

Highest accuracy and stability



Enhanced Performance model delivers *unsurpassed performance*

Greenhouse Gas Analyzer (CH₄, CO₂, H₂O)

Features and Benefits

- Developed for applications requiring highest accuracy (Enhanced Performance model)
- Gases measured simultaneously
- Measured spectra always viewable
- CH₄ and CO₂ reported on dry mole basis directly
- Ideal for eddy covariance flux and chamber flux
- Widest measurement range
- *Extended Range* option allows methane measurements at levels up to 10%
- Validated at leading labs and monitoring networks, LGR's GGA-24EP delivers *unsurpassed performance* and exceeds WMO requirements

LGR's Greenhouse Gas Analyzer is the world's most advanced instrument for simultaneous measurements of methane, carbon dioxide and water vapor. Quite simply, no other analyzer provides higher performance.

The GGA is simple to use, low power and rugged which makes it ideal for field and air quality studies. The ability to measure all gases quickly makes the GGA an excellent choice for eddy covariance and chamber flux measurements. In addition, analysis of the measured absorption spectra allows the instrument to accurately correct for water vapor dilution and absorption line broadening effects and thus to report CH₄ and CO₂ on a dry mole fraction basis directly without drying or post processing. Furthermore, LGR's new "*Extended Range*" option provides accurate methane measurements at levels up to 10% mole fraction (without dilution) without reducing precision and sensitivity at typical ambient levels - a unique capability to LGR.

LGR's new "*Enhanced Performance*" series incorporates proprietary internal thermal control for ultra-stable measurements with unsurpassed

precision, accuracy and drift as validated at several leading labs and monitoring networks in Europe, Asia and the US. Moreover, only LGR's analyzers provide reliable *guaranteed* measurements at mole fractions more than 20 times ambient levels.

LGR's patented technology, a fourth-generation cavity enhanced absorption technique, has many advantages (simpler, easier to build, rugged) over older, conventional cavity ringdown spectroscopy (CRDS) techniques. As a result, LGR Analyzers provide higher performance at lower cost.

LGR Analyzers have an internal computer (Linux OS) that can store data practically indefinitely on a hard disk drive and send real time data to a data logger via the digital (RS232), analog or Ethernet outputs. In addition, LGR analyzers may be controlled remotely via the Internet. This capability allows the user to operate the analyzer using a web browser anywhere Internet access is available. Furthermore, remote access allows full control of the instrument and provides the opportunity to obtain data and diagnose the instrument operation without being on site.

