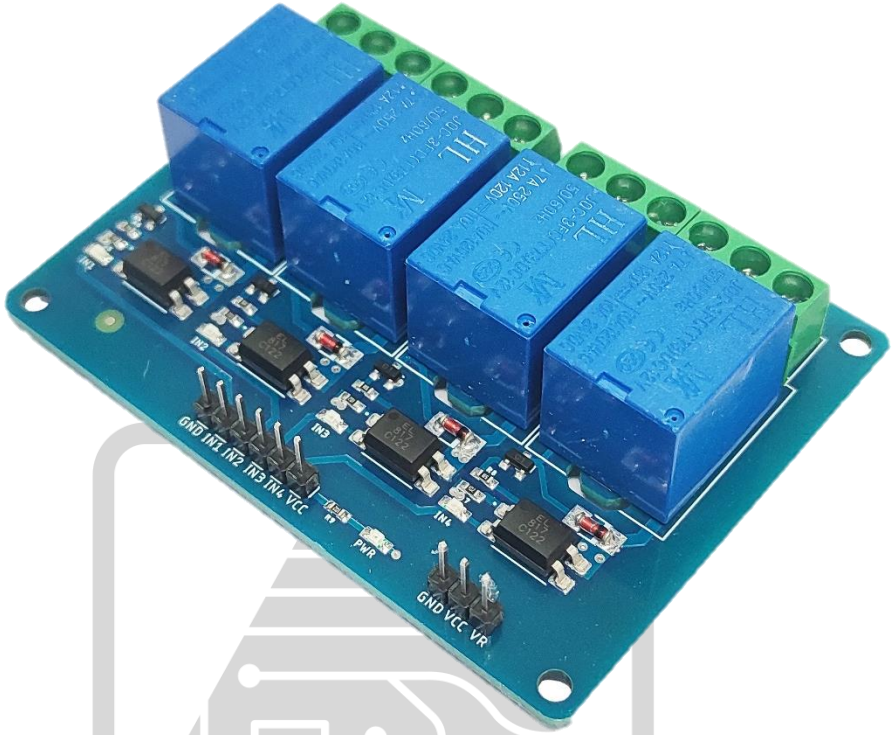
ADIY
4 CHANNEL RELAY - 12V
(With Optocoupler)



Description:

It is a 4 Channel Isolated 12V 10A Relay Module, A wide range of microcontrollers such as Arduino, AVR, PIC, ARM and so on can control it. It is also able to control various appliances and other types of equipment with a large current.

Relay output maximum contact is AC250V 10A and DC30V 10A. One can connect a microcontroller with standard interface directly to it. Red working status indicator lights are conducive to the safe use. It has a wide range of applications such as all MCU control, industrial sector, PLC control, smart home control.

Each relay can individually switch on/off by an opto-isolated digital input, which that can connect directly to a microcontroller output pin. It only requires a voltage of approx 1.0V to switch the inputs on but can handle input voltages up to 12V.

Features:

- One normally closed contact and one normally open contact
- Triode drive, increasing relay coil
- High impedance controller pin
- Pull-down circuit for the avoidance of malfunction
- Power supply indicator and Control indicator lamp
- Power supply and relay instructions, lit, the disconnect is off
- The input signal, signal, common Terminal and start conducting
- Useful for appliance control
- DC or AC signal, control, you can control the 220V AC load
- There is a normally open and one normally closed contact
- The module is compliant with international safety standards, control and load areas isolation trenches

Specifications:

- No. of Channels :- 4
- Trigger Voltage :- 12V
- Trigger Current :- 20mA
- Switching Voltage :- 250VAC@10A
- Switching Voltage :- 30VDC@10A
- Dimensions: 73×52×13 mm (Length×Width×Height)

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.

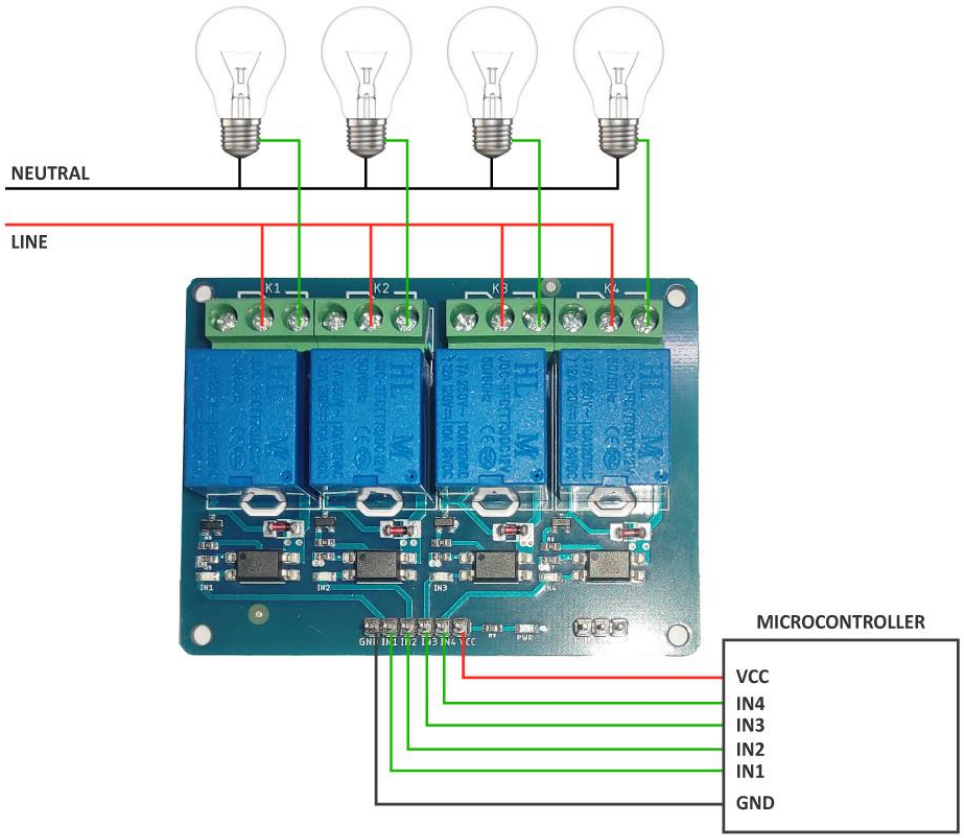
NO=Normally Open: As the name indicates this is normally open terminal, i.e. if the relay is not energized (not ON), this pin will be open. We can say that the switch is OFF by default and when the relay is energized it will become ON.

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:

The four-channel can be used to switch multiple loads at the same time since there are four relays on the same module. This is useful in creating a central hub from where multiple remote loads can be powered. It is useful for tasks like home automation where the module can be placed in the main switchboard and can be connected to loads in other parts of the house and can be controlled from a central location using a microcontroller.

In this diagram, four separate loads (represented by lightbulbs) have been connected to the NO terminals of the relay. The live wire has been connected to the common terminal of each relay. When the relays are activated, the load is connected to the live wire and is powered. This setup can be reversed by connecting the load to the NC terminal that keeps it powered on till the relay is activated.



Application:

- To control high voltage
- To control high current load such as motor
- To control solenoid valves
- To control lamps and AC load