



## Description

The P60C-8 pH and the R60C-8 ORP probe are dependable industrial grade sensors designed to provide accurate measurement and longer service life under the most demanding conditions. Some features of these probes include: differential measurement technology, replaceable salt bridge and encapsulated preamp.

The 60C-8 incorporates all the benefits of differential measurement found in other models of the 60 series, field proven in thousands of installations. This technique uses two glass electrodes to make the measurement differentially with respect to a third metal electrode. The domed glass process electrode is specially designed for tough applications. The second electrode is immersed in a pH 7 buffer encapsulated in the probe.

This second electrode is protected from the process by a double junction replaceable salt bridge. The resulting true differential measurement has several advantages over

conventional probes: ground loop problems are virtually eliminated, and the salt bridge is easily replaced.

If the internal solution becomes contaminated, the probe can be rejuvenated at modest cost by replacing the salt bridge and reference solution. Automatic temperature compensation is accomplished through the use of a thermistor at the tip of the probe. This thermistor placement provides rapid response for process temperature variations.

The encapsulated preamplifier provides an output signal which can be transmitted 3000 feet over inexpensive cable. Another version encapsulates a blind 4-20 mA two wire transmitter which can transmit a virtually unlimited distance over a twisted pair cable. (See P65 data sheet).

## Advantages/Benefits

### Differential Measurement

- Replaceable Salt Bridge
- Low Maintenance Cost
- Field-proven

### Encapsulated Preamplifier

- Transmits up to 3000 ft.

### Options

- 4-20 mA two-wire blind transmitter version available (model P65)
- ORP available with gold electrode

## Applications

- Process Control
- Industrial and Municipal Water Treatment
- Industrial and Municipal Waste Treatment and Neutralization
- Fume Scrubbers
- Suitable for Plating, Circuit Board Manufacturing, Food and Beverage, Chemical Processing, Pulp & Paper, Mining, Power Generation, Pharmaceutical

# pH OR ORP Probes

# P60C-8 / R60C-8

## Technical Data

### Measuring Range

pH 0 to 14.00 pH  
(Consult factory for applications below 2 and above 12)

ORP -2000 mV to 2000 mV

**Flow Rate** 10 ft./sec maximum (3 metres/sec)

Flow should be as low as possible in low conductivity water and in solutions with high suspended solids

**Wetted Materials** CPVC, ceramic, glass, titanium palladium alloy and EPDM (platinum for ORP probe)

### Transmission

**Distance** 3000 ft. (900 m)

### Sensitivity

pH 0.001 pH

ORP 0.1 mV

**Stability** 0.03 pH per day, non-cumulative

### Temperature Compensation

Automatic -5 to 95°C (23 to 203°F)

**Pressure Limit** 100 psig at 65°C maximum

### Temperature Limits

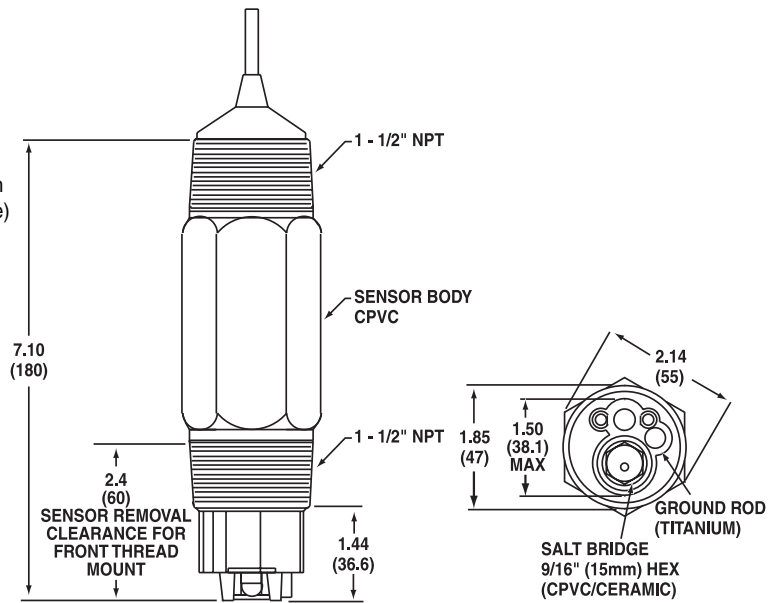
CPVC -5 to 95°C (23 to 203°F)

The temperature limit of probes in flow-through applications is limited by pressure and by the pipe fitting material.

### Probe cable

5 Conductor plus shield, 4.6m (15ft) long

## Dimensions



## Related Products

### CABLES & ACCESSORIES

JB-1 NEMA 4X junction box  
STC60-L Mounting kit for submersion applications includes 1-1/2" NPT x 1" reducer, 4 feet of 1" CPVC pipe with watertight strain relief fitting and securing assembly  
C42-5PXXX Interconnect cable; specify length  
AM60-9765 Salt bridge Kit (Package of 3)  
Protector-3 Protection shroud for submersion applications

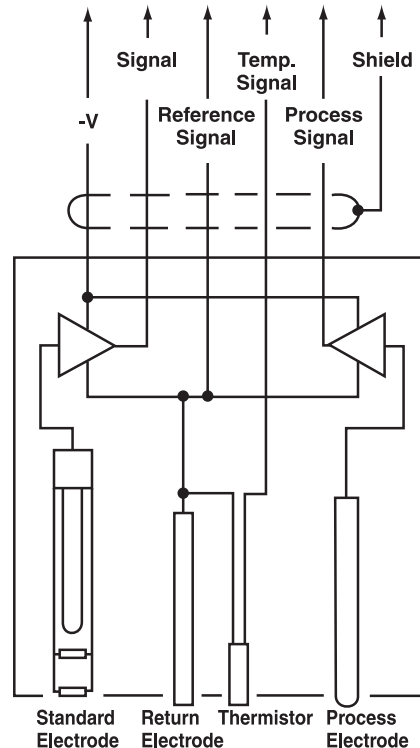
### CALIBRATION SOLUTIONS

A35-13 pH 4 Buffer, 500mL.  
A35-14 pH 7 Buffer, 500mL.  
A35-24 pH 10 Buffer, 500mL.  
A35-40 ORP Buffer, 200mV, 500mL  
A35-41 ORP Buffer, 600mV, 500mL

## Ordering Information

**P60C-8** pH probe, 1 1/2" NPT threaded body  
**P60C-8-A** Antimony pH probe  
**R60C-8** ORP probe, 1 1/2" NPT threaded body  
**R60C-8-G** ORP probe with Gold Electrode

## Differential Measurement Technique



## DIFFERENTIAL pH MEASUREMENT

**AquaMetrix**

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\* NOT TESTED ON ANIMALS