



Liquid Analysis Systems

L460ENi

Electroless Nickel Analyzer

Liquid Analysis Systems' L460 series chemical analyzers perform dependable at line wet chemical titrimetric analyses of many aqueous chemical species using pH, ORP, ISE, turbidimetric and other sensors. The L460 features are optimized for simple reliability, ease of use, and minimum operating cost.



L460 Series Features

- Auto sample retrieval and preparation
- Result range alarms
- Auto check of titrant, sample, and electrodes
- Output options for recording, alarming, dosing, and/or replenishing

Through its display and keypad, users can view process status and history, and modify analysis intervals and other configuration parameters. This series offers a variety of hardware options for stream selection, sample preparation, and sample/reagent delivery.

Series Options

- Multi-stream and multi-parameter analysis
- Grab sample port
- Replenishment and dosing systems
- Windows™ PC software for process supervision and analysis configuration

L460ENi Electroless Nickel Analyzer

The L460ENi analyzer samples and measures pH, nickel, and optionally hypophosphite in electroless nickel plating baths. Features include:

- Auto-calibrated pH
- No-drift EDTA nickel titration
- Rapid 3-minute hypophosphite titration
- Replicated analyses to assure accuracy and repeatability
- Auto-monitoring of sample and reagent supply
- User-configurable process, replenishment and analysis settings
- Process ranges and replenishment rates alarmed upon excursion
- Sample drawn into the analyzer by internal pump and purged after every test prevents component plating
- Bath temperature input(s) allow auto analysis idle during bath cooling and tank passivation.



Analyzer Model	
L460ENi	Electroless nickel analyzer with auto-calibrated pH measurement, no-drift titrated nickel analysis, configurable process range alarms, analyzer maintenance alarm, and dual replenishment control outputs. Keypad and LCD display for process status, history, alarms, and configuration.
Options	
GS	Grab sample with sipper tube
HA	Rapid hypophosphite titration analysis
PC	Windows™ PC process management software with SQL database
PL	Process value current loop outputs
MSn	Multi-tank sampling, n = number of tanks.
RPC	Replenishment pump controls with rate limit, rate alarm and turnover record
RTn	Remote temperature input for auto-idle

Specifications	
Range	Ni: 0 to 10.0 \pm 0.1 g/l pH: 3.00 to 8.00 \pm 0.01 Hypophosphite option: 5 to 50 \pm 0.1 g/l
Auto calibration	Ni: auto-zero and bath age compensation pH: auto-calibration with two buffers
Average cycle time with replicates	Ni: 7 minutes. pH: 5 minutes. Hypo: 7 minutes.
Configuration parameters	Process setpoints, analysis interval, pH calibration interval, pump flow rates, process rate of change limits
Alarms	Process range exceeded, process change rate exceeded, no sample, no buffers
Tanks	Standard:1 Optional: up to 4
Power	100 to 240 VAC, 50/60 Hz
Drain	½" NPT(F)
Air, CDA	25~50 psi, ¼" NPT(F). For sample line evacuation.
Water, purified	25~50 psi, ¼" NPT(F). For rinsing.
Maintenance items	pH electrode replacement: 2 years Reagents refill: ~2 months
Enclosure	20" H x 18" W x 10" D, wall mount, NEMA 4X/IP66
Display	3" x 2.2", LCD with backlight
Outputs	Relay, 4-20 mA, Ethernet, and/or serial per user requirement