The PULSAtrol 9200 Series provides microprocessor based control of recirculating cooling water systems. Accurately control the level of dissolved solids based on µS/cm, and depending on model selection control conductivity and pH.

The PULSAtrol 9000 Series cooling tower controllers represent a significant improvement in the PULSAtrol product line. We simplified the configurations to bring you the most popular features as standard without compromising the flexibility to select the product you need to meet your specific requirement. All controllers come standard with a complete flow assembly mounted to a polypropylene backboard. All the installer needs to do is mount the assembly to the wall and connect the power and water.

In addition to the mounted flow assembly, all MC9200 Series include as standard, a pre-wired selectable timer (except MC9220), alarm output relay, dry contact alarm output and water meter totalizer. Options include up to two 28-day biocide timers, single or dual 4-20 mA outputs, communications and agency approvals.

All continuously monitored sensor input functions (conductivity, pH) provide user definable set points for maintaining a specific value within the system. Each set point has a user definable differential as the control band, programmable high and low alarm points and user defined limit timer for pH.

The controller has the optional capability of serial communications using PULSAworks software. The serial communications can occur either by direct RS232 port, or remotely via an optional internal modem. PULSAworks allows the user to access real-time system values and remotely change operating parameters. The user may download data history files and save files to disk. History files may be viewed and printed in table or graph form, the graph form can be user customized. The optional internal modem allows the controller to perform alarm call back for alarm condition notification to a pager or computer running PULSAworks software.

Features

- One user selectable chemical feed timer and up to two 28-day event timers.
- Two point calibration.
- Dry contact water meter input capability.
- Alarm powered and dry contact relays.
- Alarm LED, relay and optional remote callback status.
- Convenient keypad menu access, display contrast adjustment and HOA relay control.
- Self charging capacitor to maintain time and history for up to two weeks in the event of a power loss to controller.
- Relay, general alarm, flow alarm and power status LED's.
- Prewired incoming power and relay output connections on specified models (receptacle cords).
- Modular flow assembly with flow switch, quick release sensors and sample port mounted on a polyethylene panel.

Operating Benefits

- Easy to use.
- Many options to customize controller.
- Two year warranty.
- Feed timer user selectable (except MC9220)
  - Percent
  - Limit
  - % Post Bleed
  - Pulse Timer

Aftermarket

- Solenoids
- Motorized Ball Valves
- Water Meters
- Corrosion Coupon Racks
- Metering Pumps (PULSAtron, XP Series)

MC9200 Series
Cooling Tower Controller

PULSAtrol® MC9200 Series
Specifications and Model Selection

MODEL	CONDUCTIVITY CONTROL	pH	SELECTABLE TIMER	28 DAY TIMER	4-20mA [1] OUTPUT	WATER METER INPUT [2]
MC9210	1		1	2	2	1
MC9220		1		2	2	
MC9230	1	1	1	1	2	1

Note: Standard conductivity sensor is stainless steel.
1. See List Price Schedule for 4-20mA options.
2. Water meter is dry contact.

Engineering Data

Conductivity Range:	0-500, 0-2,000, 0-5,000, 0-10,000 and 0-20,000 µS/cm
pH Range:	0 - 14 pH
Accuracy:	± 1.0% (At Point of Measure Excluding Sensor)
Display:	2 x 16 Alpha Numeric, Lighted Display
Analog Outputs:	Two
Alarm Dry Contacts:	Two – NO/NO
Relay Outputs (Powered):	Five
Timers:	Selectable and 28 Day
Max Pressure of Standard Flow Assembly:	125 PSI (8.6 BAR) @ 125^{0}F (52 ^{0}C)
Hi/Lo Alarm Indicator:	Standard
10 Bit A/D Resolution:	Standard
Front Panel H/O/A Control:	Standard
Recessed Front Panel Power Switch:	Standard
Lockable Viewing Window:	Standard
Control Output:	Line Voltage @ 600 VA Per Relay (5 amps @ 120VAC
Power:	90-250 VAC @ 50/60 Hz, 100 VA
Electronic Environment:	0° - 125°F (-17.8 - 52°C) 100% Humidity
Standard Plumbing:	Glass Filled Polypropylene (GFPPL) Slip or Threaded
Enclosure:	NEMA 4X – High Impact Resistant Polystyrene
Panel:	Polyethylene
Shipping Weight:	approx. 20 lbs (9.2 kg)

Models: All Models and standard flow assemblies are mounted on a polyethylene panel

MC9210: Conductivity Control
Pre-wired Selectable Timer
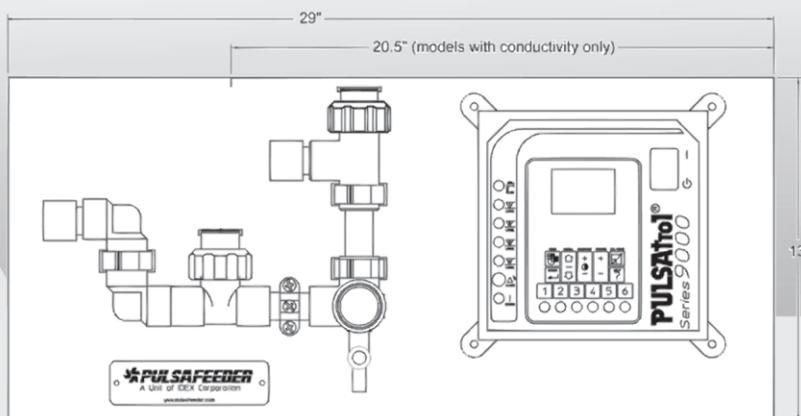Alarm Output Relay
Dry Contact Alarm Output
Water Meter Totalizer

MC9220: pH Control
Alarm Output Relay
Dry Contact Alarm Output

MC9230: Conductivity Control
pH Control
Pre-wired Selectable Timer
Alarm Output Relay
Dry Contact Alarm Output
Water Meter Totalizer

Dimensions