



MULTI-CHEMICAL OPEN PATH GAS DETECTION

The ChemSight™ multi-chemical, open path infrared (IR) detector was developed specifically for security applications. The system can be installed permanently along fence lines to provide full perimeter coverage of fixed bases or on tripods for protection of traffic check points or forward operating bases. The enclosure of the ChemSight™ is robust, inconspicuous and resistant to environmental challenges such as dust and extreme temperature levels.

FEATURES

Multi-chemical detection

- Toxic Industrial Chemicals (TICs) and Chemical Warfare Agents (CWAs)
- Upgradeable over the Internet

Low maintenance

- No external air sampling system
- No consumables

Comprehensive SiteProtector™ software and processing algorithm

- Each detector can be monitored remotely
- User-defined actions and alarms
- User-defined chemical detection list
- Large data storage capacity and regular archiving

Indoor and outdoor operation

- -40°C to 60°C
- Harsh environments

Speed and Value

- Fast response - 1 second, followed by 30 second confirmation
- Best value per detected chemical and for cost of ownership



CHEMSIGHT™

Security Perimeter Monitoring

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Attacks involving Toxic Industrial Chemicals (TICs) or Chemical Warfare Agents (CWAs) present a serious threat to military bases, forward operating bases, traffic check-points and high visibility civilian assets such as airports, stadiums or specific events.

Numerous chemicals commonly used for industrial and commercial applications are highly toxic and easily available. Common irritants such as hydrochloric acid or ammonia are often transported in large containers on highways and railroads. Such TICs can become ideal high-leverage weapons in the hands of terrorists who can turn a single tanker of such chemicals into a powerful weapon.

GASEOUS CHEMICAL THREATS

Similarly, fire in a chemical plant or a storage site may release vast quantities of toxic clouds of unidentified chemicals. Less likely, but certainly a threat, are CWA munitions, typically left behind from older conflicts that now may be in the hands of rogue organizations and used against military and civilian populations.

Upon release, in gaseous, vapor or aerosol form, a cloud of toxic chemical may travel downwind for several kilometers without significant dilution while leaving a trail of gross contamination and poisoned population and military personnel.

For large facilities, a system consisting of ChemSight™ detectors can protect an entire perimeter by forming an effective trip-wire that triggers an instantaneous response when a toxic release crosses it.

FAST, ACCURATE RESPONSE

Protection against numerous, unspecified threats requires multi-chemical detection capabilities. Most commercially available multi-chemical sensors must draw air to analyze it requiring pumps, valves and other consumables that translate into a higher cost of ownership. They provide only localized monitoring that is unsuitable for protecting large facilities or open spaces. By contrast, ChemSight™ offers long line of sight, multi-chemical detection capabilities to provide significant security and economical advantages over competitors.

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The ChemSight™ detector is a Qualified Anti-Terrorism Technology and has received SAFETY Act designation.

CHEMICALS DETECTED

Types: Wide range of Toxic Industrial Chemicals (TICs), Chemical Warfare Agents (CWAs) and Toxic Industrial Materials (TIMs)

SOFTWARE

General: SiteProtector™ software provides threat evaluation, gas identification, concentration, time stamp and other data for stand alone monitoring or inclusion into industry standard integration software

Diagnosis: Self-diagnoses path obstructions, interferants and detector well-being

Confidence Tester: Internal, software activated relay that confirms detector operation and communication at user defined intervals (daily, weekly, etc.)

SYSTEM

Sensor Type: Infrared absorption

Sensitivity: Varies by vapor; from 200 ppm•m to 2 ppm•m (well below IDLH in typical installations)

Response Time: 1 second

Identification Time: 1-30 seconds

Path Length: 1-30m; 30m-100m

Ongoing Calibration: None

Warranty: One year

Consumables: None

Maintenance: Self-monitoring; no scheduled maintenance

Operation: Continuous

MECHANICAL

Housing Size:

Detector: 7" x 7.5" x 22.5" (17cm x 19cm x 57cm)

IR Lamp: 14" x 14" x 8" (35cm x 35cm x 20cm)
7" x 7" x 6" (17cm x 17cm x 15cm)

Enclosure Material: Powder Coated Aluminum

Weight:

Detector: 13 lbs (6 Kg)

IR Lamp: 8 lbs (4 Kg), 4 lbs (2 Kg)

ENVIRONMENTAL

Operating Temp.: -40°F to +140°F (-40°C to +60°C)

Operating Humidity: 0 to 95% RH (non-condensing)

Weatherproof rating: IP66

Certifications: ISO 9001, UL & CE (pending)

ELECTRICAL

Operating Voltage: 120 VAC or 240VAC

Power Consumption:

Detector: 25 watts max.

IR Lamp: 5 watts to 50 watts max.

CHEMICALS DETECTED

Chemical Warfare Agents

Toxic Industrial Chemicals

- Ammonia
 - Arsine
 - Butane
 - Chloroethane
 - Diborane
 - Ethylene Oxide
 - Formaldehyde
 - Hydrogen Bromide
 - Hydrogen Chloride
 - Hydrogen Cyanide
 - Hydrogen Sulfide
 - Isopropanol
 - Phosgene
 - Propane
 - Various alcohols & solvents
 - Vinyl Chloride
- and many more...*

Common Industrial Chemicals

- Butane
 - Carbon Dioxide
 - Diesel and gasoline exhaust
 - DMMP
 - DIMP
 - FM-200 (Heptafluoropropane)
 - IsoClean
 - Methyl Salicylate
 - Natural gas
 - Propane
 - Stainless steel cleaner
 - Sulfur Hexafluoride
- and many more...*



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