



SERIES 8000

Amperometric Residual Analyzer

- **Proprietary Auto Zero function**
- **Industry standard Amperometric Sensing**
- **Continuous electrode cleaning**
- **Eight standard field selectable ranges**
- **Measurement of free or total chlorine residual**
- **Full automatic control capability**
- **Pushbutton control of all functions**



The Enchlor Series 8000 Residual Chlorine Analyzer is an amperometric instrument designed to continuously analyze the residual concentration of free or total chlorine, chlorine dioxide or potassium permanganate in water or wastewater.

System Operation

A sample of water or wastewater containing the target chemical is pumped to a reservoir in the instrument where it is fed by gravity to the amperometric-measuring cell. A pH-buffering agent is also injected into the cell. A small current is developed within the cell, the level of which is directly proportional to the concentration of the target chemical within the sample. An on-board microprocessor-based digital controller processes the output of the cell and the residual value is displayed on the LCD readout of the instrument. The digital controller transmits a 4-20 mAdc signal for recording or remote display and is capable of outputting a signal for residual process control via one of several modes including: flow pacing and compound loop control. The dissimilar metal electrodes of the cell are continuously cleaned by PVC spheres, which are stirred within the cell by a motor driven striker. This continuous cleaning eliminates signal drift and minimizes the need for recalibration of the instrument. Temperature compensation of the cell output is provided by a thermistor, which senses cell temperature. All control and calibration functions are digital and adjustments are made via the simple, user friendly, 4-pushbutton keypad on the face of the instrument. The controller display is a 2-line by 16-character backlit LCD. All operations and calibration adjustments are menu driven through this display.

System Specifications

Ranges: 0.1 to 30.0 mg/l
>30 mg/l consult factory

Electrodes:
Measuring: Gold
Reference: Copper

Response: 4 sec. from time of sample entry

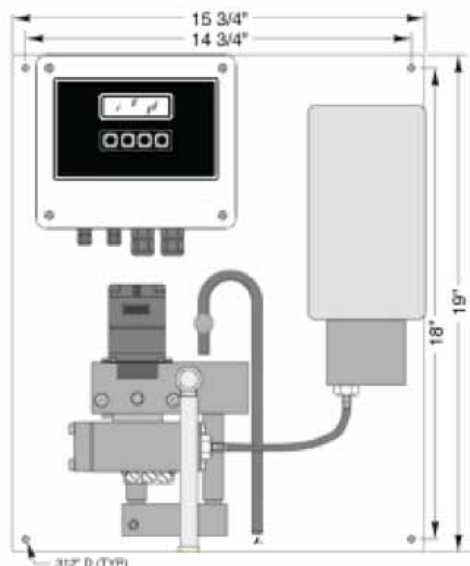
Sample flow: 500 ml/min.
Sample temp: 35-120 °F.
Ambient temp: 35-120 °F.
Power requirement: 120 V, 60 Hz, 1 phase, others available
Power consumption: 12 W

Standard Equipment

Wall panel-mounted residual analyzer
Microprocessor-based indicator/controller
Reagent bottle
Tubing and tubing clamps

Optional Equipment

Sample pump
Pressure reducing valve CO2 gas pH buffer system
Flushing Y-strainer
Dual 4-20 mAdc analog output



Instrument Specifications

Display: Backlit LCD, 2 line by 16 characters

Electronics enclosure: NEMA 4X (IP65)

Display response: 1-2 min. for full-scale step change

Alarm: Three, User programmable
Adjustable 0-full scale

Relay contacts: 1.2A @125 Vac Optional:
5.0A @ 250 Vac

Analog output: Isolated 4-20 mAdc into 500 ohms max.

Optional digital output: 20 mA serial

Accuracy: Better than 2% of range

Sensitivity: 0.001 mg/l (1 PPB)

Resolution: 0.001 mg/l (up to 2 mg/l range)
0.01 mg/l (ranges 2.0 - 30.0 mg/l)

Represented by: