



KQ-4021

0.1 μ m Desktop Laser Airborne Particle Counter with Low Flow Rate of 2.83L/min

The KQ-4021 0.1 μ m desktop laser airborne particle counter with low flow rate of 2.83L/min is a new generation of products independently developed by our company, which breaks the foreign monopoly and has a simple and elegant appearance. Based on the light scattering principle, the counter realizes airborne particle size detection and particle quantity counting through photoelectric sensing technology.

Compared with ordinary particle counters, this instrument can detect smaller particle sizes, with a minimum detectable particle size of 0.1 μ m, making it suitable for Class 10 and Class 1 ultra-clean environments. It is applicable to ultra-clean scenarios such as electronics, semiconductors, liquid crystal panels, micro-nano processing, aerospace, precision machining, new materials, and research institutes.



Product Features

- Sampling flow rate of 2.83L/min, improving sampling precision and efficiency.
- 7-inch high-definition large screen with higher resolution and faster response, allowing users to intuitively read cleanliness data.
- User-friendly human-computer interaction with simple and direct operation, reducing user learning costs and improving user experience.
- Full 304 stainless steel body, meeting GMP specification requirements while maintaining aesthetics.
- Large-capacity data storage of 20,000 groups, supporting one-click PDF file export via USB flash drive for data download anytime and anywhere.
- Supports preset functions for 400 room points, enabling one-click selection and quick sampling.
- Supports 20-user management, password complexity management, and multi-level authority management.
- Supports audit trail and log management, which can be queried, traced, and controlled, complying with FDA 21CFR PART 11 specifications.
- Supports calibration reminder function to prompt users for timely metering and ensure normal use of the instrument.
- 10-year long service life imported semiconductor laser diode (calibration required annually).
- On-screen data alarm, equipped with a flow sensor for real-time monitoring and automatic flow adjustment, ensuring flow stability and counting accuracy.
- Large-capacity high-quality lithium battery for longer battery life, supporting both AC and DC power supply.
- Expandable, with an analog input hardware interface for external connection of temperature and humidity sensors/air velocity sensors/differential pressure sensors, etc. (optional)

Technical parameters

Model	KQ-4021
Particle Size Channels	0.1μm, 0.15μm, 0.2μm, 0.25μm, 0.3μm, 0.5μm, 1.0μm, 5.0μm
Sampling Flow Rate	2.83L/min±5%
Counting Efficiency for 0.1μm	50±10%
Concentration Indication Error	0.5μm≤±20%FS
Repeatability Error	±5%F.S
Self-Purification Time	≤5min
Sampling Cycle	1~9999s (adjustable)
Sampling Delay	0~999s (adjustable)
Sampling Times	1~999 times (adjustable)
Sampling Points	1~99 points (adjustable)
Preset Points	400 room points preset, one-click selection for quick sampling
Laser Source	10-year long service life imported semiconductor laser diode
Vacuum Requirement	Built-in vacuum source, 3-year service life
Screen Display	7-inch IPS touch color screen
Printing Method	Built-in thermal printing
Charging Power Supply	AC220V/50Hz
Built-in Lithium Battery	DC14.8V/5.2A
Battery Life	≥6 hours
Power	Input AC100-240V/50HZ, Output DC16.8V/2A
Charging Time	2.5 hours
Data Storage	20,000 entries
Data Export	USB flash drive export, export format PDF
Data Security	20-user management, password complexity management, multi-level authority management
Calibration Reminder	Calibration reminder function to prompt users for timely metering and ensure normal use of the instrument
Audit Trail	Queryable, traceable, controllable, complying with FDA
Temperature and Humidity	21CFR PART11 specifications
Detection	0~50°C, 0~100%RH (optional function)
Calibration Specification	JJF1190-2008/ISO 21501-4
Judgment Standard	cGMP static, GMP dynamic, ISO14644-1
Enclosure	304 stainless steel
Dimensions (mm)	Width 200 * Depth 110 * Height 153
Weight (including battery)	2.2Kg
Operating Environment	Temperature 0~40°C, Humidity 10%~90% (no condensation)
Storage Environment	Temperature -10~50°C, Humidity 0~90% (no condensation)

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