ADVANTAGE CONTROLS

DATA SHEET

PH/ORP PROBES

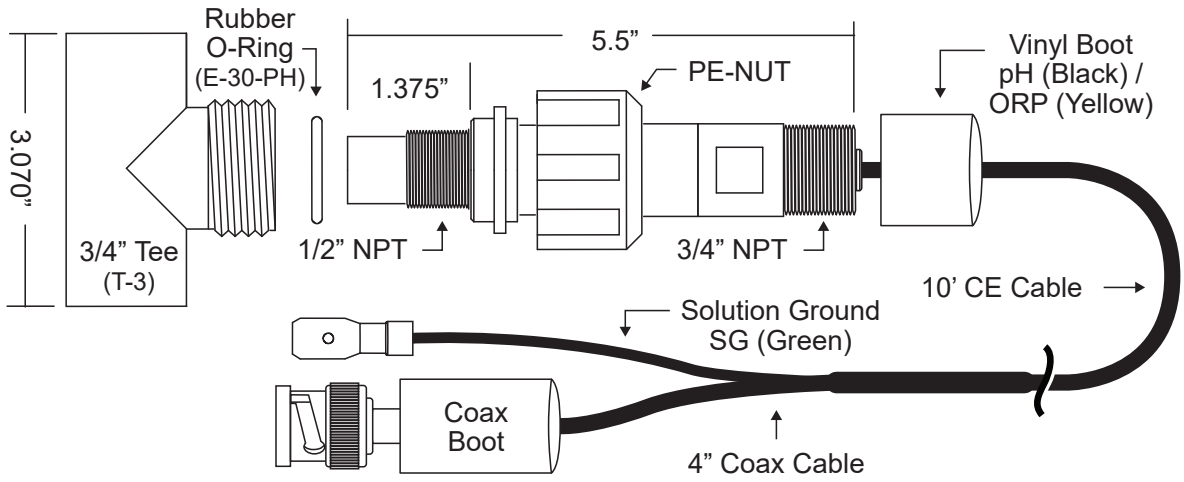


PE-21 (pH) Specifications

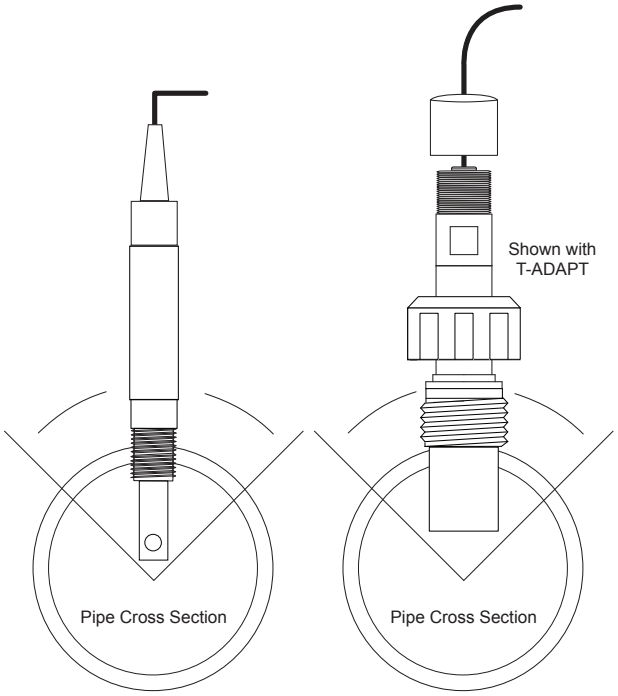
- **Description:** pH combo, 1/2” NPT in-line, CPVC, ASG V (flat), SG (Pt disc 2.5mm), DJ w/ porous Ag/AgCl, Gel, CE cable, 10ft, BNC
- **Range:** 0 - 14
- **AP (in pH 7.00):** 0 ± 20 mV (25°C)
- **Slope (Δ = pH 4.00 to 7.00):** ≥ 170 mV (25°C)
- **Impedence:** ≤ 315 M Ω
- **Temperature Range:** -5 to 80°C
- **Reponse Time:** 5 seconds to 95% of full response
- **Pressure:** 100 psi max
- **Mounting Tee:** 3/4” sch 80 PVC female slip

OE-21 (ORP) Specifications

- **Description:** ORP (REDOX) combo electrode, 1/2” NPT in-line, CPVC, platinum disc (5mm), ORP sensor, platinum disc (2.5mm) solution ground, double junction reference w/ porous Teflon, Ag/AgCl, Gel, CE cable, 10ft, BNC
- **Range:** -1000 to +1000 mV (meter dependent)
- **Temperature Range:** -5 to 80°C
- **Reponse Time:** 5 seconds to 95% of full response
- **Pressure:** 100 psi max
- **Mounting Tee:** 3/4” sch 80 PVC female slip



Probes must be installed within 45° of vertical with tip pointed down



Electrode cleaning of pH and ORP probes

Coating of an electrode's measuring surface can lead to erroneous readings including shortened span and slow response times. The type of coating determines the type of cleaning technique.

Soft Coatings can be removed by vigorous stirring, by use of a squirt bottle, or very carefully, by gently wiping with a soft cloth, clean non-abrasive paper or cloth. DO NOT USE ANY BRUSH OR ABRASIVE CLEANER ON pH GLASS!

Hard Coatings should be chemically removed. The chemical used to remove the coating should be the least harsh chemical that dissolves the coating in 1 or 2 minutes and does not attack the electrode's materials of construction. For example, a calcium carbonate coating might be removed with 5% HCl (muriatic acid). Oily or Organic Coatings are best removed with detergents or an appropriate solvent that does not attack the electrode's materials of construction. For example, isopropyl alcohol might be used but acetone should be avoided if the electrode's body is made of CPVC.

NOTE: WHEN USING CHEMICALS OR SOLVENTS CARE SHOULD BE TAKEN AND APPROPRIATE EYE, FACE, HAND, BODY AND/OR RESPIRATORY PROTECTION SHOULD BE USED.

Abranding or sanding a pH electrode's surface should never be done. However, the measuring surface of an ORP electrode may be gently abraded by use of 600 grade wet silicon carbide paper, jeweler's rouge or very fine steel wool, but try to clean chemically before abrading with 600 paper.

Important considerations for pH/ORP probes

1. The pH Electrode is shipped in a cap containing a solution of pH 4 buffer and potassium chloride. ORP Electrodes are shipped in caps containing a piece of cotton dampened with tap water. The electrode should remain in the cap until it is used. If the electrode is used infrequently the cap and its solution should be saved and the electrode stored in it. Store pH electrodes in pH 4 buffer if soaking solution is discarded. Remove cap and label to use.

2. After exposure to a sample, buffer or rinse solution, carryover can be minimized by blotting-never by wiping-the electrode with a clean, non-abrasive paper or a clean cloth towel. DO NOT USE A BRUSH ON pH GLASS.

3. Coatings on an electrode's surface prevent new liquids from contacting an electrode's measuring surface and can mimic the effects of electrode aging. Before concluding that an electrode needs replacing check its surface for coatings.

When to use a remote transmitter

pH and ORP probes require a remote transmitter if the wire run from the probe to the controller is beyond 20 feet (6 meters).

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