

High-performance Gas Composition Sensor for Near to Above-Atmospheric Pressure Processes

Compact analyzer offers real-time insight into gas supplies, chamber leaks, and process chemistries

Wilmington, Mass. – October 10, 2007 – Verionix today announced availability of the Vx-3100, a gas composition sensor that offers high performance analysis of process gases and chemistries conducted in moderate vacuum to above atmospheric pressures (1 Torr to 15 psig). Mated to any process chamber, gas supply or exhaust line, the compact Vx-3100 detects multi-component gas species with sensitivity to parts per billion (*ppb*). Vx-3100 sensor uses include fault detection in gas delivery systems, early leak detection in chambers and process chemistry monitoring, including process end-point. It's designed for use in the electronics manufacture and industrial gas supply industries.

Verionix' Vx-3100 sensor doesn't need bulky vacuum pumps or haze-sensitive multi-pass optics to characterize gases and processes at moderate vacuum to above atmospheric pressures (1 Torr to 15 psig). With sensitivity to parts per billion (*ppb*) and signal stability of better than $\pm 1.5\%$, even in moderate vacuum conditions, it detects gases of many types and of multiple components. Trace elements within noble and diatomic gases – such Argon, Nitrogen, Oxygen and Water Vapor – can also be seen. Sampling up to 20 times every second, the Vx-3100 is responsive to rapid compositional changes in process or gas supplies, making it suitable for real-time control of both production tools and gas distribution networks.



*Verionix Vx-3100
Gas Composition Sensor*

The Vx-3100 is designed to meet the growing demand for high performance gas analyzers that can be used with tools whose operation critically depends on the composition of gases present at atmospheric or near-atmospheric pressures. Integrating a RF generator, microprocessor, spectrometer and proprietary light source into a package the size of a pressure gauge, the Vx-3100 needs only 24 volt power and communications to complete its installation. To maximize productivity, the Vx-3100's light source is field-replaceable in minutes. An available software package enables the Vx-3100 sensor to capture, compare and react to changes in gas composition with simple "go" or "no-go" signals.

Applications for the Verionix Vx-3100 gas composition sensor are broadly-based, spanning the electronics, industrial gas distribution, pharmaceutical and food processing industries. In semiconductor and flat panel manufacture, the Vx-3100 can monitor the steady-state and transient quality of gases used at the tool level, minimizing scrap resulting from poor gas quality or failure of gas metering controls. Leaks can be detected and moisture content monitored during the early stages of chamber use, boosting tool productivity. Other applications include freeze-drying processes widely used in food and high-value pharmaceutical production processes.

For more information, please visit www.Verionix.com or contact Verionix at 978-253-4902 (x122)

About Verionix Incorporated

Based in Wilmington Massachusetts, Verionix develops and markets compact, high performance gas composition sensors based on its proprietary micro-plasma light source and packaging technology for use in the electronics, industrial gas distribution, food and pharmaceutical industries.