

# Syringe Liquid Sampler

with UltraChem® 100 Particle Counter



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

- Precise particle measurement
- Versatile - select various particle sensors and syringe sizes
- Cost-effective
- Easy-to-use
- Small sample volume - eliminates sample waste

## FEATURES

- Proven PMS UltraChem particle sensors
- Menu-driven data collection - 1, 5, 10 and 25 ml
- Wetted materials compatible with corrosive chemicals
- Compact design with on-board particle sensor

## APPLICATIONS

- Diverse applications in semiconductor and process chemical manufacturing
- Incoming quality measurement of process chemicals
- Point-of-process monitoring on process tools
- Testing and qualification of chemical components
- Outgoing chemical qualification testing
- Mechanical parts cleanliness testing



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MEASURING  
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*Without measurement there is no control*

# Syringe Liquid Sampler

with UltraChem® 100 Particle Counter

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 fluoropolymer materials optional)   |
| Power                         | 100 - 240 V, 50 - 60 Hz  |
| Sample volume                 | Adjustable using software interface  |
| External Dimensions (l, w, h) | 15 x 9 x 17.1 in (38.1 x 22.0 x 43.4 cm)   |
| Weight                        | 42 lb (19.1 kg)  |
| Environment                   | Temperature: 50 – 86 °F (10 – 30 °C)<br>Humidity: Non-Condensing<br>Indoor use only<br>Pollution degree 2<br>Over-voltages (transients) Category II<br>Ordinary protection (not protected against harmful ingress of moisture)<br>Class I equipment (Electrical earth ground from the mains power source to the product input is required for safety purposes) |

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

\*\* Compatible with hydrofluoric acid sampling.

## 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<br>16% Spectrometer mode<br>13% High-Scatter mode  |
| Maximum concentration*   | 3,000 particles/ml, Monitor mode<br>9,000 particles/ml, Spectrometer mode<br>15,000 particles/ml, High-Scatter mode                     |
| Zero count               | < 50 counts/l   |
| Maximum pressure         | Ambient pressure  |
| Laser source             | Laser diode<br>Class I, complies with US 21 CFR 1040.10 and EN 60825-1.<br>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 National Institute of Standards & Technology (NIST) and/or Japanese Industrial Standards (JIS).         |
| Software                 | SamplerSight  |

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