

LIQUITRON™ DC4500 SERIES

Conductivity Controller

DATA SHEET

Cooling Tower Controller Bleed & Feed with Dual Biocide Additions

The **Liquitron DC4500 Series Conductivity Controller** is a microprocessor-based control system that will operate in a variety of water treatment applications. The DC4500 provides a set point and relay for conductivity control, and a variety of timer functions to control chemical addition, including dual biocides. Pumps may be controlled in either ON/OFF or external trigger mode.

Programming this controller is simple using only three keys. The backlit LCD display and LEDs provide a visual indication of operating conditions and equipment status.

Features

- 0-20,000 μ S control range
- Display units in μ S or in PPM/TDS
- Temperature display in $^{\circ}$ C or $^{\circ}$ F
- High and low alarm with output relay
- Water meter totalizer (gallons/liters)
- 4-20 mA recorder output (standard)
- Flow switch compatible (N.O. or N.C.)
- Backlit LCD alpha / numeric display
- Timer or conductivity-based prebleed
- Bleed output relay
- Inhibitor chemical pump output (on/off or external trigger)
- Dual biocide pump output (on/off or external trigger)



Enclosure

NEMA 12X Type (prewired version)	Hardwiring makes the unit suitable for NEMA 4X applications
Material	Housing - Flame retardant, molded TPE
	Cover: Clear molded polycarbonate, padlockable
Environment	32° F to 122° F (0° C to 50° C) 0% to 95% relative humidity (non-condensing)
Hardware	115 VAC ON/OFF units provided with a 6 ft (2 m) power cord and plug, plus three 1 ft (30 cm) output power cords for pumps
	230 VAC ON/OFF units provided with a 6 ft (2 m) power cord and plug and throughput connectors for hardwire connections of controlled devices
	115 and 230 VAC Proportional units provided with three 10 ft (3 m) output cables for direct connection to "non-ROYTRONIC" 7 Series and 9 Series LMI pumps. A different version the Controller is available with compatible cables for ROYTRONICR Series 7 and ROYTRONIC EXCEL™ Series 8 and Series 9 metering pumps.

Liquitron DC4500 Series Specifications

Electrical

Input	115 VAC, 50/60 Hz or 230 VAC, 50/60 Hz
Signal Output	4 - 20 mA spannable output for conductivity
Signal Input	Four (4) PG-9 throughput connectors are provided for connection of flow meter, flow switch, communications and other instrumentation A four (4)-pin microphone jack is provided for the conductivity probe connection
Bleed/Control Output	Four (4) relays, 10 amps @ 115 VAC, 5A @ 230 VAC. Unit fused for 10 amp total load.

Operational

Display	16 character backlit LCD	
LED Indicators	Power, Bleed, Alarm, Flow, Feed, Timer 1, Timer 2	
Biocide Timers (Timers 1 & 2)	1-28 day cycle timers	
Bleed Set Point:	Rising or falling (selectable)	
Feed Timers (selectable)	Pulse (External trigger):	1-999 seconds run-time, 1-100 count
	% of Time:	1-100 minute cycle, 1%-100% on-time
	Limit (Feed and Bleed):	1-999 minute limit
	% of Bleed (Feed after Bleed):	1%-100% of bleed time
	With limit of:	1-999 minute limit

Dimensions

