

# SALD Series Particle Size Analyzers

Powders and particles are used in a wide variety of fields for various objectives and applications. From dense to superfine particles, the particle size distribution can have a major effect on the characteristics desired for a given application or objective, or on the performance and quality of a final product. Consequently, measuring the particle size distribution is essential for stabilizing or improving the characteristics, performance, or quality of powders or particles.

With its SALD Series of Laser Diffraction Particle Size Analyzers, which provide the accuracy, resolution, and reproducibility essential to analyses, Shimadzu can address nearly any application in pharmaceuticals, cosmetics, food, materials science, and more.



	<b>SALD-7500nano</b>	<b>SALD-3101</b>	<b>SALD-2300</b>	<b>SALD-301V</b>	<b>SALD-201V</b>
<b>Measurement Principle</b>	Laser Diffraction and Scattering				
	0.007 to 800	0.05 to 3,000	0.017 to 2,500	0.1 to 350	0.25 to 350
<b>Measurement Range (µm)</b>	One measurement principle, one optical system, and one light source used for entire measurement range				
<b>Light Source (wavelength nm)</b>	Semiconductor Laser				
	405	690	680	405	670
<b>Detector</b>	84 elements	81 elements	84 elements	54 elements	
<b>Measurement Type</b>	Wet	Wet & Dry	Wet & Dry	Wet	

## SALD-7500nano

- Specifically designed for observing the status of nanoparticles, from 7 nm to 800 µm (800,000 nm), in real time at 1-second intervals
- Enables the reliable evaluation of the dispersion and aggregation processes of particles, as well as the status of contaminants, including how these change over time
- Easily interchangeable wet sample introduction methods include a sampler unit with sonicator, a batch cell, and a high-concentration measurement unit for measuring concentrated samples up to 200,000 ppm



## SALD-3101

- Designed for measurement of coarse or dense particles with a variety of sampling options for both wet and dry samples
- Seamlessly covers a wide measuring range from 0.05 to 3,000 µm using a single measurement principle, a single optical system, and a single light source
- Sampler incorporates a powerful vertical radial pump with a flow rate of 5000 cm³/minute to reliably circulate a range of particle sizes from microns to several millimeters



## SALD-2300

- Multi-purpose analyzer provides continuous measurement in real time, at minimum one-second intervals, and has 21 CFR Part 11 compliant software as an option
- Enables measurements of samples at a variety of concentrations without diluting or concentrating
- Measurement range spans particle sizes from 17 nm to 2,500  $\mu\text{m}$ , and users can select various sample amounts depending on measurement objectives

## SALD-201V

- Low cost analyzer offering high performance and a small footprint
- Ideal for particles with relatively low specific gravity (less than 2), such as foods, beverages, pharmaceuticals, cosmetics, and emulsions
- Designed specifically for wet measurement

## Key Aspects of the SALD Series

### High Reproducibility

A single light source and highly reliable optical system provide extremely high reproducibility in terms of consistent sample measurement results. This allows measuring and evaluating even subtle changes in samples with confidence.

### Automatic Refractive Index Calculation

WingSALD II software is the world's first to automatically calculate an appropriate refractive index based on the light intensity distribution reproduction method. This function eliminates the challenges associated with selecting refractive indices

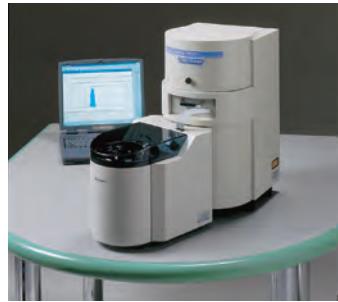
### Easy Maintenance

Systems feature a powerful self-diagnostic function, as well as an operation log function, which stores detailed information with all measurement data. This allows retroactively verifying the validity of measurement data and confirming the cell contamination status.

Shimadzu particle size analyzers are used in a wide variety of fields, for a wide range of purposes and applications. Find your solution with Shimadzu.

## SALD-301V

- Equipped with a violet semiconductor laser (405 nm wavelength), which increases accuracy and resolution of sub-micron particle size analysis
- Improved optical system provides better performance in the microparticle region, and enables measuring blue and black type particles
- Designed specifically for wet measurement

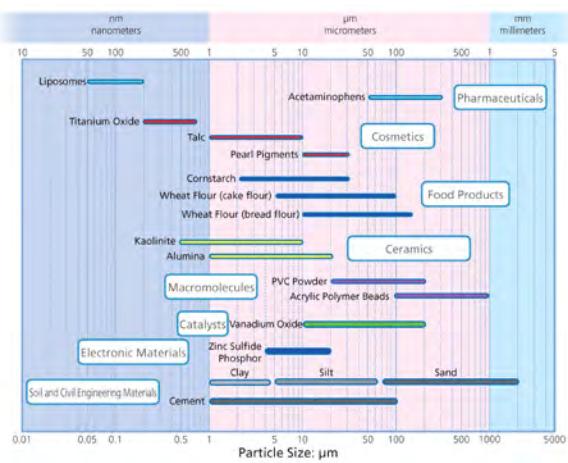


### Measurement Assist Function

Reduces operation errors by allowing users to prepare standard operating procedures to ensure measurements are always performed using the same conditions and procedures

### Omnidirectional Shock Absorption Frame

Isolating all elements of the optical system from impacts, vibration and external disruptions improves instrument stability and provides high-reproducibility.



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