



Liquid Analysis Systems

L450 NH₃ Analyzer

Liquid Analysis Systems' L450 series chemical analyzers perform dependable online wet chemical analyses of many aqueous chemical processes. The L450 features are optimized for extreme reliability, ease of use, and minimum operating cost.

- Auto sample retrieval and preparation
- Result range and trend check
- Auto-check of reagent, sample, and electrodes

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
- Standard or high precision dose pumps
- Grab sample port
- Auto sample filter back flush
- Ethernet networking and email messaging
- Outputs for recording, alarming, and/or replenishing
- Replenishment systems

L450 Ammonia Analyzer

The online L450 Ammonia analyzer measures ammonia in water using an ammonia gas sensing electrode. Alkaline pH adjustment is included to convert and release the ammonia for detection. Temperature correction is included for maximum accuracy. The electrode does not require manual calibration – automatic calibration with NH₄Cl is included. No colorimetric indicator or pH electrode is required. For dependable process control, a changed analysis trend can be automatically retested prior to posting or alarming. For sample with particulate, a sample strainer with automatic backflush is offered. Sample conditioning systems are offered to meet many various requirements.



Analyzer Model	
L450NH ₃	Base model with two low-maintenance dose pumps for alkali and calibration standard, one sample/waste pump, single stream inlet, 4-20 mA output. Automatic temperature correction, automatic ammonia sensor calibration, reagent empty alarms.
Options	
DI	Digital input for remote start of analyses
EB	Ethernet server for remote monitoring via web browser
GS	Auto grab sample with sipper tube inlet
MS	Multi-stream sampling
SB	Sample inlet strainer with auto backflush.

Specifications	
Method	Raise pH by addition of NaOH to release ammonia gas. Stabilize and read concentration with selective ion sensor.
Ranges	User settable within 0 to 17000 ppm
Inaccuracy	≤3% of range
Cycle time	5 minutes, typical. Additional for high precision analysis, test replication, process range > 1:20, or stream switching.
Reagent consumption	<100 µl/test
Power required	100 to 240 VAC, 50 to 60 Hz
Sample streams	Standard: 1 Optional: up to 8
Sample conditions	0 to 80 psig, < 50 µm particulate, 10 to 70 °C. Other ranges require sample preparation.
Sample preparation options	Filtration, pressure reduction, temperature adjustment, volatile amines correction, metals chelation.
Sample connection	¼" NPT
Waste	¼" NPT. ½" tube adapter provided.
Leak	¾" tube connection
Enclosure	22"Hx18"Wx10"D (55x46x26cm), wall mount, NEMA 4X/IP66
Display	3" x 2.2", LCD with backlight
Outputs	Standard: 4-20 mA process value(s) and one maintenance alarm relay. Optional: alarm relay with settable trip point, Ethernet, and/or serial network per user requirements.
Ambient limits	5 to 40°C. 5 to 95% humidity, non-condensing.

Specifications subject to change