

Open-Path Chemical Detection System

Wide-area TIC & CWA detection & rapid identification

Features

- Identification within seconds out to 300 meters
- Wide-area coverage, indoors or outdoors
- Eye-safe laser technology
- AI-driven software enables concurrent multi-threat chemical identification.
- Identifies targets within complex chemical mixes
- Links with command and control centers for immediate alarm responses and reactions
- Simple interface for operators
- Detailed technical information for commanders and managers
- 24/7 autonomous operation

Application Areas

- Critical infrastructure protection
- Homeland security
- Military

LaserWarn™ is a laser-based chemical identification system for protection of people and facilities against potential chemical threats. The system can detect multiple chemicals within seconds over thousands of square meters, including chemical warfare agents (CWAs), toxic industrial chemicals (TICs), and emerging threats.

Options

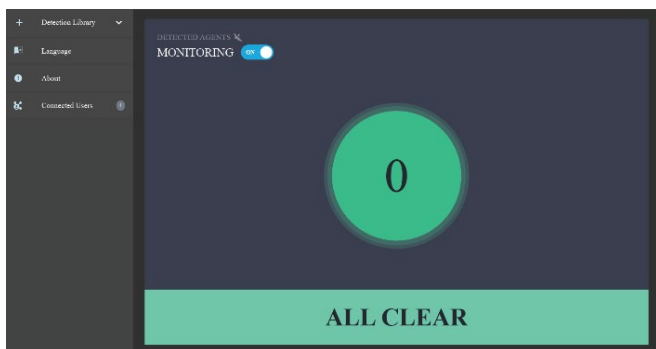
- Beam-directing mirrors can be custom engineered to optimize protection for each unique site.
- Ruggedized IP66-certified version for harsh environments or a standard configuration for interior use.
- Library updates provided to address new and emerging threats.



Powered by eye-safe infrared lasers, LaserWarn provides wide-area monitoring, and can detect gases with different concentrations. Unlike traditional point sensors, LaserWarn allows for rapid detection at a distance.

Background chemicals found in the surrounding area are filtered out using AI machine learning algorithms, resulting in pinpoint identification of targeted threat chemicals. A facility that would normally require multiple point sensors can be effectively covered with a single LaserWarn.

LaserWarn has the ability to interface with Common Operating Picture (COP) platforms to provide real-time situational awareness and actionable intelligence. By identifying exact chemical threats, commanders can feel confident that they will respond with the appropriate countermeasures for the situation at hand.



LaserWarn's user interface can provide operators with a simple Green/Red, Go/No Go dashboard for instantaneous situational awareness.

Should a higher level of detail be required, real-time spectra from gases and threats can be displayed. If a multi-threat scenario occurs, LaserWarn can identify multiple gases simultaneously.

LaserWarn™ Specifications

	LaserWarn	LaserWarn Ruggedized
Operating Principle	Infrared Absorption Spectroscopy	Infrared Absorption Spectroscopy
Maximum Path Length	300 meters (one way)	300 meters (one way)
Gases Detected	Most Toxic Industrial Chemicals (TICs), Chemical Warfare Agents (CWAs) and other chemicals that are within the range of the system	Most Toxic Industrial Chemicals (TICs), Chemical Warfare Agents (CWAs) and other chemicals that are within the range of the system
Sensitivity	Varies with gas and distance in path	Varies with gas and distance in path
Response Time	Less than 5 seconds	Less than 5 seconds
Dimensions	Approx. 18 x 14 x 7 inches	Approx. 41.5 x 19.2 X 11.5 inches
	(46 x 35.5 x 18 cm)	(105.5 x 49 x 29.5 cm)
Weight	32 lbs. (14.5 kg)	125 lbs. (56.7 kg) for LaserWarn plus tip/tilt stage. 36 lbs. (16.3 kg) for electrical junction box with shroud.
Electrical Power	110/220 VAC, 50/60 Hz, 100 Watts	110/220 VAC, 50/60 Hz, 100 Watts
Enclosure Type	IP 20	IP 66
Simultaneous Detection of Multiple Types of Gas	Yes	Yes
Operating Temperature Range	10° C to 30° C	-20° C to 60° C
Installation	Fixed position; portable configurations available as an option	Fixed position

Research International reserves the right to change specifications without prior notice.



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