

LI-7700

Open Path CH₄ Gas Analyzer

After CO₂ and H₂O, methane is recognized as the third most influential greenhouse gas. The LI-7700 is a low-power, high-precision CH₄ analyzer that allows researchers to include methane flux measurements in their eddy covariance stations.

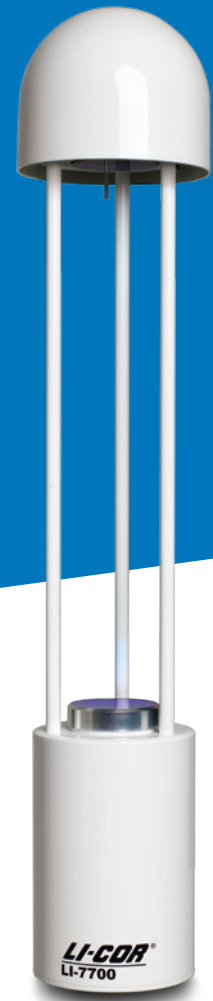
The LI-7700 provides measurements up to 20 samples per second and easily integrates into a LI-COR eddy covariance system. Methane fluxes are computed in real-time and synchronized with CO₂ and H₂O fluxes on the SmartFlux[®] System.

The only open path methane analyzer designed for field deployment in eddy covariance systems, the LI-7700 features innovations that ensure high performance, low-maintenance operation in the most unforgiving environments.

To learn more about the LI-7700 visit licor.com/LI-7700.

Key Features

- Nominally draws just 8 watts of power
- Self-cleaning and heated mirrors reduce data loss during long-term, continuous deployment
- Open-path, omnidirectional design provides continuous sampling with minimal flow distortion
- SmartFlux System processes real-time fluxes on-site using EddyPro[®] Software
- SmartFlux syncs instrument clocks using GPS and PTP for precise data synchronization within and across sites



LI-7700 Specifications

General

Resolution (RMS noise): 5 ppb @ 10 Hz and 2000 ppb CH₄

Measurement Range: 0 to 25 ppm @ -25 °C,
0 to 40 ppm @ 25 °C

Data Communication: Ethernet (up to 40 Hz)

Detection Method: Wavelength Modulation Spectroscopy
2f detection

Linearity: Within 1% of reading

Operating Pressure Range: 50 to 110 kPa

Output Bandwidth: Up to 20 Hz

Operating Temperature Range: -25 to 50 °C

Power Requirements: 10.5 to 30 VDC

Power Consumption: 8 W nominal, 16 W during cleaning cycle

Dimensions:

- **Sensor:** 14.33 cm dia (5.64 inches), 82.8 cm height (32.6 inches)
- **Optical Path:** 0.5 m physical path (1.65 ft), 30 m measurement path (98.4 ft)

Weight: 5.2 kg (11.5 lbs)

User Interface: Windows® based software supports all setup, configuration, and calibration functions through Ethernet connection

7700-101 Mirror Cleaner

Pump Operating Temperature Range: -10 °C to 50 °C

Weight: 3.2 kg (7 lbs)

Dimensions: 44.5 × 32.8 × 15 cm (17.5 × 12.9 × 6 inches)

Fluid Capacity: 4 liters (1.1 U.S. Gallon)

LI-7550 Analyzer Interface Unit (optional)

Data Storage: Removable USB Storage Device. 16 Gigabyte Provided (expandable with user supplied Industrial Grade USB Flash Drive)

Data Communication:

- **Ethernet:** up to 40 Hz
- **Synchronous Devices for Measurement (SDM):** up to 33.3 Hz
- **RS-232:** 57,600 baud, 20 records per second max.
- **DAC:** 0-5 V, 40 Hz

Bandwidth: Up to 20 Hz

Inputs: Ethernet, 4 analog inputs, differential ±5 V, 16-bit

Operating Temperature Range: -25° to 50° C

Power Requirements: 10.5 to 30 VDC

Power Consumption: 10 W nominal

Dimensions: 35 × 30 × 15 cm (13.8 × 12 × 6 inches)
external dimensions

Weight: 4.4 kg (10 lbs)

Specifications subject to change without notice.