

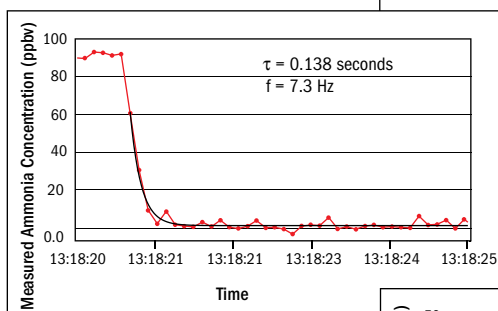
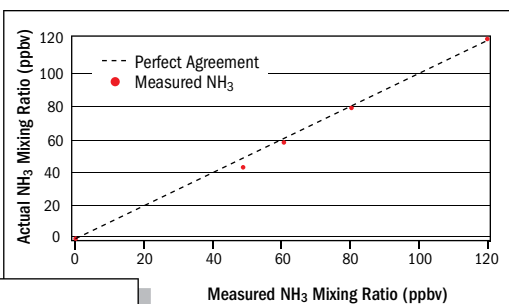
# TRACE AMMONIA ANALYZER

HIGH PRECISION • ULTRASENSITIVE • FAST • LOW POWER

LGR's Trace Ammonia Analyzer (TAA) provides fast measurements of ammonia in ambient air with unparalleled precision and sensitivity. No longer do you have to wait for minutes before getting a useful reading – LGR's TAA provides measurements every second with sub-ppbv precision. In addition, the TAA can report measurements quickly over a wide range of ammonia concentrations. The instrument, based on LGR's cavity enhanced laser absorption spectroscopy, is simple to use and inexpensive to operate. Other atmospheric gases, including water vapor, carbon dioxide and methane, do not interfere with the ammonia measurements. The instrument includes an internal computer that can store data practically indefinitely on its internal hard drive (for unattended long-term operation), and that can send real-time data to a data logger through its analog and digital (RS232) outputs. In addition, an Ethernet connection allows remote access to data files stored on the instrument's hard drive. LGR's TAA provides the high quality data necessary for the most demanding applications including semiconductor process monitoring and atmospheric trace gas monitoring. For customers interested in a less expensive ammonia analyzer with very high precision and fast response time, LGR offers the Economical Ammonia Analyzer.

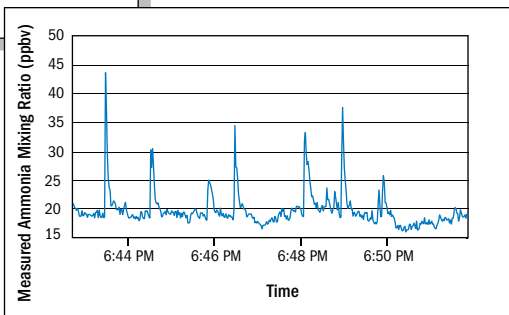
## Accurate

Comparison of measurements recorded by LGR's Trace Ammonia Analyzer with calibrated standards.



## Fast

Measurement response time of the Trace Ammonia Analyzer determined by rapidly switching between an air flow with 90 ppbv to a flow with zero ppbv.



## Sensitive

Measurements of ammonia in room air illustrating the ability of the Ammonia Analyzer to report rapid fluctuations with sub-second response, a capability not possible with analyzers that require longer averaging times to yield useful measurements.



## Performance Specifications

### Detectivity/Precision (1- $\sigma$ )

0.4 ppbv (1 second)  
0.2 ppbv (50 seconds)

### Response Time (flow time through cell)

0.1 second (with optional external pump – see DSVP)  
25 seconds (with internal pump)

### Accuracy

Total uncertainty <1% of reading (without calibration)

### Measurement Range (total uncertainty <1%, without calibration)

20–2,000 ppbv

### Operational Range

0.05–10,000 ppbv

### Outputs

Digital (RS232), Analog, Ethernet

### Data Storage

Internal Hard Drive

### Sample Temperature

0–50 °C

### Operating Temperature

5–45 °C

### Ambient Humidity

<98% RH Non-Condensing

### Inlet/Outlet Fittings

3/8", 1/2" Swagelok® (fast flow, optional external pump);  
3/8", 1/4" Swagelok® (slow flow, internal pump)

### Power Requirements

115/230 VAC; 50/60 Hz; 100 W (excluding optional external pump)

### Dimensions (Benchtop Package)

10" H × 38" W × 14" D

### Weight

60 pounds (27 kg)

## Ordering Information

### Fast Ammonia Analyzer

(Benchtop Package)  
Model Number: 908-0012

### Trace Ammonia Analyzer

(Benchtop Package)  
Model Number: 908-0013

### Option: Dry Scroll Vacuum Pump

Model	Name
-9001	Dry Scroll Vacuum Pump (DSVP)
-9002	DSVP Maintenance Kit
-9003	DSVP Connection Kit
-9004	DSVP Exhaust Silencer
-9005	24 VDC to 110 VAC Pure Sine Inverter
-9006	24 VDC to 220 VAC Pure Sine Inverter

Field-deployed  
in some of  
the harshest  
environments  
on earth, LGR  
Analyzers are  
designed to  
work as hard  
as you do.



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