

Syringe Liquid Sampler

with UltraChem® 100 Particle Counter

Without measurement there is no control.

NanoVision Technology



The SLS Syringe Sampling System is ideal for applications where precise, small-volume sampling is needed.

The system consists of a syringe sampler for either corrosive or non-corrosive liquids, a particle counter for different sizing sensitivities, and software.

A convenient naming system identifies the particle counter installed inside the instrument (see the **Specifications** table).

BENEFITS

NanoVision Technology

- Adaptive technology makes the instrument immune to most optical contamination
- See what your particle counter sees
- Measures small particles in a wide range of chemicals, including high molecular scattering fluids. Chemicals include:
 - PGMEA
 - Photoresist solvents
 - HF
 - Sulfuric acid

Cost-Effective

- Small sample volume minimizes waste of expensive product
- Automated system saves time and money
- Compatibility with both corrosive and non-corrosive liquids

Easy-to-Use

- Menu-driven data collection
- Recipes can be created and retrieved for repeatable system operation with different operators
- Optional password security maintains system integrity

Versatile

- Ability to support a wide range of applications
- Size channels: 100, 200, 300, 500 nm
- Extremely accurate measurements

APPLICATIONS

- Small volume chemical quality assurance
- Parts cleanliness testing
- Laboratory water sampling
- Industries: semiconductor, pharmaceutical, data storage, medical, aerospace, automotive, hydraulic oils

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specifications

	SLS-1100
Syringe size	25 ml
Sampling mode	Vacuum , Batch
Minimum sample size	0.4 ml @ 20 ml/min
Wetted surface materials	Glass, Teflon® (all Teflon optional)
Power	100 – 240 V, 50 – 60Hz
Sample volume	Adjustable using software interface
Dimensions (l, w, h)	15 x 9 x 17.1 in (38.1 x 22.0 x 43.4 cm) including particle counter
Weight	42 lb (19.1 kg) including particle counter
Environment	Temperature: 50 – 86 °F (10 – 30 °C); Humidity: Non-condensing Indoor use only Pollution degree 2 Over-voltages (transients) Category II Ordinary protection (not protected against harmful ingress of moisture) Class I equipment (Electrical earth ground from the mains power source to the product input is required for safety)
	UltraChem 100
SLS Instrument Label	SLS-1100
Size range	100 – 500 nm
Channels	100, 200, 300, 500 nm
Flow rate	20 ml/min
Sampled %	30% Monitor mode; 16% Spectrometer mode, 13% High-Scatter mode
Maximum concentration*	3,000 particles/ml, Monitor mode 9,000 particles/ml, Spectrometer mode 15,000 particles /ml, High-Scatter mode
Zero count	< 50 counts/l
Maximum pressure	Ambient pressure
Laser source	Laser diode Class I, complies with US 21 CFR 1040.10 and EN 60825-1; Internally an enclosed Class 4 laser is used per EN 60825-1
Sample temperature	50 – 122 °F (10 – 50 °C)
Wetted surface materials	Sapphire**, Teflon, Kel-F®
Calibration	Materials used are traceable to US National Institute of Standards and Technology (NIST) and Japanese Institute of Standards (JIS).
Software	SamplerSight

*Greater than 90% accuracy (less than 10% coincidence loss) at max. recommended concentration.

** Compatible with hydrofluoric acid sampling.

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