i.e. if the relay is not energized (not ON), this pin will be open. We can say that the switch is OFF by default and when the relay is energized it will become ON.

NC = Normally Close: As the name indicates it is normally closed terminal, i.e. if the relay is not energized (not ON), this pin will be closed. We can say that the switch is ON by default and when the relay is energized it will become OFF.

How to work:

Relay modules like this one are commonly used to drive mains loads from a microcontroller like the Arduino or a sensor. One terminal of mains is connected to common, and the other is connected to NO or NC depending on whether the load should be connected/disconnected when the relay is active.



The mains wiring is screwed to the terminal block, and the microcontroller can be connected using jumper cables.

Single-Channel Relay Module Basic Trouble Shooting

If the relay does not switch on, i.e. no audible clicking sound is heard:

- The contacts might be stuck - Check by physically shaking the relay, if a light clicking sound is not heard, then tap the relay hard, in most cases, this should 'unstick' both the contacts.
- If the contacts do click when the relay is shaken, then the transistor or the flyback diode might be damaged and must be replaced.

Applications:

- Mains switching
- High current switching
- Isolated power delivery
- Home automation