



SOIL GAS FLUX MEASUREMENT SOLUTIONS

Complete Systems for Soil Gas Analysis

Soils play a vital role in the exchange of greenhouse gases with the atmosphere, producing and consuming gases like carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) through natural processes. By monitoring soil gas fluxes and CO_2 isotopes, you can better understand and manage key environmental factors—such as carbon sequestration and greenhouse gas emissions.

LI-COR offers comprehensive solutions for a wide range of soil gas flux research. Systems include flexible chamber and analyzer options—allowing you to take either automated, long-term measurements in one area or short, rapid measurements across multiple locations. Together with SoilFluxPro™ Software, you can get the accurate measurements and reliable data you need to take the next step forward.

- Track and analyze greenhouse gas emissions
- Gain insights into carbon sequestration efforts
- Access a complete, start-to-finish research system
- Adapt to future needs with expandable add-ons

Long-Lasting Systems for Long-Term Monitoring

Designed for lengthy deployments and diverse terrains, LI-COR systems provide the flexibility, durability, and technology needed for long-term soil gas flux measurements. With automated and continuous data collection, you can track the greenhouse gases that matter most to you across areas up to 2,800 square meters.



THE COMPLETE PACKAGE

LI-COR systems provide everything you need, including chambers, gas analyzers, data processing software, learning resources, and expert support.

DESIGNED FOR ALL USERS

Get accurate data right away, regardless of your experience level, thanks to a simple and intuitive system and software design.

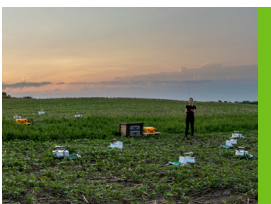


PATENTED TECHNOLOGY

Every chamber includes exclusive technology that minimizes its influence on measurements—so you can get clearer, more dependable data.

REMOTE ACCESS TO DATA

Deploy your fully integrated system for days—or years—knowing that data can be viewed directly on a smartphone or laptop at any time or place.



A FUTURE PROOF SETUP

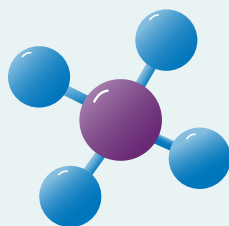
Research always grows and adapts, so your system should, too. New gas analyzers and up to 36 chambers can be added as your work expands.

A LEGACY OF RELIABILITY

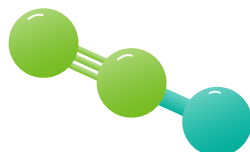
With 1,500+ gas analyzers deployed worldwide and a 20+ year legacy, LI-COR systems are trusted to get the high-quality results you need.



Flexible Solutions for Diverse Applications



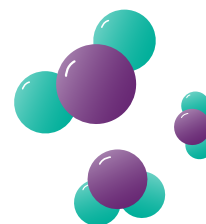
METHANE
(CH₄)



NITROUS OXIDE
(N₂O)



CARBON DIOXIDE
(CO₂)



CO₂
ISOTOPES

Applications

Agriculture, wastewater treatment, ecosystem monitoring, forestry, land use, and more

Agriculture, wastewater treatment, climate regulations, and more

Agriculture, wastewater treatment, ecosystem monitoring, climate regulations, forestry, land use, and more

Ecosystem monitoring, land use, climate change studies, carbon capture and sequestration validation, and more

Solutions

LI-7810 CH₄/CO₂/H₂O
Trace Gas Analyzer

LI-870 CO₂/H₂O
Trace Gas Analyzer

LI-7820 N₂O/H₂O
Trace Gas Analyzer

LI-7825 CO₂ Isotope/
NH₃ Trace Gas Analyzer

Powerful Post-Processing Software for Your Data

SoilFluxPro Software is a powerful, user-friendly tool designed exclusively for your survey and long-term soil gas flux systems. Using advanced post-processing tools, it refines flux measurements from both LI-COR and third-party analyzers, giving you quick access to consistent, high-quality data analysis.

- Rapidly organize and visualize large sets of data
- Optimize your results with automated guidance tools
- Use GPS tools to view soil gas fluxes at your sites



Scan to learn more

Rapid Insights into Soil Gas Fluxes

Gain faster insights into your site's soil gas fluxes with survey measurements.

LI-COR survey systems help you track spatial variability in CO₂, CH₄, and N₂O fluxes by measuring at multiple locations quickly and efficiently.

At the center of LI-COR survey systems is the Smart Chamber, which connects to gas analyzers to take the trusted measurements you need in less time.

- Take it anywhere long-term systems can't go using its portable design
- Pair with LI-COR and third-party analyzers to measure a variety of gases
- See fluxes in real time via an embedded Wi-Fi web server

Specifications

ANALYZERS

LI-7810 CH₄/CO₂/H₂O Trace Gas Analyzer

LI-7820 N₂O/H₂O Trace Gas Analyzer

LI-7825 CO₂ Isotope/NH₃ Trace Gas Analyzer

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

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

LI-870 CO₂/H₂O Analyzer

Dimensions: 28.4 cm L x 27.9 cm W x 12.4 cm H

Operating Temperature Range: -20 to 45 °C, without solar loading

LONG TERM

LI-8250 Multiplexer

Dimensions: 38.5 cm L x 52 cm W x 18.5 cm H

Operating Temperature Range: -20 to 45 °C

Weatherproof Rating: Tested to IEC IP55 standard

GPS: Accuracy 2.5 m CEP

Coverage Area:

Maximum radius from LI-8250 to chambers: 15.0 m with one cable assembly or 30.0 m with an Extension Manifold and two cable assemblies.

Maximum diameter of measurement circle: 30.0 m with two cable assemblies or 60.0 m with two Extension Manifolds and four cable assemblies.

8250-01 Extension Manifold

Dimensions: 38.5 cm L x 52 cm W x 18.5 cm H

Operating Temperature Range: -20 to 45 °C

Weatherproof Rating: Tested to IEC IP55 standard

8250-02 Calibration Manifold

Size: 29 cm L x 24.6 cm W x 12.4 cm H

Weatherproof Rating: Tested to IEC IP55 standard

Gas Tank Usage: 6 months (based on 0.023 scm per day)

SURVEY

8200-01S Smart Chamber

Bowl Diameter: 20 cm

Chamber Volume: 4244.1 cm³

Soil Area: 317.8 cm²

Operating Temperature Range: -20 to 50 °C

GPS: Accuracy 2.5 m CEP

Weight (including battery): 4.3 kg

Battery Life:

34 hours use; 2 batteries, 17 hours per battery (2 minutes per collar active time, and 20 collars total per hour).

20 hours use; 2 batteries 10 hours per battery (above use case, and including powering LI-870 CO₂/H₂O Analyzer).

Specifications subject to change without notice.

Full Specifications



Typical Power Consumption (W)			
Instrument	Idle	Sampling/ Moving	Max/ Warm-up
LI-8250	4.8	15.6	18.2
8250-01 (each)	0.8	9.2	11.0
8200-104/C (each)	0.36	4.8	N/A
LI-870	5.0	5.0	14.0