

TR series

Multifunctional Timer

OPERATION GUIDE

Thanks for the purchasing our TR series Timer. Please do read the manual before the use of the meter so that you could make a full acknowledge of our product and operate it correctly. The edition of the manual is RE-C-05B0. We will not inform you specially if any modification made.

1、Cautions

(1) Do not use this product in following environment:

- full of the air that are easy to blast and fire
- full of strong erodible air or powder dust
- high temperature
- strong vibration or strike
- with water, oil dust, chemical splashing

(2) Please make sure that the wire connection of every pin is set correctly and the power supply is in use limit before it is powered on.

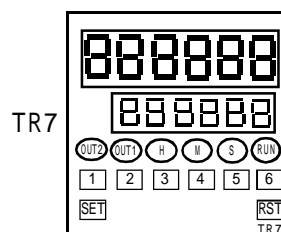
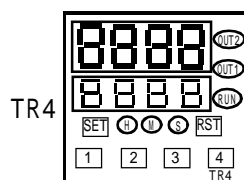
(3) Breaking up, changing and repairing our product by yourself is forbidden

(4) Please by far away from high-voltage, big-current dynamical wire while wire assignment for avoiding anti-jamming.

2、Meter characteristics

- ★ strong anti-jamming ability
- ★ two line 4 digit, 6 digit LED display
- ★ many size can be selectable: 48W × 48H, 72W × 72H, 96W × 48H
- ★ set the parameter value with touch switch
- ★ adding-timer, subtracting-timer function
- ★ 8 kinds range
- ★ two segment setting and output (relay or transistor)
- ★ 8 kinds output logics: F, N, R, C, L, K, T, A;
- ★ memory function when power off
- ★ the meter can supply DC24V power (also manufacture other specification)
- ★ the panel or exterior connecting port having reset function
- ★ the exterior connecting port (PAU) having pause function

3、Panel function instruction



NO	Panel words	Content instruction
1	PV	Real measure data/mode indicator
2	SV	Setting data/mode content indicator
3	OUT1	Output 1 indicator
4	OUT2	Output 2 indicator
5	H	hour unit indicator
6	M	minute unit indicator
7	S	second unit indicator
8	RUN	Meter normally working indicator
9	SET	Confirmation key
10	RST	Reset key
11	1-6	NO.1 to 6 bit number setting key,parameter modifying key

4、Type distinguishing

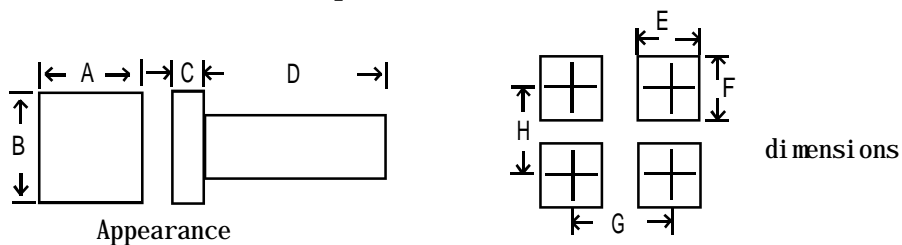
size		output function		timing digital		output method		communication	
code	code	code	code	code	code	code	code	code	code
DIN48 × 48	4	one section	H1	4 digital	4	relay	R	none	0
DIN72 × 72	7	two section	H2	6 digital	6	transistor	T	RS485	2

Attention: The timer without OU1 and SV1 setting If the timer with one output, we can have sth. made to order.

5、Characteristics index

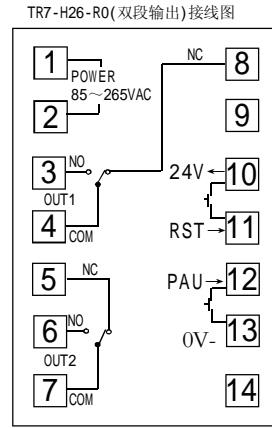
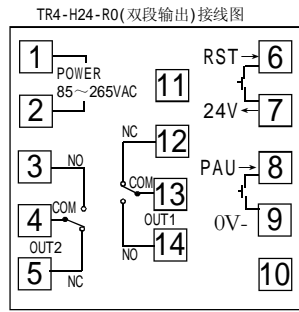
Power voltage	85V-265VAC, 50Hz/60Hz (available to select10-50VDC)
Electric power consumption	5VA MAX
Output method	Relay contact output or transistor output
Relay contact capacity	250VAC/3A或30VDC/5A
Transistor output capacity	30VDC/50mA
Exterior power supply	DC24VDC 50mA MAX (manufacture other specification)
Insulated resistance	$\geq 100M \Omega$
Resisting irrelated signal interference	Power: $\pm 2000V$, input: $\pm 500V$
Resisting vibration	10~55Hz/0.75mm
Parameter keeping	10 years
Ambient temperature	0~50℃
Ambient humidity	35~85%RH
timing range	0.01S~99999.9H(TR7)、 0.01S~999.9H (TR4)
Output delay time	0.01S~9999.99H(TR7)、 0.01S~99.99H (TR4)

6、Dimension and panel cut out



尺寸 型号	A	B	C	D	E	F	G	H
TR4	48	48	14	80	44+0.5	44+0.5	80	80
TR7	72	72	14	80	68+0.5	68+0.5	104	104

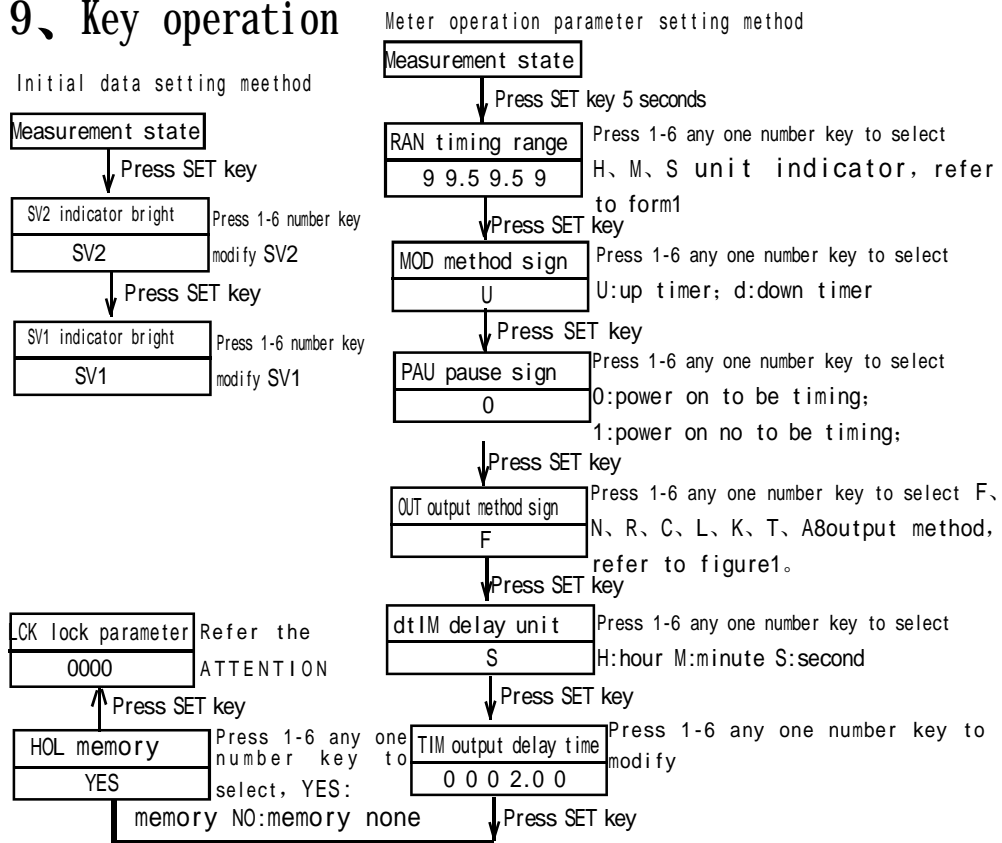
7、Connecting wire instruction



8、Breakdown information

Information	Cause instruction	Elimination method
Err0	SV1>SV2	Correctly setting meter parameter
memory function none	HOL=NO	Correctly setting meter parameter HOL=YES

9、Key operation



ATTENTION: LCK=0000: All the parameter can be change;LCK=0001: All the parameter can not be change but LCK、SV1、SV2; LCK=0110: All the parameter can not be change but LCK; LCK=1111: All the parameter can not be change but LCK, the funtion RST is invalidation

10、TIMER RANGE(example TR7)

NO	H、M、S indicator	RAN underdisplay	timer range
1	H、M、S light	99.59.59	1S -- 99H59M59S
2	S light	9999.99	0.01S -- 9999.99S
3	M light	9999.99	0.01S -- 9999.99M
4	H light	9999.99	0.01H -- 9999.99H
5	M、S light	99.59.99	0.01S -- 99M59.99S
6	S light	99999.9	0.1S -- 99999.9S
7	M light	99999.9	0.1M -- 99999.9M
8	H light	99999.9	0.1H -- 99999.9H

figure1. timing and output method

logic relationship		計時模式	delay	delay	Action after the timing
		MOD=U	MOD=d		
輸出方式	F				Counting data continue to add or subtract,output keeping until the reset input.
	N				Counting data and output always keeping until reset input.
	R				Counting data and output delay to the initial setting time,then automatically return to the initial state. OUT1 keeps outputting,then stop when OUT2 delaying occur.
	C				Counting data automatically return to the initial state, output delay to the initial setting time,then automatically return to the initial state.OUT1 keeps outputting, then stops when OUT2 delaying output occur.
	L				Counting data continue until exterior reset input: OUT1 output keeping at (counting data) ≤ (SV1) OUT2 output keeping as (counting data) ≥ (SV2) IN=d output method just be contrary
	K				Counting data continue, OUT1 keeps outputting, OUT2 stops when OUT2 delaying output occur.
	T				Counting data continue during the delaying output procedure.Return to the initial state when output delaying occur. OUT1 keeps outputting until OUT2 delaying output stop.
	A				Counting data and OUT1 output keep manual reset input. OUT2 delaying output return to initial state.