**CO & N₂O ANALYZERS**

*FAST • SENSITIVE • ACCURATE*

**Designed** for many demanding applications including eddy-correlation flux measurements, chamber flux measurements, combustion diagnostics, and trace-gas monitoring, these Analyzers have already been demonstrated successfully onboard NASA DC-8 aircraft for measurements in the upper troposphere/lower stratosphere. In fact, the High-Sensitivity CO Analyzer and the High-Sensitivity N₂O Analyzer are ideal for measuring carbon monoxide and nitrous oxide, respectively, in ambient air with data rates of up to 10 Hz, less than 1% uncertainty, and better than 0.1% repeatability. Neither analyzer is affected by other atmospheric gases or changes in ambient atmospheric pressure.

Built using quantum-cascade lasers operating in the mid-IR, these instruments require cryogenic operation (using liquid-nitrogen cooling) of the laser and photodetector to provide state-of-the-art performance.

For applications requiring unattended long-term standalone operation, an included internal computer can store data practically indefinitely on its hard drive, and can send real-time data to a data logger through its analog, digital (RS232), and ethernet outputs.

**Accurate**

**Screenshot of real-time CO measurements recorded using the instrument onboard a NASA DC-8.**

**Typical Operational Parameters**

- **Concentration Range**: 0.3 ppbv–10 ppmv
- **Response Time**:
  - <0.1 seconds (with optional external pump (see DSVP below))
  - <2 seconds (internal pump)
- **Accuracy**: Better than 1% of reading
- **Repeatability/Precision**: Better than 0.3 ppbv precision
- **Zero And Span Drift**: None
- **Outputs**: Digital (RS232), Analog, Ethernet
- **Data Storage**: Internal Hard Drive (20 gigabytes)
- **Data Rate**: 0.01–20 Hz (user selectable)
- **Display**: 12.1” Color TFT
- **Sample Temperature**: 0–50 °C
- **Operating Temperature**: 5–45 °C
- **Ambient Humidity**: <98% RH Non-Condensing
- **Warm-Up Time**: <60 seconds
- **Inlet/Outlet Fittings**: 3/8”, 1/2” Swagelok® (fast flow, optional external pump); 3/8”, 1/4” Swagelok® (slow flow, internal pump)
- **Power Requirements**: 115/230 VAC; 50/60 Hz; 200 W (excluding optional external pump)
- **Dimensions**: 10” H × 38” W × 26” D
- **Weight**: Less than 150 pounds (68 kg)

**Ordering Information**

- **Price**: $89,950
- **CO Analyzer**
  - Model Number: 910-0001
- **N₂O Analyzer**
  - Model Number: 910-0002

**Please Specify When Ordering**

- 110 VAC
  - Add -0 to Model Number
- 220 VAC
  - Add -1 to Model Number

**Opt. Dry-Scroll Vacuum Pump (DSVP)**

<table>
<thead>
<tr>
<th>Model</th>
<th>Name</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>-9001</td>
<td>Dry Scroll Vacuum Pump</td>
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<tr>
<td>-9002</td>
<td>DSVP Maintenance Kit</td>
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<td>-9003</td>
<td>DSVP Connection Kit</td>
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<tr>
<td>-9004</td>
<td>DSVP Exhaust Silencer</td>
<td>$250</td>
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*These analyzers have been used to record CO levels above the arctic circle.*

www.lgrinc.com
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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