



Indoor Air Monitoring

Aerocet 531S Handheld Particle Counter

The Aerocet 531S is a full-featured, battery operated, handheld mass monitor or particle counter and completely portable unit. This unit provides particle counts or mass PM measurements as stored datalogged values, real-time networked data, or printed results.

Operation

This amazing unit simultaneously measures 6 mass concentration ranges (PM1, PM2.5, PM4, PM7, PM10 and TSP) and are displayed in mass mode. As well as four popular cumulative particle sizes (> 0.5, 1.0, 5.0 and 10.0 microns) in count mode. With a tailored mass conversion The Aerocet 531S particle counts from eight size ranges which are converted to mass using a proprietary algorithm for typical-density aerosols. Accommodation for special particulate with different densities is provided through user-programmable "K-factors. The Aerocet 531S stores up to 6,257 records. These records can be viewed on the display, or transferred to a computer via USB or RS232. Our included Comet download utility makes file transfers easy. Data files can easily be imported into an Excel® formatted output. A temperature / relative humidity plug-and-play option immediately adds ambient temperature and relative humidity capabilities to displayed and logged data.

Features

- 2-in-1 Performance
- Particle Counting & Mass Monitoring Modes
- Cost Competitive
- Keypad Selectable Sizes

Applications

- Controlled Environments
- Indoor Air Quality
- Process Control
- HVAC Applications
- Filter Testing
- Hospital & Clinics

- Emission Sourcing
- Environmental Surveys

Specifications

Operating Principle

Counts individual particles using scattered laser light and calculates the equivalent mass concentration using a proprietary algorithm.

Mass Mode Performance

Mass Concentration Ranges: PM1, PM2.5, PM4, PM7, PM10, and TSP

Concentration Range: 0 – 1000 ug/m3

Sample Time – 1 minute
Mass Mode:

Particle Mode Performance

Particle Size Range: Four channels—0.5, 1.0, 5.0 and 10.0 μm

Concentration Range: 0 – 3,000,000 particles per cubic foot (105,900 particles/L)

Sample Time – 1 minute
Particle Mode:

Accuracy: $\pm 10\%$, to calibration aerosol

Sensitivity: 0.5 μm

Flow Rate: 0.1 cfm (2.83 lpm)

Electrical

Light Source: Laser diode, 90 mW, 780nm



Power: 7.4V Li-ion battery pack—
provides 20 hours of typical
intermittent operation, up to
10 hours continuous use

AC Adapter/Charger: L-ion battery charger, 100-
240 VAC, 50/60Hz, 0.2A

Communications: RS-232, USB

Particle Certifications: Meets or exceeds CE and
ISO21501

Mass Certifications: Requires proper use of
appropriate K-factors for
material being measured

Interface

Display / Keyboard: 16 character x 4 line LCD / 7
key membrane type

Data Memory: 6,257 records

Power Supply / Charger: Yes

Software: Yes

Physical

Size: Height: 6.25" (15.9 cm)
Width: 4.00" (10.2 cm)
Depth: 2.12" (5.4 cm)

Weight: 2 lb – 32 oz (0.9 kg)

Environmental

Operating Temperature: 0° C to +50° C

Storage Temperature: -20° C to +60° C

Accessories

Supplied: Operation Manual
 Custom Serial Cable
 USB CableCommunication
 Software (Comet)
 AC Adapter / Battery
 Charger
 Iso-kinetic Sample Probe
 Carrying Case
 Zero Particulate Filter

Optional: RH & Temperature Probe
 (MOI # G3120)
 Flow Meter (MOI # 9801)
 Portable Printer (MOI #
 G3115)

Specifications are subject to change at any time



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