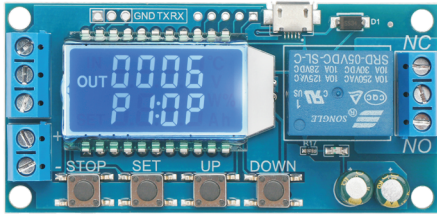


## Single Way Relay Module Delay Power-off Trigger Delay Cycle Timing Circuit Switch



### Product Highlights:

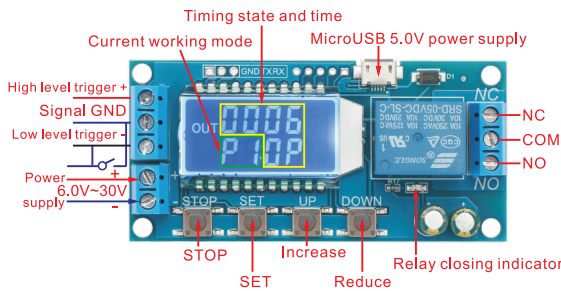
- 1.LCD Display, can clearly and directly show the current mode and parameters.
- 2.Opt coupler isolation, strong anti-interference ability, and industrial grade circuit board.
- 3.Support high & low level trigger, switching value control; apply for most of occasions.
- 4.Wide input voltage range (6~30V), also supports micro USB 5.0V power supply. It is convenient to use.
- 5.Support UART data upload and parameters setting.
- 6.Stop button to be provided emergency stop function, with reserve protection which it will not be burned under the condition of reserving.
- 7.Sleep mode: Without any operation within 5 minutes will close automatically the LCD backlight. Any button can wake up.
- 8.OP/CL/LOP parameters can be modified and saved, and they are individual.
- 9.All setting parameters are automatically saved by power-fail.

### Product Parameters:

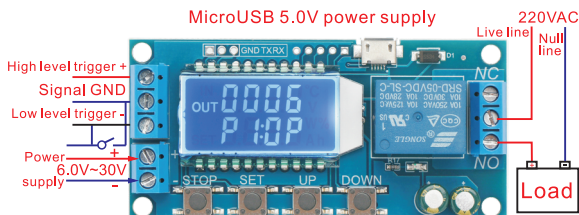
Working voltage: 6V~30V, support micro USB 5.0 V power supply  
 Working current: 50mA,  
 Static Current: 15mA  
 Max. Output load: DC 30V 5A and AC 220V 5A.  
 Trigger signal source: High level trigger (3.0V~24.0V), low level trigger (0.0V ~ 0.2V), switching value control (potential free contact)  
 Service life: more than 100,000 times  
 Working temperature: -40-85°C

- OP operation time
- CL close time,
- LOP loop times (1 - 9999 times, "----" represents infinite cycle)

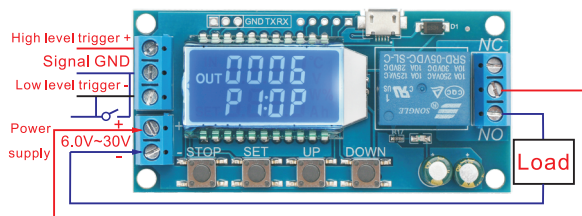
### Module Introduction :



### Wiring Diagram :



Weak current control strong current wiring diagram



Wiring diagram for sharing one power supply

### Parameter Settings:

- a) Long press **SET** to enter the setting interface;
- b) Set the working mode, work mode flashes remind, set the working mode by pressing **UP / DOWN**;
- c) Short press **SET** to select the working mode and enter the system parameter settings.
- d) In the system parameter setting interface, short press **SET** to switch the system parameters to be modified, and short press / long press **UP/DOWN** to modify. (Note: Short press **SET** in P-1~P-3, P-7 modes is invalid)
- e) In the **OP/CL** parameter modification interface, short press **STOP** to switch the timer unit (1s/0.1s/0.01s/1min);
- f) After all parameters are completed, long press **SET** to save the parameter settings and exit the setting interface.

### Working Modes Introduction(P1~P7):

- P1:** After the signal is triggered, the relay leads in **OP** time and then disconnects; In the **OP** time, it is invalid when the signal is triggered again.
- P2:** After the signal is triggered, the relay leads in **OP** time and then disconnects; In the **OP** time, it will re-timing when the signal is triggered again.
- P3:** After the signal is triggered, the relay leads in **OP** time and then disconnects; In the **OP** time, it is resetting, relay disconnected and stop timing when the signal is triggered again.
- P4:** After triggering signal and the relay is disconnected from **CL** time, the relay leads in **OP** time. After timing is completed, disconnects the relay.
- P5:** After triggering signal and the relay is connected with **OP** time, the relay disconnects from **CL** time. And then recycles the above actions, get the signal again, disconnects the relay, stops timing; and the times of cycles (**LOP**) can be set.
- P6:** No need to triggered the signal after power on, the relay leads in **OP** time and disconnects **CL** time, and then loops the above actions; the number of cycles (**LOP**) can be set.
- P7:** Signal hold function: the relay maintains conduction if the signal is triggered, or the timing is cleared. When the signal disappears and over **OP** time, the relay disconnects. During the timing, there is another signal and the timing is cleared.

### How to choose the timing range:

0.01sec(min.)~9999 min(max.) can be adjusted continuously.  
 In the OP/CL parameter modification interface, press **STOP** shortly to select the timing range;  
**XXXX** No decimal, timing range: 1sec~9999sec  
**XXX.X** The decimal point is in the ten, timing range:0.1sec~999.9sec  
**XX.XX** The decimal point is in the hundred, timing range:0.01sec~99.99sec  
**X.X.XX** The decimal points light up, timing range:1min~9999min  
 For example, if you want to set the **OP** to 3.2 seconds, move the decimal point to ten digits. LCD displays "003.2".

### Remote data upload and parameter setting functions:

The system supports UART parameter reading and writing functions;  
 UART: 9600,8,1

| CMD         | Function                    |
|-------------|-----------------------------|
| read        | Read system parameters      |
| OP: xxxx    | 1s                          |
| OP: xxx.x   | 0.1s                        |
| OP: xx.xx   | 0.01s                       |
| OP: x.x.x.x | 1 min                       |
| CL: xxxx    | 1s                          |
| CL: xxx.x   | 0.1s                        |
| CL: xx.xx   | 0.01s                       |
| CL: x.x.x.x | 1 min                       |
| LP: xxxx    | Cycle times                 |
| on          | Relay enable                |
| off         | Relay disable               |
| PX          | Set the working mode(P1~P7) |

### Additional Functions:

- a) Automatically hibernation function/ Low power function: In the running interface, long press **STOP** to open or close automatically sleep function. (L-P selects ON to start the hibernation function, and OFF turns off the hibernation function);
- b) Relay function selection: In the operation interface, shortly press **STOP**, the relay function is started or closed, 'ON' meets the conduction condition and the relay normally turns on, 'OFF' meets the conduction condition and the relay does not turn on; In the 'OFF' state, the system flashes 'OUT'.
- c) Parameters view: In the operation interface, short press **SET** to display the current parameter setting in the system, without affecting the system normal operation.
- d) Display content switching: In P-5 P-6 mode, switch display content (run time/cycle times) by pressing **DOWN**.