

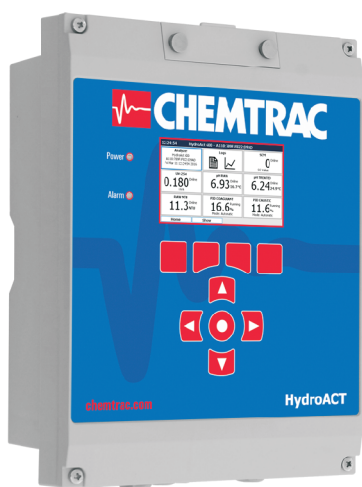


ANALYZER. CONTROLLER. TRANSMITTER.

HydroACT Series

High Quality & Scalable Solution for Water Treatment

The HydroACT analyzer offers a wide range of customizable capabilities to suit any user's requirements: from a basic analyzer with a single sensor and analog output, to a more comprehensive solution consisting of a controller with multiple sensors, several chemical feed control outputs, and digital communications (Modbus or PROFIBUS). Other optional features include analog and digital I/O, data logging, and remote access over LAN or GSM modem. The versatility of the HydroACT platform helps ensure a more affordable and flexible solution by allowing the user to purchase only the specific hardware and firmware components that they actually need, while allowing for upgrades to be performed at a later time if application requirements happen to change. The HydroACT analyzer is available in three versions. Each version offers different levels of I/O capability.



| 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 |
| Isolated universal I/O | ● | ● | ● |
| Nema 4X / IP65 | ● | ● | ● |
| Wall & panel mount | ● | ● | ● |
| Multilingual | ● | ● | ● |
| High resolution display | ● | ● | ● |
| Graphical trending | ● | ● | ● |
| Customizable data logs | | ● | ● |
| MicroSD card download | | ● | ● |
| Color display | | ● | ● |
| On/Off threshold control | optional | optional | optional |
| Advanced control (e.g. PID) | optional | optional | optional |
| Remote (internet) access | | optional | optional |
| PROFIBUS, Modbus | | optional | optional |

*Sensors, I/O, and relays are all optional and must be specified at time of ordering. See specifications on back for important details.

HydroACT offers full integration with a wide variety of sensors including:

- Free Chlorine
- Total Chlorine
- Chlorine Dioxide
- Chlorite
- Ozone
- ORP
- pH
- Streaming Current
- UV254
- Particle Counter
- TSS / NTU
- Dissolved Oxygen
- Peracetic Acid
- Flow
- External Inputs

Applications for HydroACT in municipal and industrial markets include:

- Disinfection
- Coagulation
- Filtration
- Finished Water/Distribution
- RO Pretreatment
- Aeration
- Liquid / Solids Separation (WWT)
- Clean Liquid Contamination
- Corrosion Product Transport

HydroACT Series

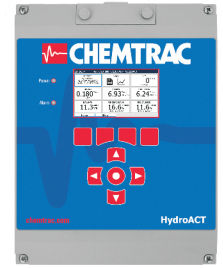
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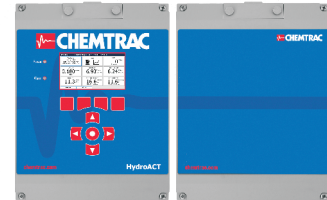
GENERAL SPECIFICATIONS

ANALYZER

| | HA2 | HA4 | HA8 |
|---------------------------|---|---|----------|
| Power | 100-240 VAC / 0.25 A or 12 VDC / 0.8 A (standard) or 24 VDC (optional) | | |
| Display | 4.3", 480x272, 8 bit, grayscale | 4.3", 480x272, 24 bit, color | |
| Sensor Inputs | Up to 2 | Up to 4 | Up to 8 |
| Sensor Options | Free Cl, Total Cl, Cl Dioxide, Chlorite, Ozone, pH with Temperature, ORP SCM, UV254 organics, TSS/NTU, DO, Conductivity, Particle Counter | | |
| External Input (optional) | 4-20 mA, 4-20 mA loop-powered, 0-2 VDC, +/- 1200 mV for pH / ORP / ISEs | | |
| Analog Outputs (optional) | Up to 2 | Up to 4 | Up to 8 |
| | Menu configurable outputs: 4-20 mA (Note: unused sensor inputs can be used as outputs) | | |
| Relays (optional) | Up to 4 | Up to 8 | Up to 16 |
| | SPST, electromechanical, 380 VAC, 6 A max | | |
| Digital Inputs (optional) | Up to 4 | Up to 8 | Up to 16 |
| Alarms & Thresholds | 2 user-configurable alarms & thresholds with deadband and delay for each parameter and control output | | |
| Control Loops (optional) | Up to 2 | Up to 4 | Up to 8 |
| Control Types (optional) | High / Low Threshold | PID (with start delay and SP ramping options), feed forward (NTU/UV), flow pacing, high/low threshold, timer | |
| Communication (optional) | Modbus ASCII/RTU (RS485), Modbus TCP (Ethernet), PROFIBUS DP | | |
| Data & Event Logging | 1,000 event / status records stored in internal memory | 1 million records stored internally storage expandable with MicroSD card | |
| Modem (optional) | None | GSM / GPRS / 3G intergrated modem | |
| Remote Access (optional) | None | Internet browser access, alerts and reports via email (requires ethernet or modem card) | |
| Enclosure | ABS flame retardant, NEMA 4X / IP65 | | |
| Dimensions & Weight | HA2 & HA4: 9 in (230 mm) x 12.2 in (309 mm) x 4.1 in (103 mm); 4.4 lbs (2 kg) HA8: 18 in (460 mm) x 12.2 in (309 mm) x 4.1 in (103 mm); 4.4 lbs (2 kg) | | |



HA2 / HA4



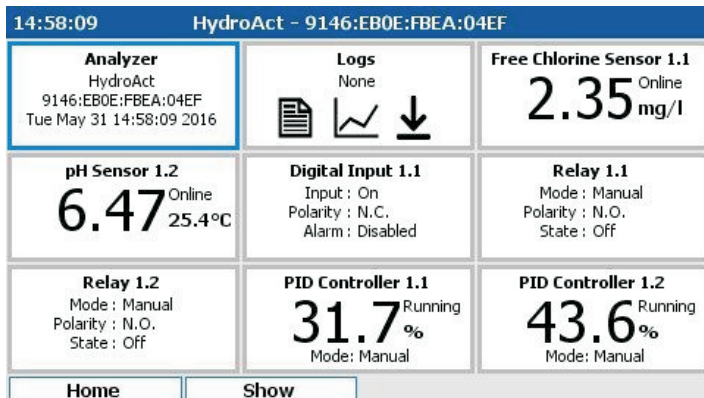
HA8

SENSORS

| Sensors | Ranges | Number of Available Parameters |
|------------------|-----------------------------|----------------------------------|
| Free Chlorine | 2, 5, 10, 20, 200 mg/L | 1 (Free Cl) |
| Total Chlorine | 2, 5, 10, 20 mg/L | 1 (Total Cl) |
| Chlorine Dioxide | 0.5, 2, 5, 10, 20 mg/L | 1 (ClO ₂) |
| Chlorite | 2 mg/L | 1 (Chlorite) |
| Ozone | 0.2, 0.5, 2, 5, 10, 20 mg/L | 1 (O ₃) |
| pH with Temp | 0-14 | 2 (pH, Temperature) |
| ORP | -1999 to 1999 mV | 1 (ORP) |
| TSS/NTU | 50-4,000 NTU, 0-20 g/L | 3 (% solids, mg/L (or ppm), NTU) |

| Sensors | Ranges | Number of Available Parameters |
|-----------------------|-----------------------------------|---------------------------------------|
| Streaming Current | -1000 to 1000 SCV | 3 (SCV, Motor RPM, Signal Health) |
| UV254 | 0-100% UVT, 0-2 UVA | 2 (UVT, UVA) |
| Conductivity | 0-1,000 mS/cm ² | 2 (Conductivity, Temperature) |
| Torodial Conductivity | 0-2,000 mS/cm ² | 2 (Conductivity, Temperature) |
| Dissolved Oxygen | 0 to 50 mg/L 0-450% Saturation | 3 (mg/L, % Saturation, Temp) |
| Particle Counter | 2 to 100 micron | 6 (Up to 6 Size Bins - counts or ppb) |
| External Inputs | User Defined | 1 (User Defined) |

HydroACT System Overview Screenshot



HydroACT Graph Screenshot

