

KQ-4010/4050/4100

Desktop Laser Airborne Particle Counter with High Flow Rate

The KQ-4010/4050/4100 desktop laser airborne particle counters with high flow rate are a new generation of products independently developed by our company, featuring the smallest size and lightest weight in the industry, with a simple and elegant appearance.

Abandoning the commonly used LCD dot-matrix screen on the market, this product takes the lead in adopting a 7-inch IPS intelligent touchscreen, combined with a human-computer interaction UI, making the operation more efficient and greatly improving the user experience.

At the same time, led by a postdoctoral team from the University of Science and Technology of China, the company has realized the accurate detection of airborne particles 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

- High sampling flow rate of 28.3, 50, 100L/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 PART11 specifications.
- Supports custom switching between 6 channels/2 channels (0.5 μ m, 5.0 μ m).
- 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.
- Supports customized communication protocols and enables wireless WiFi communication with host computers (optional)
- Expandable analog input hardware interfaces, allowing for external connections to temperature and humidity sensors, airspeed sensors, pressure differential sensors, etc. (optional)

Technical parameters

Model	KQ-4010	KQ-4050	KQ-4100
Particle Size Channels	0.3μm,0.5μm,1.0μm,3.0μm,5.0μm,10.0μm		
Sampling Flow Rate	28.3L/min±5%	50L/min±5%	100L/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		
Power	Input AC100-240V/50HZ, Output DC25.2V/5A		
Built-in Lithium Battery	DC24V/20AH	DC24V/20AH	DC24V/20AH
Battery Life	≥10 hours	≥6 hours	≥5 hours
Charging Time	3 hours	5 hours	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 244 * Depth 208 * Height 250		
Weight (including battery)	6.5Kg	7.5Kg	7.5Kg
Operating Environment	Temperature 0~40°C, Humidity 10%~90% (no condensation)		
Storage Environment	Temperature -10~50°C, Humidity 0~90% (no condensation)		

Suzhou Kangqi Environment Technology Co.,Ltd

Tel: 400-728-7728

Web: www.kqet.com.cn

E-mail: sales@kqet.com.cn

Add: 2nd Floor, Building E, No.60 Chuangye Street, Suzhou High tech Zone

