

ADIY 1 CHANNEL RELAY - 12V (With Optocoupler)





This is a small and easy to use 1 channel relay board that operates on 12V. Use it to control one 240V power appliance directly from Arduino, Raspberry Pi, and other microcontrollers or low voltage circuits. Perfect for switching 240V appliances – lights, fans, etc, and even high power motors at lower voltages.

The board uses a high-quality relay, which can handle a maximum of 10A/250 V AC or 15A/125V AC. Each relay has all three connections – Common, Normally Open, Normally Closed brought out to 3 pin screw terminals which make it easy to make and remove connections. The board has a power indication and a relay status LED to ease debugging. The board can accept control inputs voltage of 12V.

Power input and relay control signals are brought to header pins on the board. Hence, the board can be easily interfaced with our development boards using our female to female jumper wires.

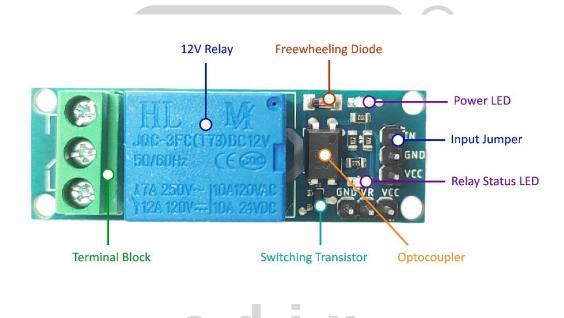
Features:

- 1. Brand new and high quality.
- 2. 1-Channel Relay interface board,
- 3. Equipped with high-current relay : 15A @ 125V AC or 10A @ 250V AC
- 4. Standard interface that can be controlled directly by microcontroller (Arduino, 8051, AVR, PIC, DSP, ARM)



Specifications:

- Trigger Voltage :- 12V
- Trigger Current :- 20mA
- Relay Maximum Current :- 10A
- Operating Temperature :- -40 to 85 °C
- Operating Humidity :- 20 to 85%
- Dimensions: Length×Width×Height = $18 \times 53 \times 16$ mm

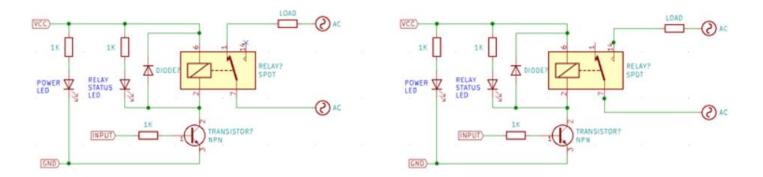


How to use:

Relay modules like this one are commonly used to drive mains loads from a microcontroller like the Arduino or a sensor. In cases like this, the common circuit diagram would be as follows.

For simple on/off applications, the relay can be connected as shown above. 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.





Check out the image below to see how the relay module is connected to a microcontroller and mains source and load.

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



Applications:

- Mains Switching
- High Current Switching
- Isolated Power Delivery
- Home Automation