

# L540 PLA

## Automated Plating Line Analyzer

Liquid Analysis Systems' L500 series process controllers accomplish complete process line automation with analysis, replenishment, and reporting. The series are optimized for year-round reliability, ease of use, and minimum operating cost.

### Series Features

- Online titrametric, spectral, pH, and/or colorimetric analyses
- Auto sample retrieval and preparation
- Auto calibration
- Auto check of titrant, sample, and electrodes
- 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 L540 offers a variety of hardware options for stream selection, sampling, sample preparation, and sample/reagent delivery to accommodate specific customer requirements.

### Options

- Multi-stream analysis
- Grab sample port
- Replenishment systems
- PC Manager Windows™ software
- Outputs for recording and alarming
- Auto sample strainer backflush

### L540 Plating Line Analyzer

The L540 PLA plating line analyzer automates sampling, analysis, reporting, and (optionally) replenishment multiple streams including measurement of acids, alkali, metals and numerous other ions. The controller uses known and reliable pH, Redox (ORP), ISE and turbidimetric titrations. pH readings are auto calibrated to eliminate problems caused by in-process sensor drift. Spectral UV-Vis and Raman ranges provide analysis of many organic and inorganic constituents. All analyses are checked for repeatability, range, and trend, 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	
L540PLA	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 port. Sipper tube inlet.
-MS	Multi-stream sampling
-RR/P	Replenishment control ( <u>R</u> elay or <u>P</u> neumatic output options)
-SA	Spectral analysis
-SB	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, differential turbidity titration, back titration, reverse titration with sample. Auto-calibrated pH. UV-Vis and Raman spectra multi-component analysis. Colorimetric analysis at preset wavelengths.
Cycle time	15 minutes per analyte, typical, replicated.
Analytical drift	<1% per year, typical
Reagent consumption	100 to 700 µl / test, dependent on range.
Power required	105-240 VAC, 50-60 Hz
Sample conditions	0 to 25 psig, 10 to 70 °C, other: consult factory
Sample connections	¼" tube
Sample streams	1 to 10
Waste connection	½" pipe or tube to unpressurized gravity drain
Leak	⅜" pipe or tube to drain
Enclosure	60cm H x 56 W x 40 D, NEMA 4X/IP66, wall mount.
Reagent tray	30 H (with reagents) x 50 W x 30 D
Display	76 x 56mm, 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.
Ambient conditions	5 to 40°C. 5 to 95% humidity, non-condensing.

Specifications subject to change