

Model 42i TL Trace Level NO_x Analyzer

Chemiluminescent gas analyzer for ambient air 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 *iSeries* platform delivers on all counts - and then goes a step farther.

A trace level product in Thermo's new *iSeries* product line is the Model 42i-TL NO_x analyzer.

Using chemiluminescence technology, the Model 42i-TL measures the amount of nitrogen oxides in the air from sub-ppb levels up to 1000 ppb. The Model 42i-TL is a single chamber, single photomultiplier tube design that cycles between the NO, NO_x, and Zero modes. The addition of the Zero mode provides for excellent long term stability and extremely low minimum detectable limits.

The 42i has independent outputs for NO, NO₂, and NO_x and each can be calibrated independently.

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 soft-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

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 (ROI) and total cost of ownership of your Thermo Electron air quality products.

Product Specifications

Preset Ranges	0-5, 10, 20, 50, 100, 200, 500, and 1,000 ppb 0-10, 20, 50, 100, 200, 500, 1,000 and 2,000 $\mu\text{g}/\text{m}^3$
Custom Ranges	0-5 to 1,000 ppb 0-10 to 2,000 $\mu\text{g}/\text{m}^3$
Zero Noise	< 25 ppt RMS (120 second averaging time)
Lower Detectable Limit	< 50 ppt RMS (120 second averaging time)
Zero Drift (24 hour)	Negligible
Span Drift (24 hour)	+/- 1% full scale
Response Time	60 sec (10 second averaging time)
Linearity	+/- 1% full scale
Sample Flow Rate	1 LPM
Operational Temperature	5°C - 40°C
Power Requirements	100 vac, 115 vac, 220-240 vac +/-10% @ 300W
Size and Weight	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
Outputs	Selectable Voltage, RS232/RS485, TCP/IP, 10 Status Relays, and Power Fail Indication (standard). 0-20 or 4-20 mA Isolated Current Output (optional)
Inputs	16 Digital Inputs (standard), 8 0-10vdc Analog Inputs (optional)

Ordering Information

Model 42i TL NO-NO₂-NO_x Analyzer

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

Voltage options:

A = 115 Vac 60 Hz
 B = 220 Vac 50 Hz
 C = 220 Vac 60 Hz
 D = 115 Vac 50 Hz
 J = 100 Vac 50/60 Hz

Internal zero / span:

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

Converter options:

M = Molybdenum (standard)

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 - TL _____



Other options:

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

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