

ABB MEASUREMENT & ANALYTICS | DATA SHEET

LGR-ICOS™ GLA132-GGA

Greenhouse gas analyzer - Ultraportable



Precise, accurate and rugged analyzers for measurement of CH₄, CO₂ and H₂O in ambient air.

Measurement made easy

LGR-ICOS™ GLA132-GGA Greenhouse gas analyzer - Ultraportable

Features and benefits

- Simultaneous measurements of CH₄, CO₂ and H₂O
- Measurement rates selectable up to 1 Hz
- Extremely wide dynamic/linear range
- Highly specific: robust to cross-interferences
- State-of-the-art stability and precision
- Installed and operational in minutes
- Unsurpassed reliability
- Real-time diagnostics

Overview

The ABB LGR-ICOS gas analyzers build on the heritage and extensive track record of Los Gatos Research analyzers, using patented Off-Axis Integrated Cavity Output Spectroscopy (OA-ICOS) technology, the latest evolution in tunable diode laser absorption spectroscopy.

ABB's Ultraportable greenhouse gas analyzer reports measurements of methane, carbon dioxide and water vapor simultaneously in a compact, crushproof and travel-friendly analyzer.

As with all LGR-ICOS analyzers, the GLA132-GGA is simple to use and offers a wide dynamic range. It measures ambient levels with extremely high precision while still being intrinsically accurate at concentrations 50 times higher. The analyzer is extremely rugged which makes it ideal for field studies and wherever accurate and precise measurements are needed.

... Overview

The GLA132-GGA begins recording data within 20 seconds after power on so users do not have to wait for a long warm-up period for the system to thermally equilibrate.

ABB's patented OA-ICOS technology, a fourth-generation cavity enhanced absorption technique, has many advantages over older conventional and delicate cavity ringdown spectroscopy and direct absorption techniques. OA-ICOS analyzers are simpler, easier to operate and more rugged. They exhibit negligible zero and span drift and a significantly reduced need for regular calibration with expensive reference gases. As a result, ABB analyzers provide higher performance and reliability with minimal operational cost.

The GLA132-GGA has an internal computer that can store data practically indefinitely (for applications requiring unattended longer term operation), and send real-time recordings to a data logger through its analog and digital (RS232) outputs. The analyzer includes control and analysis software.

Accessories & Options

ACC-UP-BP	Backpack Harness for Ultraportable Analyzers
ACC-DP3H	3-head external pump for faster response time
ACC-DCCASE	DC battery case with adapter power cable
OPT-EXTENDED-CH4	Extended CH₄ concentration range option Extends the linear range of methane for higher concentrations in ambient air. <small>*H₂O measurement specification is valid when CH₄ is below 500ppm</small>
OPT-DATALOG	Digital Data Logging Capability Multi-channel data logging option records and synchronizes serial (RS-232) outputs from multiple ABB analyzers and other devices (GPS, anemometers)

*Contact your sales representative for more accessories, maintenance kits and options, per product series.

Ordering information

- **LGR-ICOS™ GLA132-GGA**
Greenhouse gas analyzer - Ultraportable

Specifications

Precision (1σ, 1 sec / 10 sec / 100 sec):

CH₄: 1.4 ppb / 0.5 ppb / 0.2 ppb
CO₂: 300 ppb / 100 ppb / 30 ppb
H₂O: 50 ppm / 20 ppm / 10 ppm

Linear measurement ranges:

CH₄: Up to 100 ppm
CH₄: Up to 1% (with extended range option)
CO₂: Up to 20,000 ppm
H₂O: Up to 30,000 ppm

Operational ranges:

CH₄: Up to 1000 ppm
CH₄: Up to 1% (with extended range option)
CO₂: Up to 3%
H₂O: <99% relative humidity, non-condensing

Measurement rate:

0.01 – 1 Hz (user selectable)

Flow response time:

<8 seconds (1/e)
<2 seconds (1/e) with ACC-DP3H external pump

Communication:

Serial RS232, USB (x2), AO (16-bits, 0 to 5 V DC), Ethernet LAN connection, VGA display, MIU, WiFi 802.11 b/g/n, 300 Mbps

Power:

60 W (11–30 VDC)
66 W (100–240 VAC, 50/60 Hz)

Dimensions (H × W × D):

18 × 47 × 36 cm (7 × 18.5 × 14 in)

Weight:

16.9 kg (37.3 lbs)