

WEL Sensor Installation

The pH Electrode is shipped in a plastic bottle or cap containing a solution of 4 buffer and potassium chloride. ORP (REDOX) Electrodes are shipped in caps containing a piece of cotton wetted with tap water. The electrode should remain in the bottle or cap until it is used. If the electrode is used infrequently, the bottle or cap and its solution should be saved and the electrode stored in it.

For in-line applications, feed the preamplifier housing cable through the adapter nut. Remove the red protective cap from the end of the preamplifier housing.



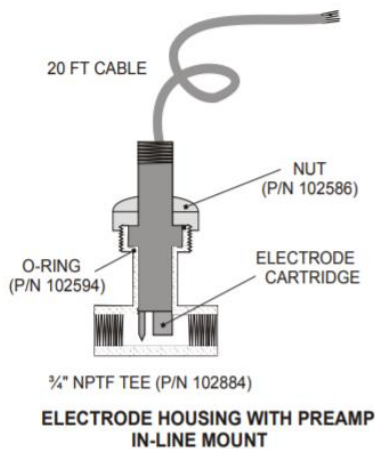
Remove the electrode cartridge from the soaker bottle, making sure to remove the fat o-ring from the electrode (see arrows below). This o-ring prevents soaker solution from leaking out of the bottle and is not part of the electrode.



The electrode cartridge has two o-rings, one that seals at the base of the preamplifier housing, and one secondary seal next to the TNC connector (see arrows below).



Insert the cartridge into the housing and thread in the TNC connector until it is hand tight. The o-ring should seat against the housing. Place the p/n 102594 o-ring into the mounting tee groove, then place the electrode housing into the tee, and thread the adapter nut onto the tee until it is hand tight.



The electrode should be mounted such that the measuring surfaces will always stay wet. If the electrode dries out, it will respond slowly to changing pH/ORP values for 24 hours, and if dried out repeatedly, will fail prematurely.

A "U" trap should be installed so that if the flow stops, the electrode is still immersed in the solution. If the flow through the pipe cannot be stopped to allow for cleaning and calibration of the electrode, then the electrode should be placed in a by-pass line with isolation valves to allow for electrode removal.

Install the electrode vertically, with the measuring surface pointing down, at least 5 degrees above horizontal.

For in-line applications, where the electrode is installed in a pipe, the electrode should be placed on the discharge side of the pump (under positive pressure). The maximum flow velocity is 10 feet/second.

The electrode should be installed in an area where there is good solution movement and where it will respond rapidly to chemical additions. The placement of the electrode relative to the placement of chemical replenishment, along with the quality of the mixing, and the replenishment pump flow rate are all critical to accurate process control.