

# Thermo Scientific Model 5020i Sulfate Particulate Analyzer

Continuous, real-time monitor utilizing pulsed fluorescence technology

The Thermo Scientific™ Model 5020i Sulfate Particulate Analyzer (SPA) is a continuous, real-time, sulfate particulate analyzer that utilizes pulsed fluorescence technology and thermal reduction techniques.

- Enhanced optics for superior specificity
- Fast response time
- Direct and automatic measurement of background zero air
- Compatible with industry standard inlets and cyclones
- iSeries platform design provides reliability and ease of use



The Thermo Scientific 5020i SPA analyzer ensures accurate sampling and complete data capture of particulate laden flow.

After the particulate sample is drawn into the Model 5020i SPA analyzer through a sample inlet, it is then passed through the converter core where sulfate (SO<sub>4</sub>) is converted to sulfur dioxide (SO<sub>2</sub>) utilizing the thermal reduction process. The sulfur dioxide is then measured using our well established pulsed fluorescence analyzer technology.

The Model 5020i analyzer SPA increases instrument up time with minimal effort by eliminating the need for batch sampling. It also gauges changes and spots trends accurately and immediately.

To continuously maximize efficiency for the operation at hand the Model 5020i SPA performs direct and automatic measurement of background zero air without the need for purge gas.

Developed on the renowned iSeries instrument platform design, the Model 5020i SPA analyzer offers limited maintenance and exceptional ease of use.

**iSeries features also include:**

- Ethernet port
- Flash memory for increased data storage
- Ethernet connectivity for remote access
- Off-site measurement downloads
- Easily programmable short-cut keys
- A large interface screen



## Thermo Scientific Model 5020i Sulfate Particulate Analyzer

|                         |   |
|-------------------------|---|
| Preset Ranges           | 0 - 5, 10, 25, 50, and 100 µg/m <sup>3</sup> (user adjustable ranges available)                         |
| Zero Noise              | 0.20 µg/m <sup>3</sup> (15 minute cycle)  |
| Lower Detectable Limit  | 0.5 µg/m <sup>3</sup> (15 minute cycle)   |
| Span Drift              | +/- 1% (24 hours)   |
| Response Time           | 90 seconds  |
| Sample Flow             | 0.4 - 0.5 lpm   |
| Operating Temperature   | 68° to 86° F (20 to 30° C) detector module  |
| Denuder Lifetime        | 30 days (rechargeable)  |
| Converter Core Lifetime | > 6 months continuous operation (user replaceable)  |
| Weight                  | Analyzer: ~20kg (detector module)<br>Converter: ~17kg (sample conditioning module)                      |
| Dimensions              | Analyzer: 42.55cm (W) x 21.89cm (H) x 58.42cm (D)<br>Converter: 42.55cm (W) x 21.89cm (H) x 58.42cm (D) |
| Converter Core Lifetime | 6 months continuous operation (user replaceable)  |
| Denuder Lifetime        | 30 days (rechargeable)  |

### Ordering Information

#### Model 5020i Sulfate Particulate Analyzer

Choose from the following configurations/options to customize your own Model 5020i SPA.

#### 1. Nominal supply voltage and frequency

A = 120 Vac 50/60 Hz (standard)

B = 220 Vac 50/60 Hz

#### 2. Internal zero/span

Z = Internal zero/span assembly (standard)

P = Internal permeation span source with zero/span assembly

#### 3. Optional I/O

A = No optional I/O (standard)

C = 4-20mA current output, 6 channels

0-10v analog input, 8 channel

#### 4. Mounting hardware

A = Bench mounting (standard)

B = Ears & handles, EIA

C = Ears & handles, retrofit

#### Other Options:

Rack Mounts

Rear Extender

Your Order Code: 5020i - \_ \_ \_ \_ \_

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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