

L510 ALC

Anodizing Line Controller

Liquid Analysis Systems' L510 series process controllers accomplish complete process line automation with analysis, replenishment, and reporting. The L510 series controllers are optimized for year-round reliability, ease of use, and low operating cost.

Series Features

- Online titrametric pH & ORP analyses
- Auto sample retrieval and preparation
- Auto pH calibration
- Auto check of titrant and sample
- Auto repeatability, range, and trend checks



Through its display and keypad or optional Ethernet interface, users can view process status and history, and modify analysis intervals and other configuration parameters. This L510 offers a variety of hardware options for stream selection, sampling, sample preparation, and sample/reagent delivery to accommodate specific customer requirements.

Series Options

- Grab sample port
- Replenishment controls and systems
- Ethernet/RS-485 networking/browsing/e-mail messaging

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The L510 Anodizing Line Controller automates sampling, analysis, reporting, and (optionally) replenishment an anodizing line including the clean, etch, deoxidize, anodize, dye, and seal steps. The controller uses known and reliable pH and ORP/redox titrations. Both absolute (calibrated) and differential endpoint detection methods are included for delivering long term accuracy and consistency. Differential endpoint detection in particular maximizes immunity to sensor drift. All analyses are checked for repeatability, range, and tread, and, if necessary, are replicated for verification. Replenishment is initiated only after all user-configured checks are passed, including volume limits and/or operator approval.



Model	
L510ALC	Base model with one titration cell; pH, Pt, and reference sensors; microliter range dose pumps; venturi-driven sampling/waste pump; sample selection valves; and sample and reagent detectors.
Options	
-G1	Grab sample capability. Sipper tube inlet.
-EB	Internet browser interface
-RRnn	Replenishment control w/ relay output and pulse count input
-RPnn	Replenishment control w/ pneumatic output and pulse input
-SK	Spares kit
-SS	Sample inlet strainer with auto backflush

Specifications	
Ranges	Per customer requirement: user configurable.
Repeatability and accuracy	Repeatability: 1% of range, typical. Accuracy: 2.5% of range, typical.
Methods	Direct pH reading (replicated and calibrated), absolute pH titration, differential pH titration, differential ORP titration, back titration, swap titration with sample.
Cycle time	15 minutes per analyte, average.
Calibration	Annual check recommended. Other functions automated.
Reagent consumption	100 to 500 μ l / test, dependent on range.
Power required	115 VAC, 60 Hz
Sample pressure	None required, but solution level should be with \pm 4 feet.
Sample connections	1/4" or 1/8" tube, depending on viscosity
Sample streams	Standard:4 Optional: up to 12
Waste connection	1/2" pipe or tube to unpressurized gravity drain
Leak	3/8" pipe or tube to drain
Enclosure	24" H x 22" W x 16" D, NEMA 4X/IP66, wall mount.
Reagent tray	12" H (with reagents) x 20" W x 12" D
Display	3" x 2.2", LCD with backlight
Output options	Form C relay alarm, standard. Others per user requirement: 4-20 mA, 0-10V, IE browser window, TCP/IP or serial remote control, e-mail of status and alarms.

Specifications subject to change