

AirSentry® II

Point-of-Use Ion Mobility Spectrometer (IMS)



The AirSentry II family of ion mobility spectrometers detect and alert users to small concentrations or changes in airborne levels of chlorides, acids, amines and ammonia-containing species. With parts-per-trillion (ppt) sensitivity, these point-of-use sensors provide fast response, increased detection selectivity and repeatable performance.

Combining Air Sentry II sensors with a central software platform allows for easy data acquisition and analysis. The AirSentry II family of sensors provide continuous actionable data, to enable efficient response to contamination sources and events.

BENEFITS

- Continuous AMC monitoring of critical locations
- Robust and reliable data acquisition, control and analysis
- Long-term data stability
- Lowest cost-per-test

FEATURES

- High-sensitivity detection of acids and bases (amines, ammonia and chlorides)
- Versatile product configuration for point-of-use, multi-point and mobile monitoring applications
- Compact size allows placement in any location
- Ethernet, RS-232, 4-20 mA outputs

APPLICATIONS

- Real-time corrosion monitoring within etch process locations
- Real-time amine and ammonia monitoring within critical lithography systems
- Quantification of chemical filter efficiency
- Tracking and troubleshooting of contamination sources throughout cleanroom and in process tools
- Analysis of contamination within FOUP wafer storage modules

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Specifications

Contaminants detected	Individual analyzers to detect Ammonia, Amines, or Acids
Range	0 – 50 ppb _v
Sample flow	< 1000 cc/min
LDL (3σ)*	70 ppt _v
Response time	< 5 min to 95% (Dry)
Cleardown time	< 5 min to 5% (Dry)
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 (H x W x L)	4 x 9 x 12 in (10 x 23 x 31 cm)
Weight	5 lb (2.3 kg)

* 5 minute sample averaging, 760 Torr

Utility Requirements

Power	100 – 240 VAC (50/60 Hz), 60 W
Clean Dry Air (CDA)	< 1000 cc/min, < - 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)

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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