



Model T201 Chemiluminescence NH₃ Analyzer

The Model T201 combines a specially configured chemiluminescence analyzer with an external thermal converter to give stable and repeatable NH₃ measurements at very low levels. In addition, the T201 provides simultaneous values for NO, NO₂, and NO_x concentrations. The T201 is ideal for trace ammonia monitoring applications in ambient air as well as in clean rooms and make-up air units. Optional zero and span valves allow automatic, unattended calibration checks.

The Model T201 achieves its remarkable stability by means of an AutoZero valve which measures and corrects for zero noise. Multiple self-checks are performed continuously to insure maximum up-time while an innovative sample path, plumbed with specially conditioned materials, preserves the NH₃ sample and reduces interferences to a minimum.

All T Series instruments offer an advanced color display, capacitive touch screen, intuitive user interface, flexible I/O, and built-in data acquisition capability. All instrument set up, control and access to stored data and diagnostic information is available through the front panel, or via RS232, Ethernet, or USB com ports either locally or by remote connection using the included APIcom™ software.

- ▶ **Ranges: 0-50 ppb to 0-2,000 ppb, user selectable**
- ▶ **Independent ranges for NH₃, NO, NO₂, NO_x**
- ▶ **Large, vivid, and durable color graphics display with touch screen interface**
- ▶ **Ethernet, RS-232, and (optional) USB com ports**
- ▶ **Front panel USB connections for peripheral devices and firmware upgrades**
- ▶ **8 analog inputs (optional)**
- ▶ **Adaptive signal filtering optimizes response time**
- ▶ **Temperature & pressure compensation**
- ▶ **Comprehensive internal data logging with programmable averaging periods**
- ▶ **Ability to log virtually any operating parameter**
- ▶ **Two-year warranty**

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Specifications

General

Ranges:	Min: 0-50 ppb Full scale Max: 0-2,000 ppb Full scale (selectable, independent NH ₃ , NO, NO ₂ , NO _x ranges supported)
Measurement Units:	ppb, ppm, µg/m ³ , mg/m ³ (selectable)
Zero Noise:	< 0.5 ppb (RMS)
Span Noise:	< 0.5% of reading (RMS) above 50 ppb
Lower Detectable Limit:	1 ppb
Zero Drift:	< 0.5 ppb/24 hours
Span Drift:	< 1% of full scale/24 hours
Lag Time:	40 seconds
Rise and Fall Time:	< 120 seconds to 90%
Linearity:	1% of full scale
Precision:	0.5% of reading
Sample Flow Rate:	1000 cm ³ /min ±10%

Electrical Specifications

Power Requirements:	100V-120V, 220V-240V, 50/60 Hz
Analog Output Ranges:	10V, 5V, 1V, 0.1V (selectable)
Recorder Offset:	±10%

Communication Specifications

Included I/O:	1 x Ethernet: 10/100Base-T 2 x RS232 (300-115,200 baud) 2 x USB device ports 8 x opto-isolated digital outputs 6 x opto-isolated digital inputs 4 x analog outputs
Optional I/O:	1 x USB com port 1 x RS485 8 x analog inputs (0-10V, 12-bit) 4 x digital alarm outputs Multidrop RS232 3 x 4-20mA current outputs

Physical Specifications

Operating Temperature Range:	5 - 40°C
Dimensions (HxWxD):	Analyzer: 7" x 17" x 23.5" (178 x 432 x 597 mm) Converter: 7" x 17" x 23.5" (178 x 432 x 165 mm)
Weight:	Analyzer: 43 lbs (19.5 kg) External pump: 15 lbs (7 kg)

How to Order

Model T201 includes:

- Two year warranty
- External pump or internal pump (optional)
- Independent ranges
- 47mm diameter particulate filter
- 8 isolated digital outputs
- 6 isolated digital inputs
- RS-232 ports
- Ethernet port
- USB ports for peripheral devices
- APIcom™ remote control software
- Select AC input voltage
 - 100V - 120V 50Hz
 - 220V - 240V 60Hz
- Select DC output voltage
 - 10V 5V
 - 1V 0.1V

Calibration Options:

- Ambient zero and ambient span

Mounting Options:

- Rack mount brackets with chassis slides
- Rack mount brackets only
- Handle

I/O Options:

- 4-20mA outputs (up to three channels)
- USB com port
- 8 Analog Inputs
- Multi-drop RS232
- RS485

Other Options:

- Concentration alarm relays
- Expendables kit
- Model 702SS Precision Calibrator for NH₃ Monitors

The values expressed above are in accordance with EPA definitions. All error specifications are based on constant conditions. Specifications subject to change without notice. Printed documents are uncontrolled. SAL000051A (DCN 5815) T201/11.08.10



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For more information about the Teledyne API family of monitoring instrumentation products, call us or visit our website at

www.teledyne-api.com

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