

# FREE CHLORINE OR MONOCHLORAMINE

## CUSTOM DISINFECTION MONITORING FOR YOUR PLANT

Get fast and accurate testing for the critical parameters in your treatment system with the new e-sens disinfection cartridges. The CR800 free chlorine and CR1300 monochloramine cartridges allow for simplified testing for your treatment and distribution system. Save time and money by using the cartridge that fits your system. Using the e-sens ROAM™, get quality data in real time through the e-sens mobile app.

### **FREE CHLORINE SYSTEMS:**

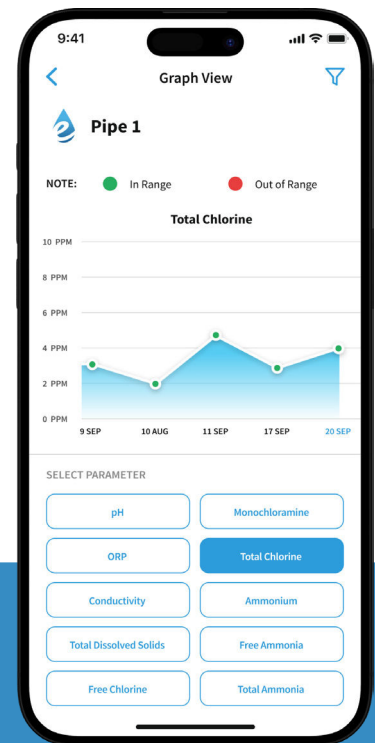
In free chlorine treatment systems, sodium hypochlorite (bleach) is added in the final steps of water treatment. This disinfection step will remove harmful microbes from the water system. Due to the instability of free chlorine, monitoring of the residual chlorine is essential to maintaining safe water throughout the distribution system.

The CR800 cartridge is designed for simplified testing in free chlorine systems. This cartridge provides fast and reportable results for free and total chlorine.

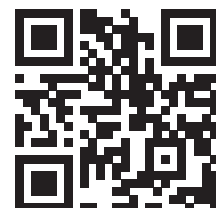
### **MONOCHLORAMINE SYSTEMS:**

The addition of ammonia to chlorinated water results in the formation of monochloramine as the disinfection process. Ammonia levels must be carefully monitored to ensure the sufficient amounts of monochloramine and prevent nitrification. Nitrification occurs when monochloramine is broken down and oxidizing bacteria converts free ammonia to nitrite and eventually nitrate. The ratio between free ammonia and chlorine is crucial to keeping the water in the system safe to drink.

The CR1300 cartridge is custom fit for monochloramine treatment systems and can provide rapid data to keep the disinfection process running smooth. Track free ammonia ( $\text{NH}_3$  &  $\text{NH}_4^+$ ), total ammonia (free ammonia + ammonium + monochloramine) and chlorines with one test using the ROAM™.



Our free mobile app allows you to collect, track, and analyze ALL your water quality parameters. Available on iOS or Android.



## CR800

## CR800 Measured Chemical Parameters:

- Designed for Free Chlorine Treatment Systems
- 150 tests per cartridge
- 45 calibrations
- Compatible with the e-sens ROAM™
- Test results in \*15 minutes for 8 parameters

Parameter	Units	Operating Range	Accuracy (Whichever is greater)		MDL
pH		5.00 - 11.00	+/- 0.1 pH	+/- 0.1 pH	5.00 - 11.00
ORP	mV	-1000 - 2000 mV	+/- 10%	+/- 10%	+/- 10%
Conductivity	µS/cm	50 - 2500 µS/cm	+/- 10%	+/- 20 µS/cm	50 µS/cm
Total Dissolved Solids	mg/L	25 - 1250 mg/L	+/- 10%	+/- 10 mg/L	25 mg/L
Free Chlorine	mg/L Cl <sub>2</sub>	0.07 - 5.00 mg/L	+/- 10%	+/- 0.10 mg/L	0.07 mg/L
Monochloramine	mg/L Cl <sub>2</sub>	0.07 - 5.00 mg/L	+/- 10%	+/- 0.10 mg/L	0.07 mg/L
Total Chlorine	mg/L Cl <sub>2</sub>	0.07 - 5.00 mg/L	+/- 10%	+/- 0.10 mg/L	0.07 mg/L
Sample Temperature	°C	2.0 - 45.0	+/- 1 °C	+/- 1 °C	2.0 °C

## CR1300 (NEW)

## CR1300 Measured Chemical Parameters:

- Designed for Monochloramine Treatment Systems
- 100 tests per cartridge
- 30 calibrations
- Compatible with the e-sens ROAM™
- Test results in \*15 minutes for 13 parameters

Parameter	Units	Operating Range	Accuracy (Whichever is greater)		MDL
pH		5.00 - 11.00	+/- 0.1 pH	+/- 0.1 pH	5.00 - 11.00
ORP	mV	-1000 - 2000 mV	+/- 10%	+/- 10%	+/- 10%
Conductivity	µS/cm	50 - 2500 µS/cm	+/- 10%	+/- 20 µS/cm	50 µS/cm
Total Dissolved Solids	mg/L	25 - 1250 mg/L	+/- 10%	+/- 10 mg/L	25 mg/L
Free Chlorine	mg/L Cl <sub>2</sub>	0.07 - 5.00 mg/L	+/- 10%	+/- 0.10 mg/L	0.07 mg/L
Monochloramine	mg/L Cl <sub>2</sub>	0.07 - 5.00 mg/L	+/- 10%	+/- 0.10 mg/L	0.07 mg/L
Total Chlorine	mg/L Cl <sub>2</sub>	0.07 - 5.00 mg/L	+/- 10%	+/- 0.10 mg/L	0.07 mg/L
Ammonium	mg/L N-NH <sub>3</sub>	0.07 - 5.00 mg/L	+/- 10%	+/- 0.20 mg/L	0.07 mg/L
Free Ammonia	mg/L N-NH <sub>3</sub>	0.07 - 5.00 mg/L	+/- 10%	+/- 0.20 mg/L	0.07 mg/L
Total Ammonia	mg/L N-NH <sub>3</sub>	0.07 - 5.00 mg/L	+/- 10%	+/- 0.20 mg/L	0.07 mg/L
Chlorine to Ammonia Ratio		0.01 - 100.00	+/- 10%	+/- 0.5	n/a
Nitrification Capacity	mg/L N-NO <sub>3</sub>	0.05 - 10.0 mg/L	+/- 10%	+/- 0.20 mg/L	0.05 mg/L
Sample Temperature	°C	2.0 - 45.0	+/- 1 °C	+/- 1 °C	2.0 °C



Call 801.839.1071

or visit [www.e-sens.com](http://www.e-sens.com)

