

# LGR-ICOS™ GLA131-GGA & GLA131-GPC

## Greenhouse gas analyzers - Microportable



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

LGR-ICOS™ 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
- Operates directly on DC power
- Fast gas flow response time (<1 second, 1/e)
- Records data within 20 seconds after power on
- Multiple data outputs and internet connectivity
- Recirculating capabilities (inlet/outlet)

### 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 new microportable gas analyzers (GLA131-GGA and GLA131-GPC) report 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 and GLA131-GPC offers opportunities to measure greenhouse gases anywhere.

As with all LGR-ICOS analyzers, the GLA131-GGA and GLA131-GPC are fast and simple to use which makes them 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 and GLA131-GPC begin 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. LGR-ICOS analyzers are easier to operate and more robust, thus providing users with higher performance and reliability at lower operating costs.

The GLA131-GGA and GLA131-GPC analyzers have 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 CH4 measurement</b> Extends normal 0-100 ppm range to 0-1% (GLA131-GGA) Extends normal 0-100 ppm range to 0-500 ppm (GLA131-GPC)
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

- LGR-ICOS™ GLA131-GGA
  - LGR-ICOS™ GLA131-GPC
- Greenhouse gas analyzers - Microportable

## 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	[GLA131-GGA]
CO <sub>2</sub> : 3 ppm / 1 ppm	[GLA131-GPC]
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)	[GLA131-GGA]
CH <sub>4</sub> : 0 – 500 ppm (extended range)	[GLA131-GPC]
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)

### Data outputs:

WiFi, Ethernet, USB, MIU connection (8 ports), Serial(RS-232)

### Power requirements:

10-30 VDC or 110/240 VAC	
35 watts	[GLA131-GGA]
27 watts	[GLA131-GPC]
120W Power supply/charger included	
99.9Wh internal battery included, 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

—  
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 US 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 US. Copyright© 2020 ABB  
All rights reserved

## UK & Ireland Distributor



Kingfisher Business Park, London Road, Stroud, Gloucestershire, GL5 2BY, UK

Tel: +44 (0) 1453 733200 [sales@et.co.uk](mailto:sales@et.co.uk) [www.et.co.uk](http://www.et.co.uk)