FT8 48X96

FT7 72X72

FT4 48X48
(5 Digit)

Ordering Code

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F T □ □ – □–□–□— Blank: No communication T: With RS485

0: no alarm 1: with one alarm HI 2: with 2 alarm HI, L0

L: Line speed meter R: Tachometer F: Frequency meter

Blank: No analogue I: With analogue output 4 ~ 20mA

Dimension(mm): 4: 48H*48W 7:72H*72W 8: 48H*96W 16: 80H*160W

FT Series intelligent digital Frequency/Line-Speed/ Tachometer

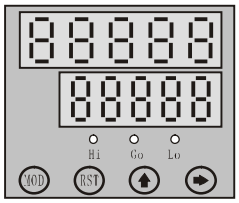
Example: FT8-R2: FT series digital tachometer, with two alarm control Hi, Lo. With no analogue output.

Technical Data

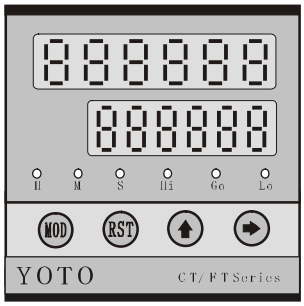
Power supply	AC 110V ~ 250V 50 / 60Hz
Energy consumption	＜5W
Relay capacity	250V AC / 3A or 30V DC / 5A (resistance load)
Auxiliary power	DC12V / 50mA (Max) or DC 24V / 50mA
Insulation resistance	≥100MΩ
Dielectric strength	1.5KV / 0.5mA 1min
Anti-disturbance	Power supply: ± 1.5KVp-p Input: ± 300Vp-p
Shocking proof	10 ~ 55Hz; 0.75mm
Operation environment	0℃ ~ 50℃, 35 ~ 85%RH
Input signal	Pulse signal: Square wave, sine wave; 5V ≤ High level ≤ 30V; 0 ≤ Low level ≤ 2V
Input impedance	≥10KΩ
Measuring range	0.1 ~ 5KHz (frequency), 6 ~ 99999CPM (tacho)
Accuracy	0.2%FS ± 2Digit

Panel Illustration

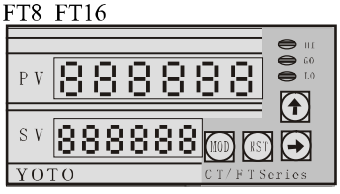
FT4



FT7

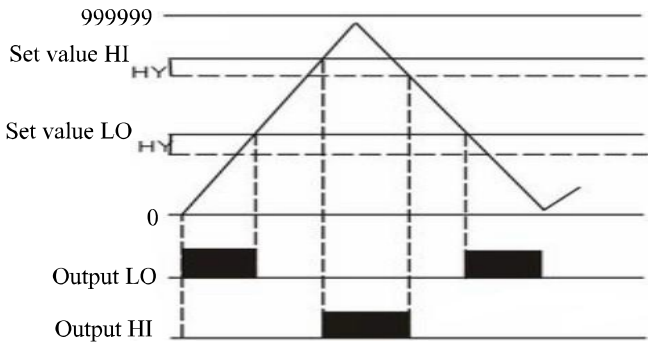


FT8 FT16



MOD	Select & confirm
RST	Reset key
PV	Measuring value display
SV	Hi setting value or parameter setting key
HI	Alarm Hi output indicator lamp
LO	Alarm Lo output indicator lamp
GO	GO output indicator lamp
→	Shift key
↑	Increase key

The Relation Diagram Between Measured Value & Alarm Output



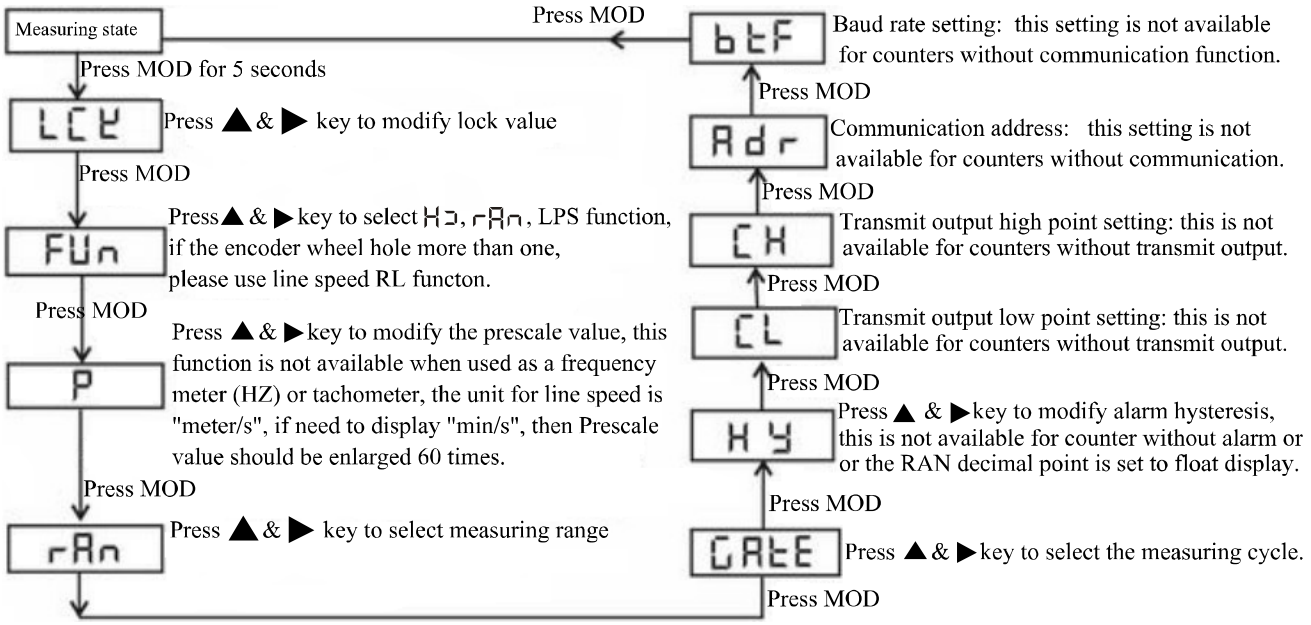
NOTE: 1). HY means hysteresis which to prevent the relay from jumping too frequently.
2). For the instrument which with one alarm control has no GO & LO control output
3). Go control should be special indicated when ordering.

Operation Process

A: MOD: Set/ confirm key ▲ Increase & Shift key

▶ Shif key, press this key when in the measuring status can enter into the preset value setting HI, LO.

B: Parameter setting

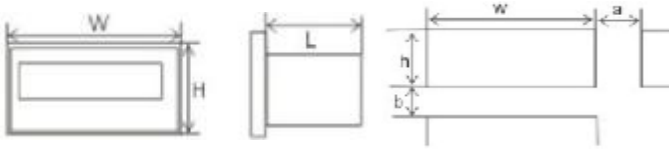


Parameter	Meaning	Description
LCK	Key Lock	LCK = 0055, means that all parameters can be modified. LCK=others, means that all parameters are locked, and cannot be modified. (Except the Lck value)
Fun	Working mode	HZ : means frequency meter (unit "pcs/second"); rAn: means tachometer (unit " rotation/min); LPS: Line speed meter (unit "meter/second). If need to make it "meter/s", then P value should be incread to 60 times lager.
P	Linespeed Prescale value setting	Prescale setting: Available only when instrument used as linespeed meter. Eg: 1). the instrument used with rotary encoder, the encoder produce 100 pulse per rotate, suppose the perimeter of the measured object L=2πR=2m, then P=L/100=2/100=0.02m Eg: 2). If the code wheel have 10 holes, the perimeter of the measured object L=2π R=1.5m, then P = L/10 = 1.5/ 10= 0.15m

rAn RAN	Measuring range	RAN = 8.8.8.8.8: 0.100 ~ 500Hz (Decimal point shift autimatically) RAN = 88888: 1 ~ 5000Hz (Decimal point is fixed) RAN = 8888.8: 0.1 ~ 5000.0Hz (Decimal point is fixed) RAN = 888.88: 0.10 ~ 999.99Hz (Decimal point is fixed) RAN = 88.888: 0.100 ~ 99.999Hz (Decimal point is fixed)
Parameter	Meaning	Description
GAtE GATE	Measuring and display cycle	GATE = 1: measure display measured value one time per second; GATE = 2: display value one time per two seconds; GATE = 5: Display measuring value one time per 5 seconds; GATE = 10: Display measuring value one time per 10s.
HY HY	Alarm hysteresis	Setting the appropriate alarm hysteresis can prevent the relay from jumping too frequently. The decimal point setting of hysteresis is the same as the measured value. Hysteresis setting is not available to meter without alarm function or RAN decimal point is set to float display.
CL	Transmit output low point	Transmit output low point setting, if the transmit output range in 10.00 ~ 1000.00Hz, thens set CL to 10.00
CH	Transmit output high point	Transmit output high point setting, if the transmit output range in 10.00 ~ 1000.00Hz, thens set CL to 1000.00
Adr	Communication address	Communication address
btF	Baud rate	Baud rate select

Measuring cycle GAtE	Measuring range
1 second	1 ~ 5000Hz (frequency); 60 ~ 99999 r/min (tachometer)
2 second	0.5 ~ 5000Hz (frequency); 30 ~ 99999 r/min (tachometer)
5 second	0.2 ~ 5000Hz (frequency); 12 ~ 99999 r/min (tachometer)
10 second	0.1 ~ 5000Hz (frequency); 6 ~ 99999 r/min (tachometer)

Dimension Size



Model	Panel size	Casing size	Hole size
	H X W	H X W X L	a x b
FT7	72 X 72	68 X 68 X 80	69 X 69
FT8	48 X 96	45 X 91 X 90	50 X 25

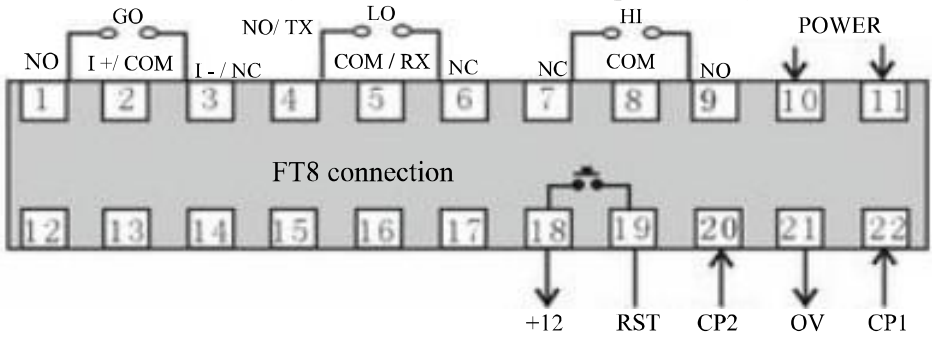
Terminal Connection

A. Cautions

1). The power supply wire should not put together with large current wire, and load wire to avoid electromagnetic radiation. If it must be put together, we suggest to use the individual pipe or shielded cable.

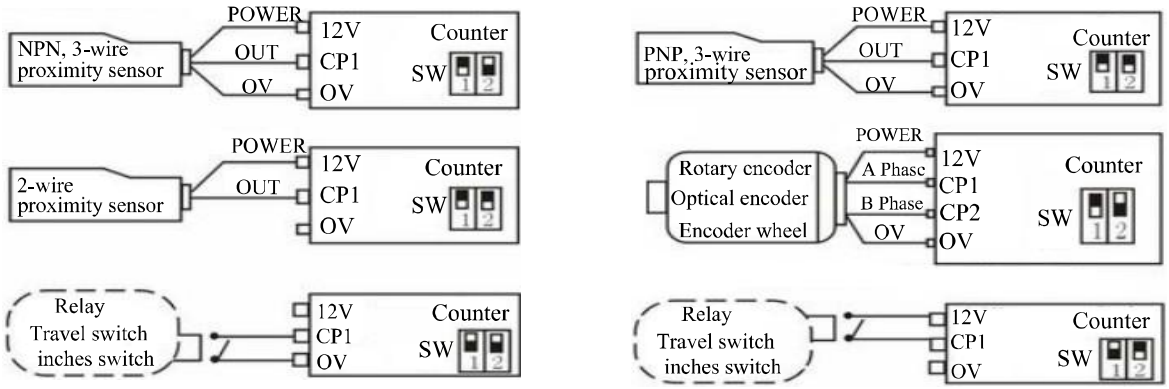
2). The default input type is NPN. If need other input type, should change by software, otherwise it will not work.

B. Terminal connection (See below connection example for FT8)



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

C. Connecion examples



Note: 1). CP2 should be shifted to N point, which is inside the counter.

2). If counter connect with technical contact input signal (such as relay, travel switch, etc), then set SW2 to 30Hz to get more accurate measurement.