

Line-Speed/Length Meter

User Manual

CL Series

www.yotochn.net

CL7 72X72



CL8 48X96



Ordering Code

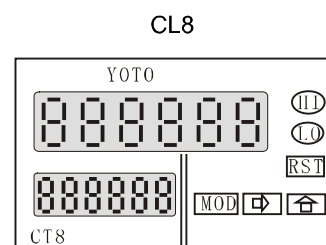
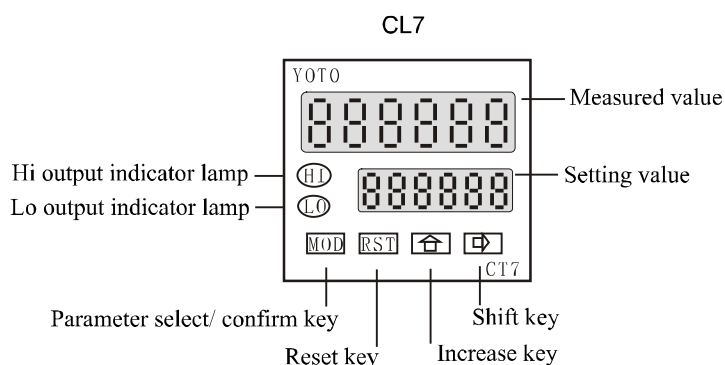
CL□-P S 6 2□ — Blank: no communication T: with RS-485 communication
 2: means 2 alarm control output, Hi, Lo
 6: 6 digit display
 S: Rate setting
 P: Preset setting
 Dimension (mm): 7: 72H * 72W * 90L; 8: 48H * 96W * 90L
 CL Series Digital Linespeed/ Length meter

Example: CL8-PS62B---means that this is a CL series 6 digit display linespeed/ length meter, with 2 alarm control

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/ 80mA (max)
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	Square wave, sine wave, input signal: $0 \leq L \leq 2V$, $5V \leq H \leq 30V$
Input impedance	>10KΩ
Counting rate	5000CPS
Rate setting	0.0001 ~ 99.9999
Delay time setting	0.01 ~ 99.99S
Counting range	0 ~ 999999 (can set to 4 digit decimal point)

Panel Illustration



Operation Process

A: MOD: Set/ confirm key. It can clear the upper line value when under measuring state.

⇧: Increase key

⇩: Shift key RST: Lower line value clear key

B: Operation process

Measuring

↓ Press shift key for 1 second

SUC

Press shift key and increase key to modify Hi alarm value, press RST can set the decimal point

↓ Press MOD

SUL

Press increase and shift key to modify alarm value for speed

↓ Press MOD

Measuring

Measuring

↓ Press shift key for 5 second

CP

Press increase and shift key to modify counting speed (default setting: 1.0000)
For linespeed: CP = Circumference / the number of pulses per rotate

↓ Press MOD

OUT

Press increase key to select Hi alarm output mode

: F, R, C: F, R, C (Default: R)

↓ Press MOD

⇧⇩

Press increase and shift key to modify Hi alarm delay output time (Default: 2.00)

↓ Press MOD

MOD

Press increase and shift key to modify SVL alarm mode (Default setting: 1)

↓ Press MOD

LP

Press increase and shift key to modify linespeed modulus (For tachometer the default setting: 60). For linespeed, LP = (Circumference / the number of pulses per rotate) / 60

↓ Press MOD

RR

Press increase key to select speed range

↓ Press MOD

CAT

Press increase key to set the sampling rate. Factory setting: 1, means 1 pulse/ second. If it takes more time to get one pulse, set the CAT to 10.

↓ Press MOD

HY

Press increase and shift key to modify alarm hysteresis value (Default setting: 0)

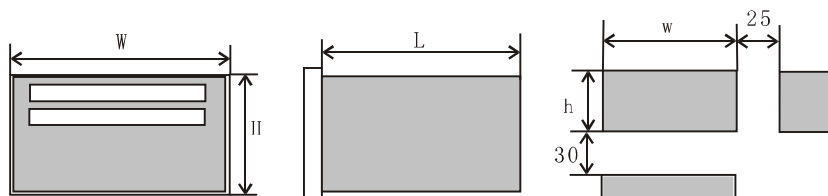
↓ Press MOD

Measuring

Note: When MOD is set 0, SVL (Lo alarm relay) is for lower line (speed) setting.

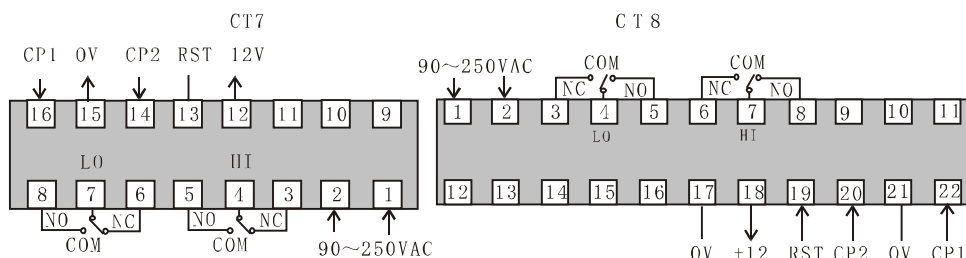
When MOD is set 1, SVL (Lo alarm relay) is for upper line (length) low end preset value. Two alarm output, upper line with no alarm function.

Dimension Size



Model	Panel size (H*W)	Shell size (H*W*L)	Mounting size (a*b)
CL7	72×72	68×68×80	90×90
CL8	48×96	45×91×80	90×126

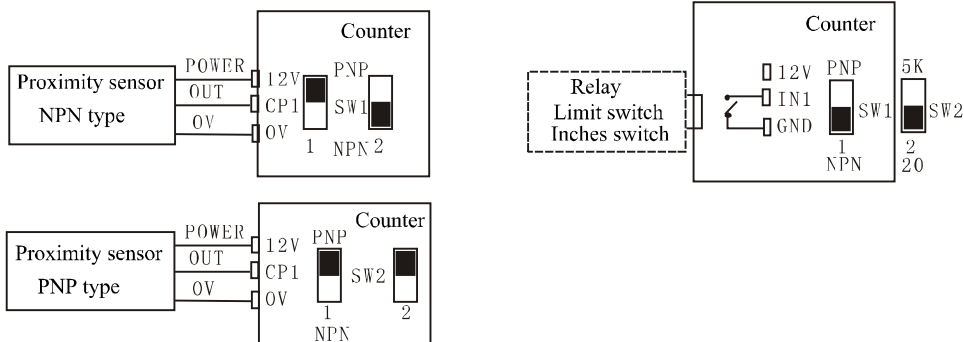
Terminal Connection



Note: 1. Please refer to connection table on the product if any changes.

2. CP1 should be short circuit with CP2.

Application Example



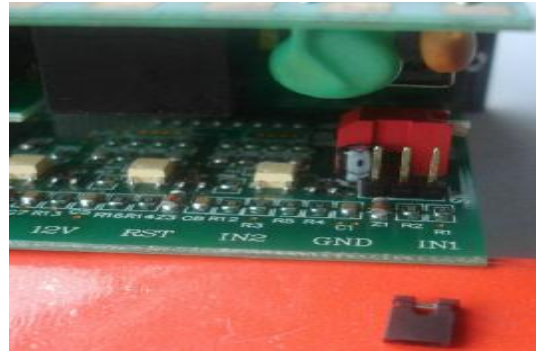
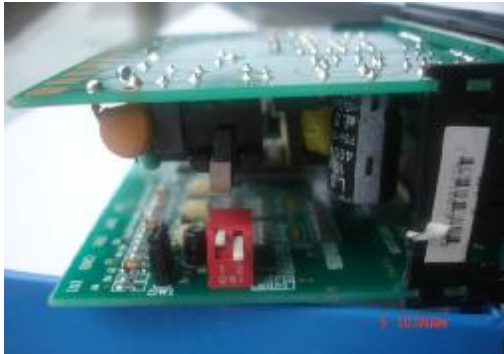
- Note: 1). SW1, SW2 selection is on the bottom of the counter, open the front lid, connect as above figures.
 2). CP2 can be counting down, but only can connect with NPN type proximity sensor, or ON/OFF type switch signals.

Output Mode Logic Relation Chart

		Delay ouptut	Holding ouptut
Ouput mode	Logic chart	Action after counting to setting value	
F		Counting value and Hi output keeps till to reset input.	
R		Counting value and Hi will automatically return to the initial status after keeping to the delay setting time.	
C		Counting value will automatically return to initial status, Hi output value will automatically return to initial status after after delay to setting time.	

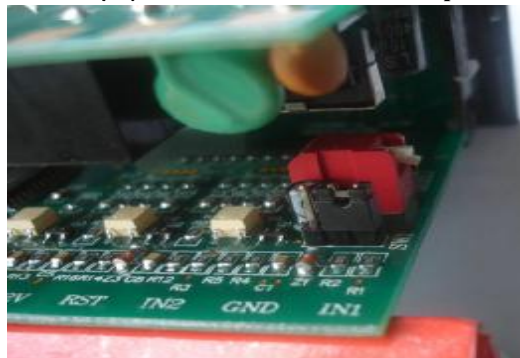
Error Elimination

For CL series linespeed/ tacho/ length meter, the factory setting input signal is PNP. NO. If you use NPN. NO, do as follow:



F2

Firstly, pull out the internal printed circuit board, and select SW2 (NPN signal), as F1 shows, Secondly, you can see there are three pin heads, as F2 shows,



F3

then put the plastic jumper pad to pin 2 & pin 3, this is for NPN input signal. As F3 shows.



F4

□ 冂 冂 Press increase key to set sampling rate: set it to 10. As above shows. The factory setting is 1, means 1 pulse per second. If your machine 1 pulse every two seconds, even more (5 ~ 10) seconds, please set □ 冂 冂 to 10. Ten means ten seconds, also the maximum time for display value.