

### Parameters:

- Working Voltage: DC 12V
- Working Current: <50mA (less than 15mA if the relay doesn't work, less than 3mA if the display is closed)
- Working Temperature: recommending 20°C~60°C (Limit Range: -30°C~70°C)
- Load Capacity:  
Maximum capacity of relay NO port: DC 0-30V/10A, AC 0-250V/10A  
Maximum capacity of relay NC port: DC 0-28V/10A, AC 0-125V/10A
- Usage Restriction:
  - Working life of the relay is to work with full load for 10 thousand times, so it is suitable for the situation which has low pull-in frequency or larger current controlled situation, rather than using in the situation of fast repetitive operation
  - Remember to consider load capacity remaining of relay interface; pure resistive load should save capacity remaining more than 1 times, and inductive load or capacitive load should save more than 3 times remaining at least

### Features:

- The module has power supply reversed connection protection, so it will not be damaged if connecting wrong power supply
- It adopts quality power supply module of high voltage resistance, making the system more stable and reliable
- With 0.1s timing function, timing precision is upgraded to 0.01 second
- There is automatic power-saving function, and users can set it by yourself
- All setting options can be saved automatically, and the setting contents will not lose if power fails

### Functions:

- Users can choose one of the following 18 functions according to pressing button and displaying. You can set and save functions' parameters, as well as check parameter of present function. Time's parameter can be set to adjustable 0.1 second, and the precision up to 0.01s
- Tips: 1-8 functions will start automatically after power up, and 9-18 functions need high-level pulse signal to trigger start-up (high-level duration can't be less than 20ms, and the following is the same.). The function 9 is self-locked mode and function 10 is level-control mode
- **Function 1:** Timing Pull-In: After getting electricity, the relay is pull-in when T1 time is delayed. T1 is adjustable among 0.1 second to 270 hours; give Ch1 interface a high-level pulse signal, and repeat the foresaid function once
- **Function 2:** Timing Disconnection: When getting electricity, the relay is pull-in; the relay disconnects when T1 time is delayed. T1 is adjustable among 0.1s to 270h. Give Ch1 interface a high-level pulse signal, and repeat the foresaid function once
- **Function 3:** Timing Pull-In & Disconnection Later: After getting electricity, do not make pull in firstly until the delayed time T1 arrives; relay is disconnected after pull-in time T2 arrives. Delayed time T1 and T2 are adjustable among 0.1s to 270h. Give Ch1 interface a high-level pulse signal, and repeat the foresaid function once
- **Function 4:** Timing Disconnection & pull-In Later: After power up, relay should be pull-in immediately, and it is disconnected after delayed time T1 arrives; it is pull-in after off-state time T2 arrives. Delayed time T1 and T2 are adjustable among 0.1s to 270h. Give Ch1 interface a high-level pulse signal, and repeat the above function once
- **Function 5:** Unlimited Circular Timing Mode 1: After power up, relay doesn't be pull-in until delayed time T1 arrives; disconnect the relay after pull-in time T2 arrives, then repeat again the above state. Delayed time T1 and T2 are adjustable among 0.1s to 270h. Give CH1 interface a high-level pulse signal, then you can restart the above function
- **Function 6:** Unlimited Circular Timing Mode 2: After power up, relay is pull-in immediately, and it is disconnected after delayed time T1 arrives; it is pull-in after off-state time T2 arrives, and then repeat again the above state. Delayed time T1 and T2 are adjustable among 0.1s to 270h. Give CH1 interface a high-level pulse signal, then you can restart the above function
- **Function 7:** Limited Circular Timing Mode 1: After power up, relay doesn't be pull-in until delayed time T1 arrives; disconnect it after pull-in time T2 arrives, then repeat NX times the above state. At this time, T1 and T2 are adjustable among 0.1s to 9999s, and circular times NX is adjustable among once to 9999 times. Give CH1 interface a high-level pulse signal, then you can restart the above function
- **Function 8:** Limited Circular Timing Mode 2: After power up, relay is pull-in immediately, and it is disconnected after delayed time T1 arrives; it is pull-in after off-state time T2 arrives, then repeat NX

times the above state. At this time, T1 and T2 are adjustable among 0.1s to 9999s, and circular times NX is adjustable among once to 9999 times. Give CH1 interface a high-level pulse signal, then you can restart the above function

- **Function 9:** Self-locked Mode: Give CH1 interface a high-level pulse signal, and the relay is pull-in, and then give one more high-level pulse signal to disconnect the relay
- **Function 10:** Trigger Mode: With delayed disconnecting function, the relay doesn't work after power on, giving CH1 interface a high-level pulse signal, and the relay is pull-in immediately; it is still pull-in after the CH1 signal disappear, and the relay is disconnected when pull-in time T1 arrives. At this time, T1 is adjustable among 0s to 270h  
Note: In this function, if you set T1 as 0 second, it will become the situation as follows: the relay can be pull-in when Ch1 has high-level signal, and will be disconnected immediately without the signal
- **Function 11:** Trigger Timing Pull-In: Relay doesn't work after power on, giving Ch1 interface a high-level pulse signal and delaying T1 time, the relay is pull-in; T1 is adjustable among 0.1s to 270h. Give CH1 interface a high-level pulse signal, and then repeat the above function once
- **Function 12:** Trigger Timing Disconnection: Relay doesn't work after power on, giving Ch1 interface a high-level pulse signal, the relay is pull-in, and it is disconnected if delaying T1 time; T1 is adjustable among 0.1s to 270h. Give CH1 interface a high-level pulse signal, and then repeat the above function once
- **Function 13:** Trigger Timing Pull-In & Disconnection Later: Relay doesn't work after power on, giving Ch1 interface a high-level pulse signal, and it is pull-in after delayed time T1 arrives; it is disconnected after pull-in time T2 arrives. Delayed time T1 and T2 are adjustable among 0.1s to 270h. Give CH1 interface a high-level pulse signal, and then repeat the above function once
- **Function 14:** Trigger Timing Disconnection & Pull-In Later: Relay doesn't work after power on, giving Ch1 interface a high-level pulse signal, and the relay will be pull-in immediately, then it will be disconnected after delayed time T1 arrives; it will be pull-in after off-state time T2 arrives. Delayed time T1 and T2 are adjustable among 0.1s to 270h. Give CH1 interface a high-level pulse signal, and then repeat the above function once
- **Function 15:** Unlimited Circular Timing Mode 1: Relay doesn't work after power on, giving CH1 interface a high-level pulse signal, and then it is pull-in after delayed time T1 arrives; it will be disconnected after pull-in time T2 arrives, and then repeat again the above state. Delayed time T1 and T2 are adjustable among 0.1s to 270h. Give CH1 interface a high-level pulse signal again, which is able to restart the above function
- **Function 16:** Unlimited Circular Timing Mode 2: Relay doesn't work after power on, giving CH1 interface a high-level pulse signal, and the relay will be pull-in immediately, then it will be disconnected after delayed time T1 arrives; it will be pull-in after off-state time T2 arrives, and then repeat again the above state. Delayed time T1 and T2 are adjustable among 0.1s to 270h. Giving CH1 interface a high-level pulse signal repeatedly is able to restart the above function
- **Function 17:** Limited Circular Timing Mode 1: Relay doesn't work after power on, giving CH1 interface a high-level pulse signal, and then it is pull-in after delayed time T1 arrives; it will be disconnected after pull-in time T2 arrives, and then repeat NX times the above state. At this time, T1 and T2 are adjustable among 0.1s to 9999s, and circular times NX is adjustable among once to 9999 times. Giving CH1 interface a high-level pulse signal repeatedly is able to restart the above function
- **Function 18:** Limited Circular Timing Mode 2: Relay doesn't work after power on, giving CH1 interface a high-level pulse signal, and it is pull-in immediately, and then it will be disconnected after delayed time T1 arrives; it is pull-in after off-state time T2 arrives, and then repeat NX times the above state. At this time, T1 and T2 are adjustable among 0.1s to 9999s, and circular times NX is adjustable among once to 9999 times. Giving CH1 interface a high-level pulse signal repeatedly is able to restart the above function

### Operation Instruction:

- You can choose function mode through pressing button and display, and also can set timing parameters. After all parameters have been set, they can be stored automatically and will not lose if power fails. The following are some noun descriptions about parameter setting:
  - Button:** there are 4 buttons which are [SET], [SWI], [NUM+] and [NUM-]
  - Short Pressing:** it means that time of pressing button is less than 1s
  - Long Pressing:** it means that time of pressing button is more than 1s
  - Working Mode:** there are 3 modes which are [working mode], [view mode] and [setup mode]