



Recorder



Flow



Pressure



Temp



Analyzer



Level

# Datasheet

## PH / ORP controller

### SUP-PH163S

# Supmea<sup>®</sup>

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## Datasheet

### PH / ORP controller SUP-PH163S

This product is an instrument developed by our company for online monitoring of pH / ORP value. The data can be transmitted to the monitoring room through RS485 or 4-20mA.

The pH / ORP controller is widely used in thermal power, chemical fertilizer, metallurgy, environmental protection, pharmaceutical, biochemical, food, tap water and other industries, and it continuously monitors the pH or ORP value and temperature in the solution. Continuous monitoring data is connected to the recorder through the transmission output to achieve remote monitoring and recording.

#### Applications

- Thermal power
- Chemical fertilizer
- Metallurgy
- Environmental protection
- Pharmaceutical
- Biochemical
- Tap water

#### Features

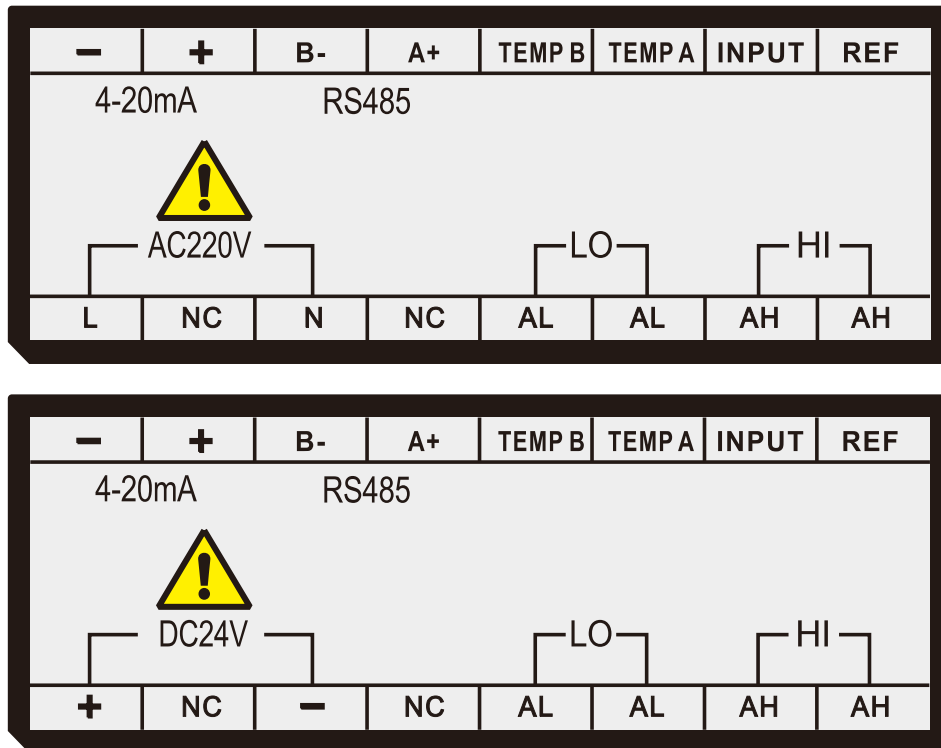
- Modular design
- Isolated transmission output, less interference
- Isolated RS485 communication
- Measure pH / ORP and temperature
- Manually/ automatically temperature compensation
- High and low alarm
- Alarm switch



**PH / ORP controller**

| Parameters               |                                                                                                           |
|--------------------------|-----------------------------------------------------------------------------------------------------------|
| Screen size              | 2.8 inch monochrome LCD, Resolution:128*64                                                                |
| Dimension                | Overall dimension: 96mm×96mm×113mm<br>Cutout dimension: 92mm×92mm                                         |
| Weight                   | 0.5kg                                                                                                     |
| Variables                | pH/ORP                                                                                                    |
| Measure range            | pH: 0.00~14.00pH<br>ORP: -2000mV~2000mV                                                                   |
| Accuracy                 | pH: ±0.02pH;<br>ORP: (-2000 ~ -1000)mV, ±2mV, (-1000 ~ 1000)mV, ±1mV<br>(1000 ~ 2000)mV, ±2mV             |
| Input resistance         | ≥10 <sup>12</sup> Ω                                                                                       |
| Temperature compensation | NTC10K: -10℃~60℃ Accuracy ±0.3℃, 60℃~130℃ Accuracy ±2℃<br>Range: -10℃~130℃ Manual/Auto                    |
| Current output           | Isolated, 4mA ~ 20mA can be set corresponding to pH / ORP measurement range, maximum loop is 750Ω,±0.2%FS |
| Alarm                    | 2 channels, Pickup/Breakaway AC250V/3A                                                                    |
| Relative humidity        | 10%RH ~85%RH (no condensation)                                                                            |
| Working temperature      | 0~60℃                                                                                                     |
| Power supply             | AC: 220V±10%, 50Hz; DC: 24V                                                                               |
| Power consumption        | ≤5W                                                                                                       |
| Storage                  | Temperature: -15℃~65℃<br>Relative humidity: 5%~95% (no condensation)<br>Altitude: <2000m                  |

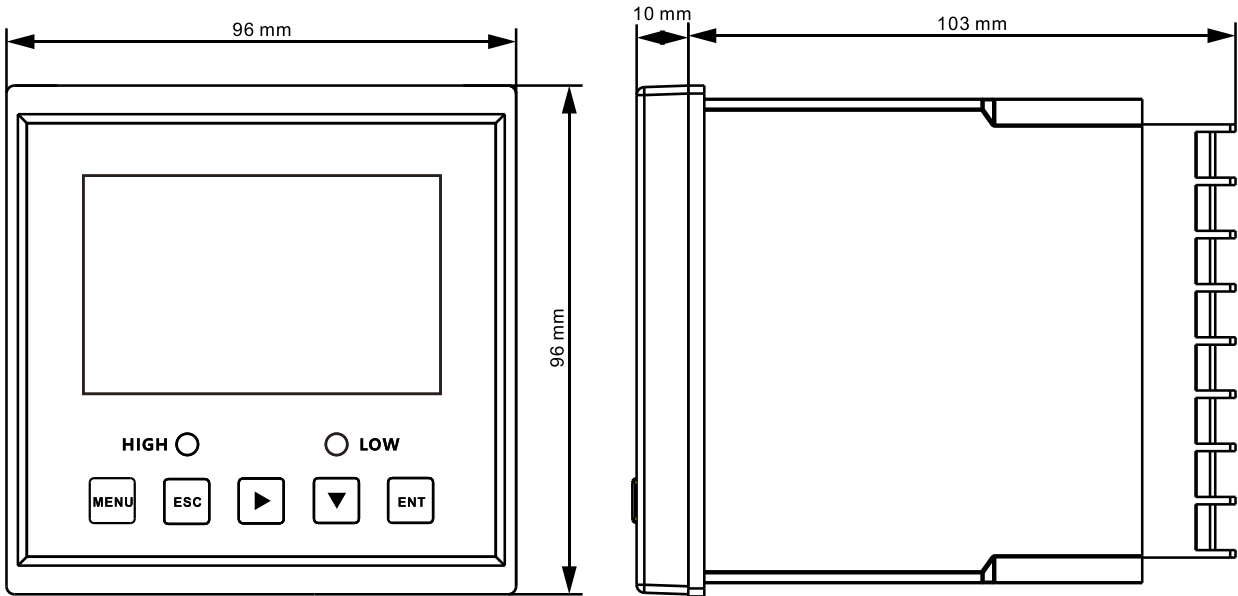
## Wiring



Identification of terminal:

- REF: Reference terminal of the electrode
- INPUT: Measuring terminal of the electrode
- TEMP A: Temperature compensation A
- TEMP B: Temperature compensation B
- RS485 A+: RS485 communication interface A+
- RS485 B-: RS485 communication interface B-
- NC: Unidentified
- 4~20mA+: 4~20mA output +
- 4~20mA-: 4~20mA output -
- AC220V(L): AC220V live wire
- AC220V(N): AC220V neutral wire
- LO(AL): Low alarm relay
- HI(AH): High alarm relay
- DC24V+: DC24V +
- DC24V-: DC24V -

Dimension



## Applications



— Sewage treatment —



— Acid alkali waste tower —



— Food processing —



— Aquaculture —

Ordering code

| SUP-PH163S-HC-B-2-C-E |    |   |   |   |   |   |   |   |   |   |   |   |   | Description                   |
|-----------------------|----|---|---|---|---|---|---|---|---|---|---|---|---|-------------------------------|
| SUP-PH163S            | -  | - | - | - | - | - | - | - | - | - | - | - | - |                               |
| Measuring range       | HC |   |   |   |   |   |   |   |   |   |   |   |   | (0-14) pH,<br>(-2000-2000) mV |
| Transmit output       | B  |   |   |   |   |   |   |   |   |   |   |   |   | 4-20mA+RS485                  |
| Relay output          |    | 2 |   |   |   |   |   |   |   |   |   |   |   | 2 Relays                      |
| Power supply          |    |   |   | C |   |   |   |   |   |   |   |   |   | 24VDC                         |
|                       |    |   |   | E |   |   |   |   |   |   |   |   |   | 220VAC                        |