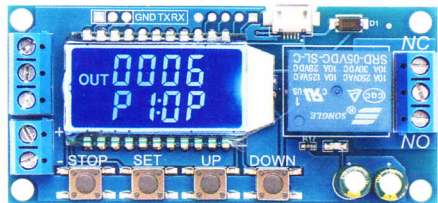# Single Way Relay Module Delay Power-off Trigger Delay Cycle Timing Circuit Switch


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,
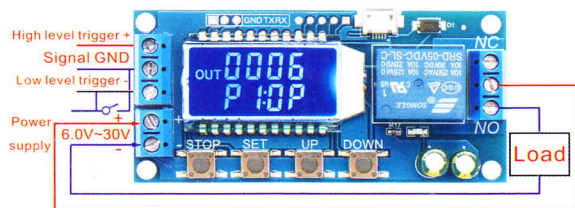LOP loop times (1 - 9999 times, "----" represents infinite cycle)

Module Introduction :
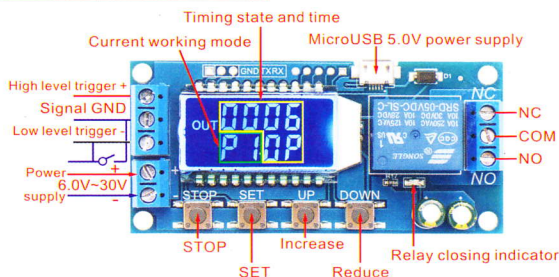
Wiring Diagram :
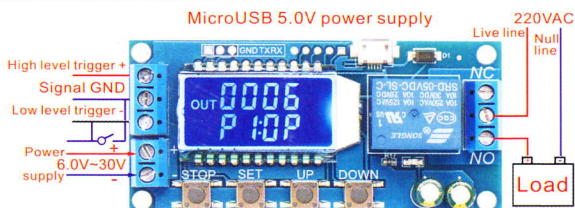
Weak current control strong current wiring diagram

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.X.X 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**.