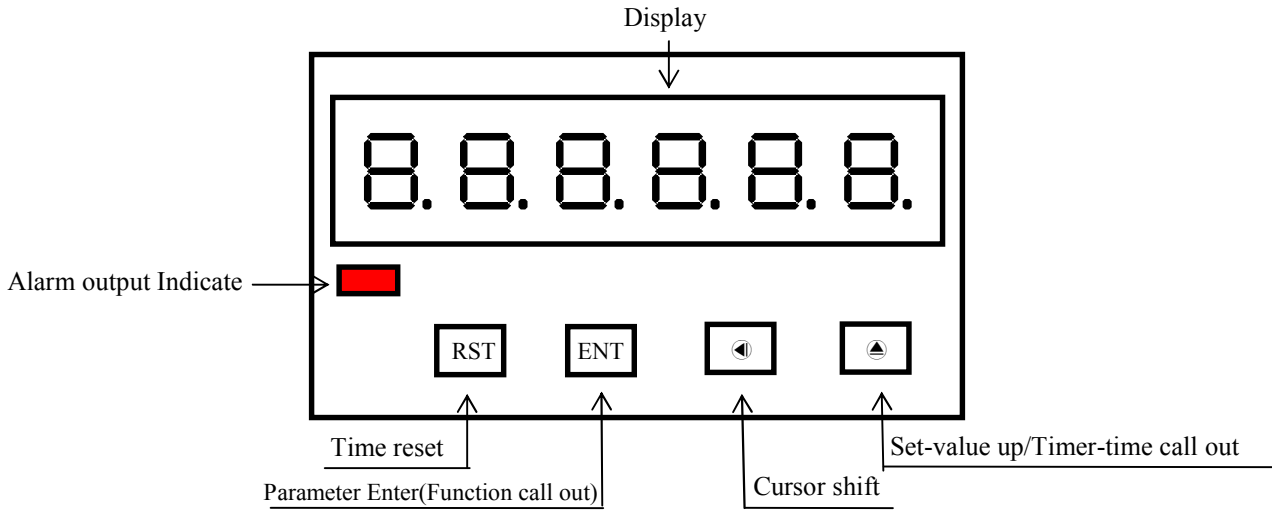


Features

- ⊙ Timing start mode (Power on or external contact or NPN or DC4-30V pulse signal input) can be modified
- ⊙ Pulse input signal time 1mS/20mS can be modified
- ⊙ 4 type timer counting for (99Hr59Min59Sec / 9999Hr59Min / 9999.99Hr /9999D23Hr)can be modified
- ⊙ One alarm output function
- ⊙ 0.3" highlight LED
- ⊙ Timer eleven output mode(A/A1/A2/A3/A5/B/B1/B2/C/D/E) can be modified
- ⊙ Reset by panel function
- ⊙ Dimension small and High stability

Name of parts



Key Introduce

⊕ Key Function	1.In normal display, The key function is call out setting item 2. In parameter setting page, The key function is data Enter , and go to next page
◀ Key Function	1. Into parameter setting page, Can be modify parameter data with ◀&▶ key
▶ Key Function	1. In normal display, The key function is call out Timer-time setting page 2. Into parameter setting page, Can be modify parameter data with ◀&▶ key
◀&▶ Key Function	1.In any setting page, Press ◀&▶ key return normal display,and save the modify parameter data.
RESET Key Function	1.In any time status, Press RESET key will be reset time status
No key in anything	1. In setting page, no key in anything about 2 minutes return normal display, and the modify data will be lost

Inside parameter data setting procedure

Step	Parameter mark description	Parameter mark	Operation manual
1	Normal display	1 2 3 4 5 6	1.Press ⊕/FUNC key into T-S-M setting page
1-1	T-S-M(Timing Start Mode) Default=T-IN	└ - S - n	1. Decode T-S-M with ▶ key(P-ON or T-IN) 2.Press ⊕ key into STI-T setting page.
		└ - i n	Note 1. T-S-M =P-ON: Timing start at power on, terminal key = RST function and C/D/E output mode disable. Note 2. T-S-M =T-IN: contact or NPN or DC4-30V Pulse input, Timing start
1-2	STI-T(Start Timing Input Time) Default=20mS	S └ , - └	1. Decide STI-T with ▶ key(1mS/20mS) 2.Press ⊕ key into P-I-T setting page
		2 0 n S	Note. 1mS for NPN or DC4-30V signal, 20mS for external contact signal
1-3	P-I-T(Pulse Input Type) Default=NPN	P - , - └	1. Decide P-I-T with ▶ key(NPN/PNP) 2.Press ⊕ key into TCR setting page
		n P n	Note: NPN: external contact signal or NPN, PNP:DC4-30V pulse signal.
1-4	TCR(Timer Counting Range) Default=99Hr59Min59Sec	└ C r	1.Decide TCR with ▶ key(99Hr59Min59Sec/ 9999Hr59Min/ 9999.99Hr/ 9999D23Hr)
		9 9 S 9 S 9	2.Press ⊕ key into OP.MODE setting page
1-5	OP.MODE(Output Mode) Default=A	o P . n o d E	1.Decide OP.MODE with ▶ key(A/A1/A2/A3/A5/B/B1/B2/C/D/E)
		A	2.Press ⊕ key into OP.TIME setting page
1-6	OP.TIME(Output Time) Default=0	o P . └ , n E	1.Decide OP.TIME with ◀&▶ key(00.0~99.9 sec.) 2.Press ⊕ key into KEY-P.L. setting page
		0 0 . 0	Note:OP.TIME=0 denote self-holding output, OP.TIME=0.1~99.9 is one-shot output Note:OP.MODE=C,D,E mode is unconcerned with OP.TIME
1-7	KEY-P.L.(Key Protection Level) Default=P-not	└ E y - P . L	1.Decide KEY-P.L. with ▶ key (P-not/P-rst.k/P-s.u.-k/P-all.k) 2.Press ⊕ key return normal display
		P - n o E	Note: P-not: Non-Lock any key P-rst.k:Lock RESET key P-s.u.-k: Lock ◀&▶ key P-all.k: Lock whole key

Outside parameter data setting procedure

2	Normal display	1 2 3 4 5 6	1.Press ▶/TIME key about 3 sec. , into TIME-T setting page
2-1	TIME-T(Timer-Time) Default=0	└ , n E - └	1.Decide Timer-Time with ◀&▶ key (0~999999)
		0 0 . 0 0 0 0	2.Press ⊕ key enter data and return normal display

Appendix	Error Mark Description	Error Mark	Analyze & Description
1	EEPROM error detect	E - 00	1. External interference when EEPROM read/write or write over 100000 times (guarantee 10 years) Please power reset, if still display E-00, doing following step: 1.E-00 & No display for inquire reset EEPROM 2.Decide Yes with Δ key, press F1 key return normal display 3.EEPROM has reset, Please follow step 1~2 setting again
		00	
		YES	

■ Timer Output Mode

Basic Operation Description	Detailed Operation Description
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⊙ **Mode A: Signal ON delay 1 (Timer resets when power comes ON)**

- START ON start the timing, Once reach setting value, OUT enable self-holding or one-shot, Present value will be hold until RESET ON or power supply recovered, and then Present value reset.
- During the START ON, the timer starts when the power comes ON or when the RESET OFF.
- Start signal input is disabled during timing.
- Once START ON, OUT is instantaneous when setting value is 0.
- While T_S_M=P_ON, START ON is RST function

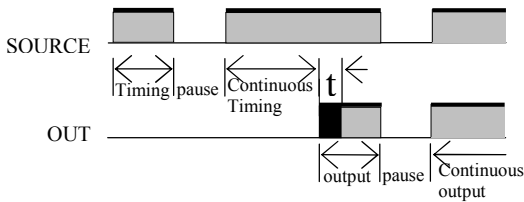
⊙ **Mode A-1: Signal ON delay 2 (Timer resets when power comes ON)**

- START ON start the timing, Once reach setting value, OUT enable self-holding or one-shot, Present value will be hold until START OFF or RESET ON or power supply recovered, and then Present value reset.
- During the START ON, the timer starts when the power comes ON or when the RESET OFF.
- Once START ON, OUT is instantaneous when setting value is 0.
- While T_S_M=P_ON, START ON is RST function

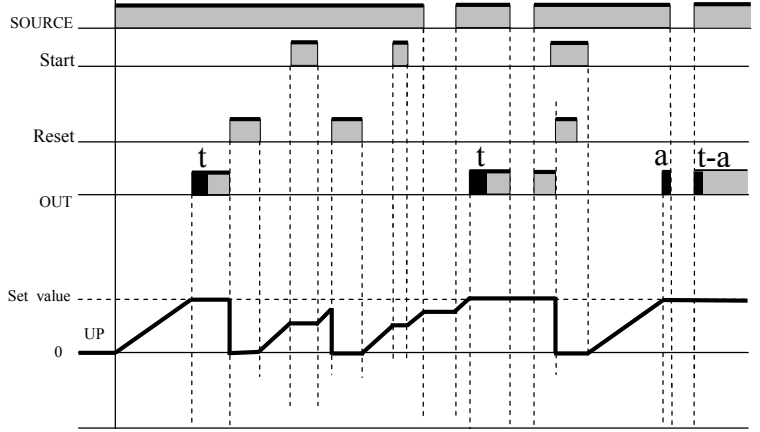
⊙ **Mode A-2: Power ON delay 1 (Timer resets when power comes ON)**

- Both power on and RESET OFF start the timing, Once reach setting value, OUT enable self-holding or one-shot, Present value will be hold until RESET ON or power supply recovered, and then Present value reset.
- The start signal disables the timing function as the gate input.
- During the power on, the timer starts when the RESET OFF
- Once power on, OUT is instantaneous when setting value is 0.
- While T_S_M=P_ON, START ON is RST function

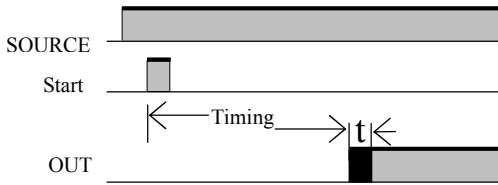
⊙ **Mode A-3: Power ON delay 2 (Timer does not reset when power comes ON)**



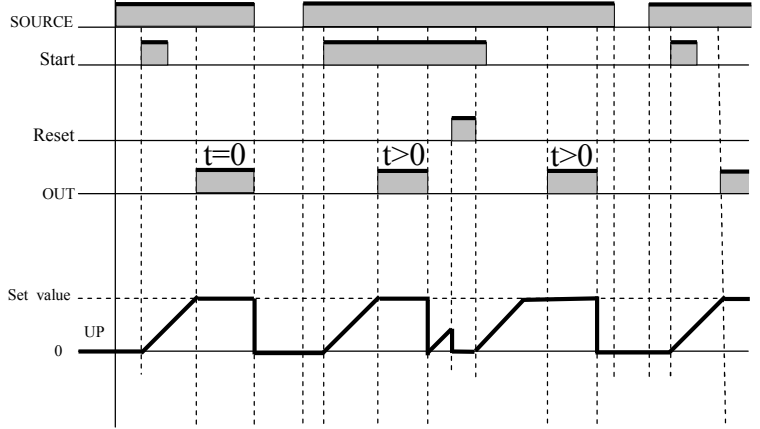
- Both power on and RESET OFF start the timing. If power off, the timing and OUT will be pause until power supply recovered. Once reach setting value, OUT enable self-holding or one-shot. Present value will be hold until RESET ON.
- The start signal disables the timing function as the gate input.
- Once power on, OUT is instantaneous when setting value is 0.
- While T_S_M=P_ON, START ON is RST function



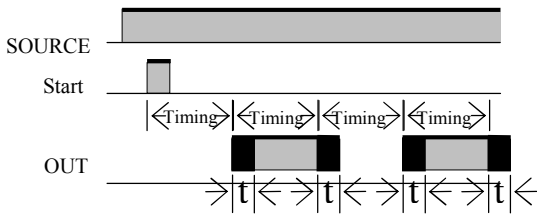
⊙ **Mode A-5: Signal ON delay 3 (Timer resets when power comes ON)**



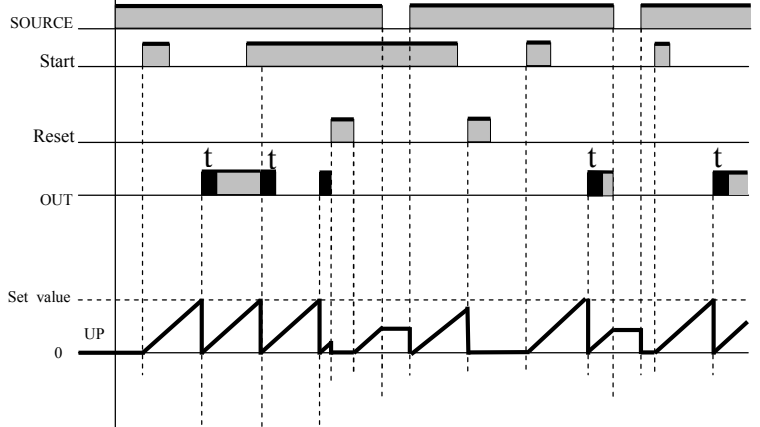
- START ON start the timing. Once reach setting value, OUT enable self-holding or one-shot. Self-holding the present value will be hold until RESET ON or power supply recovered, One-shot the present value will be reset after one-shot expire.
- During the START ON, the timer starts when the power comes ON or when the RESET OFF.
- Start signal input is disabled during timing.
- Once START ON, OUT is instantaneous when setting value is 0.
- While T_S_M=P_ON, START ON is RST function



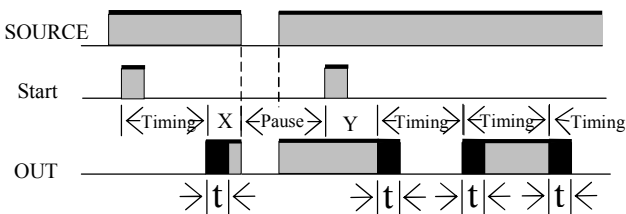
⊙ **Mode B: Repeat cycle 1 (Timer resets when power comes ON)**



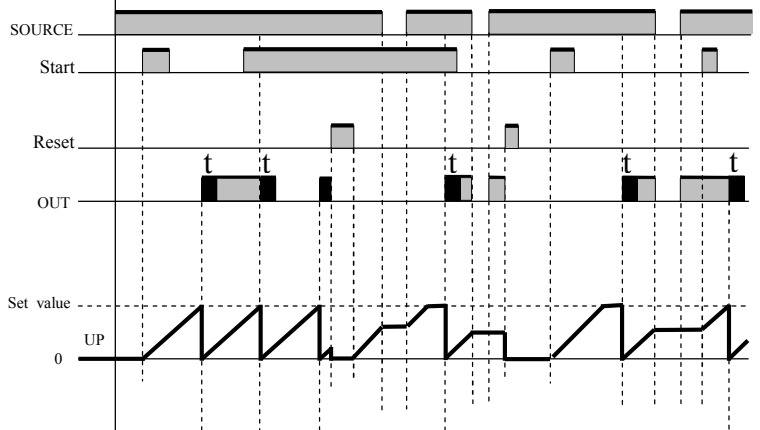
- START ON start the timing. Once reach setting value, the Present value reset and restart timing. OUT enable one-shot or self-holding until next time reach again. Repeat timing and output until RESET ON or power supply recovered, and then Present value reset.
- During the START ON, the timer starts when the power comes ON or when the RESET OFF.
- Setting value must be at least 100 ms
- While T_S_M=P_ON, START ON is RST function



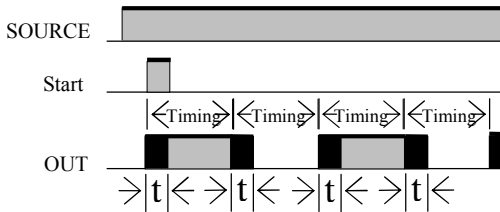
⊙ **Mode B-1: Repeat cycle 2 (Timer does not reset when power comes ON)**



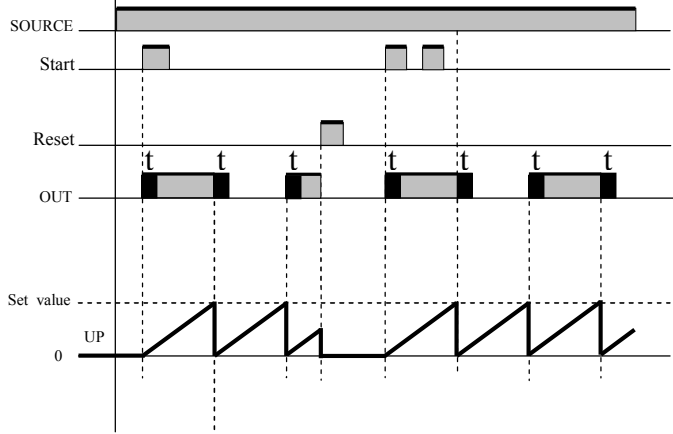
- Timing time=X+Y
- START ON start the timing. Once reach setting value, the Present value reset and restart timing. OUT enable one-shot or self-holding until next time reach again. Repeat timing and output until RESET ON. During the START ON, if power off, the timing will be pause until power supply recovered.
- Setting value must be at least 100 ms
- While T_S_M=P_ON, START ON is RST function



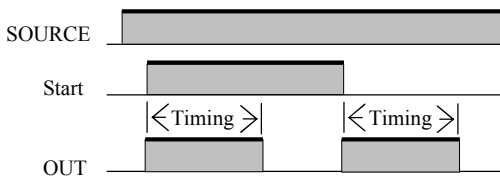
Ⓢ Mode B-2: Repeat cycle ON START (Timer resets when power comes ON)



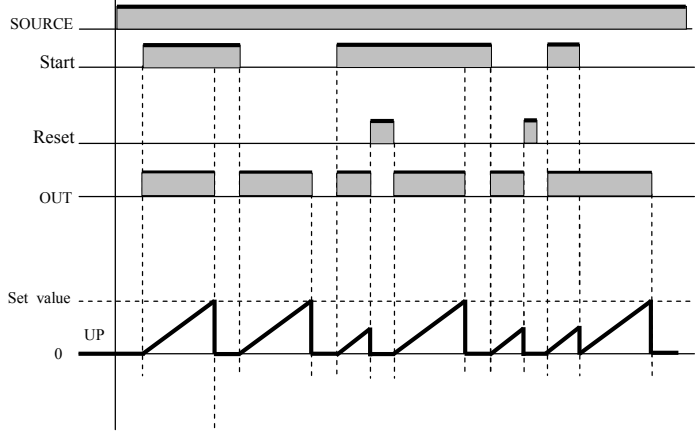
- START ON start the timing and enable OUT one-shot or self-holding. Once reach setting value, both present value and OUT reset. Repeat the timing and output until RESET ON.
- Setting value must be at least 100 ms
- While T_S_M=P_ON, START ON is RST function



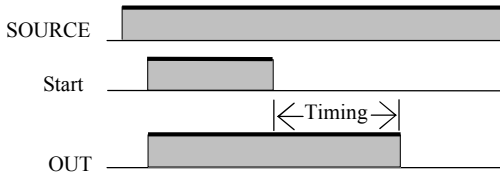
Ⓢ Mode C: Signal ON/OFF START (Timer resets when power comes ON)



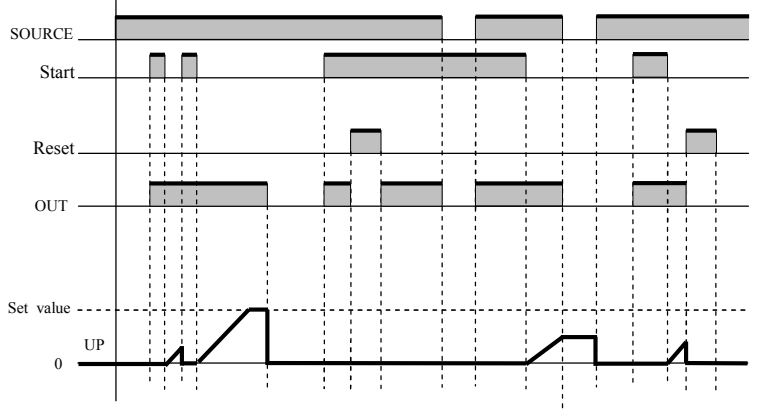
- START ON or START OFF start the timing and enable OUT self-holding until reach setting value
- During START ON, Present value will be reset and pause OUT period of the RESET ON
- START ON or START OFF must greater than TIME-T
- While T_S_M=P_ON, this mode is disable.



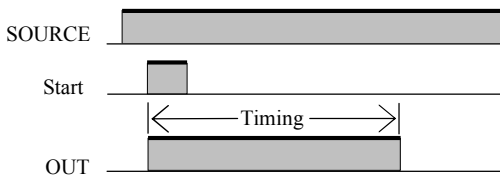
Ⓢ Mode D: Signal OFF DELAY (Timer resets when power comes ON)



- START OFF start the timing, Once reach setting value or RESET ON or START ON or power supply recovered, the present value will be reset.
- The OUT is ON during START ON (except when the power is OFF or RESET ON)
- When setting value is 0, the OUT only ON during the START ON
- While T_S_M=P_ON, this mode is disable.



Ⓢ Mode E: Interval (Timer resets when power comes ON)



- START ON start the timing, Once reach setting value or RESET ON or power supply recovered, the present value will be reset.
- START ON start the timing, the OUT is ON until reach setting value or RESET ON or power supply recovered.
- OUT is disabled when the setting value is 0.
- While T_S_M=P_ON, this mode is disable.

