



# Water Quality Analysers



## pHSense - Continuous Online pH Meter

The pHSense range of pH Analysers from Pi utilise the very latest and best pH sensors available in the world today for measuring the online pH of any aqueous solution. They are patented polymer filled sensors with integral reference which uses no reagents, are extremely stable, and have reduced maintenance and reduced whole life costs.

**Up to 3 years continuous operation**

**2 years warranty**

**Stable and reliable - excellent process control**

**Suitable for all potable and process waters**

**Suitable for very low conductivity waters**

**Integral temperature compensation**



*"The pH sensors from Pi are much more stable than others we've tried and they seem to last forever"* Tom Haslehurst, UK

The pHSense sensors and flow cells are available with different controllers giving you the same great performance with different communication, display, and control options. With the pHSense range of online pH meters, you get everything that you need - and nothing that you don't.

### CRONOS pHSense



- High Quality and Multilingual
- Lowest Purchase Cost
- Long Life
- Options include:
  - up to 3 4-20mA outputs
  - up to 4 relays (solid state or mechanical)
  - modbus TCP
  - modbus ASCII/RTU
  - profibus
  - HART
  - flow switch input
  - PID control

### CRIUS® pHSense



- High Quality and Multilingual
- Low Cost
- Colour Display and Keypad
- Sophisticated Comms and Control
- All CRONOS options plus:
  - texting alarms
  - remote internet access
  - datalogging
  - PID Control
  - automatic cleaning
  - automatic calibration
  - up to 3 sensors and outputs
  - integrated flow control

### CRATOS pHSense

Available Mar 2011

- High Quality and Multilingual
- Medium Cost
- Colour Touchscreen
- Up to 6 Sensors
- All CRONOS and CRIUS® options plus:
  - up to 6 sensors
  - lowest cost per point

*For more information on the controllers' capabilities, please see the individual brochure - CRONOS, CRIUS® and CRATOS*

## Principle of Operation

At the Heart of the CRONOS pHSense are the pH electrodes. These electrodes are patented and have a large area electrochemically active solid polymer junction. This innovative design makes the electrodes more responsive and with a longer life than ordinary electrodes (typically 3 years). Although they command a higher price in the market place these sensors are more than cost effective with their longer life and considerably lower maintenance requirements, typically only needing calibration once per two or three months.

Despite all of the additional functionality that this unit has to offer, the purchase costs are less than or comparable to, its competitors.

## Autoflush and AutoCal

As described in separate brochures, the pHSense can come equipped to automatically clean itself or calibrate at user defined intervals with all the benefits of no operator intervention for 6 months. The Autoflush is particularly useful in food preparation, pulp and paper, and many applications where there is likely to be a build up of solids in the sample. The AutoCal is used to give completely operator free operation for up to 12 months.

## Water Treatment

- Remote Sites
- Cooling Towers
- Food Preparation
- Paper Mills

Anywhere you have a requirement to measure pH is a suitable application for the pHSense. The pHSense pH meter range is particularly suited to working in sites where reliability and ease of use are most important. One area where the pHSense excels is in the measurement of pH in very low or ultra clean water.

## Multi-Sensor Systems

The whole range of pHSense pH meters can be fitted with additional sensors such as chlorine or ORP. Please ask your local distributor for more details.

*"Multi-sensor systems can save considerable sums without compromising measurement integrity"*

**Dr Craig Stracey, UK**

## Specification

### pH Electrodes

<b>Type:</b>	Combined reference, and measuring electrode
<b>Reference Type:</b>	Patented electrochemically active solid polymer junction
<b>pH Range:</b>	0-14
<b>Slope:</b>	95-102%
<b>Pressure range:</b>	0-3Bar
<b>Long Term Stability (drift):</b>	<0.01 pH/Hour
<b>Reproducibility:</b>	<0.01 pH
<b>EO:</b>	-25mV to +25mV
<b>Electrode Resistance:</b>	100-500 Mega Ohms
<b>Response Time:</b>	95% of step pH2 to pH12 <5s
<b>Temperature Range:</b>	0-90°C
<b>Cable length:</b>	6m (any length optional)
<b>Shelf Life:</b>	12 Months
<b>ATC:</b>	PT100
<b>Estimated life:</b>	24-48 months application dependent

Image of installed system

Image of Autoflush

everything you need, and nothing you don't  
find your local supplier at [www.processinstruments.net](http://www.processinstruments.net)

