



KQET-5101L

0.1 μ m Remote Laser Airborne Particle Counter with High Flow Rate of 28.3L/min

The KQET-5101L 0.1 μ m built-in pump remote laser airborne particle counter with low flow rate of 28.3L is a testing instrument applied in the fields of cleanliness monitoring and micro-particle counting detection in clean environments.

Based on the light scattering principle, the counter realizes the detection of airborne particle size distribution and the counting of particle quantity through photoelectric sensing technology.

Compared with ordinary high flow rate 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

- High-precision sensor, accurate counting, excellent performance, in line with JJF1190-2008 Specification
- Integrated design, easy installation
- 4.3-inch intelligent touchscreen, fast response, human-computer interaction, real-time display of monitoring data
- High sampling flow rate of 28.3L/min enhances sampling precision and efficiency
- More professional industrial design, ensuring complete functional interfaces while maintaining aesthetics
- Built-in vacuum source with a 3-year long service life, low vibration, low noise, and stable performance to ensure stable counting
- Can be started/stopped locally independently, suitable for both standalone and online use
- Can set its own instrument address directly on the screen for easy on-site replacement
- Calibration due alert to remind customers of metering/calibration
- Screen data alarms and Equipped with a flow sensor for real-time monitoring and automatic adjustment of flow rate, ensuring flow stability and counting accuracy
- Long service life imported semiconductor laser diode with a service life of over 20,000 hours (calibration required annually)
- RS485 communication, supports Modbus RTU protocol, and customized communication protocols
- Intelligent IoT capabilities allow for remote start/stop, more accurate cleanliness level management, and enhanced monitoring quality
- Real-time monitoring of particle quantities with particle sizes of 0.1 μ m, 0.15 μ m, 0.2 μ m, 0.25 μ m, 0.3 μ m, 0.5 μ m, 1.0 μ m and 5.0 μ m
- Built-in audio-visual alarm light, >85db
- USB data export functionality, effective local data storage for over a month to prevent data loss (optional)
- Counter can be equipped with a wireless antenna, upgraded to wireless transmission mode (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	KQET-5101L
Particle Size Range	0.1μm~5.0μm
Particle Size Channels	0.1μm, 0.15μm, 0.2μm, 0.25μm, 0.3μm, 0.5μm, 1.0μm, 5.0μm
Counting Efficiency for 0.1μm	50±20%
Concentration Indication Error	0.5μm≤±5%FS
Maximum Sampling Concentration	35000 particles/L, Concentration over-limit protection with self-purification reminder
Repeatability Error	±5%FS
Self-Purification Time	≤5min
Sampling Flow Rate	28.3L±5%, real-time monitoring, over-limit alarm
Sampling Cycle	1-9999s (configurable)
Continuous Operation	Supports 24-hour uninterrupted stable operation
Laser Source	Long service life imported semiconductor laser diode
Vacuum Source	Built-in vacuum source, 3-year service life
Display	4.3-inch touchscreen
Power Supply	DC24V/4A
Communication Mode	RS485 @ Modbus RTU / Ethernet @ Modbus TCP / Wireless Communication @ LoRa
Calibration Specification	JJF1190-2008, ISO21501-4
Enclosure	304 stainless steel
Dimensions (mm)	Width 192 * Depth 212 * Height 152
Weight	4kg
Operating Environment	Temperature 0~40°C, Humidity 10%~90% (no condensation)
Storage Environment	Temperature -10~50°C, Humidity 0~90% (no condensation)

Inject Soul Into The Cleanroom



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