

# CHLORINE RESIDUAL ANALYZER MODEL CRA3500



## BENEFITS

- Low Purchase Cost
- Low Cost of Ownership
- Reduced pH Dependency
- SMS Text Alarms
- Webserver\*
- 4-20mA and Relay Outputs
- Carbon Dioxide or Acid Buffer if Required

## OPTIONAL FEATURES

- Automatic Calibration
- Probe Ranges (0-2, 0-5, 0-10) mg/l (ppm)
- Bluetooth communications

## APPLICATIONS

### WATER TREATMENT

- Remote Sites
- Chlorine Dosing Control
- Secondary Chlorination

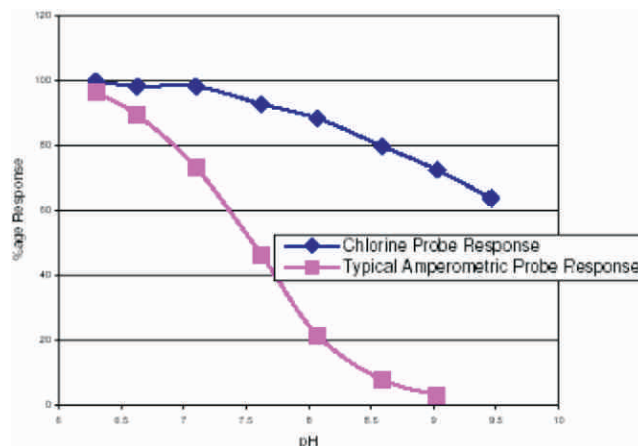
### INFLUENT / EFFLUENT MONITORING

- Surface Water Inlet
- Surface Water Outlet
- Process Water Monitoring

## DESCRIPTION OF OPERATION

The membraned polarographic probe, is enhanced with a third, reference, electrode which eliminates zero drift. Correction of pH is often not required. Where it is required there are options for using carbon dioxide or a more traditional acid buffer. A Total Residual Chlorine measurement probe option is also available. The CRA3500 offers numerous communication protocols including Bluetooth (optional), TCP/IP (with webserver), USB, RS485, TTL, Relays and 4-20mA outputs. It is possible to interface and control the CRA3500 remotely, enabling data, alarms and setup information to be sent directly to your computer, PDA or mobile phone.

Typical Probe Response to pH (Unbuffered)



Chlorine Residual Analyzer

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# GENERAL SPECIFICATIONS

## Chlorine Sensor Probe

Type:	Membrane covered amperometric polarographic three-electrode system
Measured:	Free Residual Chlorine or Total Residual Chlorine
Optional Probe Ranges:	0-2, 0-5, 0-10 mg/l (ppm)
Resolution:	0.01 mg/l (ppm)
Reproducibility:	±5%
Stability:	-2% per month (without calibration)
Working electrode:	Gold Cathode
Counter electrode:	Stainless steel Anode
Reference electrode:	Silver / silver halide
Membrane material:	Micro-porous hydrophillic membrane
Flow rate:	Approximately 0.5 l/min.
Temperature range:	> 0 up to 40 °C
Temperature compensation:	Automatically by an integrated thermistor
pH - range:	pH 4 up to pH 9.5
Permissible over-pressure:	7.25 PSI
First-polarization time:	120 min.
Re-polarization time:	30 min.
Zero-point adjustment:	Not necessary
Calibration:	Manual using DPD or Automatic (Optional)
Housing material:	PVC, silicone, polycarbonate stainless
Dimensions:	Diameter approx. 0.98 in., length 6.89 in.
Maintenance intervals:	
Membrane:	Yearly
Electrolyte:	Quarterly
Calibration reagent:	Quarterly
Interferences:	High levels of other oxidants such as Ozone and Chlorine Dioxide

## Analyzer

Power:	110-240 VAC
Display:	LCD Backlit 128x64 graphical
Outputs:	2 configurable alarms (relays) 2 4-20mA outputs
Inputs:	1 low flow alarm 1 low buffer alarm
Comms:	Bluetooth (Optional) RS485 TCP/IP (Webserver) USB TTL
Datalogging:	One year at 15 min. intervals (equiv.)
Eventlogging	500 events

## Autocalibrator **(Optional)**

Power:	110 VAC
Outputs:	Low flow alarm Low Co2 alarm (if fitted)

## Co2 pH Suppressant Unit **(If Required)**

Co2 Usage:	Variable, zero waste
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## Acid Buffer Unit **(If Required)**

Power:	110 VAC
Dosing Pump:	Peristaltic

Draft Specifications subject to change

