

Controllers from PULSAtrol MCT Series continuously protect cooling systems from the harmful effects of scaling, corrosion, and microbiological growth. They are designed using advanced microprocessor technology and the latest in surface mount assembly techniques. The result is amazing versatility in a compact, reasonably priced controller package. The units are simple to program using the clearly labeled keypad and the bright alphanumeric display. And PULSAtrol's distinctive receptacle cords make easy to connect any electrical device being controlled.

The MCT Series controllers offer a wide range of additional options to help you select the proper controller for your specific needs. Conduit connections are available where hard wiring is preferred and are required for 220VAC service. The optional mounted flow assembly is used to interrupt the controller's outputs when there is less than 1 GPM of flow. A high pressure (250 PSI max) flow assembly is available for applications above 125 PSI.

The selectable timer is an available option allowing chemicals to be dosed by any one of the following: percent, pulse with accumulator, percent post blow down, or a limit timer (9 hr 59 min Max). An alarm output relay is available to provide an A/C output to an alarm device such as a strobe light or warning siren. Additionally, an alarm dry contact is also available to send an alarm signal to integral building management systems or other controls.

Biological growth can be easily controlled using the optional 28-day biocide timer; this timer is available as a single, dual, or even triple biocide control. Applications where make up water conductivity varies may require the make up conductivity option. This allows for control of the towers based on cycles of concentration. Controllers that have pH control (except the 120 and 230) can also have the added feature of ORP control, allowing control or monitoring of your oxidizing chemicals. Programmable proportional 4-20mA outputs can be added to allow for control of metering pumps, or remote monitoring of system inputs.

The PULSAworks[®] serial line communication option can be ordered with or without an internal modem. These unique features allow for the user to monitor and change the system parameters directly or from a remote location. Data history time stamps are stored at user defined intervals between 1 and 120 minutes. Up to 372 time stamps can be stored before the controller begins to overwrite the existing data. These data history time stamps can then be displayed in chart or tabular format.

Features

- A high resolution 10 bit A/D converter and adjustable analog sample sensitivity for greater accuracy from all sensor inputs
- Control TDS, pH or ORP
- Fully isolated differential inputs for all circuits help prevent the possibility of ground loops
- Keypad activated hand/off/auto control of all relay outputs
- Modular hardware and software for easy access and servicing
- A prewired NEMA 4X enclosure for protection from harsh environments



Operating Benefits

- Easy to use.
- Many options to customize controller.
- Two year warranty.



MCT100 Series



MCT200 Series

Aftermarket

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



PULSAtrol[®]

**MCT100/200 Series
Cooling Tower Controller**

PULSA[®] MCT100/200 Series

Specifications and Model Selection

STANDARD FEATURES		AVAILABLE FOR OPTIONS					
		analog in	digital in	analog out	dry contact	relay out	serial comm
120	pH Control with Hi/Lo Alarm Indicator	0	1	1	1	2	0
130	ORP Control with Hi/Lo Alarm Indicator and Limit Timer (9 hours 59 min. max.)	0	1	1	1	2	0
210	Conductivity control with Hi/Lo Alarm Indicator	1	2	2	1	3	1
220	pH Control with Hi/Lo Alarm Indicator, Limit Timer (9 hours 59 min. max. & Flow Assy)	1	2	2	1	3	1
230	Conductivity and pH Control with Flow Assembly Conductivity - Hi/Lo Alarm Indicator and Selectable Timer pH - Hi/Lo Alarm Indicator and Limit Timer (9 hours 59 min. max.)	0	1	2	1	1	1

Engineering Data MCT100 Series

Conductivity Range: 0-500, 0-2,000, 0-5,000, 0-10,000 and 0-20,000 µS/cm

Sensors: Consult Factory

pH Range: 0 - 14 pH

ORP Range: ± 1,000 mV

Resolution: ± 0.10 pH or 1 mV

Accuracy: ± 1.0% (At Point of Measure Excluding Sensor)

Auto/Manual Outputs: Menu selectable

Display: 1 x 8 Alpha Numeric, Lighted Display

Analog Inputs: One

Digital Inputs: Two

Analog Outputs: One

Alarm Dry Contacts: One

Relay Outputs: Three

Timers: Programmable

Differential: Programmable

Max Pressure of Standard: 200 PSI (14 BAR) @ 70°F (21 °C)

Flow Assembly: 125 PSI (8.6 BAR) @ 125°F (52 °C)

Hi/Lo Alarm Indicator: Standard

10 Bit A/D Resolution: Standard

Front Panel H/O/A Control: 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 (GFPPPL) Slip or Threaded

Enclosure: NEMA 4X – High Impact Resistant PVC

Controller Weight: 6 lbs (2.5 kg)

Shipping Weight: 8 lbs (3.7 kg)

Engineering Data MCT200 Series

Conductivity Range: 0-500, 0-2,000, 0-5,000, 0-10,000 and 0-20,000 µS/cm

Sensors: Consult Factory

pH Range: 0 - 14 pH

ORP Range: ± 1,000 mV

Resolution: ± 0.10 pH or 1 mV

Accuracy: ± 1.0% (At Point of Measure Excluding Sensor)

Auto/Manual Outputs: Menu selectable

Display: 2 x 16 Alpha Numeric, Back Lit Display

Analog Inputs: Two

Digital Inputs: Three

Analog Outputs: Two

Alarm Dry Contacts: One

Relay Outputs: Four

Timers: Programmable

Security Code: Standard

Differential: Programmable

Max Pressure of Standard: 200 PSI (14 BAR) @ 70°F (21 °C)

Flow Assembly: 125 PSI (8.6 BAR) @ 125°F (52 °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

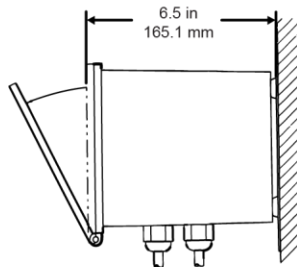
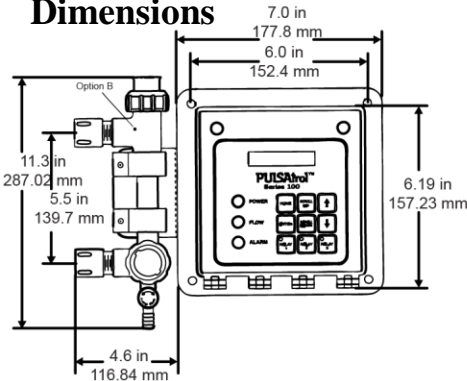
Standard Plumbing: Glass Filled Polypropylene (GFPPPL) Slip or Threaded

Enclosure: NEMA 4X – High Impact Resistant PVC

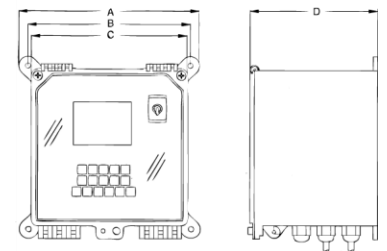
Controller Weight: 8 lbs (3.7 kg)

Shipping Weight: 10 lb (4.6 kg)

Dimensions



DIMENSION	SERIES 100	SERIES 200
A	7.00 in.(sq.) 17.78cm	10.00 in.(sq.) 25.40cm
B	6.00 in.(sq.) 15.24cm	8.99 in.(sq.) 22.83cm
C	5.75 in.(sq.) 14.60cm	8.66 in.(sq.) 22.00cm
D	6.50 in. 16.5cm	7.08 in. 17.98 cm



pulsafeeder.com

PULSAFEEDER
27101 Airport Rd
Punta Gorda, FL 33982
Phone: ++1(941) 575-3800
Fax: ++1(941) 575-4085

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