

# 4 relay 4-20mA Output AC220V Power Automatic Digital Display Liquid Level Indicator Tank Water Level Controller

---



**Relay 4-20mA Output AC220V Power Automatic Digital Display Liquid Level Indicator Tank Water Level Controller**

## Product Description

Digital display controller adopts advanced microprocessor to intelligently control.

It is suitable for temperature, humidity, pressure, liquid level, flow, speed and other physical parameters, display and control of detection signal. Also can take high-precision linear correction measurement to various nonlinear input signals.



## Level Controller

### Intelligent Digital Display Controller

- ✓ Intelligent digital display with light column
- ✓ Compatible with pressure transmitter/level transmitter
- ✓ Upper and lower limit intelligent control



#### Technical Specifications

Power supply	AC220V, DC24V
Input thermal signal	PT100,CU50

Input non-standard signal	0-100mV/0-400Ω
Input standard signal	0-10mA/4-20mA/0-5V/1-5V/0-10V
Output signal	0-10mA/4-20mA/0-5V/1-5V/0-10V
Control mode	Position Type- On/ OFF, with return difference
Thermocouple	S/R/B/K/N/E/J/T automatic temperature compensation
Power dissipation	≤5W
Control mode	1~4 limit control available, LED display. Control mode is delay ON/ OFF with return difference (can be defined by user freely)
Structure	Standard card-in type
Column accuracy	The display accuracy of light column is 1%
Measurement accuracy	0.5%FS±1 Byte
Using environment	Environmental temperature: 0~50°C Relative humidity: ≤85RH To avoid highly corrosive gas
Resolution	1,0.1,0.01 or 0.001 character
Usage	Fluid measuring instruments
Temperature compensation	0~50°C digital temperature automatic compensation

# Intelligent Digital Display Controller Setting

## ◆ Code selection of Input type(Sn)

Code	Input type & Range	Code	Input type & Range	Code	Input type & Range
00	S(0~1600°C)	08	Pt100(-200~850°C)	16	mV non-standard signal(0~100mV)
01	R(0~1600°C)	09	Cu50(-50~150°C)	17	Resistance non-standard signal(0~400Ω)
02	B(200~1800°C)	10	0~5V(-1999~9999)	18	Frequency non-standard signal(0~3000Hz)
03	K(0~1300°C)	11	1~5V(-1999~9999)	19	0~5V root(-1999~9999)
04	N(0~1300°C)	12	0~10V(-1999~9999)	20	1~5V root(-1999~9999)
05	E(0~800°C)	13	0~10mA(-1999~9999)	21	0~10mA root(-1999~9999)
06	J(0~650°C)	14	0~20mA(-1999~9999)	22	4~20mA root(-1999~9999)
07	T(-200~400°C)	15	4~20mA(-1999~9999)	23	Full switch input

## ◆ Primary parameter setting

Long press **SET** key 3 seconds to enter the following menu first: Every time you press the **DEC** key, the Parameters are changed in the following order, and they are changed in cycles.

To set the current Parameter, press the **SET** to enter, and change the value by the **SHIFT, INC** and **DEC** key, then press the **SET** to confirm.

If you want to return to the measurement interface, long press **SET** 3 seconds to exit.

Parameter	Function	Range	Factory Default	Explanation
AH	AH Alarm Value	-1999~9999	300.0	Show the Alarm Value of AH Alarm
dH	AH Alarm Difference	0~9999	1.0	Show the Difference Value of AH Alarm
AL	AL Alarm Value	-1999~9999	200.0	Show the Alarm Value of AL Alarm
dL	AL Alarm Difference	0~9999	1.0	Show the Difference Value of AL Alarm
AHH	AHH Alarm Value	-1999~9999	400.0	Show the Alarm Value of AHH Alarm
dHH	AHH Alarm Difference	0~9999	1.0	Show the Difference Value of AHH Alarm
ALL	ALL Alarm Value	-1999~9999	100.0	Show the Alarm Value of ALL Alarm
dLL	ALL Alarm Difference	0~9999	1.0	Show the Difference Value of ALL Alarm
PASS	Secondary menu password	PASS	0	Show the Alarm Value of ALL Alarm

## ◆ Secondary parameter setting

When you see the **PASS** in the Primary menu, press the **SET**, type the code **555**, and re-press the **SET** to enter the following menu: Every time you press the **DEC** key, the Parameters are changed in the following order, and they are changed in cycles.

To set the current Parameter, press the **SET** to enter, and change the value by the **SHIFT, INC** and **DEC** key, then press the **SET** to confirm.

If you want to return to the measurement interface, long press **SET** 3 seconds to exit.

Parameter	Function	Range	Factory Default	Explanation
Sn	Selection of Input signal	0~22	15	See Code selection of Input type
dOt	Decimal point position	0、1、2、3	1	0(No) 1(Ten bit) 2(Hundred bit) 3(Thousand bit)
PUL	AL of measuring range	-1999~9999	0.0	Set the AL measuring range of input signal
PUH	AH of measuring range	-1999~9999	500	Set the AH measuring range of input signal
PbIR	Zero correction	-100~100	0.0	Correction of Zero error of sensor
FILT	Filter coefficient	0.100~9.999	0.100	With the increase of filter coefficient, the display value stable, but the lag increases
K1/SUH	Display mu factor	0.100~9.999	1.000	Set the magnification ratio of input range
OU-A	Transmit output	1、2、3	2	1=0~10mA, 2=4~20mA, 3=0~20mA
OU-L	Transmit/AL of graph bar range	-1999~9999		
OU-H	Transmit/AH of graph bar range	-1999~9999		
PH	AH Alarm type	1、2	1	1 alarm up, 2 alarm down
PL	AL Alarm type	1、2	2	1 alarm up, 2 alarm down
PHH	AHH Alarm type	1、2	1	1 alarm up, 2 alarm down
PLL	ALL Alarm type	1、2	2	1 alarm up, 2 alarm down
InPH	Max value of non-standard signal	0~400	100	Use only when Sn = 16 or 17 (See Note1)
InPL	Min value of non-standard signal	0~400	0	Use only when Sn = 16 or 17 (See Note1)
bAUd	Communication baud rate	1、1、2、3	3	0(1200) 1(2400) 2(14800) 3(9600) Unit: bps
Id	Communication address	0~31	1	No more than 31

Note1: When connecting with eletransmission pressure gauge, if range 0~1Mpa, output 0~375Ω, Set Sn as 17, dot=2, PUL=0.00, PUH=1.00, InPL=0, InPH=375, the measuring range will be shown.





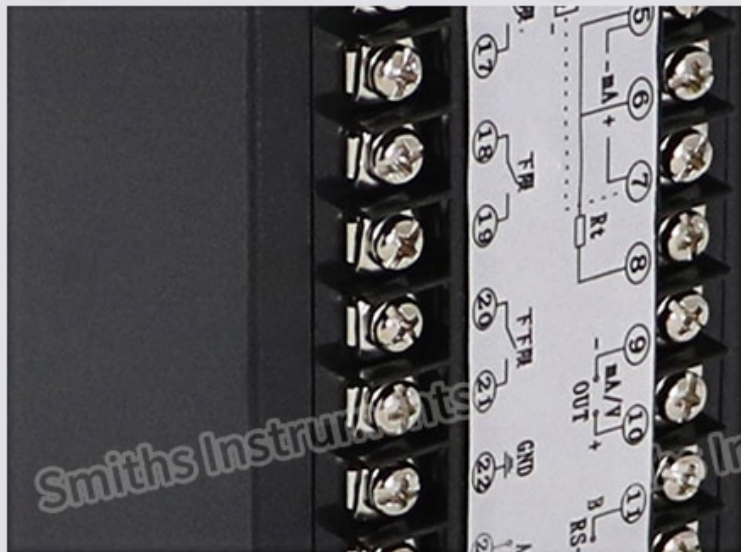
## Product Features



User self setting interface



Electroplating process,  
anti rust



Dual relay control.



more accurate



**ABS safe flame retardant material shell,  
sturdy and durable**



## Product Parameters



- Power supply: AC220V, 50Hz
- Input signal: Compatible of 22 signals
- Output signal: 4 relay
- Measuring accuracy: 0.5%FS
- Light column accuracy: 1%
- Power consumption: 5W
- Measuring range: -1999~9999
- Temperature compensation: 0~50
- Control mode: Hysteresis difference
- Working ambient: 0~50C, Humidity: 85%

50mm



## Self-setting Page







## Wiring Diagram

### 1st, 4-20mA wiring diagram

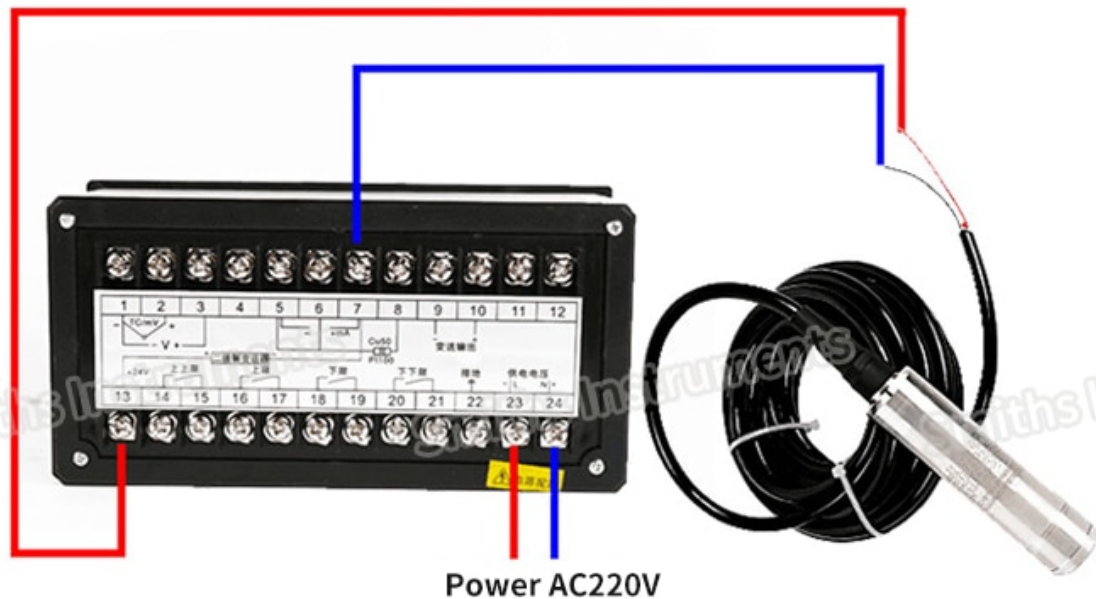
Signal (Pressure transmitter: PIN2 ,  
Level transmitter: Black wire )



24V+ (Pressure transmitter: PIN1 ,  
Level transmitter: Red wire )

Power AC220V

e.g: How to connect with the level sensor?

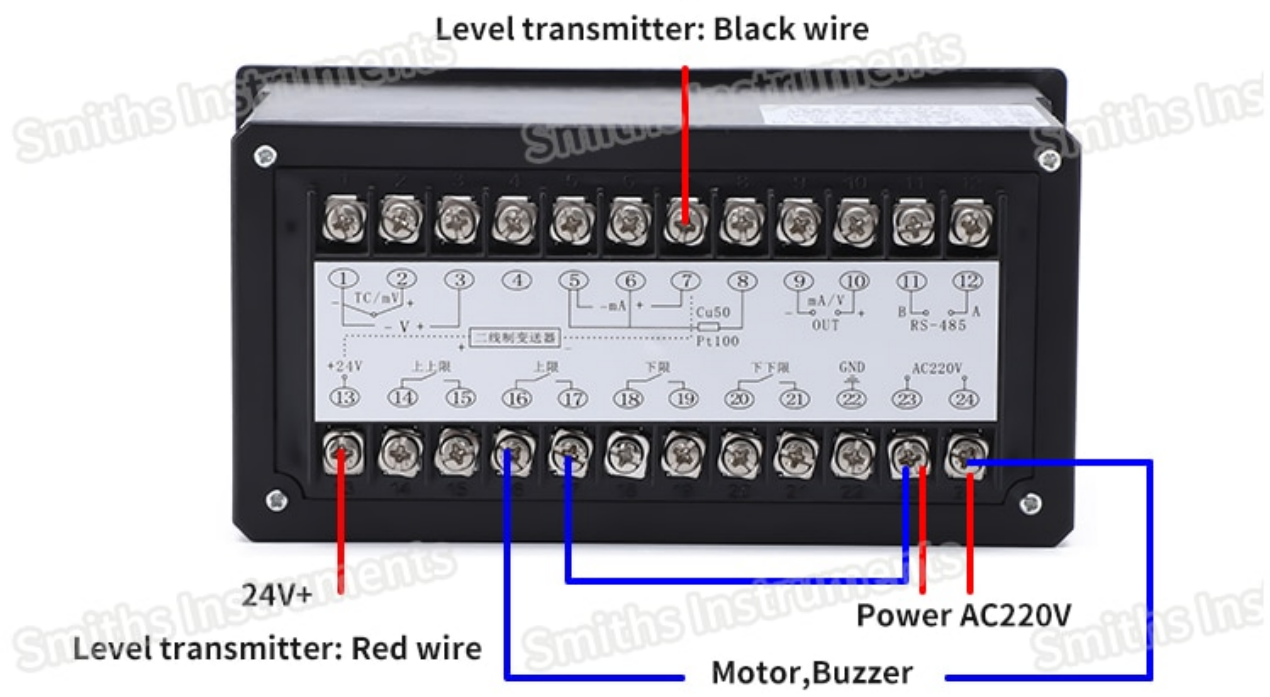


Power AC220V

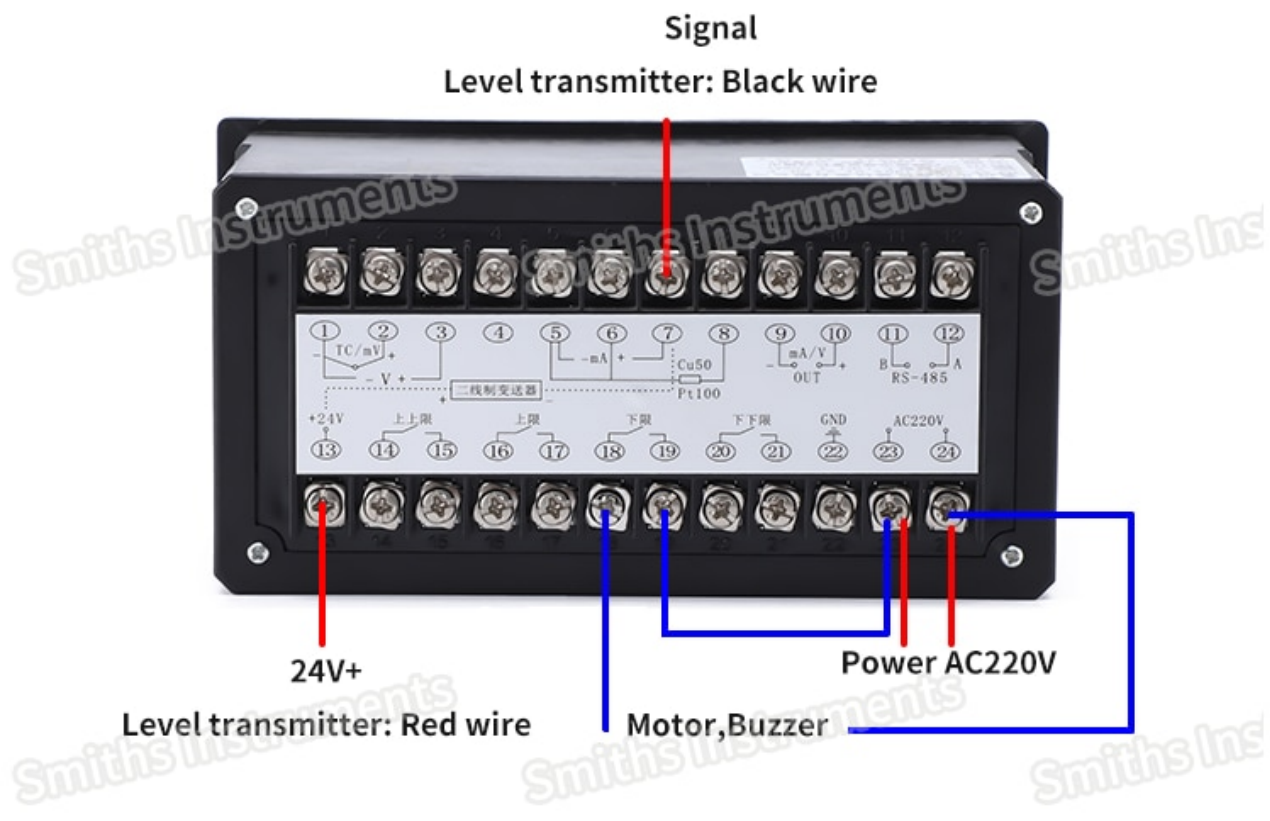
### 2nd, AH alarm (drainage)

Signal





### 3rd, AL alarm (water replenishment)

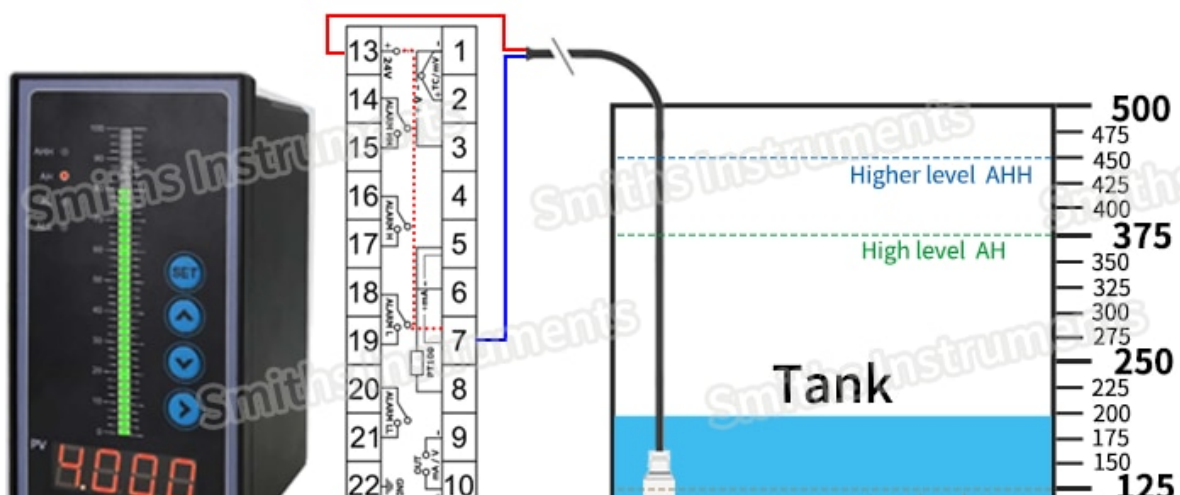


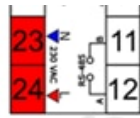


## Product Application



1. Liquid level read & monitor & control Solutions of the tank.





2. PM14 panel meter and EL series hydrostatic sensor work on the tank.



## Product Display





