

# Thermo Scientific Model 48i Carbon Monoxide Analyzer

Gas filter correlation analyzer

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

- Approved to meet the following standards: U.S. EPA, UK Environmental Agency and the European Union
- 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



The Model 48i 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 analyzer uses an exact calibration curve to accurately linearize the instrument output over any range up to a concentration of 10,000ppm.

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 primary screen remains visible.



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|                              |  |
|------------------------------|--|
| Preset Ranges                | 0-1, 2, 5, 10, 20, 50, 100, 200, 500, 1000, 2000, 5000 and 10000 ppm<br>0-1, 2, 5, 10, 20, 50, 100, 200, 500, 1000, 2000, 5000 and 10000 mg/m <sup>3</sup>       |
| Custom Ranges                | 0-1 to 10000 ppm<br>0-1 to 10000 mg/m <sup>3</sup>   |
| Zero Noise                   | 0.02 ppm RMS (60 second averaging time)  |
| Lower Detectable Limit       | 0.04 ppm   |
| Zero Drift (24 hour)         | < 0.1 ppm  |
| Span Drift (24 hour)         | +/-1% full scale   |
| Response Time                | 60 seconds (30 second average time)  |
| Precision                    | +/-0.1 ppm   |
| Linearity                    | +/-1% full scale < 1000 ppm<br>+/-2.5% full scale > 1000 ppm   |
| Sample Flow Rate             | 0.5-2 liters/min.  |
| Operating Temperature        | Performance specifications based on operation within 20°-30° C range (per U.S. EPA Guidelines).<br>Instrument may be safely operated over the range of 0°-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. (22.2 kg)   |
| Outputs                      | Selectable voltage, RS232/RS485, TCP/IP, 10 status relays and power fail indication (standard)<br>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: RFCA-0981-054<br>MCERTS Certified: Sira MC070095/00<br>EN14626: TÜV 936/21203248/A Report   |

### Ordering Information

#### Model 48i Carbon Monoxide Analyzer

Choose from the following configurations/options to customize your own Model 48i 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 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  
G = 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 = No optional I/O (standard)  
C = 4-20mA current output - 6 channels,  
0-10v analog input - 8 channel

#### 5. Mounting hardware:

A = Bench mounting and Ears/Handles, EIA

#### Your Order Code:

Model 48i - \_ \_ \_ \_ \_

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](http://thermoscientific.com)

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

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