

## Cooling Tower Controller



The **ProMtrac** water treatment controller from Aquatrac provides the latest in water management technology. With available options, the ProMtrac controller is designed to provide the highest degree of control and flexibility with low cost metering pumps.

The **ProMtrac** is available as a stand-alone controller or complete packaged system suitable for use in any cooling system. It will control chemical & water costs by maximizing cooling tower cycles and accurately controlling feed pumps using pulse outputs instead of on/off control. Selectable options allow you to optimize the benefits of a low cost controller.

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### Features

- Combination conductivity & thermal flow sensor
- 4 relay outputs
  - 1 blowdown valve relay output
  - 3 digital pulse outputs for chemical pumps
- Selectable inhibitor feed
- Dual 28 day biocide timers
- Optional pH or ORP Control
  - In lieu of second biocide
- 5-key universal keypad
- 2 line, 16 character backlit display
- Built-in diagnostics
- NEMA 4X Enclosure
- Optional packaged backplane system
- System comes standard with ProMinent® Concept<sup>PLUS</sup> metering pumps
  - Integral bleed valve prevents “loss of prime”
  - PVDF wet ends eliminate compatibility concerns

### Communication Options

- Ethernet Networking using web browser\*
- 4-20 mA conductivity output
- Dry contact alarm relay

**NOTE:** *may only select one option*

*\* no additional software necessary*

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## Specifications

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	Rating—Detail	Notes
<b>Analog—Digital I/O</b>		
Combo Conductivity Sensor with thermal flow switch	Auto ranging from 100uS to 10000uS	Single point calibration Temperature Compensated
Temperature	35°F to 125°F ( 5°C to 53°C )	Displayed as F or C
pH Sensor (optional)	0—14pH	
ORP Sensor (optional)	0—500mV	
4-20mA Output (optional)	Single DC Isolated Loop Powered	User definable span, Alarm on Open Loop, User select loop sensor
Digital Inputs (2)	1 Water Meter, 1 Flow Switch	Configurable for both Contact Head & Turbine meters
Relay Output	1 SPST	Powered by controller, fused @ 5A
Digital Outputs	3 variable frequency controls for 0 to 400 SPM pumps	Select 1 of 6 ProMinent pumps
Alarm Relay (optional) Dry Contact set	500mA, 24VDC	Normally Closed Contact, open on alarm
<b>Communications User Interface</b>		
Keypad—LCD	5 Key Tactile Feedback, Universal Characters	Scan rate 100 mS nominal
	2 Line x 16 Character, Backlit	User adjustable contrast
10Base T, TCP/IP Ethernet LAN (optional)	HTML micro web server with User defined static IP	Browser shows Remote command & control
<b>Controls</b>		
Bleed	On conductivity, volume or time	User selectable mode
Inhibitor Feed	On PPM setpoints, bleed based or time	Daily volume fed limit
Timed Biocides	User set volume for each event	Prebleed & Lockout. 1,7 & 24 day feed cycles
ORP	Proportional frequency control	Base feed option. Daily volume limit. Control in either Oxidant or De Chlor mode.
pH	Proportional frequency control	Volume feed option. Cycle volume limit. Control in either Acid or Caustic mode
Interlocking	Flowswitch OFF stops pumps & bleed	
Blocking	Optionally block inhibitor on biofeed	
<b>System</b>		
Electrical	120 / 240VAC 50/60 Hz	Switch Selectable
Fusing	5 Amps @ 120VAC	Relay Fused @ 5A.
Surge Suppression	Relay snubbed @ 0, 0.1uF, 150ohm	Controller Isolated from AC Line
Accessory Power	15-22VDC Unregulated, thermally fused @ 50mA	
Enclosure	Non-Metallic NEMA 4X, IP67	6.75" x 6.5" x 3.5" (171mm x 165mm x 89mm) H-W-D
<b>Certifications</b>		
CSA: Pending		CSA tested to comply with UL

**PRT-CTF-IN-TB-TB**

Conductivity Control, Selectable Inhibitor Feed & Dual Biocide Timer \*

**PRT-CTF-IN-OX-TB**

Conductivity Control, Selectable Inhibitor Feed, ORP Control & Single Biocide Timer \*

**PRT-CTF-IN-PH-TB**

Conductivity Control, Selectable Inhibitor Feed, pH Control & Single Biocide Timer \*

**CL** 4-20mA Output on Conductivity, pH or ORP \*\* (Fully isolated output, Loop Powered)

**LB** Ethernet Networking \*\*

**AR** Alarm Contact \*\*

\* Conductivity Sensor includes a 3/4" NPT SCH80 PVC 'T' and Thermal Dispersion Flow Sensor.

\*\* Select only one communication option, LB, CL or AR. Communications options cannot be combined.