Thrum Switch Setting Digital Counter

CK Series

User Manual

ww.yotochn.net

CK7 72X72

CK8 48X96

Ordering Code

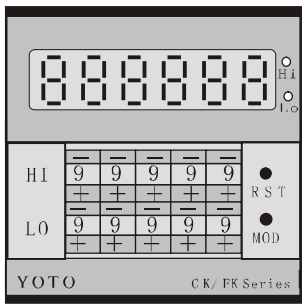
CK □ - P S □□ B —— Blank: No communiction 4: RS485
1: one alarm Hi; 2: two alarm Hi, Lo
4: 4 digit display 5: 5 digit display 6: 6 digit display
Function: P: with preset function S: Rate setting function
Dimension: 4: 48H * 48W * 80L 7: 72H * 72W * 90L 8: 48H * 96W * 100L
CK series digital counter/ length meter

Example: CK8-PS51A, means it's CK series 5 digit display counter, with preset and rate setting, size in 48H * 96W, with no communication function, power supply as default: 90 ~ 250V AC

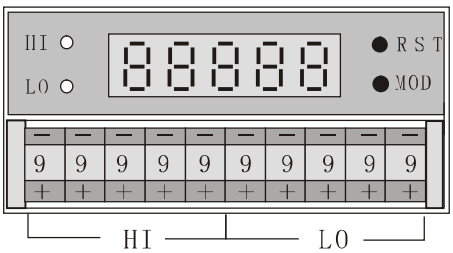
Technical Data

Power supply	AC 90V ~ 250V 50/ 60Hz
Energy consumption	＜5W
Relay contact capacity	250V AC/ 3A or 30V DC/ 5A
Auxiliary power	DC 12V/ 50mA (max) or DC 24V, 50mA
Insulation resistance	≥100MΩ
Dielectric strength	2KV/ 0.5mA (one minute)
Anti-interference	power ±2KV, input: ± 400V
Vibration resistance	10 ~ 55Hz; 0.75mm
Working environment	Temperature: 0 ~ 50℃ (no freeze); Humidity: 35 ~ 85%RH
Input signal	Suqare wave, sine wave, input signal: 0 ≤ L ≤2V, 5V ≤H ≤30V
Input impedance	＞10KΩ
Counting rate	30CPS/ 5000CPS
Rate setting	0.001 ~ 9999 (CK4), 0.00001 ~ 999999 (CK7), 0.0001 ~ 99999 (CK8)
Delay time setting	0.01 ~ 99.99s
Counting range	4 digit display: (-1999) ~ 9999 (can set to 3 decimal point); 5 digit display: (-19999) ~ 99999 (can set to 4 decimal point); 6 digit display: (-199999) ~ 999999 (can set to 5 decimal point)

Panel Illustration



CK7



CK8

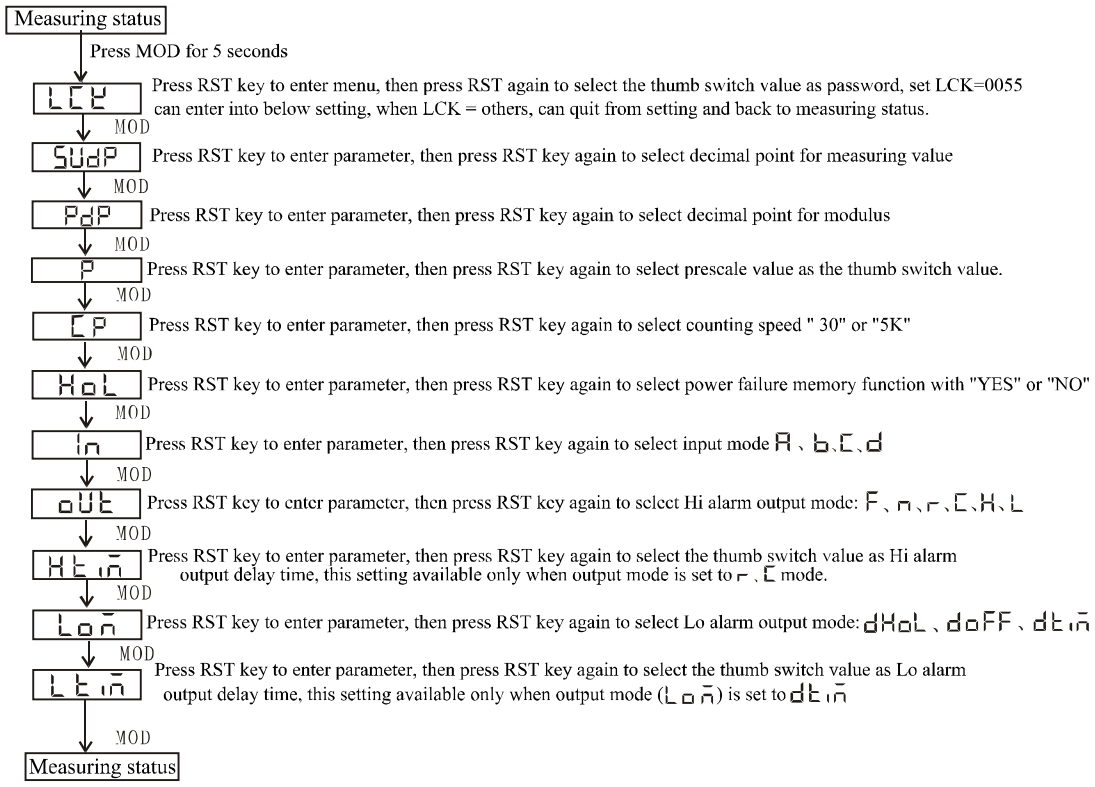
MOD	Set/ Confirm key
RST	Reset key
LED Display	Display measured value
Thumb switch	Parameter control
Hi	1st alarm indicator lamp
Lo	2nd alarm indicator lamp

Operation Process

A: MOD: Set/ Confirm key RST: Reset key

B: Parameter setting

C. Please press RST to confirm after modifying Hi, Lo prescale value. Otherwise it will not work accurately.

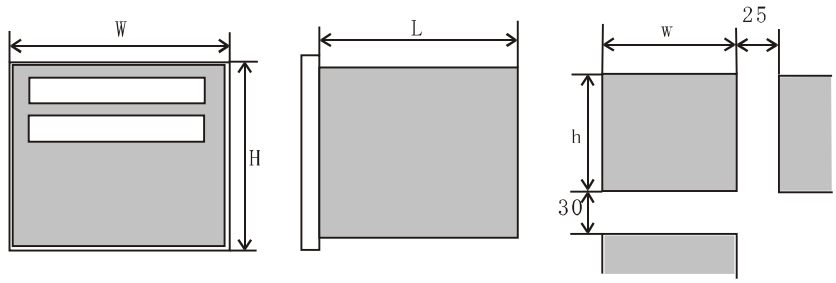


Menu Structure

Paramenter	Meaning	Description
LCK	Key Lock	LCK=0055, all parameters can be modified. LCK=others, only Hi, Lo, LCK can be modified, other parameters are locked and can not be modified.
SUdP	Decimal point setting for measuring value	Select the decimal point for measuring value, 4 digit display can set to 3 decimal point, 5 digit display can set to 4 decimal point, 6 digit can set to 5 decimal point
PdP	Decimal point setting for prescale value	Select the decimal point for prescale value, 4 digit display can set to 3 decimal point, 5 digit display can set to 4 decimal point, 6 digit can set to 5 decimal point
P	Prescale value setting	Prescale function: converting pulse input to the direct display of length, position or flow value.
CP	Counting speed setting	CP=30 means that instrument only receive input counting signal that lower than 30Hz. switch the SW2 to "30", and this is for limit switch or other relay contact input. CP=5K, means that instrument only receive input counting sgnal that lower than 5000Hz, and switch SW2 to "5K".
HoL	Power failure memory	YES: with power failure memory, (After power on, the counting/ timing is continue from the saved value after the last power off.) NO: no power failure memory (After power on, all value will be reset.)

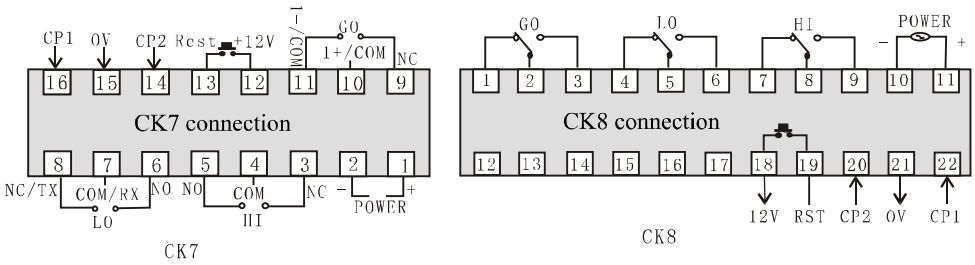
in	Input mode selection	To select CP1, CP2 input mode, please refer to "input logic relation chart" on page 5.
out	Output mode selection	To select Hi alarm value and counting value, please refer to "Counter output mode" on page 5.
HtIn	Hi alarm delay output	When Hi alarm output mode (OUT) is set to r、C mode, Hi alarm value keep to the set delay time, delay time setting range: 0.01s ~ 99.99s.
Lon	Lo alarm output mode	To select Lo alarm output and counting value, please refer to "Counter output mode" on page 5.
LtIn	Lo alarm delay output	When Lo alarm output mode (Lon) is set to dtIn mode, Lo alarm value keep to the set delay time, delay time setting range: 0.01s ~ 99.99s.

Dimension Size



Model	Panel size (H X W)	Shell size (H X W X L)	Hole size (a X b)
CK7	72 X 72	68 X 68 X 80	68.5 X 68.5
CK8	48 X 96	44 X 90 X 80	44.5 X 90.5

Terminal Connection

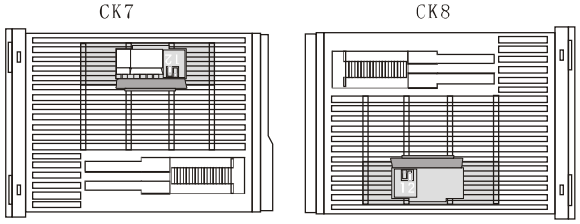


Note: Please refer to the connection lable on the product if there should be any changes.

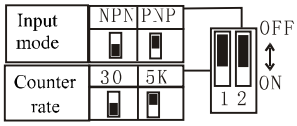
Application Example

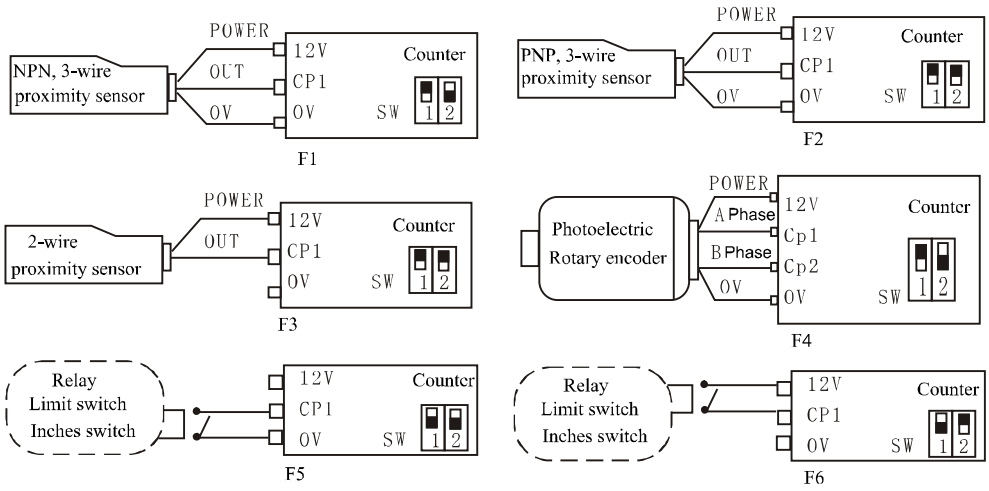
1). Function adjustment and calibration before using

Please open the instrument front lid to adjust the function before using.



Thumb switches on the instrument, as below:





Note: 1). The factory setting for SW-2 is on "PNP" terminal, SW-1 is on "5K" terminal.
2). Above two figures F5 and F6 are for connection with swithes, two connections are workable.
3). Counter input connection: when in high speed mode (1K, 5K, 10K), if the input mode is contact input (such as relay connectors), the counting value may be more than the actual one. So for this input mode, please set the input speed as a small value (1 or 30cps).

Error Elimination

▲Do not count
1). Check the wiring if it's correct connected or not.
2). Check the input signal, level, frequency, make sure it's right and matches the setting
3). Check the input mode, make sure it matches the counting speed
4). Check if the input signal is level signal, please pay attention that the input impedance is about 20KΩ

▲Can not set value or other parameters
1). Check LCK key lock menu setting to see if the parameter has been locked.

▲Display "ERROR" or error message
1). Check if the prescale(P) value is 0, when P = 0, instrument will display the message " ERROR".
2). Check if the two preset value Hi, Lo meet this condition: Hi ≥ Lo

▲Instrument does not work after modifying parameters
1). Quit the setting menu, or power off instrument after modifying parameters, then power on, and reset the parameters.

▲If the input source coming from relay, travel switch and reed switch
1). When input signal generated by relay travel switch, reed switch the display value might be more than actual value, check input frequency make sure the setting of counting speed matches the input frequency.