New Trace Gas Analysis Platform

Strong performance with hassle-free results in the lab or in the field.



Choose Your Application, Without Limits

Get high stability and precision for long-term monitoring and soil gas flux applications



On-board display shows concentration measurements and status updates.

Air filters are easily replaced from outside of case.

Wired Ethernet, or Wi-Fi connectivity.*

AC power. When connected to AC, batteries charge automatically.

Weather-resistant case.

Get simple, hassle-free results in the lab or in the field with new PreciseTech™ Design, integrating multiple patented technologies that provide exceptional performance in a new lightweight, affordable mobile platform. Whether deployed long-term at a station or used for field measurements, gain the flexibility required for your research with battery or AC-power options and built-in Wi-Fi-enabled web server for convenient data viewing and communication.



Highly-Stable CH₄ **Performance with** the LI-7810 CH₄/CO₂/H₂O Analyzer

Capture methane measurements with 0.25 ppb precision (1o, with 5-second averaging) at 2000 ppb CH₄ in dry air at STP with less than 1 ppb standard drift per 24-hour period.

High-Precision CO₂ Measurements with the LI-7815 CO₂/H₂O Analyzer

Across applications, take CO₂ measurements with 0.04 ppm precision (1o, with 5-second averaging) at 400 ppm CO₂ in dry air at STP.

Specifications

General Specifications

Measurement Technique: OF-CEAS (Optical Feedback-Cavity Enhanced Absorption Spectroscopy)

Measurement Rate: 1 sample per second (1 Hz)

Optical Cavity Volume: 6.41 cm²

Flow Rate: 280 sccm (nominally)

Total Weight: 11.4 kg (incl. batteries)

Case Dimensions: 51 cm L x 33 cm W x 18 cm H

Operating Temperature Range: -25 °C to 45 °C (without solar load, under normal operating conditions)

Operating Humidity Range: 0 to 85% RH (non-condensing, without solar load, under normal operating conditions)

Operating Pressure Range: 70 to 110 kPa

Connectivity: Ethernet, Wi-Fi (not available in some countries)

Wi-Fi Compatibility: 2.4 GHz, 802.11g

Power Consumption: 20 W (at steady-state), up to 60 W (during warmup; up to 80 W during warmup, depending on temperature)

Power Supply: Universal Power Adapter (100 to 240 VAC input, 50-60 Hz; 24 VDC output)

Battery Life: 8 hours typical with 2 batteries

Specifications subject to change without notice.

LI-7810 CH₄/CO₂/H₂O Specifications

Response Time (T₁₀-T₉₀): $CH_4 \le 2$ seconds, 0 to 2 ppm CH₄ Measurements Range: 0.1 to 50 ppm Precision (1o): 0.25 ppb w/ 5 sec. averaging Max Drift: < 1 ppb per 24-hour period CO₂ Measurements Range: 1 to 10,000 ppm **Precision (1σ):** 1.5 ppm w/ 5 sec. averaging H₂O Measurements Range: 100 to 60,000 ppm Precision (1o): 20 ppm w/ 5 sec. averaging LI-7815 CO₂/H₂O Specifications **Response Time (T₁₀-T₉₀):** $CO_2 \le 2$ seconds, 0 to 400 ppm CO₂ Measurements Range: 1 to 10,000 ppm Precision (1o): 0.04 ppm w/ 5 sec. averaging

H₂O Measurements

Range: 100 to 60,000 ppm Precision (1o): 20 ppm w/ 5 sec. averaging



Global Headquarters Lincoln, Nebraska, USA Intl.: +1-402-467-3576 envsales@licor.com

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