

## Model 42i NO-NO<sub>2</sub>-NO<sub>x</sub> Analyzer

Chemiluminescent gas analyzer with enhanced communication capabilities for ambient air and source emissions monitoring



### A change is in the air

The industry's new best-of-breed. Our customers told us exactly what they're looking for in a gas monitoring solution: reliability, simplicity, ease of use. The new *i*Series platform delivers on all counts - and then goes a step farther. The flagship product in Thermo's new *i*Series product line is the Model 42i NO-NO<sub>2</sub>-NO<sub>x</sub> analyzer.

Using chemiluminescence technology, the Model 42i measures the amount of nitrogen oxides in the air from sub-ppb levels up to 100ppm. The Model 42i is a single Chamber, single photomultiplier tube design that cycles between the NO and NO<sub>x</sub> modes.

The 42i has independent outputs for NO, NO<sub>2</sub>, and Nox and each can be calibrated separately. Dual range and Auto range are standard features as well. If required, the instrument can be operated

continuously in either the NO or NO<sub>x</sub> modes allowing for response times of less than 5 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.

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 soft-keys to allow you to jump directly to frequently accessed functions, menus or screens. The larger interface screen can display up to five lines of measurement information.

### 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

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 Electron 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 Electron air quality products.

### Product Specifications

<b>Preset Ranges</b>	0-0.05, 0.1, 0.2, 0.5, 1, 2, 5, 10, 20, 50 and 100 ppm 0-0.1, 0.2, 0.5, 1, 2, 5, 10, 20, 50, 100 and 150 mg/m <sup>3</sup>
<b>Custom Ranges</b>	0-0.05 to 100 ppm 0-0.1 to 150 mg/m <sup>3</sup>
<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>	40 seconds (10 second average time) 80 seconds (60 second average time) 300 seconds (300 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.
<b>Operating Temperature</b>	15°C - 35°C
<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. (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 Outout (optional)
<b>Inputs</b>	16 Digital Inputs (standard), 8 0-10Vdc Analog Inputs (optional)

### Ordering Information

#### Model 42i NO-NO<sub>2</sub>-NO<sub>x</sub> Analyzer

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

#### Voltage options:

A = 120 Vac 50/60 Hz (standard)  
B = 220 Vac 50/60 Hz  
J = 100 Vac 50/60 Hz

#### Internal zero / span:

N = No zero / span assembly (standard)  
Z = Internal zero span assembly  
P = Internal permeation span source with zero/span assembly

#### Converter options:

M = Molybdenum (standard)  
S = Stainless steel

#### Sample handling:

S = Standard plumbing (standard)  
A = Ammonia scrubber

#### 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: 42i - \_ \_ \_ \_ \_



#### Other options:

- Teflon particulate filter
- Ozone particulate filter
- Rack mounts
- Rear extender

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