

Products

- ▶ Instruments by Compound
- ▶ Instruments by Application
- ▶ Instruments by Technology
- ▶ Product Overview
- ▶ Applications
- ▶ Software

Customer Support

- ▶ Sales Distributors
- ▶ Return Authorization
- ▶ Training
- ▶ Application Notes
- ▶ Secure Support

Product Support

- ▶ Technical Support Forms
- ▶ Product Manuals
- ▶ Spare Parts Lists
- ▶ Spare Parts Finder

Model 201E

**Chemiluminescent NH₃ Analyzer
 for Ambient Air Quality Monitoring**

The Model 201E NH₃ analyzer measures ambient ammonia in selectable ranges from 0-50 ppb to 0-2,000 ppb using the chemiluminescence principle and an API designed external ammonia converter and sampling system.

Ranges are user selectable in 1 ppb increments and auto ranging is available. Ammonia is difficult to measure accurately because of a tendency to be absorbed into other materials.

The "stickiness" of the gas results in slow response times and inaccurate concentration values. The Model 201E has been designed to overcome the problems of ammonia gas analysis through increased flow, minimum surface area and selected construction materials.

In operation, sample gas is passed through the M501NH converter, which converts NH₃ and other compounds to NO, producing the total oxides of nitrogen (TN_x). In the next cycle the sample is routed through a molybdenum converter which converts nitrogen oxides (less NH₃) to NO, producing the Tn reading. The difference between these readings (TN_x - TN = NH₃) provides a reading proportional to the NH₃ concentration.

The analyzer software represents these values in the readout, and independent outputs are available for each of these values. The Model 201E combines the performance advantages of Teledyne API's Model 200E NO/NO_x analyzer with a converter sampling system designed specifically for this application to produce the most accurate and dependable NH₃ measurement system available today.



[Download the brochure](#)



Features

- Standard two year warranty
- 0-50 ppb to 0-2,000 ppb ranges, user selectable
- Microprocessor controlled
- Multi Tasking software allows viewing test variables while operating
- Continuous self checking with warning alarms
- External converter
- Designed to optimize response times
 - Minimal surface area in contact with sample
 - Low absorption wetted parts
 - Heated sample manifold
- Adaptive filtering optimizes response time
- Temperature & pressure compensation
- Internal data logging with 1 min to 24 hour averages

Specifications	
Ranges:	0-50 to 0-2,000 ppb, operator selectable; Dual ranges and auto-ranging supported
Units:	ppb, ppm, µg/m ³ , mg/g ³ operator selectable
Zero noise:	< 0.5 ppb (RMS)
Span noise:	< 0.5% of reading (RMS) above 50 ppb
Lower Detectable Limit (LDL):	1 ppb
Zero drift:	0.5 ppb/24 hours, < 1.0 ppb/7 days
Span drift:	< 1% of reading/24 hours, < 2% of reading/7 days
Lag time:	40 seconds
Rise and Fall Time:	90% in 120 seconds
Linearity:	< 1% of full scale

Precision:	0.5% of reading
Sample Flow Rate:	1000 cc/min \pm 10%
Operating Temperature Range:	10 - 30° C
Dimensions (HxWxD):	7" (178 mm) x 17" (432 mm) x 23.5" (597 mm)
Weight:	Analyzer - 43 lbs (21 kg) External pump - 16 lbs (7 kg)
Power:	100V 50/60 Hz, 115V 60Hz, 220V 50/60Hz, 230V 50Hz, 240V 50Hz 250 Watts (analyzer), 250 Watts (pump)
Analog outputs:	10V, 5V, 1V, 0.1V, selectable
Recorder Offset:	\pm 10%
Serial Outputs:	RS-232 (DB-9) Connector
Status (Digital):	12 outputs from optoisolator, included with standard configuration
Current Output:	0-20 mA or 4-20 mA isolated outputs (optional)
Approvals:	CE

[Home](#) | [Terms of Use](#)
[Terms and Conditions - \(PDF\)](#)
e-mail us: api-sales@teledyne.com

Copyright © 2008 Teledyne Technologies Incorporated. All rights reserved.
Teledyne API • 9480 Carroll Park Drive • San Diego, California 92121-5201 • USA