

# Thermo Scientific Model 48i-HL Carbon Monoxide Analyzer

Gas filter correlation analyzer

The Thermo Scientific™ Model 48i-HL Carbon Monoxide (CO) Analyzer utilizes gas filter correlation technology to measure the amount of carbon monoxide in the sample.

- 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



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

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 short-cut 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.



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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)
Lower Detectable Limit	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	.5-2.0 liters/min. nominal
Operating Temperature	32° to 113°F (0°C to 45°C)
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 0-10 vdc Analog Inputs (optional)

### Ordering Information

#### Model 48i-HL Carbon Monoxide Analyzer

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

#### 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 and/or Oxygen

##### Sensor:

N = No zero / span valve assembly (standard)  
A = No zero/ span valve w/ Zero Air Scrubber  
Z = Internal zero / span valve assembly  
C = Internal zero / span valve w/ Zero Air Scrubber  
T = Oxygen Sensor with NO Zero/Span  
R = Oxygen Sensor with Zero/Span

#### 3. Filter wheel purge:

S = Standard plumbing (standard)  
P = Filter wheel purge setup

#### 4. Optional I/O:

A = None (standard)  
C = 4-20mA current output - 6 channels,  
0-10v analog input - 8 channel

#### 5. Mounting Hardware:

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

**Your Order Code: Model 48i-HL - \_ \_ \_ \_ \_**

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](http://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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