



# Water Quality Analysers



## ORPSense - Continuous Online ORP Meter

The ORPSense range of ORP Meters from Pi utilise the very latest and best ORP sensors available in the world today for measuring the online Redox potential of any aqueous solution. They are platinum ball based sensors with integral reference electrodes which use 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 ORP sensors from Pi are much more reliable than others and they have a very long life" Bhupendra Patel, Africa*

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

### CRONOS® ORPSense



- High Quality and Multilingual
- Lowest Purchase Cost
- Long life
- Up to 3 sensors
- 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® ORPSense



- High Quality and Multilingual
- Low Cost
- Colour Display and Keypad
- Sophisticated Comms and Control
- Datalogging
- Up to 6 sensors
- All CRONOS® options plus:
  - texting alarms
  - remote internet access
  - automatic cleaning
  - automatic calibration
  - integrated flow control

### CRATOS ORPSense



- High Quality and Multilingual
- Medium Cost
- Colour Touchscreen
- Up to 12 sensors
- Datalogging
- All CRONOS® and CRIUS® options plus:
  - lowest cost per point

For more information please see the individual brochure - CRONOS®, CRIUS® and CRATOS

## Principle of Operation

At the Heart of the CRONOS ORPSense are the ORP electrodes. These electrodes are patented and are filled with a polymeric gel. This innovative design makes the electrodes more responsive and with a longer life than ordinary electrodes (up to 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 ORPSense 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 ORP is a suitable application for the ORPSense. The ORPSense ORP meter range is particularly suited to working in sites where reliability and ease of use are most important.

## Multi-Sensor Systems

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

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

**Dr Craig Stracey, UK**

## Specification

### ORP Electrodes

<b>Type:</b>	Platinum Ball
<b>Reference Type:</b>	Patented, solid state reference
<b>ORP Range:</b>	-1999 to 1999mV
<b>Slope:</b>	95-102%
<b>Pressure range:</b>	0-10Bar
<b>Long Term Stability(drift):</b>	<0.1 mV/Hour
<b>Reproducibility:</b>	<0.1 mV
<b>Electrode Resistance:</b>	150 mega Ohms
<b>Response Time:</b>	95% of step <5s
<b>Cable length:</b>	6m (any length optional - max 10m, -1500mV to +15mV)
<b>Shelf Life:</b>	12 Months
<b>ATC:</b>	None
<b>Estimated life:</b>	12-18 months application dependent
<b>Temperature:</b>	0-90 C
<b>Length:</b>	145mm (5,7")
<b>Diameter:</b>	26.5 mm (")



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

