

# Series RAH-210 Residual Chlorine Analyzer

- Measure: Free Chlorine, Total Chlorine or **Chlorine Dioxide**
- Continuous amperometirc measurement with continuous cleaning of the measuring electrodes
- Available with pH & temperature compensation without the use of reagent chemicals for Free Cl<sub>2</sub> measurement
- Multiple options available for applications requiring reagent chemicals
- Includes:

**Complete PID control software** (4x) 4-20mA analog outputs (4x) SPDT alarm relays **Modbus communication** 

**Optional data logging** 



#### **RAH-210-D** (with Reagent Feed Pump Kit)



## **Description of Operation**

The RAH-210 residual chlorine analyzer uses the amperometric method to determine residual levels in the sample water. The measurement cell consists of large anodic and cathodic electrodes in direct contact with the sample water. The measurement is continuous, not relying on sample and hold methods thereby allowing for better process control. A continuously driven cleaning system is employed to prevent the build up of impurities on the surface of the electrodes and reduce the need for maintenance.

The RAH-210 residual chlorine analyzer for Free Cl2 measurement is available with pH & temperature compensation performed in software. For applications with stable pH, the known pH value can be manually input for software compensation. A gravity driven pH buffer / reagent feed system or peristaltic pump are also available to inject the required chemicals for measuring Free Cl2, Total Cl2 and Chlorine Dioxide. The measuring range is field adjustable.



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## **Basic Specifications**

**MEASUREMENT** 

32° to 122°F (0° to 50°C) Temperature Range: Sample Water Flow Rate: 8 GPH (500 ml/min) ideal

2.4 GPH (150 ml/min) minimum

Sample Pressure: 5 PSI (0.3 bar) max. inlet pressure

Sample Supply: Continuous. Electrodes must be kept wet with fresh water.

Speed of Response: 4 sec. Full scale residual change = 90 to 120 sec.

Sample Water: pH range 4 to 8.5

Oxidants, surfactants and corrosion inhibitors interfere with operation

Range: 0-0.1 PPM min. 0-20 PPM max. Field adjustable Accuracy: 0.003 PPM or ±1% of range, whichever is greater

Sensitivity: 0.001 PPM

**ELECTRICAL** 

115 VAC 50/60 Hz Power:

230 VAC 50/60 Hz

10 W max.

COMMUNICATION

Analog Inputs: Up to 5x inputs

(4x) 4-20mA (selectable among: Residual, pH, ORP, Temperature, Turbidity or PID Analog Outputs:

control output

(4x) SPDT, 10 A @ 120 VAC or 5 A @ 240 VAC, 24 VDC, resistive load Alarm Relays:

Modbus: RS485 RTU

Profibus: Optionally supported

Data Logging: Optional data logging with removable MicroSDHC card.

### **RAH-210-E**

(with pH Electrode)







