

Note: The LM2596 power module has 5V and 12V two versions. The 12V is with the same capacitor as the pictures, and the 5V has no capacitor! !

### **Application:**

1. The 12V relay contact capacity is 10A 250V, with optocoupler protection. The onboard power module does not require an external power supply. I / O port drive low level is effective.
2. Can be used as a single-chip development board module, can be used as home appliance control, can also be used as a PLC expansion output.

### **Module features:**

1. The voltage range of the control signal: the trigger signal is low level 0-2V; the high level voltage cannot exceed 5V.
2. Using industry-quality isolated optocoupler, strong anti-interference ability and stable performance; the trigger current only needs 3mA.
3. All channels 1-16 can be turned on / off arbitrarily, or arbitrarily.
4. Output form: directly connect the load of AC 220V 10A or DC30V 10A.
5. The common port COM of each relay is independent, which is convenient for users to access different signals. Each relay has a normally closed and a normally open port.
6. Each relay is equipped with an action indicator light, which attracts brightly and turns off when turned off.
7. The interface design is user-friendly. All interfaces can be directly led out through the wiring terminals, which is very convenient.
8. There are 4 fixing bolt holes for easy installation.
9. PCB board size: 180MM (L) \* 80MM (W) \* 20MM (H).

### **Electrical parameters:**

Power supply voltage: 5V / 12V (DC)

Supply current: greater than 200mA

Each relay can be loaded: 250V 10A (AC) or 30V 10A (DC)

### **Product instructions:**

1. The power supply must meet the range of use, DC 12V;
2. The power supply should not be reversed according to the wiring diagram;
3. The product uses the LM2596S buck chip to generate a slight heat, which is a normal phenomenon. The relay also has a normal heating phenomenon for a long time, which is a normal phenomenon;
4. The load power should leave a certain margin for the relay load, and the environment of

high power (about 2000W) and long working hours should be avoided, which will have a certain impact on the product life.