

Met One

Particle counting in the palm of your hand

Model 227A/227B Handheld Airborne Particle Counters

FEATURES

- 0.5 micron at 0.1 cfm (227A)
- 0.3 micron at 0.1 cfm (227B)
- User-selectable second channel
- AC or battery operation
- Stores data from 200 locations
- Labels data with location
- Internal rechargeable battery
- Weighs only 0.97 kg (2.1 lbs)
- Compatible with PortAll Version 2 software

APPLICATIONS

- Monitor and verify cleanrooms
- Test filters in place
- Investigate particle sources
- Monitor:
 - Laminar Air Flow (LAF)
 - Biohazard benches
 - Cleanroom laundries
 - HVAC systems
 - Computer rooms
 - Food and beverage packaging
 - Hospital pharmacies and surgery rooms
 - Indoor Air Quality (IAQ)
 - Aerospace assembly
 - Medical device assembly
 - Automotive paint spray booths



The Met One Model 227 Handheld Airborne Particle Counter features the sensitivity of larger instruments and easy handheld operation. Weighing only two pounds, the 227 features a 0.3 micron sensitivity (227B) or a 0.5 micron sensitivity (227A), and uses reliable laser diode technology.

The 227 counts two sizes of particles; the second size is user-selectable. Configure sample times from one second up to 24 hours. To make the most of its portability, the 227 features several counting modes for quick analysis of cleanroom conditions.

- **Concentration mode:** gives a continuously updated approximation of the number of particles per liter or cubic foot. The approximation is based on a user-selectable sample period of one to ten seconds.
- **Auto mode:** automatically takes a specified number of samples and stops, allowing unattended operation.
- **Average mode:** calculates the average, minimum, and maximum count after a specified number of samples.
- **Beep mode:** sounds a beep each time it counts a specified number of particles.

To protect cleanrooms, the 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.

Print results to a remote printer or download data to a computer or facility monitoring system. Use PortAll Version 2 software with the 227 to schedule automated data collection of particle counts. Track and identify trends to eliminate particle contamination sources.

Model 227A/227B Handheld Particle Counters

SPECIFICATIONS	Size Channels (μm)	227A	ch1	0.5
			ch2	user selectable—0.7, 1.0, 3.0, or 5.0
		227B	ch1	0.3
			ch2	user selectable—0.5, 1.0, 3.0, or 5.0
	Flow Rate	2.83 L/min (0.1 cfm)		
	Light Source	Laser diode with 30,000 hours Mean Time to Failure (MTTF)		
	Coincidence Loss	Less than 5% at 70,600 particles/L (2,000,000 particles/ft ³)		
	Factory Calibration	Mono-dispersed polystyrene spheres (NIST traceable)		
	Display	4-line LCD, 7 digits		
	Outputs	RS-232C/RS-485 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/L or counts/ft ³		
	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	10.3 cm wide x 17.5 cm high x 5.9 cm deep (4" x 6.9" x 2.3")		
	Weight	0.97 kg (2.1 lbs)		
	Environment	Operating	12 to 29°C (55 to 84°F), 20 to 95% relative humidity, non-condensing	
		Storage	-40 to 70°C (-40 to 160°F), up to 98% relative humidity, non-condensing	
	Accessories Included	Isokinetic Probe (direct mount); Purge Filter; Recharger Stand; AC Adapter; Operator Manual		

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

OPTIONAL ACCESSORIES	Relative Humidity/Temperature Sensor
	High Pressure Diffuser
	Printer, external
	Carrying/Shipping Case
	PortAll Version 2 Software

