

Ammonia Analyzer, Model 17i

Chemiluminescent gas analyzer



Key Features

- ◆ Measurement of NH_3 as well as NO , NO_2 , NO_x and N_t
- ◆ Replaceable NO_2 and NH_3 converter cartridges
- ◆ Unparalleled sensitivity and selectivity
- ◆ Automatic and manual modes
- ◆ Selectable time constants

The Model 17i uses the light producing reaction of nitric oxide (NO) with ozone (O_3) as its basic principle. The instrument has three modes of operation, NO, NO_x and N_t .

I. While operating in the NO mode, sample is mixed with Ozone in the reaction chamber. This reaction produces a characteristic luminescence with intensity proportional to the concentration of NO.

II. In the NO_x Mode, the sample is passed through a molybdenum convertor which reduces any NO_2 in the sample to NO. This is then transported to the reaction chamber where the sample is measured as NO_x ($\text{NO} + \text{NO}_2$).

III. In the third mode, the sample is passed through a stainless steel convertor where both the NO_2 and the NH_3 are converted to NO. This is then measured as N_t ($\text{NO} + \text{NO}_2 + \text{NH}_3$).

The software subtracts NO from NO_x and NO_x from N_t and provides outputs of NO_2 and NH_3 respectively. The Model 17i can output NH_3 along with NO, NO_2 , NO_x , and N_t to the display or electronic outputs.

This state-of-the-art iSeries gas analyzer also features:

- Ethernet port
- Flash memory for increased data storage
- Ethernet connectivity for remote access
- Off-site measurement downloads
- Easily programmable short-cut keys
- A large interface screen

Comprehensive Service Solutions

To maintain optimal product performance, you need immediate access to experts worldwide, as well as priority status when your air quality equipment needs repair or replacement. Thermo Fisher Scientific offers comprehensive, flexible support solutions for all phases of the product lifecycle. Through predictable, fixed-cost pricing, Thermo services help protect the return on investment and total cost of ownership of your Thermo Scientific air quality products.

Product Specifications

Preset Ranges	0-0.05, 0.1, 0.2, 0.5, 1, 2, 5, 10, 20 ppm 0-0.1, 0.2, 0.5, 1, 2, 5, 10, 20, 30 mg/m ³
Extended ranges	0-0.2, 0.5, 1, 2, 5, 10, 20, 50, 100 ppm 0-0.5, 1, 2, 5, 10, 20, 50, 100, 150 mg/m ³
Custom Ranges	0-0.05 to 100 ppm 0-0.1 to 150 mg/m ³
Zero Noise	0.50 ppb RMS (120 second averaging time)
Lower Detectable Limit	1.0 ppb (120 second averaging time)
Zero Drift (24 hour)	< 1 ppb
Span Drift (24 hour)	+/-1% full scale
Response Time (0-90%)	120 seconds (10 second averaging time)
Precision	+/-0.4 ppb (500 ppb range)
Linearity	+/-1% full scale
Sample Flow Rate	0.6 liters/min.
Operating Temperature	15°C - 35°C
Power Requirements	100 vac, 115 vac, 220-240 vac +/-10% @ 50/60hz, 300W (analyzer) 600W (converter)
Size and Weight	16.75"(W) x 8.62"(H) x 23"(D), 60 lbs. (28 kg) Analyzer: 29 lbs. (14 kg) Converter
Outputs	Selectable Voltage, RS232/RS485, TCP/IP, 10 Status Relays, and Power Fail Indication (standard). 0-20 or 4-20 mA Isolated Current Outout (optional)
Inputs	16 Digital Inputs (standard), 8 0-10vdc Analog Inputs (optional)
Available Options	Teflon particulate filter, Ozone particulate filter, Rack mounts, Rear extender

Ordering Information

Model 17i NH₃ Analyzer

Choose from the following configurations/options to customize your own Model 17i

Voltage options:

A = 115 Vac 60 Hz (standard)
B = 220 Vac 50 Hz
C = 220 Vac 60 Hz
E = 115 Vac 50 Hz
J = 100 Vac 50/60 Hz

Internal zero / span:

N = No zero / span assembly (standard)
Z = Internal zero span assembly

Ozone handling:

D = Drierite scrubber (standard)
P = Permeation dryer

Optional I/O:

A = None (standard)
C = I/O expansion board
(4-20mA outputs - 6 channels, 0-10v inputs - 8 channels)

Mounting Hardware:

A = Bench mounting (standard)
B = Ears & handles, EIA
C = Ears & handles, Retrofit

Your Order Code: 17i - _ _ _ _ _



This specification sheet is for informational purposes only and is subject to change without notice. Thermo Fisher Scientific makes no warranties, expressed or implied, in this product summary.
© 2008 Thermo Fisher Scientific Inc. All rights reserved Thermo Fisher Scientific Inc.

**Environmental
Instruments**
Air Quality Instruments

27 Forge Parkway
Franklin, MA 02038
+1 (866) 282-0430
+1 (508) 520 1460 (fax)

Takkebijsters 1
Breda, BL 4817
The Netherlands
+33 (0) 76 5879888
+33 (0) 76 5816520

www.thermo.com/air

Lit_17iAQL_0708

Thermo
SCIENTIFIC