

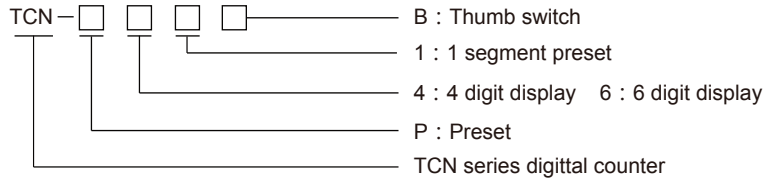
# TCN Series Counter Instruction Manual



## 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

## I. Ordering code

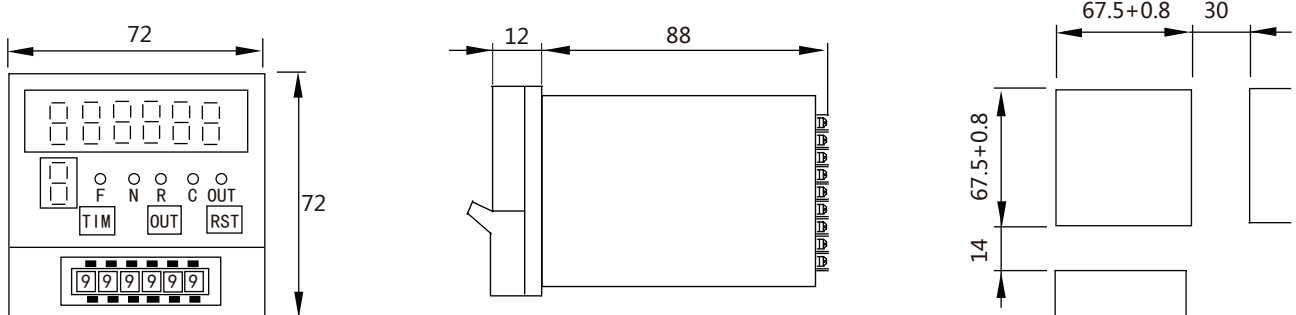


Model	Size	LED digit	Preset	Thumb switch
TCN-P41B	72W*72H	4	1 segment preset	Domestic
TCN-P61B	72W*72H	6	1 segment preset	Domestic

## II. Specification

Power supply	AC/DC 100~240V (DC 24V can be ordered)
Consumption	< 5W
Delay time	0~15 seconds
Auxiliary output power supply	DC 24V±2V 50mA
Insulation resistance	≥100MΩ
Insulation strength	2.0KV/1M
Anti-interference	electrical source ±4000V import ±2000V
Parameter reserve time	10 years
Operating temperature	0~50°C 30~85%RH
Input signals	Square wave, Sine wave and pulse
Input impedance	≥10KΩ
Max counting speed	1000cps
Relay output capacity	AC 250V/3A or DC 30V/5A

## III. Dimension



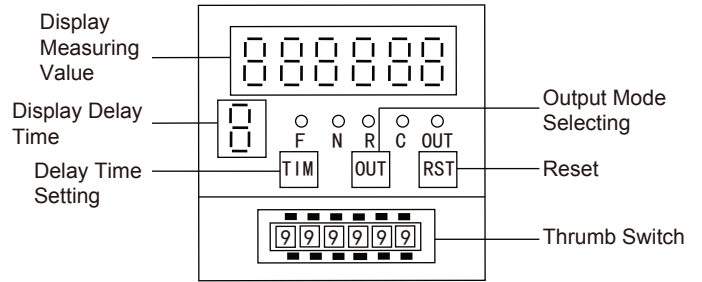
Note: unit (mm)

## IV. Operation instruction

1. The input wire should not be too long, better be shielded. Don't use the instrument in the ambient humidity > 90%RH or strong acid.
2. In case the vibration of input signal is too strong, please connect a 10UF~33UF capacitor filter in parallel to the input terminal of the instrument.
3. In the occasions of withstand voltage test on electrical circuit and Uncharged metal, please remove or short circuited the counter from the circuit. (Otherwise, the CMOS circuit could be damaged).
4. To ensure the normal service life of dial switch and other components, please prevent dust from entering the instrument.

## V. Operations

1. The display and keys on the panel as the illustrate
2. TIM key is to modify the delay time. When the delay time is 0, press TIM key the first time, delay time will be increased to 0.2s; press it the second time, delay time will be increased to 0.4s (0.2 and 0.4 second is still displayed as 0); press it the third time, delay time will be increased to 1s, display as 1; since then, each press will increase 1 second till to 15 seconds.
3. Press OUT key for 3 seconds to enter the output mode to selecting estate. Press OUT key to select F, N, R, C, the relative lamp of F, N, R, C will be on. Stop pressing OUT key for 3s, it will confirm and exit automatically.



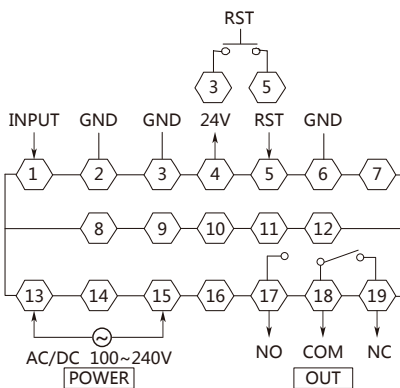
F, N mode no delay time setting			
Delay time display	Actual delay time (S )	Delay time display	Actual delay time (S )
0	0 ; 0.2 or 0.4	8	8
1	1	9	9
2	2	0	10
3	3	1	11
4	4	2	12
5	5	3	13
6	6	4	14
7	7	Blank screen	15

## VI. Counter output mode diagram

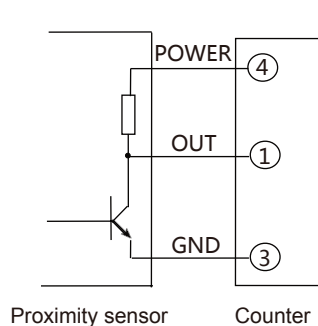
4 kinds of relay output modes for option: F, N, R, C.

Output mode setting	N	F	R	C
Action after Counting	Output and counting value will remain till reset.	Counting value goes on, output will remain till reset.	When counting value reaches setting value, the display value and output will remain till the setting delay time, then reset to next counting automatically.	The counter will reset the counting value when it reaches the setting value, but the output will remain till the setting delay time, then reset to next counting automatically.

## VII. Wire connection and connecting method with proximity sensor

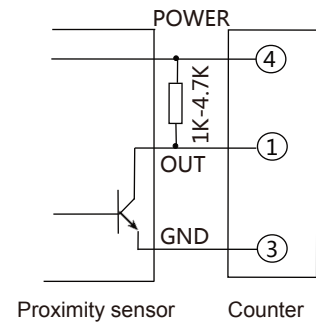


Wire connection



Proximity sensor

Counter



Proximity sensor

Counter

Note: Please subject to the connection drawing on the counter if any changes.