STREAMING CURRENT CHARGE ANALYZER
HydroACT with DURATRAC 4

DESCRIPTION

The **HydroACT Analyzer** with **DuraTrac 4 Streaming Current Sensor** is Chemtrac's most reliable and accurate Streaming Current Monitor, providing unique and versatile capabilities for optimizing coagulant or polymer dosing. With improved Streaming Current measurement capability, expansive I/O, state of the art chemical feed logic, and the ability to monitor additional parameters key to coagulation (e.g. pH, UV254, NTU), this revolutionary product offers a dependable, comprehensive, and scalable approach for tackling virtually any water treatment scenario. A well designed interface gives the user easy access to frequently used features like zero offset. Intelligent diagnostics, service reminders, advanced alarm features, and optional email/text alerts all work together to notify the user when service is required or when process conditions having changed sufficiently to warrant attention. Contact Chemtrac to discuss your application and let us provide a solution that meets your requirements.

STANDARD FEATURES

- Includes analyzer, DuraTrac 4 sensor, 1 analog output, and 25 feet of interconnect cable
- 0.2 to 10 gpm sample flow capability
- Quick-replacement, user serviceable parts
- Easy push button zero offset
- Advanced signal health diagnostics

OPTIONAL FEATURES

- Expandable sensor inputs and I/O
- Up to 1000 feet of interconnect cable
- Chemical feed control outputs
- Data logging with MicroSD download
- Modbus or PROFIBUS communications
- Color display
- Remote (internet) access

BENEFITS

- Capability of incorporating multiple measurements that are key to coagulation, such as pH, TSS/NTU, and UV254 organics
- Multiple chemical feed control options with overfeed protection, start delay, setpoint ramping, and other advanced features
- State of the art features like signal health diagnostics and pH compensation provides improved

APPLICATIONS

Water Treatment
- Respond quickly to NTU/organics changes
- Optimize coagulant usage
- Reduce sludge generation
- Improve clarifier performance
- Extend filter run time
- Reduce membrane fouling
- Monitor for overfeed of filter aids

Wastewater Treatment
- Respond quickly to changes in solids
- Reduce polymer usage
- Improve performance of DAF, Thickener, BFP, Centrifuge

Papermaking
- Track changes in wet-end charge
- Improve paper machine performance and paper quality
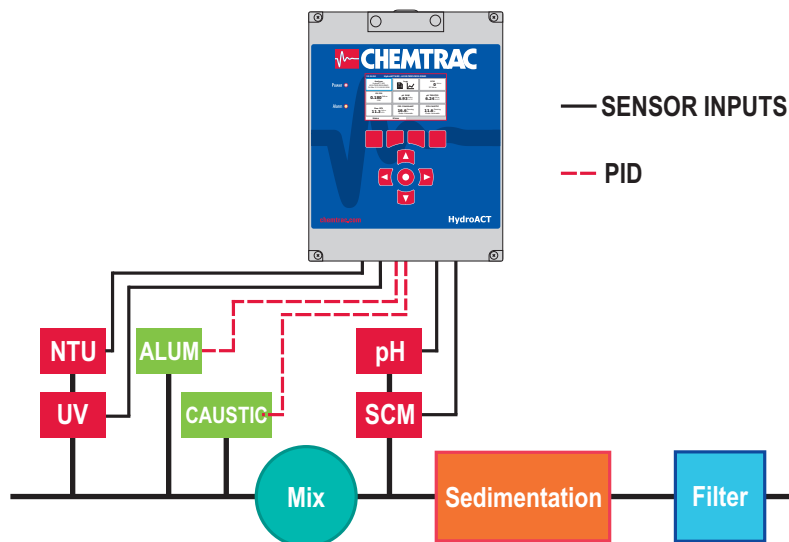
GENERAL SPECIFICATIONS

HydroACT Analyzer

The HydroACT Streaming Current Analyzer standard configuration includes version HA2 analyzer, 1 DuraTrac 4 sensor, 1 analog output, and 25 feet of interconnect cable. Optional features include relays, digital inputs, digital communications, 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

—— SENSOR INPUTS

-- PID

DuraTrac 4 Streaming Current Sensor
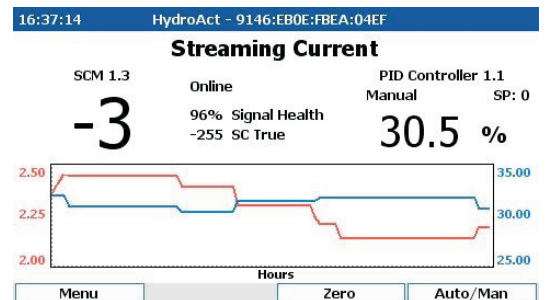
Range:	-1000 to +1000
Signal Gain:	User-adjustable, 1 to 600x
Zero Offset:	User-adjustable
Sample Flow Rate:	1 to 40 Liters per minute
Gain & Zero Offset:	User-adjustable, Manual or Automatic
Repeatability (Cond. Range)*:	Better than 2% from (10 to 250 uS) Better than 3% from (250 to 500 uS) Better than 5% from (500 to 1,000 uS)
Max Pressure:	20 psi (recommend atmospheric drain)
Probe Type:	Quick-replacement cartridge with replaceable sleeve
Sample Connections:	1" FNPT
Materials Contacting Sample:	Delrin, viton, stainless steel
Wiring Connections:	1 ea. shielded, 4 conductor, 22 AWG
Self Diagnostics:	Motor - RPM, Signal Health
Power Requirements:	110 VAC, 1 A, 60 Hz 220 VAC, 1 A, 50 Hz (optional)
Enclosure:	NEMA 4X, fiberglass reinforced
Operating Temperature:	34° - 120° F (1° - 49° C)
Dimensions:	11.2" W x 9.2" H x 6.3" D (285 mm W x 234 mm H x 161 mm D)
Weight:	10 lbs (4.5 kg)

*Repeatability/Accuracy specifications for most other SCM's are only valid when conductivity is very stable. These instruments do not perform to their specification when conductivity changes by as little as 10%. More information is available at www.chemtrac.com on the Download and FAQ tab for the DuraTrac 4 Sensor.

Optional Accessories

Automatic Sensor Flush:	Sensor flush only
Sensor Maintenance Option:	Sensor flush & chemical wash

Integrated modem and text alerts

Remote Internet access (web server) with email alerts

Streaming Current Home Screen

HydroACT Graph Screenshot