# Model 48i-HL CO Analyzer

Gas filter correlation gas analyzer with enhanced communication capabilities for source emissions monitoring









- 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 *i*Series platform delivers on all counts - and then goes a step farther.

A core product in Thermo's new *i*Series product line is the Model 48*i*-HL CO analyzer.

Using gas filter correlation technology, the Model 48*i*-HL measures the amount of carbon monoxide in the sample. The Model 48*i*-HL is based on the principle that carbon monoxide (CO) absorbs infrared radiation at a wavelength of 4.6 microns. Because infrared absorption is a nonlinear measurement technique, it is necessary for the instrument electronics to transform the basic analyzer signal into a linear output.

The Model 48*i*-HL uses an exact calibration curve to accurately linearize the instrument output over any range up to a concentration of 20,000ppm.

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.



## **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**

Preset Ranges	0-50, 100, 200, 500, 1000, 2000, 5000, 10000 and 20000 ppm
	0-50, 100, 200, 500, 1000, 2000, 5000, 10000 and 20000 mg/m <sup>3</sup>
Custom Ranges	0-50 to 20000 ppm
	0-50 to 20000 mg/m <sup>3</sup>
Zero Noise	2.0 ppm RMS (10 second averaging time)
<b>Lower Detectable Limit</b>	4.0 ppm
Zero Drift (24 hour)	< 4.0 ppm
Span Drift (24 hour)	+/-2% full scale
Response Time	60 seconds (30 second average time)
Precision	+/-0.1 ppm
Linearity	+/-2% full scale
Sample Flow Rate	1.0 liters/min. nominal
Operating Temperature	5°C - 40°C (20°C - 30°C with EPA Designation)
Power Requirements	100 vac, 115 vac, 220-240 vac +/-10% @ 275W
Size and Weight	16.75"(W) x 8.62"(H) x 23"(D), 49 lbs.
	425 mm (W) x 219 mm (H) x 584 mm (D), 22.2 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)
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## **Ordering Information**

#### Model 48i-HL CO Analyzer

Choose from the following configurations/options to customize your own Model 48i-HL

#### Voltage options:

A = 115Vac 50/60 Hz B = 220/240 Vac 50/60 Hz J = 100 Vac 50/60 Hz

## Internal zero /span:

N = No zero / span valve

A = No zero / span valve w/zero air scrubber

Z = Internal zero / span valves

C = Internal zero / span valves w/zero air scrubber

### Filter Wheel Purge:

S = Standard plumbing (standard)

P = Filter wheel purge set-up

#### Ontional 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: 48i - HL \_\_\_ \_\_\_



- Teflon particulate filer
- · Rack mounts
- Rear extender
- Terminal Block Kit & Cable 37 pin • Terminal Block Kit & Cable 25 pin
- Cable, DB37M to open end, 6' LG.
- Cable, DB37F to open end, 6' LG.
  - Cable, DB25M to open end, 6' LG.
  - ◆ Cable, RS232 Null Modem



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