RESIDUAL CHLORINE DIOXIDE ANALYZER
HydroACT

DESCRIPTION

The HydroACT Reagentless Chlorine Dioxide Analyzer takes online disinfection monitoring to a new level of reliability by offering industry-leading performance, reduced pH dependency, and no requirement for zero calibration. Chemtrac's line of membrane covered Chlorine Dioxide sensors have no moving parts, no bottles of reagent to change out monthly, and quarterly maintenance takes less than five minutes to perform. HydroACT offers a versatile solution to your disinfection monitoring needs with the flexibility to accept additional sensors, as well as offering expandable I/O and PID control loops.

STANDARD FEATURES

- Includes analyzer, chlorine dioxide sensor, flow cell, 1 analog output, 1 year consumables
- No moving parts, no reagents
- Event logging

OPTIONAL FEATURES

- Expandable sensor inputs and I/O
- Color display and data-logging with microSD card download
- Modbus or PROFIBUS communictions
- Chemical feed control capability (e.g. PID)

BENEFITS

- Lower total cost of ownership
- Easy set up and maintenance
- Intuitive menu and programming functions

APPLICATIONS

Water Treatment

- Online disinfection monitoring
- Disinfection dosage control

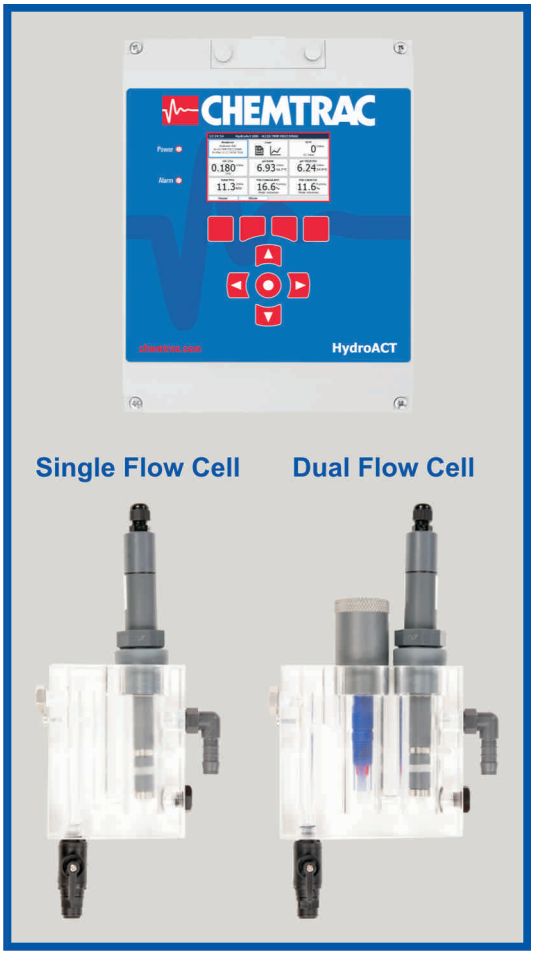
Cooling Towers

Swimming Pools

Paper Machine System Microbial Control

Legionella Control

Food Washing



Residual Chlorine Dioxide

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GENERAL SPECIFICATIONS

HydroACT Reagentless Chlorine Dioxide Analyzer

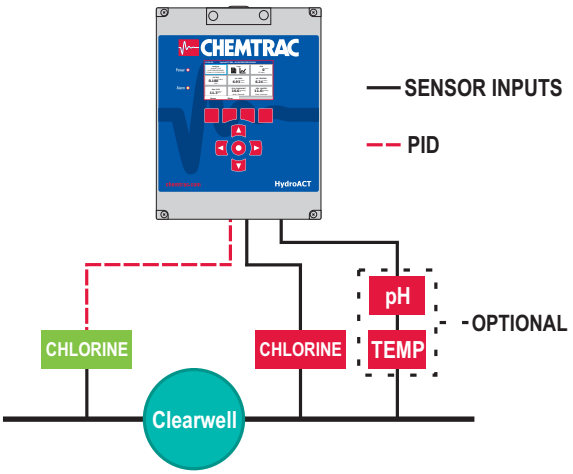
The HydroACT Chlorine Dioxide Analyzer standard configuration includes version HA2 analyzer, 1 sensor, 1 analog output, and 1 year consumables. Optional features include relays, digital inputs, digital comms, expanded number of sensor inputs and analog outputs, color display, and data download capability. Maximum I/O capabilities and certain features are specific to the different versions of HydroACT as detailed below.

HydroACT Features	HA2	HA4	HA8
Sensor limit*	2	4	8
Analog output limit*	2	4	8
Relay limit*	4	8	16
Digital input limit*	4	8	16
Color display		●	●
Data logging and download		●	●
On/Off threshold Control	optional	optional	optional
Andvanced control (e.g. PID)	optional	optional	optional
Remote (internet) access		optional	optional
PROFIBUS, Modbus		optional	optional

*Optional configuration limits. See above description for standard configuration of analyzer version & I/O setup. Optional configurations must be specified.

Sensor Options:	Free Cl, Total Cl, Cl Dioxide, Chlorite, Ozone, ORP, pH with Temperature, DO, Conductivity, SCM, UV254 Organics, TSS/NTU, Particle Counter
Available Output Type:	4-20mA
Relays (optional):	SPST electromechanical relays rated for 380 VAC, 6A max.
Alarms & Thresholds:	2 user-configurable alarms and 2 user-configurable thresholds (for control)
Chemical Feed Control (optional):	HA4 & HA8 only - PID, Feed Forward, Flow Proportional, Timer - multiple loops
Communication (optional):	Modbus ASCII/RTU (RS485), Modbus TCP (Ethernet), Profibus DP
Data Logging (optional):	Customizable data logs. 1 million records can be logged internally, and downloaded to MicroSD card.
Enclosure:	ABS flame retardant, IP65, Nema 4X
Display:	4.3", 480x272, 24 bit, grayscale Optional: color (HA4 & HA8 only)
Dimensions:	HA2 & HA4 - 9.0" W x 12.2" H x 4" D (230 mm W x 309 mm H x 1035 mm D) HA8 - 18.0" W x 12.2" H x 4" D (460 mm W 309 mm H x 1035 mm D)
Weight:	HA2 & HA4 - 4.5 lbs (2 kg) HA8 - 9 lbs (4 kg)
Warranty:	12 months from date of purchase

Example Installation Diagram

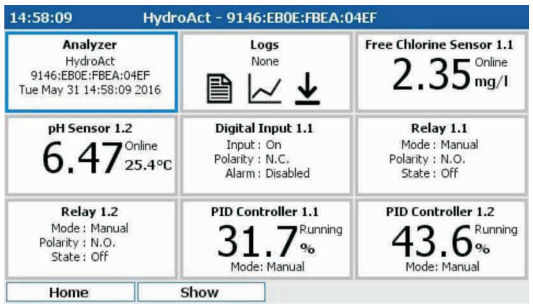


Chlorine Dioxide Sensor

Type:	Membrane-covered amperometric two-electrode system
Measured:	Residual chlorine dioxide
Probe Ranges:	0.01 - 2, 0.01 - 5, 0.01 - 10, or 0.01 - 20 mg/L
Resolution:	0.01 mg/L (ppm)
Reproducibility:	±5%
Stability:	-1% per month (without calibration)
Flow Rate:	15 to 60 L/hr.
Temperature Range:	> 41° up to < 113° F (> 5 up to < 45° C)
Temperature Compensation:	Automatically by integrated thermistor (ATC)
pH Range:	pH 2 - pH 11
Run-in Time:	First start-up approx. 1 h
Response Time:	T_{90}: approx. 1.5 min.
Zero-Point Adjustment:	Not necessary
Calibration:	At the device, by analytical determination
Housing Material:	PVC, silicone, polycarbonate, stainless steel
Dimensions:	Diameter approx. 0.98 in., length 6.89 in.
Replacement Intervals	
Membrane:	Annually (approx.) depending on water quality
Electrolyte:	3 - 6 months depending on water quality
Interferences:	Ozone - Surfactants are partially tolerated

*Not suitable for measuring or controlling for dechlorination.
Recommended to have a ClO_2 residual of at least 0.10 ppm at all times.

HydroACT System Overview Screenshot



HydroACT Graph Screenshot

(seen here with optional color display)