

# LiQuilaz<sup>®</sup>

## Particle Counting Spectrometer for Liquids

The LiQuilaz optical particle counters are volumetric particle counters with a variety of sizing sensitivities as low as 0.2 microns. They provide high precision analysis for most process chemicals including hydrofluoric acid and hot corrosive chemicals up to 150°C.

Volumetric particle counters offer the highest precision possible by measuring 100% sample volumes (up to 80 ml/min) so that short sampling intervals can be utilized without sacrificing statistical significance.



### BENEFITS

#### Yield Improvement

- Real-time characterization and analysis of particle concentration for immediate response to contamination
- Optional software makes process control easy by providing alarm settings, status conditions, sampler setup, and online help
- Volumetric measurements provide greater accuracy for tighter process control

#### Versatile

- Supports a wide range of applications and fluids
- Works with compression or syringe samplers
- Compatible with various tubing standards
- In-line and batch sampling capabilities
- RS-485 networking compatibility

#### Easy To Use

- Small footprint for easy placement anywhere in the process
- Flexible software provides numerous viewing options for real-time or retrieved data
- User selectable particle size thresholds

### FEATURES

- Sizing sensitivities from 0.2 - 20.0  $\mu\text{m}^*$
- 15 user-adjustable sizing channels
- Volumetric - 100% view volume
- In-line and batch sampling
- Windows<sup>®</sup> based software
- Compatible with most process chemicals including HF
- Compact system

### APPLICATIONS

- Measure effervescent chemicals using compression sampler
- Chemical quality assurance
- Process bath monitoring
- DI water monitoring
- Chemical delivery systems
- Photoresist monitoring
- Parts cleanliness testing

Without measurement, there is no control.



**PARTICLE  
MEASURING  
SYSTEMS**  
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# Specifications

LiQuilaz	LiQuilaz SO2	LiQuilaz SO3	LiQuilaz SO5
<b>Size range:</b>	0.2 - 2.0 µm	0.3 - 3.0 µm	0.5 - 20.0 µm
<b>Size channels:</b>	15		
<b>Flow rate (ml/min):</b>	50 ml/min	80 ml/min	80 ml/min
<b>Sample volume:</b>	Volumetric 50 ml/min (100%)	Volumetric 80 ml/min (100%)	Volumetric 80 ml/min (100%)
<b>Maximum concentration*:</b>	10,000 particles/ml		
<b>Sample temperature:</b>	10 - 150°C; Sulfuric acid 100°C maximum		
<b>Zero count:</b>	< 25 cts/liter	< 15 cts/liter	< 15 cts/liter
<b>Maximum pressure:</b>	100 psi		
<b>Laser source:</b>	Laser diode		
<b>Wetted surface materials:</b>	Teflon®, Kel-F®, Sapphire, Chemraz®		
<b>Dimensions (l, w, h):</b>	13 x 4 x 5 in. (32 x 11 x 11 cm)		
<b>Weight:</b>	6 lbs. (3 kg)		
<b>Power:</b>	100, 115, 220, 230, 240V	85 - 250V, 50 - 60 Hz	85 - 250V, 50 - 60 Hz
<b>Communications:</b>	RS-485		
<b>Calibration:</b>	Materials used are traceable to USA NIST and to one or more of the following procedures: ISO 4402, ASTM F-658		
<b>Environment:</b>	Temperature: 10 - 35°C Humidity: noncondensing		

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

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Kel-F® is a registered trademark of the Minnesota Mining & Manufacturing Company.

Teflon® is a registered trademark of DuPont.

Particle Measuring Systems, Inc. reserves the right to change specifications without notice.

## AUTHORIZED REPRESENTATIVE



Registration applies to the Boulder, Colorado facility

ISO 9001:2000  
FM 40574



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