Digital Counter

FH Series of Counter/Length/Batch Meter Instruction Manual

Thanks a lot for selecting SISCO products! Before operating this instrument, please carefully read this manual and fully understand its contents. If have probroms, please contact our sales or distributors whom you buy from. This manual is subject to change without prior notice.

Warning

Please do not turn on the power supply until all of the wiring is completed. Otherwise electrical shock, fire or malfunction may result.
Do not wire when the power is on. Do not connect the unused terminals. Do not turn on the power supply when cleaning this instrument. Do not disassemble, repair or modify the instrument.
This may cause electrical shock, fire or malfunction.
Use this instrument in the scope of its specifications. Otherwise fire or malfunction may result.

Caution

This instrument should be installed to avoid the strong noise sources. If the signal cable is too long, we suggest you to use shielded cables.
Please don't install the signal cable with the power supply.

To avoid using this instrument in environment of strong shock or concussion.

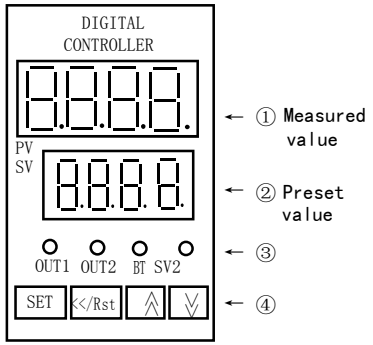
To avoid using this instrument in environment of overflow water or explosive oil.

Keep the instrument in the environment -10C to 70C, avoid sunlight for long time.

Features

1. The instrument can be used as counter, length-meter also
2. 4, 6 digit LED display
3. Preset value is available
4. 4 kinds ofinput mode and 6 kinds of output mode for option
5. Input and output is optical isolated
6. Power fail protection for at least 10 years
7. Widely applied in chemical, machine, light industrial etc.

Panel



③ Indication lamps:
OUT1/OUT2: Output indication lamp
BT: Batch display lamp
SV2: The second preset value lamp

④ Keys:
SET: Select/Confirm key
<< /Rst:Shift/Reset key
∧ :Up key
∨ :Down key

Model

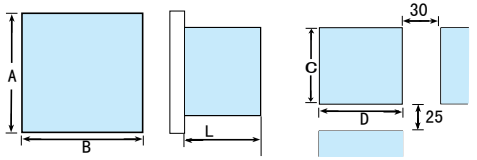
FH □□ – □ □ □ □ □ □

- Input : Blank:universal input 2:other
- Auxiliary power: A: 12V DC B: 24V DC
- Communication: Default: None 2: RS232 4: RS485
- AL2 N:None R:RELAY S:SSR/LOGIC T:SCR
- AL1 N:None R:RELAY S:SSR/LOGIC T:SCR
- Display: 4:4 digit 6:6 digit 8:8 digit
- Power Supply: Default:AC 80-265V E:24V DC
- Size: 4: 48H×48W 7: 72H×72W 8: 48H×96W
- FH Series of Counter/Length/Batch Meter

Specifications

Input signals	Pulse signal: square wave and sine wave : 5≤H≤30V 0≤L≤2V up edge active
Input impedance	≥10KΩ
Counting speed	30/5000CPS
Counting range:	(According to the display digit) -199999-999999
Preset range	(According to the display digit) 0.00001-999999
Auxiliary power	24V/12VDC ± 10% 40mA max
Output type	Relay contact output
Contact relay capacity	250V AC/3A or 30V DC/5A
Operation environment	0～50℃ 35～85%RH
Parameter saving time	10 years
Insulation resistance	≥20MΩ Consumption:＜5W
Contact edge	Up edge Active
Power supply	90-265V AC/DC or 15-30V AC/DC

Mounting and Sizes



Model \ Sizes	A	B	L	C	D
FH4	48	48	80	45+0.5	45+0.5
FH7	72	72	100	67.5+0.5	67.5+0.5
FH8	48	96	80	45+0.5	91+0.5

Operation process

★ Counting preset value setting: In displaying estate, press <</RST key to shift, press ∧ ∨ key to modify the value, and then press SET key to confirm BT /SV2 converting display, press SET key to view the parameters one by one.

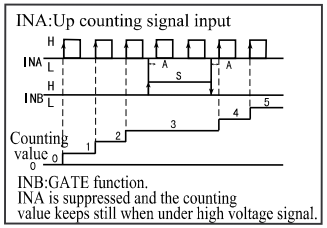
Press SET key for more than 3 seconds can enter/quit the parameter setting

Pc 100.0	Counting rate setting Range:0.00001-99999
SET	
oUt1 r	OUT1 output modes: F、N、R、C、H、L
SET	
t.01 04.00	OUT1 delay time setting. Unit: Second Range::00.00-99.99
SET	
ScL2 2000	Second preset: Range : -19999-999999
SET	
oUt2 F	OUT2 output modes: F、N、R、C、H、L
SET	
t.02 04.00	OUT2 delay time setting. Unit: Second Range:00.00-99.99
SET	
inP d	Counter input mode A、B、C、D
SET	
dP 0000	Decimal point setting 0000 000.0 00.00 0.000
SET	
CPS 5000	Max. counting speed setting :001000-005000
SET	
dAtA YES	Power fail protection YES:with protection NO:without protection
SET	
S.G PnP	Input selection: PNP, NPN
SET	
bAtH 5000	Batch preset Range: 0000.00-9999.00
SET	
bAd 0	Communication bit fixed to be. 9.6K Bit/S
SET	
Addr 000	Communication address selection. Range: 000-255
SET	
LoCY 000	Password setting 000: Parameter can be modified 010: Parameter can be red only, can not be modified.
SET	

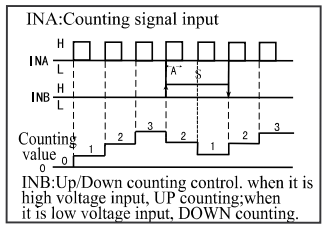
Return PC parameter

Input mode

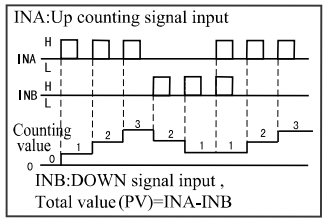
Mode A (single input) UP counting



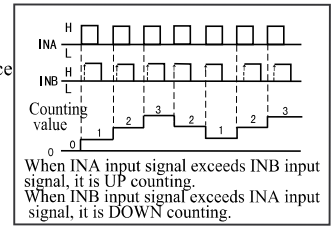
Mode B (single input) UP& DOWN counting



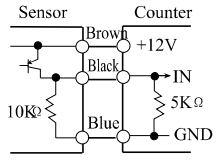
Mode C (Dual input) UP& DOWN counting

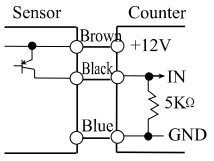


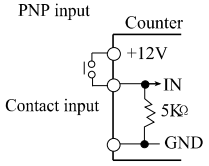
Mode D (Dual input) Phase difference input / encoder input



Input configuration



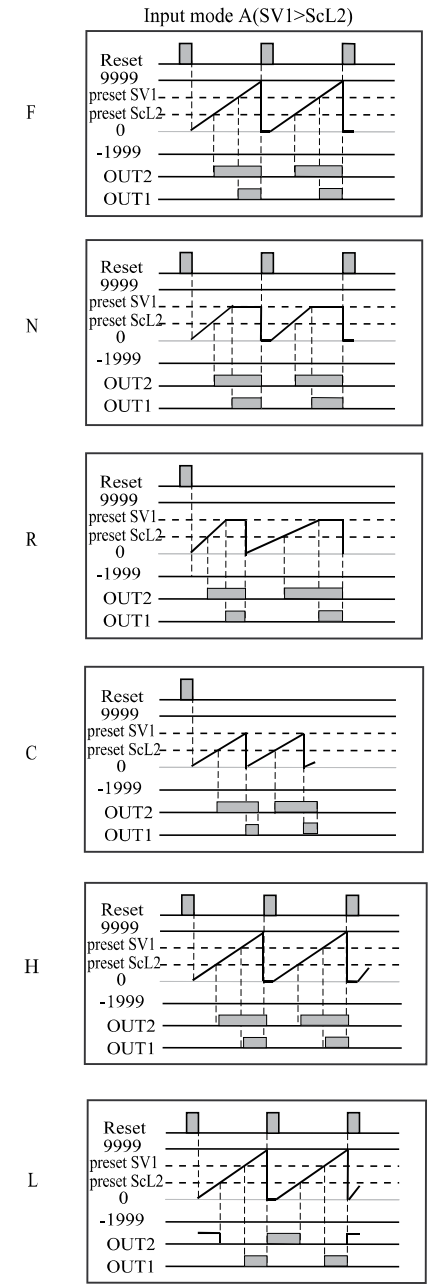




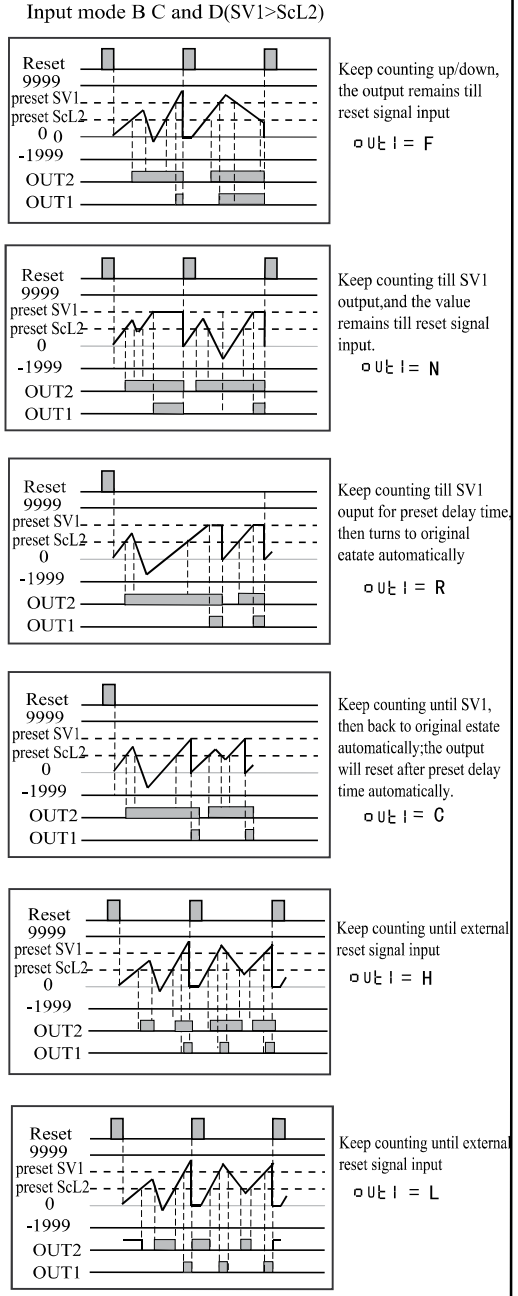
Note: the factory setting is NPN input.If PNP input,please convert parameter NPN under parameter setting menu.When contact input, please connect capacity 1uF~4uF in serial to avoid jittle.

Relationship between Counting and output mode

Input mode A(SV1>ScL2)



Input mode B C and D(SV1>ScL2)



Keep counting up/down, the output remains till reset signal input

oUt I = F

Keep counting till SV1 output,and the value remains till reset signal input.

oUt I = N

Keep counting till SV1 ouput for preset delay time, then turns to original eatate automatically

oUt I = R

Keep counting until SV1, then back to original estate automatically;the output will reset after preset delay time automatically.

oUt I = C

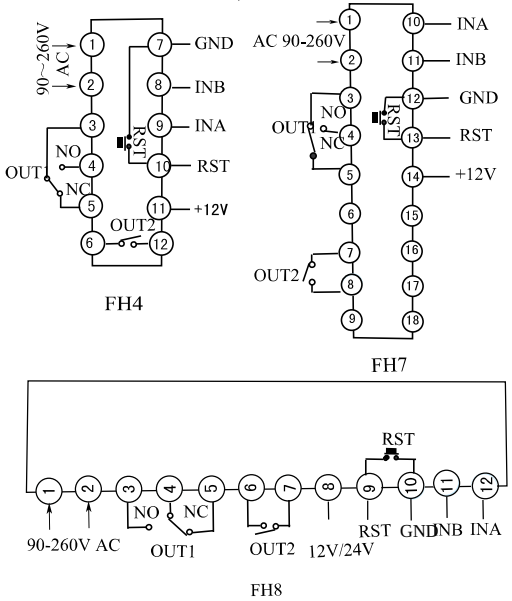
Keep counting until external reset signal input

oUt I = H

Keep counting until external reset signal input

oUt I = L

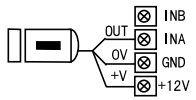
Terminal connections(Subject to lable on the side of meter)



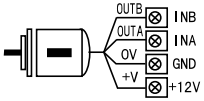
Note:

1. Switch input, INA is for counting, INB for tacho measurement
2. Encoder input, connect both INA and INB. INB is for tacho measurement.

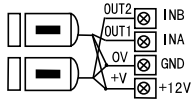
Single sensor input connection



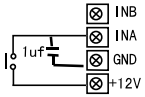
Encoder connection



Double sensor input connection



Contact connection



For contact input,4.7u/50V conpacitance should be fittled on the switch to avoid vibration.