

AirSentry® II Chlorides

Point of Use Ion Mobility Spectrometer (IMS)



Particle Measuring Systems' newest Airborne Molecular Contamination (AMC) analyzer, the AirSentry® II Chlorides monitor, detects and alerts users to small concentrations or changes in ambient Chlorine (Cl_2) and Hydrochloric Acid (HCl) levels in clean manufacturing environments.

The new Ion Mobility Spectrometry (IMS) cell provides part-per-trillion (ppt) sensitivity, fast response, and increased selectivity. Continuous coverage of a critical monitoring point and a central software platform allow for easy data acquisition and analysis.

By maximizing the value of contamination information delivered, including high-sensitivity uninterrupted data, the AirSentry II monitor allows smarter decisions to be made for locating, controlling, and preventing airborne molecular contamination.

BENEFITS

- Continuous AMC monitoring of a critical location
- Robust and reliable data acquisition, control, and analysis
- No moving parts
- Infrequent preventive maintenance
- Ethernet, RS-232, 4-20 mA outputs
- Compact size allows placement in any location
- Single external calibration system ensures analyzer-to-analyzer matching

APPLICATIONS

- Etch process bays
 - Real-Time corrosion monitoring
- Reticle pod & FOUF monitoring
 - Storage contamination
- 193 nm Lithography
 - Chemical filter efficiency and effectiveness determination
- Ambient cleanroom monitoring
 - Baseline contamination levels in different areas
- Make-up and recirculated air analysis
 - Track contamination movement and sources



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specifications

Contaminants detected	Chlorides: Cl ₂ and HCl
Range	0 – 50 ppbv
Sample flow	< 500 cc/min
LDL (3σ)*	500 ppt
Response time	< 1 min to 95% (Dry Cl ₂)
Cleardown time	< 1 min to 5% (CDA)
Temperature range	Operating: 59 – 86 °F (15 – 30 °C) Storage: - 40 – 122 °F (- 40 – 50 °C)
Humidity range	Operating: 30 – 60% RH Storage: 0 – 90% RH
Dimensions (l, w, h)	12 x 9 x 4 in (31 x 23 x 10 cm)
Weight	5 lb (2.3 kg)
Utility Requirements	
Power	100 – 240 VAC (50/60 Hz), 60 W
Clean Dry Air (CDA)	1000 cc/min, < - 76 °F (- 60 °C) dew point, 5 psig precision regulated, no particles > 50 μm, hydrocarbon free
Vacuum	< 33 kPa (absolute)
Communication	
Data output	Ethernet (to Facility Net software), RS-232 (to HyperTerminal), 4-20 mA
User interface	4 LEDs, 2 buttons (Zero/Span Calibration)

* < 5 minute sample averaging, 760 Torr

AirSentry® is a registered trademark of Particle Measuring Systems, Inc. Patents pending.
Particle Measuring Systems, Inc. reserves the right to change specifications without notice.



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