

INTRODUCTION

Thank you for choosing the Sensorex GT Series, glass body process pH sensors. The GT Series, are supplied with either S8 or VP connector.

When you receive the electrode, remove the soaker cap and pull the soaker bottle off as shown in FIG 1 Next, slide the black cap and o-ring off the electrode body as shown in FIG 2. Inspect your electrode to make sure the glass membrane is not damaged. Check the glass bulb for air bubbles and if bubbles are seen, shake the sensor up and down. After these checks, your GT Series pH electrode is ready to install in your process.

Please note that the lifespan of pH electrodes is highly dependent on the measurement conditions such as Temperature and composition of the measurement solution. Under favorable conditions at room temperature life expectancy is highest. Slow aging also occurs during the storage period, which is why it is limited.

WIRING

Your GT Series sensor is either supplied with an S8 or VP connector. The S8 versions have a mating connector and coaxial cable. The wiring is as follows:

- Coaxial center wire: pH or ORP
- Coaxial braid wire: Reference

See FIG 3 and FIG 4 for VP sensor cable
For sensors supplied with VP connector, the wiring is as follows:

- gray - no connection
- Blue - no connection
- Black coaxial clear - pH
- Black coaxial - red - Reference
- White - temperature 1
- Green - temperature 2

FIG. 1



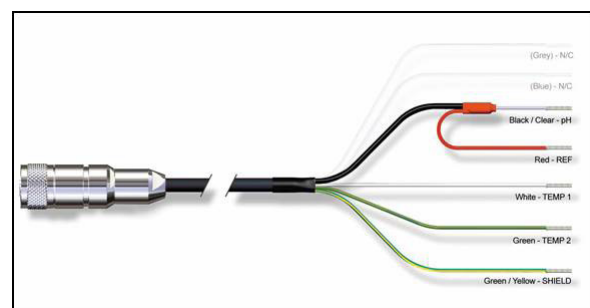
FIG. 2



FIG. 3



FIG. 4



CALIBRATION

Follow the calibration instructions in your pH controller user manual. Be sure to do at least a 2-point calibration for the best accuracy. Use fresh buffers (don't leave out exposed to air for more than 2 hours).

ELECTRODE STORAGE

Your electrode is supplied in a soaker solution bottle. The solution is 3M KCl. An extra green cap is provided if you want to save the solution for later storage. When ready to use the solution again simply remove the green cap and put the cap on first and the o-ring.

NOTE: Never store electrodes in deionized or distilled water. This will draw out the salt in the electrode and cause a shift in readings that may not allow calibration.

CLEANING

Clean the sensor body by rinsing with DI or distilled water or you can use dilute dish soap. Solvents like alcohol will dry out the pH glass and adversely affect readings. **DO NOT USE A BRUSH ON THE pH GLASS** as this can scratch the glass and ruin the electrode. Line scale or other hard coatings can be removed using 5% HCl.

After cleaning, it is always suggested to re-calibrate.

REDOX (ORP) SENSORS

Basically the same applies to redox (ORP electrodes as to pH electrodes. There are commercially available redox reference solutions with for example approx. 228mV or 465 mV to check the function of the redox electrode. Please note that some ORP instruments have calibration capability while others do not.