

## Model 410i-E High Range CO<sub>2</sub> Analyzer

Based on Non-Dispersive Infrared (NDIR) principle with enhanced communication capabilities for source emissions monitoring



### 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

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 core product in Thermo's new *iSeries* product line is the Model 410i-E NDIR CO<sub>2</sub> analyzer.

Using new optical filter technology, the Model 410i-E is designed to monitor and report on CO<sub>2</sub> stack gas levels utilizing either of the accepted industry standard sampling methods, Straight Extractive Sampling or Dilution Sampling. The gas detection scheme uses optically fixed bandpass interference filters and quantum detection to analyze the gas stream, leading to a superior level of performance and

reliability. Add to that, an expanded ambient temperature operating range and these instruments provide excellent performance over a wider range of concentrations.

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 while primary screen remains visible.

## Comprehensive Service Solutions

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>	0-0.5, 1, 2, 5, 10, 20, 25%
<b>Custom Ranges</b>	0-0.5 to 25%
<b>Zero Noise</b>	10 ppm RMS (60 second average time)
<b>Minimum Detectable</b>	20 ppm (300 second averaging time)
<b>Zero Drift (24 hour)</b>	< 40 ppm
<b>Span Drift</b>	<2.0% Rreading - 7 Days
<b>Response Time</b>	90 seconds (30 second average time)
<b>Precision</b>	+/-1.0% of reading
<b>Linearity</b>	+/-1.5% of span (at concentrations of 10% to 100% of span)
<b>Sample Flow Rate</b>	1.0 liter per minute
<b>Operating Temperature</b>	+5 <sup>0</sup> C to +45 <sup>0</sup> C
<b>Power Requirements</b>	100 vac, 115 vac, 220-240 vac +/-10% @ 275W
<b>Size and Weight</b>	16.75"(W) x 8.62"(H) x 23"(D), 39 lbs. (17.7 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 410i-E CO<sub>2</sub> Analyzer

Choose from the following configurations/options to customize your own Model 410i:

#### Voltage options:

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

#### Internal zero / span:

N = No zero / span valve  
Z = Internal zero span assembly

#### Filter Wheel Purge:

P = Filter wheel purge setup (standard)

#### Sample Gas Concentration:

E = 0 - 25%

#### Optional I/O:

A = No optional I/O (standard)  
C = 0-20, 4-20mA current output - 6 channels, 0-10v analog input - 8 channels

#### Mounting hardware:

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

Your Order Code: 410iE - \_\_\_ \_\_\_ E \_\_\_

#### Other options:

- Teflon particulate filter
- Rack mounts
- Rear extender



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Air Quality Instruments

[www.thermo.com/air](http://www.thermo.com/air)

27 Forge Parkway  
Franklin, MA 02038 USA

Takkebijsters 1  
Breda, BL 4817  
The Netherlands

+1 (866) 282-0430  
+1 (508) 520-1460 fax

+33 (0) 76 5879888  
+33 (0) 76 5816520 fax