1-Channel Power Relay Module with Adjustable Timing Cycle (HW-521)

It is 6-30V 1-Channel Delay Power Relay Module with Onboard Adjustable Timing Cycle Switches with Digital LED display It is mostly used in Home Automation Delay Timer Control Switch Module Timer Controller. The Module operates at Operating voltage range of 6-30V, also it supports micro USB 5.0V power supply. Output capability: Can control the device within DC 30V 5A or AC 220V 5A. It can be applied to many fields as there is a wide range of application.

Features:

- Optocoupler Isolation: improve the anti-interference ability, after the parameter setting, it will be in memory forever.
- Wide voltage power supply (6 ~ 30V) supports micro USB 5.0V power supply, easy to use.
- The interface is clear, simple, powerful, and easy to understand, can meet almost all your needs.
- With emergency stop function ("STOP" button) and reverse polarity protection which can avoid burning by reverse connection.
- Adding sleeping mode, when the mode is enabled, if there is no operation within 5 minutes, the display will be turned off automatically, press any button will wake it up;
- You can set different parameters of OP, CL, LOP, which are independent of each other and are stored separately.
- All the parameter settings will be stored automatically when power is off.

Specifications:

- Operating Voltage Range: 6V – 30V
- Supply Current (A): 0.05
- Operating Temperature (°C): -40 to 85
- Storage condition: -40~ +80°C.
- Length (mm): 63
- Width (mm): 38
- Height (mm): 18
- Weight (gm): 26
- Shipment Dimensions: $8 \times 6 \times 4$ cm

Operation Mode:

1. P1: Trigger signal, the relay is on "OP" time, and then disconnect; Within the "OP" time, proceed as follows:
2. P1.1: the signal is triggered again, invalid
3. P1.2: the signal is triggered again, re-clocking
4. P1.3: Signal has triggered again, the relay is disconnected, stop the clock;
5. P-2: Trigger signal, after the "CL" time is off, the "OP" time is on. When the timing is completed, the replay will be disconnected;
6. P3.1: Trigger signal, after the "OP" time is on, the "CL" time is off, then cycle the above actions. If trigger signal within the loop, the relay will be disconnected and stop the clock. The number of cycles ("LOP ") can be set.
7. P3.2: No need to trigger the signal after powering up, the "OP" time is on, the "CL" time is off, then cycle the above actions; The number of cycles ("LOP ") can be set.
8. P-4: Signal holding function. If the signal is triggered, timing is cleared, the relay remains on; when the signal disappears, the relay will be off when the "OP" time is over; if another signal is triggered during timing, timing will be cleared.

How to choose the time interval:

parameter Introduction: OP power over time, turn off time CL, LOP cycle times (1-999 times, "—" is unlimited cycle)

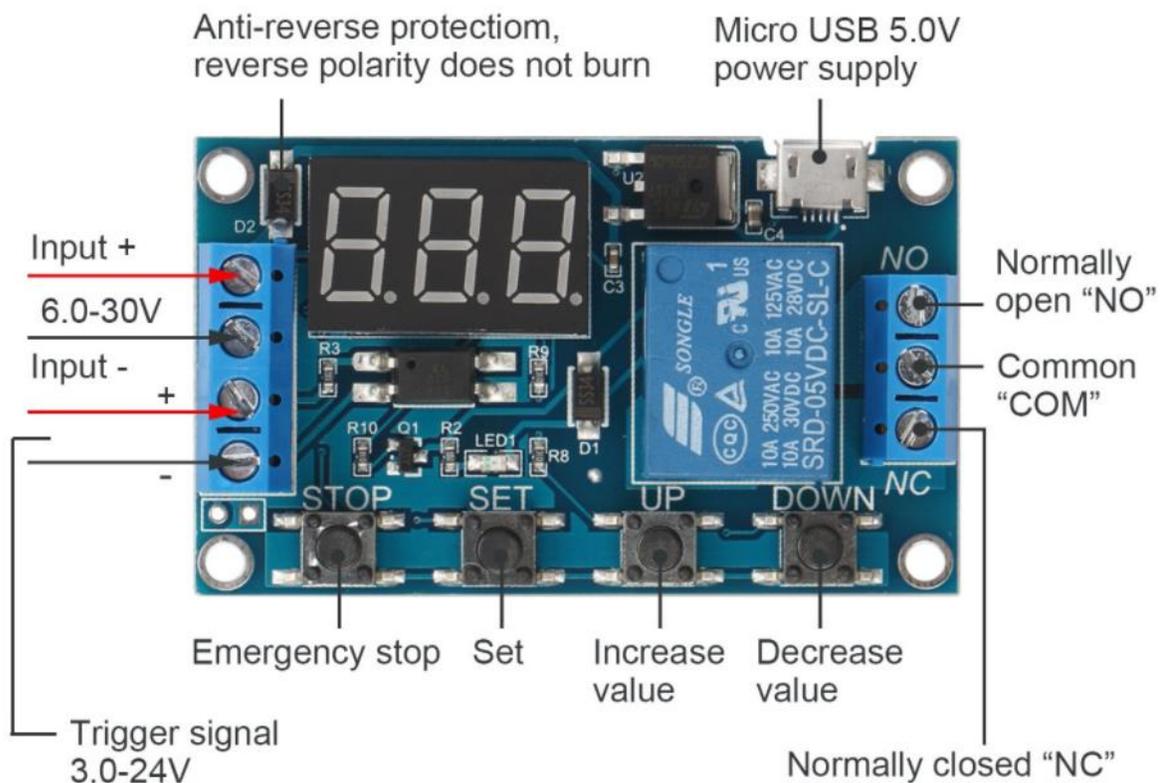1. In the selection of parameter set interface mode, and press the STOP button to select the time.

(1) xxx. if the decimal point is in some place, the time interval is s-1 999 s

(2) xx. x is the decimal place is ten, the time interval is 0.1 s 99.9 s-

(3) x. x. x is the decimal point are all on, the time interval is 1 min-999 min

How to set the parameter:

1. First, make sure relay operation mode
2. According to the operating relay mode, the main interface (power module will flash current operating mode; standard mode P1.1, then come into the main interface); long press SET key two seconds and then choose and enter selection interface mode; by pressing UP, DOWN key to choose the mode setting (P1.1 ~ P4)
3. After selecting the mode, press short SET to set the corresponding parameter, then the parameter you want to set will flash (OP power in time; CL power off time; LOP cycle times, "—" is unlimited cycle); by UP, DOWN to set the parameter value, support long press (increase or decrease quickly) and press slightly (increase or decrease of 1 unit); after setting the parameter value by short press the STOP key to choosing decimal place; choose the time interval (corresponding time interval is 0.1 s-999 min); Short press SET to set the current mode next parameter, the process is the same as above
4. After the setting mode parameter, press and hold the SET button then hold the current configuration mode will flash, then go back to the main interface; define success parameter main interface: when the relay does not work, it will show "000" (no decimal point); the operating state relay, the screen has a decimal point

Anti-reverse protectiom, reverse polarity does not burn

Micro USB 5.0V power supply

Input +

6.0-30V

Input -

+

-

NO — Normally open "NO"

Common "COM"

NC

STOP   SET   UP   DOWN

Emergency stop   Set   Increase value   Decrease value

Trigger signal 3.0-24V

Normally closed "NC"

Mode Select Interface:

press and hold the SET key to enter; after setting, long-press the SET button back on the main interface

Activate Relay Mode:

1. NO: PO in power over time, the relay can be connected
2. OFF: relay is not allowed to connect, when in the off state

in short main interface press the STOP key to achieve turn ON and OFF, the current state will flash; then back to the main interface

(this function is a function of a sudden stop, 1 key to turn off the relay)

Sleep Mode:

C-P Sleep mode: within 5 minutes, no operation; nixie tube will close auto display, and a function program well

Note:

1. Press and hold the STOP button for 2 seconds can achieve change from C-P to O-d; Current state will flash and then return to the main interface

2. The relay contact is passive and electricity production; 1 channel has the control function on / off