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.O.) 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.O. 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 offline, the M-i monitor cannot be inserted directly into the gas pipeline. MEECO www.meeaco.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 (N₂) 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 /714-9/4-5560

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-Toledo www.mt.com +41 79 205 77 59