

Y09-5100X Pro

Laser Dust Particle Counter



Flow:
100L/min

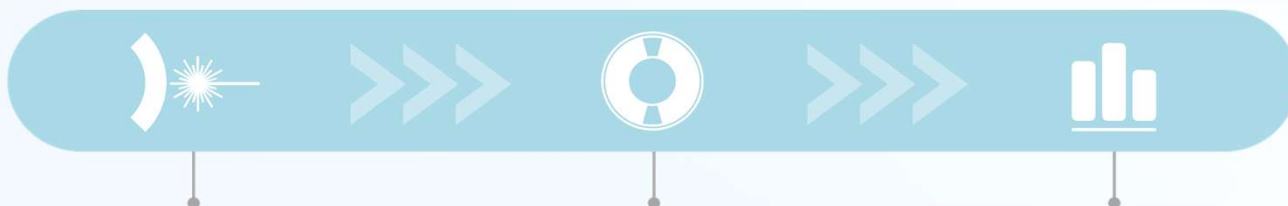
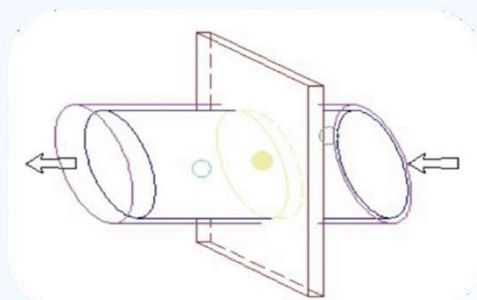
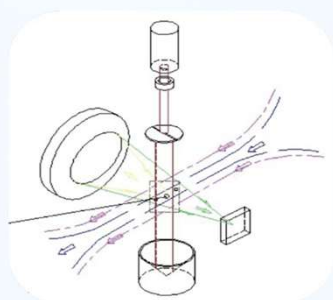
Meet GB/T 25915.12021, ISO 146441:2015, and other national standards as well as GMP specifications.

Compliant with standards

Full compliance with the following standards:

- ✓ GB/T 25915.1-2021 (clean room and related controlled environments)
- ✓ GB/T 29024.4-2017/ISO 21501-4:2018 (optical measurement method for particle size analysis of single particles)
- ✓ GMP (Good manufacturing practice)
- ✓ ISO 14644-1 : 2015 (clean room and related controlled environment)
- ✓ GB/T 16292-2010 (test method for suspended particles in clean room/area of pharmaceutical industry)
- ✓ Veterinary drug GMP (revised in 2020)
- ✓ FDA 21 CFR part 11

Technical Principle



A collimated ribbon laser beam is formed via a slit aperture. Particle-laden airflow passes perpendicularly through the beam's wide cross-section into the sensing zone for detection via light scattering.

Scattered light from particles in the sensing zone is focused by a concave mirror onto the signal collection board.


Luminous flux and frequency directly reflect particle size and count. The residual laser beam passing through the sensing zone is absorbed by the opposite light trap.

Performance Advantages

- Stainless steel shell, resistant to commonly cleanroom disinfectants.
- 10.1-inch high-resolution touch screen, easy to operate with gloves.
- The overall structure is rounded and compact, the overall size is small, one-piece shell, the back of the instrument has a communication interface dustproof and waterproof rubber mat, no hygienic dead corner, Convenient disinfection and fumigation.
- Embedded printer with choice of thermal and pin printing type
- Built-in removable battery for over 8 hours of continuous operation with optional batteries.
- Built-in exhaust filter and air exchange cartridge, the equipment does not produce secondary pollution to the environment.
- Built-in high-precision flow sensor automatically adjusts the flow rate, ensuring flow rate accuracy of $\pm 5\%$.
- Four levels of authority management with audit trail functionality.
- PDF report can be exported directly from USB.
- Create raw electronic records directly within the counter.
- Built-in Bluetooth, Wi-Fi, and network port functions.
- Optional barcode scanner for easy data entry.
- Standard protocols for access to the network are available.
- Map import function.
- Historical data trend statistics function.
- The isokinetic sampling head can be mounted directly on the instrument air inlet.
- Create unique electronic signatures for users.



Data acquisition



Flow: 100.0 L/min

Hold: 00:00:05 s

Delay: 00:00:10 s

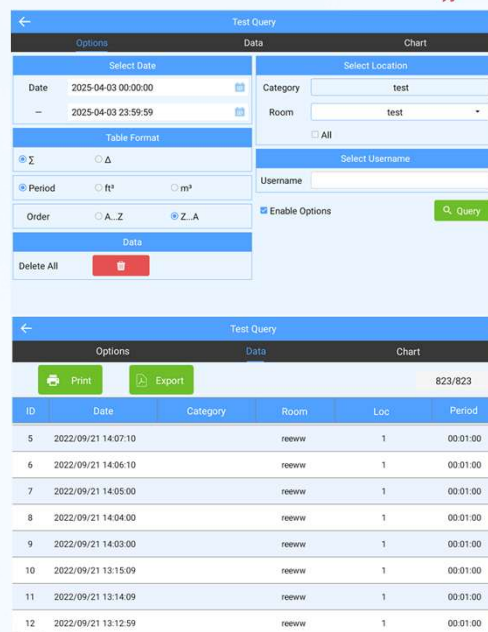
Period: 00:00:54 s

Cycles: 1/1

Points: 0/0

Channel Σ Δ

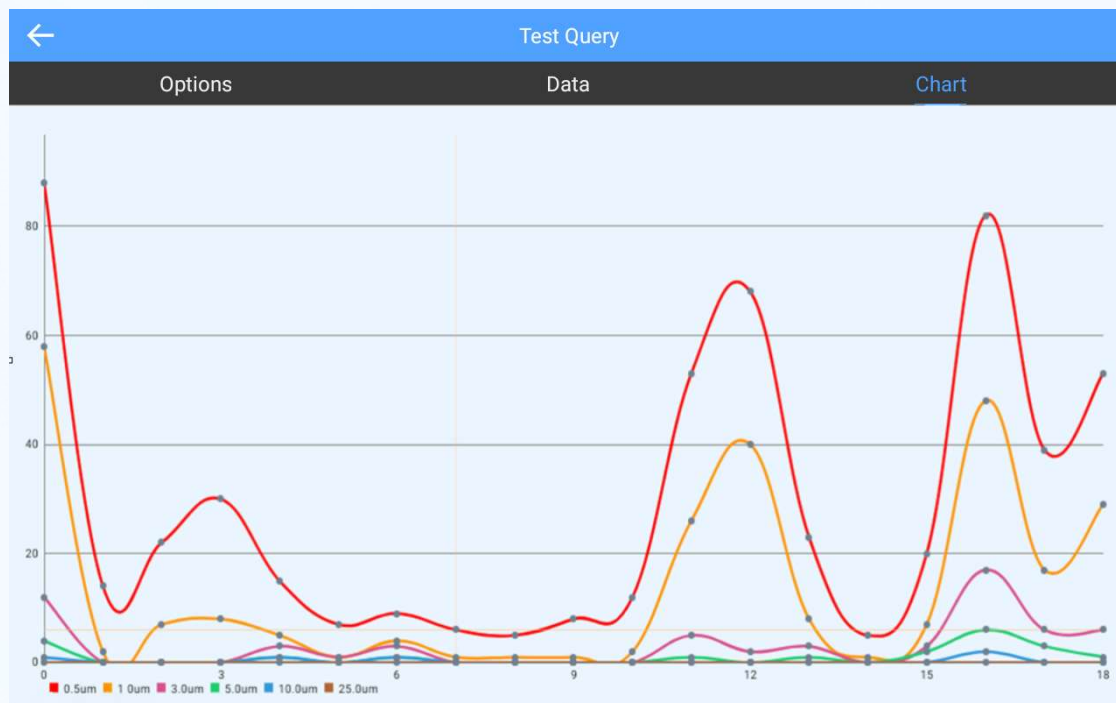
0.5 μm	0	0
1.0 μm	0	0
3.0 μm	0	0
5.0 μm	0	0
10.0 μm	0	0
25.0 μm	0	0



ID	Date	Category	Room	Loc	Period
5	2022/09/21 14:07:10		reeww	1	00:01:00
6	2022/09/21 14:06:10		reeww	1	00:01:00
7	2022/09/21 14:05:00		reeww	1	00:01:00
8	2022/09/21 14:04:00		reeww	1	00:01:00
9	2022/09/21 14:03:00		reeww	1	00:01:00
10	2022/09/21 13:15:09		reeww	1	00:01:00
11	2022/09/21 13:14:09		reeww	1	00:01:00
12	2022/09/21 13:12:59		reeww	1	00:01:00

- Upload a live map of the room
- Counting method: Total Σ Difference Δ
- Counting units can be switched at will: cycles, ft³, m²
- Accurate sampling positioning points for easy observation
- Accurate search of time, room, and person for sampling data logging
- Automatic generation of site averages, total averages, UCL values and statistical data

Data trends



- Trend of particle concentration in the sampling environment
- Sampling data exported in PDF format
- Reports can be generated for a wide range of relevant standards
- Can store 10 million sampling data

Technical Parameter



Dimension	278x235x215mm ³
Weight	7.5kg
Display	10.1 inch LCD screen (IP65)
Language	Chinese, English
Power supply	DC14.4V (Rechargeable internal lithium-ion battery)
Size channels	0.5, 1, 3, 5, 10, 25 μm
Sample Period	Choose between 1 second and 999,999 seconds.
Flow rate	100L/min ± 2.5%
Maximum concentration	35000 particles/L (dust particle size not less than 0.5μm), sampling air shall not contain corrosive gases
Zero count	1 or less in 5 minutes, 95% confidence interval
Alarm	Screens, sounds (traffic, communications, thresholds)
Exhaust	Internal HEPA filtered (>99.997% @ 0.3 μm), H13 grade glass fiber cartridge (>99.95% @ 0.3 μm)
Data storage	Store at least 1,000,000 sets of general test data, 10,000 sets of statistical mode operation data
Data security	Four levels of authority management
Battery security	CE-EMC, FCC, UKCA, UL, UN, PSE, KC, CCC, BSMI, CB, GBT28164-2011
Report	Report conforms to ISO/EUGMP specifications
Light source	Semiconductor laser light source, with a service life >30000 hours
Port	USB, Ethernet port, Bluetooth, Serial port (RS232, RS485), Wi-Fi, PHA
Battery	14.4V, 6600mAh
Room number	Unlimited
Room name	Unlimited length (Chinese, Letters, Numbers, and special characters)
Calibration	Annually
Shell material	316L stainless steel
Printer	Embedded printer with choice of thermal and pin printing types
Operating environment	Temperature: 32-104°F (0 - 40°C), humidity: 5-95% (non-condensing)
Warranty	1 year from the date of product activation

Contact us

(주)테솔

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