

Thermo Scientific Model 42i NO-NO₂-NO_x Analyzer

Chemiluminescent gas analyzer

The Thermo Scientific™ Model 42i NO-NO₂-NO_x Analyzer utilizes chemiluminescence technology to measure the amount of nitrogen oxides in the air from sub-ppb levels up to 100ppm.

- 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



The Thermo Scientific Model 42i analyzer is a single chamber, single photomultiplier tube design that cycles between the NO and NO_x modes.

The 42i analyzer has independent outputs for NO, NO₂, and NO_x, 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_x modes allowing for response times of less than five 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.

Easily programmable short cut keys 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 while the primary screen remains visible.



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Preset Ranges	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 ³
Custom Ranges	0-0.05 to 100 ppm; 0-0.1 to 150 mg/m ³
Zero Noise	0.20 ppb RMS (60 second averaging time)
Lower Detectable Limit	0.40 ppb (60 second averaging time)
Zero Drift (24 hour)	< 0.40 ppb
Span Drift (24 hour)	+/- 0.5% full scale
Response Time	40 seconds (10 second average time) 80 seconds (60 second average time) 300 seconds (300 second average time)
Precision	+/-0.4 ppb (500 ppb range)
Linearity	+/-1% full scale
Sample Flow Rate	0.6 liters/min.
Operating Temperature	59°-95°F (15°- 35°C), safely operated 32°-113° F (0°-45° 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. (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 0-10 Vdc Analog Inputs (optional)
Approvals and Certifications	U.S. EPA Reference Method: RFNA-1289-074; MCerts Certified: MC070093/00; EN14211: 936/21203248/C Report; NF Certificate: 05/01

Ordering Information

Model 42i NO-NO₂-NO_x Analyzer

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

1. Voltage options:

A = 120 VAC 50/60 Hz (standard)
B = 220 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
P = Internal permeation span source with zero/ span assembly

3. Converter options:

M = Molybdenum (standard)
S = Stainless steel

4. Sample handling:

S = Standard plumbing (standard)
A = Ammonia scrubber
L = Lag Volume
C = Lag Volume and Ammonia Scrubber
T = Standard Plumbing with Sample Permeation Dryer
V = Lag Volume with Sample Permeation Dryer

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 - _____

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 products.

For more information, visit our website at thermoscientific.com/air

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

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