

Below are listed the short list of finalists in the 2011 Golden Gas Awards

Gas Detection/Gas Analysis/Leak Detection

Company: MEECO

Award Category:

Gas Detection/Gas Analysis/Leak Detection

Product Name:

M-i™ On-Line Mini Moisture Analyzer

Application: Small footprint ppm measurement of moisture



The M-i is a palm-sized device that provides continuous, no-drift, online moisture analysis in the range of 0.5 ppm to 1000 ppm. The compact or "mini" sensor is based on electrolytic (P_2O_5) technology. The M-i measures 5.10 inches in height and 2.56 inches in width. The device does not require calibration, requires no consumables, and its sensor is completely recyclable. The M-i sensor absorbs and electrolyzes moisture at fractional parts-per-million (ppm). One hundred percent

of the sample moisture is absorbed by a P_2O_5 film that covers two spirally-wound electrodes embedded in a hollow glass tube. When the sample gas enters the cell at a known flow rate, the film absorbs all the moisture molecules present. By applying an electrical potential (voltage) to the electrodes, each absorbed water molecule is electrolyzed, generating a finite current. This current is precise and proportional to the amount of absorbed water. It is, therefore, an exact, direct measurement of the water vapor present in the sample gas. Since the gas must be sampled off-line, the M-i monitor cannot be inserted directly into the gas pipeline. **MEECO** www.meeco.com 215-343-6600

Company:

California Analytical Instruments, Inc.

Award Category:

Gas Detection/Gas Analysis/Leak Detection

Product Name: CAI 600 Series FTIR SC

Application: Ammonia measurement in gas cylinders

The Model 600 FTIR-SC utilizes a Fourier Transform infrared spectrometer that is capable of measuring any gas that absorbs in the mid-infrared region. The small, low volume, temperature controlled, 316 SS electro-polished gas cell coupled with the 0.9 cm^{-1} resolution interferometer provide precise results. The sample flow rate can be as low as 100 ml/min and the results are available in less than 30 seconds. Measures gases from single digit ppm range up to percent levels without



the need of liquid Nitrogen (N_2) to cool the detector. This eliminates the safety issues associated with liquid nitrogen. The software can generate reports that track: time, date, operator, lot #, expected value and actual concentration. Dimensions are 7" h x 19" w x 18" d. **CAI** www.gasanalyzers.com 714-974-5560

Company: Mettler-Toledo

Award Category:

Gas Detection/Gas Analysis/Leak Detection

Product Name: InPro® 6850i G

Application: Gaseous oxygen measurement

The InPro 6850i G amperometric gas sensor can be installed directly into the process and allows sensor maintenance or replacement to be performed without process interruption. Features ATEX and FM certification, wide measurement range, in-situ measurement, negligible interference with many organic and inorganic substances, insensitive to humidity, ISM (Intelligent Sensor Management) technology for enhanced diagnostics and predictive maintenance. Because they are insensitive to humidity, dust and most solvents, amperometric gas sensors do not need any gas sampling system as other gaseous oxygen technologies require. The amperometric sensors can be built directly into the gas stream, tank or reactor providing oxygen values that are the most relevant: unfiltered, directly from the process. In addition, when mounted into a retractable housing from INGOLD, the sensors can safely be removed from the gas stream without process interruption. **Mettler-Toledon** www.mt.com +41 79 205 77 59

