WATER-VAPOR ISOTOPE ANALYZER

UNPRECENDENTED PRECISION • NO SAMPLE PREP • FAST • LOW POWER

Now you can accurately measure the $^{18}O/^{16}O$ and D/H ratios in ambient water vapor rapidly with high precision (better than 0.5‰ and 2.0‰, respectively, in a measurement time of 1 second). Our Water-Vapor Isotope Analyzer does not require sample preparation or user intervention, which enables long-term studies of water-vapor isotopes with unmatched performance. In addition, the WVIA provides simultaneous measurements of water vapor mixing ratio [H_2O] with ppm-level precision. The rugged, field-portable packaging (which includes an embedded video monitor, keyboard and mouse) makes this instrument ideally suited for a myriad of hydrological, atmospheric science, medical, and industrial monitoring applications.

The instrument requires only 150 watts. It includes an internal computer that can store data practically indefinitely on its internal hard drive (for applications requiring unattended long-term operation) and send real-time data to a data logger through its digital (RS232) output. In addition, an Ethernet connection allows remote access to data files stored on the instrument's hard drive.

Performance Specifications

Concentration Range
1000 ppmv –near saturated (standard)
Measurement rate
up to 2 Hz
Precision (1-σ, 1 sec)
$^{18}O/^{16}O$: 0.5‰
D/H: 2.0‰
total [H_2O]: 0.2%
Precision (1-σ, 30 sec)
$^{18}O/^{16}O$: 0.1‰
D/H: 0.5‰
total [H_2O]: 0.05%
Outputs
Digital (RS232), Ethernet
Data Storage
Internal Hard Drive
Display
12.1" Color TFT
Sample Temperature
0–50 °C
Operating Temperature
10–40 °C
Warm-Up Time
2 minutes
Inlet/Outlet Fittings
1/4", 3/8" Swagelok®
Power Requirements
150 W; 115/230 VAC; 50/60 Hz
(including external vacuum pump)
Dimensions
10" H × 38" W × 14" D
Weight
60 pounds (27 kg); includes video monitor, keyboard, mouse

Ordering Information

Benchtop Package
Model Number: 908-0004

Included in Package

Analyzer, external vacuum pump, keyboard, video monitor, mouse

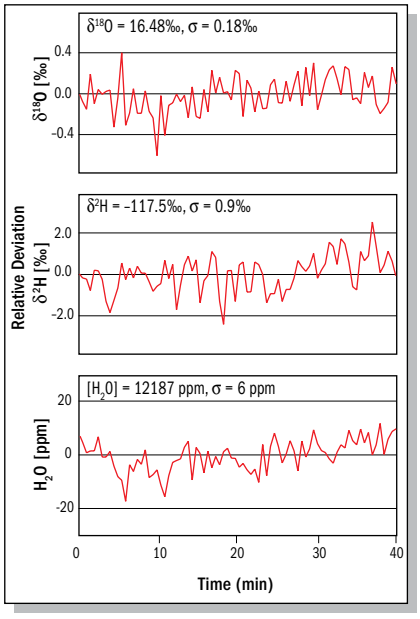
Option - Water Vapor Isotope Standard Source

Model	Name
-9001	Water Vapor Isotope Standard Source

There is no easier way to measure D/H and $^{18}O/^{16}O$ in atmospheric water vapor.

Precise

Measurements of D/H, $^{18}O/^{16}O$ and [H_2O] (water vapor mixing ratio in wet air) in ambient air recorded at 1 Hz illustrate the high measurement precision and fast response of our Water-Vapor Isotope Analyzer.



Field-deployed in some of the harshest environments on earth, LGR Analyzers are designed to work as hard as you do.

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