# Orion AquaPro Series Combination pH Electrode Instruction Sheet

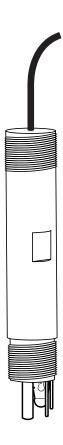
## AQUA10 pH Electrode

The AQUA10 is an industrial combination pH electrode designed for accurate pH measurements in the harshest environments and samples. The AQUA10 is a double junction Ag/AgCl non-refillable pH electrode with automatic temperature compensation and solution ground. Three stainless steel bulb guards protect the pH sensing bulb from particulates or solids in a flowing sample. The electrode has <sup>3</sup>/<sub>4</sub>" NPT threads for mounting within pipe systems or at the end of a piece of conduit for submersion applications. The AQUA10 pH electrode is compatible for use with the Orion 2001 pH Monitor.

#### For Best Results:

- Inspect the electrode for scratches, cracks, salts or other deposits on the sensing element and reference junction. Rinse off any precipitates with distilled water.
- To attach the electrode to the monitor, wire the stripped, unterminated ends to the monitor. Refer to the monitor instruction manual.
- The first time a new electrode is installed, condition the electrode in pH 7 buffer (Orion 200107) for 1 hour.
- Put the electrode on-line and allow the electrode to equilibrate in the sample for a few hours prior to calibration.
- Always use fresh buffers when calibrating. Use Orion precision buffers: pH 4 (Orion 200104), pH 7 (Orion 200107) or pH 10 (Orion 200110).
  Choose buffers that bracket the expected sample pH. Check electrode slope by performing a two-point buffer calibration. Slope should be within 92 to 102 %.
  For detailed calibration and temperature compensation procedures, consult the Orion 2001 pH Monitor instruction manual.
- To maximize the life of your pH electrode, use Orion pH Electrode Cleaning Kits. After cleaning, soak the electrode in pH 7 buffer (200107) for at least 1 hour. Recalibrate before returning to on-line measurement.

**Note:** see reverse side for specifications and ordering information





#### **Specifications:**

**pH Range:** 0 to 14

**Temperature Range:** -5 to 60 °C

**Pressure Range:** 0 to 100 psi

**Drift:**  $\leq 0.5$  pH units for 30 days

**Reproducibility:**  $\pm 0.01$  pH units

**Slope:** 92 to 102 % (54.4 to 60.3 mV/dec)

**ATC Resistance:**  $30 \text{ k}\Omega$ 

**Reference System:** *CONTACT* Reference System

Reference Electrolyte: non-refillable, CONTACT polymer gel

**AQUA10 Diameter:** 30 mm

**AQUA10 Length:** 170 mm

**Cable:** coaxial, 5 meters

### **Ordering Information**

Orion	Description
AQUA10	Industrial Combination pH Electrode.
900021	pH Cleaning Solution A, for removing protein contaminants. Four 1 oz. bottles
900022	pH Cleaning Solution B, for general cleaning and bacterial contaminants. Four 2 oz. bottles
900023	pH Cleaning Solution C, for general cleaning. Four 1 oz. bottles
900024	pH Cleaning Solution D, for oil and grease contaminants. Four 2 oz. bottles

**Environmental Instruments** 

Water Analysis

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