

WASTEWATER

@ the Edge of Excellence

Timberline Instruments - ASX Series

Fast - Accurate - Precise

TL-2800 ASX NH₃/Nitrate Analyzer



Common Applications

- Chloramination - Drinking Water
- Water and Wastewater- APT Case No. N08-0004
- Estuary - Survey & Monitoring
- Soil and Plant Tissue Extracts
- TKN - Kjeldahl Digestates (No distillation required)
- Manure & Forage Extracts
- Persulfate Digests (No distillation required)

EPA Approved Method for Clean Water Act Applications

"Determination of Inorganic Ammonia by Continuous Flow Gas Diffusion and Conductivity Cell Analysis" Timberline Method Ammonia-001

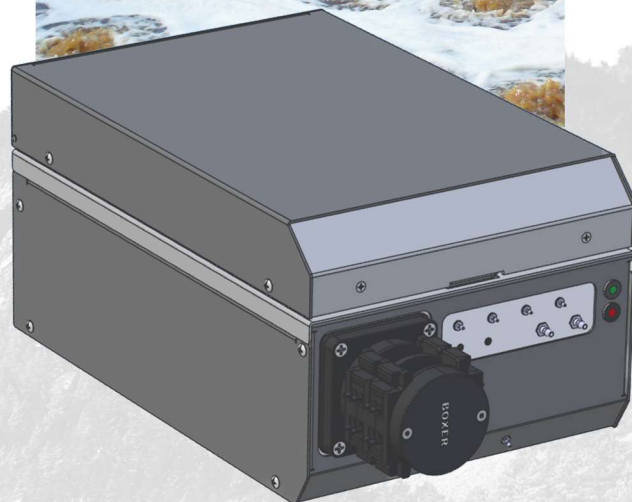


Gas Diffusion and Conductivity
Measurement Method

The Model TL-2800 ASX Ammonia and Nitrate/Nitrite Analyzer is a laboratory instrument designed for automated analysis of ammonia and nitrate/nitrite in drinking water, surface water, aqua-culture and other aqueous samples.

Our patented gas diffusion & conductivity principle provides results **unaffected by turbidity or color**. Simplicity and ease of use makes the TL-2800 extremely popular.

Standard analysis ranges from 50 ppb to 500 ppm. **Ultra-sensitive detection** (<10ppb) is easily achieved with a high sensitivity membrane.



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Why choose Timberline TL-2800 ASX?

Integral Membrane Separation &
Conductivity Detection

Results are unaffected by turbidity or color of the sample.
Significantly reduces interferences.

Low Maintenance

Samples are introduced via peristaltic pump with timed injection. The absence of sample injection valves reduces the need for filtration and prevents costly repairs and maintenance issues associated with premature valve failure.

High Sample Throughput

A 1.5-2.5 minute analysis time allows for rapid determination, reducing the total cost per sample.

Minimal Reagent Requirements
Minimal Disposal Issues

Only three reagents are required for operation.

- Dilute Borate Buffer
- Dilute Sodium Hydroxide
- Deionized Water

Activated zinc cartridges are used for nitrate analysis.

Familiar Data Acquisition
System Hardware

Data acquisition system software runs on Microsoft® Windows operating system, allowing for easy connection to networks, printers or external USB drives.

Intuitive Software

The Microsoft® Windows based data acquisition software provides complete automation of the instrument and sampling system, while the intuitive graphical user interface makes it very easy to learn and operate.

High Sensitivity

Ultra sensitive detection down to less than 10 ppb.

Analytical Specifications:

Analysis Time

One sample every 1.5-2.5 minutes

Dynamic Range

Standard Sensitivity - 50 ppb to 500 ppm
High Sensitivity - 10 ppb to 10 ppm

Precision and Accuracy

(Ammonia) $\pm 5\%$ of the amount present
(Nitrate/Nitrite) $\pm 10\%$ of the amount present

Calibration Frequency

Once per day

