AirSentry® II

Multi-point Monitoring System

The AirSentry II Multi-point Monitoring System is the most advanced airborne molecular contamination (AMC) monitor available, utilizing sensitive and responsive ion mobility spectrometry to detect and characterize airborne molecular contamination from multiple locations within a cleanroom. The system features a 16- or 30-point manifold sampling system and an on-board computer with secure software and communications.

In modern cleanroom manufacturing areas, process tools are often spread over large cleanroom areas and multiple floors. Air handlers recirculate the majority of air within a cleanroom which can easily spread molecular contamination to unwanted areas, negatively impacting process steps located away from actual contamination sources. The AirSentry II AMC Monitoring System provides a central and cost-effective monitoring station that allows for rapid contamination detection, as well as monitoring sequences to cover a wide number of sample points spread across a facility. A critical part of a strategic AMC monitoring program.

BENEFITS

- Low cost-per-sample point
- Detects multiple AMC compounds, as specified by the user
- Programmed monitoring to detect AMC events and trends
- Compact size
- Versatile configuration of testing locations

FEATURES

- Monitors up to 30 sample locations
- Features AirSentry II ion mobility spectrometry (IMS) sensors—sensitive, reliable, repeatable
- Detection of low concentrations of acids, amines, ammonia and chlorides
- Calibrations traceable to the National Institute of Standards and Technology (NIST)
- Real-time graphical software

APPLICATIONS

- Multi-point cleanroom and process bay monitoring
- Baseline and qualification of AMC levels in new cleanrooms
- Analysis and quantification of chemical filter efficiency
- Characterization of AMC contribution from makeup and recirculation air

AirSentry® II

Multi-point Monitoring System

Specifications

Sample point options	16 or 30 Channels
Analyzer options	NH_3, Amines, Acids, Chlorides
Analyzer ranges	0 - 50 ppb_v
Sample tube length (max.)	75 m
Power	120 VAC or 230 VAC
CDA requirements	10 LPM, 40 psig input, < -76 °F (< -60 °C) dew point, no particles > 50 µm, hydrocarbon-free
Vacuum	< 33 kPa (absolute)
Weight	Depends on analyzer configuration
Dimensions (H x W x L)	46 x 23 x 30 in (117 x 58 x 76 cm)
Communication	Ethernet (OPC)

Strategies for AMC contamination monitoring fall into three general categories:

1. ***Real-Time:***
   Real-time monitors are used continuously in the most critical locations, such as photolithography, where even sub-ppb levels of contamination degrade process performance and negatively impact yield.

2. ***Near Real-Time:***
   Near real-time monitors consist of a multi-port sampling scheme to sample a large number of locations on a periodic basis (2 – 3 times per day).

3. ***Off-Line:***
   Off-line monitoring generally is the process of manually collecting an air sample over a 6 – 24 hour period; laboratory analysis is performed at some later date, with results returned in 7 – 10 business days.

A robust AMC monitoring process uses a combination of all three strategies with a near real-time technique providing the majority of information. The data from the near real-time analyzer often triggers the subsequent use of either real-time or off-line techniques in order to provide more detailed time-based or composition-based information. This allows for minimum monitoring costs as real-time and off-line techniques are more expensive on a per sample point basis over the lifetime of the monitoring period. In summary, near real-time monitoring through the use of the AirSentry II AMC Monitoring System is the foundation upon which robust and capable AMC monitoring programs and strategies are built.

HEADQUARTERS

5475 Airport Blvd
Boulder, Colorado 80301 USA
T: +1 303 443 7100, +1 800 238 1801

Instrument Service & Support
E: +1 800 557 6363
Customer Response Center
T: +1 877 475 3317
E: info@pmeasuring.com

GLOBAL OFFICES

BRAZIL
T: +55 11 5188 8227
E: pmsbrazil@pmeasuring.com

CHINA
T: +86 21 6113 3600
E: pmschina@pmeasuring.com

FRANCE
T: +33 (0)6 82 99 17 98
E: pmsfrance@pmeasuring.com

GERMANY
T: +49 6151 6671 632
E: pmsgermany@pmeasuring.com

ITALY
T: +39 06 9053 0130
E: pmssrl@pmeasuring.com

JAPAN
T: +81 3 5298 8175
E: pmsjapan@pmeasuring.com

KOREA
T: +82 31 286 5790
E: pmskorea@pmeasuring.com

MEXICO
T: +52 55 2271 5106
E: pmsmexico@pmeasuring.com

NORDIC
T: +45 707 028 55
E: pmsnordic@pmeasuring.com

PUERTO RICO
T: +1 787 718 9096
E: pmspuertorico@pmeasuring.com

SINGAPORE
T: +65 6496 0330
E: pmssingapore@pmeasuring.com

TAIWAN
T: 886-3-5525300 Ext: 301
E: pmstaiwan@pmeasuring.com

UNITED KINGDOM
T: +44 1684 581 000
E: pmsemea@pmeasuring.com

PARTICLE MEASURING SYSTEMS®

2016.02 0K