

## ITEM OPPORTUNITY SYNOPSIS

Scouting Number:	2024-052
Name of the item to be scouted:	Global Analyzer System
State item to be used in:	None

### Describe the Item:

<p>Please describe the item application/the end use of the item.</p>	<p>Device should be comparable to Global Analyzer Systems Direct Optics Dual-Channel Cavity Ring Down Spectroscopy (CRDS) NO2-NOx-NO Analyzer: A state-of-the-art instrument designed to directly measure the criteria pollutant nitrogen dioxide (NO) known to affect human health. With our advanced spectroscopic technique innovations, this CRDS instrument enables precise and real time measurement of NO concentrations in ambient air. Trace level real-time direct NO measurement; Trace level real-time direct NO measurement; Interference-free NO measurement; High temporal resolution (1 second); No purge volumes/lag time. In accordance with FAR 10.002(b) (2) (i), this Supplier Scouting Opportunity is for the purpose of conducting market research. This is not a Request for Proposal/Quotation and does not represent a commitment by the Government to issue a solicitation/award a contract.</p>
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### Supplier Information:

#### Type of Supplier Being Sought (select from the list below):

Manufacturer	x
Contract Manufacturer	
Distributor	
Other (Please Specify)	

#### Reason for Scouting Submission (select from the list below)

2nd Supplier	
Price	
Re-Shore	
Past supplier no longer available	
New Product Startup	
BABA	x
Other (Please Specify)	Buy American Act Waiver

### Summary of Technical Specifications and Performance Requirements:

Describe the manufacturing processes (elaborate to provide as much detail as possible)	See attached brochure
Provide dimensions / size / tolerances / performance specifications of the item	Dimensions are outlined within the description above and on the attached brochures.
List required materials needed to make the product, including materials of product components, if applicable	See attached brochure
Are there applicable certification requirements?	
Yes	
No	x
Please explain:	
Are there any applicable regulations that apply to the production of this item?	
Yes	
No	x
Please explain:	
Are there any other standards / requirements?	
Yes	
No	x
Please explain:	

### Additional Comments:

Additional technical comments:	The technical SMEs have already reviewed similar products from Eco Physics Inc, 2B Tech, Wilbur Technical Services, and Teledyne and they are not technically acceptable.
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### Volume and Pricing:

<b>Estimated Potential Business Volume (i.e. #units per day, month, year):</b>	One-time purchase of two (2) analyzers and one (1) converter.
<b>Estimated Target Price/Unit Cost Information:</b>	\$57,400.00 total for all products (not including shipping)
<b>Delivery Requirements:</b>	
<b>When is it needed by? (Immediate, 30 days, 6 months, etc.)</b>	Deliver by June 1, 2024. Earlier delivery preferred and accepted.
<b>Describe packaging requirements (i.e. individually/group packaging, etc.)</b>	No requirements provided by program.
<b>Where will this item be shipped?</b>	College Park, MD
<b>Additional Comments:</b>	
<p>Is there other information you would like to include?</p>	<p>This is a Simplified Acquisition, which has a shorter lead time to completion than an action over \$250,000.00. It is expected that this requirement will be awarded within the next 30 days, and any timely scouting (requested completed within 15 days from submission) would be appreciated to align with Simplified Acquisition requirements for posting and the Buy American Act Waiver process. In accordance with FAR 10.002(b) (2) (i), this Supplier Scouting Opportunity is for the purpose of conducting market research. This is not a Request for Proposal/Quotation and does not represent a commitment by the Government to issue a solicitation/award a contract.</p>

# BRINGING CERTAINTY TO AIR EMISSIONS MEASUREMENT



**DIRECTOPTICS**

BY GLOBAL ANALYZER SYSTEMS

Many brands were reviewed and considered.  
Currently this is the only known one fitting the need  
of the Government Mission.

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.

# INNOVATION IN NITROGEN DIOXIDE MEASUREMENT



DIRECTOPTICS

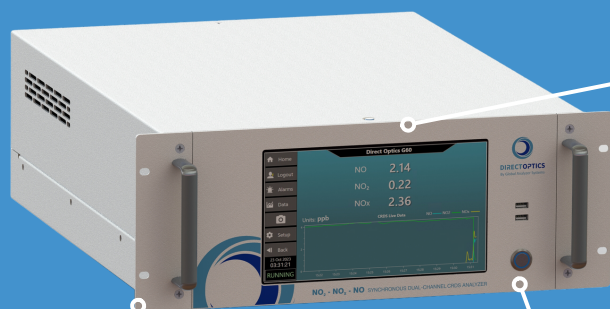
## WHY CHOOSE DIRECT OPTICS?

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

✓ Patent #US 11,674,888 B2

- ✓ 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)



## 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.



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of the Government Mission.



*\*Standalone Model As Shown*

Patented Photolytic NO<sub>2</sub> Converter

# PhoNO™

The  
Global  
Advantage

**Ambient Measurement:** Upgrade existing NO<sub>x</sub> analyzers to selectively measure NO<sub>2</sub>.

\*New stringent regulations to monitor 'true' NO<sub>2</sub> (effective 2018)

\*\*Optimized for interference rejection: PANs, NH<sub>3</sub>, HONO, alkyl nitrates, RH, etc

**Source Measurement:** Make your existing NO<sub>x</sub> analyzers immune to NH<sub>3</sub> interference.

**Reporting:** Avoid reporting overestimated NO<sub>2</sub> concentrations. (up to 35%, or greater)

**Accuracy:** Reduce uncertainties associated with NO<sub>2</sub> measurement.

**Quality Assurance:** Monitor the performance of your converter in real-time.

**Service:** World-class 24/7 technical support and training.

# How will you comply with the new $\text{NO}_2$ Guidelines in **2022** and beyond

## Upgrade your existing $\text{NO}_x$ analyzer with Global's PhoNO™ Converters

- Selective conversion of  $\text{NO}_2$  at reduced pressures
- High and stable conversion rate (>96%)
- Direct replacement for thermal metal converters typical of  $\text{NO}_x$  analyzers
- Outputs for real-time converter performance monitoring
- Linear conversion over a wide dynamic range
- Long service life with no memory effects on converter performance
- Cost effective long-term solution saving users  $\approx \$20,000$  in new analyzer costs
- Simple, external installation
- Eliminate over reporting of  $\text{NO}_2/\text{NO}_x$  (can be >35%)



# PhoNO™

\*AVAILABLE FOR INTERNAL INSTALLATION



Global Analyzer Systems

Call: +1 403 291 4828  
Fax: +1 403 291 4810  
E-Mail: [info@gasl.ca](mailto:info@gasl.ca)

#5, 1411 - 25th Avenue N.E.  
Calgary, Alberta  
Canada T2E 7L6

## Product Specifications

Operating Range <sup>a</sup>	0.5 ppb up to 40 ppm
Conversion Efficiency <sup>a,b</sup>	>96%
Residence Time <sup>c</sup>	0.83 - 2 s
Operating Flow Rate and Pressure <sup>a</sup>	300 - 800 ccm, 100 - 220 mmHg 300 - 450 ccm, 50 - 115 mmHg
Power Requirements	90 - 260 VAC @ 50/60 Hz, 10 - 40 W
Physical Dimensions <sup>d</sup>	17"(w) x 5.23"(h) x 13"(d)
Weight	$\approx 20$ lbs (0.8lbs (OEM))
Installation	19" rack mountable / OEM
Outputs	Modbus TCP/IP

(a) Tested under laboratory conditions and field

(b) Tested and certified before shipping

(c) Dependent on analyzer operating conditions

(d) OEM version fits within the space of existing moly converters.