

High Purity Water pH Measurement

Model HPW7000/DL421 High Purity Water pH Measurement Solution



This solution note focuses on accuracy and stability needed for pH measurement in high purity water applications.

Application

Measurement and control of water pH to minimize corrosion and scaling in Electric Utilities, Cogens, Industrial Boilers and other Steam Generators.

- Accurate measurement of the pH of water
- Maintaining and calibrating the pH measurement equipment in lesser time
- High purity water applications

The Problem

Measurement of water pH is critical to preventing unplanned outages due to corrosion and scaling in boilers, turbines and other plant processes. Measurement of pH in high purity water used in Power Plants is difficult and is often described as a nightmare by plant chemists.

Honeywell eliminates these problems with a completely assembled pH measuring solution saving thousands of dollars in down time due to unplanned outages and hundreds of dollars in time for installation, calibration and maintenance.

Contributing factors:

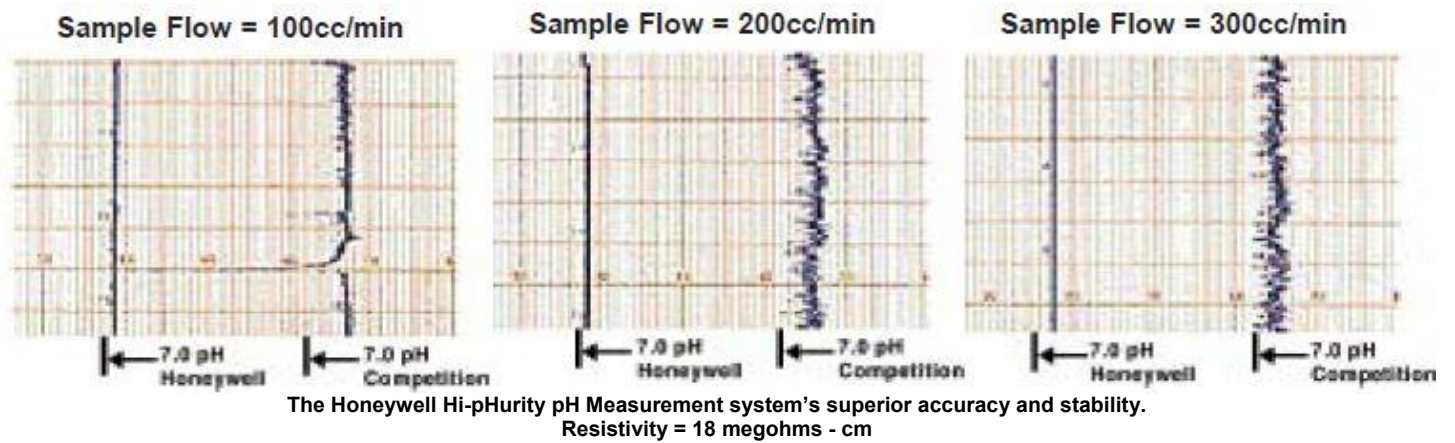
- Low conductivity of High Purity Water
- Variations in reference junction voltage
- Solution temperature compensation
- Streaming current interference
- Inconsistent sample mixing

- Electrode position static charges
- Variations in sample flow



Features

- Accuracy Required: +/- 0.1 pH
- Stability/Drift: +/- 0.1 pH/week
- Water Conductivity: > 0.055 umhos/cm
- Completely assembled pH measurement system
- Menu driven configuration / calibration displays
- Electrode assembly easily removed without special tools or instructions
- Easy to fill reference electrode
- Quick-connect cable connections



Specifications: Model HPW7000/DL421 High Purity Water pH Measurement Solution

pH Range	4 to 10 pH
Output	to DirectLine Transmitter or 9782/7082 Analyzer
Conductivity Range	> 0.055 umhos
Accuracy / Noise	+/- 0.1 pH / < 0.1 pH
Stability / Drift	+/- 0.1 pH per week
Process Connection	1/4 in. male, side mounted on flow assembly
Downstream Back Pressure	-10 in. W.C. (min), +1.0 in. W.C. (max)
Temperature: Assembly/Electrodes	10 to 45 °C / 10 to 80 °C
Flow Assembly Material	316L SS
Electrode Assembly Material	316L SS
Finish	150-grit polish minimum

More Information

For more information on High Purity Water pH Measurement, visit www.honeywellprocess.com, or contact your Honeywell account manager.

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