



Description

The P60C-5 pH and the R60C-5 ORP probes are the latest additions to the legendary Aquametrix differential probe family. It fills the gap for a 1" MNPT fixed insertion probe and uses the same electrodes and salt bridge as the 1" variable insertion P60C-6 and P60C-7 probes.

All of the P60 and P65 probes 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/R60C-5 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 encapsu-

lated 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. P65C-5 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).

Features

- 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)
- pH available with flat face, hardened glass, antimony electrodes
- ORP available with gold electrode

Applications

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

Model P/R60C-5 Differential pH or ORP Probes

Technical Data

Measuring Range

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

ORP -2000 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, Kynar, glass, titanium palladium alloy and EPDM (platinum for ORP probe); opt. Viton and ceramic

Transmission Distance 3000 ft. (900 m)

Sensitivity

pH 0.001 pH

ORP 0.1 mV

Stability

pH 0.03 pH/day, non-cumulative

ORP 2 mV/day, non-cumulative

Temperature Compensation

300 Ohm NTC Automatic pH compensation

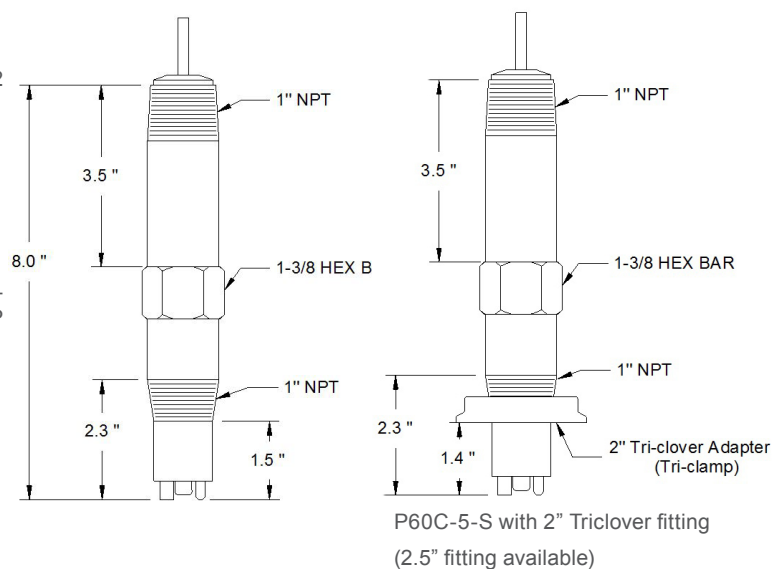
Pressure Limit 100 psig at 65°C maximum

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 shielded, default cable length 15 ft. (4.6m)

Dimensions



Ordering Information

P60C-5-015	pH probe, 1" NPT threaded body
P60C-5F-015	pH probe with flat electrode
P60C-5A-015	pH probe with Antimony electrode
P60C-5H-015	pH probe with Hard glass electrode
P60C-5S-015	pH probe with 2.0"/2.5" Sanitary fitting
R60C-5-015	ORP probe, 1" NPT threaded body
R60C-5F-015	ORP probe with flat electrode
R60C-5-H-015	ORP probe with Hard glass electrode
R60C-5-S-015	ORP probe with 2.0"/2.5" Sanitary fitting
P60C-5-025	pH probe with 25ft cable

Related Products

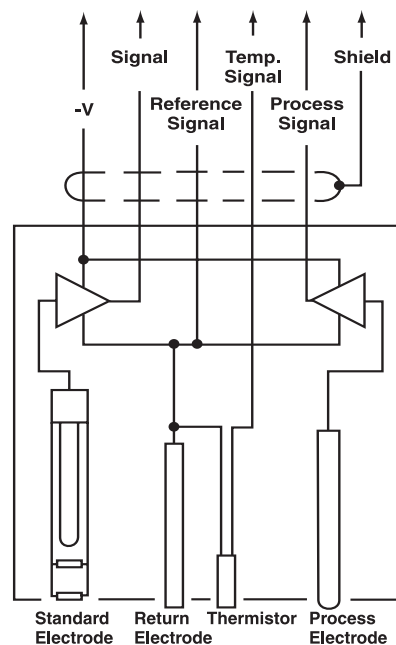
CABLES & ACCESORIES

JB1	NEMA 4X junction box
STC60-5	Mounting kit for submersion applications includes 1" NPT x 1" reducer, 4 feet of 1" CPVC pipe with watertight strain relief fitting and securing assembly
C42-5PXXX	Interconnect cable; specify length
C35-17	Salt bridge kit w/ kynar outer junction (Package of 3)
C35-17K	Salt bridge kit w/ ceramic outer junction (Package of 3)
Protector-6	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

Differential Measurement Technique



DIFFERENTIAL pH MEASUREMENT