Tel: 86-15158063876 E-mail: sales@supmea.com

Supmea

www.supmea.com

Online pH/ORP meter

Committed to process automation solutions

Datasheet

SUP-pH2.0

Add: 5th floor, Building 4,
Singapore-Hangzhou Science & Technology Park,
Hangzhou,China

Supmea SUP-pH2.0

The SUP-pH2.0 is a true multivariable analyzer used for measuring/controlling the pH with temperature and ORP. The function is switchable on the device itself. Depending on the measured variable, combination electrodes (e. g. pH sensors) or split versions (glass electrodes with a separate reference electrode) can be readily connected.

Truly unique is the SUP-pH2.0 in the Human Machine Interface. The high resolution digital display and LCD screen make the measurements are clearly legible and the keyboard operation make it easier for the user to configure the device. The instructions on screen assure that the best configuration for the application is obtained

Universal application in water and waste water engineering, service/process water and drinking water and well/surface water, leakage monitoring in refrigeration plant

SUP-pH2.0

Features

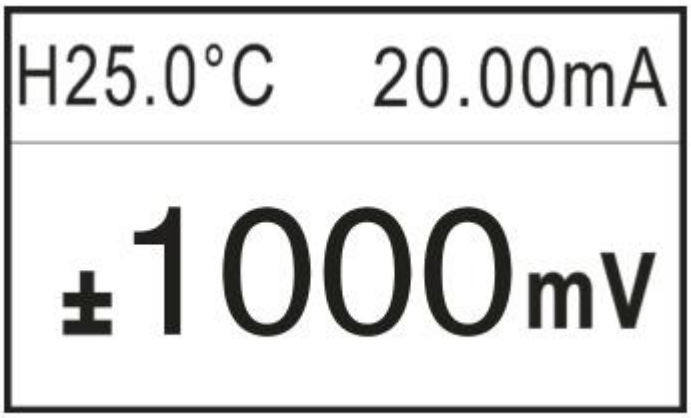
• Easy operation
•Enclosure for field mounting and panel mounting
• Automatically Temperature Compensation
• Directly switchable to pH or ORP
• Large LC D display with background lighting
• pH or ORP sensors can be connected thanks to the sensor supply integrated in the output
• Using the setup program: user-friendly programming
• 4-20mA analog output
• RS485 communication

General Specifications of SUP-pH2.0

(A) **Measure Range:** pH(0-14）；ORP(-1000~+1000Mv）
(B) **Resolution: pH:** 0.01 ORP: 1Mv
(C) **Stability: pH:** ≤0.02pH/24H; ORP: ≤3Mv/24H
(D) **Accuracy: pH:** ±0.02pH; ORP: ±1Mv
(E) **Input impedance:** ≥10^12
(F) **Temperature compensation:** NTC 10K 0-100℃
(G) **Communication:** RS485, MODBUS-RTU
(H) **Power Supply:** AC220V±10%, 50Hz or DC 24V
(I) **Relay output:** AC250V, 3A
(J) **Cable Length:** 5M, 10M, 15M
(K) **Transmission signals:** 4-20 mA
(L) **Process alarm:** High/Low process alarms, selected from pH, ORP
(M) **Converter weight :** Approx. 1 kg
(N) **Display:** LCD with back lights in English
(O) **Calibration:** Semi-automatic 3 points calibration using pre-configured buffer tables 4, 7& 10, or 4, 6.18& 9.18
(P) **Color:** Black
(Q) **Ambient temperature :** -20 to +55ºC (-5 - 130 ºF).
(R) **Storage temperature :** -30 to +70ºC (-20 - 160 ºF).
(S) **Humidity :** 10 to 90% RH at 40ºC (100 ºF)

pH monitor：

ORP monitor：



How to select the probe

Plastic pH probe

SUP-pH-5019

- Technical parameters

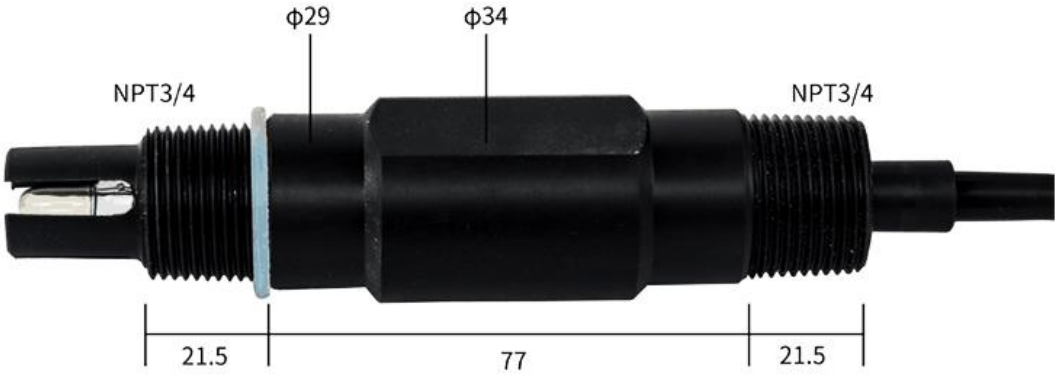
Measure Range: 0-14pH
Temperature Range: 0-60℃
Material: PS
Cable length: 5m/10m/15m
Tread Type: 3/4NPT

- Not recommended:

≥60℃
Strong acid and alkaline
Biotechnology, sterilization process

- Recommended Application

Drinking water monitoring and treatment
Swimming pools
Aquariums(also marine aquariums)
Lightly polluted service water
Process water and wastewater
Rainwater,pond water and surface water



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Plastic pH probe

SUP-pH-5011

- Technical parameters

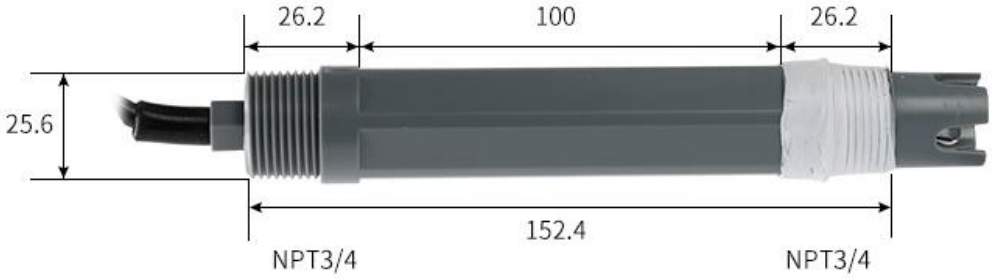
Measure Range: 0-14pH
Temperature Range: 0-60℃
Material: PS
Cable length: 5m/10m/15m
Tread Type: 3/4NPT

- Not recommended:

≥60℃
Strong acid and alkaline
Biotechnology, sterilization process

- Recommended Application

Drinking water monitoring and treatment
Swimming pools
Aquariums(also marine aquariums)
Lightly polluted service water
Process water and wastewater
Rainwater,pond water and surface water



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Glass pH probe

SUP-pH-5041

- Technical parameters

Measure Range: 0-14pH
Temperature Range:0-80℃
Tread type: PG13.5
Material: Glass

- Not recommended:

≥80℃
Strong acid and alkaline
Biotechnology, sterilization process

- Recommended Application

Drinking water monitoring and treatment
Swimming pools
Aquariums(also marine aquariums)
Lightly polluted service water
Process water and wastewater
Rainwater,pond water and surface water

High Temperature Glass pH probe

SUP-pH-5050

- Technical parameters

Measure Range: 0-14pH
Temperature Range:0-130℃
Tread type: PG13.5
Material: Glass

- Not recommended:

≥130℃
Strong acid and alkaline
Biotechnology, sterilization process

- Recommended Application

Drinking water monitoring and treatment
Swimming pools
Aquariums(also marine aquariums)
Lightly polluted service water
Process water and wastewater
Rainwater,pond water and surface water

Made In Germany pH probe

SUP-pH-5022

- Technical parameters：

Measure Range: 0-12pH
Temperature Range: 0-80℃
Pressure： 10Bar
Tread type: PG13.5
Material: PPS/PC/PTFE

- Not recommended:

≥80℃
Strong acid and alkaline
Biotechnology, sterilization process

- Application：

For industrial and communal water and wastewater engineering
For measurements in suspensions and varnishes
For measurements in low-ion media
For high-alkaline, high-temperature and sterilization processes
For media containing fluorides and low-temperature applications
PRO version for the toughest operating condition

Plastic ORP probe

SUP-ORP-6040

- Technical parameters

Measure Range: -1000~+1000Mv
Temperature Range: 0-60℃
Material: PS
Cable length: 5m/10m/15m
Tread Type: 3/4NPT

- Not recommended:

≥60℃
Strong acid and alkaline
Biotechnology, sterilization process

- Recommended Application

Drinking water monitoring and treatment
Swimming pools
Aquariums(also marine aquariums)
Lightly polluted service water
Process water and wastewater
Rainwater,pond water and surface water

Glass ORP probe

SUP-ORP-6041

- Technical parameters

Measure Range: -1000~+1000Mv
Temperature Range:0-80℃
Tread type: PG13.5
Material: Glass

- Not recommended:

≥80℃
Strong acid and alkaline
Biotechnology, sterilization process

- Recommended Application

Drinking water monitoring and treatment
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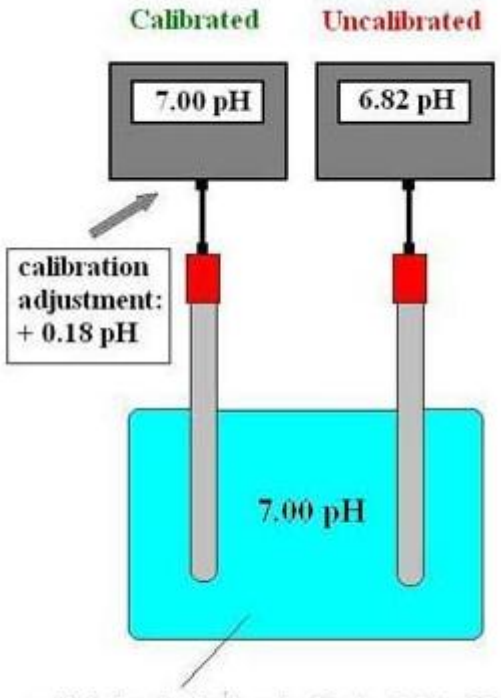
pH Calibration

A pH calibration is the procedure of adjusting the pH meter by measuring solutions of known pH values.

Why you need to calibrate:

The characteristic of a pH electrode will change with time due to electrode coating and aging. And even a pH electrode would be stable over time, pH electrodes cannot be produced with identical characteristics.

In practice the response of a real pH sensor does not exactly follow the Nernst equation. This difference between the theoretical and actual behavior of a pH electrode must be compensated for. A calibration is required to match the pH meter to the current characteristics of the used pH sensor.

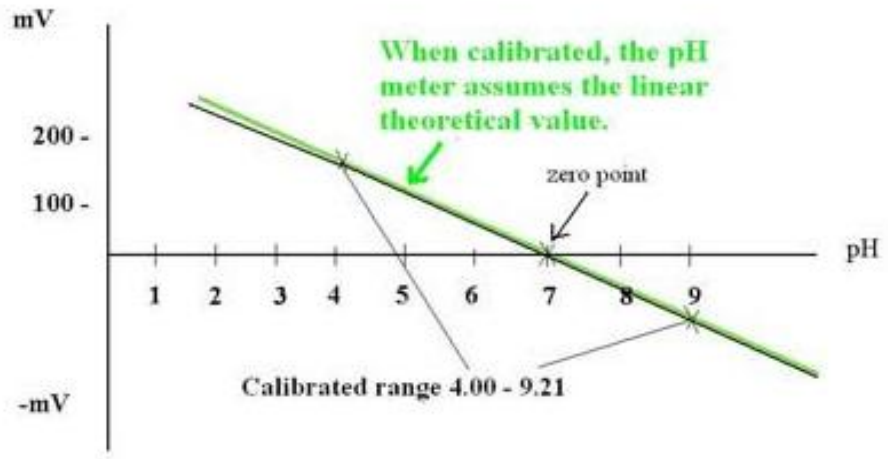


Multi-point calibration:

To achieve the best possible accuracy, the calibration should cover the range of the desired measurement values. If the readings go beyond the calibrated range, the pH meter assumes linearity and simply extrapolates the value to be displayed. The true value may be slightly different.

More advanced pH meters will let the user calibrate at three, four or five and even higher numbers of pH values. A multi-point calibration mean, in comparison to a two-point calibration, that you can calibrate your pH tester on both sides of the zero point (pH 7.00). This will expand your pH measurement range without the need of recalibrating.

Example) Three-point calibration at pH 4.00 , 7.0 and 9.21.



Ordering Code

Basic Type
A:SUP-pH2.0

pH Probe
C1： 5019 type Plastic pH sensor with NTC 10K (0-60℃)
C2： 5011 type Plastic pH sensor with NTC 10K (0-60℃)
D: Glass pH sensor with NTC 10K (0-80℃)
E:High Tmeperature pH sensor with NTC 10K (0-130℃)
F: Made in Germany pH sensor (0-80℃)
G:Made in Germany pH sensor with PT1000 (0-80℃)
H: Plastic ORP sensor with NTC 10K (0-60℃)
I: Glass ORP sensor with NTC 10K (0-80℃)

Cable Length
J： 5 meters
K: 10 meters
W： 15 meters

Calibration Points
L: pH4, 7, 10
M:pH 4, 6.86.9.18

Power Supply
N: 220VAC
O: 24VDC

Medium
P: Normal water
Q: Waste water
R: Nutrient solution
S: Galvanic plating
T: Cooling water
U: Drinking water
V: Others:

Note: 4-20mA, RS485 and relay output are standard functions
Make inquiries by placing letter in the pertinent boxes

Order code: ☐ ☐ ☐ ☐ ☐ ☐

Order example: A C1 J L N P