

ORP-8083 Industrial ORP Sensor User Manual

Technical indexes:

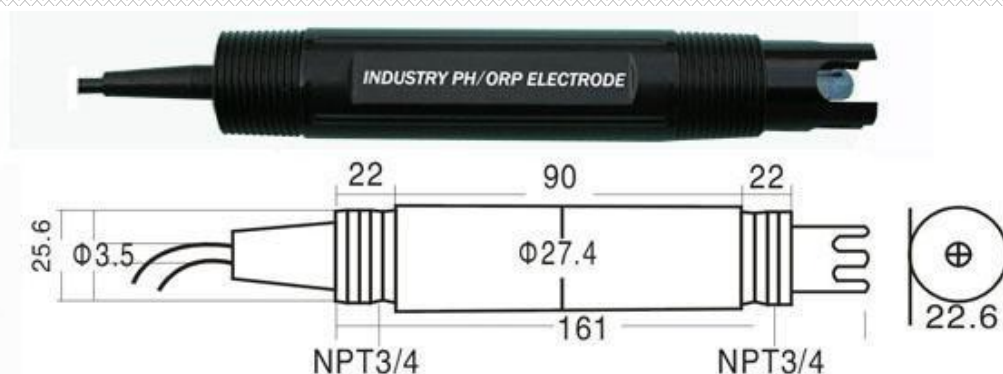
1. Measuring range: $\pm 2000\text{mV}$
2. Temperature range: $0\text{-}60^{\circ}\text{C}$
3. Withstand voltage: 0.6MP
4. The installation size: $3/4\text{NPT}$ pipe thread
5. Material: PPS/PC

The characteristics of ORP sensor:

- ◇ Adopt international advanced solid dielectric and a large area of PTFE liquid junction, uneasy blocking, convenient maintenance
- ◇ long distance reference diffusion channels, and large extended sensor in the harsh environment of the life
- ◇ Adopt PPS/PC shell, the upper and lower $3/4\text{NPT}$ pipe thread, easy installation, does not need the sheath, save installation cost
- ◇ electrode is made of high quality low noise cable, can make the signal output length greater than 40 meters, no interference
- ◇ high measuring accuracy, fast response, good reproducibility for correct operation and long service life;
- ◇ lateral or vertical installation in the reaction tank or pipe
- ◇ the industrial ORP electrode using high purity platinum and silver silver chloride reference compound and into, with strong acid alkali capacity and antioxidant capacity.

Industrial ORP sensor only can be one point calibration:

1. The 4 PH buffer by adding a small amount of quinhydrone full, resulting in a saturated state! The theoretical value is $256\text{MV} \pm 20\text{mV}$;
2. The 6.86 PH buffer by adding a small amount of quinhydrone full, resulting in a saturated state! The theoretical value is $83\text{MV} \pm 20\text{mV}$;



The use and maintenance of ORP sensor:

- 1.The front end of the inner electrode protection bottle some 3.3 M KCL solution, soaking the electrode head, to keep the activation of gold and platinum liquid junction, when measuring the bottle, pulling out the electrode, the use of washing with deionized water net.
- 2.Electrode measurement, testing part of the electrode and reference liquid network part must also immersed.
- 3.Check whether the joint dry cleaning, such as contamination, anhydrous alcohol scrub clean dry after use.
- 4.After use wash inserted into electrode protection bottle and tighten cap, by preventing solution exudation.
- 5.Standard electrode solution saturated solution of a quinone hydroquinone preserved for 48 hours.
(Appendix: quinone hydroquinone saturated solution preparation, in PH4.00 buffer solution, adding an excessive amount of quinhydrone, resulting in a saturated state).
(Appendix: quinone hydroquinone saturated solution preparation, in PH6.86 buffer solution, adding an excessive amount of quinhydrone, resulting in a saturated state).
- 6.The electrode of platinum if stained with oil, usable cotton dipped in acetone or alcohol wipe gently, clean, if stained with insoluble inorganic matter, available 30-50% hydrochloric acid cleaning.

Application of ORP sensor:

For the treatment of waste water containing nobelium redox potential detection circuit board, chlor alkali chemical, pigment, dyes intermediates, pulp and paper, environmental protection, electroplating industries,