

Ambient Particulate Profiler

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Ambient profiling of aerosol particulates has been simplified by the Met One Instruments Model 212 Ambient Particulate Profiler. The 212 sizes and counts particles in eight digital bins, and reports the information on command. Each of the eight channels may be field configured to customer requirements.

A Remarkably Flexible, Higher Performance Instrument Featuring:

- Eight Real-Time Channels
- Self-Contained
- Low Power
- Low Cost
- 0.5 μ m to 10 μ m (typical) range, extended ranges available
- Simple operation
- Weatherproof package
- Sheath air technology

Applications Include:

- Air Quality Surveys
- Emissions Sampling
- Work Place Monitoring
- Ambient Monitoring
- Remote Monitoring

Two Models

Two models of the 212 Profiler are available, each with specific features.

For general purpose outdoor applications the Model 212-1 is recommended. The 212-1 has a minimum sensitivity of 0.5 microns and will size particles up to 10

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microns. Particles larger than 10 microns are counted, but sized as 10 microns. The 212-1 uses an extended life Laser Diode that provides 30,000 hours of life, three times the life of standard lasers. Additionally the 212-1 will operate reliably in elevated temperatures.

For special applications the Model 212-2 has a minimum sensitivity of 0.3 microns. A lower wavelength Laser Diode is used in the 212-2 and will produce 10,000 hours of life.

Special size ranges are available. Consult factory for details.



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How it Works

Using a laser-diode based optical sensor, the 212 uses light scatter technology to detect, size and count particles. This detected information is output as particles per size range.

Installation

Installation is quick and easy with the 212 particle counter. It can be mounted on a tripod, wall mounted, bench mounted or on pole. Due to its rugged weatherproof enclosure, the 212 can be installed in most outdoor environments.

Data is calculated every sample period and downloaded through the serial cable. The data can be captured by any serial device (Laptop, Palm top, Serial printer, etc.). The data can then be analyzed using standard programs such as excel.

With the included software package, data is automatically saved and graphed in real-time. This software allows the remote control of the 212. sample time, date/time, unit ID, rolling averages, alarm levels, start and stop, and reset commands can all be made from a laptop with the software.

SPECIFICATIONS**Measurement Principle**

Optical, Light-Scatter using a Laser Diode

Flow Rate

1.0 LPM

Measuring Ranges

212-1

0.5 μm to 10 μm (eight selectable sizes)

212-2

0.3 μm to 10 μm (eight selectable sizes)

Concentration

0-9,000,000 Particles per cubic ft.

Sample Flow Rate

1 LPM

Sample Interval

1 – 60 seconds

Accuracy

+/- 10% to calibration aerosol

Communication

RS232 Output

Power

12 VDC 240 mA maximum

Inlet Heater, additional 750 mA

212-1 0 to +70 Degrees Celsius

212-2 0 to +40 Degrees Celsius

3 lb (1.2 kg)

Diameter 4.0 in, Length 7.5 in + 12" for inlet tube

Temperature**Weight****Size****INCLUDED OPTIONS****Software**

Real Time Datalogging and Graphing, Remote Operation,

Software requirements

Pentium, 100mhz, 16MB Ram