30A RELAY BOARD 1-CH 12VDC with optocoupler isolation, support high and low electrical level trigger

1.Module 200335 Description:
1.The module adopts genuine high-quality 30A relay, and the maximum load of normally open interface: AC 250V / 30a, DC 30V / 30A;
2. SMD optocoupler isolation is adopted, with strong driving ability and stable performance; Trigger current 5mA;
3.The working voltage of the module is 5V, 12V and 24V;
4.The module can through jumper to set trigger of high level or low level.
5.The relay control-end voltage and the power on jumper of trigger-end voltage can completely isolate the front and rear levels, and can meet the requirements of different voltages of the front and rear levels (for example, 24V for relay and 5V for trigger). It is necessary to contact customer service to change parameters, and the prices are different;
6.Fault tolerant design, even if the control line is broken, the relay will not act;
7. power indicator (green), relay status indicator (red)
8.The interface design is user-friendly, and all interfaces can be led out directly through wiring terminals, which is very convenient
9.Module size: 50mm * 33mm * 24mm (length * width * height), net weight: 36g
10.4 fixing bolt holes are set, with holes of 3.1mm and spacing of 44.5mm * 27.5mm

2. Technical Parameters:

Relay version	quiescent current	maximum current	rigger curren	trigger voltage (low)	high
5V	5mA	190mA	2-4mA	0-1.5V	2.5-5V
12V	5mA	80mA	2-4mA	0-4V	4.5-12V
24V	5mA	50mA	2-4mA	0-8V	8.5-24V

3.Module Interface Description:
1. DC +: module DC power supply positive pole (trigger terminal voltage positive pole)
2. DC -: module DC power supply negative pole (trigger terminal voltage negative pole)
3. In: signal trigger terminal (the default trigger voltage is the same as the power supply)
4. JD +: positive voltage of relay control terminal
5. JD -: negative voltage of relay control terminal
6. DC + and JD + are short circuited with jumper caps, DC - and JD - are short circuited with jumper caps. the voltage at the trigger end is the same as that at the relay control end
7. High and Low level trigger mode selection, as shown in the figure, when the jumper is connected with L terminal, the in terminal is low level trigger. when it is connected with H terminal, it is high level trigger
8.Normally closed end (NC): normally closed end of relay
9.Common terminal (COM): relay common terminal
10.Normal start (no): relay normal start

Connect with 220V AC live wire or DC positive pole.

Connect with 220V AC neutral wire or DC negative pole.

Controlled Load

High level or low level selection.

Power supply indicated light

DC positive pole(trigger power supply)

DC negative pole(trigger negative pole)

Signal trigger

Relay switch indicator

Relay power supply positive pole

Relay power supply negative pole
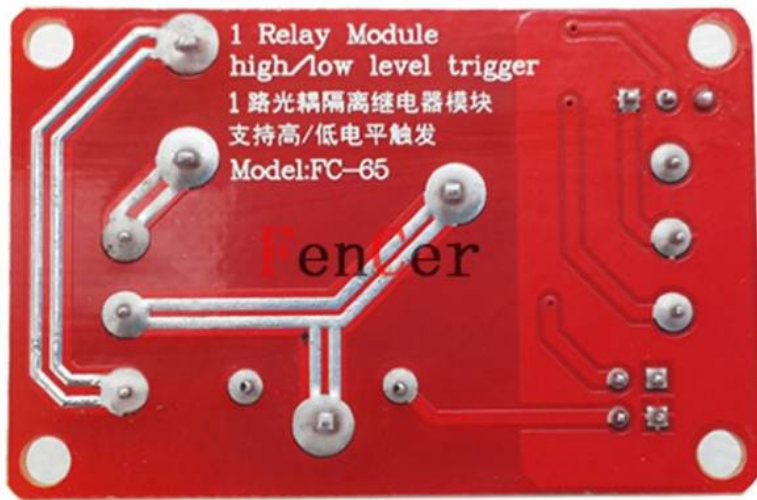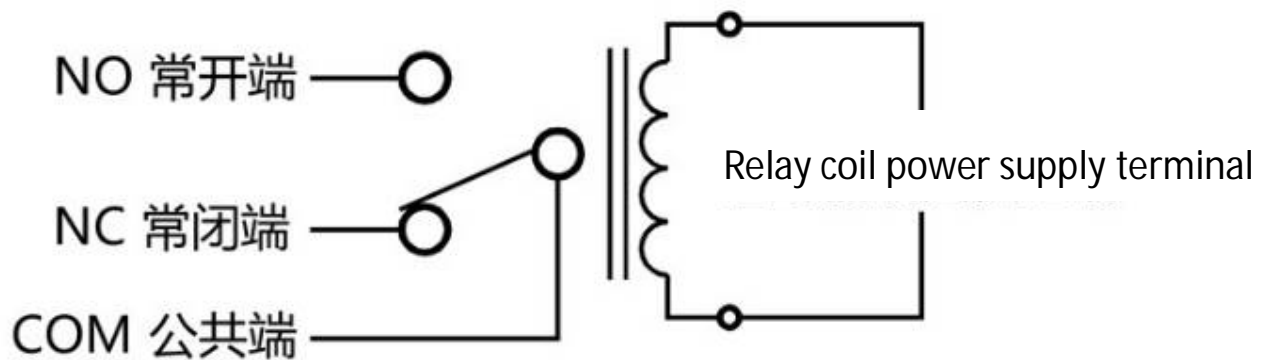
DC-   JD+
DC-   JD-

Plug in jumper cap, relay is same as trigger power supply, it is default to plug in jumper cap to delivery.

SONGLE
SLA-05VDC-SL-C
30A 250VAC/30VDC
CQC
1HP 120VAC
1/2HP 240VAC
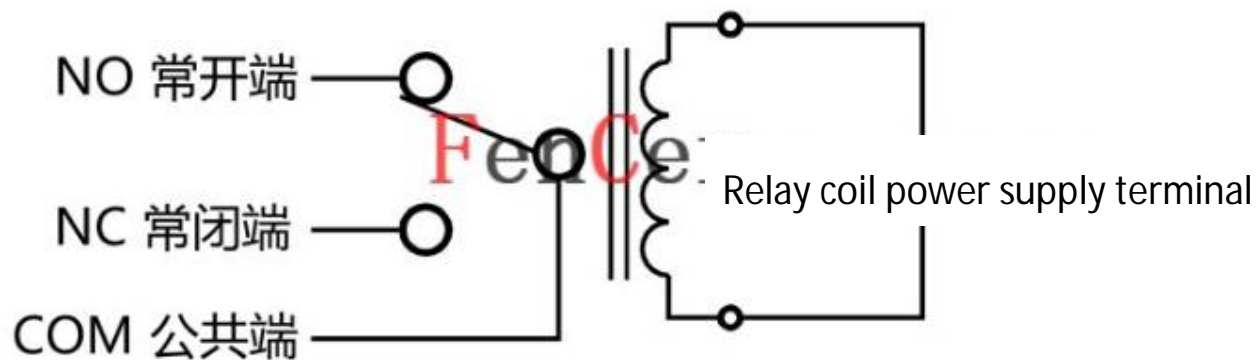30A 240VAC

Usage of relay:

NO 常开端

NC 常闭端

COM 公共端

Relay coil power supply terminal

When there is no voltage or voltage is not enough on both ends of relay coil, COM and NC of relay will be connected.

NO 常开端 ———— ○

NC 常闭端 ———— ○

COM 公共端 ————

Relay coil power supply terminal

When the voltage is reached to pull-in voltage on both ends of relay coil, COM and NO of relay will be connected.

COM 公共端   常开（NO）或常闭端(NC)

Connect AC live wire or DC positive pole

Relay switch

Load

Connect AC neutral wire or DC negative pole
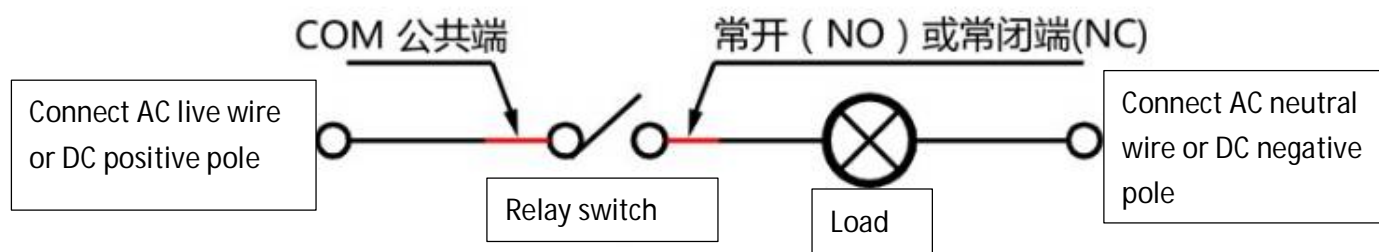
When the relay switch closes, and plant has voltage on both side of end, the relay can normally work. When the relay switch is disconnected and it can't work.

Working principle of relay:

As long as a certain voltage is added to both ends of the coil, a certain current will flow through the coil, resulting in electromagnetic effect, and the armature will overcome the pull force of the return spring under the action of electromagnetic attraction to attract the core, so as to drive the moving contact of the armature and the static contact (normally open contact) suction. When the coil power off, electromagnetic suction also disappeared, the armature will return to the original position in the spring reaction force, so that the moving contact and the original static contact (normally closed contact) released. This suction, release, so as to achieve the purpose of conduction in the circuit, cut off. For "normally open and normally closed" contacts of relays, they can be distinguished in this way: static contacts that are disconnected when the relay coil is not energized are called "normally open contacts"; The static contact in the power on state is called "normally closed contact". Relay generally has two circuits, low voltage control circuit and high voltage operating circuit.

The connection of relay:

NC 1 ①
COM 2 ②
NO 3 ③

3
NC
2
COM
NO 1