

# BRINGING CERTAINTY TO AIR EMISSIONS MEASUREMENT



**DIRECTOPTICS**

BY GLOBAL ANALYZER SYSTEMS

CRDS-based NO<sub>2</sub>-NO<sub>x</sub>-NO Analyzer - Patented Self-Aligned Cavities - Fast Response Time -  
Low ppt to ppm Detection Limits - Intuitive Interface - Modbus Communication

## DUAL-CHANNEL CRDS NO<sub>2</sub>-NO<sub>x</sub>-NO ANALYZER

Global Analyzer Systems is introducing the Direct Optics Cavity Ring Down Spectroscopy (CRDS) analyzer.

A state-of-the-art instrument designed to directly measure the criteria pollutant nitrogen dioxide (NO<sub>2</sub>) known to affect human health. With our advanced spectroscopic technique innovations, this CRDS instrument enables precise and real-time measurement of NO<sub>2</sub> concentrations in ambient air. This groundbreaking technology not only detects NO<sub>2</sub> molecules with high precision and sensitivity, but also offers continuous monitoring of nitrogen oxides (NO<sub>x</sub>), providing a comprehensive understanding of air quality dynamics.

Get accurate and fast measurements with Direct Optics G-60 dual-channel analyzer.



[WWW.GASL.CA](http://WWW.GASL.CA)

# INNOVATION IN NITROGEN DIOXIDE MEASUREMENT



DIRECTOPTICS

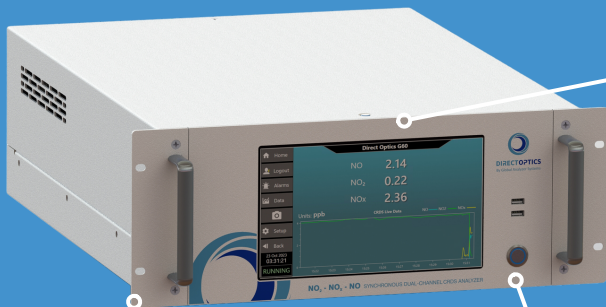
## WHY CHOOSE DIRECT OPTICS?

The Direct Optics G-60 analyzer is a high-precision CRDS-based instrument with two independent channels.

Our patented self-aligned optical cavities directly & continuously measure NO<sub>2</sub>, NO<sub>x</sub> and then NO.

Direct Optics G-60 offers:

- Trace level real-time direct NO<sub>2</sub> measurement
- Trace level real-time direct NO<sub>x</sub> measurement
- Interference-free NO<sub>2</sub> measurement
- High temporal resolution (1 second)
- No purge volumes/lag time



- ✓ Size and Weight: 23.5"(d) x 7"(h) 33lbs (15kg)
- ✓ Weight: 33 lbs (15 kg)
- ✓ Power: 100-240 VAC (50-60 Hz), 110W

- ✓ Ranges: 0-1,000 ppb (extended ranges up to 10 ppm)
- ✓ Lower Detection Limits: < 40 ppt
- ✓ Flow Rate: 500 cc/min ±10%
- ✓ Linearity 1% full scale ( $r^2 = 0.999$ )
- ✓ Span Drift: < 0.5% of reading/24 hours
- ✓ Operating Temperature: 0°C - 40°C
- ✓ Zero Noise: < 20 ppt (RMS)
- ✓ Span Noise: < 0.1% of reading (RMS)
- ✓ Precision: < 0.5% of reading above 1 ppb
- ✓ Response Time: < 5 seconds to 90%
- ✓ Averaging time: 5 seconds - 300 seconds (selectable)

✓ Patent #US 11,674,888 B2



## ABOUT GLOBAL ANALYZER SYSTEMS

Founded in 1996, Global Analyzer Systems Ltd. is a leader in the emissions monitoring industry. We ensure safe and sustainable air by bringing certainty to emissions measurement. Our new product line, Direct Optics, is designed to overcome market limitations by offering improved techniques for a more precise measurement of trace gases.