



Particle counting in the palm of your hand

Model 227A/227B
Handheld Airborne
Particle Counters

FEATURES

- AC or battery operation
- 0.3 micron at 0.1 cfm (227B)
- 0.5 micron at 0.1 cfm (227A)
- Counts 2 sizes simultaneously
- Stores data from 200 locations
- Labels data with location
- Internal rechargeable battery
- Weighs only 2.1 lbs (0.97 kg)
- Spreadsheet-compatible data files with Particle Vision® PortAll™ software

APPLICATIONS

- Monitor and verify cleanrooms
- Test filters in place
- Track down particle sources
- Monitor:
 - LAF and biohazard benches
 - Cleanroom laundries
 - HVAC systems
 - Computer rooms
 - Food and beverage packaging
 - Hospitals: Pharmacy and surgery
 - Indoor Air Quality (IAQ)
 - Aerospace Assembly
 - Medical Device Assembly
 - Automotive: Paint spray booths
 - Filter performance



The Model 227 Portable Airborne Particle Counter offers the features and sensitivity of larger instruments and easy handheld operation. Weighing only two pounds, the Model 227 features a sensitivity of 0.3 micron (227B) or a sensitivity of 0.5 micron (227A), is fully self-contained, and uses reliable laser diode technology. It connects to a remote printer or computer, and can be part of a facility-monitoring system.

The Model 227 counts two sizes of particles simultaneously. Sample times can be set for up to 24 hours. Count data are stored in memory for easy transfer to a printer or computer. To make the most of its portability, the Model 227 features several counting modes for quick analysis of cleanroom conditions. The concentration mode gives a continuously updated approximation of the number of particles per cubic foot or per liter. The approximation is based on a user-selectable sample period of one to ten seconds. In the auto mode, it automatically takes a specified number of samples and stops, allowing unattended operation. The average mode calculates the average, minimum, and maximum count after a specified number of samples.

In beep mode, the Model 227 sounds a beep each time it counts a specified number of particles. This is useful for locating leaks in filters.

To protect your cleanroom, the Model 227 contains an exhaust filter. The pump and sensor are turned off when the battery charge drops below a safe operating level, maintaining power to preserve data stored in memory. The Met One Model 227: a handful of information.

Model 227A/227B Handheld Particle Counters

SPECIFICATIONS

Size Channels (μm)	227A	ch1	0.5
		ch2	selectable—0.7, 1.0, 3.0, or 5.0
	227B	ch1	0.3
		ch2	selectable—0.5, 1.0, 3.0, or 5.0
Flow Rate	0.1 cfm (2.83 L/min)		
Light Source	Laser diode		
Factory Calibration	Mono-dispersed polystyrene spheres (NIST traceable)		
Display	4-line LCD, 7 digits		
Outputs	RS232C/RS485 for computer or printer		
Location Labels	100, appear on printout		
Data Storage	200 samples, rotating buffer		
Sample and Hold Times	1 second to 24 hours		
Count Alarms	1 to 9,999,999 each channel		
Concentration Mode	1 second samples, 1 to 10 samples averaged, display updated every second; displays counts/ft ³ or liter		
Power	AC adapter or internal battery pack		
Battery	Rechargeable NiMH		
Battery Recharge Time	90% in 10 hours; 100% in 12 hours		
Operating Time	8 hours continuous		
Size	4" w x 6.9" h x 2.3" d (10.3 x 17.5 x 5.9 cm)		
Weight	2.1 lbs (0.97 kg)		
Environment	Operating	55 to 84°F (12 to 29°C), 20 to 95% relative humidity, non-condensing	
	Storage	-40 to 160°F (-40 to 70°C), up to 98% relative humidity, non-condensing	
Accessories Included	Isokinetic Probe (direct mount); Purge Filter; Recharger Stand; AC Adapter; Operator's Manual		

ORDERING GUIDE

When ordering, specify:	
Basic Sensitivity	0.3 μm (227B) or 0.5 μm (227A)
Power (AC)	AC adapters for 100 VAC, 115 VAC, or 230 VAC

OPTIONAL ACCESSORIES

Relative Humidity/Temperature Sensor
High Pressure Diffuser
Particle Vision PortAll Software
Printer, external
Carrying/Shipping Case

