

## **NO<sub>x</sub> Analyzer, Model 42i-D** Chemiluminescent gas analyzer



The Thermo Scientific NO<sub>x</sub> Analyzer, Model 42i-D utilizes chemiluminescence technology to measure the amount of nitrogen oxides in the air from sub-ppb levels up to 100ppm.

The Model 42i-D is a single chamber, single photomultiplier tube design that measures NO<sub>x</sub> only. Dual range and auto range are standard features in this instrument. Because the instrument is operated continuously in the NO<sub>x</sub> mode, the response time is less than 10 seconds.

Temperature and pressure correction are standard features. User settable alarm levels for concentration and for a wide variety of internal diagnostics are available from an easy to follow menu structure.

This state-of-the-art gas analyzer offers features such as an Ethernet port as well as flash memory for increased data storage and field upgradability.

Ethernet connectivity provides efficient remote access, allowing the user to download measurement information directly from the instrument without having to be on-site.

You can easily program short-cut keys to allow you to jump directly to frequently accessed functions, menus or screens. The larger interface screen can display measurement information and status, while viewing menu and operational screens.

### Key Features

- Ethernet connectivity for efficient remote access
- Enhanced user interface with one button programming and large display screen
- Flash memory for increased data storage and user downloadable software
- Enhanced electronics design optimizes product commonality
- Improved layout for easier accessibility to components

# NO<sub>x</sub> Analyzer, Model 42i-D

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. We offer comprehensive, flexible support solutions for all phases of the product life cycle. Through predictable, fixed-cost pricing, our services help protect the return on investment and total cost of ownership of your Thermo Scientific air quality products.

## Product Specifications

<b>Preset Ranges</b>	0-0.05, 0.1, 0.2, 0.5, 1, 2, 5, 10, and 20 ppm 0-0.1, 0.2, 0.5, 1, 2, 5, 10, 20, and 30 mg/m <sup>3</sup>
<b>Extended Ranges</b>	0-0.2, 0.5, 1, 2, 5, 10, 20, 50, and 100 ppm 0-0.5, 1, 2, 5, 10, 20, 50, 100, and 150 mg/m <sup>3</sup>
<b>Custom Ranges</b>	0-0.05 to 20 ppm; 0-0.2 to 100 ppm (extended) 0-0.1 to 30 mg/m <sup>3</sup> ; 0-0.5 to 150 mg/m <sup>3</sup> (extended)
<b>Zero Noise</b>	0.20 ppb RMS (60 second averaging time)
<b>Lower Detectable Limit</b>	0.40 ppb (60 second averaging time)
<b>Zero Drift (24 hour)</b>	< 0.40 ppb
<b>Span Drift (24 hour)</b>	+/-1% full scale
<b>Response Time</b>	10 seconds (10 second average time)
<b>Precision</b>	+/-0.4 ppb (500 ppb range)
<b>Linearity</b>	+/-1% full scale
<b>Sample Flow Rate</b>	0.6 liters/min. nominal
<b>Operating Temperature</b>	5°C - 40°C (20°C - 30°C with EPA Designation)
<b>Power Requirements</b>	100 VAC, 115 VAC, 220-240 VAC +/-10% @ 300W
<b>Size and Weight</b>	16.75"(W) x 8.62"(H) x 23"(D), 55 lbs. 425 mm (W) x 219 mm (H) x 584 mm (D), 25 kg
<b>Outputs</b>	Selectable Voltage, RS232/RS485, TCP/IP, 10 Status Relays, and Power Fail Indication (standard). 0-20 or 4-20 mA Isolated Current Output (optional)
<b>Inputs</b>	16 Digital Inputs (standard), 8 0-10Vdc Analog Inputs (optional)

## Ordering Information

### Model 42i-D NO<sub>x</sub> Analyzer

Choose from the following configurations/options to customize your own Model 42i-D

#### 1. Voltage options:

A = 115 VAC 50/60 Hz (standard)  
B = 220/240 VAC 50/60 Hz  
J = 100 VAC 50/60 Hz

#### 2. Internal zero / span:

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

#### 3. Converter options:

M = Molybdenum (standard)  
S = Stainless steel

#### Other options:

- Ozone particulate filter
- Cable, DB37M to open end, 6' LG.
- Rack mounts
- Cable, DB37F to open end, 6' LG.
- Rear extender
- Cable, DB25M to open end, 6' LG.
- Terminal Block Kit & Cable 37 pin
- Cable, RS232 Null Modem
- Terminal Block Kit & Cable 25 pin

#### 4. Sample handling:

S = Standard plumbing (standard)  
A = Ammonia scrubber

#### 5. Ozone handling:

D = Drierite scrubber (standard)  
P = Permeation dryer

#### 6. Optional I/O:

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

#### 7. Mounting Hardware:

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

Your Order Code: 42i D- \_ \_ \_ \_ \_

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This product is manufactured in a plant whose quality management system is ISO 9001 certified.

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