

UltraChem[®] 100

Liquid Particle Counter



Your products need reliable contamination monitoring. You need to detect the smallest particle possible. Now get both – sensitivity to 100 nm particles with the greatest reliability available on the market.

If your application requires measuring small particles in chemicals with high molecular scatter, UltraChem 100 is the best tool for the job. NanoVision Technology eliminates the competition between the light scattered by fluid molecules and that from the particles.

Background and false counts are a thing of the past. The NanoVision Technology breakthrough ensures only information that matches a particle fingerprint is counted. The result: Data you can act on with confidence.

UltraChem 100 Liquid Particle Counter achieves this sensitivity in chemicals using a low-cost laser diode. The proven long life of the diode enables a three-year warranty for maximum confidence in your particle counter.

Finally the performance you demand from a particle counter you can trust — UltraChem 100.

BENEFITS

Detect Small Particles

- 100 nm sensitivity
- Large sample volume for improved data quality

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

Low Cost of Operation

- 2-year warranty
- Solid state laser diode
- Simple design

Versatile

- Online or batch sampling capabilities
- Multiple communication protocols
- Small footprint allows placement in various locations

APPLICATIONS

- DI water monitoring
- Chemical distribution monitoring
- Chemical quality assurance
- Immersion lithography

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Specifications

Size range	100 – 500 nm
Size channels	100, 200, 300, 500 nm
Flow rate	20 ml/min
Sample volume	6 ml/min nominal
Maximum concentration	3,000 particles/ml, Monitor mode 9,000 particles/ml, Spectrometer mode 15,000 particles /ml, High-Scatter mode
Sample temperature	50 – 302 °F (10 – 150 °C)
Zero count	< 20 counts/l
Maximum pressure	100 psi
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
Wetted surface materials	Sapphire, Teflon [®] , Kel-F [®]
Dimensions (d, w, h)	17.5 x 13.75 x 9.1 in (44 x 35 x 23 cm)
Weight	35 lb (16 kg)
Power	100 – 240 VAC 1.25 Amp
Communications	Ethernet (PMS protocol) 4-20 mA RS-232 (for set up only)
Calibration	Materials used are traceable to National Institute of Standards and Technology (NIST) and/or Japanese Industrial Standards (JIS)
Environment	Temperature: 50 – 95 °F (10 – 35 °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)
Warranty	2-year

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Kel-F[®] is a registered trademark of 3M.

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

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