

# ORP Probe

V 2.2

## Typical Applications

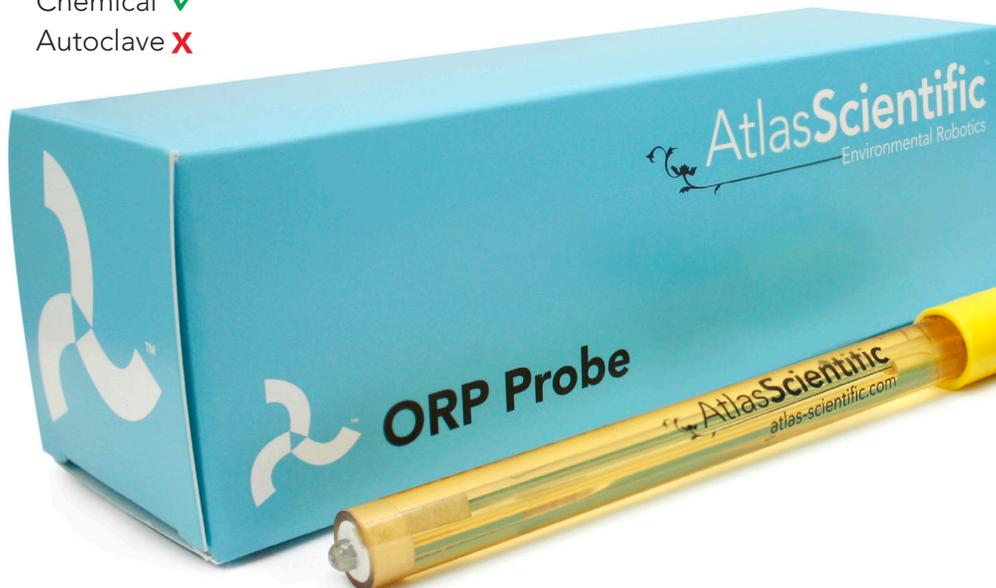
- Standard Lab use
- Field use
- Hydroponics
- Food Safe
- Fish keeping
- Low ionic and ultra-pure water
- Mixed aqueous/organic
- Samples containing Heavy metals
- Soil Samples
- Strong reducing agents

## Specifications

- Range of Measurement: +/-2000mV
- Speed of Response: 95% in 1 second
- Temperature: 176°F(80°C)
- Max Pressure: 690 kPa (100PSI)
- Max Depth 60 M (197 ft)
- Cable length: 1 Meter
- Weight: 44 grams
- Dimensions: 12mm X 150mm (1/2" X 6")
- BNC connector
- Sterilization

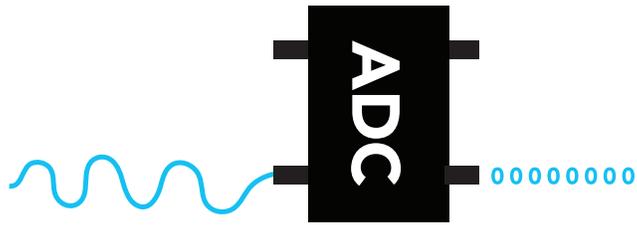
Chemical ✓

Autoclave ✗



An ORP probe is a passive device that detects a current generated from the oxidation reduction of water.

This current (which can be positive or negative) is very weak and can only be detected with a multimeter, or an analog to digital converter. If the ORP is very high and in the positive. An ADC cannot read a negative voltage.



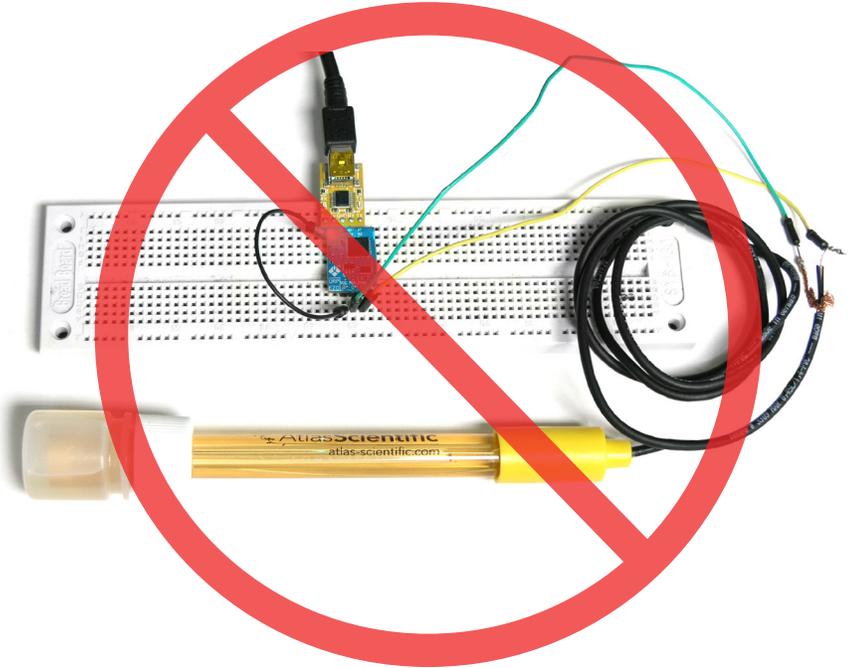
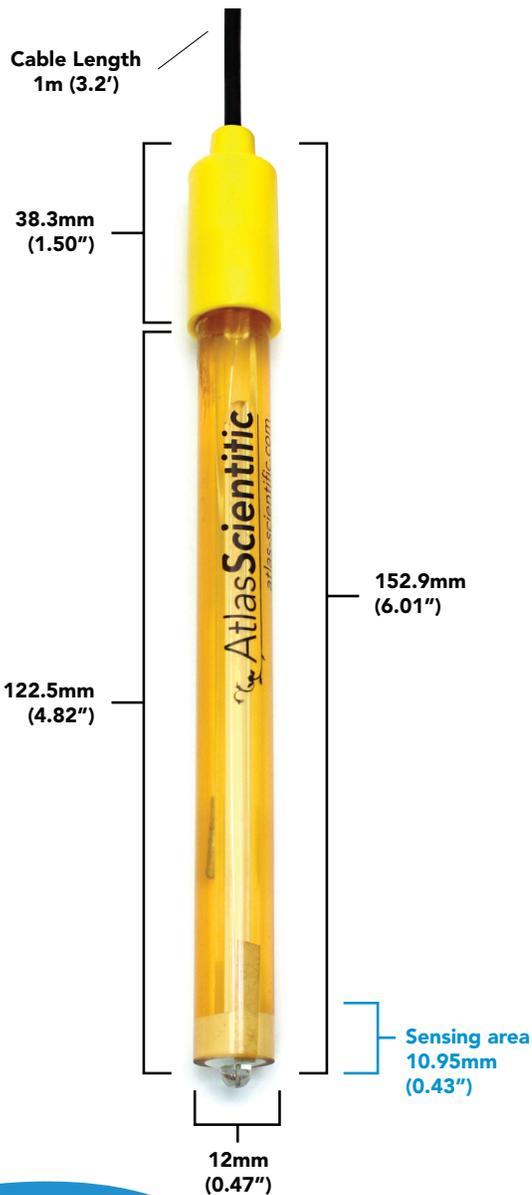
Result will **Often** read zero.

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Because an ORP probe is a passive device it can pick up voltages that are transmitted through the solution being measured. This will result in incorrect readings and will slowly damage the ORP probe over time.



## ORP Probe



**DO NOT CUT THE CABLE WITHOUT  
REFERING TO [THIS DOCUMENT!](#)**

**NEVER EXTEND THE CABLE  
WITH CHEAP JUMPER WIRES.**

This ORP Probe can be **fully submerged** in fresh water or salt water, up to the BNC connector indefinitely.



## How often do you need to recalibrate an ORP probe?

Because every use case is different, there is no set schedule for recalibration.

If you are using your probe in a fish tank, a hydroponic system or any environment that has generally weak levels of chemical reactions you will only need to recalibrate your probe once per year for the first 2 years. After that every ~6 months.

If you are using the ORP probe in batch chemical manufacturing, industrial process, or in a solution that is known to have strong chemical reactions, then calibration should be done monthly or in extreme cases after each batch.

## Extending the length of the probe cable

You can extend the cable to 100 meters with no loss of signal, however you run the risk of turning your pH probe into an antennae, picking up noise along the length of your cable. If you want to extend your cable, we recommend that you use proper isolation, such as the **PWR-ISO**, or **Tentacle Shield**. Be sure to calibrate your probe with the extended cable.

Extending a probe cable can be easily done with our **BNC Extension Cable**. Simply connect the BNC end of the probe to the Extension cable, and you are all set. If you need to water proof a BNC connection, we highly recommend using a product like **Coax-Seal** to safely cover and prevent any water damage that may occur.





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