

pHOENIX Instrumentation Ltd

SERIES 800 SENSORS FOR DISINFECTION CHEMICALS



CHLORINE, CHLORINE DIOXIDE, PERACETIC ACID, OZONE & HYDROGEN PEROXIDE



pH 'Corrected' Chlorine Cell

- MEMBRANE COVERED DUAL AND TRIPLE ELECTRODE CELLS
- TWO WIRE (4-20mA) OR FOUR WIRE FORMAT
- MINIMAL INTERFERENCE
- LOW MAINTENANCE
- NOT FLOW DEPENDENT BETWEEN 30 L/H 100 L/H
- AUTOMATIC TEMPERATURE COMPENSATION

General

Depending upon the measurement the chosen sensor can be of the two (amperometric) or three (potentiostatic) electrode type.

Generally the working electrodes are gold and silver/silver chloride and so have indefinite life. The electrode combination is immersed in an appropriate electrolyte contained in the sensor body behind a permeable membrane, thereby eliminating any interference from dissolved salts.

The electrodes are extremely robust with very high zero and measuring point stability. They are normally used in a flow through cell with regulated flow but within the range of 30 l/hr - 100 l/hr there is very little flow effect. The majority of Series 600 sensors are supplied with a built in temperature compensated 4-20mA head amplifier to interface with the Series C90 controller range but uncompensated four wire electrodes requiring an applied voltage are available for use with other manufacturers' equipment.

Control Systems

The Series 800 can be supplied as part of a complete measuring and control system including flow cell and instrument.

Illustration - pH and Chlorine monitoring and control system with automatic dosing suitable for potable water or swimming pool applications



STANDARD ELECTRODE TYPES & SPECIFICATION

| Measurand | Model No. | Range | Accuracy | Туре | pH Range | Range °C | Applications |
|------------------|--------------|-----------|------------------|------------------------|-----------|----------|-----------------------------------|
| Free Chlorine | 600/CLA.IN | 0-10mg/1 | 0.01 ppm | 2 Electrodes | 5.5-8 | 0-45 | Swimming Pools |
| | | (ppm) | | 4 Wire | | | Industrial Waste |
| | 600/CL4.IH | 0-2 ppm | 0.01 ppm | 2 Electrodes 4 Wire | 5.5-8 | 0-45 | Potable Water |
| | 600/CL2.I | 0-2 ppm | 0.01 ppm | 2 Electrodes 4 Wire | 5.5-8 | 0-45 | Salt Water |
| | 600/CL4.IMA2 | 0-2 ppm | 0.01 ppm | 2 Electrodes 2 Wire | 5.5-8 | 0-45 | Potable Water |
| | 600/CL4.IMA5 | 0-10ppm | 0.01 ppm | 2 Electrodes 2 Wire | 5.5-8 | 0-45 | Swimming Pool Industrial Water |
| Total Chlorine | 600/CP2MA2 | 0-2 ppm | 0.01 ppm | 3 Electrodes | NotpH | 0-45 | Potable Water |
| | | | | 2 Wire | Dependent | | |
| | | (There is | a fuller range - | information on re | equest) | | |
| Chlorine Dioxide | 600/CD4MA5 | 0-5 ppm | 0.01 ppm | 2 Electrodes 2 Wire | 1-14 | 0-45 | Potable Water |
| Ozone | 600/OZIMA2 | 0-2 ppm | 0.01 ppm | 2 Electrodes 2 Wire | 1-14 | 0-45 | Potable Water |
| Peracetic Acid | 600/PES7N | 0-2000 | 1 ppm | 2 Electrodes | 2-12 | 0-45 | Disinfection |
| | | ppm | | 4 Wire | | | |
| Hydrogen | 600/WP7Un | 0-2000 | 1 ppm | 2 Electrodes | 2-12 | 0-45 | Disinfection |
| Peroxide | | ppm | | 4 Wire | | | |

* The majority of sensors are supplied with automatic temperature compensation

The above is a selection of the more popular models but we can provide other sensors to suit customer requirements.

Instrumentation



Any of the above sensors can be integrated with the C90/600 series of the instrumentation for monitoring or control purposes. The C90 features include:

- **Dual Display** •
- **Sensor Diagnostics** •
- Signal Output and Control Set Points ٠
- Automatic Compensation •
- Power Loss Protection •
- Auto Clean •



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