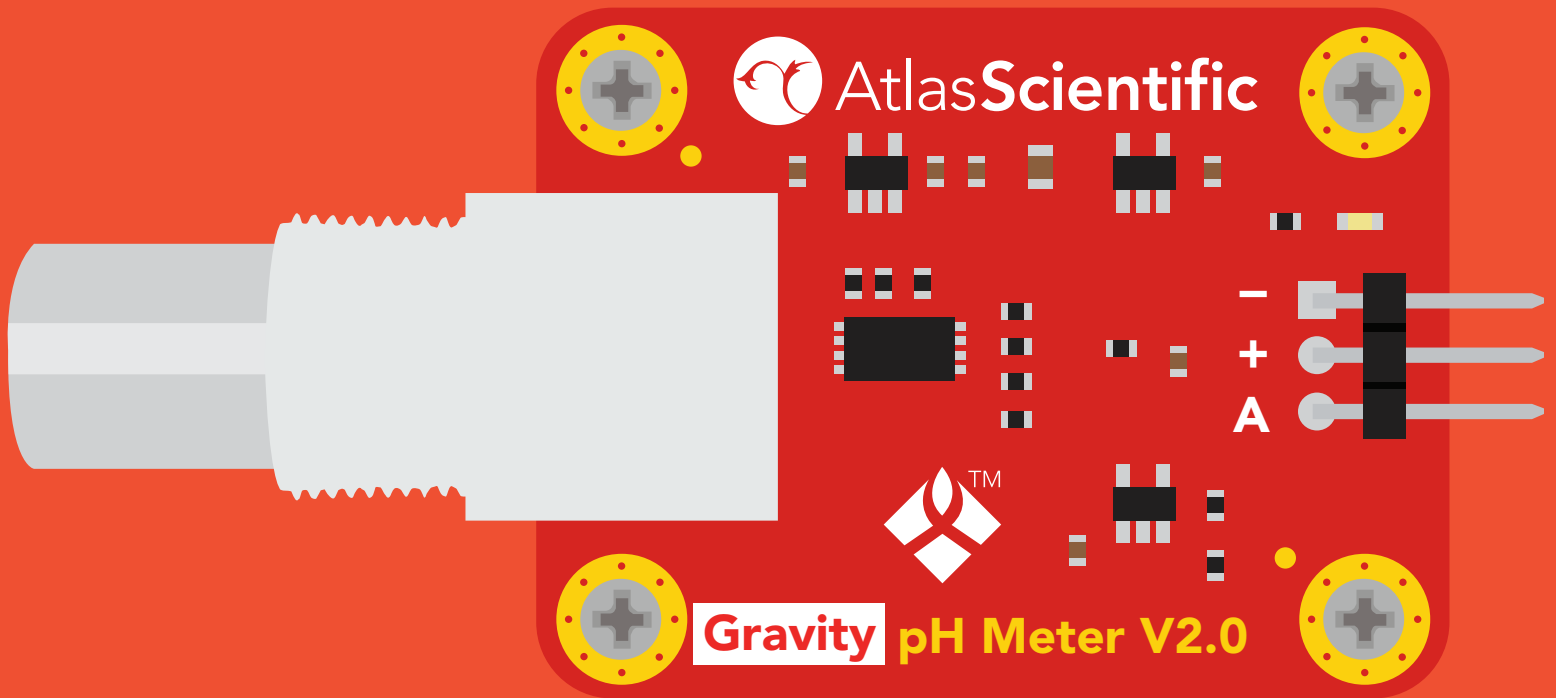


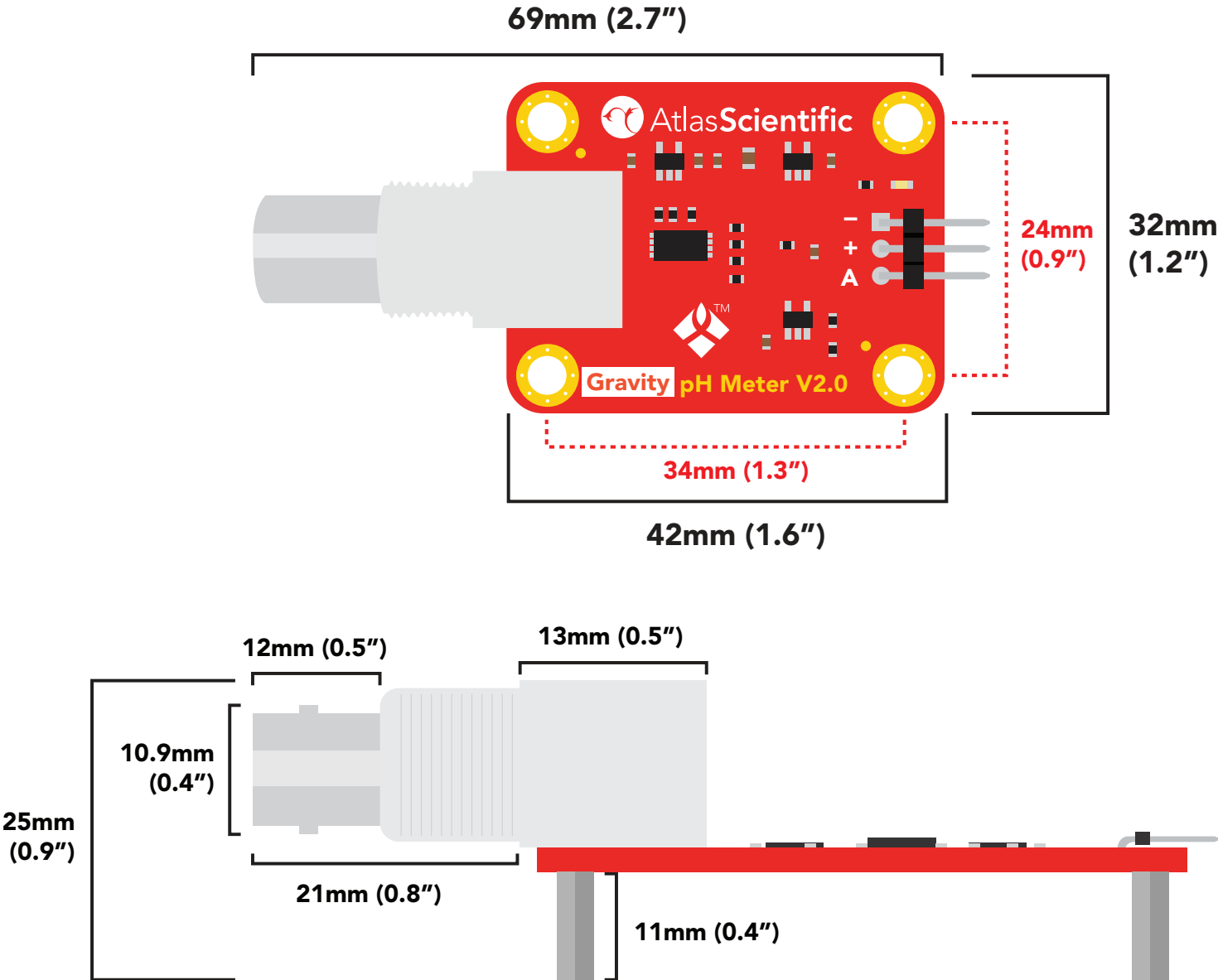
GravityTM

Analog pH Sensor / Meter



PATENT PROTECTED

Gravity dimensions



Power consumption

5V = 3mA
3.3V = 3mA

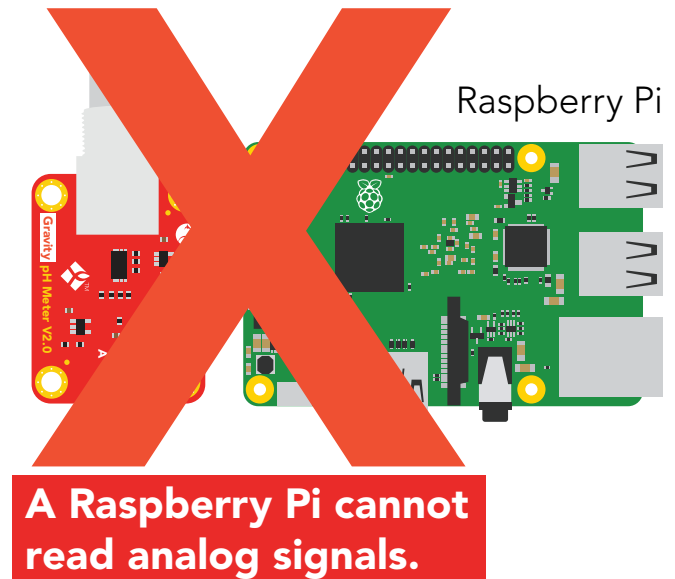
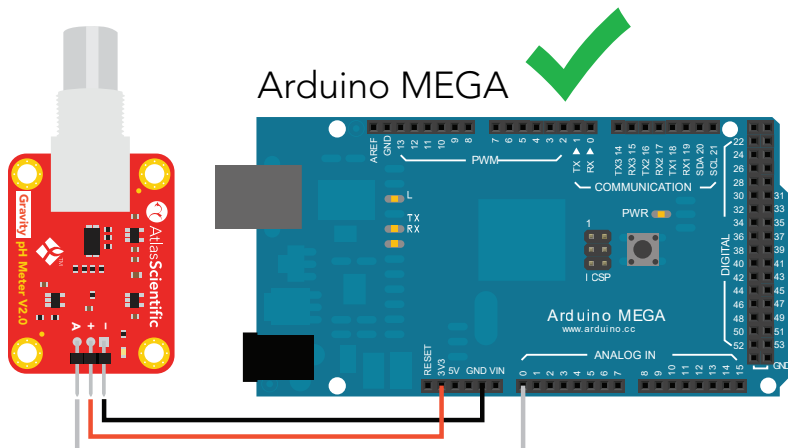
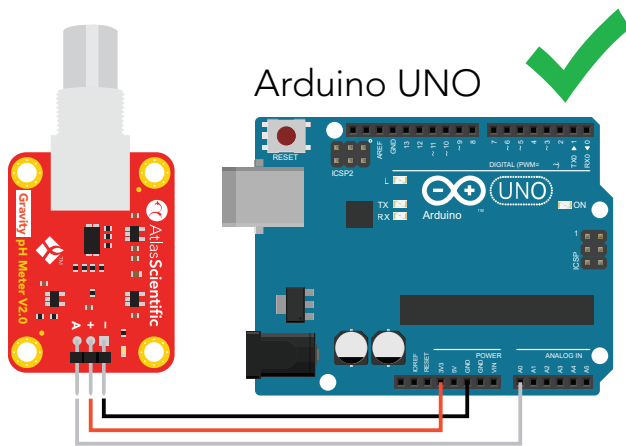
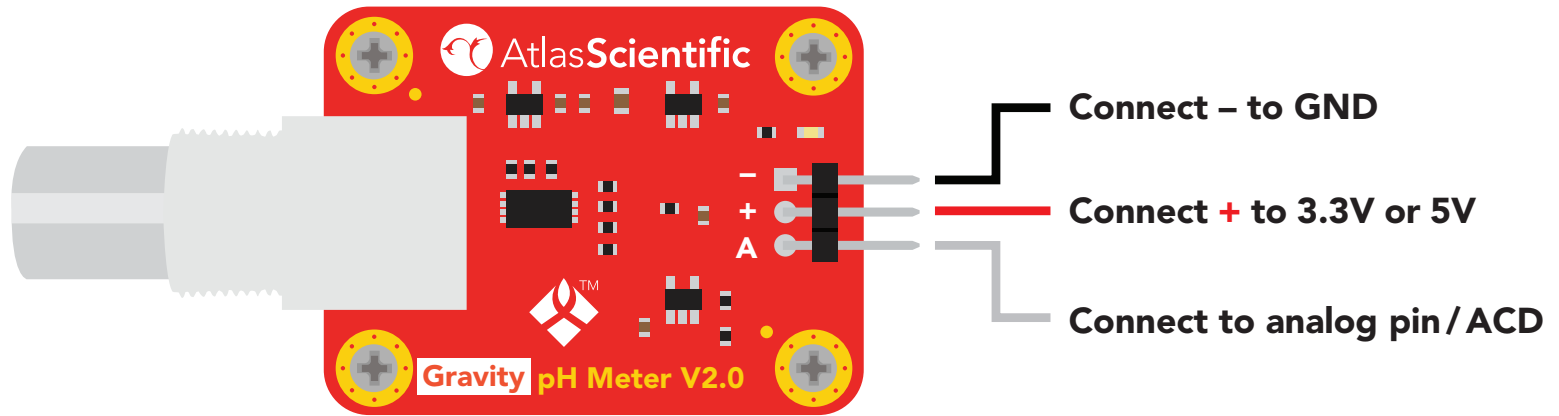
Absolute max ratings

Parameter	MIN	TYP	MAX
Storage temperature	-65 °C		125 °C
Operational temperature	-40 °C	25 °C	50 °C
VCC	3.3V	5V	5.5V

The Atlas Scientific Gravity™ Analog pH Sensor / Meter is a low-cost solution specifically designed for

- **Students / education**
- **Proof of concept designs**
- **Moderate accuracy applications**

Connection pins

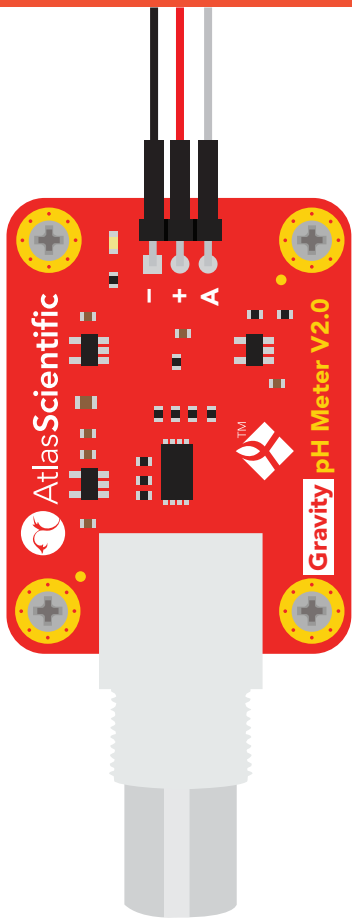


Converting the analog signal into pH

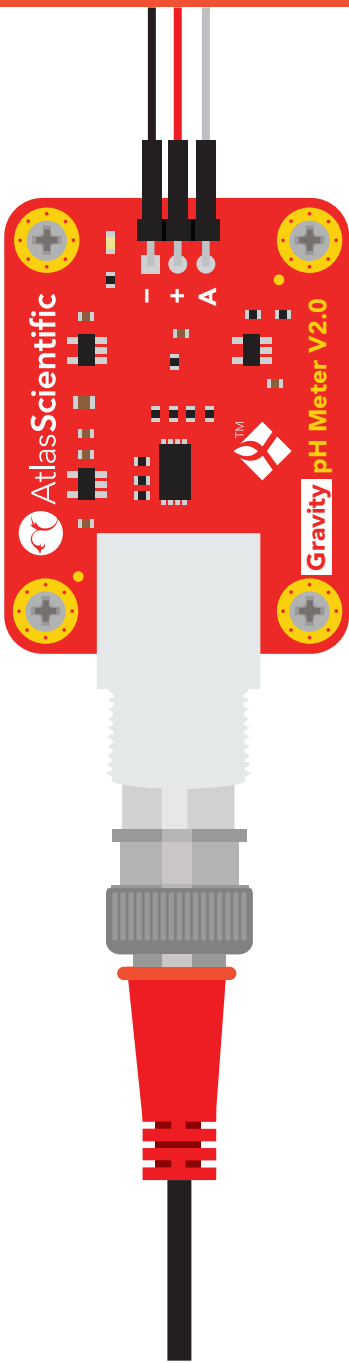
The Atlas Scientific Gravity™ Analog pH Sensor / Meter will output a voltage from 3.00V to 0.265V.

Equation to convert voltage to pH

$$pH = (-5.6548 * voltage) + 15.509$$

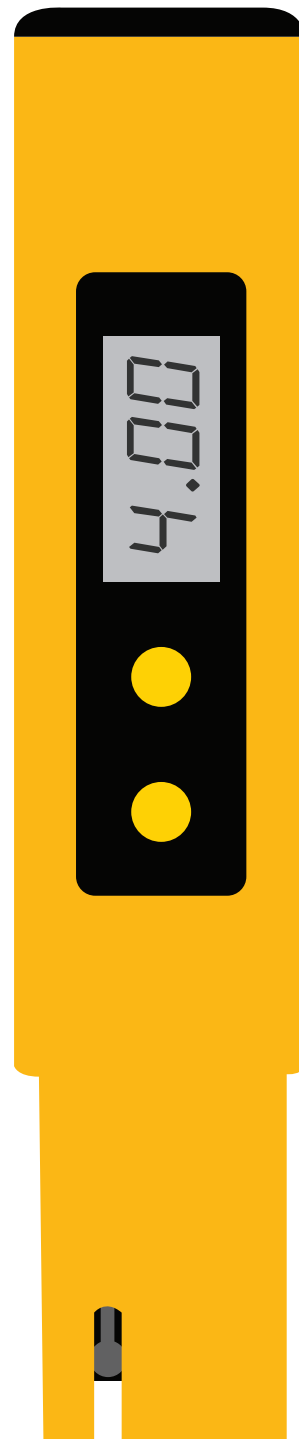
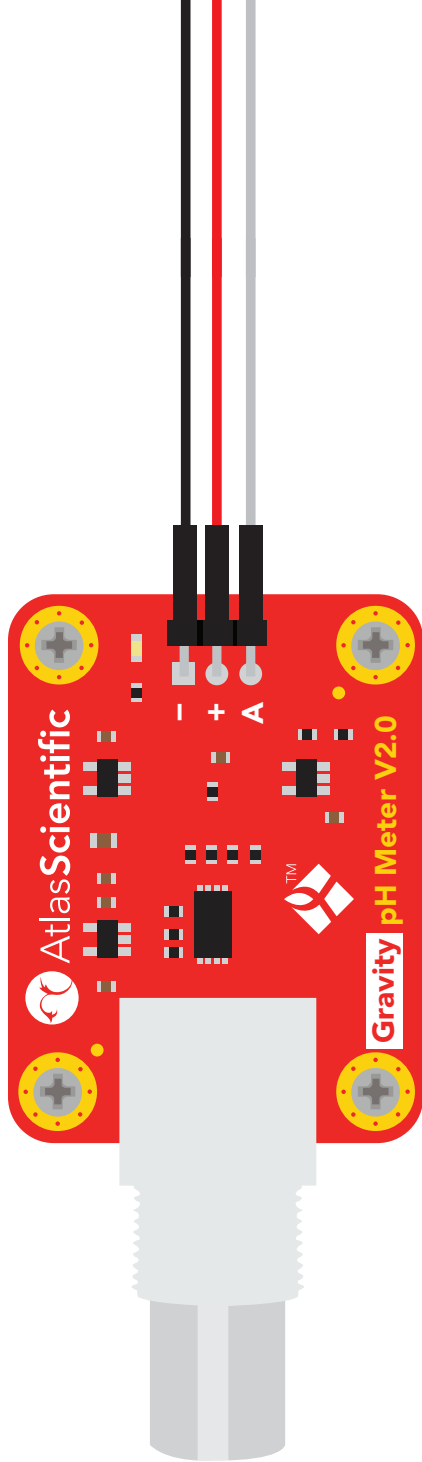


No probe = Unpredictable



Tolerance ± .015V

pH	Volts
0	2.745
1	2.570
2	2.390
3	2.210
4	2.030
5	1.855
6	1.680
7	1.500
8	1.330
9	1.155
10	0.975
11	0.800
12	0.620
13	0.445
14	0.265



Accuracy

+/- 0.2

Life expectancy

~10 years

Accuracy

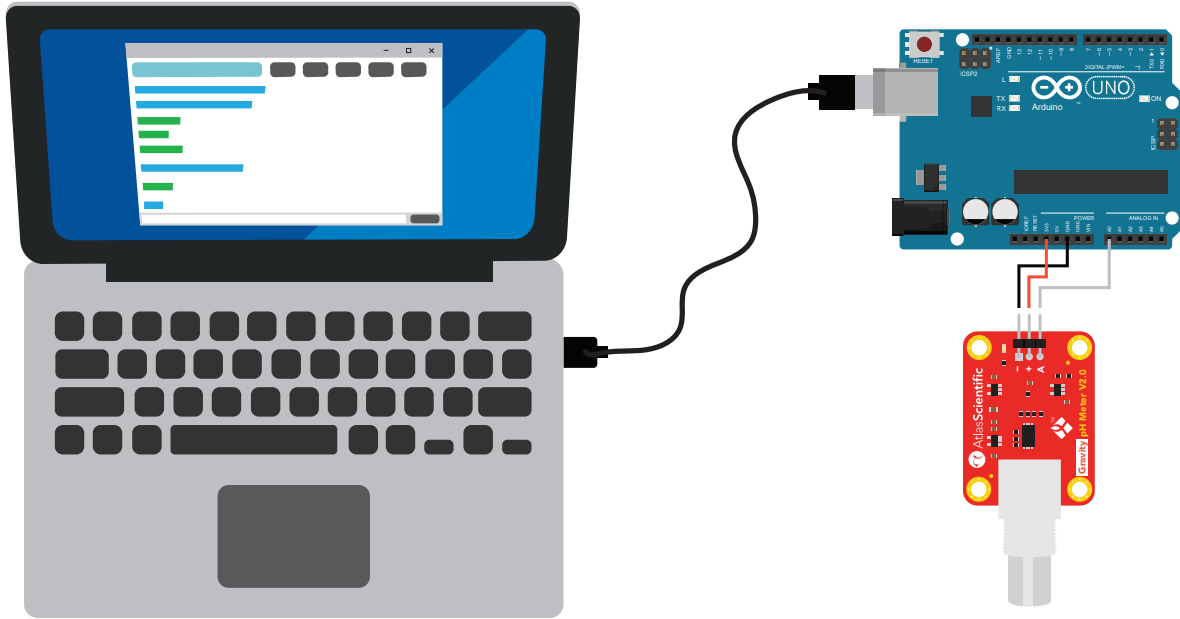
+/- 0.2

Life expectancy

~6 – 10 months

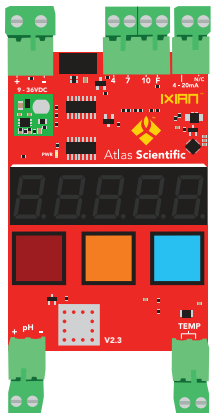
Calibration

Using the [free downloadable arduino software](#), one, two- or three-point calibration can be performed. The calibration procedure requires standard pH calibration buffers (pH 4, 7, and 10). Any brand of pH quality calibration buffers can be used.

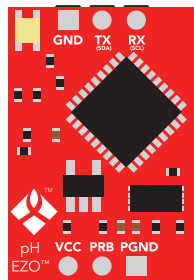


Temperature compensated readings

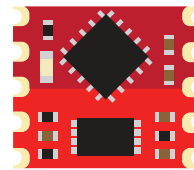
The Atlas Scientific Gravity™ Analog pH Sensor / Meter lacks the accuracy necessary for temperature compensation to have a meaningful effect on the readings. If more accuracy is required, Atlas Scientific offers a wide range of embedded pH monitoring products that are significantly more accurate than this device.



IXIAN-pH™
pH Transmitter



EZO-pH™
Embedded pH Circuit



OEM-pH™
Embedded pH Circuit