

Aquametrix Model P/R60R-8 Differential pH or ORP Probes



Description

The P60R-8* pH and the R60R-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 P/R60R-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 result-

ing 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 P/R65 data sheet).

**The P/R60R-8 replaces the P/R60C-8. The only difference is that the -R-8 is constructed of Ryton versus CPVC. Ryton has superior chemical resistance.*

Features

- Differential measurement technology
- 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 P/R65)
- ORP available with gold electrode

Applications

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

Model P/R60R-8 Differential pH or ORP Probes

Technical Data

Measuring Range

pH 0 to 14 pH
(Call factory for applications below 2 or above 12).

ORP -2000 to +2000 mV

Flow Rate

10 ft./sec maximum (3 meters/sec)
Flow should be as low as possible in water with low conductivity water or suspended solids

Wetted Materials

CPVC, Ryton, Ceramic, glass, titanium palladium alloy and Viton (Platinum for ORP probe).

Transmission Distance 3000 ft. (900 m)

Sensitivity

pH 0.001 pH

ORP 0.1 mV

Stability

pH 0.03 pH per day, non-cumulative

ORP 2 mV per day, non-cumulative

Temperature Compensation

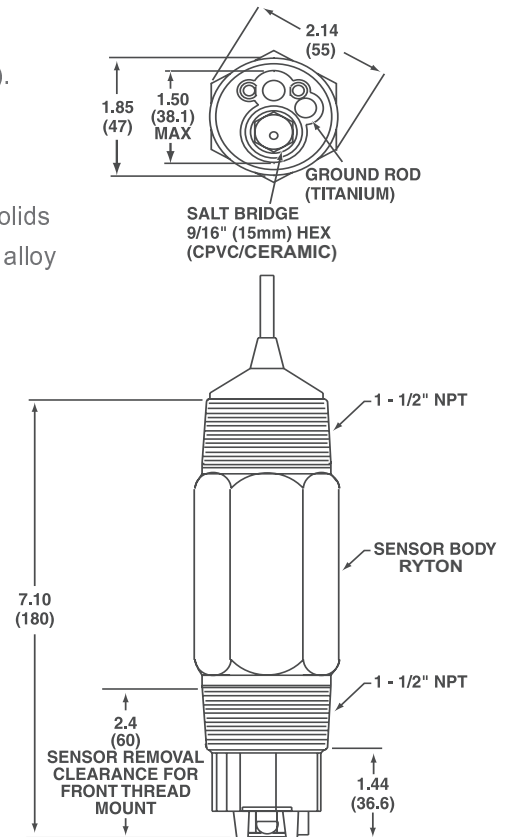
Automatic 300 Ω NTC

Pressure Limit 100 psig at 65°C maximum

Temperature Limits -5 to 95°C (23 to 203°F)

Probe Cable 5 Conductor plus shield, 15 ft. (4.6m)

Dimensions



Related Products

CABLES & ACCESSORIES

JB1	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 w/ ceramic outer junction (Package of 3)
Protector-3	Protection shroud for submersion applications

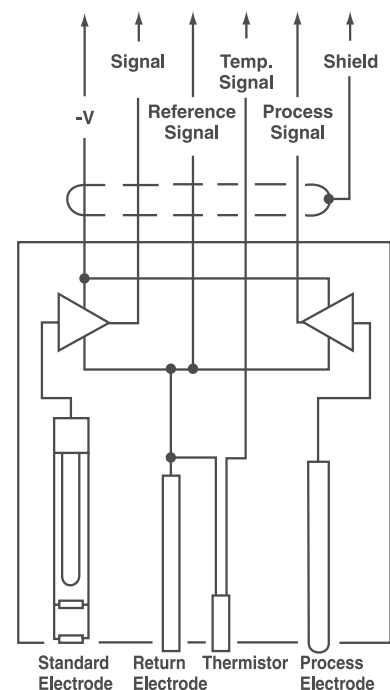
CALIBRATION SOLUTIONS

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

Ordering Information

P60R-8-015	pH probe, 1-1/2" NPT threaded body w/15ft cable
P60R-8H-015	pH probe with Hard glass electrode w/15ft cable
P60R-8A-015	pH probe with Antimony electrode w/15ft cable
R60R-8-015	ORP probe, 1-1/2" NPT threaded body w/15ft cable
R60R-8-H-015	ORP probe with Hard glass electrode w/15ft cable
R60R-8-G-015	ORP probe with Gold electrode w/15ft cable

Differential Measurement



DIFFERENTIAL pH MEASUREMENT