

Top: Hot-Tap probe P60C-7 with
P60-HTC ball valve assembly
Bottom: Variable insertion probe P60C-6

Description

The 60 series pH and ORP probes are dependable industrial grade sensors designed to provide accurate measurement and longer service life under the most demanding conditions. The P60C-6 pH probes and R60C-6 ORP probes incorporate 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.

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 an embedded thermistor inside the tip of the ground rod. This thermistor placement provides rapid response for process temperature variations. The unique P60C-6 probe mounts in

a standard 1-1/4" NPT tee, or in a tank, through a specially designed CPVC compression fitting. This technology provides several important advantages: the probe enters straight into the fitting eliminating twisting of the cable; the pipe size is only 1-1/4" NPT; the insertion length is variable between 7/8" and 5"; one model is used for both flow-through and submersion tank-mount.

Installation does not require a pipe wrench, strap wrench or thread sealant on the probe. This helps to reduce down time for calibration.

The P/R60C-7 probes have extended length for a hot-tap applications. It designed to be used with P60-HTC ball valve assembly with a variable insertion depth between 7/8" and 14". The probe can be easily removed for cleaning and calibration without emptying the tank.

The encapsulated preamplifier provides an output signal which can be transmitted 3000 feet over inexpensive cable. For greater distances, see the P65 data sheet for the probe that encapsulates a blind 4-20 mA two-wire transmitter which can transmit a virtually unlimited distance over a twisted pair cable.

Features

- Differential Measurement
- Replaceable Salt Bridge
- Low Maintenance Cost
- Easy in: no twisted cable
- Easy out: no special tools
- 1-1/4" NPT fitting
- Adjustable insertion depth
- Easy Cleaning
- Encapsulated Preamp Transmits up to 3000 ft
- 4-20 mA two-wire blind transmitter version available
- Hot-Tap hardware available
- Flat-faced and Hardened glass version available for pH
- ORP available with gold electrode

Applications

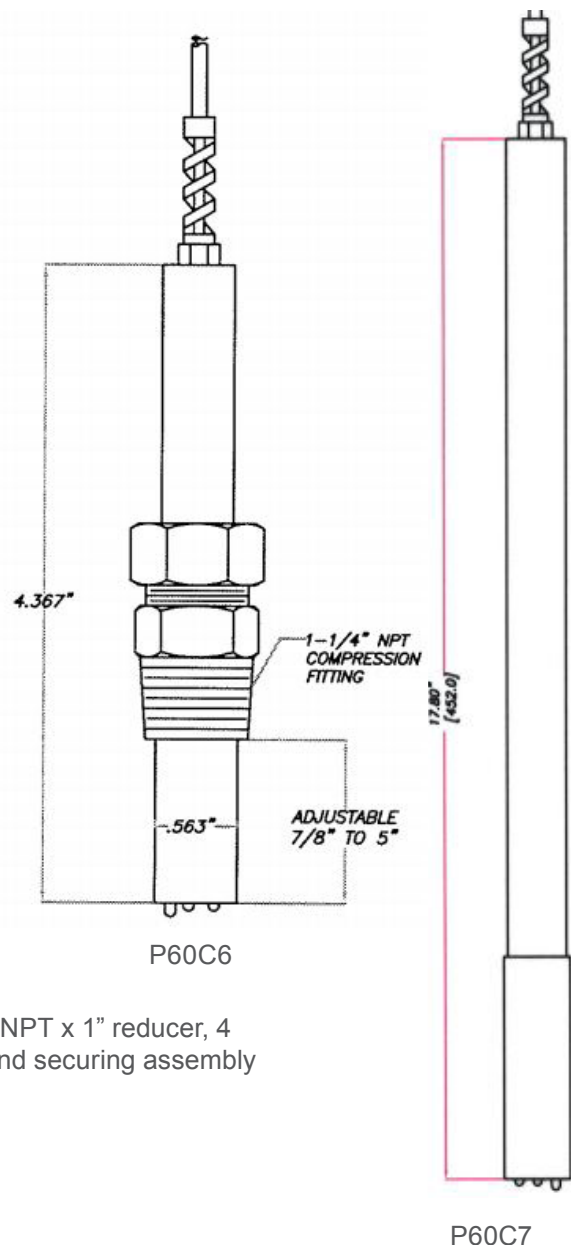
- Process Control
- Industrial and Municipal Water Treatment
- Industrial and Municipal Waste Treatment and Neutralization
- Fume Scrubbers, Circuit Board Manufacturing, Plating, Food and Beverage, Chemical Processing, Pulp and Paper, Mining, Power Generation, Pharmaceuticals

Model P60C-6 and P60C-7 pH or R60C6 and R60C-7 ORP Differential Probes

Technical Data

Dimensions

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)
Transmission Distance	3000 ft. (900 m)
Sensitivity	
pH	0.01 pH
ORP	0.1 mV
Stability	
pH	0.03 pH/day, non-cumulative
ORP	2 mV/day, non-cumulative
Temperature Copensation	
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 length 15 ft. (4.6m)



Related Products

CABLES & ACCESORIES

JB-1	NEMA 4X junction box
STC60-6	Mounting kit for submersion applications includes 1-1/4" NPT x 1" reducer, 4 feet of 1" CPVC pipe with water-tight strain relief fitting and securing assembly
P60-HTC	Hot Tap Ball Valve assembly (Probe not included)
C42-5PXXX	Interconnect cable, dressed both ends. Specify length.
C35-17	Salt bridge Kit for all -6 series probes, package of 3.
C35-79	Compression fitting for all -6 series probes.
C34-51	Adapter for GLI Installations.
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

Ordering Information

P60C-6-015	pH probe complete with universal installation fitting for flow-through or submersion applications
P60C-7-015	pH Probe for use with Hot-Tap hardware
P60C-6F-015	Flat-face pH probe
R60C-6-015	ORP probe complete with installation fitting for low-through or submersion applications
R60C-6-G-015	ORP probe with gold electrode
R60C-7-015	ORP Probe for use with Hot-Tap hardware