

Aerosol Particulate Profiler

AEROCET 531

Introducing an aerosol particulate monitor with increased functionality! The 531 combines hand-held portability with highly precise measurements, and can be configured as either a particle counter or particulate mass monitor.

Using a laser-diode-based optical sensor, the 531 uses light scatter technology to detect, size, and count particles (larger than 0.5 microns). This detected information can be converted into particle mass using mass-density conversion factors, or may be displayed as particles per size range, depending on how the 531 is configured.

A Remarkably Flexible, Higher Performance Instrument Featuring:

- Operates as either a particle counter, or mass monitor.
- Battery-operated hand-held
- Two channel particle counter
- PM1, PM2.5, PM 7, and PM10 Mass Ranges

Applications Include:

- Filter Testing
- Air Quality Surverys
- IAQ Source Troubleshooting
- Emissions Sampling
- Work Place Monitoring



AEROCET 531 Hand Held Aerosol Particulate Profiler

Operation

The 531 operates uniquely from any other instrument, and functions in one of two modes. **As a mass particulate monitor**, particles are detected, sized, and counted in multiple size ranges. Mass conversion is made using standard conversion factors, or by using user-programmable

factors based on unique conditions. The particle mass can be display as PM1, PM2.5, PM 7, or PM10. **When configured as a particle counter**, sized-based particle counts are displayed as cumulative (counts above threshold) above 0.5 and 5.0 microns, the two most popular size ranges.



Met One Instruments, Inc.

Corporate Sales & Service: 1600 Washington Blvd., Grants Pass, OR 97526, Phone (541) 471-7111, Fax (541) 471-7116
Distribution & Service: 3206 Main Street, Suite 106, Rowlett, TX 75088, Phone (972) 412-4747, Fax (972) 412-4716
<http://www.metone.com> • metone@metone.com

Advanced Data Reporting and Options

On-line printing is provided using the serial communication port. The user may print stored data or print records as they occur.

Supplied software allows remote operation with simulation of all standard settings. Software creates data files for viewing or export to EXCEL and other spread sheets.

The optional Relative Humidity /Temperature Sensor may be added at anytime, the 531 will automatically enable the measurements to the display screen and to the data logger.

SPECIFICATIONS

Measurement Principle	Optical, Light-Scatter using Laser Diode
Display	16 character X 4 line LCD
Keyboard	7 key membrane type
Detectable Particle "Size" Range	0.5 µm to 10 µm
Flow Rate	0.1 cfm (2.83 lpm)
Operating Modes	Selectable, Mass or Particle
<u>Mass-Mode Operation</u>	
Mass Range(s)	PM1, PM2.5, PM7, PM10
Concentration Range	Up to 300 µg
Sample Time	120 Seconds
Sampling Interval	Selectable: 2-60 Minutes
<u>Particle Counter-Mode Operation</u>	
Range(s)	0.5µm and 5.0µm, cumulative
Concentration Range	0-3,000,000 particles/cubic foot
Sample Time	1 minute or 10 minutes, selectable
Sampling Interval	Selectable: 1-60 Minutes
Communication	Selectable RS-232, 9600 Baud
Software	Supplied software can be used to control 531 and create data files for review or export to EXCEL and other spread sheets
Operating Temperature	0 to +50°C
Power	Self-contained battery, 6V NiCd
Size	6.5 in (l) x 4.0 in (w) x 2.1 in (d) 16.5cm(l) x 10.2cm(w) x 5.3cm(d)
Weight	26 oz (0.737 kg)
Supplied Accessories	Battery Charger/ PowerSupply, Isokinetic Probe, CarryingCase, Serial Cable, Software
Optional Accessories	G3120 Relative Humidity /Temperature Sensor