LGR-ICOS™ laser process analyzers
Unmatched speed and accuracy for trace gas measurement made easy
LGR-ICOS™
Laser process analyzers

ABB’s LGR-ICOS™ laser process analyzers deliver sensitive and accurate measurements for refining, petrochemical and specialty chemical facilities. With high selectivity and wide dynamic range, these analyzers provide extremely fast, reliable and repeatable results. They are also simple to use, start up in minutes and require minimal preventative maintenance—Measurement made easy.

“We recently installed the ABB LGR-ICOS™ C1D2 instrument at one our HyCO production facilities. The analytical instrument is being used to measure PPB concentrations of H₂S and residual CO₂ in the process stream. We had previously employed a lead acetate tape based analytical method that required frequent, on-site maintenance. The ABB OA-Axis ICOS system provides faster, more accurate data with minimal maintenance. Moreover, the instrument has a similar price point, but lower cost of ownership compared to similar, less capable alternatives.”

- Ganesh Vijayaraghavan, Ph.D., Analytical Engineering Lead, Americas Industrial Gases Operations, Air Products and Chemicals, Inc., La Porte Texas
Overview
Where the most challenging of detection capabilities are required for quality assurance, critical process control or the protection of a precious process catalyst from poisonous impurities, no other laser analyzer can match the capability of this analyzer in performance. The LGR-ICOS™ analyzer is simple to use, starts up in minutes, requires no field calibration and has minimal preventative maintenance requirements.

Every LGR-ICOS™ analyzer uses LGR’s patented Off-axis ICOS technology, a fourth-generation cavity enhanced absorption technique. Off-axis ICOS analyzers have many advantages over conventional TDLAS analyzers including improved sensitivity, precision and selectivity for a wider range of gases as well as significantly improved alignment and vibration tolerance.

The non-critical alignment of the optical bench and sample cell allows for easy service in the field. And, like all ABB process analyzers, the LGR-ICOS™ laser analyzers are supported by our expert Service and Technical Support staff with access to the analyzer via remote real-time wireless communications for prompt troubleshooting in the field where possible. Where wireless access is not available, safe and easy file downloads and diagnostic information can be obtained and shared with our technical support experts through a state-of-the-art Hazardous Area certified and approved USB flash drive without the need for Red Tag procedures.

Applications
The LGR-ICOS™ process laser analyzer was designed for applications that require highest sensitivity, accuracy, precision and response times, including:

— Trace contaminants in inert gases (N₂, Ar, He, etc) for calibration gases and industrial-grade blanket gas
— Trace contaminants in hydrogen for industrial processes and fuel for refineries
— Trace contaminants in ethylene and other hydrocarbon gases
— Monitoring H₂S and CO₂ in fuel gas and natural gas pipelines to reduce corrosion
— EPA-compliant HCl emissions and stack gas monitoring
Contact us

To find your local ABB contact visit:
www.abb.com/contacts

For more product information visit:
www.abb.com/lgricos

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