AirSentry® II

Point-of-Use Ion Mobility Spectrometer (IMS)

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PARTICLE MEASURING SYSTEMS®

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

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)

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Patents pending.
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