Airborne Particle Counter ZR-1650

0.1μm

Introduction

ZR-1650 Airborne particle counter is a portable 9 channel high precision particle counter (0.1 μm). The working flow rate is **28.3L/min (1 CFM)**. By using a solid laser and basing on light scattering principle, it can measure the size distribution and particle number concentration of **0.1, 0.15, 0.2, 0.25, 0.3, 0.5, 0.7, 1.0, 5.0μm** airborne particles. The instrument equipped with a built-in HEPA filter for exhaust.

It is suitable for semiconductor factory, electronic factory, optical laboratory, clean workshop, inspection and testing institutions, and other cleanroom cleanliness testing, as well as air filter and filter material performance testing.

Application

Packing list

Features

- Support 9-channel simultaneous measurement and record.
- Optional concentration or number mode with cumulative and differential counting.
- Built-in clean room standards (GMP, ISO and so on), automated test reporting.
- Support creating PDF report on your Android device by connecting to the machine via WIFI.
- Support auto-print and manual print, abundant print content, automatic pass/fail judgement.
- Support presetting room, recipe and automatically set parameters according to selected class.
- Three-level user management and audit trail to ensure data integrity.
- Built-in HEPA filter for the exhaust.
- Support export data via USB flash disk and printing by an embedded printer.
- Built-in temperature, humidity, atmospheric pressure sensor.
- A replaceable lithium battery for 4 hours continuous sampling after fully charged.
- 7-inch touch color screen, Chinese graphic display, and human-computer interaction friendly.
- Grade 316L Stainless steel housing, easy to clean.

Reference standards

- ISO 14644
- ISO 21501-4:2018
- GMP
- GB/T 16292-2010
- JIS B 9921:2010
- GB/T 6167-2007
- JJF 1190-2008

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Specifications

Flow rate	28.3 L/min, maximum permissible error: ±2%
Channel sizes	0.1, 0.15, 0.2, 0.25, 0.3, 0.5, 0.7, 1.0, 5.0 μm
Counting efficiency	0.1 μm: 50%±20%; >0.15 μm: 100%±10%
Error of particle size distribution	0.5 μm and 5 μm channel: ≤ ±30%
Repeatability	≤10%FS
Concentration indication error	0.5 μm channel: ≤±30%FS
Light source	Solid state laser
Concentration limit	17,000,000pcs/m³,10% coincidence loss
Zero count	<1 count /5 min
Sampling mode	Manual, automatic; Cumulative counting, differential counting; Concentration mode, number mode; UCL mode
Alarm	Audible and visual alarm when exceeding threshold
Sampling delay	0-1000min
Sampling time	1s-1000min
Sampling volume	0.47L-28300 L
Sampling cycle	1-1000 times
Sampling interval	1s-1000 min
Preset room/location/recipe	90 rooms and each one maximum of 1000 locations, and 60 recipes
Exhaust filtration	Built-in HEPA filter (>99.99%@0.1 μm)
Communication	USB, WIFI, Bluetooth, RS485(Modbus-RTU), BNC female
Environmental sensor	Temperature, humidity, atmospheric pressure
Screen	7-inch touch color screen
Power adapter	Input: AC(100-240)V, 50/60 Hz, Output: DC24 V, 10 A
Battery	Removable lithium battery, continuous sampling ≥4 h
Sampling data	Exported to USB drive, printed by built-in thermal printer or acquired by Android device then create PDF report
Data storage capability	8GB, about100,000 groups
Noise	≤ 60 dB (A)
Language	English, Chinese
Working condition	(10-40)℃, (20-85) % RH, no condensation
Storage condition	(-20-50) ℃, ≤95% RH
Dimension	(L445×W240×H315)mm
Weight	About 11.6 kg(about 10.5 kg without battery)
Power consumption	≤200 W

Particle Counter Series

0.3-10μm/28.3LPM	0.3-10μm/2.83LPM	0.3-10μm/100LPM	0.1-5μm/28.3LPM
ZR-1630	ZR-1620	ZR-1640	ZR-1650

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