



KQ-4010S

HEPA Filter Leak Tester

The KQ-4010S HEPA filter leak tester is a precision testing instrument independently developed by our company for leak tester of high-efficiency filters in cleanrooms.

This instrument is designed in accordance with the requirements of ISO14644-3 B.6 specification, adopting the particle counting method for leak tester. It detects the upstream concentration of the filter through the counting leak detector, calculates the downstream leak value of the filter based on the filter efficiency, and then compares the actually measured downstream leak value of the high-efficiency air outlet with the calculated leak value to realize leak tester of the installed air outlet.

The KQ-4010S high-efficiency filter leak detector consists of three instruments: the counting leak tester KQ-4018, the aerosol generator KQ-Q610, and the diluter KQ-D110. It has good stability, high measurement accuracy, a grand appearance and is easy to use.



Product Features

- Complies with domestic and international specification requirements.
- Automatic leak value judgment, leak alarm, leak particle size tracking, and on-site printing.
- 7-inch high-definition large screen with higher resolution and faster response, allowing users to intuitively read data.
- User-friendly human-computer interaction with simple and direct operation, reducing user learning costs and improving user experience.
- Supports 20-user management, password complexity management, and multi-level authority management.
- Supports preset functions for 400 room points, enabling one-click selection and quick sampling.
- Supports calibration reminder function to prompt users for timely metering and ensure normal use of the instrument.
- The upstream dust concentration is much lower than that of the photometer method, causing less damage to the filter.
- High detection sensitivity, also applicable to ultra-high-efficiency filter leak tester.
- Built-in large-capacity lithium battery, supporting continuous operation for more than 10 hours.
- DEHS aerosol is recommended for low detection cost.
- Supports audit trail and log management, which can be queried, traced, and controlled, complying with FDA 21CFR PART11 specifications.

Technical parameters

Model	KQ-4018
Particle Size Range	0.3-10 μ m
Counting Particle Size	0.3 μ m
Sampling Flow Rate	28.3L/min $\pm$ 5%
Particle Size Distribution Error	$\leq$ $\pm$ 20%
Concentration Indication Error	0.5 μ m $\leq$ $\pm$ 20%FS
Repeatability Error	$\pm$ 5%F.S
Self-Purification Time	$\leq$ 5min
Maximum Sampling Concentration	500000pcs/ft ³
Scanning Speed	3-5cm/s
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
Battery Life	$\geq$ 10 hours
Data Storage	20,000 entries
Data Export	USB flash drive export, USB communication export
Data Security	3+-level authority management
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
Charging Power Supply	AC220V/50Hz
Built-in Lithium Battery	DC24V/15AH
Power	Input AC100-240V/50HZ, Output DC25.2V/5A
Enclosure	304 stainless steel
Dimensions (mm)	Width 244 * Depth 208 * Height 250
Weight (including battery)	6.5Kg
Operating Environment	Temperature 0~40°C, Humidity 10%~90% (no condensation)
Storage Environment	Temperature -10~50°C, Humidity 0~90% (no condensation)

Model	KQ-Q610
Airborne Particle Output Range	50~8100ft ³ /min (1.4~229m ³ /min)
Aerosol Concentration	100 μ g/L at 810 ft ³ /min 10 μ g/L at 8100ft ³ /min
Generation Type	7 Laskin Nozzle spray heads
Compressed Air	3~18ft ³ /min at 20 psi
Generated Particles	PAO, DOP, polydisperse
Gas Type	Particles of various diameters (cold state)
Power Supply	Not required
Dimensions (mm)	Width 150 * Depth 250 * Height 235
Weight	3.6kg
Material	304 stainless steel

Model	KQ-D110
Dilution Ratio	Fixed dilution ratio 1:100 (@ $\geq$ 0.3 μ m)
Flow Rate	28.3L/min $\pm$ 5%
Matching Hose	Inner diameter 6mm PVC hose
Dimensions (mm)	Width 150 * Depth 250 * Height 197
Weight	2.55Kg
Material	304 stainless steel

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