

## TIGER OPTICS UNVEILS A RUGGED CARBON MONOXIDE ANALYZER

### THE CO-REKT™ BOOSTS PROCESS CONTROL IN HYDROGEN PLANTS

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**Warrington, PA (June 23rd, 2014)** – Tiger Optics LLC, a pioneer in laser-based monitoring of trace contaminants, introduces its CO-rekt™ as the analyzer ideally suited to measure carbon monoxide in high-purity hydrogen (H<sub>2</sub>) production. To the company’s knowledge, the monitor is the first to utilize Continuous Wave Cavity Ring-Down Spectroscopy (CW CRDS) technology for hydrocarbon feedstock production. As such, the freedom from drift, calibration and consumables, along with the technology’s renowned ease of use and low maintenance, make it a dream come true for gas manufacturers and their prized customers.

Based on Tiger’s absolute technology, the CO-rekt offers continuous auto-calibration and other attributes that instantly obsolesce the Non-Dispersive Infra-Red (NDIR) detectors commonly found in HyCO plants that produce hydrogen and carbon monoxide for refineries, chemical production, hydrogen fuel cells and other critical applications.

Such plants use Pressure Swing Adsorption (PSA) technology to recover or to purify hydrogen from various process streams. The process stream passes through as many as ten beds of adsorbent material, designed to remove contamination from carbon monoxide and to generate the grade of hydrogen required by end-users. Analysis of carbon monoxide content in the exiting H<sub>2</sub> stream not only informs manufacturers about the condition of the expensive PSA technology itself and the purity of the final hydrogen product, but also serves to protect the condition of the expensive PSA technology itself, while maximizing purification bed efficiency. Above all, HyCO plants must be vigilant in measuring carbon monoxide in hydrogen, since high levels can damage their customers’ vital catalysts or processes.

Unlike NDIR devices, the CO-rekt has no moving parts, no drift or spectral interference. Tiger Optics analyzers requires no calibration, so no calibration gas sampling system is needed. With no interruption for maintenance, the CO-rekt assures continuous online gas monitoring that is critical for 24/7 process control of the hydrogen process stream. In addition, the CO-rekt performs in environmental temperatures ranging from 50°F to 104°F and is unaffected by vibration. It is packaged for plant use. The CO-rekt is designed to work in a Class I, Division 2 setting, as defined by the National Electrical Code. With its rating pending, the CO-rekt is packaged in NEMA-compliant housing with a space-saving wall-mount designed for narrow instrument sheds.

“Trip the plant” is a fear that plagues those stuck with temperamental NDIR technology. Tiger Optics developed the CO-rekt to provide a welcome alternative to NDIR’s fragile choppers, reliance on costly calibration gases, extensive operating costs, temperature dependence and significant drift. In devising its solution, Tiger Optics looked to its proven, highly regarded HALO family of products, adapting it to the stringent safety and operational requirements HyCO entails. So, go ahead, “Slam the door!”

#### About Tiger Optics

Tiger Optics LLC makes laser-based gas analyzers that help advance science and industry with the world’s most powerful molecular analyzers. More than 1,700 robust Tiger units are at work in semiconductor fabrication plants, gas manufacturers, chemical companies and environmental monitoring, as well as 19 national metrology institutes. Please visit [www.tigeroptics.com](http://www.tigeroptics.com).

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### Carbon Monoxide Performance Data with Tiger Optics

