INTELLIGENT DIGITAL DISPLAY CONTROLLER

1. MAIN FEATURES

• Compatible input 22 signals

Thermal resistance: Pt100 Cu50

Thermocouple: S/R/B/K/N / / E/J/T and automatic cold end temperature compensation.

Standard signal: 0 ~ 10mV / 4 ~ 20mA / 0 ~ 5V / 1 ~ 5V

Linear non-standard signals: 0 ~ 100 mA/within 0 ~ 400 Ω, arbitrary signal according to the input signal and its corresponding range set, can be used.

• Microcontroller is intelligent

The zeros and ampliPers can be manually adjusted and used linearly without drift for a long time.

All parameters can be set free according to requirements.

• Alarm control parameters can be set

The output of relay can be controlled by up to four channels.

The alarm value and return of each relay are set separately.

The output of each relay is set free (upper alarm or lower limit alarm)

• Variable delivery parameters can be selected

Variable output type: 0 ~ 10mA / 4 ~ 20mA / 0 ~ 5V / 1 ~ 5V

Variable range can be set free.

Multi - standard serial two-way communication function.

ConPguration software of intelligent collector and Windows Xp platform can be connected to the upper computer.

2. MAIN INDICATORS

- Measurement range: -1999~9999
- Measurement accuracy: 0.5% FS + / word
- Power supply voltage: AC220 (±10%)
- Using the environment: the temperature of 0 ~ 50 ℃, relative humidity 85%
- Power consumption: ≤ 5W

3. PANEL SHOWS （TAKE THE EXAMPLE OF 160 * 80 PANELS ）

1) Indicator lights AH lamp light, upper limit relay output: AHH light, upper limit relay output;
AL lamp light, lower limit relay output, ALL light, lower limit relay output.

2) Function keys

3) Add key

4) Minus key

5) Shift key

6) Measurement and function menu display window

4. MODEL DEFINITION

MODEL	CODE	EXPLAIN
——	□□□□□□□□□□□□	New series
Shape features	TC/TS C S	Horizontal/vertical light column display instrument Horizontal display instrument Vertical display instrument
Contour size	1 4 7 8 9	48*48mm 96*48mm(Transverse)48*96mm(Vertical) 72*72mm 160*80(Transverse)80*160mm(Vertical) 96*96mm
Control function	01 03 04	Measurement display Double limit alarm Four limit alarm
Communication mode	08	No communication RS-485
Variable output mode	1 2 3 4 5	No output 4-20mA 0-10mA 1-5V 0-5V
Input mode	23	See "input type selection code"
Alarm mode 1	N H L	No alarm Upper limit control/alarm Lower limit control/alarm H : 1 WAY LIMIT 2H : 2 WAY LIMIT
Alarm mode 2	N H L P	No alarm Upper limit control/alarm Lower limit control/alarm L : 1 WAY LIMIT 2L : 2 WAY LIMIT
Feed output		

5. TYPE SELECTION CODE

CODE	TYPE AND RANGE OF INPUT	CODE	TYPE AND RANGE OF INPUT	CODE	TYPE AND RANGE OF INPUT
00	S(0 ~ 1600℃)	08	Pt(-200 ~ 850℃)	16	mV non-standard signal (0 ~ 100mV)
01	R(0 ~ 1600℃)	09	Cu50(-50 ~ 150℃)	17	Resistance non-standard signal (0 ~ 400Ω)
02	B(200 ~ 1800℃)	10	0-5V(-1999 ~ 9999)	18	Frequency non-standard signal (0 ~ 3000hz)
03	K(0 ~ 1300℃)	11	1-5V(-1999 ~ 9999)	19	0-5v square (-1999 ~ 9999)
04	N(0 ~ 1300℃)	12	0-10V(-1999 ~ 9999)	20	1-5v square (-1999 ~ 9999)
05	E(0 ~ 800℃)	13	0-10mA(-1999 ~ 9999)	21	0-10ma square (-1999 ~ 9999)
06	J(0 ~ 650℃)	14	0-20mA(-1999 ~ 9999)	22	4-20ma kaifang (-1999 ~ 9999)
07	T(-200 ~ 400℃)	15	4-20mA(-1999 ~ 9999)	23	Full switching input

6. METER 1 PARAMETER SETTING

After 3 seconds of the SET key, you can enter the following menu: change the parameters according to the following order, and the parameter circulates! To SET the current parameter value, press the SET key to enter and change the value by shifting and adding and subtracting keys. SET the setting and then press SET to confirm again! If you want to return to the measuring interface, press 3 seconds!

PARAMERTER	FUNCTION	SETTING RANGE	DEFAULT VALUE	EXPLAIN
AH	Maximum alarm value	-1999 ~ 9999	300.0	Displays the alarm set value of the upper alarm alarm
dH	Maximum alarm return	0 ~ 9999	1.0	Displays the return value of the upper alarm
AL	Lower limit alarm value	-1999 ~ 9999	200.0	Show the alarm set value of the lower limit alarm
dL	Lower limit alarm return	0 ~ 9999	1.0	Shows the return value of the lower limit alarm
AHH	Upper limit alarm value	-1999 ~ 9999	400.0	Display upper limit alarm alarm set value
dHH	Upper limit alarm return	0 ~ 9999	1.0	Display upper limit alarm callback value
ALL	Lower limit alarm value	-1999 ~ 9999	100.0	Displays the alarm setting value of lower limit alarm
dLL	Lower limit alarm return	0 ~ 9999	1.0	Shows the return value of lower limit alarm
PASS	Secondary menu password entry	PASS	0	When the input parameter is 55, enter the secondary menu

7. METER 2 PARAMETER SETTING

There was a PASS into the level of the menu, press the SET key, enter the password in PV window 555, press SET button to enter the following menu: each time you press the minus key according to the following order change parameters, parameter cycle change! To SET the current parameter value, click the SET entry, change the value by the shift key and the addition and minus key, and SET the SET key to confirm it again! If you want to return to the measuring interface, press 3 seconds!

PARAMERTER	FUNCTION	SETTING RANGE	DEFAULT VALUE	EXPLAIN
Sn	Input signal selection	0 ~ 22	15	See the type selection code above
Dot	Decimal point position	0、1、2、3	1	0(without)1(ten)2(hundreds)3(thounds)
PUL	lower limit of measurement range	-1999 ~ 9999	0.0	Set the lower limit of the input signal
PUH	Upper limit of measurement range	-1999 ~ 9999	500.0	Sets the upper limit of the input signal
PbIR	Zero corrected value	-100 ~ 100	0.0	The zero point error for modifying the sensor
FILt	Filter coefficients	0.100 ~ 9.999	0.100	The filter coefficient increases, the display value is stable, but the lag increases
k1/SUH	Display amplification factor	0.100 ~ 9.999	1.000	Set input range scale
OU-A	Transmit output	1、2	2	1=0 ~ 10mA 2=4 ~ 20mA
PH	Upper alarm type	1、2	1	1Up alarm 2Down alarm
PL	Lower alarm type	1、2	2	1Up alarm 2Down alarm
PHH	Upper limit alarm type	1、2	1	1Up alarm 2Down alarm
PLL	Lower limit alarm type	1、2	2	1Up alarm 2Down alarm
InPH	Non-standard signal input maximum	0 ~ 400	100	Use only when Sn = 16 or 17 (see note 1)
InPL	Non-standard signal input min	0 ~ 400	0	Use only when Sn = 16 or 17 (see note 1)
bAUd	Communication baud rate	0、1、2、3	3	0 (1200) 1 (2400) 2 (4,800) 3 (9600) unit: BPS
Id	Correspondence address	0 ~ 31	1	No more than 31

Note 1: remote transmission pressure gauge output, in the range 0 ~ 1 mpa 0 ~ 375 Ω as an example, the set of Sn to 17, dot = 2, PUL = 0.00, and PUH = 1.00, InPH = 375, set, can display measured value!

8. APPLICATION SPECIFICATION

1. Selection of meter and sensor range: the range of all sensors must be consistent with the meter's range, otherwise, the meter is not allowed! Example: the liquid level transmitter range is 0-5 meters (the nameplate), and the output 4 ~ 20mA meter parameter setting: the following parameters are set in the secondary menu:

PARAMERTER	NAME	SETTING VALUE	EXPLAIN
Sn	Model input type	15	Must be consistent with the output signal of the sensor
Dot	Decimal point position	2	According to precision requirement
PUL	lower limit of measurement range	0.00	Minimum range of the sensor
PUH	Upper limit of measurement range	5.00	Maximum range of the sensor

2. Practical application of the instrument 1: take the above 0-5 meter transmitter as an example. The alarm length is 3 seconds, and the parameters are set as follows:

PARAMERTER	NAME	SETTING VALUE	EXPLAIN
AH	Maximum alarm value	4.00	Relay output is: upper limit
dH	Maximum alarm return	0.05	Upper alarm return (free setting)
AL	Lower limit alarm value	1.00	Relay output is: lower limit
dL	Lower limit alarm return	0.05	Lower alarm point return (free setting)

Example 2: take the above 0-5 meters transmitter for example! Require less than 1 m open pump, above 4 m stop pump. Press 3 seconds to enter the first level menu, and the parameters are set as follows:

PARAMERTER	NAME	SETTING VALUE	EXPLAIN
AL	Lower limit alarm value	1.00	Relay output is: lower limit
dL	Lower limit alarm return	3.00	Lower alarm point return (free setting)

Example 3: take the above 0-5 meters transmitter for example! Require more than 4 m open pump, less than 1 m stop pump. Press 3 seconds to enter the first level menu, and the parameters are set as follows:

PARAMERTER	NAME	SETTING VALUE	EXPLAIN
AH	Maximum alarm value	4.00	Relay output is: upper limit
dH	Maximum alarm return	3.00	Upper alarm return (free setting)

Upper limit and upper limit of factory, lower and lower limit and lower limit function are the same! According to the actual requirements, users can choose for themselves! (users can change the alarm mode according to their actual situation)

Example 4: special requirements! When using the light column meter, the customer will be able to measure 0 to 5m, and the actual measurement of the liquid level is 0-5m, and the percentage of the light column should be displayed with the change of 0-5m, which will show the real value of the measurement! Set parameters as follows: set Sn to 15, dot = 2, PUL = 0.00, and PUH = 5.00, SUH = 8.00/5.00 = 1.600

9. ADDITIONAL INSTRUCTIONS

1. communication and print agreement (attached)
2. maintenance and quality assurance, because the design has taken into account the long-term stability of the instrument, in normal use, the instrument does not require special maintenance. In normal use, no accident factors, product quality problems caused by damage, sold warranty, replacement and return within 12 months in the instrument, and is willing to provide technical services for users.
3. random files and attachments

1) instrument one;
2) instrument operation manual one;
3) product qualification certificate one.