

GLA132-SOFX1

Soil flux gas analyzers



Precise, accurate and rugged analyzers for measurement of NH₃, CH₄, CO₂ and H₂O from soil gas.

Measurement made easy

OA-ICOS™ GLA132-SOFX1
Ultraportable analyzer

Features and benefits

- Measure NH₃, CH₄, CO₂ and H₂O simultaneously
- 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 OA-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 soil flux gas analyzers report measurements of ammonia, methane, carbon dioxide and water vapor simultaneously in a compact, crushproof and travel-friendly analyzer.

As with all OA-ICOS analyzers, the GLA132-SOFX1 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 soil flux gas analyzers 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. 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.

The soil flux gas analyzer 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 (RS-232) outputs. The analyzers include control and analysis software.

Accessories & Options

DGES	Dissolved Gas Extraction System Including internal multi-channel datalogger
MIU-8 MIU-16	Multiport Inlet Unit - External hardware (includes 8 or 16 solenoid valves) and internal software package which enables fully integrated, programmable selection from up to 8 or 16 separate sources.
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

OA-ICOS™ GLA132-SOFX1

Soil flux gas analyzer

Specifications

Precision (1s, 1 s / 10 s / 100 s):

NH₃: 2 ppb / 0.6 ppb / 0.2 ppb
CH₄: 2 ppb / 0.6 ppb / 0.2 ppb
CO₂: 2.25 ppm / 0.75 ppm / 0.25 ppm
H₂O: 300 ppm / 100 ppm / 30 ppm

Linear measurement ranges:

NH₃: Up to 10 ppm
CH₄: Up to 100 ppm
CO₂: Up to 20,000 ppm
H₂O: Up to 30,000 ppm

Operational ranges:

NH₃: Up to 200 ppm
CH₄: Up to 500 ppm
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)

Communication

Serial RS-232, USB (×2), AO (16-bit, 0 to 5 VDC), 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 (7.0 × 18.5 × 14.0 in)

Weight

16.9 kg (37.3 lb)