

PULSATrol® Controller Specification Sheet

MPT110AR1 28 day biocide timer with 24 hour bleed lockout

PULSATrol Controllers are microprocessor based units specifically designed for a wide range of water treatment control and monitoring options.

MPT110AR1 is designed to dose a single biocide to a cooling tower on a variable timed basis.

The timer function allows the optimum dosage regime to be maintained for the biocide in use.

Dosage can be activated on any specific day or combination of days weekly, or any combination of weeks in a 28 day cycle.

If cooling tower bleed is controlled by an independent controller, the MPT110 controller will stop bleed occurring when biocide is being dosed.

This optimises the contact time for the biocide and should be taken into account when the bleed control requirement is calculated to ensure that the cooling water does not over concentrate when biocide is being dosed.

The standard unit has a number of upgrade options to enable it to perform additional functions.

Key Features

- Microprocessor based for accurate and reliable control
- Wall mounted unit for ease of operation
- Easily programmable via display and menu activated keypad
- Keypad activated hand/off/auto control of all really outputs
- Modular hardware and software for easy access and servicing
- IP65 High Impact Resistant PVC enclosure for protection against harsh environments



Operation

- A **28 day Biocide Timer** is incorporated in the Controller.
- The timer provides the ability to dose a biocide on a 28 day programme cycle *via* four individual programmes with a wide range of day and week setting combinations.

The duration of operation for the biocide metering pump is adjustable in one minute increments up to 23 hours 59 minutes. (factory set at 1 hour 30 minutes)

The time when actuation occurs can be varied as follows;

Biocide Settings			
Week		Day	
*No Week	4 th Week	Sunday	Thursday
1 st Week	Even Week	Monday	Friday
2 nd Week	Odd Week	Tuesday	Saturday
3 rd Week	Every Week	Wednesday	Every Day

* If this option is selected, no biocide addition will occur.

The **biocide timer** has a **24 hour bleed lockout** facility.

If a solenoid valve is being used to control system concentration, the operation of that valve would normally be from an independent control system as the MPT110 Controller has no facility for blowdown control.

If blowdown occurs during biocide dosage, the effectiveness of the biocide dose is likely to be diminished.

The bleed lockout facility enables the opening of the externally controlled solenoid valve to be prevented during the period when biocide dosage occurs and for an adjustable period after biocide dosage ceases to ensure the optimum biocide contact time is achieved in the system water.

Lockout commences when biocide dosage commences. The total lockout time achievable is 24 hours in one minute increments.

Additional Equipment Requirements

The **MPT110 Controller** is a stand alone unit. To operate as a complete system the following equipment must be in place – either existing or supplied in addition to the controller.

- **Dosage Pump**

- ◇ The MCT110 Controller will normally be activating a dosage pump to dose the liquid biocide to the treated water system. Care must be taken to ensure that the pump is capable of delivering the volume of biocide necessary in the time specified by the controller.

- **Chemical Storage**

- ◇ The biocide will normally be stored in a chemical storage tank. Dosage can be from the container that the chemical is supplied in, but it should be ensured that a means of monitoring biocide usage is available.

- **Other Control Functions**

- ◇ Biocide dosage is just one aspect of cooling water treatment. Corrosion, scale and suspended solids protection must also be afforded, typically via a make up dosage system and a bleed control system.

Options

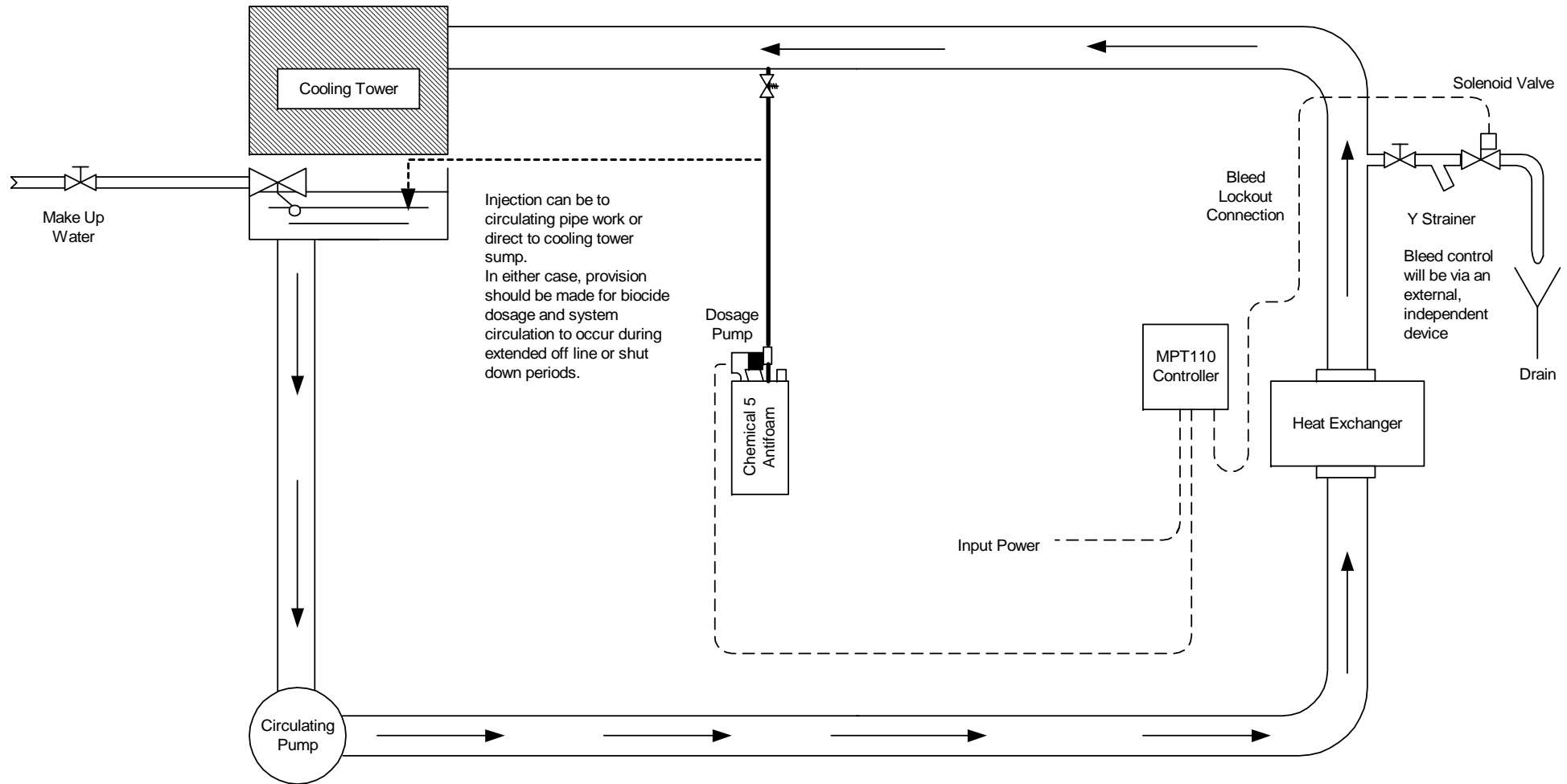
The **MCT110AR1** is the standard control unit to perform the tasks defined above. If additional features are required, the following options are available at additional cost.

- One volt free contact can be incorporated to provide a signal of timer activation.

Specification

Feature	MPT110AR1
MPT110	28 day timer with a 24 hour bleed lockout facility
A	“Conduit” which signifies cable gland connections on base of controller.
R1	CE approval
Power input	90 to 250 VAC @ 50/60 Hz 100 VA
Control Output	Line Voltage @ 600 VA
Display	1 x 8 Alpha Numeric, Lighted Display
Electronic Environment	-17.8 to + 52°C, 100% Humidity
Controller Weight (kg)	2.5
Shipping Weight (kg)	3.7
Maximum Width (mm)	177.8
Fixing Hole Centres (mm)	152.4
Controller Width (mm)	146.0
Depth (mm)	165.1

Schematic Illustrating Typical Installation Arrangement for PULSAtrol MPT110AR1 28 Day Biocide Controller - Cooling Tower Application



Not all items shown will be present in every application

Electrical Schematic Detailing Connections for MPT110AR1

