

## Press a button—not your budget

### Model 228/229 Portable Airborne Particle Counters

#### FEATURES

- AC or battery operation
- Simple on/off operation
- Quick particle concentration readings (228)
- Total counts in 1 minute sample (229)
- Choose base sensitivity of 0.3 or 0.5 micron
- 0.1 cfm (2.83 lpm) flow rate
- Rugged design for field use

#### 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



There have never been particle counters quite like these: one switch, one display, quick results. At an unbeatable price. Just turn the lightweight counter on, check the display, and turn it off. Walk around a room, scan a filter, and watch the particle concentration readout change! Measuring filter effectiveness, checking cleanroom status, and troubleshooting contamination has never been this easy and fast.

If you need to monitor particle concentration, the Model 228 takes a six-second sample, then calculates and displays the concentration in particles per cubic foot (or particles per liter). If you need to monitor total particle count, the Model 229 displays the number of particles in 0.1 cubic feet of air after a one minute sample. Both counters detect discrete particles using a laser-based sensor. These counters weigh only 1.5 pounds. Their internal rechargeable batteries last for 8 hours. There are no complicated controls.

These counters have many uses: medical industries can monitor air filter systems for pathogen-sized particles. Filter manufacturers can test the effectiveness of their product. Cleanroom industries can perform quick status checks of Class 100 and above cleanrooms. Heating, ventilation, and air conditioning personnel can determine indoor air quality by converting particle concentration to mass concentration (ASHRE 62-1989, Appendix A).

## Model 228/229 Airborne Particle Counters

How they work: The Model 229 Particle Counter starts counting when the power is turned on, and the display is updated continuously as particles are detected. After counting for one minute, the Model 229 holds the count on the display until the power is turned off. This count represents the number of particles in 0.1 cubic foot (2.83 lpm) of air. When the Model 228 Particle Concentration Meter is turned on, it samples air for six seconds, then displays the number of particles per cubic foot (or particles per liter) (i.e. particle concentration). The display is updated every six seconds. This method has two advantages: fast count results and direct readout of particle concentration. Both counters ship with a power adapter for recharging the internal batteries. There are two charging modes. The quick charge mode recharges completely discharged batteries in 3.5 hours. Less time is required if the batteries still have some charge. A flashing quick-charge light goes out when the batteries are recharged. The second mode, trickle charge, requires 14 hours. Both models also include a purge filter, which installs in place of the isoprobe. By operating the counter with the purge filter installed, particles left in the counter from earlier samples in a high particle concentration environment are removed.

### SPECIFICATIONS

Size Channels (µm)	228A/229A	0.5 and larger
	228B/229B	0.3 and larger
Flow Rate	0.1 cfm (2.83 lpm)	
Light Source	Laser diode (30,000 hours mean time between failure)	
Display	7-digit LED	
Sample Time	228	Six seconds, updates every six seconds
	229	One minute, then holds
Power	AC adapter or internal battery pack	
Battery	Rechargeable NiMH	
Battery Recharge Time	90% in 6 hours; 100% in 9 hours	
Operating Time	8 hours continuous	
Size	3.9" wide x 7.7" high x 1.6" deep (10 x 19.7 x 4.1 cm)	
Weight	1.5 lbs (0.65 kg)	
Environment	Operating	55 to 105°F (12 to 41°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; AC Adapter; Operator's Manual	

### ORDERING GUIDE

When ordering, specify:	
Basic Sensitivity	0.3 micron (228B/229B) or 0.5 micron (228A/229A)
Power (AC)	AC adapters for 100 VAC, 115 VAC or 230 VAC
Display (228A/228B)	Particles/ft <sup>3</sup> or particles/liter

### OPTIONAL ACCESSORIES

High Pressure Diffuser  
Carrying/Shipping Case



#### UNITED STATES

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