ADA FLOW

ADAFLOW

pH/ORP Controller

H25.0℃   11.44mA

6.51 pH

● HIGH   LOW ●

ESC   ▶   MENU   ▼   ENT

**Online pH/ORP meter
pH6.0**

www.*adaflow*.com.tr

Online pH/ORP meter pH6.0

pH6.0 meter 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 pH meter 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.

Features

- Easy operation
- NEMA enclosure for field mounting and panel mounting
- Automatically Temperature Compensation
- Directly switchable to PH or ORP
- Large LCD 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
- Relay output

Technical Specification

Performance:
Measure Range: PH(0-14); ORP(-1000~+1000Mv)
Resolution: PH: 0.01 ORP: 1Mv
Stability: PH : ≤0.02PH/24H; ORP: ≤3Mv/24H
Accuracy: PH: ±0.02PH; ORP : ±1Mv
Input impedance: ≥10^12
Temperature compensation: NTC 10K or Pt1000 -10-130℃
Power Supply: AC220V±10%, 50Hz or DC 24V

Output Signal:
·Communication : RS485, MODBUS-RTU
·Transmission signals : 4-20 mA
·Process alarm : High/Low process alarms, selected from pH, ORP+
·Relay output: AC250V, 3A

Other:
Panel Front Size (mm) : 96(W) x 96(H) x Approx.112 (D)
Panel Cutout Size (mm): 92(W) x 92(H) x Approx.112 (D)
Converter weight : Approx. 1 kg
Display: LCD with back lights in English
Calibration: Semi-automatic 3 points calibration using pre-configured buffer tables 4, 7& 10, or 4, 6.18& 9.18
·Color: Black
·Ambient temperature : -20 to +55ºC (-5 - 130 ºF).
·Storage temperature : -30 to +70ºC (-20 - 160 ºF).
·Humidity : 10 to 90% RH at 40ºC (100 ºF)

Description

The device is designed for use on site. A rugged housing protects the electronics and the electrical connections from corrosive environmental conditions . As an alternative, the device can also be installed in a control panel.

pH6.0 pH controller

1. Temperature: Compensation temperature

2. Analyst output: Analyst output

3. Measured value: Real-time measurements value

4. High alarm: High alarm

5. Low alarm: Low alarm

6. ESC: Check related warning status on the "monitoring page"
Return to previous level page in the up& down level page linked to "menu page"

7. Menu: Enter the MENU on the "monitoring page" Exit the MENU on the "menu page"

8. Choose : "MOVE RIGHT" and "MOVE DOWN"

9. Enter: Enter the sub-menu or confirm modification on the "menu page"

Wiring
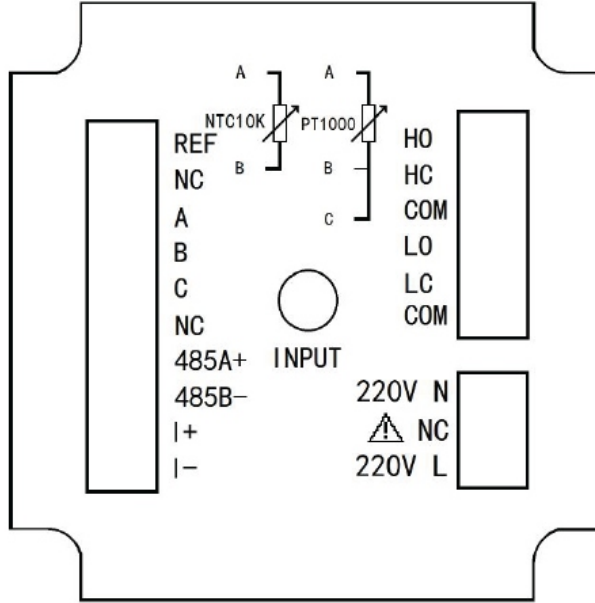
Wiring diagram

■ Identification of terminal

·INPUT: Measuring terminal of the electrode
·REF: Reference terminal of the electrode
·A: Temperature compensation terminal A,NTC10K and PT1000 connect here
·B: Temperature compensation terminal B,NTC10K and PT1000 connect here
·C: Temperature compensation terminal C, PT1000 three-wire temperature grounding,
PT1000 two-wire need to be short-connected to TEMPB, not NTC10K.
·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-
·AC220V (L): AC220V Fire Wire
·AC220V (N): AC220V zero line
·HO: high alarm normally open relay
·HC: high alarm normally closed relay
·LO: low alarm normally open relay
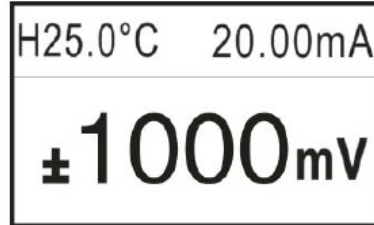·LC: low alarm normally closed relay
·COM: common

Display

pH monitor:

H25.0°C 20.00mA

14.00PH

ORP monitor:

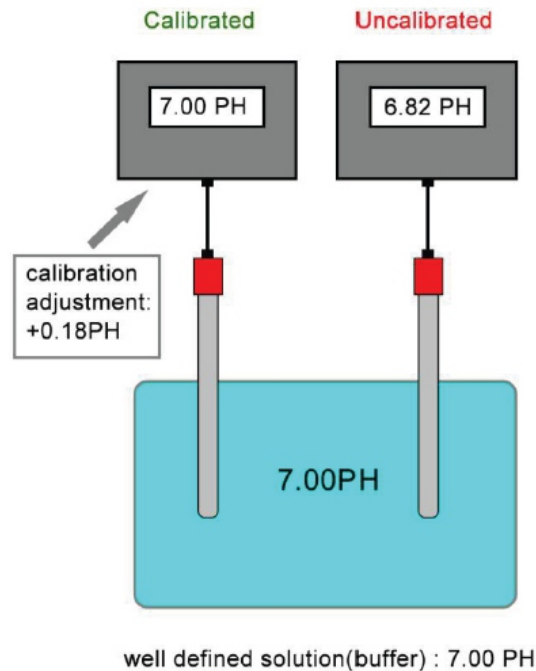H25.0°C 20.00mA

±1000mv

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.

Calibrated   Uncalibrated

7.00 PH   6.82 PH

calibration adjustment: +0.18PH

7.00PH

well defined solution(buffer) : 7.00 PH

How to calibrate: Main Menu- Online Calibration- PH Calibration

```
---- Main Menu ----          ----Online Calibrtion----
➡ 1.System Setting           ➡ 1.PH Calibration
  2.Signal Setting              2.PH Modification
  3.Online Calibrtion           3.ORP Calibration
  4.Remote Setting              4.ORP Modification
  5.Alarm Setting
  6.Information Inquiry
```

PH Calibration: Enter the PH calibration screen, the first PH electrode into the 4.00PH standard solution, standing for a moment, to be stable after the show, press the [ENT], then the PH electrode into the 6.86PH standard solution. Set the PH electrode into the 9.18PH standard solution, put it aside for a moment, after the test is stable, press [ENT], the display shows the success of the calibration, the whole process of PH calibration completes.

**PH Modification:** The measured PH can be modified between 2 PH values.

ORP Calibration: enter the ORP calibration screen, the first ORP electrode into the 86mV standard solution, standing for a moment, to be shown after the stability, press the [ENT], then the ORP electrode into the 256mV standard solution, static Set a moment, after the display is stable, press the [ENT] display calibration is successful, ORP calibration process is over.

ORP Modification: The measured ORP can be modified between 300mV. Temperature correction: You can correct the temperature of the automatic temperature compensation, the correction range is ± 20.0 °C.

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 ar pH 4.00, 7.0 and 9.21
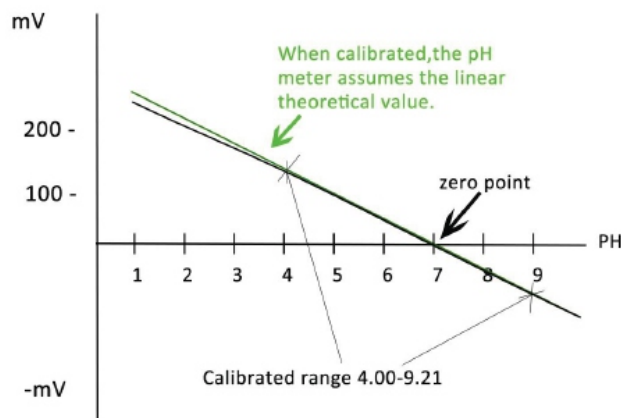
Ordering Code

Basic Type
B:PH6.0

pH Probe

C：Plastic pH sensor with NTC 10K (0-60°C)
D: Glass pH sensor with NTC 10K (0-80°C)
E:High Tmeperature pH sensor with NTC 10K (0-130°C)
F: Made in Germany pH sensor E+H (0-80°C)
G:Made in Germany pH sensor Jumo (0-80°C)
H: Plastic ORP sensor with NTC 10K (0-60°C)
I: Glass ORP sensor with NTC 10K (0-80°C)

Cable Length

J：5 meters
K: 10 meters

J：15 meters

Calibration Points
L: pH4, 7, 10
M:pH 4.00, 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:J：5 meters
K: 10 meters

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

Order code: ☐ ☐ ☐ ☐ ☐ ☐

Order example: B   C   J   L   N   P