Model definition

model	code	instructions
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Shape features	TH/T C S	Horizontal/vertical light column display instrument Horizontal display instrument Vertical display instrument
Overall dimensions	1 4 7 8 9	48*48mm 96*48mm(cross)48*96mm(vertical) 72*72mm 160*80(cross)80*160mm(vertical) 96*96mm
Control action	01 03 04	Measurement display Double limit alarm Four limit alarm
Communicat-ion methods	08	No communication RS-485
Transformer output mode	1 2 3 4 5	No output 4-20mA 0-10mA1-5V 0-5V
The output type	23	See "output type selection code"
Alarm way1	N H L	No alarm Upper limit control/alarm Lower limit control/alarm H: 1 the way limit 2H:2 way limit
Alarm way2	N H L	No alarm Upper limit control/alarm Lower limit control/alarm H: 1 the way limit 2H:2 way limit
Power supply	P	DC24V power supply

Input type selection code

Code	Input signal and measuring range	Code	Input signal and measuring range	Code	Input signal and measuring range
00	S(0-1600℃)	**08**	PT100(-200-800℃)	**16**	mV no-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 prescription (-1999-9999)
04	N(0-1300℃)	**12**	0-10V(-1999-9999)	**20**	1-5V prescription (-1999-9999)
05	E(0-800℃)	**13**	0-10mA(-1999-9999)	**21**	0-10mA prescription (-1999-9999)
06	J(0-650℃)	**14**	0-20mA(-1999-9999)	**22**	4-20mA prescription (-1999-9999)
07	T(-200-400℃)	**15**	4-20mA(-1999-9999)	**23**	Full switch input

6. Instrument primary parameter setting

Press and hold the SET key for 3 seconds to enter the following menu: Each time you press the minus key, the parameters change in the following order, and the parameters change cyclically! To set the current parameter value, press the SET key to enter, use the shift key and the plus and minus keys to change the value, and press the SET key again to confirm the setting! If you want to return to the measurement interface, press and hold for 3 seconds to exit!

parameter	Function	Setting range	Factory value	illustrate
AH	Upper limit alarm value	-1999~9999	300.0	Displays the alarm setting value for the upper limit alarm
dH	Upper limit alarm hysteresis	0~9999	1.0	Display the hysteresis value of the upper limit alarm
AL	Lower limit alarm value	-1999~9999	200.0	Displays the alarm setting value for the lower limit alarm
dL	Lower limit alarm hysteresis	0~9999	1.0	Display the hysteresis value of the lower limit alarm
AHH	Upper limit alarm value	-1999~9999	400.0	Displays the alarm setting value of the upper limit alarm
dH	Upper limit alarm hysteresis	0~9999	1.0	Display the hysteresis value of the upper and lower limit alarm
ALL	Lower and lower limit alarm value	-1999~9999	100.0	Displays the alarm setting value for the lower limit alarm
dLL	Lower limit alarm hysteresis	0~9999	1.0	Display the hysteresis value of the lower limit alarm
PASS	Secondary menu password input	PASS	0	When the parameter 555 is entered, the secondary menu is entered.

7. Instrument secondary parameter setting

When PASS appears in the first-level menu, press the SET key, enter the password 555 in the PV window, and press the SET key to enter the following menu: Each time you press the minus key, the parameters change in the following order, and the parameters change cyclically! To set the current parameter value, press the SET key to enter, use the shift key and the plus and minus keys to change the value, and press the SET key to confirm after setting! If you want to return to the measurement interface, press and hold for 3 seconds to exit!

parameter	Function	Setting range	Factory value	illustrate
Sn	Input signal selection	0~22	15	See above input type selection code
dOt	Decimal point position	0, 1, 2, 3	1	0(none)1(tens)2(hundreds)3(thousands)
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	Set the upper limit of the input signal range
ikB	Zero point correction value	-100~100	0.0	Used to correct the zero point error of the sensor
FILT	filter coefficient	0.100~9.999	0.100	The filter system is increased, the displayed value is stable, but the lag increases
K1/SUH	Display magnification factor	0.100~9.999	1.000	Set the input range amplification ratio
OU-L	Light column range lower limit	full range	0.0	
OU-H	Upper limit of light column range	full range	500.0	
PH	Upper limit alarm type	1, 2	1	1 upward alarm 2 downward alarm
PL	Lower limit alarm type	1, 2	2	1 upward alarm 2 downward alarm
PHH	Upper limit alarm type	1, 2	1	1 upward alarm 2 downward alarm
PLL	Lower and lower limit alarm type	1, 2	2	1 upward alarm 2 downward alarm
InPH	Maximum value of non-standard signal input	0~400	100	Only used when Sn=16 or 17 (see Note 1)
InPL	Non-standard signal input minimum value	1, 1, 2, 3	3	Only used when Sn=16 or 17 (see Note 1)
bAUd	Communication baud rate	1, 1, 2, 3	3	0(1200) 1 (2400) 2 (4800) 3 (9600)Unit: bps
ID	Correspondence address	0~31	1	cannot exceed 31

Note 1: Connect to the remote pressure gauge output, take the range 0~1Mpa output 0~375Q as an example, set Sn to 17, dot=2, PUL=00.00, and PUH=1.00, InPL=0, InPH=375, and the setting is done, the measured value can be displayed!

8. Application instructions

1. Selection of instrument and sensor range: The range of all sensors must be consistent with the range of the instrument, otherwise, the instrument display will be inaccurate! Example: The range of the liquid level transmitter is 0.5 meters (based on the nameplate), and the output is 4~20mA. Instrument parameter setting: Enter the secondary menu to set the following parameters:

parameter	name	set value	illustrate
Sn	Model input type	15	Must be consistent with the output signal of the sensor
dot	Decimal point position	2	According to accuracy requirements
Pul	Lower limit of measurement range	0.00	The minimum range of the sensor
PU H	The upper limit of the measurement range.	5.00	The maximum range of the sensor

2. Practical application example 1 of the instrument: Take the above 0-5 meter transmitter as an example! If the value is higher than 4 meters or lower than 1 meter, an alarm will be triggered. Press and hold for 3 seconds to enter the first level menu. The parameter settings are as follows:

parameter	name	set value	illustrate
AH	Upper limit alarm value	4.00	Relay output is: upper limit
dH	Upper limit alarm hysteresis	0.05	Upper limit alarm point hysteresis (freely settable)
AL	Lower limit alarm value	1.00	Relay output: lower limit
dL	Lower limit alarm hysteresis	0.05	Lower limit alarm point hysteresis (freely settable)

Example 2: Take the 0-5m transmitter above as an example! The pump is required to be turned on when the water level is below 1m and stopped when the water level is above 4m. Press and hold for 3 seconds to enter the first level menu. The parameter settings are as follows

parameter	name	set value	illustrate
AL	Lower limit alarm value	1.00	Relay output: lower limit
dL	Lower limit alarm hysteresis	3.00	Lower limit alarm point hysteresis (freely settable)

Example 3: Drainage takes the above 0-5m transmitter as an example! The pump is required to be turned on when it is higher than 4m and stopped when it is lower than 1m. Press and hold for 3 seconds to enter the first level menu. The parameter settings are as follows

parameter	name	set value	illustrate
AL	Lower limit alarm value	4.00	Relay output is: upper limit
dL	Lower limit alarm hysteresis	3.00	Upper limit alarm point hysteresis (freely settable)

9. Customizable functions according to customer requirements

Customized one-key mute function, long press the increase key, mute will release the current relay closure, and the next stroke will automatically resume

10. Additional instructions

1, communication and printing protocol (attached separately) The current relay closure is released and the next stroke is automatically restored (other functions can be customized according to customer requirements)

2. Maintenance and Warranty Since the long-term stability of the instrument has been taken into consideration in the design, the instrument does not require special maintenance under normal use. In normal use, if there are no unexpected factors, damage caused by product quality problems will be covered by warranty, replacement, and refund within twelve months after the instrument is sold. We are willing to provide Provide relevant technical services to users.

3. Random documents and attachments

1) One instrument 2) One copy of the instrument operating manual 3) One copy of product certificate

Intelligent digital display controller

1. Main features

◆Compatible with 22 input signals

Thermal resistor: Pt100 Cu50

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

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

Linear non-standard signal: within 0~100mV/0~4000, any signal can be set according to the input signal and the corresponding range and can be used.

◆MCU intelligence

Zero point and magnification can be adjusted manually, and linearity will not drift after long-term use.

All parameters can be freely set as required.

◆Alarm control parameters can be set

Can have up to four control relay outputs.

The alarm value and hysteresis of each relay can be set separately.

The output mode of each relay can be freely set (upper limit alarm or lower limit alarm)

◆Transmission output parameters can be selected in many ways

Transmitter output type: 0~10mA/4~20mA/0-5V/15V

The transmission range can be freely set.

It has multiple standard serial bidirectional communication functions.

Configuring intelligent collector and Windows XP platform configuration software can realize the networking of host computer.

2. Main indicators

◆Measurement range: -1999~9999

◆Measurement accuracy: 0.5% FS + 1 word

◆Supply voltage: AC220 (±10%)

◆Use environment: temperature 0~50°C. Relative temperature ≤85%

◆Power consumption: ≤5W

3. Panel Description (taking 160*80 zygomatic panel as an example)

1) When the indicator light AH is on, the upper limit relay is output; when the indicator light AHH is on, the upper limit relay is output;

When the AL light is on, the lower limit relay is output; when the ALL light is on, the lower limit relay is output.

2) Function keys

3) Add key

4)Minus key

5) Shift key

6) Measurement and function menu display window