

GLA131-GGA

Microportable Greenhouse Gas Analyzer



Sensitive, fast and compact analyzers for measurement of CH₄, CO₂ and H₂O

Measurement made easy

—
OA-ICOS™ GLA131-
GGA Microportable
Greenhouse Gas Analyzer

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, CH₄ range up to 1000 ppm (optional)
- Robust to 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	Accessory kit for microportable Includes shoulder strap and collapsible wand
ACC-MICRO-AC	AC Power adapter for microportable
ACC-MICRO-B	Spare battery for microportable GLA131 Series 99.4Wh
ACC-MICRO-BC	Dockstation battery charger for microportable GLA131 Series
ACC-WIFI-Android	Wireless User Interface - Samsung Galaxy Tab S3 with WiFi router provides full instrument control and provides touch-screen video display, keyboard and mouse.
SPK-131V2	Spare Parts Kit - GLA131 Series - Microportable Analyzers Internal Pump, filters and pressure control valve
SPK-131V2-LITE	Spare Parts Kit - GLA131 Series - Microportable Analyzers Internal Pump and filters
MTN-CLEAN-1V	Mirror cleaning kit for microportable
OPT-EXTENDED-CH4	Extended range for CH₄ measurement Extends normal 0-100 ppm range to 0-1000 ppm
MIU-8	Multiport Inlet Unit 8 channels - External hardware (includes 8 solenoid valves) and internal software package which enables fully integrated, programmable selection from up to 8 separate sources.

Ordering information

OA-ICOS™ GLA131-GGA

Microportable Greenhouse Gas Analyzer

Specifications

Precision* (1 σ , 1 sec / 10 sec):

CH₄: 0.9 ppb / 0.3 ppb

CO₂: 0.35 ppm / 0.12 ppm

H₂O: 200 ppm / 60 ppm

* @ ambient concentrations

Measurement range (standard):

CH₄: 0 – 100 ppm

CO₂: 0 – 20000 ppm

H₂O: 0 – 30000 ppm

Measurement range (extended CH₄):

CH₄: 0 – 1000 ppm

CO₂: 0 – 20000 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

We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB CA does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents – in whole or in parts – is forbidden without prior written consent of ABB CA. Copyright© 2026 ABB
All rights reserved