H7JM2 Series Intelligent counterMeter operating instructions

Operating Instruction

Operating Instruction

Power ON → Production Date / Cumulative time → PV value / SV value

MOD/RST/no action 20sec

PV value / SV value

MOD	MOD	MOD 3 sec

PV first Value → PV first Value → PV first Value
↓ MOD   ↓ MOD   ↓ MOD
PV next value → PV next value → PV next value
↓ MOD   ↓ MOD   ↓ MOD
Final value → Final value → Final value

SV value ⟷ SV value ⟷ SV value
↓ ⬆︎   ↓ ⬆︎   ↓ ⬆︎
Change value   Change value   Change value

Parameters

Short press "MOD"

H7JM2-6E2R

	FUNCTION		FUNCTION
PSLE□	Parameter protection, this function appears when PSLE ≥ 2 password "8327" to modify the parameters.		Relay (OUT1) action interval setting; when oUtn-1 is No.1, this parameter will appear, and (OUT1) will operate within the set interval (display value is between two setting values)
		dIt- IL / dIt- IH	
dIt- 1	Relay (OUT1) SETTING		Relay (OUT2) action interval setting; when oUtn-2 is No.1, this parameter will appear, and (OUT2) will operate within the set interval (display value is between two setting values)
dIt- 1	Relay (OUT1) SETTING	dIt- 2L / dIt- 2H	

Press "MOD" 3 SEC

	FUNCTION		FUNCTION
PSLE□	Parameter protection, this function appears when PSLE ≥ 2 password "8327" to modify the parameters.	Sd-- H	Count mode: Reversible A Mode, Encoder E mode
P-...	Pulse equivalent magnification (0.00001~99.9999): "P--" parameter mark, can set decimal point; "P-CoEF" can set magnification value	St--HI / St--HH	Memory mode: "ON" power failure memory "OFF" power failure does not remember
P-CoEF			Set the decimal point position
Sd--P	Correction value	---------	
dItn-1 / dItn-2	Relay output mode: OUT1 No. 01~04, 11, OUT2 No 01~02, 10, 11, 12,		
dILn-1 / dILn-2	Relay output delay value: Setting range 0.1~9.9 sec		
LP--H	Key lock: 1: lock MOD press 3S; 2: lock RST reset; 3: lock SET press 3S; 4: lock all buttons		
PSLE-X	Password protection: PSLE-0 does not require a password; PSLE-1 only protects the second type of parameters; PSLE-2 first type and second type of parameters need to be protected		
HF--FH	Restore factory default state, password 3688		

Operating mode

Encoder E MODE	Reversible A MODE

Encoder double frequency mode:
Automatically determine forward rotation

Reversible count mode:
CP1 as pulse count, CP2 as direction control pulse and automatically determine forward rotation
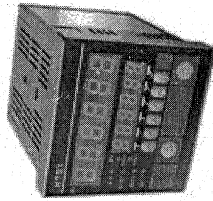

H7JM2 Series Intelligent counterMeter operating instructions

Read carefully this instruction, if there is any question, please contact our engineer.

Description

- Size 72*72mm
- High-performance CPU, high-speed data processing
- Adapts to various encoders
- By changing the setting coefficient, the measurement results can be arbitrarily and more accurate
- Stable performance, strong anti-interference
- Keep data for 10 years
- Counting speed is 60k CPS

For cloth inspecting machine, rolling machine, forming machine and mechanical equipment which need measure the length of cable. It is mainly used in textile, cable, papermaking and other wire\silk strip production process automatic measuring, meter and control.

Product Manual
Model difference

H7JM2-6E2R

RELAY OUT 1 + RELAY OUT 2	Power failure memory and no cumulative count
The main control relay (OUT1) output can be set to auto reset, the time is adjustable from 0.1 to 9.9 seconds	Automatic reset, external terminal pulse reset
	Reference point calibration position
the relay (OUT2) provides supplementary output function.	Position the decimal point
	Counting range: -99999~000.000~999999
	Counting speed 30k CPS: 30,000 times\/ sec
	Reversible E encoder 2 multiplier
Reversible technology A mode	Do not multiply count speed 60k CPS

Technical characteristics
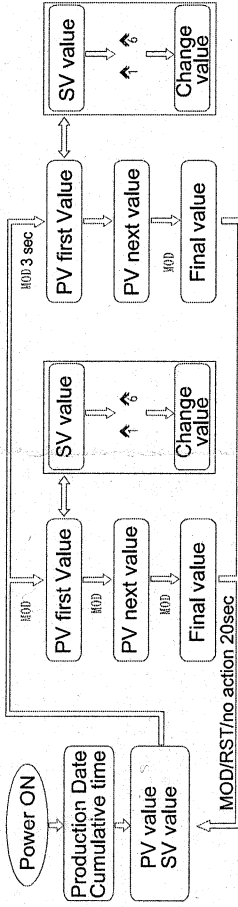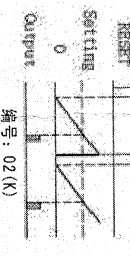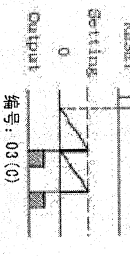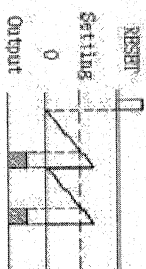
- Power supply: AC/DC 100-250V
- Auxiliary output power: DC12V, 200mA
- Input signal frequency: 0Hz~30kHz
- Input signal: L≤2V; H≥30uS (30k CPS)
- Output response time: count arrival relay output time ≤ 6mS
- Corrected input response time: 0.8mS
- Dimensions: 72*72*85mm
- Weight: 230g
- Power consumption: less than 4W
- Capacity: AC220V 3A/DC24V 5A
- Reset pulse signal: L≤2V; H≥5V
- Input impedance: 2K
- Environment: 0-60C; humidity≤85%
- Storage temperature: -20~85
- Installation method: snap-in
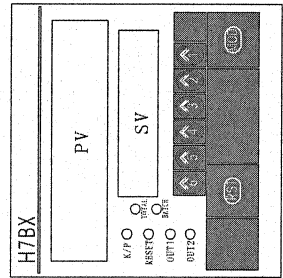
NO	Panel	Description
1.	PV	Count value
2.	SV	Set value
3.	RESET	Reset signal input indicator
4.	K/P	Key lock indicator
5.	OUT1	Output OUT1 indicator
6.	OUT2	Output OUT2 indicator
7.	RST	Reset button
8.	MOD	Setting button
9.	⬆︎ ⬅︎	Set the number increase button

Relay output mode description

RESET
Setting
Output 0

编号: 01 (F)

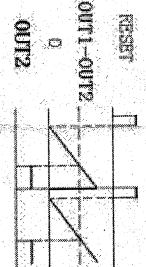Count to "setting value", relay pull-in and keep count

RESET
Setting
Output 0

编号: 02 (K)

Count to "setting value", relay pull-in and delayed release then keep count
The delay time is the time set in otLn-X

RESET
Setting
Output 0

编号: 03 (C)
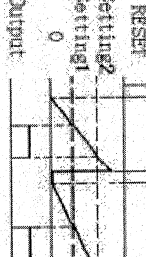
Count to "setting value", relay pull-in counter resets immediately and delayed release
The delay time is the time set in otLn-X

RESET
Setting
Output 0

编号: 04 (0)

Count to "setting value", relay pull-in and keep count:relay delayed release then count reset
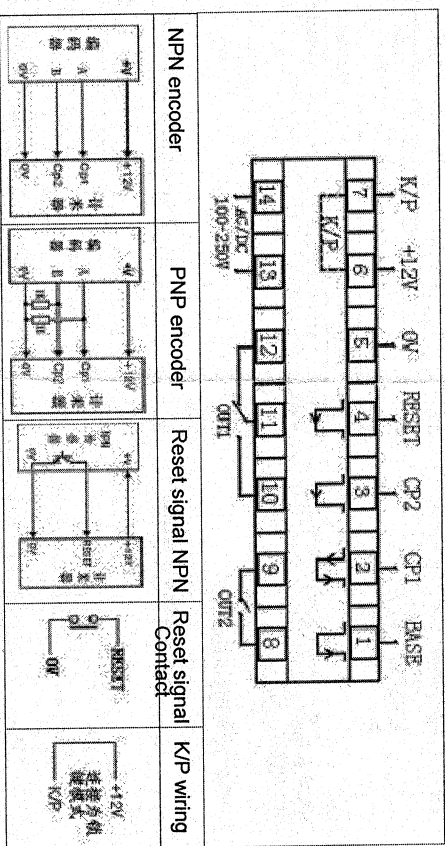The delay time is the time set in otLn-X

Relay Delay Time

The internal scan time of the counter is 0.8mS.
Due to the mechanical delay of the relay.
So when the count reaches the set value
Need 4.5~6mS, the relay contacts can be closed

RESET
OUT1·OUT2
OUT2

编号: 10 (OUT2 only)

Count to setting value (OUT1·OUT2)
relay OUT2 pull-in,keep count

RESET
Setting2
Setting1
Output 0

编号: 11

Count between "setting 1 and setting 2",
relay pull-in and keep count

RESET
Setting
Output 0

继电器延时时间 Ts=4.5～6.0mS
Relay Delay Time

Wiring diagrams and terminals

NPN encoder	PNP encoder	Reset signal NPN	Reset signal K/P
		Reset signal Contact	K/P wiring

Terminal description

1　T13, T14 are power input terminals, and external AC/DC100-250V power supply;
(12-24VDC can be customized)
2　T6 is the output power terminal, and the output is 12V/200mA for the sensor.
3　T7 is the K/P button lock end, when connected to 12V,
Lock button function according to lock level
4　T5 is the common end, the same as the output power 0V
5　T4 reset input, input signal clear
6　T2, T3 are the counting input, the input signal is up and down counting
7　T1 is the calibration input

Attention

1　Work environment: 0~60 Humidity 85%
2　Avoid strong shocks
3　Do not use in a chemical atmosphere
4　Use PNP type sensor
5　Try to keep the instrument away from high magnetic fields, high frequency, high pressure, etc.
Input signal line: shielded line
6　The output control current should not exceed the contact capacity of the relay
7　Pulse equivalent (electronic gear ratio) P-CoEF=perimeter/(pulse*2)
8　Pay attention to counting speed while setting, 2000kCP is measured when the duty radio is 1:1
and the phase difference is 90°, take into account the error,should pay attention to leaving the speed margin when setting.
S: encoder 100ppr, shaft speed is 900 rev / min,count speed:100 * 900/60 (60s) = 1500 CPS
9　When setting the "OUT1" relay action value, be careful about the inertia of the mechanical action.
Such as: set "OUT1" action value is 200, but count to 200, controller stop,but due to inertia,
it will go forward a distance to 210, inertial value is about 10. In order to eliminate inertia,we can
set "OUT1" action value 200-10=190.Or set "OUT2" to use the OUT2 relay to brake before
deceleration, and then slowly go to 200 and stop to ensure the accuracy.

Application

Encoder