

# ORAKEL

SYSTEM

# PERACETIC ACID SENSOR

ORAKEL Peracetic Acid Sensors are membrane devices which use no reagents, are extremely stable, have reduced maintenance and reduced whole-life costs.



## KEY FEATURES

- No chemical reagents means lower cost of ownership
- Stable and reliable
- Suitable for all potable, process and salt waters
- Up to 6 months between maintenance
- Up to 15 years life

## HOW IT WORKS

The membrane amperometric ORAKEL Peracetic Acid Sensor is a two-electrode sensor that operates at an elevated applied potential, so eliminating zero drift.

Its unique design means that no reagents or buffers are required at all and calibration is a simple point (no zero required) operation.

## APPLICATIONS

Anywhere you have a requirement to measure residual  $\text{CH}_3\text{CO}_3\text{H}$  is a suitable application for the ORAKEL Peracetic Acid Sensor.

It is particularly suited to working in sites where reliability and ease of use are most important.

Conductivity acids can be tolerated but the water must not contain any tensides.

- Paracetic acid dosing control
- Rinsers
- CIP plants
- Bottle washers
- Sea water
- Drinking water

## AUTOCLEAN

In applications such as pulp and paper, food preparation and waste water, where there is likely to be a build up of solids in the sample, the **ORAKEL Peracetic Acid Sensor** can be equipped to automatically clean itself at regular intervals with all the benefits of no operator intervention.

See the *Autoflush data sheet for details.*

## COST OF OWNERSHIP

With its reduced maintenance, calibration and spares requirements, **ORAKEL Peracetic Acid Sensors** are arguably the most cost-effective paracetic acid analysers available.

In most situations, the sensor is able to control the dosing of  $\text{CH}_3\text{CO}_3\text{H}$  by adjusting flow rates, pump rates, or valve positions automatically to maintain the peracetic acid setpoint. Automatic dosing can significantly reduce reagent costs and increase the level of control.

## TECHNICAL SPECIFICATION

### Type

Membrane covered, amperometric two-electrode system.

### Range

0-200mg/l, 0-500mg/l, 0-2000mg/l, 0-5000mg/l, 0-10000mg/l.

### Resolution

0.1mg/l, 0-1mg/l, (ppm) depending on the probe range.

### Reproducibility

< 1%

### Maximum 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

0-45°C (no ice crystals in the measuring water).

### Temperature Compensation

Automatically by an integrated temperature sensor.

### pH Range

pH1 up to pH6.

### First-polarisation Time

Approximately 60 minutes.

### Re-polarisation Time

Approximately 15 minutes.

### Response Time

$T_{90}$ : approximately 180 seconds.

### Zero Point Adjustment

Not necessary.

### Calibration

At the device, by analytical determination.

### Housing Material

PVC, stainless steel.

### Dimensions

Diameter approximately 25mm, length 190mm.

### Maintenance Intervals

Membrane: 12 months (depending on water quality).

Electrolyte: 3-6 months (depending on water quality).

### Interferences

$\text{Cl}_2$  does not interfere.

$\text{O}_3$  is measured with a sensitivity of 2500 times.

$\text{ClO}_2$  is also measured.

Hydrogen Peroxide is measured with a sensitivity of 0.005 times.

>1% Sulphuric, Nitric or Phosphoric acid.

To learn more about the **Detectronic ORAKEL System** and how it can help your business, get in touch:

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