

KQ-4001

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

The KQ-4001 desktop laser airborne particle counter with low flow rate of 2.83L is a precision testing instrument applied in clean environment cleanliness detection.

The product shell is made of stainless steel, combined with professional industrial design. The handle is recessed and placed at the rear (an industry first), with a simple and elegant appearance. It has the smallest size and lightest weight in China. The body adopts a 7-inch touchscreen, which displays detection data intuitively, and the touch operation is simple, comfortable, efficient, and convenient.

Based on the light scattering principle, the core sensor realizes the detection of the size and quantity of suspended particles in the clean environment through precision photoelectric sensing technology.

This instrument is widely used in clean scenarios such as pharmaceuticals, electronics, hospital operating rooms, aerospace, precision machining, and food industries, and has the characteristics of good stability, high measurement accuracy, elegant appearance, and easy use.



Product Features

- 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.
- Compact size for easy carrying, can be held by hand or used directly on the ground (the height of the air inlet can be adjusted between 0.7 -1.4 meters).
- Real-time flow monitoring, using an intelligent algorithm to realize real-time negative feedback automatic flow adjustment for more accurate detection results.
- 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 PART11 specifications.
- Supports custom switching between 6 channels/2 channels (0.5μm, 5.0μm).
- 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).
- Large-capacity high-quality lithium battery for longer battery life, supporting both AC and DC power supply.
- Expandable, with an analog input interface for external connection of temperature and humidity sensors/air velocity sensors/differential pressure sensors, etc. (optional).
- Optional floor tripod with height adjustable up to 1.4m.
- Supports customized communication protocols and enables wireless WiFi communication with host computers (optional).

Technical parameters

Model	KQ-4001	KQ-4001G
Particle Size Channels	0.3μm,0.5μm,1.0μm,3.0μm,5.0μm,10.0μm	0.2μm,0.5μm,1.0μm,3.0μm,5.0μm,10.0μm
Sampling Flow Rate	2.83L/min±5%	
Particle Size Distribution Error	≤±20%	
Concentration Indication Error	0.5μm≤±20%FS	
Repeatability Error	±5%FS	
Self-Purification Time	≤5min	
Maximum Sampling Concentration	35000 particles/L	
Sampling Cycle	1~9999s (adjustable)	
Sampling Delay	0~999s (adjustable)	
Sampling Times	1~50 times (adjustable)	
Sampling Points	2~50 points (adjustable)	
Sampling Mode	Confidence level (UCL) measurement, normal measurement	
Preset Points	400 room points preset, one-click selection for quick sampling	
Laser Source	10-year long service life imported semiconductor laser diode	
Vacuum Source	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	Input AC100-240V/50HZ, Output DC16.8V/2A	
Built-in Lithium Battery	DC14.8V/5.2AH	
Battery Life	≥6 hours	
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	
Channel Selection	Custom switching between 6 channels/2 channels (0.5μm, 5.0μm)	
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 21CFR PART11 specifications	
Temperature and Humidity Detection	0~50°C, 0~100%RH (optional function)	
Calibration Specification	JJF1190-2008/ISO 21501-4	
Judgment Standard	GMP 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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