Simple single-loop digital display controller

user's Guide U-HSX1100-MYCN2

1. Product introduction

Simple single-loop digital display controller, fool-like operation, 0.3-level measurement accuracy, 7 exterior sizes, dual four-digit LED display

Display, can support thermocouple, thermal resistance, voltage (can be calculated by square root), current (can be calculated by square root) and transmitter input, suitable for temperature, voltage

Monitoring of industrial process quantities such as force, flow, liquid level, humidity, etc. Support 2-channel alarm function, support 1-channel transmission output or support the use of standard

RS485 communication interface with quasi-MODBUS protocol, 1 DC24V feed output, photoelectric isolation of input end, output end and power end.

100-240VAC/DC or 12-36V DC switching power supply, standard snap-in installation, working environment temperature is 0-50ÿ, and relatively

Humidity 5-85%RH, no condensation.

2. Display panel appearance structure diagram

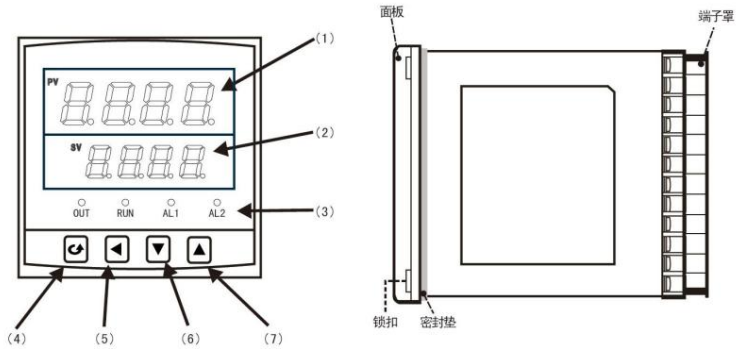

figure 1

(1) PV display window (measured value)

(2) SV display window

Parameters such as input type are displayed in the measurement state.

Display setting value in parameter setting state

(3) The first alarm (AL1) and the second alarm (AL2) indicate

indicator light, running light (RUN) and output light (OUT)

(4) Confirm key

(5) Shift key

(6) Reduce key

(7) Add a key to

take out the watch movement from the case

The watch core of the meter can be pulled out from the watch case by pushing the locks on both sides of the front panel of the meter outward and then grabbing the meter.

Pull out the front panel to separate the watch core from the case. When reassembly, insert the watch core into the watch case and be sure to push it tightly and lock the lock.

Tight to ensure protection standards.

Table 1 Instrument dimensions and opening dimensions

Overall	Opening size: overall size 48*96mm (vertical) 72*72mm		Hole Size
dimensions: 160*80mm	152*76mm	(mode) 48*48mm (mode)	45*92mm
(horizontal) 80*160mm (vertical)	76*152mm		68*68mm
96*96mm (mode) 96*48mm	92*92mm		45*45mm
(horizontal)	92*45mm		

3. Wiring

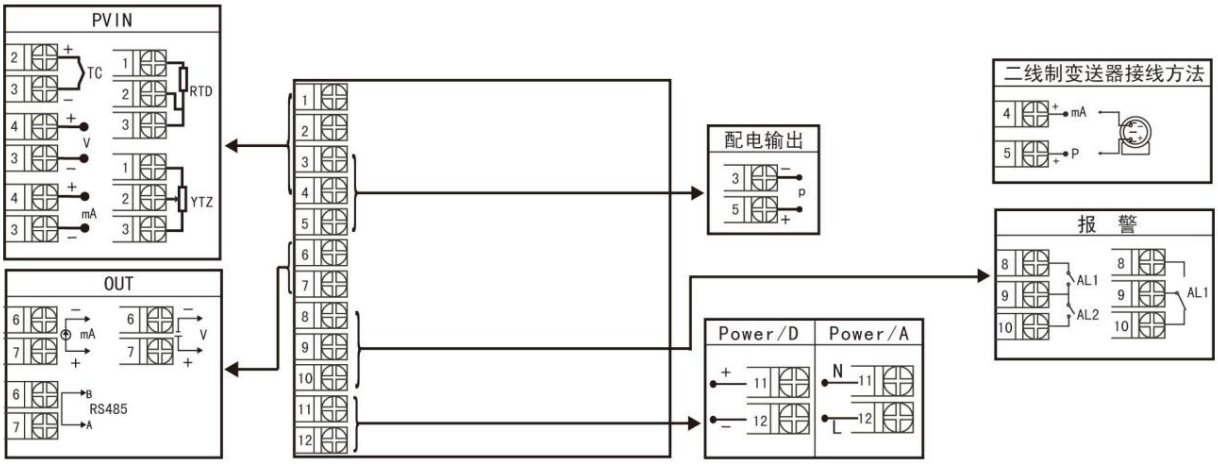

figure 2

Specifications and dimensions are A, B, C, D, and E type wiring diagrams. Note: The wiring terminals on the back cover of horizontal and vertical instruments have different directions, see diagram 3.

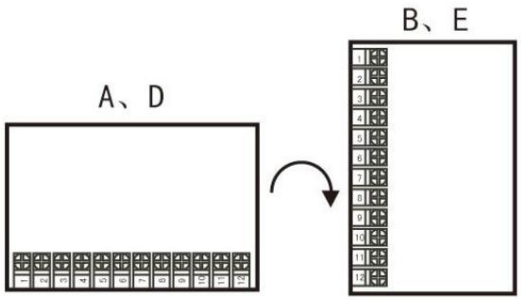

image 3

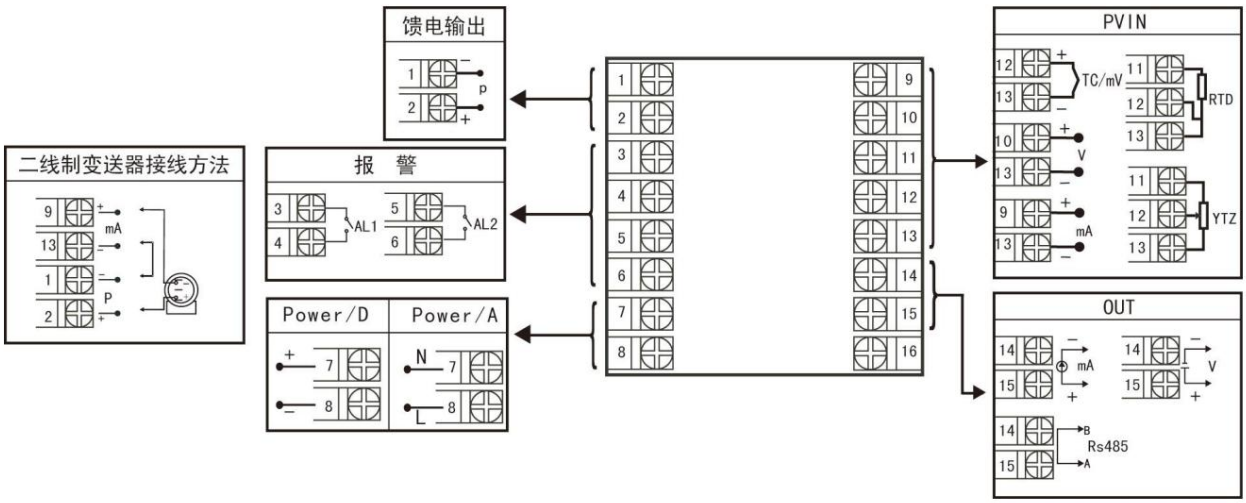

Figure 4 Specifications and dimensions are type F wiring diagram

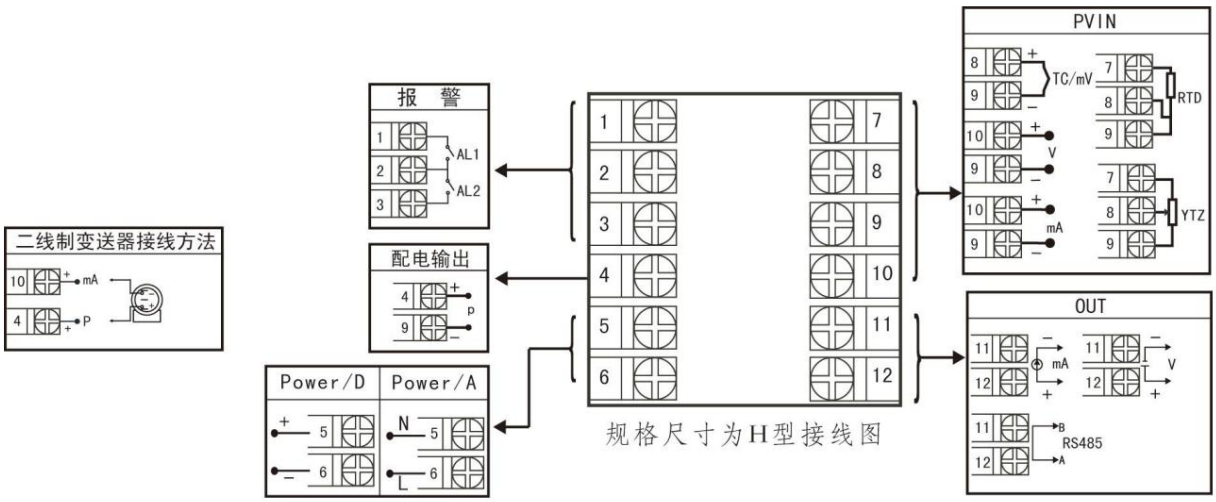

Figure 5 Specifications and dimensions are H-type wiring diagram

Note: In the above wiring diagram, if the same group of terminals are marked with different functions, only one of the functions can be selected. Such as RS485 communication function and transmission

The output functions are on the same group of OUT terminals, and only one type can be selected.

4. Operation

After the instrument is powered on and performs self-test, it automatically enters the working state. In the working state, press the button to set parameters (1) Press and hold to

reset the meter; (2) In any other menu, press and

hold the button for 5 seconds to return to the measurement screen;

ÿReturn to working state (1) Manual

return: In the instrument parameter setting mode, after pressing and holding the key for 5 seconds, the instrument automatically returns to the real-time measurement state. (2) Automatic return: In the

instrument parameter setting mode, without pressing any key, the instrument will automatically return to the real-time measurement state after 60 seconds.

4.1. First-level parameter setting

In the working state, press the PV key to display LOC, and SV to display parameter characters: press the increase and decrease keys to set. The first-level parameters

are as follows (the parameters in the table below correspond to the functions of the ordered model. If there is no such function, the corresponding parameters are not

Parameter symbol name			displayed): Table 2 Setting range (words) Description		Factory default value
Loc	LOC Set parameter lock		LOC=00 LOCÿ00,132 LOC=132	No lock (modification of first-level parameters is valid) Lock-free (modification of first-level parameters is invalid) No forbidden lock (modification of first-level parameters and second-level parameters is valid)	00
AL 1	AL1 First alarm value-1999~9999 Alarm setting value of the first alarm				50 or 50.0
AL 2	AL2 Second alarm value-1999~9999 Alarm setting value of the second alarm				50 or 50.0
AH 1	AH1 first alarm hysteresis 0ÿ9999			First alarm return difference value	02 or 2.0
AH 2	AH2 second alarm hysteresis 0ÿ9999			Second alarm return difference value	02 or 2.0
SdiS	ikB	SV display window measurement Status display content	SdiS=0 SdiS=1 SdiS=2 SdiS=4 SdiS=5 SdiS=6 SdiS=7	Show input index number Display the first alarm value Display the second alarm value Do not show Display pH unit Display ÿ Do not show	0

4.2. Secondary parameter setting In the

working state, press the PV key to display LOC, and SV to display parameter characters: press the increase and decrease keys to set, Loc=132

And long press the key to enter the secondary parameters.

The secondary parameters are as follows (the parameters in the table below correspond to the functions of the order model. If there is no such function, the corresponding parameters will not be displayed):

table 3

Parameter symbol name		Setting range (words)	Description	Factory default value
Pn	PN input index number	0ÿ35	Set the input index type (see input signal type table) 27	
dP	DP decimal point	dP=0 dP=1 dP=2 dP=3	no decimal point The decimal point is in the tens place (display XXX.X) The decimal point is in the hundreds place (display XX.XX) Decimal point in thousands (display X.XXX)	0
ALn1	ALM1 first alarm mode	ALM1=0 ALM1=1 ALM1=2	No alarm The first alarm is the lower limit alarm The first alarm is the upper limit alarm	2
ALn2	ALM2 second alarm mode	ALM2=0 ALM2=1 ALM2=2	No alarm The second alarm is the lower limit alarm The second alarm is the upper limit alarm	1
FK	FK filter coefficient	0ÿ4	Set the instrument filter coefficient to prevent the displayed value from jumping	0
Addr	Addr device number	0ÿ250	Set the device code of the instrument during communication	1
bAUd	Baud communication baud rate	1200 2400 4800 9600	Communication baud rate is 1200bps Communication baud rate is 2400bps Communication baud rate is 4800bps Communication baud rate is 9600bps	9600
Pb	Pb displays the input zero point migration full scale		Set the shift amount of the displayed input zero point	0
PK	PK displays the input range ratio 0~1.999 times. Sets the display input range amplification ratio.			1.000
oUL	OUL Transmission output range lower limit full range		Set the lower range of transmission output	0
oUH	OUH Transmission output range upper limit full range		Set the upper limit range of the	1000
PL	PL lower limit of measurement range full range full range		transmission output. Set the lower limit range of	0
PH	PH measurement range upper limit		the input signal. Set the upper limit range of the input signal.	1000

Parameter symbol name		Setting range (words)	Description	Factory default value
CUt	CUT measures small signal cut off	0.000-1.000	This function is only valid for voltage/current square root signals, formula: input Signal < input signal lower limit + (input signal upper limit - input signal Lower limit)*When setting the percentage, the meter displays the lower limit of the measurement range.	0.000
out	OUT transmission output type	Signal Type Parameter Symbol / Signal Type Parameter Symbol 0-20mA / 20mA / 0-5V / 0-5V 0-10mA / 10mA / 1-5V / 1-5V 4-20mA / 4-20 / No output 0mA /		4-20
T-Pb	T-Pb cold junction zero point correction	full range	Set the cold junction zero point correction value	0
T-PK	T-PK cold junction gain correction	0~1.999 times to set the cold end gain correction value		1.000
o-Pb	o-Pb Zero point shift amount of transmission output	-1.999~2.000	Set the zero point shift amount of transmission output	0
o-PK	o-PK Amplification ratio of transmission output	0~2.000	Set the amplification ratio of transmission output	1.000
FSEL	FSEL power frequency selection	FSEL=0 FSEL=1	The power frequency is 50Hz The power frequency is 60Hz	0
dISt	DIST sampling filter	1ÿ5	Set instrument sampling filter: The smaller the value, the faster the sampling speed; the larger the value, the slower the sampling speed.	5

Table 4 Input signal type table

Index number Pn signal type		Measuring range	Index number Pn signal type		Measuring range
0	Thermocouple B	400ÿ1800ÿ	18	0ÿ350ÿ remote transmission resistor	-1999ÿ9999
1	Thermocouple S	0ÿ1600ÿ	19	30ÿ350ÿ remote transmission resistor	-1999ÿ9999
2	Thermocouple K	0ÿ1300ÿ	20	0ÿ20mV	-1999ÿ9999
3	ThermocoupleE	0ÿ1000ÿ	twenty one	0ÿ40mV	-1999ÿ9999
4	Thermocouple T	-200.0ÿ400.0ÿ	twenty two	0ÿ100mV	-1999ÿ9999
5	ThermocoupleJ	0ÿ1200ÿ	twenty three	Internally reserved	-1999ÿ9999
6	Thermocouple R	0ÿ1600ÿ	twenty four	Internally reserved	-1999ÿ9999
7	ThermocoupleN	0ÿ1300ÿ	25	0ÿ20mA	-1999ÿ9999
8	F2	700ÿ2000ÿ	26	0ÿ10mA	-1999ÿ9999
9	Thermocouple Wre3-25	0ÿ2300ÿ	27	4ÿ20mA	-1999ÿ9999
10	Thermocouple Wre5-26	0ÿ2300ÿ	28	0ÿ5V	-1999ÿ9999
11	Thermal resistance Cu50	-50.0ÿ150.0ÿ	29	1ÿ5V	-1999ÿ9999
12	Thermal resistance Cu53	-50.0ÿ150.0ÿ	30	Internally reserved	-1999ÿ9999
13	Thermal resistance Cu100	-50.0ÿ150.0ÿ	31	0ÿ10V	-1999ÿ9999
14	Thermal resistance Pt100	-200.0ÿ650.0ÿ	32	0ÿ10mA square root	-1999ÿ9999
15	Thermal resistance BA1	-200.0ÿ600.0ÿ	33	4ÿ20mA square root	-1999ÿ9999
16	Thermal resistance BA2	-200.0ÿ600.0ÿ	34	0ÿ5V square root	-1999ÿ9999
17	0ÿ500ÿ linear resistance	-1999ÿ9999	35	1ÿ5V square root	-1999ÿ9999

Note: Choose the method to quickly switch the index sign: change the secondary parameter Pn, move the decimal point to the thousands or hundreds place, and press the increase or decrease key Switch the first and last index numbers; when the decimal point is in the tens place, switch the index numbers every ten places; when the decimal point is in the ones place, switch the index numbers in sequence Number.

5.Digital Communication

Digital communications allow the display to communicate with a PC or computer network system. The communication protocol adopts MODBUS RTU protocol, you need to understand Details of the protocol can be found at www.modbus.org. The use of non-isolated interface boards is not recommended because interference or low potential differences may affect the Ring communication. The conductors should be shielded twisted pairs.