GLA132-LWIA
Liquid water isotopic analyzer – Ultraportable

Fast and accurate analyzer for measurement of δ²H and δ¹⁸O in liquid water – anywhere

Measurement made easy

Features and benefits
• Portable and rugged case for ease-of-use everywhere - proven in the field
• 90 unknowns per day
• High precision and unmatched accuracy
• Simple to operate - no need for factory return for service
• Easy switch between high throughput and high performance mode – no extra hardware required
• Compatible with “LIMS for Lasers”
• High-resolution absorption spectra are viewable continuously for real-time diagnostics
• New Post-Analysis Software simplifies analyses and enables highest performance
• Operates directly on DC power

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 GLA132-LWIA ultraportable liquid water isotopic analyzer provides measurements of δ²H and δ¹⁸O of water in liquid with unsurpassed precision and speed on a portable device that is compact (TSA-approved size), crushproof and travels anywhere. ABB’s ultraportable instruments are used by researchers, scientists, governmental agencies and intergovernmental organizations on all 7 continents.

Now, measurements are reported at the unmatched speed, with the typical operating procedure (6 injections per sample), this measurement rate yields 90 unknowns and 30 reference samples per day.
… Overview

The GLA132-LWIA is ideal for hydrological, analytical, and biological applications that involve field measurements of fresh water, seawater, and other liquids. The analyzer’s ease-of-use, field portability, durability and high throughput make it the best choice for reliable, high performance measurement of freshly collected samples in the field.

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. As a result, ABB analyzers provide higher performance and reliability with minimal operational cost.

The GLA132-LWIA includes an internal computer that can store data practically indefinitely on its internal hard drive (for applications requiring unattended longer term operation), and send real-time data to a data logger through its analog and digital (RS232) outputs.

Accessories

<table>
<thead>
<tr>
<th>ACC-AUTOINJECT</th>
<th>Autoinjector w/ heated injection module</th>
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<tbody>
<tr>
<td></td>
<td>Automated injection of liquid water samples</td>
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<td>Holds 162 vials. Includes startup kit.</td>
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<td>Included</td>
<td>Heater and power supply</td>
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<td>Included</td>
<td>Spectral Contamination Identifier software</td>
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<td>Identifies, flags and corrects for contaminants</td>
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<tr>
<td>Included</td>
<td>Post-Analysis software</td>
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<td>Advanced software simplifies analytical procedure to enable high precision measurements quickly</td>
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Ordering information

- OA-ICOS™ GLA132-LWIA

Specifications

<table>
<thead>
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<th>Precision (1σ):</th>
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<tr>
<td>High Throughput Mode</td>
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<tr>
<td>δ²H: 0.6 ‰</td>
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<tr>
<td>δ¹⁸O: 0.2 ‰</td>
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Throughput: 720 injections per day (typically 90 samples)

Sample Volume: 0.5 μL per injection

Salinity: <4% (Total dissolved solids < 40 parts per thousand)

Temperature/Humidity:
- Sample Temperature: 0 to 50 °C
- Operating Temperature: 5 to 45 °C

Outputs:
- Digital (RS-232), Ethernet, USB

Power Requirements:
- 60 watts (10/30VDC)
- 66 watts (115/230 VAC, 50/60 Hz)

Dimensions: 18 cm (7”) H × 47 cm (18.5”) W × 36 cm (14”) D

Weight: 17 kg