



## Wall-mounted PH controller

# Datasheet

SUP-pH7.0

pH / ORP tester is one of the intelligent online chemical analysis equipment, is a widely used in thermal power, chemical fertilizer, metallurgy, environmental protection, pharmaceutical, biochemical, food and tap water solution pH value or ORP value and temperature of the continuous monitor.

---

## **Feature**

---

- Design of board card modularity, for convenience of assembly and configuration.
- 2.4inches 12864 lattice screen.
- Isolating transmitting output, with little interference.
- Isolating RS485 communication.
- Can be pH / ORP measurement, temperature measurement, upper and lower limit control, transmission output, RS485 communication.
- Configurable manual and auto temperature offset function.
- Configurable upper/lower limit warning and delay.
- Configurable hummer and LCD backlight switch.
- Addition of universal password.
- Industrial controlled door keep, to avoid instrument halted.

Continuous monitoring data through the transmission output connection recorder to achieve remote monitoring and recording, you can also connect the RS485 interface through the MODBUS-RTU protocol can be easily connected to the computer to achieve monitoring and recording.

---

## **Working principles**

---

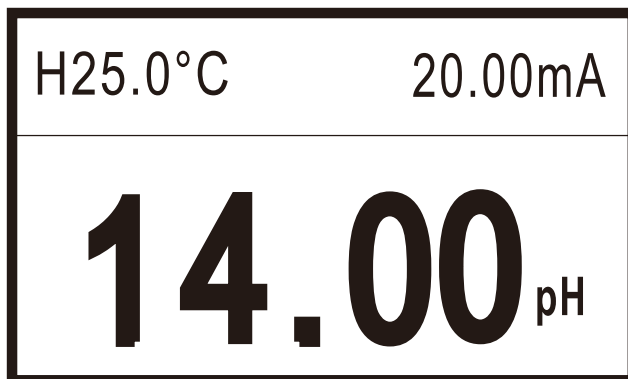
The electrode uses the galvanic principle. It consists of two batteries, one of which is called a measuring electrode, its potential is related to the specific ion activity. The other one, called the reference electrode, is normally connected to the measuring liquid and is connected to the measuring instrument (pH controller).

The pH controller is responsible for receiving the analog signal from the electrode, and convert it to specific values to displayed on the screen.

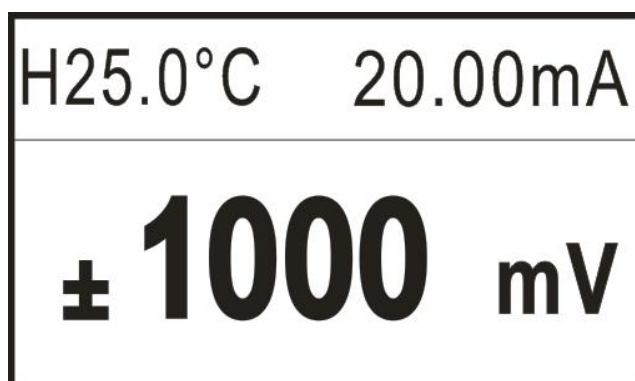
## Technical Specification

<b>output</b>	4-20 mA
<b>maximum loop</b>	750 $\Omega$ ,0.1% FS
<b>Measuring range</b>	pH (0-14 pH); ORP (-1000- + 1000 mV )
<b>Accuracy</b>	$\pm 0.02$ pH; $\pm 1$ mV
<b>Resolution</b>	$\pm 0.01$ pH; $\pm 1$ mV
<b>stability</b>	$\leq 0.02$ pH / 24H; $\leq 3$ mV / 24H
<b>Temperature measurement range</b>	-10-130 $^{\circ}$ C , accuracy: $\pm 0.5$ $^{\circ}$ C (NTC10K or PT1000)
<b>Temperature compensation</b>	-10-130 $^{\circ}$ C Manual / automatic
<b>RS485 function</b>	compatible with the standard MODBUS-RTU communication protocol
<b>Power supply</b>	AC220V $\pm 10\%$ , 50Hz / 60Hz
<b>relay alarm</b>	two normally open normally closed alarm relay AC250V, 3A
<b>Language</b>	Chinese and English can be switched

## Digital display



pH monitoring page



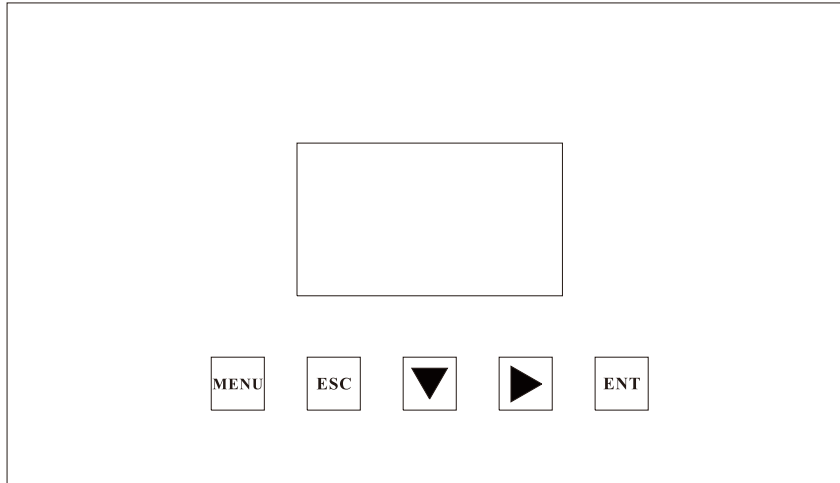
ORP monitoring page

---

## Operation button

---

### Button display



### Definition of buttons

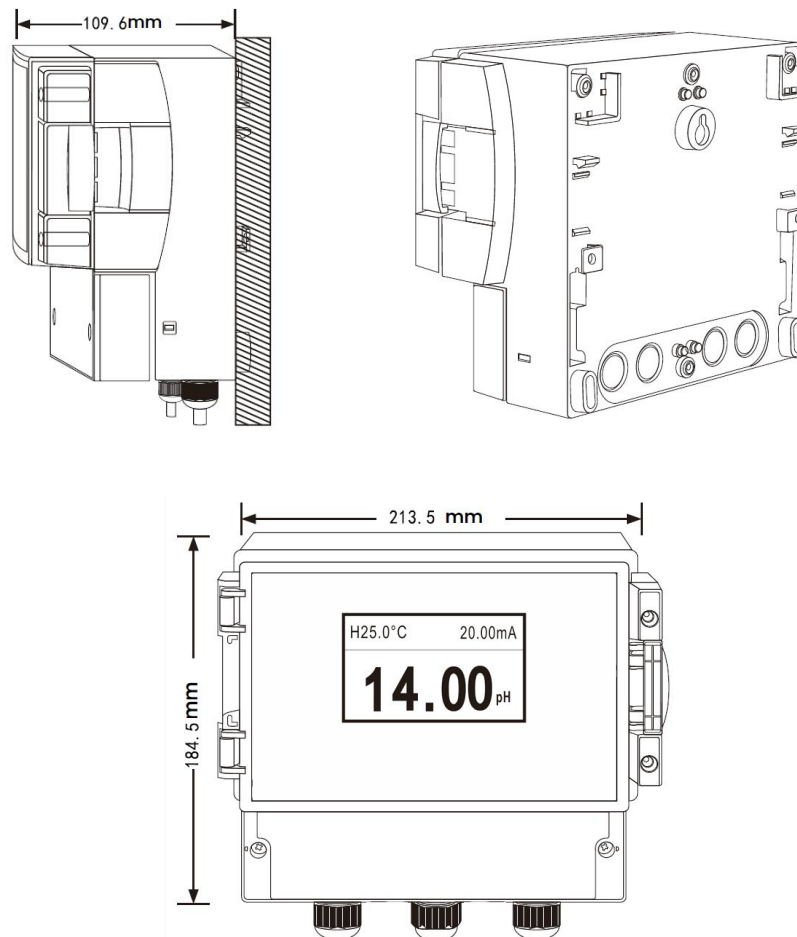
Sign	Button Name	Function description
MENU	Menu	Enter the MENU on the “monitoring page” Exit the MENU on the “menu page”
ESC	Exit	Check related warning status on the “monitoring page” Return to previous level page in the up& down level page linked to “menu page”
▼	Move Down	Select the related menu on the “menu page” Modify the values in the configuration state
▶	Move Right	Make a recurrent selection of digit of parameters
ENT	Enter	Enter the sub-menu or confirm modification on the “menu page”

---

## Dimension

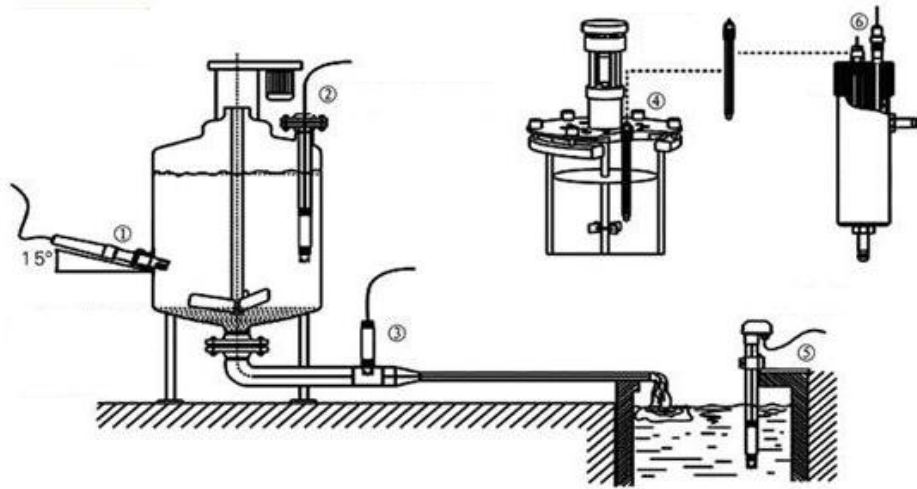
---

Hang the instrument on the wall or in the slot of the instrument cabinet, as shown above



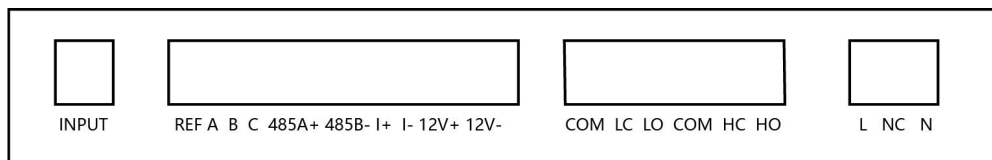
On the instrument cabinet or installation panel (the shape of this product is 213.5\*184.5\*109.6 mm)

## Installation of electrode



①Side wall installation ②Flange mounted at the top ③Pipe installation ④Top installation ⑤Submersible installation ⑥Flow-through installation The interface must be in 15° oblique angle, or it will affect the normal test and use of the electrode.

### Wiring of instrument



### Identification of terminal

- INPUT: Measuring terminal of the electrode
- REF: Reference terminal of the electrode
- NC: Unidentified
- A: Temperature compensation terminal A, NTC10K and PT1000 connect here
- B: Temperature compensation terminal B, NTC10K and PT1000 connect here
- C: Temperature compensation end, PT1000 three-wire system temperature, two wire PT1000 BC nipple, NTC10K C end dangling
- NC: Unidentified
- RS485 (A +): RS485 communication interface A +

- RS485 (B -): RS485 communication interface B-
- 4-20mA (+): 4-20mA output end+
- 4-20mA (-): 4-20mA output end-
- 12V(+):12V output terminal + (no output in this model)
- 12V(-):12V output terminal - (no output in this model)
- AC220V (L): AC220V FireWire
- AC220V (N): AC220V zero line
- HO: high alarm normally open relay
- HC: high alarm normally closed relay
- LO: low alarm normally open relay
- LC: low alarm normally closed relay
- COM: common



### **China**

China Headquarters

Address: No.600, No.21 Street,  
Hangzhou Developmental Zone,  
Zhejiang, China

### **Singapore**

Singapore Branch

Address: 2 VENTURE  
DRIVE #11-30 VISION  
EXCHANGE SINGAPORE

### **Germany**

German Branch

Address: Göttinger Straße.59  
30449 Hannover Niedersachsen  
Deutschland

### **Malaysia**

Malaysia Branch

Address: No 3, Jalan Emas  
Jaya 1, Taman Industries  
Emas jaya Tongkang  
Pecah, Batu Pahat