Airborne Particle Counter 1650 (0.1μm)

Overview

The ZR-1650 particle counter is a high-precision 0.1μm particle counter based on an all-solid-state laser. It has a sampling flow rate of **28.3L/min (1CFM)** and utilizes the principle of light scattering to measure the size and quantity of suspended particles in the air, ranging from 0.1, 0.15, 0.2, 0.25, 0.3, 0.5, 0.7, 1.0, to 5.0μm. It is a portable precision instrument capable of achieving particle counting for up to **9 channels**, automatically conducting diverse data statistics. It is equipped with a built-in HEPA filter to filter the discharged air. The instrument software system is custom-developed for cleanroom detection, catering to diverse testing requirements.

GMP	Good manufacturing practice of medical products
ISO 14644	Cleanrooms and associated controlled environments
ISO 21501	Light scattering airborne particle counter for clean spaces

Features

- Up to 9 test channels, accumulation counting, partition counting, concentration mode, number mode.
- Preset different cleanroom standards, can automatically judge whether qualified.
- Output test report, support UCL calculation.
- Three-level user management and audit tracing to ensure data integrity.
- The preset recipes can be assigned to rooms in different areas.
- Built-in high-precision fan, stable flow control.
- Built-in HEPA filter to filter the exhaust.
- Automatic zero count without plugging in external HEPA filter.
- Support exporting data to USB flash drive and printing data by built-in printer; equipped with a rich communication interface.
- Ambient temperature, humidity and atmospheric pressure parameters can be recorded during test.
- 7-inch touch color screen, friendly human-computer interaction.

Parameters

Parameter	Range
Flow Rate	28.3L/min ±2%
Screen	7-inch color touch screen
Particle Size	0.1、0.15、0.2、0.25、0.3、0.5、0.7、1.0、5.0μm
Counting Efficiency	0.1μm：50%±20%；>0.15μm：100%±10%
Error of Particle Size	0.5μm、5μm ≤±30%
Concentration Error	0.5μm≤±30%FS
Repeatability	≤10%FS at the same test condition
Laser Source	Solid-state laser
Zero Count	<1 count /5min
Sample Mode	✔ Manual, automatic ✔ accumulation counting, partition counting ✔ Concentration mode, number mode ✔ UCL calculation
Alarm	Sound and visual alarm, low power, abnormal or other situations happen.
Data Storage	8GB，about 100000 groups
Area/room/location/recipe	Area, room, location, recipes can be freely combined
Sampling Delay	0~1000min
Sampling Time	1s~1000min
Sampling Volume	0.47L~28300L
Sampling Frequency	1~1000
Sampling Interval	1~1000min
Operation Environment	(10~40)℃ /，(20~95)%RH no condensation
Storage Environment	(-20~50)℃，≤85%RH
Date	automatic recording; USB export; build in printer
Power Supply	AC (100 ~240)V，(50~60) Hz
Battery	continuous sampling ≥4 h
Noise	＜60dB(A)