

Ts1.2 Time Relay Controller Instructions

1. Features

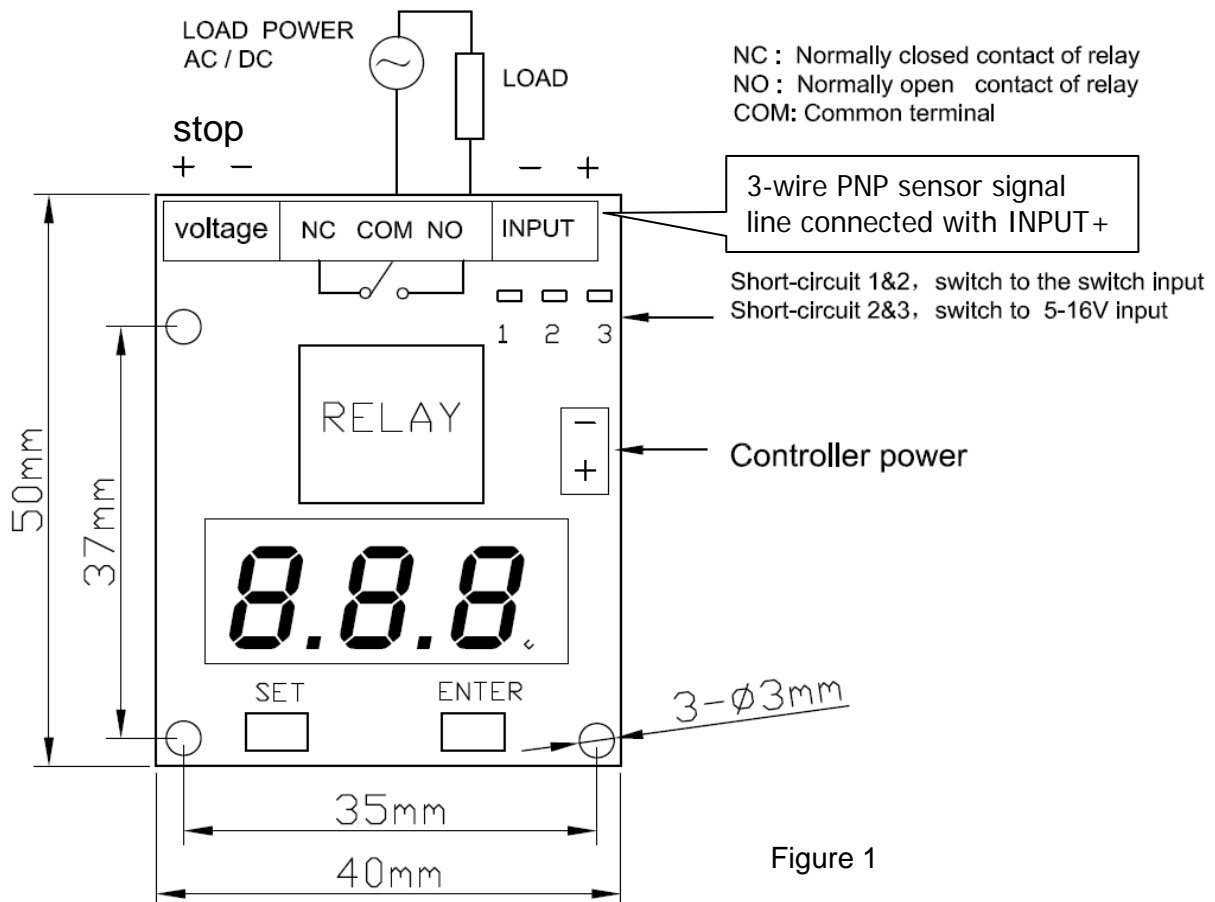
- 8 trigger modes can be set, to achieve trigger start, trigger restart, signal maintenance running, trigger reset (watchdog function), force stop and other functions.
- Timing Range: 0.1 seconds ~ 999 minutes adjustable, relay can be closed first and then opened, it can be also opened first and then closed. cycles 0 ~ 9999 times. ("0" means infinite cycles).
- Operating Power: Optional DC12V (10~18V) DC24V (18~28V) DC5V (5~9V) .

Relay parameters:

- A set of conversion (normally opened and normally closed).
- Contact load: 10A/277V AC or 10A/30V DC Contact resistance: $\leq 100\text{m}\Omega$ (1A 6VDC).
- Mechanical durability: 10 millions Electricity durability: $> 100,000$ (10A-250VAC).
- Operating Temperature: $-40 \sim 85^{\circ}\text{C}$.
- The pre-set parameters can be saved after power off.

Attention: Use this product to control the high-voltage electrical equipment

must electrical professionals to operate, high voltage danger!



2 .Running Settings:

ON: Relay closed ; OFF: Relay opened

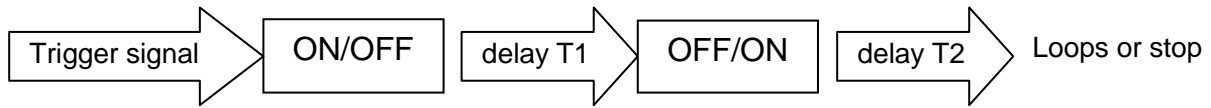


Figure 2 Running diagram

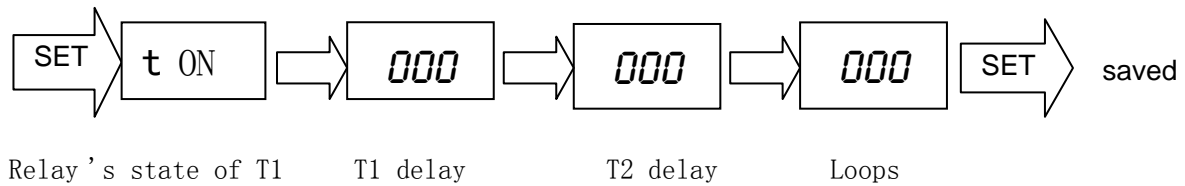
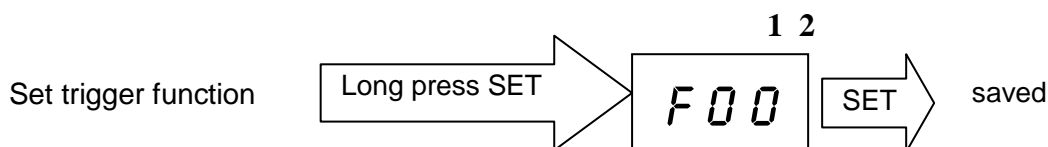


Figure 3 Setting diagram

Connect to power, LED display shows values of "T1", system waiting for trigger to start.

Short press "SET" button to set, such as Figure 3, the bit of value will flashing, press "ENTER" button, the value can be set, the first group of parameters is the relay's state of T1 time, "t ON" means that T1 time is first closed and then T2 time is opened, and "t OF" means that T1 time is first opened and then T2 time is closed. Short press "SET" key to shift to the second group and the third group is T1 and T2 time values. When adjusting T1 T2 time, long press "SET" key for three seconds, the decimal point can be switched to indicate the corresponding time unit, and "XX.X" means 0.1 second unit. "XXX" means one second unit, and "XXX." means a unit of minutes. The fourth group of parameters is the number of cycles (0-999 adjustable), "000" means infinite loops. The settings will be saved automatically when press "SET" shift to the LED display without flash or after 5 seconds of keyless operation. When powered on, the LED display will instantly display the current T1 time switch status "t ON" or "t OF".

After setting, external signal input can start timing (countdown). If T2 time is 000, then T1 time will not cycle after the end of run. If T2 time is set, the relay will cycle according to T1 and T2 time. After a limited number of loops, the relay will release and stop at a fixed time. Short press "ETNER" key can start and pause timing, long press ENTER key can stop running and timing reset.



When powered on, long press SET key for 3 seconds, the LED display shows "F00", means system function setting. Bit 1 set "0" means that it needs to trigger the start-up operation after power-on, and set "1" to indicate automatic start-up timing operation after power-on. The second

position is the trigger mode setting. The trigger terminal is "INPUT+ -" (can input switch signal or voltage signal, switch short-circuit cap to 2-3 position when input voltage signal, as shown in Fig.1) and "VOL+ -" (input 0-40V voltage signal). See Fig. 1. Switch signal or voltage signal can be input to start or stop at a fixed time. The mode is as follows:

0: "Input" trigger start, repeated trigger is invalid when running, "voltage" control stop reset (not connected when not in use).

1. "Input" trigger reset, restart, "voltage" stop and reset.

2. "Input" terminal maintains the operation of the input signal continuously, the relay releases when there is no signal, the timing is suspended, and the "voltage" terminal controls the stop and reset.

3. The "Input" terminal maintains operation with continuous input, resets regularly without signal, releases relays, and the "voltage" terminal controls the stop and reset.

4. The "Input" terminal has the signal to clear and reset regularly, and it runs without the signal (watchdog function). The "voltage" terminal controls the stop and reset.

5. "voltage" high-level to low-level (falling edge) trigger operation, "Input" control stop.

6. "voltage" terminal falling edge trigger restart operation, "Input" terminal control stop. (NPN sensor has pull-up resistance inside to produce falling edge, otherwise it needs pull-up resistance outside.

7. "voltage" high-level reset, low-level operation, "Input" control stop.

Hold down the SET and ENTER keys and turn on the power, and display "rst" to restore settings.

The End