Owlstone Chemical Agent Monitor

Fixed site ambient air monitor
Protecting the air your workforce breathe

The OCAM, Owlstone Chemical Agent Monitor is the first of its kind next generation process chemical monitor. Capable of detecting more chemical hazards than any other single detector, OCAM’s key features include:

- **Sensitivity** – detection limits sub-parts-per-million by volume
- **Selectivity** – exceptional ability to resolve similar compounds
- **Rapid response** – 10 second detection; 60 second identification
- **Reprogrammablity** – PC controller for simple software updates
- **Versatility** – capability against the majority of gaseous/volatile chemical hazards listed in NIOSH 2010-168C

Example deployments
- Industrial hygiene
- In-plant air monitoring
- Distributed pipe network
- Leak detection
- Clean room monitor
- Process monitoring
- Chemical storage tank integrity

Broadband detection
- Acidic gases (e.g. SO₂, HCN, HF, H₂S)
- Basic gases / vapors (e.g. NH₃, amines, phosphine)
- Halogens (e.g. F₂, Cl₂, PCl₃, PF₃)
- VOCs (e.g. ethylene oxide, acrolein, acrylonitrile, benzene)
- Others (e.g. phosgene, dimethylsulfate, methyl iodide)

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

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OCAM utilizes highly advanced Rapid Thermal Modulation Ion Spectrometry (RTMIS) detection technology. This new method of accurately detecting and identifying chemicals is enabled by Owlstone’s ability to drive a Field Asymmetric Ion Mobility Spectrometer at Ultra-High electric fields.

Under these conditions (>80kV.cm-1, 350Td at 1atm) Effective Ion Temperatures may be modulated from ambient to well in excess of 1000°C, on micro-second timescales. This extreme thermal modulation enables a controlled manipulation of the ion chemistry within the separation channel by means of thermal induced dissociation. Chemical separation and identification is thus derived from the unique kinetic and thermodynamic behavior of ions assessed over a very broad effective temperature range.

RTMIS has an analytical window double that of other systems, allowing greatly improved chemical separation and identification. The technique produces multi-dimensional datasets, allowing analysis of a broad set of physical parameters, resulting in more accurate, low-false-alarm rate, detection.

Meeting Your Needs for Chemical Detection

Monitoring airborne contamination in your buildings and other infrastructure is critical to maintaining the health and safety of your employees, checking ambient pollution levels, or ensuring the security of designated areas. In addition to detecting common toxic industrial chemicals (TICs) at concentrations well below NIOSH’s IDLH specifications, OCAM can be customized through software to detect specific chemical species that matter to you.

Talk to us today to discuss your specific detection requirements.

Broadband detection
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- Basic gases / vapors (e.g. NH₃, amines, phosphine)
- Halogens (e.g. F₂, Cl₂, PCl₃, PF₅)
- VOCs (e.g. ethylene oxide, acrolein, acrylonitrile, benzene)
- Others (e.g. phosgene, dimethylsulfate, methyl iodide)

TECHNICAL SPECIFICATION

<table>
<thead>
<tr>
<th>Technology</th>
<th>Rapid Thermal Modulation Ion Spectrometry</th>
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<tbody>
<tr>
<td>Ionization Source</td>
<td>Patent-pending non-radioactive source</td>
</tr>
<tr>
<td>Dimensions</td>
<td>15.7 x 23.6 x 8.3&quot; = 40 x 60 x 21cm</td>
</tr>
<tr>
<td>Weight</td>
<td>55 lbs = 25kg</td>
</tr>
<tr>
<td>Mounting</td>
<td>Wall mount (bracket included)</td>
</tr>
<tr>
<td>Housing</td>
<td>Rust-resistant stainless steel</td>
</tr>
<tr>
<td>Ambient Temperature</td>
<td>0 to 40°C</td>
</tr>
<tr>
<td>Operating Humidity</td>
<td>0 to 95% RH (non-condensing)</td>
</tr>
<tr>
<td>Scrubber life</td>
<td>3 months</td>
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<tr>
<td>Power Requirements</td>
<td>13A, 120-240V AC, 50/60Hz</td>
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<tr>
<td>Comms interface</td>
<td>TCP/IP (Ethernet)</td>
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<tr>
<td>Dry contacts relay</td>
<td>3A, 240V AC (50-60Hz) / 48V DC</td>
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<tr>
<td>Electrical compliance</td>
<td>Designed to be compliant with:</td>
</tr>
<tr>
<td></td>
<td>EN61010/UL61010, EN61326 + EN61000</td>
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