

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



**PARTICLE
MEASURING
SYSTEMS®**
pmeasuring.com

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) 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 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 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 National Institute of Standards & Technology (NIST) and/or Japanese Industrial Standards (JIS).
Software	SamplerSight

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