

ABB MEASUREMENT & ANALYTICS | DATA SHEET

# LGR-ICOS™ GLA331-EAA

## Ammonia analyzer – EP rackmount



Precise, accurate and fast analyzers for measurement of  $\text{NH}_3$  and  $\text{H}_2\text{O}$  in ambient air.

### Measurement made easy

LGR-ICOS™ GLA331-EAA Ammonia analyzer  
– Enhanced performance rackmount

### Features and benefits

- Simultaneous measurements of  $\text{NH}_3$  and  $\text{H}_2\text{O}$
- Measurement rates selectable up to 10 Hz
- Extremely wide dynamic/linear range
- Highly specific: robust to cross-interferences
- State-of-the-art stability and precision
- Lowest drift
- Fast response time option
- Installed and operational in minutes
- Unsurpassed reliability
- Real-time diagnostics

### 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 GLA331-EAA reports measurements of ammonia and water vapor simultaneously in an enhanced performance (EP) rackmount optimized for precision, accuracy and long-term stability.

As with all LGR-ICOS analyzers, the GLA331-EAA is simple to use and offers a very wide dynamic range up to more than 100 times typical ambient levels. It is extremely rugged which makes it ideal for long-term monitoring or very low levels requiring extra stability.

## ... Overview

The GLA331-EAA begins recording data within seconds after power on and the system quickly reaches optimal thermal stability.

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 at lower cost.

The GLA331-EAA 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 (RS232) outputs. The analyzer includes control and analysis software.

## Accessories & Options

ACC-DP4H	<b>4-Head Diaphragm Pump</b> Fast flow only
ACC-DS10	<b>Dry Scroll Vacuum Pump</b> - Model nXDS10i Fast flow only. Contact factory.
ACC-DS35	<b>Dry Scroll Vacuum Pump</b> - Model XDS35i Fast flow only. Contact factory.
OPT-DATALOG	<b>Digital Data Logging Capability</b> Multi-channel data logging option records and synchronizes serial (RS-232) outputs from multiple ABB analyzers and other devices (GPS, anemometers)
OPT-FAST-FLOW	<b>Fast Flow Option</b> For use with 4-head diaphragm pumps and dry scroll pumps to reach fastest response times.

\*Contact your sales representative for more accessories, maintenance kits and options, per product series.

## Ordering information

- LGR-ICOS™ GLA331-EAA  
Ammonia analyzer – Enhanced performance rackmount

## Specifications

### Precision (1 $\sigma$ , 1 sec / 10 sec / 100 sec):

NH<sub>3</sub>: 0.9 ppb / 0.3 ppb / 0.1 ppb

H<sub>2</sub>O: 50 ppm / 20 ppm / 10 ppm

### GLA331 Series - Maximum Drift

#### (15 min. average, at STP, over 24 hrs):

NH<sub>3</sub>: <3 ppb

### Linear measurement ranges (meets all specifications):

NH<sub>3</sub>: Up to 10 ppm

H<sub>2</sub>O: Up to 30 000 ppm

### Operational ranges:

NH<sub>3</sub>: Up to 100 ppm

H<sub>2</sub>O: <99% RH, non-condensing

### Measurement rate:

0.01 – 1 Hz (user selectable)

Up to 10 Hz with fast flow option

### Flow response time:

<10 seconds (1/e)

Up to 5 Hz with ACC-DP4H (fast flow option)

### Sampling conditions:

Operating temperature: 5 – 45 °C

Ambient humidity: <99% relative humidity non-condensing

### Data outputs:

WiFi, Ethernet, USB, Serial (RS-232)

### Power requirements:

110/240 VAC

max 550 watts with ACC-DP4H

### Dimensions:

40 cm (15.75 in.) H x 48 cm (19 in.) W x 61 cm (24 in.) D

### Weight:

40 kg (88 pounds)

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