

831 Aerosol Mass Monitor

Small - Reliable - Affordable

Four Mass Ranges (PM1, PM2.5, PM4, PM10)

A mass monitor that simultaneously provides data of four important mass ranges in one minute.

Handheld Operation

Survey the environment with this extremely portable, size selective mass monitor. This small lightweight instrument is only 28 ounces and is the perfect survey tool for a wide range of applications.

Simple Operation

Only two front-panel buttons accompany the multifunction rotary scroll wheel to provide simple and efficient operation. Just press and rotate to scroll thru the menu driven platform.

Sample History

View sample history easily on the display or export data via the USB port using the included software. Unit stores up to 2500 sample events. USB interface provides quick data download and field firmware upgrades.

Battery Powered

24 hours of typical intermittent operation and up to 8 hours of continuous use. Recharge time is only 2.5 hours. The included AC charger / adapter operates the counter even when the batter pack is discharged.

Applications

- Controlled Environments
- Indoor Air Quality
- Industrial/Occupational Hygiene
- HVAC Applications
- Process Control
- Filter Testing

Note: Not recommended for continuous outdoor use.
Avoid sampling in rainy or foggy conditions.



Figure 1 – Model 831 pictured with optional protective boot

**Whatever your particular needs,
The right choice is only natural.**

Operating Principle

Particle count to mass conversion

Features

Sample Duration	1 minute
Sample Modes	Manual and Continuous
Data storage	2,500 records
Display	2-line by 16-character LCD
Controls	2 button keypad with rotary dial

Performance

PM Ranges	PM1, PM2.5, PM4 and PM10
Concentration Range	0 – 1,000 µg/m ³
Resolution	0.1µg/m ³ (display / serial output)
Sensitivity	0.5µm
Accuracy	± 10% to calibration aerosol
Flow rate	0.1 CFM (2.83 lpm)

Electrical

Light Source	Laser Diode, 780 nm, 40 mW typical
AC Adapter/Charger	AC to DC module, 100 – 240 VAC to 8.4 VDC
Battery Type	Li-ion rechargeable Battery
Battery Operating Time	8 hours continuous operation 24 hour intermittent operation
Battery Recharge Time	2.5 hours typical
Communication	USB Mini B Type

Physical

Size	Height: 6.25" (15.9 cm) Width: 3.63" (9.22 cm) Thickness: 2.00" (5.08 cm)
Weight	1.74 lbs – 28 ounces – (0.79 kg)

Environmental

Operating Temperature	0° C to +50° C
Storage Temperature	-20° C to +60° C

Accessories

Supplied	Battery charger / adapter	
	USB Cable	
	Operation manual	
	Comet software	
Optional	Carrying Case	(PN 8517)
	Protective Boot	(PN 80450)
	Zero Filter Kit	(PN 80846)
	Flow Meter Kit	(PN 80530)

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