TCN Series of Electrical Counter Instruction Manual

Features：

⊙ High quality microprocessor for the main control

⊙ High precise measuring and high anti-interference

⊙ Power fail memory function

⊙ 4 or 6 digit display for option

⊙ With F, R, N, C output modes

1、Ordering code

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TCN— □ □ □ □ —————— MODEL
                       1: 1 stage
                       4: 4 digit    6: 6 digit
                       P: Preset
                       TCN series of Electrical Counter
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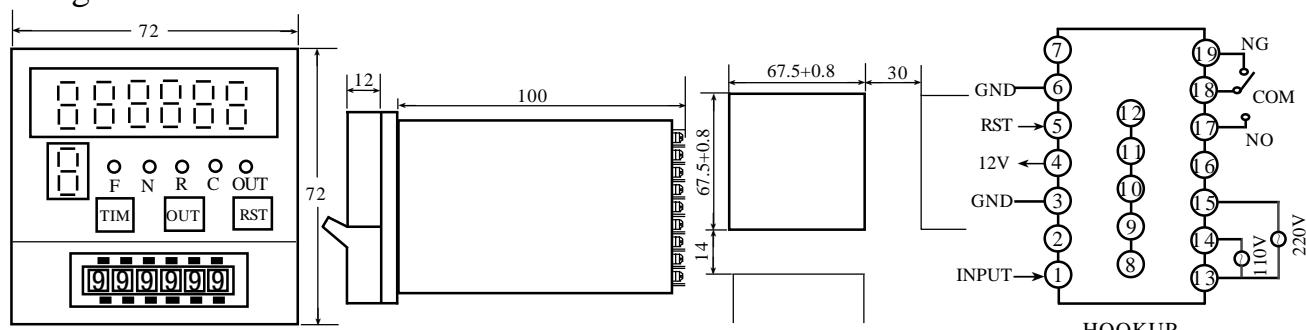
MODEL	SIZE	LED DIGIT	STAGE	THRUMB
TCN-P41A	72W*72H	4	1	A
TCN-P61A	72W*72H	6	1	A
TCN-P41B	72W*72H	4	1	B
TCN-P61B	72W*72H	6	1	B

2、Parameters

Power supply	AC220V/110V (24VDC is also available but should mention when order)
Consumption	<5W
Delay time	0-15S
Auxiliary output power supply	DC12V ± 1V 50mA
Insulation resistance	≥ 100M Ω
Insulation strength	1.5KV/1M
Anti-interference	electrical source ± 2000V import ± 500V
Parameter reserve time	10 years
Operating temperature	0～50℃ 30～85%RH
Input signals	Square wave, Sine wave and pulse
Input impedance	≥ 10K Ω
Max counting speed	1000cps
Relay output capacity	250VAC/3A or 30VDC/5A

3、Configuration and connection

HOOKUP

4、Use and Operation

4.1、The input wire should not be too long, better be shielded. Don use the instrument in the ambient humidity >90RH% or strong acid.

4.2、In case the vibration of input signal is too strong, please connect a capacity 10uF-33uF to filter.

4.3、Operating dielectric voltage in the oc casion between electronic circuit and metal of no charge, the counter fromthe circuit should break up or short-circuit. (the CMOS circuit will be damaged)

4.4、For BCD switch and other components normal life, please avoid instrument in areas surrounded by dust.

5、 Operations
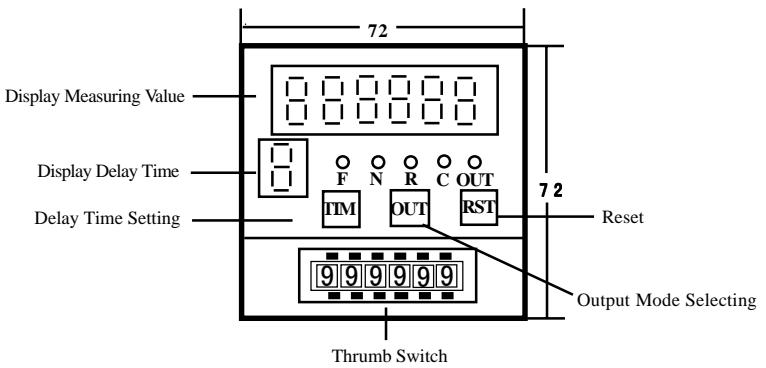
5.1、 The windows and keys on the panel as the illustrate Measuring Value, Delay Time Display, De.lay Time Setting, BCD Switch, Output ModeSelecting, Reset .

5.2、 TIM key is to modify the delay time. When the delaytime is 0-1, press TIM key, delay time willincrease 0.2second. When the delay time is >1, press TIM key,delay time will increase 1second till to 15 seconds.
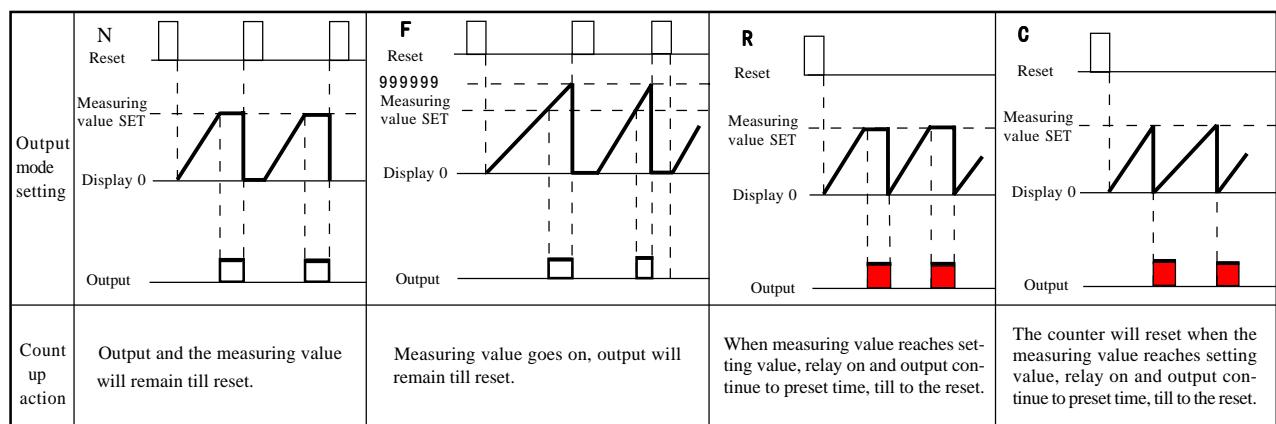
5.3、 Press OUT key for 3 seconds, entering the output mode selecting estate. Press OUT key to select F, N, R,C and then the relative lamp of F, N, R, C will be on.

Display Measuring Value

Display Delay Time

Delay Time Setting

F N R C OUT

TIM OUT RST — Reset

Output Mode Selecting

Thrumb Switch
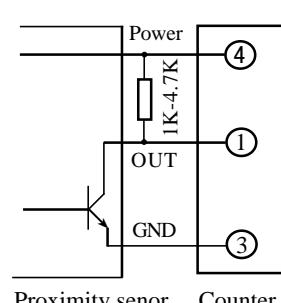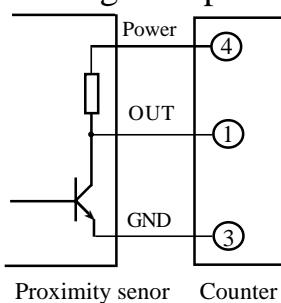
F, M mode no delay time setting			
Delay time displaying	Actual delay time (S)	Delay time displaying	Actual delay time (S)
0	0；0.2or0.4	8	8
1	1	9	9
2	2	A	10
3	3	b	11
4	4	C	12
5	5	d	13
6	6	E	14
7	7	blank screen	15

6、 Illustrate of output mode of the counter

There are 4 types of output modes for option.

	N	F	R	C
Output mode setting	Reset / Measuring value SET / Display 0 / Output	Reset / 999999 Measuring value SET / Display 0 / Output	Reset / Measuring value SET / Display 0 / Output	Reset / Measuring value SET / Display 0 / Output
Count up action	Output and the measuring value will remain till reset.	Measuring value goes on, output will remain till reset.	When measuring value reaches setting value, relay on and output continue to preset time, till to the reset.	The counter will reset when the measuring value reaches setting value, relay on and output continue to preset time, till to the reset.

7、 Connecting with proximity sensors

Power — 4
OUT — 1
GND — 3
Proximity senor   Counter

Power — 4
1K-4.7K
OUT — 1
GND — 3
Proximity senor   Counter