Infitek

PARTICLE SIZE ANALYZER



Laser Particle Size Analyzer
Nano Particle Size Analyzer

Laboratory and Medical equipment
one-stop solution provider







Principle & Applications

Laser Particle Size Analyzer

Based on light diffraction and scattering principles, the laser diffraction particle size analyzer measures the angular distribution of laser scattered intensity of particles, and derives particle size distribution using Mie scattering theory or the Fraunhofer approximation.

Nano Particle Size Analyzer

Nano Particle Size Analyzer is corely based on Dynamic Light Scattering (DLS), which detects intensity fluctuations caused by Brownian motion and calculates hydrodynamic diameter and distribution via the Stokes-Einstein equation.

Applications


Metal Powder


Ceramic Powder


Asthma spray


Cosmetic spray


Surfactant

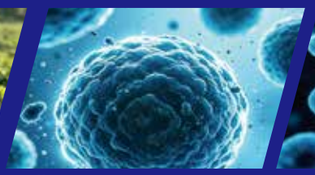

Medical Nano


Coatinqs&Dyes


Coal&Graphite


Spray machine


Pesticides


Cell


Bacteria

Quick Preview

Laser Particle Size Analyzer

Professional

p.4



Main Features

» Wide measuring range

» Modular design & plug-in sample window, easy operation & cleaning

Model	Size Range	Dispersion type
PSA-2L2309A	Wet: 0.01μm to 3500 μm Dry: 0.1μm to 3000μm	Wet and Dry

Classic Series

pp.5-6



Main Features

» Wet-dry /single dispersion types feature high precision & stability.

Model	Size Range	Dispersion type
PSA-2L2308A	Wet: 0.01μm to 2000μm Dry: 0.1μm to 2000μm	Wet and Dry
PSA-LA2800A	0.01μm to 2000μm	Wet
PSA-LA2800B	0.01μm to 1500μm	Wet
PSA-LD3008A	0.1μm to 2000μm	Dry
PSA-LD3008B	0.1μm to 1200μm	Dry

Practical Series

pp.7-8



PSA-LA2600/B

Main Features

» Ideal for routine QC of SMEs, easy operation & stable performance.

Model	Size Range	Dispersion type
PSA-LA2600A	0.01μm to 1000μm	Wet
PSA-LA2600B	0.1μm to 1000μm	Wet
PSA-LA2018	0.1μm to 450μm	Wet
PSA-LD3003A	0.1μm to 300μm	Dry

Laser Particle Size Analyzer, Spray Particle

Spray Series

pp.9-10



PSA-LS311

Main Features

» Medical spray & inhalant testing, pharmacopoeia compliant

» PSA-SI319A Split structure, adjustable test distance

Model	Size Range	Application
PSA-LS311	0.1μm to 100μm	Small Medical Nebulizer, Beauty, Aromatherapy
PSA-SI319A	1μm to 500μm	Industrial large spray equipment

Nano Particle Size Analyzer

Nano-scale Series

pp.11-13



PSA-LS901



PSA-N802

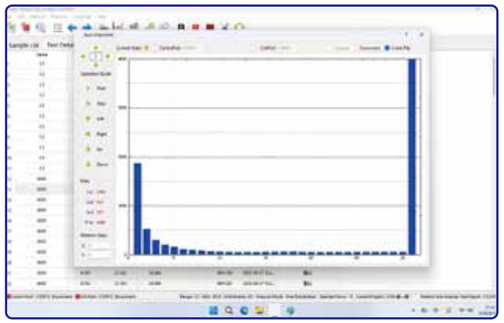
Main Features

» DLS/PCS technologies; » high-speed digital correlators; » high-sensitivity photon detectors;

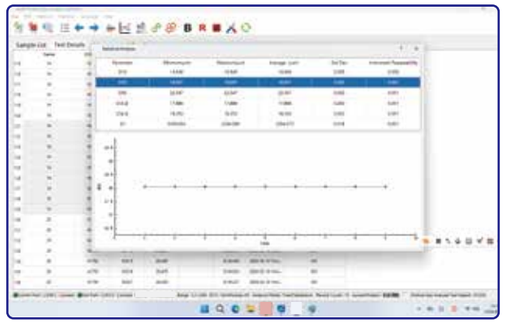
Model	Size Range	Function
PSA-LS901	0.3nm-10000nm -500-+500mV	Particle Size Zeta potential
PSA-N802	0.3nm-10000nm	Particle Size

Laser Particle Size Analyzer, Software

Software



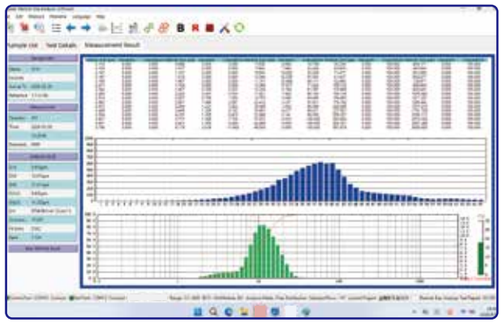
Auto optical-path alignment – accurate and convenient



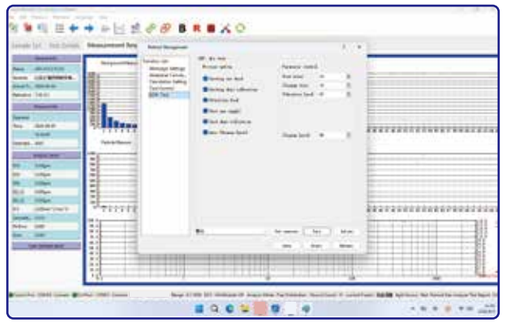
Auto-memorizes last test parameters & displays real-time progress.



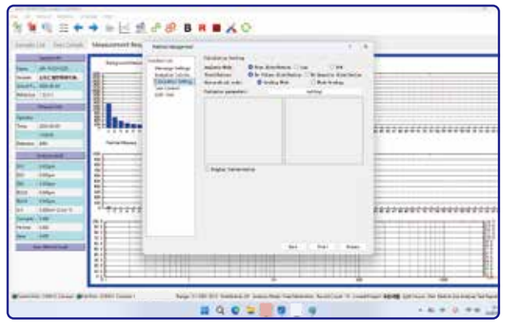
Supports multiple refractive index models



Statistical multi-result comparison (batches, pre/post, time-series) for QC.



Visual SOP management for efficient and convenient setup.



User-defined analysis parameters, Free Distribution, R-R Distribution etc.

Item	Function
Analysis Modes	Free Distribution, R-R Distribution, Log-Normal Distribution, Mesh Size Classification, etc, meet the diverse particle size statistical requirements of different industries.
Statistical Methods	Volume Distribution, Quantity Distribution
Statistical Comparison	It can conduct comparative analysis on multiple test results. By comparing test results of different batches of samples, samples before and after processing, and samples tested at different times, differences can be identified. This is of great practical significance for quality control of industrial raw materials.
User-defined Analysiss	Calculate the percentage based on particle size. Calculate the particle size based on the percentage. Calculate the percentage based on the particle size range. These functions meet the representativeness requirements of particle testing across various industries.
Test Report	Test reports support mult-format export (Word, Excel, BMP, TXT, PDF) for report viewing, data reprocessing and paper citation in various scenarios.

Testing Report

ranges:0.01-3500 μm Printing Time:2026-03-12 10:25

Sample Info

Delivery Date:2026-02-09	Retractive Index:1.77-0.100	Sample Density: g/cm3

Testing Information (Distribution: By Volume distribution)

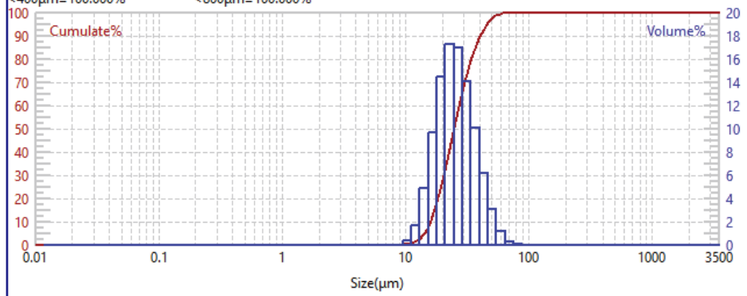
Organization:	Detection Intensity: 4095	Analysis Mode: Free Distribution
Operator:001	Dispersed Phase:	Measure Time:2026-02-09 13:53:51
Dispersed Phase: water	Ultrasonic Time(s):30	

Analysis Result

D10=16.284μm	D50=25.325μm	D90=40.958μm
D[3,2]=24.091μm	S/V=2490.526cm^2/cm^3	Fitting Deviation:0.002
D[4,3]=27.243μm		Optics Concentration:28.068
Span=0.974		

Customize project analysis results

<400μm=100.000% <800μm=100.000%



Size(μm)	Volume	Cumulate	Size(μm)	Volume	Cumulate	Size(μm)	Volume	Cumulate
0.012	0.000	0.000	0.872	0.000	0.000	64.796	1.177	99.666
0.014	0.000	0.000	1.023	0.000	0.000	76.006	0.299	99.965
0.016	0.000	0.000	1.200	0.000	0.000	89.156	0.035	100.000
0.019	0.000	0.000	1.407	0.000	0.000	104.580	0.000	100.000
0.022	0.000	0.000	1.651	0.000	0.000	122.673	0.000	100.000
0.026	0.000	0.000	1.936	0.000	0.000	143.897	0.000	100.000
0.031	0.000	0.000	2.271	0.000	0.000	168.792	0.000	100.000
0.036	0.000	0.000	2.664	0.000	0.000	197.994	0.000	100.000
0.042	0.000	0.000	3.125	0.000	0.000	232.249	0.000	100.000
0.049	0.000	0.000	3.665	0.000	0.000	272.430	0.000	100.000
0.058	0.000	0.000	4.300	0.000	0.000	319.562	0.000	100.000
0.068	0.000	0.000	5.044	0.000	0.000	374.849	0.000	100.000
0.080	0.000	0.000	5.916	0.000	0.000	439.701	0.000	100.000
0.093	0.000	0.000	6.940	0.000	0.000	515.772	0.000	100.000
0.110	0.000	0.000	8.140	0.000	0.000	605.005	0.000	100.000
0.128	0.000	0.000	9.549	0.000	0.000	709.675	0.000	100.000
0.151	0.000	0.000	11.201	0.390	0.390	832.454	0.000	100.000
0.177	0.000	0.000	13.138	1.651	2.040	976.475	0.000	100.000
0.207	0.000	0.000	15.411	4.811	6.852	1145.413	0.000	100.000
0.243	0.000	0.000	18.078	9.623	16.475	1343.578	0.000	100.000
0.285	0.000	0.000	21.205	14.473	30.948	1576.028	0.000	100.000
0.335	0.000	0.000	24.874	17.275	48.223	1848.692	0.000	100.000
0.393	0.000	0.000	29.177	16.960	65.183	2168.530	0.000	100.000
0.460	0.000	0.000	34.225	14.085	79.268	2543.703	0.000	100.000
0.540	0.000	0.000	40.146	10.018	89.286	2983.783	0.000	100.000
0.634	0.000	0.000	47.092	6.108	95.394	3500.000	0.000	100.000
0.743	0.000	0.000	55.239	3.095	98.489			

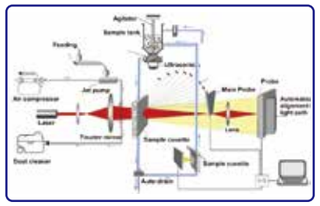
Contact us

Laser Particle Size Analyzer, Professional

PSA-2L2309A

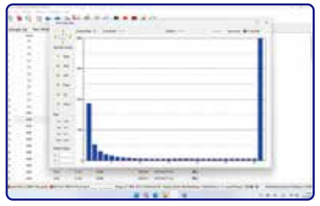
Features





Advanced Optical Path Design

Inverse Fourier folded optics – focal-length-free, 0.015°–145° angle range, enhanced range & resolution, sealed dustproof design.



Automatic Optical Path Alignment System

Precision four-phase hybrid stepper motors with micron-level microstepping maintain optimal optical alignment, ensuring stable, accurate measurements without manual errors.



Modular Wet/Dry Dispersion

Modules are freely interchangeable based on sample needs, ensuring simple and efficient operation.



Automatic Sample Dispersion

Modular wet-dry dispersion shortens circulation lines, prevents large-particle precipitation, achieves even dispersion and eases maintenance & cleaning.

Description

PSA-2L2309A is an intelligent fully automatic laser particle size analyzer that adopts the internationally advanced Mie Scattering and Fraunhofer Diffraction principle. As an integrated model with wet and dry dispersion systems, it features a high-sensitivity and high-resolution photoelectric probe system paired with an imported Canon lens optical path—these components ensure excellent accuracy and repeatability in particle size distribution measurements. The analyzer is widely used in quality control departments of industrial production and research institutions.

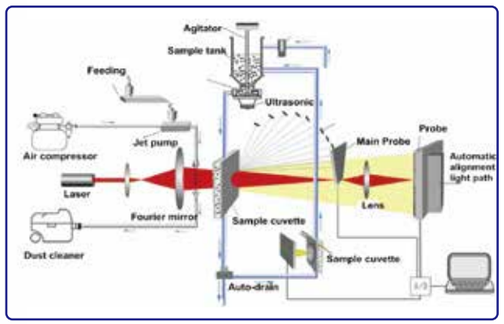
Specification

Model	PSA-2L2309A
Instrument type	Wet and Dry
Specification	
Measuring range	Wet: 0.01μm to 3500μm Dry: 0.1μm to 3000μm
Photodetector	Wet: 116 Dry: 116
Accuracy	Wet: ≤0.5% (CRM D50) Dry: ≤1% (CRM D50)
Repeatability	Wet: ≤0.5% (CRM D50) Dry: ≤1% (CRM D50)
Design principle	Laser Diffraction
Analysis principle	Mie Scattering Fraunhofer Diffraction
Standard	ISO 13320
Audit trail Software	Optional, complies with FDA 21 CFR Part 11
Engineering	
Laser	Fiber Laser, 639nm, Max. 4mW
Laser safety	Class 1
Detector	Log-spaced array, 0.015° to 145°
Operation mode	Full Automatic
Optical alignment	Full Automatic
Test speed	Wet: ≤2min Dry: ≤1min Typical testing time: ≤10s Inverval time per test result: 500ms
Wet dispersion	
Ultrasonic	Frequency: 40kHz Power: 60W Time: adjustable
Stirrer	Speed: 0rpm to 3000rpm adjustable
Circulate	Rated Flow: 1-8L/min Rated Power: 120W
Sample tank	Volume: 600mL
Micro-sample cuvette	Optional
Dry dispersion	
Dry dispersion	Dry-turbulence dispersion mode, normal shock wave shear technique
Sample feeding	Automatic Sampler (SOP setting)
Dispersion medium	Compressed Air
Technical data	
Connect PC, LIMS	Yes
Test Report	Word, Excel, Image, Text, etc.
Working environment	Temperature: 5℃ to 35℃ Humidity: ＜85%
Storage environment	Temperature: -20℃ to 50℃
Power supply	110/220V, 50/60Hz
Product dimensions (L×W×H)	870mm×370mm×330mm (Main unit) 420mm×350mm×380mm (Wet module) 260mm×290mm×140mm (Dry module)
Net weight	32kg 15kg 7kg

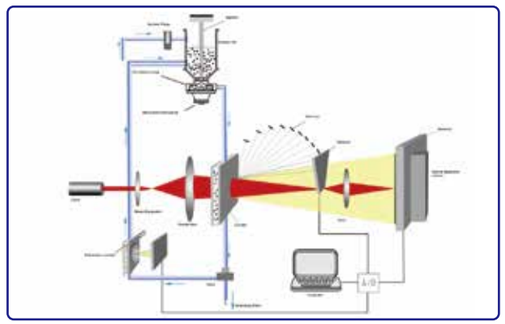
Laser Particle Size Analyzer, Classic Series

PSA-2L2308A PSA-LA2800A PSA-LA2800B PSA-LD3008A PSA-LD3008B

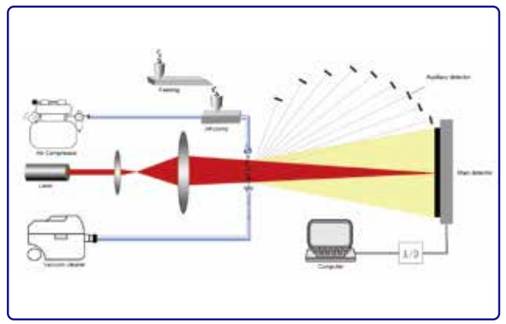




PSA-2L2308A



PSA-LA2800A/B



PSA-LD3008A/B

Description

The classic series laser particle size analyzer adopts the laser diffraction theory (Mie Scattering and Fraunhofer Diffraction), delivering reliable and repeatable particle size analysis for a diverse range of applications. It employs a dual-beam and multi-spectral detection system along with side-light scattering testing technology, which significantly enhances the testing precision and performance. It is the preferred choice for quality control departments in industrial production and research institutions.



Features

Integrated Wet and Dry Sample Dispersion System

PSA-2L2308A unites wet and dry testing in one unit—one-key switching solves the integration challenge.

Automatic Optical Path Alignment System

Auto optical alignment with four 0.1 μm hybrid stepper motors – no manual adjustment, enhanced accuracy and stability.

Stable and Unique Optical Path System

Convergent-light Fourier optics eliminate lens aperture limitations. Dual-laser orthogonal technology extends the measurement range, while a Canon lens ensures accuracy and stability.

Fully Built-in Sample Dispersion System

Wet: One-key SOP integrates stirring, ultrasonication, and circulation for uniform dispersion, preventing sedimentation from long pipelines and ensuring representative results.

Dry: Turbulent dispersion and shock shearing ensure thorough particle dispersal and reliable performance.

Intelligent Fully Automatic Operation and Manual Operation Modes

One-Key Operation

Prompt-guided sample loading and testing; full automation reduces workload and human interference.

Wet (2 min): Water supply, dispersion, circulation, testing, cleaning, data analysis, saving, printing.

Dry (1 min): Dust collection, air supply, feeding, testing, data processing.





Specification

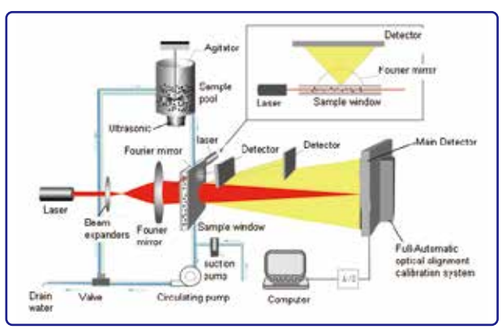
Model	PSA-2L2308A	PSA-LA2800A	PSA-LA2800B	PSA-LD3008A	PSA-LD3008B
Instrument type	Wet and Dry	Wet		Dry	
Specification					
Measuring range	Wet: 0.01μm to 2000μm Dry: 0.1μm to 2000μm	0.01μm to 2000μm	0.01μm to 1500μm	0.1μm to 2000μm	0.1μm to 1200μm
Photodetector	Wet: 127 Dry: 100	106	88	100	
Accuracy	Wet: ≤1% (CRM D50) Dry: ≤1% (CRM D50)	≤0.5% (CRM D50)		≤1% (CRM D50)	
Repeatability	Wet: ≤1% (CRM D50) Dry: ≤1% (CRM D50)	≤0.5% (CRM D50)		≤1% (CRM D50)	
Design principle	Laser Diffraction				
Analysis principle	Mie Scattering Fraunhofer Diffraction				
Standard	ISO 13320				
Audit trail Software	Optional, complies with FDA 21 CFR Part 11				
Engineering					
Laser	Main Laser: Semiconductor Laser, 639nm, P>3mW Auxiliary Laser: 405nm, P>2mW	Main Laser: Fiber Laser, 632.8nm, P>4mW Auxiliary Laser: 650nm, P>10mW	Main Laser: Fiber Laser, 639nm, P>2mW Auxiliary Laser: 405nm, P>2mW	Semiconductor Laser, 632.8nm, P>2mW	Semiconductor Laser, 632.8nm, P>2mW
Laser safety	Class 1				
Detector	Log-spaced array 0.015° to 145°		/	Log-spaced array 0.015° to 145°	/
Operation mode	Full Automatic				
Optical alignment	Full Automatic				
Test speed	Wet: ≤2min Dry: ≤1min Typical testing time: ≤10s Inverval time per test result: 500ms	≤2min Typical testing time: ≤10s		≤1min	
Wet dispersion					
Ultrasonic	Frequency: 40kHz Power: 60W Time: ≥1s	Frequency: 40kHz Power: 50W Time: adjustable	Frequency: 40kHz Power: 60W Time: adjustable	/	
Stirrer	Speed: 0rpm to 3000rpm adjustable			/	
Circulate	Rated Flow: 30L/min Rated Power: 70W		Rated Flow: 3.6L/min Rated Power: 29W	/	
Sample tank	Volume: 1000mL		Volume: 550mL	/	
Micro-sample cuvette	Optional			/	
Dry dispersion					
Dry dispersion	Dry-turbulence dispersion mode, normal shock wave shear technique	/		Dry-turbulence dispersion mode, normal shock wave shear technique	
Sample feeding	Automatic Sampler (knob setting)	/		Automatic Sampler (knob setting)	
Dispersion medium	Compressed Air	/		Compressed Air	
Technical data					
Connect PC, LIMS	Yes				
Test Report	Word, Excel, Image, Text, etc.				
Working environment	Temperature: 5℃ to 35℃ Humidity: ＜85%				
Storage environment	Temperature: -20℃ to 50℃				
Power supply	220V, 50/60Hz				
Product dimensions	1040mm×440mm×540mm (L×W×H)				
Net weight	70kg	58kg			

Laser Particle Size Analyzer, Practical Series

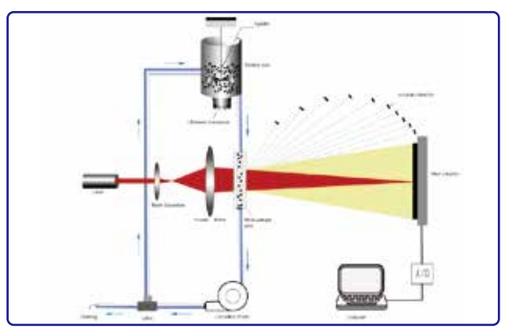
PSA-LA2600A PSA-LA2600B PSA-LA2018 PSA-LD3003A



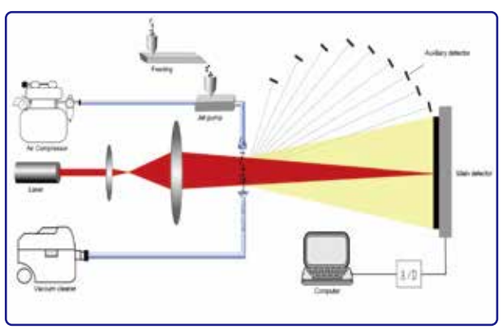
PSA-LD3003A



PSA-LA2600A/B



PSA-LA2018



PSA-LD3003A

Description

The practical series laser particle size analyzer adopts the laser diffraction particle size measurement principle, combined with a highly sensitive annular photoelectric detector, significantly improving test precision. Its unconstrained free fitting technology truly reflects the particle size distribution, guaranteeing the authenticity and accuracy of test results. It is particularly suitable for testing materials with a narrow particle size distribution.



PSA-LA2600A/B

Features

User-Friendly Operation

Manual and automatic modes offer flexible testing. Use manual for unknown samples or special parameters to establish conditions, then switch to automatic for efficient formal runs.

Rapid Measurement

Wet dispersion: In automatic mode, the full cycle – water supply, ultrasonication, stirring, circulation, background calibration, testing, data analysis, drainage, and cleaning – runs automatically in under 2 minutes, dramatically shortening the measurement cycle.

Dry dispersion: One-key intelligent operation: load the sample, and the system automatically handles dust collection, air supply, and feeding. This reduces workload and eliminates human error for more accurate, reliable results.

Advanced Optical Path Design

Fourier optics eliminate aperture limits for wide-angle scattered light; shorter focal length boosts resolution; annular photodiode captures all signals, greatly enhancing measurement resolution.

Automatic Optical Path Alignment System

Four 0.1 μm-precision hybrid stepper motors drive automatic optical alignment, ensuring optimal performance, eliminating manual adjustment, and improving accuracy and stability.










Specification

Model	PSA-LA2600A	PSA-LA2600B	PSA-LA2018	PSA-LD3003A
Instrument type	Wet			Dry
Specification				
Measuring range	0.01μm to 1000μm	0.1μm to 1000μm	0.1μm to 450μm	0.1μm to 300μm
Photodetector	87		40	
Accuracy	≤0.5% (CRM D50)	≤1% (CRM D50)		≤0.5% (CRM D50)
Repeatability	≤0.5% (CRM D50)	≤1% (CRM D50)		≤0.5% (CRM D50)
Design principle	Laser Diffraction			
Analysis principle	Mie Scattering Fraunhofer Diffraction			
Standard	ISO 13320			
Audit trail Software	Optional, complies with FDA 21 CFR Part 11			
Engineering				
Laser	Main Laser: Fiber Laser, 639nm, P>2mW Auxiliary Laser: 405nm, P>2mW	Fiber Laser, 639nm, P>2mW	Semiconductor Laser, 635nm, P>2mW	High-performance Laser, 632.8nm, P>2mW
Laser safety	Class 1			
Operation mode	Full Automatic			
Optical alignment	Full Automatic			
Test speed	≤2min Typical testing time: ≤10s		≤2min Typical testing time: ≤15s	≤1min
Wet dispersion				
Ultrasonic	Frequency: 40kHz Power: 60W Time: ≥1s			/
Stirrer	Speed: 0rpm to 3000rpm adjustable			/
Circulate	Rated Flow: 3-8L/min Rated Power: 15W	Rated Flow: 8L/min Rated Power: 10W		/
Sample tank	Volume: 450mL		Volume: 350mL	/
Micro-sample cuvette	Optional			/
Dry dispersion				
Dry dispersion	/			Dry-turbulence dispersion mode, normal shock wave shear technique
Sample feeding	/			Automatic Sampler (SOP setting)
Dispersion medium	/			Compressed Air
Technical data				
Connect PC, LIMS	Yes			
Test Report	Word, Excel, Image, Text, etc.			
Working environment	Temperature: 5℃ to 35℃ Humidity: ＜85%			
Storage environment	Temperature: -20℃ to 50℃			
Power supply	220V, 50/60Hz			
Product dimensions (L×W×H)	850mm×390mm×450mm		780mm×365mm×495mm	765mm×450mm×325mm 260mm×285mm×135mm
Net weight	40kg			26kg 7kg

Laser Particle Size Analyzer, Spray Series

PSA-LS311 PSA-SI319A



PSA-LS311



PSA-SI319A

Features

Unique Optical Path Technology

Based on laser scattering, the analyzer uses a single parallel optical path with dual-lens and dual-array detectors to enhance scattered-light collection, widen the measurement range, and boost resolution.

Unique Airflow Protection Device

The airflow system shields the lens from droplet contamination, prolonging instrument life.

Spray-Triggered Particle Size Testing for Instant Results

Spray-triggered particle size testing allows real-time measurement and immediate data capture.

Highly Targeted Product Testing

Designed for inhaled aerosols, sprays, and powder aerosols, this benchtop analyzer is the ideal choice for small-spray-system particle sizing.

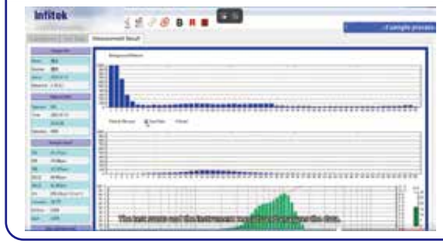
Features

Unique Airflow Protection Device



The airflow protection system effectively safeguards the lens from droplet contamination during testing, extending the instrument's service life.

Stable Automatic Optical Path Alignment System



This system eliminates the difficulty of adjustment caused by optical path movement, and optical path alignment can be corrected with the key.

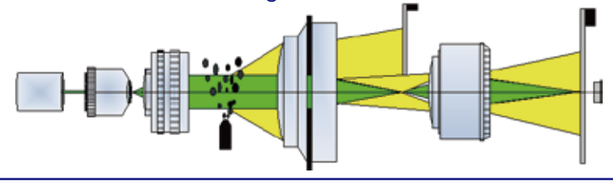
Split-Type Design

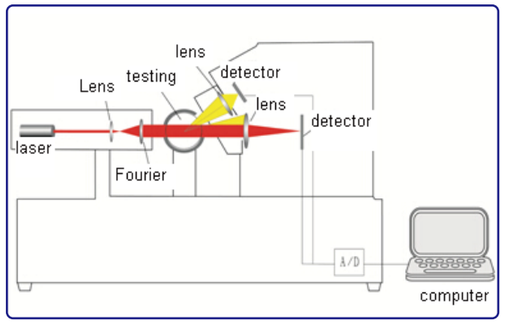
Split-type design and adjustable test area support any spray test, featuring non-contact and interference-free measurement.



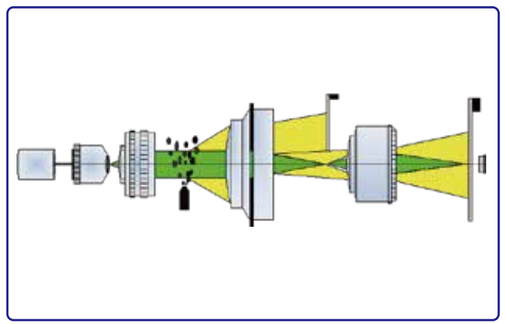
Exclusive Optical Path Technology

Parallel optics and spectrum amplification enable wide-range expansion in a compact design, while integrated auxiliary detectors collect full-angle scattered light for accurate, reliable results across the entire range.





PSA-LS311



PSA-SI319A

Specification

Model	PSA-LS311	PSA-SI319A
Instrument Type	Spray	
Specification		
Measuring Range	0.1μm to 100μm	1μm to 500μm
Photodetector	80	50
Accuracy	≤1% (CRM D50)	
Repeatability	≤1% (CRM D50)	
Design Principle	Laser Diffraction	
Analysis Principle	Mie Scattering Fraunhofer Diffraction	
Standard	ISO 13320	
Audit trail Software	Optional, complies with FDA 21 CFR Part 11	
Engineering		
Laser	Semiconductor Laser, 650nm, P>1mW	LD Pump Laser, 532nm, P>2mW
Laser Safety	Class 1	
Measurement Area Length	60mm	0.1m to 10m adjustable
Feeding Mode	Open	
Technical Data		
Connect PC, LIMS	Yes	
Test Report	Word, Excel, Image, Text, etc.	
Working Environment	Temperature: 5℃ to 35℃; Humidity:＜85%	
Storage Environment	Temperature: -20℃ to 50℃	
Electricity	110/220V, 50/60Hz	
External Dimensions (L*W*H)	720mm*620mm*370mm	369mm×295mm×360mm 858mm×295mm×360mm
Net Weight	30kg	68kg

Description

PSA-LS311 is specially designed and developed for droplet particle size distribution testing of small spray equipment. It integrates a number of technologies, including a lens protection device, and enables non-contact measurement of droplet particles in the air. The analyzer is mainly applied to medical atomizers, atomized medications, various aerosols, sprays, and other small spray equipment. It is particularly suitable for meeting the particle size testing requirements for inhaled aerosols, sprays, and powder mists specified in the pharmacopoeia.

PSA-SI319A is specially designed and developed for droplet size particle size distribution testing. This instrument adopts the laser diffraction, paired with a parallel optical path design and a high-performance, high-power laser with a service life of over 25,000 hours. Additionally, the test range can be customized according to customers' requirements.

Nano Particle Size Analyzer

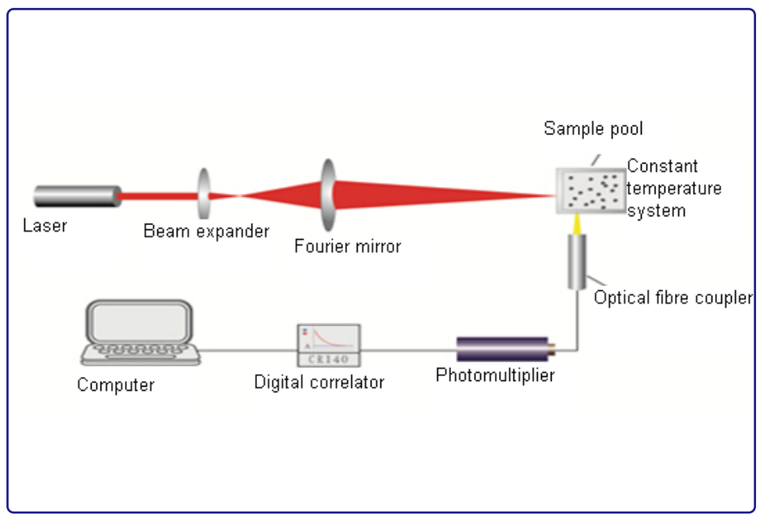
PSA-N802



PSA-N802

Description

PSA-N802 is based on the dynamic light scattering (DLS) principle, adopts the high-performance PMT (Hamamatsu) and high-speed digital correlator. It measures the changes in scattered light at a specific angle to obtain the diffusion coefficient, and then calculates the particle diameter and particle size distribution in accordance with the Stokes-Einstein equation. With fast calculation speed, high resolution, excellent accuracy, and good repeatability, this analyzer is widely used in corporate product laboratories, research facilities, and universities.



Features

Advanced Testing Principle

Based on DLS and PCS technology, it determines particle size from Brownian motion speed—different sizes yield different scattered-light fluctuation rates. Photon correlation spectroscopy determines particle size by measuring photon fluctuations in a specific direction.

High Sensitivity and SNR

The detector is composed of the Hamamatsu PMT, ensuring exceptional measurement accuracy

High Resolution

Testing nano particle size via PCS technology requires the ability to distinguish nanosecond-level signal fluctuations. The CR256 digital correlator achieves a high resolution speed of 8ns.

Highly Stable Optical Path System

The PCS detection system adopts optical fiber technology, featuring a compact structure, strong anti-interference capability, and high reliability.

Zeta Potential & Nano Particle Size Analyzer

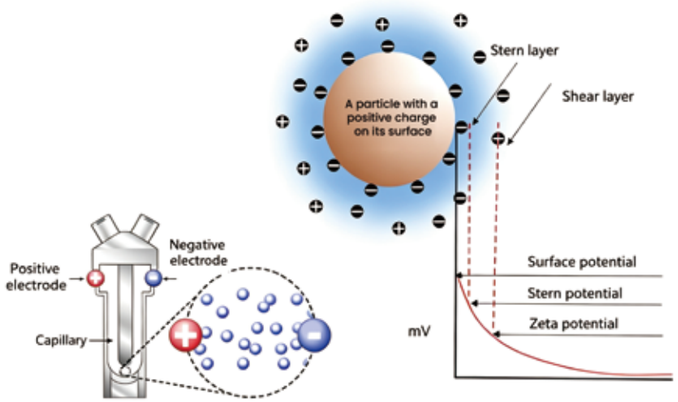
PSA-LS901



PSA-LS901

Description

PSA-LS901 integrates two core technologies, dynamic light scattering (DLS) and electrophoretic light scattering (ELS), to accurately measure particle size distribution, Zeta potential, and isoelectric point. It provides complete data support for evaluating the stability of nanoparticles. Through the collaborative analysis of particle size and surface charge, it helps users deeply understand the stability mechanism of dispersion systems and is widely applied in materials research, formulation optimization, surface modification, and quality control, etc.



Features

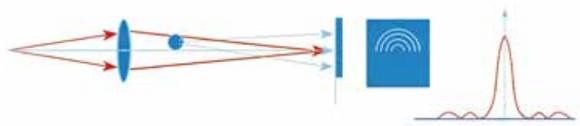
High Sensitivity and High Signal-to-Noise Ratio



Professional-grade , high-performance PMTs deliver ultra-high photon sensitivity and SNR.

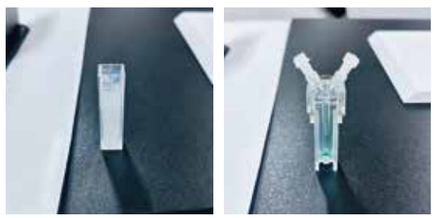
Stable Optical Path System

Optical frequency shifting and fiber coupling create a compact, anti-interference detection system for stable testing.



Standard Sample Cells

Standard disposable low-volume particle size cells and capillary electrode cells deliver accurate, user-friendly operation while eliminating cross-contamination from prior measurements (sample-dependent).



Ultra-high-speed Data Acquisition

HA1024 correlator captures real-time scattered light, computes autocorrelation for particle velocity, and ensures high-accuracy Zeta potential.







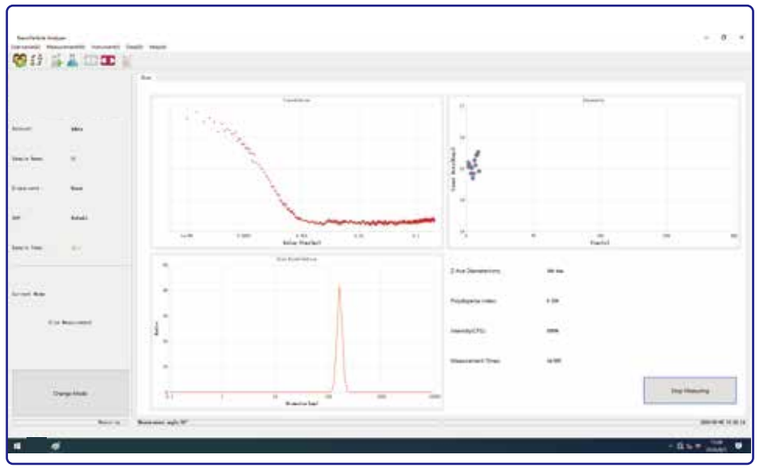
Specification

Model	PSA-N802	PSA-LS901	
Instrument type	Nano	Nanoparticle size distribution, Zeta potential	
Specification			
Measuring range	0.3nm - 10000nm	0.3-10000nm (sample dependent)	-500mV to +500mV
Concentration range	0.1mg/mL to 100mg/mL	0.1 mg/mL-100 mg/mL (sample dependent)	
Electrophoretic Mobility Range	/	≥20 μm·cm/(V·s)	
Maximum Conductivity	/	200 mS/cm (sample dependent)	
Accuracy	≤1% (CRM D50)	<1% (National standard sample D50 value)	<15% (Standard sample)
Repeatability	≤1% (CRM D50)	<1% (National standard sample D50 value)	<15% (Standard sample)
Standard	ISO 13321, ISO 22412		
Audit trail Software	Optional, complies with FDA 21 CFR Part 11	/	
Engineering			
Laser	Semiconductor Laser, 532nm, P=30mW	Semiconductor laser, λ = 635 nm, P = 1- 40 mW (adjustable)	
Laser safety	Class 1	Class 1	
Detector	Scattering angle 90°, Hamamatsu PMT (19-90°C)	Photomultiplier tube 90°	Photomultiplier tube 18°
Sample cuvette	1mL to 4mL (10mm×10mm×40mm)	1mL to 4mL (10mm×10mm×40mm)	1mL (10mm×10mm×60mm)
Temperature control	5°C to 90°C (±0.1°C)		
Temperature measuring range	5°C to 40°C		
Test speed	≤5min		
Digital correlator			
Model	CR256	HA1024	HA1024
Auto-correlation channel	256	892	892
Baseline channel	4	4	/
Physical channel	5000	5000	/
Unit delay time	100ns to 10ms	1μs-10ms (adjustable)	1μs-10ms (adjustable)
Technical data			
Connect PC, LIMS	Yes		
Test Report	Word, Excel, Image, etc.		
Storage environment	Temperature: 15°C to 30°C; Humidity: <75%		
Power supply	110/220V, 50/60Hz		
Product dimensions (L×W×H)	480mm × 270mm × 170mm	600 mm×420 mm×210 mm	
Net weight	12kg	28kg	

Nano Particle Size Analyzer, Software

Software





» The original unconstrained free-fitting technology collects scattering data during the measurement process. It frees particle analysis from the constraints of fixed functional models, truly reflecting the particle size distribution.

Item	Function
Analysis	Average Particle Diameter, Particle Distribution, Photon Counting Rate etc.
Analysis mode	NNSL, Multi-peak, CONTIN
Output	It can output the actual particle size distribution. Users can freely set and retrieve percentiles (D10–D100), volume-weighted mean diameter (D[4,3]), surface-weighted mean diameter (D[3,2]), D[2,1], D[1,0], and specific surface area.
Test Report	Test reports support mult-format export (Word, Excel, BMP, TXT, PDF) for report viewing, data reprocessing and paper citation in various scenarios.

Testing Report

ranges:0.3-10000.0nm *Printing time:2026-08-03 11:*

Sample Infomation

Delivery Co.: Delivery Date:2026-07-22

Test Condition

Test temperature（℃）：25℃ Dispersed Phase:Water Medium viscosity:8.904E-4Pa·s

Medium refractive index:1.333 angle：90Deg Delay Unit Time:10μs

Test light source：Blue

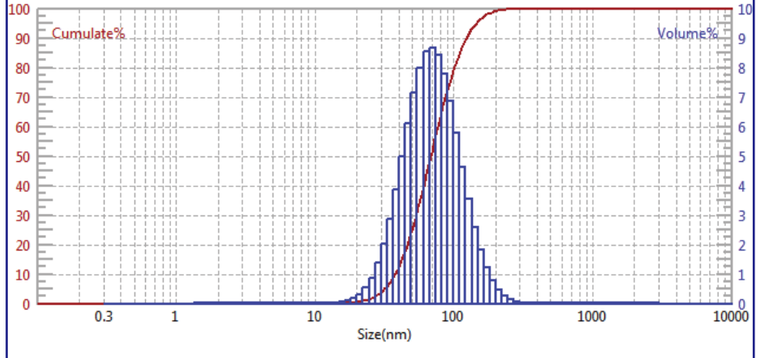
Testing Information

Operator:001 Measure Time:2026-07-22 16:23:23

Analysis result

Mean Size Xav:100.035nm Dispersion Index: 0.236 Photon Count: 25

D10：38.322nm D50：69.304nm D90：125.210nm



Size(nm)	Volume	Cumulate	Size(nm)	Volume	Cumulate	Size(nm)	Volume	Cumulate
9.974	0.001	0.001	44.775	4.973	17.162	201.006	0.761	98.981
11.024	0.002	0.003	49.489	6.108	23.270	222.171	0.460	99.441
12.185	0.005	0.008	54.700	7.156	30.426	245.564	0.265	99.706
13.468	0.011	0.018	60.460	7.997	38.424	271.421	0.146	99.852
14.886	0.023	0.041	66.826	8.525	46.948	300.000	0.077	99.929
16.453	0.047	0.089	73.863	8.667	55.616	331.589	0.038	99.967
18.186	0.093	0.182	81.640	8.406	64.022	366.503	0.018	99.986
20.101	0.175	0.357	90.236	7.776	71.798	405.094	0.008	99.994
22.217	0.314	0.671	99.738	6.861	78.659	447.749	0.004	99.998
24.556	0.537	1.208	110.240	5.775	84.434	494.894	0.001	99.999
27.142	0.876	2.084	121.848	4.636	89.070	547.004	0.001	100.000
30.000	1.362	3.446	134.678	3.550	92.620			
33.159	2.021	5.467	148.858	2.593	95.213			
36.650	2.861	8.327	164.532	1.807	97.019			
40.509	3.862	12.189	181.857	1.201	98.220			

Contact US

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