

Tower Controller

ECD-5



FEATURES

- * Dual biocide, individually programmed for start time and duration.
- * Prebleed for both biocide cycles.
- * Inhibitor dosing after the bleed cycle, if required.
- * Manual override functions for priming pumps. This feature easily accessed with buttons on front panel.
- * All configurations carried out with push buttons and text messages on front panel.
- * Proportional dosing of inhibitor (if selected)
- * Additional relay output for activating a cooling tower during "off season" period
- * Thermo plastic enclosure with transparent cover. Rated to IP55 specifications.

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SPECIFICATIONS

INSTRUMENT

Range:	10-5000uS, single range
Display:	2 lines x 16 character LCD display
Indicators:	11 LED lights indicate mode of operation or configuration.
Temperature Compensation:	0-100°C. fully automatic
Setup:	All setup values are programmed through software and stored in non volatile memory.
uS Electrode:	Material PVC, inline Cable 1/2 metre moulded into body. Temp. sensor encapsulated. 0-60°C
Relay outputs:	240VAC, 5A max. (<i>non inductive</i>) hard wired via 3 way terminals.
Proportional Inhibitor dosing:	Inhibitor on time: 1 sec to 1min off time 1,2,4,5,10min
Tower relay After Run Time:	15,30,45min and 1 to 4 hours, selected in setup program.
Fuses:	Separate fuses for instrument and 240VAC relays. Led light indicates blown relay fuse.
Power (Instr):	240VAC 50Hz 7VA max.
Dimensions:	(W)182mm x (H)110mm x (D)96mm.

BIOCIDE TIMER

Display:	LCD display, supports day of week, 24H or AM/PM mode, hours, minutes, seconds and remaining biocide dosing time
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BLEED LOCK OUT

Lockout:	The bleed and inhibitor functions are locked out during a biocide addition cycle. A time delay continues the lockout afterwards.
Time delay:	15, 30, 45min and 1 to 16 hour time delay available, selected in setup program.

FEATURES

The purpose-built **LIQUITRONICS ECD-5** features an easy installation and setup procedure. All configurations are executed with three push buttons. Text messages are shown with a 2 line LCD display. LED lights also assist in the setup and checking the operating status at any time.

The **ECD-5** features two independent biocide relays. Each is configured for a start time and duration period as well as a selected day or days. The backlit LCD display shows uS, real time and time left for the selected bio dosing.

The **ECD-5** tower controller continuously monitors and maintains the TDS of the recirculated water of the cooling tower and simultaneously activates the inhibitor output.

Several bleed/inhibitor-dosing configurations are available and selected through the setup program.

In 'AFTER BLEED' the **ECD-5** only activates the bleed (*if called*) and monitors the bleed time. At completion the inhibitor is turned on for an equal time. Selecting proportional inhibitor gives an operator the added flexibility to control the total amount of inhibitor injected.

Should a biocide cycle occur during an after bleed operation, bleed and/or inhibitor dosing are suspended and continued after any lock out from the bio cycle.

In 'PRE BLEED' the **ECD-5** suspends a biocide dosing if called and performs a bleed first. Prebleed is for a fixed time period but shortens the duration if the uS set point is reached. After this prebleed does a biocide dosing proceed.

The tower relay switches on with each bio cycle and remains active throughout the dosing, delay and the selected After Run Time. This feature if utilised ensures that the tower water always circulates during a biocide dosing.

The bleed valve and inhibitor output are locked out for the duration of a biocide cycle to allow enough time for the biocide chemical to react with the tower water. A further enhancement is possible with a second timer keeping the lockout on for a set time delay allowing the injected biocide to take full effect before further water bleeds take place.

A flow switch can be connected to an input terminal that will switch off bleed and inhibitor dosing in the event of no water flow through the system.