



## Description:

The double FR4 circuit board design, high-end SMT process. It has power and relay operation instructions. Relays terminals (C, NC, NO) are accessible through screw terminals which makes wiring up the board very easy. The inputs of the 6 Channel 12V Relay Module are isolated to protect any delicate control circuitry. A wide range of microcontrollers such as Arduino, AVR, PIC, ARM and so on can control it. The use of such high-voltage relay eliminates the risk of heating up of the relay as an electromechanical relay limit the current consumption in accordance with a voltage rating.

## Features:

- High-quality screw terminals (Terminal Block) provided (C, NC, NO) for quick and easy connection
- Freewheeling diode to protect your microcontroller
- It can control both AC and DC appliances such as Solenoids, Motors, lights, fans, etc.
- Input Signal Pin connected to Burg stick for easy accessibility

## 6 CHANNEL RELAY - 12V (With Optocoupler)

- LED Status indicators to indicate the relay ON/OFF status
- Mounting holes provided
- Signal input with a low-level signal, the common and often start conduction

### Specifications:

- Operating Voltage: 12V
- Supply Current: 20mA
- Trigger Voltage: 12V
- Switching Voltage: 250@10A
- Switching Voltage: 30@10A
- Operating Temperature: -40°C to 85°C
- Storage condition: -65°C to 125°C
- Dimensions: Length×Width×Height = 110×52×16 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:

The module has 6 LEDs that inform of the state of the module. A red power activation LED that lights when a signal is received on the Vcc pin. When a signal is received a audible click can be heard as the relay triggers, connecting the output pins. The green LED indicates input signal.

On board the unit is a jumper that can provide overall control. For normal operation the jumper is kept in place. This allows any signal on the input pins to trigger the relays. Removing the jumper

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prevents this from happening. The jumper can then be replaced by a sensor or circuit of some kind that makes the connection under certain conditions. We are thinking along the lines of when its bright outside there is no need for lights – a photosensitive resistor.

The pins are suited to standard sockets with a pin pitch of 2.54mm. Each relay has a set of screw terminals with labels to indicate the standard off state relationship between them.

### Applications:

- Industrial area
- PLC control
- Home intelligent control
- Range hood operation panel
- Touch switch
- Handheld home air environment detector

