

# Thermo Scientific Model 42i-HL

## High level NO-NO<sub>2</sub>-NO<sub>x</sub> chemiluminescent gas analyzer

The Thermo Scientific™ Model 42i-HL High Level NO, NO<sub>2</sub>, NO<sub>x</sub> Analyzer utilizes chemiluminescence technology to measure the amount of nitrogen oxides in the air from 10 ppm up to 5000 ppm. The Model 42i-HL analyzer is a single chamber, single photo multiplier tube design that cycles between the NO and NO<sub>x</sub> modes.

### 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

### Introduction

The Thermo Scientific Model 42i-HL analyzer has independent outputs for NO, NO<sub>2</sub>, and NO<sub>x</sub> 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 offerings of the Model 42i-HL analyzer. 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.



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High Level NO-NO<sub>2</sub>-NO<sub>x</sub> Analyzer

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| Specifications               |   |
|------------------------------|---|
| Preset ranges                | 0-10, 20, 50, 100, 200, 500, 1000, 2000, 5000 ppm   |
| Noise                        | 25 ppb  |
| Zero noise                   | (24 hour) 50 ppb  |
| Lower detectable limit       | 50 ppb  |
| Zero drift (24 hour)         | 0.05 ppm  |
| Span drift (24 hour)         | (24 hour) +/-1% full scale  |
| Rise fall times              | (0-90%) 2.5 seconds NO mode; 5.0 seconds NO <sub>x</sub> mode   |
| Linearity                    | +/-1% full scale  |
| Sample flow rate             | 25 cc/min. and bypass flow rate 250 to 1100 cc/min.   |
| Temperature                  | Performance specifications based on operation within 15°-35° C range. Instrument may be safely operated over the range of 0°-45° C                  |
| Power requirements           | 100 VAC, 115 VAC, 220-240 VAC +/-10% @ 500W   |
| Size and weight              | 16.75" (W) x 8.62" (H) x 23" (D) [42.5 cm (W) x 21.9 cm (H) x 58.4 cm (D)]<br>70 lbs. (31.75 kg) including pump                                     |
| 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; UKCA                |

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.

## Ordering information

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

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

S = Oxygen sensor with NO zero/span

R = Oxygen sensor with zero/span

#### 3. Converter options

S = Stainless steel (standard)

#### 4. Sample handling

S = Standard plumbing (standard)

A = Ammonia scrubber

B = Bypass flow

C = Ammonia scrubber with bypass flow

#### 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 and ears/handles, EIA

#### Other options

Tefl on particulate filter

Ozone particulate filter

Rack mounts

Rear extender

#### Your Order Code: Model 42i-HL

|                      |                      |                      |                      |                      |                      |                      |                      |
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