

The LI-7500

Open Path CO₂/H₂O Analyzer

Coming Soon - The LI-7000
Closed Path CO₂/H₂O Analyzer

LI-COR

FEATURES:

- 12 cm open-path sensor head
- High precision, low noise
- Cutoff frequencies of 5, 10 or 20 Hz
- No external mirrors to get dirty
- Low power consumption (<10 watts after initial warm-up)
- Smooth, aerodynamic profile
- Accurately measures absolute densities
- Weatherproof electronic enclosure and sensor head

- Long-life source, detector, and brushless chopper motor
- Operates over a large temperature range (-25 to 50 °C)
- Easy mounting
- Windows® interface for easy setup and monitoring
- Two calibrated DACs, updated at 300 Hz
- RS-232 outputs up to 20 Hz
- SDM outputs (for Campbell Scientific data loggers)
- Programmable time delay for correlating data with other sensors

PRELIMINARY SPECIFICATIONS*

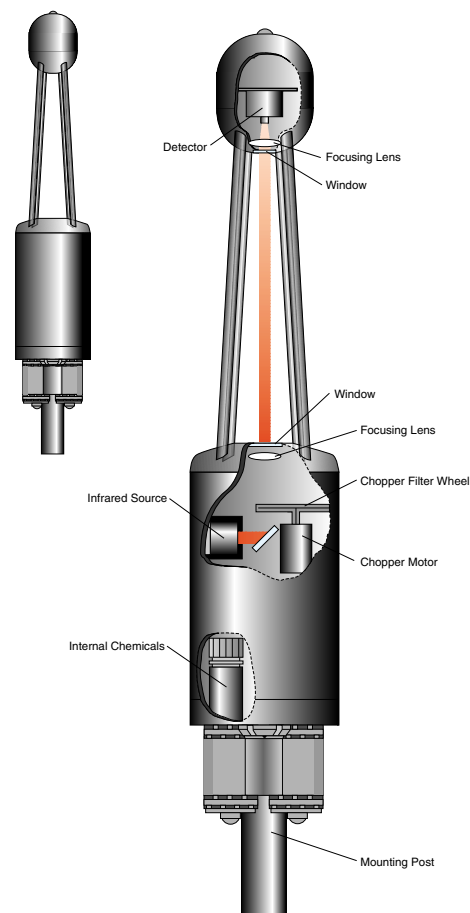
Type: Absolute, open-path, non-dispersive infrared gas analyzer
 Detector: Thermo-electrically cooled lead selenide
 Bandwidth: 5, 10, or 20 Hz, software selectable
 Path Length: 12 cm
 Operating Temperature Range: -25 to 50°C
 User Interface: Windows® based software supports all setup, configuration and calibration functions through the RS-232 serial port
 Outputs: RS-232 (20 Hz Maximum)
 SDM (>40Hz)
 2 user scalable 16 bit DACs updated at 300 Hz
 Auxiliary Inputs: 2 channels for temperature and pressure sensors (during calibration)
 Power Requirements: 10.5 to 16 volts DC
 Power Consumption: 30 W during warm-up, 10 W in steady state
 Dimensions:
 Head: Dia 6.5 cm, Length 30 cm. Designed for minimal wind flow disturbance
 Control Box: 5 cm x 30 cm x 15 cm (external dimensions)
 IRGA cable: 3 meters (between sensor head and electronics control box)
 Power, Serial, DAC, Auxiliary Input and SDM cables: 4 meters
 Weight: Head: 0.75 kg
 Control Box and Cables: 4.8 kg



CO ₂		mol mol ⁻¹	mmol m ⁻³	mg m ⁻³
Calibration range		0 - 3000	0 - 110	0 - 5000
RMS noise* at ambient (370 ppm)	Maximum	0.25	0.01	0.4
	Typical	0.15	0.005	0.2
Zero drift with temperature (per °C)	Maximum	0.3	0.012	0.5
	Typical	0.1	0.004	0.2
Gain drift with temperature at 370 ppm (% of reading per °C)	Maximum	0.1%		
	Typical	0.02%		
Direct sensitivity to a 20 mmol mol ⁻¹ change in H ₂ O	Maximum	0.4	0.02	0.7
	Typical	0.2	0.01	0.3

H ₂ O		mmol mol ⁻¹	mmol m ⁻³	g m ⁻³
Calibration range		0 - 60	0 - 2300	0 - 42
RMS noise* in dry air	Maximum	0.005	0.2	0.003
	Typical	0.003	0.1	0.002
RMS noise* in moist air (20 mmol mol ⁻¹)	Maximum	0.010	0.4	0.007
	Typical	0.006	0.2	0.004
Zero drift with temperature (per °C)	Maximum	0.015	0.6	0.01
	Typical	0.005	0.2	0.003
Gain drift with temperature at 20 mmol mol ⁻¹ (% of reading per °C)	Maximum	0.3%		
	Typical	0.15%		
Direct sensitivity to a 400 ppm change in CO ₂	Maximum	0.02	0.8	0.015
	Typical	0.01	0.4	0.007

* 5 Hz bandwidth, 10 Hz sampling at 25 °C, 98 kPa



*Specifications are subject to change without notice