



# MULTI-PARAMETER ANALYZER

## HydroACT 600

### KEY FEATURES

- Capable of accepting up to six measurements including: Free Chlorine, Total Chlorine, Chlorine Dioxide, Ozone, pH & Temp, ORP, DO, and BioSense\*
- Capable of providing up to six analog outputs, eight relays, and four digital inputs\*
- Data log and system log
- Color display with graphical trending capability
- Isolated inputs and outputs
- \*Could require purchase of additional I/O

### OPTIONAL FEATURES

- Larger Display (Touchscreen)
- PID control capability
- Integrated modem with text alarms
- Remote internet access
- Modbus communication (RTU or TCP)
- Low flow detector

### BENEFITS

- No reagents or moving parts
- Easy set up and maintenance
- Intuitive menu and programming functions
- Low purchase and ownership cost

### APPLICATIONS

Water and Wastewater Treatment  
Swimming Pools  
Cooling Water Monitoring

Paper Machine System Microbial Control  
Legionella Control  
Food Washing

### DESCRIPTION

The HydroACT 600 analyzer provides expanded capability beyond Chemtrac's model HydroACT 300. The 600 model expands the number of possible measurements and analog outputs from 3 to 6 while also providing a color display, data logging, isolated inputs and outputs, and PID Control capability as standard features. Simply decide which measurements and features you need and the HydroACT 600 is outfitted to meet your exact needs at the best possible price. Unsure what you need? Contact a Chemtrac representative who will help you determine the best configuration for your application. Customers who need more measurements or analog outputs than what the model 600 provides should consider the HydroACT 1200.



Residual Chlorine

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# GENERAL SPECIFICATIONS

## Analyzer

|                      |  |
|----------------------|--|
| Power:               | 100-240 VAC, 12 VDC (optional)   |
| Display:             | LCD Backlit 128x64 graphical, color  |
| Sensor Options:      | Free Cl, Total Cl, Cl Dioxide, Ozone, pH, ORP, DO, BioSense  |
| Sensor Inputs:       | 1 input with option to add 5 additional for total of 6<br>pH with Temp counts as 2 inputs                  |
| Digital Inputs:      | 2 (e.g. low flow switch) with option to add 2 additional for total of 4                                    |
| 4-20mA Outputs:      | 1 output with option to add 5 additional for total of 6 (750 ohm load)<br>PID option will utilize 1 output |
| Relays:              | 2 relays with option to add 6 additional for total of 8 (250 VAC, 8A / 30 VDC, 8A)                         |
| Comms:               | Optional: Modbus (RTU, TCP)  |
| Datalogging:         | 8000 data points per channel   |
| System Eventlogging: | 8000 events  |
| Expansion Slots:     | 4  |
| Micro SD Slot:       | 1  |
| Enclosure:           | Nema 4X/IP65, ABS body, Polycarbonate lid  |
| Dimensions:          | 9.0" W x 9.3" H x 5.3" D<br>(230 mm W x 237 mm H x 135 mm D)   |
| Weight:              | 4.4 lbs (2 kg)   |

## Chlorine Sensor Probe (Free or Total)

|                            |   |
|----------------------------|---|
| Type:                      | Membrane-covered amperometric three-electrode system  |
| Measured:                  | Free residual chlorine or total residual chlorine   |
| Optional Probe Ranges:     | 0.01 - 2, 0.01 - 5, or 0.01 - 10 mg/L (ppm)<br>0.01 - 200 mg/L (ppm) (2 electrode sensor that is sensitive to pH variation) |
| 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  |
| 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 4 - pH 9   |
| Permissible Over-Pressure: | 7.25 psi (0.5 bar)  |
| 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 steel   |
| Dimensions:                | Diameter approx. 0.98 in., length 6.89 in.  |
| Replacement Intervals      |   |
| Membrane:                  | 12 - 18 months  |
| Electrolyte:               | 3 - 6 months  |
| Interferences:             | Surfactants and high levels of other oxidants such as ozone and chlorine dioxide  |

## Chlorine Dioxide Sensor Probe

|                            |   |
|----------------------------|---|
| Type:                      | Membrane-covered amperometric two-electrode system                          |
| Measured:                  | Chlorine dioxide  |
| Optional Probe Ranges:     | 0.01 - 0.5, 0.01 - 2, 0.01 - 5, 0.01 - 10, or 0.01 - 20 mg/L (ppm)          |
| Resolution:                | 0.01 mg/L (ppm)   |
| Repeatability:             | < 1%  |
| Working Electrode:         | Gold cathode  |
| Counter Electrode:         | Anode: combined reference and counter electrode of silver/silver halogenide |
| Flow Rate:                 | 15 to 60 L/hr   |
| Temperature Range:         | > 41° up to 131° F (> 5° up to 55° C)                                       |
| Temperature Compensation:  | Automatically by integrated thermistor (ATC)                                |
| pH Range:                  | pH 1 - pH 11  |
| Permissible Over-Pressure: | 14.5 psi (1 bar)  |
| First Polarization Time:   | 60 min.   |
| Re-Polarization Time:      | 30 min.   |
| Zero-Point Adjustment:     | Not necessary   |
| Calibration:               | Manual using analytic determination   |
| Housing Material:          | PVC, silicone, polycarbonate, stainless steel                               |
| Dimensions:                | Diameter approx. 0.98 in., length 6.89 in.                                  |
| Replacement Intervals      |   |
| Membrane:                  | Annually  |
| Electrolyte:               | Bi-annually   |

## pH Sensor Probe

|                              |  |
|------------------------------|--|
| Type:                        | Combined reference, and measuring electrode              |
| Reference Type:              | Patented electrochemically active solid polymer junction |
| pH Range:                    | 0-14   |
| Slope:                       | 95-102%  |
| Pressure Range:              | 0 - 45 psi (0 - 3 bar)                                   |
| Long Term Stability (drift): | < 0.01 pH/hour   |
| Reproducibility:             | < 0.01 pH  |
| EO:                          | -25 mV to +25 mV   |
| Electrode Resistance:        | 100-500 megaohms   |
| Response Time:               | 95% of step pH2 to pH12 < 5 sec                          |
| Temperature Range:           | 32° - 194° F (0° - 90° C)                                |
| Cable Length:                | 20 ft. (6 m)   |
| Shelf Life:                  | 12 months  |
| Temperature Compensation:    | Automatically by integrated thermistor PT100 (ATC)       |
| Estimated Life:              | 24 - 48 months (application dependent)                   |