Liquid Analysis Systems

L450 H_2O_2 Analyzer

Liquid Analysis Systems' L450 series chemical analyzers perform dependable online wet chemical titrametric analyses of many aqueous chemical species using pH, ORP, ISE, turbidimetric and other sensors. The L450 features are optimized for extreme reliability, ease of use, and minimum operating cost.

L450 Series Features

- Auto sample retrieval and preparation
- Result range and trend check
- 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
- Standard precision titrant dose pumps with better than ±1.5% accuracy
- High precision titrant pumps with better than ±0.5% accuracy
- Grab sample port
- Replenishment and dosing systems
- Windows™ PC software for process supervision and analysis configuration

L450 H_2O_2 Analyzer

The online L450 H_2O_2 analyzer measures hydrogen peroxide in process streams by means of a robust, differential endpoint titration with ceric sulfate in acid solution. With the differential method the analysis is immune to sensor drift. And no sensor replacement, refilling, or adjustment is required. Reference electrode does not require replacement. No peristaltic pump is used. Auto detection and alarming of sample and reagent supply is included. For robust process control, each analysis can be automatically replicated and/or range checked prior to posting, alarming, or replenishing.

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Analyzer Model	
L450 H2O2	Base model with one standard precision (20 µl) titrant dose pump, one acid reagent pump, single stream inlet, 4-20 mA output, and one alarm relay output.

Options	
DI	Digital input for remote control of analyses or replenishment
ER	Extended analysis range. For analyses beyond standard ranges.
GS	Auto grab sample with sipper tube inlet
HP	High precision titrant pump
PCS	Windows™ process overview and analysis configuration software
RP–p–n	Replenishment (solenoid, burette, or pneumatic pump options)
SA–n	Multi-stream sampling, *n* = number of streams.
SB	Sample strainer with auto backflush. For particulate >20µm.
SK	Spares kit (basic and extended versions available)
SP	Sample pump. For unpressurized samples.

Specifications [1]	
Method	Peroxide titration by $Ce(SO_4)_2$ in acid. Differential titration with settable slope threshold.
Ranges	Standard: Configurable over 20-fold range e.g., 20 to 400 g/l Extended: Consult LAS
Accuracy and repeatability [2]	Standard: ≤ 1.5% of selected range High precision: ≤0.5% of selected range
Cycle time [2]	Minimum 2 to 5 minutes per stream
Stability	Drift < 1% / yr
Reagent consumption [2]	Standard precision models: 0.1 to 1 ml/test High precision (-HP) models: 50 to 500 µl/test
Power required	100/240 VAC or 24 VDC
Sample streams	Standard:1 Optional: up to 5
Sample conditions [3]	5 to 25 psig, < 25 µm particulate, 10 to 50 °C
Drain	Vented/non-pressurized, ½" NPT(F) connection
Air	≥ 50 psi, oil-free, ¼" NPT(F) connection
Water	≥ 25 psi, purified as required, e.g. to 1 Meg Ω, ¼" NPT(F)
Enclosure	24" H x 20" W x 10" D, wall mount, NEMA 4X/IP66
Display/Touchscreen	3" x 2.2", LCD with backlight
Outputs	4-20 mA, relays, Ethernet, and/or serial per user requirement

[1] Specifications are subject to review of sample conditions.
[2] Dependent upon range, speed, and replicate settings.
[3] Consult LAS for conditions beyond these limits.