

## Thermo Scientific Carbon Dioxide Gas Analyzer with Oxygen Sensor, Model 410i Series

Non-dispersive infrared analyzer with paramagnetic sensor technology



### Key Features

- Paramagnetic sensor technology
- Adjustable ranges
- Real-time correction of CO<sub>2</sub> readings
- User selectable O<sub>2</sub> correction concentrations

The industry proven Model 410i Carbon Dioxide (CO<sub>2</sub>) analyzer is now also available with an O<sub>2</sub> sensor for the measurement and correction of oxygen concentrations. The advanced non-dispersive infrared technology, utilized in the standard Model 410i, combined with the paramagnetic oxygen sensor offers unsurpassed detection specificity and long term stability.

The paramagnetic oxygen sensor gives the source measurement of CO<sub>2</sub> extended capabilities including the ability to read and report oxygen concentrations within the sample stream up to 100%.

Additionally, programming allows the user to correct the CO<sub>2</sub> reading for the amount of oxygen in the sample. Selectable O<sub>2</sub> concentrations can be used as the correction factor. (i.e. CO<sub>2</sub> corrected to 6% O<sub>2</sub> or any other percentage.)

Developed on the renowned iSeries platform the Model 410i with Oxygen offers limited maintenance and exceptional ease of use.

iSeries features also include:

- Rack mountability
- Ethernet port & connectivity options
- Flash memory for increased data storage
- Easily programmable short-cut keys
- Large interface screen

## Product Specifications

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 lifecycle. Through predictable, fixed-cost pricing, our services help protect the return on investment and total cost of ownership of your Thermo Scientific air quality products.

### Carbon Dioxide Gas Analyzer with Oxygen Sensor Module, Model 410i Series

<b>Measurement Range</b>	User selectable to 100% O <sub>2</sub>
<b>Repeatability</b>	+/- 0.1% O <sub>2</sub>
<b>Zero Drift (24 hour)</b>	+/- 0.1% O <sub>2</sub>
<b>Response Time</b>	< 2.5 seconds to 90% FS
<b>Linearity</b>	+/- 0.1% O <sub>2</sub>
<b>Operating Temperature</b>	41°F - 104°F (5°C - 40°C)
<b>Temperature Coefficient</b>	Within a range of 32°F to 149°F (0°C to +65°C)
Zero	< +/- 0.03% O <sub>2</sub> / °C
Span	< +/- 0.05% O <sub>2</sub> of reading / °C
<b>Outputs</b>	Selectable voltage, RS232/RS485, TCP/IP, 10 status relays and power fail indication 0-20 or 4-20 mA isolated current output
<b>Inputs</b>	16 digital inputs, 8 0-10Vdc analog inputs
<b>Physical Dimensions</b>	16.75" (42.5cm) W x 8.62" (21.9cm) H x 23" (58.4cm) D, 55lbs (25kg)

### Ordering Information

#### CO<sub>2</sub> Gas Analyzer with Oxygen Sensor Module, Model 410i Series

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

##### Model 410i

##### 1. Voltage options:

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

##### 2. Internal zero / span:

N = No zero / span valve  
Z = Internal zero / span valves  
S = No zero / span valve with O<sub>2</sub> sensor  
R = Internal zero / span valves with O<sub>2</sub> sensor

##### 3. Filter Wheel Purge:

P = Filter wheel purge setup (Standard)

##### 4. Sample Gas Concentration Range:

D = 0 - 10,000 ppm Concentration Range (Dilutive)  
E = 0 - 25% Concentration Range (Extractive)

##### 5. Optional I/O:

A = No optional I/O (standard)  
C = 0 - 20, 4-20mA Current output, 6 Channels  
0 - 10v Analog Input, 8 Channel

##### 6. Mounting Hardware:

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

**Your Order Code: 410i** \_ \_ \_ \_ \_

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

Air Quality Instruments

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