

4803P pH/ORP 4-20mA Transmitter



Introduction:

Thank you for choosing this pH/ORP transmitter. This 1/16 DIN controller offers dual backlight LCD display, high accuracy, and automatic or manual temperature compensation.

Specifications:

	pH	ORP	Temp.
Range	-2.00~16.00 pH	-1999 ~ -200 mV -199.9 ~ 499.9 mV 500 ~ 1999 mV	0~110 °C
Accuracy	±0.01+1 digit	±2+1 digit	±0.2+1 digit
Resolution	0.01 pH	0.1/1 mV	0.1 °C
Compensation	ATC: 0~100 °C	N/A	

Temperature Compensation	ATC (0-100°C) via 30K Thermistor or MTC
Output	4-20mA isolated current output
Signal output load	500 Ω
Power supply	9V DC
Panel Cutout	1/16th DIN 1.81 x 1.81" (46 x 46mm)
Meter Dimensions	4.7 x 1.77 x 1.77" (105 x 45 x 45mm)

Accessories:

9V DC/AC(100~240V) adaptor

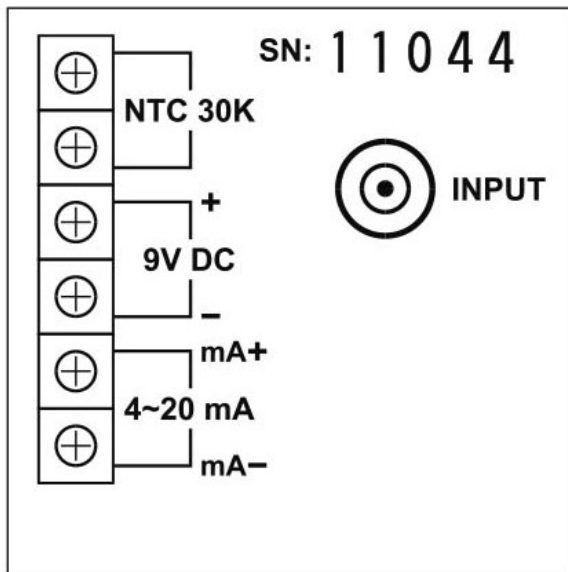
Adapter connection wire

Installation:

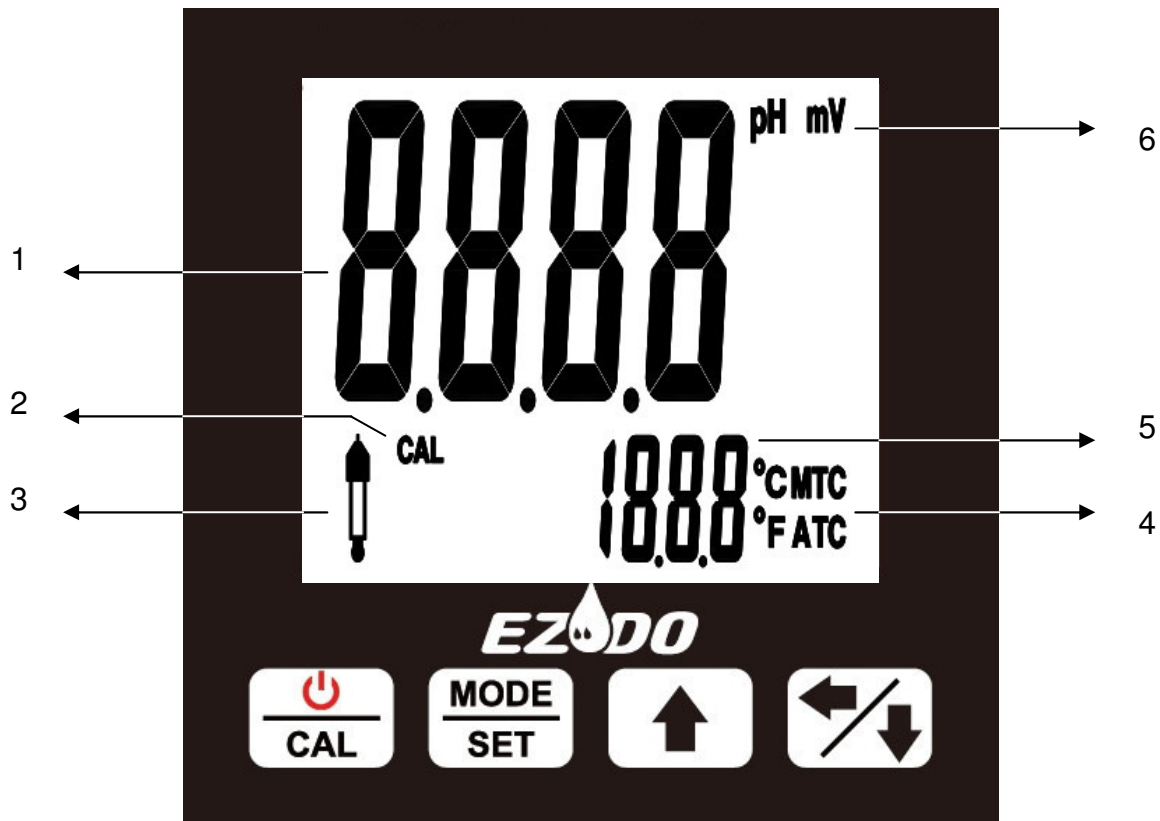
<Mounting the controller>

1. Make a 1.77 x 1.77" (45 x 45 mm) panel cutout (1/8" to 3/8" thickness)
2. Slide the controller into the cutout until the bezel is flush with the panel.
3. Slide the mounting bracket over the rear of the controller and press snugly against the rear of the panel.





<Rear panel connection>



<Display and Buttons>




1. pH or ORP reading
2. Calibration mode
3. Calibration error indicator
4. Auto temperature compensation(ATC) or Manual temperature compensation(MTC)
5. Temperature reading and unit
6. unit of pH or ORP reading

	1. Turn on/off the controller 2. Enter calibration mode
	1. Switch pH and ORP mode 2. Press and hold to enter setting mode 3. In setting mode, press to store each setting
	1. In measurement mode, adjust temperature value of MTC
	2. In setting mode, adjust each parameter

Calibration:

<pH>

1. Make sure the sensor is pH electrode and switch mode to pH mode.
2. Dip the electrode and the temperature probe into the buffer solution pH 7.00. Stir gently and wait until the reading is stable. Press and hold  for 3 sec. to enter calibration mode. The display will appear **CAL** and flashing 7.00. When the display stops flashing and indicates “SA”, then “End” while calibration ends, and will return to measurement mode.
3. Rinse the electrode and the probe with clean water and wipe it dry. Dip the electrode and the probe into the buffer solution pH 4.01 as previous steps.
4. After slope calibration, pH 4.01 or pH 10.01, the display will indicate the percentage of slope (PTS) to show the status of the electrode. If the PTS is below 70% or above 130%, the electrode must be replaced. A slope of 100% is ideal.

Note:

1. Calibration error indicator icon will appear, and “Err” instead of “SA”, if calibration fails.
2. When doing a 2 or 3 points calibration, Calibrate with buffer pH 7 first, and then follow with buffer pH 4 or pH 10.







<pH Calibration type and temperature unit setting>

This controller has two pH calibration type: USA and NIST, and the calibration points are following:

“USA”: 1.68, 4.01, 7.00, 10.01 and 12.45.

“NIST”: 1.68, 4.01, 6.86, 9.18 and 12.45.

To change calibration type and temperature unit:








1. Press and hold  until a beep sound, and then press  again.
2. The display will show the current pH calibration type. Press  to change the type, and then press  to store the setting.
3. The display will then show the current temperature unit. Press  to change the type, and then press  to store the setting.

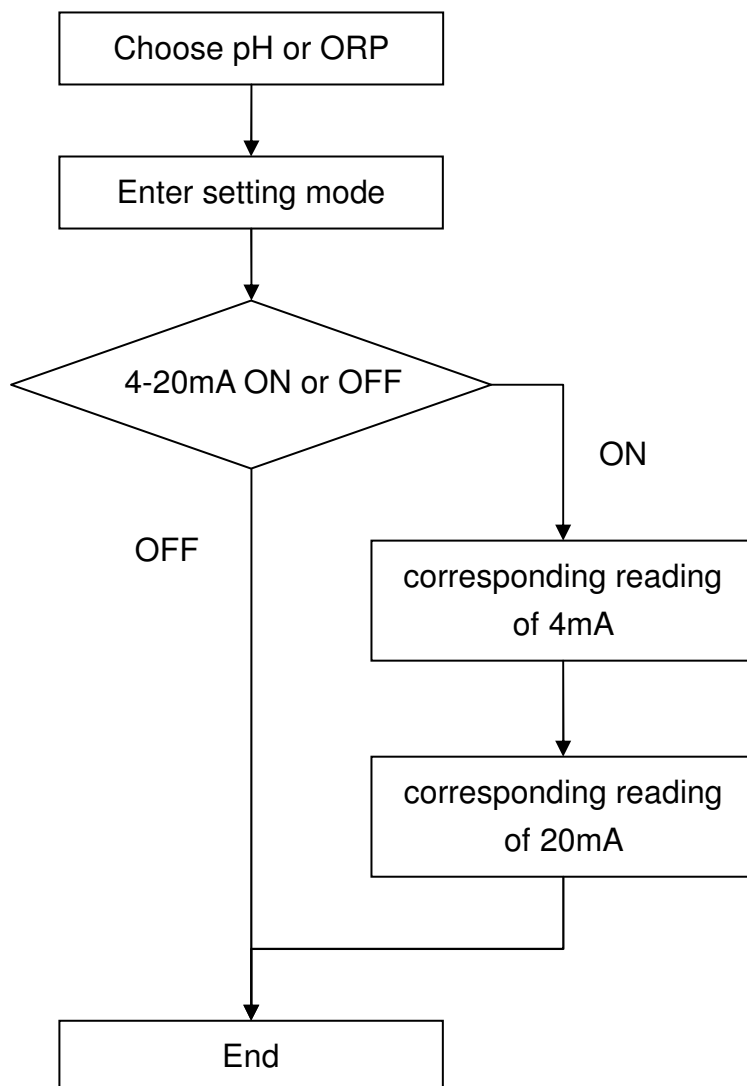
<ORP>

Calibration is not necessary for ORP. However, it could be tested with specific ORP standard solution to check whether the electrode is good.

4-20mA output setting:

< Programming the Setpoints and the Deadband >




1. Press  to choose pH or ORP mode. The controller will store the settings for pH and ORP separately.
2. Press and hold  button until a beep sound, and then press and hold  button until a beep sound to enter 4-20mA output setting mode.
3. Use  and  to adjust settings, and use  to store each setting.
4. The display will then automatically cycle through 3 settings: 4-20mA output on or off, the corresponding reading of 4mA, corresponding reading of 20mA.
5. When setting the corresponding readings, press and hold  to switch the value to Positive or to Negative.




pH: -2.00~16.00 pH
ORP: -999~+1999 mV

Other settings

<Back light>

1. Press and hold  until a beep sound, release  and then press and hold  again.




2. Press  to choose On, OFF, and Auto:



On: back light is always on.

OFF: back light is always off.

Auto: back light will be on for 30 seconds while any button is pressed and then off.

<Reset the controller to default setting>

1. Press and hold  until a beep sound, release  and then press and hold  again until a beep sound.

2. Press  to switch OFF to On, and then press  to reset the controller to default setting.