CH₄/CO₂/H₂O/NH₃ Analyzer

LGR’s new CH₄/CO₂/H₂O/NH₃ Analyzer reports measurements of important trace gases, including methane, carbon dioxide, water vapor and ammonia, simultaneously in a package that is compact, crushproof and travels anywhere. Small enough to be carried on-board aircraft (TSA approved size) and requiring less than 70 W, the analyzer offers new opportunities to quickly, reliably and accurately measure trace gas emissions anywhere. As with all LGR instruments, the analyzer is simple to use which makes it ideal for soil studies, compliance monitoring, leak detection, air quality and agricultural studies, and wherever measurements of trace gases are needed. For measurements of nitrous oxide (N₂O) and/or carbon monoxide (CO), LGR now offers our N₂O/CO Analyzer in a portable package - see www.LGRinc.com for details.

Features and Benefits

- 17 kg, 70 watts, portable
- Collect data 2 minutes after power on
- Data reported at 1Hz
- Gases measured simultaneously
- All spectra always viewable
- All gases reported directly
- Ideal for soil flux, agricultural studies and compliance monitoring
- Wide measurement range
- Species specific - no cross interferences
- Operates directly on DC power

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) and direct absorption techniques. As a result, LGR Analyzers provide higher performance and reliability 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.

LGR analyzers may be controlled remotely via the Internet. This capability allows the user to operate the analyzer using a web browser anywhere. 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.

—

ABB Inc.
Measurement & Analytics
3400, rue Pierre-Ardouin Quebec, (Quebec) G1P 0B2 Canada
Tel: 1 800 858 3847 (North America)
Tel: +1 418 877 2944 (Worldwide)
Fax: +1 418 877 2834
icos.sales@ca.abb.com

abb.com/analytical
**Ultraportable CH₄, CO₂, H₂O, NH₃ Analyzer**

**Performance Specifications**

- **Precision (1x, 10 sec / 100 sec):**
  - CH₄: 0.6 ppb / 0.2 ppb
  - CO₂: 0.75 ppm / 0.24 ppm
  - H₂O: 100 ppm / 30 ppm
  - NH₃: 0.6 ppb / 0.2 ppb

- **Measurement Rates:**
  - 0.01 – 1 Hz (user selectable)

- **Accuracy:**
  - Uncertainty < 1% w/o calibration (5-45 °C)

- **Measurement Range (meets specifications):**
  - CH₄: 0.01 – 100 ppm
  - CO₂: 200 – 20000 ppm
  - NH₃: 1 – 10000 ppb
  - H₂O: 500 – 30000 ppm

- **Operational Range:**
  - CH₄: 0 – 100% (with Extended Range option)
  - CO₂: 0 – 10%
  - NH₃: 0 – 200 ppm
  - H₂O: 0 – 30000 ppm

- **Sampling Conditions:**
  - Sample Temperature: -10 – 50 °C
  - Operating Temperature: 5 – 45 °C
  - Ambient Humidity: 0 - 98% RH non-condensing

- **Outputs (all models):**
  - Digital (RS232), analog, Ethernet, USB

- **Power Requirements:**
  - 70 watts (10-30 VDC)
  - 76 watts (115/230 VAC, 50/60 Hz)

- **Dimensions:**
  - 18.5" × 14" × 7"

- **Weight:**
  - 17 kg

---

**Ordering Information**

U-SOFX1-915 (Ultraportable, GLA132 Series)

**Accessories (optional)**

- MIU-16: Multiport Inlet Unit – 16 inlet port multiplexer
- MIU-8: Multiport Inlet Unit – 8 inlet port multiplexer
- ACC-DP20: 3-head vacuum pump – provides flow-through (1/e) time = 1.2 secs
- ACC-DP40: 4-head vacuum pump – provides flow-through (1/e) time = 0.7 secs
- OPT-DATALOG: Digital Data Logging Capability – multi-channel data logging system records and synchronizes serial (RS-232) outputs from multiple LGR analyzers and other devices (GPS, anemometers)

---

ABB Inc.
Measurement & Analytics
3400, rue Pierre-Arduin Quebec, (Quebec) G1P 0B2 Canada
Tel: 1 800 858 3847 (North America)
Tel: +1 418 877 2944 (Worldwide)
Fax: +1 418 877 2834
icos.sales@ca.abb.com

[abb.com/analytical](http://abb.com/analytical)