



## ***GasFinder-LoS***

*Laser Open Path Gas Detection*

# GasFinder-LoS

When accuracy matters, guesswork isn't an option. The GasFinder-LoS provides real-time gas detection with absolute precision, requiring minimal upkeep and seamless operation. It's built for those who demand reliability—because in critical situations, *there's no room for uncertainty.*

## Consumable Free

Every component is built for the full lifespan of the device - no routine parts replacement.

## Immune to Poisoning

The laser sensing element is not effected by constant gas exposure.

## Zero Calibration

Device will maintain its factory calibration for its entire life cycle.

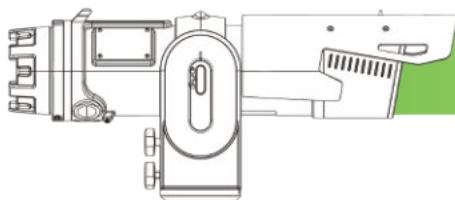


Harsh environments expose the inherent weaknesses of traditional gas detection:

- ⚠ Require routine calibration
- ⚠ Frequent sensor replacements
- ⚠ Unreported failure due to prolonged gas exposure.
- ⚠ Measurement drift

These maintenance demands drive operational costs and reliability concerns.

*Laser-based open-path detection eliminates these failure points, offering continuous, accurate gas measurement with minimal intervention, ensuring long-term stability and reduced costs.*

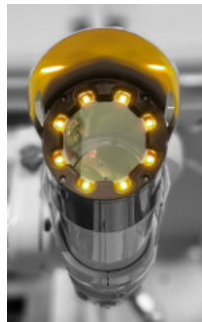
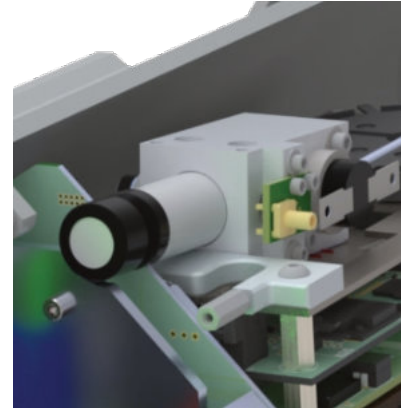


Transceiver optics keep all the electronics localized to one point.

0-200m Path Length • Beam Block Detection

## Set and Forget

By directing 10% of the laser's output through the internal reference cell, the system continuously measures a known gas concentration, allowing it to self-correct in real time. This eliminates sensor drift, ensures long-term accuracy, and removes the need for frequent recalibration. In turn reducing maintenance, minimizing disruptions, and eliminating the need for any bump testing.

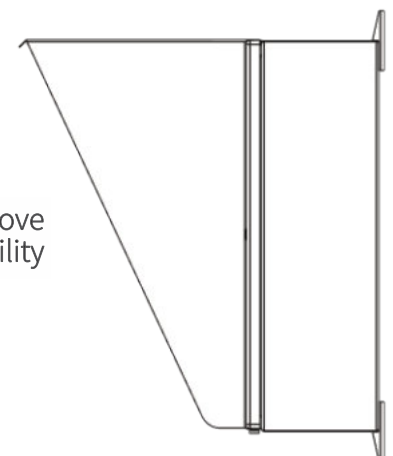
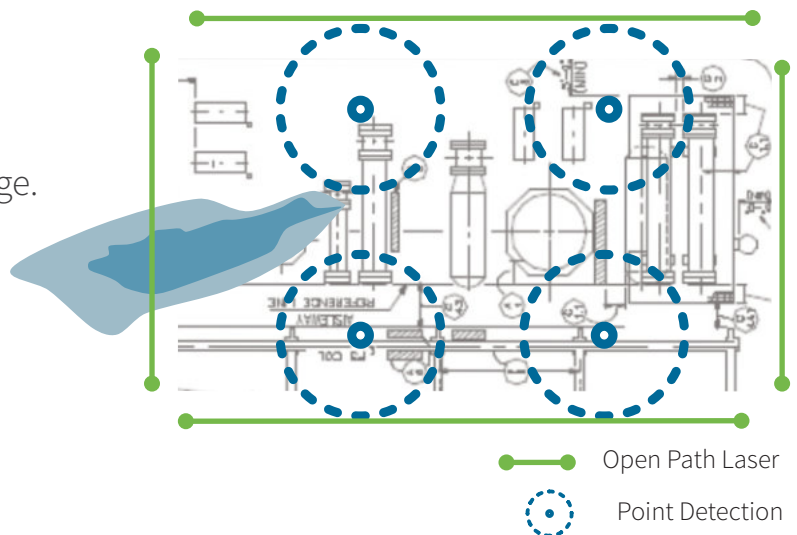


Unambiguous local indication is provided through high visibility tri-color LEDs

- ▶ Green - Normal Operation
- ▶ Yellow - Fault or Beam Block
- ▶ Red - High Gas Alarm

Gas doesn't always behave as expected with wind, temperature, and site conditions dictating its movement. Relying solely on point detectors leaves critical gaps in coverage.

A *layered* approach with open-path detection around key process areas dramatically improves detection reliability, ensuring leaks are caught and action is taken.



Large retro reflectors greatly improve alignment stability

1 Second Response

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No Measurement Dead Zones

# Specifications

## Application

|                     |                                                                                                                                                         |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Available Gases     | CH <sub>4</sub> , NH <sub>3</sub> , HF, CO <sub>2</sub> , CO, HCl, H <sub>2</sub> S, HCN, C <sub>2</sub> H <sub>4</sub> , C <sub>2</sub> H <sub>2</sub> |
| Unit of Measure     | ppm.m (LEL.m, ppm, mg/m <sup>3</sup> )                                                                                                                  |
| Path Length         | 0 - 200m (0-656 ft.)                                                                                                                                    |
| Accuracy            | ±2% of Reading                                                                                                                                          |
| Response Time       | 1.5 seconds per sample                                                                                                                                  |
| Detection Principle | Tunable Diode Laser Absorption Spectroscopy (TDLAS)                                                                                                     |
| Ingress Protection  | IP66 and NEMA Type 4X                                                                                                                                   |
| Enclosure Material  | Aluminium with Powder Coating (Tiger Drylac Series 138)                                                                                                 |
| Temperature Range   | -50°C to +65°C                                                                                                                                          |
| Humidity            | 0-100% RH (Non-Condensing)                                                                                                                              |
| Certification       | (A)Ex db ib op is IIC T5 Class I, Div 1, Groups B, C, D, T5 Tamb -50°C to 65°C                                                                          |

## Electrical & Mechanical

|                        |                                                                   |
|------------------------|-------------------------------------------------------------------|
| Nominal Input          | 24 VDC, 20 W typical                                              |
| Max Input Rating       | 24 VDC, 2 A                                                       |
| Serial                 | MODBUS (RS-485) ±12 VDC, ±250 mA                                  |
| Analog Outputs         | 4-20mA (HART 7 Enabled)                                           |
| Alarm Relays           | NC/NO Dry Contact Relays 24 V, 1 A (Voltage Free, Resistive Load) |
| Weight                 | 6.8 kg (15 lb)                                                    |
| Dimensions (L x W x H) | 500 x 115 x 150 mm (19.6 x 4.5 x 5.9 inch)                        |
| Mounting               | Use with Boreal Aiming Mount clamp (3/8"-16 captive screw)        |



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