

Sulfur Dioxide Analyzer, Model 43i

Pulsed fluorescence gas analyzer



Key Features

- Approved to meet the following standards: US 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
- Enhanced electronics design optimizes product commonality

The Thermo Scientific Sulfur Dioxide (SO₂) Analyzer, Model 43i utilizes pulsed fluorescence technology to measure the amount of sulfur dioxide in the air up to 100 ppm.

The pulsing of the U.V. source lamp serves to increase the optical intensity whereby a greater U.V. energy throughput and lower detectable SO₂ concentration are realized.

Reflective bandpass filters, as compared to commonly used transmission filters, are less subject to photochemical degradation and more selective in wavelength isolation. This results in both increased detection specificity and long term stability.

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 short-cut 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.

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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 air quality products.

Product Specifications

Preset Ranges	0-0.05, 0.1, 0.2, 0.5, 1, 2, 5, and 10 ppm 0-0.2, 0.5, 1, 2, 5, 10, 20, and 25 mg/m ³
Extended Ranges	0-0.05, 1, 2, 5, 10, 20, 50 and 100 ppm 0-2, 5, 10, 20, 50, 100, 200, and 250 mg/m ³
Custom Ranges	0-0.05 to 100 ppm 0-0.2 to 250 mg/m ³
Zero Noise	1.0 ppb RMS (10 second averaging time), 0.5 ppb RMS (60 second averaging time), 0.25 ppb RMS (300 second averaging time)
Lower Detectable Limit	2.0 ppb (10 second averaging time), 1.0 ppb (60 second averaging time), 0.5 ppb (300 second averaging time)
Zero Drift (24 hour)	Less than 1 ppb
Span Drift (24 hour)	+/-1%
Response Time	80 seconds (10 second average time) 110 seconds (60 second average time) 320 seconds (300 second average time)
Precision	1% of reading or 1 ppb (whichever is greater)
Linearity	+/-1% full scale \leq 100ppm
Sample Flow Rate	0.5 liters/min. (standard) 1 liter/min. (optional)
Interferences	< lower detectable limit except for the following:
(EPA levels)	NO < 3 ppb, M-Xylene < 2 ppb, H ₂ O < 2% of reading
Operating Temperature	20 ⁰ C - 30 ⁰ C
Power Requirements	100 VAC, 115 VAC, 220-240 VAC +/-10% @ 165W
Size and Weight	16.75"(W) x 8.62"(H) x 23"(D), 48 lbs. (21.8 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)
Approvals and Certifications	US EPA Equivalent Method: EQSA-0486-060 MCERTS Certified: Sira MC070094/00 EN14212: TÜV 936/21203248/D Report

Ordering Information

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Choose from the following configurations/options to customize your own Model 43i

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 assembly
Z = Internal zero / span assembly
P = Internal permeation span source with zero/span assembly

3. Kicker type:

S = Standard
H = Heated

4. Optional I/O:

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

5. Mounting hardware:

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

Other options:

- Teflon particulate filter
- Rack mounts
- Rear extender

Your Order Code: 43i - _ _ _ _ _

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

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