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CTP-300 Cooling Tower Panel



CTP 300 Series Panel

- Convenient Wall Mount Design
- Master One Controller
- Conductivity, pH and ORP Sensors
- On-Board Sensor Manifold
- Lock Out Flow Switch
- On-board Pump Receptacle
- On-Board Chemical Injection Ports
- Isolation Valves
- Unions & Strainer
- PVC Fittings & Piping
- NPT Connections
- Simple To Use
- Plug N' Play Installation
- Two Year Warranty

The CTP-300 series is ideal for managing the chemical treatment programs for cooling tower systems.

These pre-engineered systems provide a convenient pre-plumbed panel mounted configuration of easy to use integrated controls, multiple sensor housings and 4 discreet chemical feed injection points in a ready to install "plug and play" configuration.

In addition, a pre-labeled relay outlet box is included for up to four chemical feed pumps.

Any chemical metering pumps may be integrated into the system. A modular pump shelf which holds up to four solenoid type metering pumps may be added.

For the most comprehensive control and monitoring system, our CTP-300 is the product of choice. This model uses the industry leading WebMaster One controller.

The CTP-300 cooling tower control system is capable of measuring system conductivity, makeup conductivity, pH, ORP, and temperature. It can manage cycles of concentration and the treatment chemicals (Inhibitors, dispersants, biocides and oxidants) at precise, pre-determined control values.

The WebMaster One is on duty 24 hours a day, 365 days a year. Keeping on-site and off-site personnel notified of system performance while providing reliable control of the water treatment program.

Operational Overview

The pre-tested system is delivered ready to be plugged in and wall mounted.

The cooling system water sample enters the flow through sensing manifold, goes through a strainer and a smart flow lock out switch which prevents the controller from operating without water flow.

The water passes through three sensor reading ports (pH, ORP, and Conductivity are typical) where data is collected and sent to controller. The water then enters the chemical injection manifolds where up to four chemicals can be injected. Two separate manifolds and distanced feed points prevent unwanted chemical interactions.

The treated water returns to the system, maintaining proper residuals of treatment chemicals.

Ask about installation and start up!



Cooling Tower Control Panel — CTP Series

Chemical Dosing Control

Chemical feed is selectable from bleed and feed, feed as a percentage of bleed, feed as a percentage of time, and feed based on a water meter contactor input. The inhibitor chemical feed output standard is on/off control with four choices of feed modes. These control relays have limit timers to prevent runaway control.

The biocide programs provide a conductivity-based or a time-based pre-bleed prior to the biocide addition and a time-based lockout of the bleed after the biocide addition. A dispersant, surfactant or penetrant may be added, either before or after the biocide addition. Biocide feed is selectable from up to 10 times per day, a weekly cycle, a two week cycle, or a 28 day cycle.

The controller can interlock any relay output based on a digital input, or based on another specific relay being active. Manual activation of the relays is easily accomplished via the keypad, or a PC.

Inputs / Outputs

The conductivity sensors can be either a contacting style or an electrodeless style. All sensors have integral signal conditioning. Inputs include a flow switch, two water meter inputs, up to (8) eight 4-20 mA inputs and up to (9) nine digital inputs which are configurable for level sensors, corrosion monitors, chemical feed verification switches, generic interlock operation, or any other type of transmitter, providing appropriate units of measure and scaling. Outputs include eight mechanical relays, and up to four (4) optional 4-20 mA outputs. Any relay may be reconfigured to any one of a number of control algorithms, responding to the signal from any input desired. A maximum output on-time on the control relays prevents runaway control. The conductivity, pH, and ORP control outputs are on/off control with adjustable dead band.



WebMaster One

Communications and Reporting

The embedded web server in the CTP-300 controller utilizes standard TCP/IP Internet communications allowing access anytime, from anywhere using your Internet browser by using the patented, ultra-secure, Shoulder Tap technology. This access allows multiple users (with a graduated password protection system) to configure the controller, collect data logged information, and control the relay outputs. The controller provides notification of alarm conditions via dry contact closure, pager, and/or email.

Access to the controller is possible using an USB connection, Ethernet, direct modem-to-modem, via the Internet, or via the local display and keypad, simultaneously if desired.

Status reports and data files can be sent automatically via email on either a cyclical basis or for a specific date range. No proprietary software is required on the user's computer to communicate with the controller, or to view or change set points and the controller software is upgraded remotely via the Internet. Integration with DCS, SCADA system or building energy management systems is possible using the optional Modbus TCP/IP feature.

Handy features such as a self test to verify the integrity of the control module's sensor input circuitry, a reminder for electrode calibration and a display of evaluation of the pH sensor's slope versus theoretical after each two point calibration makes the CTP-300 the clear leader in reliability and convenience.