



PeroxiSense

Hydrogen Peroxide Analyser

The PeroxiSense range of Hydrogen Peroxide H_2O_2 Analysers, Hydrogen Peroxide Controllers and Hydrogen Peroxide Monitors utilise the very latest and best hydrogen peroxide sensors available in the world today. They are membrane devices which use no reagents, are extremely stable, and have reduced maintenance and reduced whole life costs.

- **No chemical reagents - lower cost of ownership**
- **Stable and reliable - excellent process control**
- **Suitable for all potable, process and salt waters**
- **Up to 6 months between maintenance**
- **Up to 3 months between calibration**
- **Up to 15 years life - reduced costs**



The PeroxiSense sensors and flow cells are available with different controllers giving you the same great performance with different communication, display, and control options. With the PeroxiSense range of hydrogen peroxide analysers, you get an extremely sophisticated hydrogen peroxide analyser, hydrogen peroxide monitor and hydrogen peroxide controller.

CRONOS® PeroxiSense



- High Quality - Lowest Cost
- Multilingual
- High resolution grayscale display
- 9 buttons for easy navigation
- Graphing and datalogging
- Enclosure; wall, panel, pipe or pole mounting. IP65/Nema 4x.
- Options:
 - Modbus RS485/LAN
 - Profibus DPV 1
 - Up to 2 sensors
 - PID/flow proportional controls
 - Remote sensors
 - Colour display
 - Downloadable data logs

CRIUS® PeroxiSense



- Highest Quality - Low Cost
- Multilingual
- High resolution colour display
- Intuitive user interface
- Downloadable data logs
- Customisable home pages
- All CRONOS® options plus:
 - Up to 4 sensors
 - Remote access via LAN
 - Remote access via 3G/4G
 - Expandable to 16 sensors

For more information please see the individual brochures for CRONOS® and CRIUS®

Mounting Options



- Open overflow cell (single, double or triple)



- Single closed flow cell



- Single or double Autoflush

Principle of Operation

The membraned amperometric hydrogen peroxide sensor is a two electrode sensor which operates at an elevated applied potential which in turn eliminates zero drift. Its unique design means that no reagents or buffers are required at all and calibration is a simple one point (no zero required) operation.

In addition to the state of the art amperometric hydrogen peroxide sensor, the PeroxiSense range of hydrogen peroxide analysers has all the functionality that you need, and more. Simply choose the CRONOS® or CRIUS® controller to give you the highest quality hydrogen peroxide analyser, with all the functionality you need at the lowest price possible. This means that you pay for everything that you need and nothing you don't, without sacrificing the quality of measurement!

Water Treatment

- **Hydrogen Peroxide Dosing Control**
- **Rinsers**
- **CIP Plants**
- **Bottle Washing**
- **Sea Water**
- **Drinking Water**

Anywhere you have a requirement to measure residual H₂O₂ is a suitable application for PeroxiSense.

The PeroxiSense hydrogen peroxide analyser range is particularly suited to working in sites where reliability and ease of use are most important.

Multi-Sensor Systems

The whole range of PeroxiSense hydrogen peroxide monitors and controllers can be fitted with additional

Specification*

Type:	Membrane covered amperometric two-electrode system
Range:	0.5-200mg/l, 5-500mg/l, 5-2000mg/l, 50-10,000mg/l
Resolution:	0.1mg/l, 0.1mg/l, 1mg/l, 10mg/l (ppm)
Reproducibility:	<1%
Max. Working Pressure:	0.5 bar, no pressure impulses or vibrations
Flow rate:	Approximately 0.5l/min (min. 0.25l/min), small flow rate dependence is given
Temperature range:	0 to 45°C (no ice crystals in the measuring water)
Temperature compensation:	Automatic using an integrated temperature sensor
pH-range:	pH 2 up to pH 11
First-polarisation time:	300 min
Re-polarisation time:	30 min
Response time:	T ₉₀ : approx.5-10mins
Zero-point adjustment:	Not necessary
Calibration:	At the device, by analytical determination
Housing material:	PVC-U, stainless steel, silicone
Dimensions:	Diameter approx. 25mm, length 190mm
Maintenance intervals:	
Membrane:	12 months (dependent on water quality)
Electrolyte:	3-6 months (dependent on water quality)
Interferences:	Chlorine, Peracetic Acid and Ozone must not be present Phenol solutions >3% destroy the membrane Sulphides contaminate the measuring system

sensors such as ORP or pH. Please ask your local distributor for more details.

Cost of Ownership

With its reduced maintenance, reduced calibration and reduced spares requirements the PeroxiSense hydrogen peroxide analysers from Pi are undeniably the most cost effective H₂O₂ analysers available.

In most situations the PeroxiSense analyser is able to control the dosing of H₂O₂ by adjusting flow rates, pump rates, or valve positions automatically to maintain the hydrogen peroxide setpoint. Automatic dosing can significantly reduce reagent costs, and increase the level of control.

Autoflush

As described in a separate brochure, the PeroxiSense can come equipped to automatically clean itself at user defined intervals with all the benefits of no operator intervention. The Autoflush is particularly useful in food preparation, pulp and paper, waste water and many applications where there is likely to be a build up of solids in the sample.

For more information about the Autoflush, please see brochure [ISB36 Autoflush](#).

Installation

The PeroxiSense can be installed in a variety of auxiliary flow cells and self-cleaning devices. Please ask for details.

* All subject to change without notice