



# generation

## detection

next

## **OwlSens-C** - Advanced Chemical Detector

## Portable and Fixed Site Chemical Detection

OwlSens-C is the first of its kind next generation broadband Chemical Detector. Capable of detecting more hazardous chemicals at ultra-trace levels than any other single detector, OwlSens-C's key features include -

- SENSITIVITY detection limits typically below NIOSH's IDLH & 10-minute critical MEL concentration specifications
- SELECTIVITY exceptional ability to resolve similar compounds
- RAPID RESPONSE < 30 second detection; 60 second identification</p>
- REPROGRAMMABILITY Dynamic software updates
- VERSATILITY capability against most gaseous/volatile chemical hazards listed in NIOSH 2010-168C as well as conventional Chemical Warfare Agents and New Generation Threats



**Evolving** Threats

## Example Deployments

- Battlefield
- Shipboard
- Site Monitoring
- Decontaimation
- Site Evaluation
- Reconnaissance

- Broadband Detection
- Nerve (G & V class)
- Blister (HD, HNx, L)
- Emerging Threats
- Blood (CK, AC)
- Chocking (CL, CG)
- Toxic Industrial Chemicals

### **CONTACT OWLSTONE**

Our technical team is exceptionally well prepared to assist with your chemical detection requirements, whether commonplace or specific to your facility.

### **US Office**

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www.owlstoneinc.com

## **UK Office**

Owlstone Medical Ltd. 127 Science Park Cambridge CB4 0GD Tel: +44 (0)1223 428200

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#### Characteristic spectra $E_D$ $E_D$ $E_D$ $E_D$ $E_C$ $E_C$

## Standard Alarm Levels

- Nerve Agents: GA, GB, GD, GF & VX at < 0.1mg.m<sup>-3</sup>
- Blister Agents: HD, HN3 & L at < 1.0mg.m<sup>-3</sup>
- Blood Agents at < 20mg.m<sup>-3</sup>
- Chocking Agents < 10mg.m<sup>-3</sup>
- TICs Fl<sub>2</sub>, HCl, HF, H<sub>2</sub>S, NO<sub>2</sub>, PCl<sub>3</sub>, SO<sub>2</sub> at < 50mg.m<sup>-3</sup>
- Additional TICs Available

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## The Technology

OwlSens-C utilizes a highly-advanced variant of Ion Mobility Spectrometry (IMS). This new method of ultra-fast chemical separation exploits the unique thermal properties of an ionized chemical sample, in a rapidly modulated high electric field. Every chemical has a unique spectral "finger-print", which enables real-time identification and quantification from an on-board database.

The technology delivers an analytical window greater than double that of other Ion Mobility based separation systems - allowing greatly improved chemical separation and identification. Multi-dimensional datasets are generated and automatically analyzed, on single-second timescales, resulting in faster, more accurate, low-false-alarm rate detection and quantification.



## **Delivering Chemical Detection Capability to the 21<sup>st</sup> Century Warfighter**

Rapid airborne threat detection is a critical requirement in all army, navy and air force operations. In addition to detecting conventional Chemical Warfare Agents (CWAs) OwlsensT provides capability against a wide range of high threat Toxic Industrial Chemicals (TICs) at concentrations well below NIOSH's IDLH / 10-minute critical MEL specifications and is New Generation Threat enabled. Talk to us today to discuss your specific detection requirements.

### TECHNICAL SPECIFICATION

Technology	Rapid Thermal Modulation Ion Spectrometry
Ionization Source	Patent-pending non-radioactive source
Dimensions	15.7 × 23.6 × 8.3" = 40 × 21 × 21cm
Weight	12 lbs = 5kg
Mounting	Wall mount (bracket included)
Housing	Rust-resistant stainless steel
Ambient Temperature	-30 to 40°C
Operating Humidity	0 to 95% RH (non-condensing)
Scrubber life	3 months
Power Requirements	13A, 120-240V AC, 50/60Hz
Comms interface	TCP/IP (Ethernet)
Dry contacts relay	3A, 240V AC (50-60Hz) / 48V DC
Electrical compliance	EN61010/UL61010, EN61326 + EN61000

OwlSens-C is subject to export controls including those of the Export Administration Regulations of the U.S. Department of Commerce, which may restrict or require licenses for the export of product from the United States and their re-export to and from other countries

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