# Introduction to smart screen desktop particle counter





Model:SX-3100AP

The SX-3100AP dust particle counter is a new generation of intelligent, portable dust particle counters developed by our company. It features a 10-inch color smart screen and supports 4-level permission management and audit tracking, meeting FDA 21 CFR Part 11 standards. The device is made from full SUS316L stainless steel, equipped with a brushless DC blower for continuous, stable operation with ultra-low noise. It includes an efficient filter for energy efficiency and environmental protection. The device also features an imported digital flow sensor for dynamic and precise control of sampling flow. It can be powered by AC or a large-capacity lithium battery, making it ideal for mobile detection in areas without AC power.

The instrument is simple to operate, the man-machine interface is friendly, it can easily, quickly and effectively detect the suspended particles in the purified environment, it is the preferred product for rapid detection of clean room cleanliness in the current biopharmaceutical, electronic semiconductor, new energy and other industries.



# merit

- Provide a complete verification manual to facilitate compliance with pharmaceutical/electronic specifications
- Built-in thermal printer for data printing, setting, sampling, display and printing
- Perfect operation log and data log to record personnel operation and data storage, meeting FDA 21 CFR Part 11
- There is no limit to the number of sampling rooms and formula preset
- Rooms and points can be named separately, supporting Chinese, English, numbers and special symbols
- GMP, ISO 14644-1 and other cleanliness standards are judged
- Color 10-inch smart screen, simplified operation
- Sampling records can be used to filter the data to be queried by area/room and time
- Data analysis can be done by making trend chart analysis according to location and particle size
- Supports USB data export in xlsx, csv, pdf formats
- The particle number alarm is realized by setting the alarm parameters
- Set up separate passwords and operation permissions according to the identity of operator, auditor and administrator
- A wide range of expansion interfaces can be selected to increase temperature and humidity, pressure difference, wind speed, etc
- Support RS485: ModbusRTU protocol, Ethernet: Modbus TCP/IP protocol

### function

- Sampling flow rate:  $100L/min \pm 5\%$  (3.53 CFM)
- Grain size distribution error ±30%FS
- The error of the indicated concentration is  $\pm 20\%FS$
- · Self-cleaning time, less than 10min
- The relative error of repeatability is less than or equal to 10%FS
- Complies with GMP static, GMP dynamic and ISO14644-1 standards
- Sampling concentration: 35,000 particles/l
- More than 25G of storage space, at least 1,000,000 sets of collection records

# apply

- Cleanliness testing of clean room (area)
- Daily maintenance and monitoring of clean rooms in electronics and pharmaceutical factories
- Measurement of airborne particles

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model	SX-3100AP
Particle size channel	0.3μm, 0.5μm, 1.0μm, 5.0μm, 10.0μm, 25.0μm can be screened
Sampling flow	100L/min ±5% (3.53 CFM)
laser light source	Imported laser diodes (continuous life up to 100,000 hours)
Vacuum power source	The continuous working flow of the DC fan is stable, energy saving and
	environmental protection, and it is efficient and low noise
Verification criteria	JJF 1190-2008, GB/T 6167-2007
Relative error of repeatability	≤10%FS
Particle size distribution error	≤30%
Particle concentration indication error	≤±20%FS
Self-cleaning time	≤10min (counting is zero for 3 consecutive times within 10 minutes)
Dwell time	User set (1~999999 seconds)
Sampling delay	User set (1~9999 seconds)
District management	There is no upper limit on the number, and the name can be combined
	with Chinese, English, numbers and special symbols
Number of sampling points	$1300\ points, the\ point\ can\ be\ named\ separately, support\ Chinese, English, number\ special\ symbol\ combination$
Number of samples (per point)	1-240
Point spacing	Manual/automatic (10 to 36,000 seconds)
Sampling concentration	35,000 particles /L
Counting mode	Cumulative number, concentration (per m³, per ft³)
Data memory capacity	Provide more than 25G storage space, at least 10 million sets of collection records
Cleanliness grade judgment criteria	ISO 14644.1-1999, GMP dynamic, GMP static, GB/T 25915.1-2021, YY/T 0033-2000
Pperate time	Built-in 22.2V 20Ah lithium battery, fully charged continuous test time of 6~8 hours
Authority management	Supports permission management above level 4, data can be stored, filtered and printed
Source	DC25.2V 5A
Other accessories	Equal power sampling frame, data U disk, network cable, communication terminal, exhaust port, wifi antenna
Environment	Usage environment: temperature 0~40°C relative humidity 10~70%
	Storage environment: temperature-30°C~45°C relative humidity 0~90%
Case size	295*208*296mm (including handle, air inlet and outlet and foot pad)
	295*189*250mm (excluding handle, air inlet and outlet and foot pad)
Shell material	SUS316L stainless steel
Weight	7.0kg
Power	Counter (75W), charger (126W)
Quality Assurance	The warranty is 1 year, and optional extended warranty service can be selected
Data communication interface	RS485: ModbusRTU protocol, Ethernet: ModbusTCP/IP protocol







