

## GLA131-GGA

# Microportable Greenhouse Gas Analyzer



Sensitive, fast and compact analyzers for measurement of CH<sub>4</sub>, CO<sub>2</sub> and H<sub>2</sub>O

### Measurement made easy

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GLA131 Series  
Microportable Analyzers

### Features and benefits

- Lightweight: <6.1 kg (13 pounds) with battery (included)
- Continuous measurements
- Data reported every second with high sensitivity
- Ideal for soil flux studies and field measurements of greenhouse gases
- Extremely wide linear range, CH<sub>4</sub> range up to 1% (optional)
- No cross-interferences
- Battery-operated
- Fast gas flow response time
- Records data within 20 seconds after power on
- Multiple data outputs and internet connectivity
- Recirculating capabilities (inlet/outlet)

### Overview

The ABB laser-based 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 microportable gas analyzers (GLA131-GGA) reports measurements of methane, carbon dioxide and water vapor simultaneously in a package that is compact, crushproof and travels anywhere. Small enough to be hand-carried (even on-board aircraft) and requiring less than 35 watts, the GLA131-GGA offers opportunities to measure greenhouse gases anywhere.

As with all OA-ICOS analyzers, the GLA131-GGA is fast and simple to use which makes it ideal for field studies, compliance monitoring, air quality studies and soil flux studies, and wherever sensitive measurements of greenhouse gases are needed.

## ... Overview

The GLA131-GGA starts 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. ABB analyzers are easy to operate and robust, thus providing users with higher performance and reliability at minimal operating costs.

The GLA131-GGA analyzer has an internal computer that can store data practically indefinitely on an SD card and send real time data to a tablet, smartphone or other WiFi device. The analyzer includes control and analysis software.

## Accessories, Maintenance & Options

ACC-MICRO-KIT	<b>Accessory kit for microportable</b> Includes shoulder strap and collapsible wand
ACC-MICRO-AC	<b>AC Power adapter for microportable</b>
ACC-MICRO-B	<b>Spare battery for microportable GLA131 Series</b> 99.4Wh
ACC-MICRO-BC	<b>Dockstation battery charger for microportable GLA131 Series</b>
ACC-WIFI-iPad	<b>Wireless User Interface - Apple iPad with WiFi router</b> Provides full instrument control and provides touch-screen video display, keyboard and mouse.
ACC-WIFI-Android	<b>Wireless User Interface - Samsung Galaxy Tab S3 with WiFi router</b> provides full instrument control and provides touch-screen video display, keyboard and mouse.
SPK-131V2	<b>Spare Parts Kit - GLA131 Series - Microportable Analyzers</b> Internal Pump, filters and pressure control valve
SPK-131V2-LITE	<b>Spare Parts Kit - GLA131 Series - Microportable Analyzers</b> Internal Pump and filters
MTN-CLEAN-1V	<b>Mirror cleaning kit for microportable</b>
OPT-EXTENDED-CH4	<b>Extended range for CH<sub>4</sub> measurement</b> Extends normal 0-100 ppm range to 0-1% <small>*H<sub>2</sub>O measurement specification is valid when CH<sub>4</sub> is below 500ppm</small>
MIU-8	<b>Multiport Inlet Unit 8 channels</b> - External hardware (includes 8 solenoid valves) and internal software package which enables fully integrated, programmable selection from up to 8 separate sources.

## Ordering information

- GLA131-GGA  
Microportable Greenhouse Gas Analyzer

## Specifications

### Precision (1 $\sigma$ , 1 sec / 10 sec):

CH<sub>4</sub>: 0.9 ppb / 0.3 ppb

CO<sub>2</sub>: 0.35 ppm / 0.12 ppm

H<sub>2</sub>O: 200 ppm / 60 ppm

### Measurement ranges (meets all specifications):

CH<sub>4</sub>: 0 – 100 ppm (standard range)

CH<sub>4</sub>: 0 – 1% (extended range)

CO<sub>2</sub>: 0 – 20000 ppm

H<sub>2</sub>O: 0 – 30000 ppm

### Sampling conditions:

Sample temperature: -40 – 50 °C

Operating temperature: 5 – 45 °C

Ambient humidity: <99% relative humidity non-condensing

### Flow time response:

>1 Hz (1/e)

### External data interfaces:

WiFi, Ethernet, USB, MIU connection (8 ports), Serial (RS232)

### Power requirements:

10-30 VDC battery operated

110/240 VAC for battery recharge

35 W power consumption

120 W Power supply/charger included

99.4 Wh 6900mAh internal battery included

up to ~3 hours autonomy

### Dimensions:

12cm H x 34 cm W x 29.5 cm D

6 in. H x 13.4 in. W x 11.6 in. D

### Weight:

6.1 kg (13.5 pounds) with internal battery