

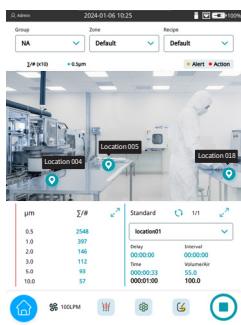
mini APC

Airborne Particle Counter-mini



Capabilities and Features:

- Lightweight design: 4.2 kg (9.26 lbs) without battery
- 8" LCD capacitive touchscreen for intuitive operation
- Sealed 316L stainless steel enclosure, resistant to common cleanroom disinfectants
- Multi-level user access control with audit trail functionality; compliant with FDA 21 CFR Part 11
- Dual flow rate models available (28.3 L/min & 100 L/min; 50L/min & 100 L/min) for improved efficiency and cost reduction



Sampling

Intuitive

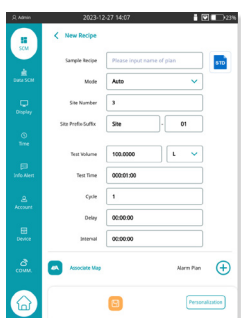
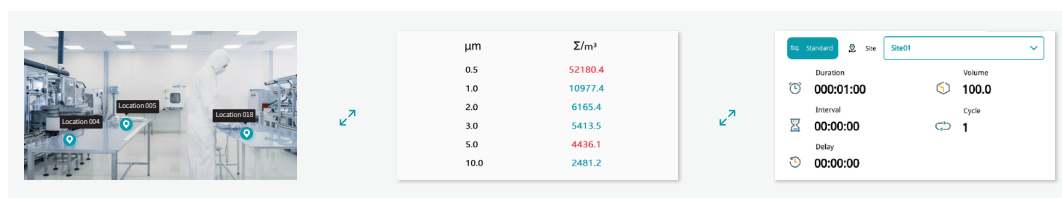
Practical

- Simultaneously shows real-time sampling view, detection readings, and sampling scheme. Tap any panel to enlarge for details.
 - Sampling View: Visual layout of sampling locations
 - Detection Readings: Live particle detection data at each location
 - Sampling Scheme: Easily switch between locations and sampling modes

1 Sampling View

2 Detection Readings

3 Sampling Scheme

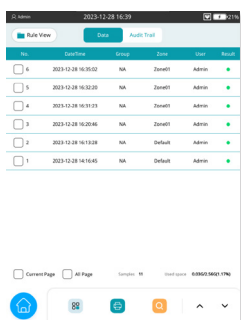


Settings

Simple

Customizable

- Experience advanced functionality through a clean, intuitive interface designed for ease of use.
- Seamless one-click software updates.
- Customizable sampling schemes tailored to any facility layout.



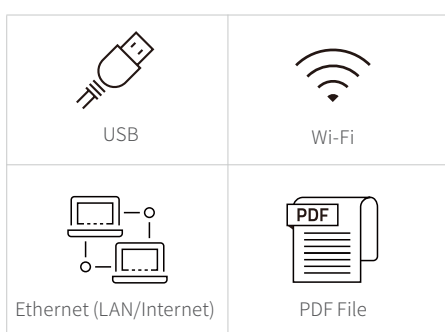
Data

Detailed

Flexible

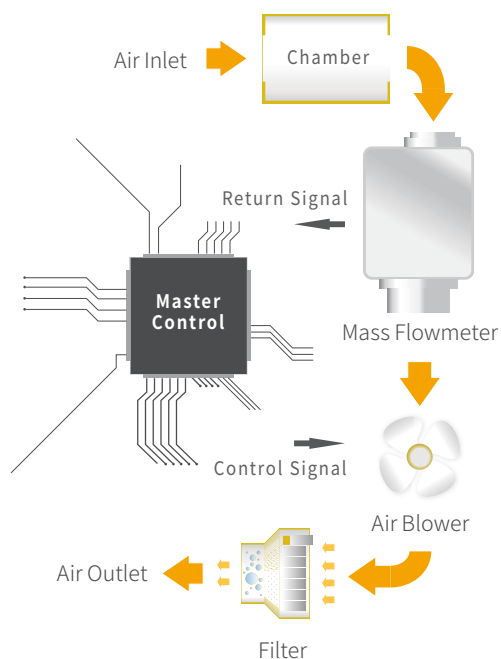
- Standard Reports: Generate ISO, EU GMP, Chinese GMP, and Fed Std reports with a single click.
- Data Review & Export:
 - Summarize data by sampling location or zone.
 - Easily switch between counting units: #, #/ft³, or #/m³.
 - Automatically calculate UCL values and averages.
 - Search sampling data by time, zone, operator, and more.
- Data Integrity: Includes full audit trail functionality for compliance and traceability.

Data Communication & Process Management



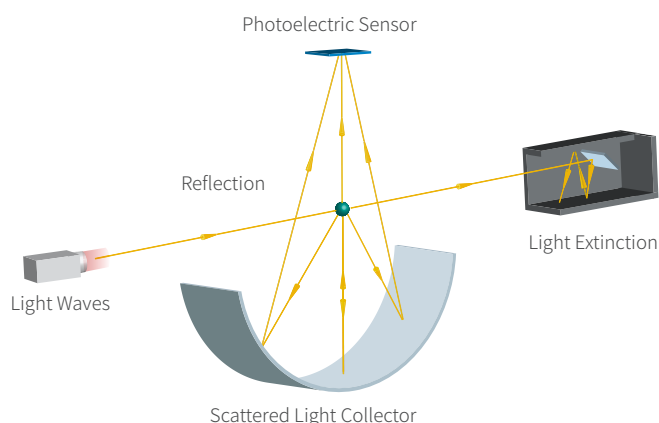
- Connectivity: Wi-Fi, USB, Ethernet (LAN/Internet).
- Data Storage: Stores up to 5 million sampling records (2.5 GB).
- Room & Location Capacity: Supports up to 20,000 rooms and 200,000 sampling locations.
- Data Transfer: Export/import preset zone settings and sampling schemes between Mini APC units.
- Access Control: Multi-level user management with full audit trail for compliance.
- File Output: Supports PDF format for easy sharing and documentation.

System Air Flow



A reaction speed of 100ms ensures stable flow and flow rate accuracy within $\pm 5\%$. Air flow is monitored using a mass flow reader, and blower speed is automatically adjusted using a Proportional-Integral-Derivative controller (PID).

Optical System



The simulation curve of laser light wavelength varies with temperature

PMT's temperature-controlled laser system, ensures a stable output wavelength and extending laser lifespan. This guarantees consistent, reliable readings unaffected by external temperature changes. The gold-plated scattered light collector enhances corrosion resistance and durability.

Specification Sheet

Specification	Airborne Particle Counter - mini I mini APC				
	A210	A220	A230	A240	A242
Flow Rate	100 LPM±5%	50 LPM±5%	28.3 LPM±5%	100 LPM±5% 28.3 LPM±5%	100 LPM±5% 50 LPM±5%
Flow Rate Control	Built-in mass flow meter, automatic closed-loop				
Size Range	0.5 μm to 25 μm	0.3 μm to 25 μm		0.5 μm to 25 μm	
Size Channels	0.5 μm, 1.0 μm, 2.0 μm, 3.0 μm, 5.0 μm, 10.0 μm	0.3μm, 0.5 μm, 1.0 μm, 3.0 μm, 5.0 μm, 10.0 μm		0.5 μm, 1.0 μm, 2.0 μm, 3.0 μm, 5.0 μm, 10.0 μm	
Size Resolution	<15% @ 0.5 μm (meets ISO 21501-4)				
Count Efficiency	50% ±20% for 0.5 μm, 100% ±10% for >0.75 μm (meets ISO 21501-4 and JIS B9921)	50% ±20% for 0.3 μm, 100% ±10% for >0.45 μm (meets ISO 21501-4 and JIS B9921)		50% ±20% for 0.5 μm, 100% ±10% for >0.75 μm (meets ISO 21501-4 and JIS B9921)	
Concentration Limit	560,000 particles/ft³at 10% coincidence loss	840,000 particles/ft³at 10% coincidence loss	1,400,000 particles/ft³at 10% coincidence loss	560,000 particles/ft³at 10% coincidence loss	
Laser Source	Long life laser				
Zero Count	<1 count/5 min				

Specification	Airborne Particle Counter - mini I mini APC				
	A210	A220	A230	A240	A242
Exhaust	Built-in HEPA filter, filter efficiency: >99.999% @0.3 µm				
Room/Location	20,000 rooms and 200,000 locations				
Sampling Mode	Manual, auto, beep				
Sampling Time	1 second to 168 hours				
Cycles	1000 cycles per location				
Communication	RJ45, USB, SENSER-HUB, WIFI				
Data Storage	2.5GB, 5,000,000 sets of sample data can be stored				
Alarm	Built-in alarm buzzer with alarm light, external sound and light alarm				
Display	8" LCD capacitive touch screen				
Language	Chinese, English				
Data Security	Authority management, default levels include sysadmin, administrator, supervisor and operator, customized authority available				
Data Reliability	Compliant with 21 CFR Part 11				
Reports	Compliant with ISO/EUGMP/CHINESEGMP/Fed Std				
Printer	Built-in thermal printer, external printer connection supported				
Calibration Frequency	Recommend once a year				
Dimensions	H238xW170xD220 mm / H9.37xW6.69xD8.66 in				
Weight	4.2kg / 9.26 lbs (without battery), 5.2 kg / 11.46 lbs (Incl. 2 batteries)				
Enclosure	316L stainless steel				
Power	AC 100-240 V, 50 Hz / 60 Hz				
Battery	10.8V, 9000mAhx2 rechargeable lithium battery				
Working Endurance	6 hours of sampling time	8.5 hours of sampling time	6.5 hours of sampling time	100 LPM: 6 hours of sampling time 28.3 LPM: 12 hours of sampling time	100 LPM: 6 hours of sampling time 50 LPM: 9 hours of sampling time
Max Power Consumption	AC 90W				
Operation Conditions	Temperature: 5°C -35°C / 41°F - 95°F, Relative humidity: 5-90% non-condensing				
Storage Conditions	Temperature: 0°C -40°C / 32°F - 104°F, Relative humidity: 5-95% non-condensing				
Safety	EN 61010-1:2010+A1:2019+AC:2019, EN 61326-1:2013, EN IEC 61326-1:2021				
Warranty	24 months (calculated from the date of product activation or six months after the date of manufacture, whichever comes first)				

Ordering Information

Name	Model	Order No.	Flow Rate
Airborne Particle Counter - mini I mini APC	A230	MACHA230	28.3L/min±5%
Airborne Particle Counter - mini I mini APC	A220	MACHA220	50L/min±5%
Airborne Particle Counter - mini I mini APC	A210	MACHA210	100L/min±5%
Airborne Particle Counter-mini, Dual-Flow mini APC-DF	A240	MACHA240	28.3L/min&100L/min±5%
Airborne Particle Counter-mini, Dual-Flow mini APC-DF	A242	MACHA242	50L/min&100L/min±5%