OPTICAL METHANE DETECTOR (OMD™)

The Optical Methane Detector (OMD™) was specifically designed for the mobile inspection of buried natural gas distribution, transmission and gathering pipelines. This field proven technology combines sensitivity, selectivity and speed through the use of optics and electronics.

Field experience has proven that given adequate survey and meteorological conditions the OMD increases productivity 50% or more over current mobile survey. A contributing factor to the increased productivity is the instantaneous response to leak indications versus the time delay present with current flame-ionization technologies. Much of the maintenance associated with flame-ionization units, including moving parts, external fuel gases, outside sources of dust, dirt, moisture and water ingress, is eliminated with the OMD.

The OMD is mounted on the front of a survey vehicle. It employs an infrared (IR) light beam that shines across the front of the vehicle. An optical filter in front of the detector transmits methane IR wavelengths from the light source. In the absence of methane, these wavelengths are unaffected and produce a steady output signal from the detector. The presence of methane causes a signal, audio and visual, which is transmitted to the display in analog and digital form inside the vehicle. The OMD can detect leak indications in concentrations of less than 1 part per million (ppm) at 10,000 measurements per second.

The OMD operates reliably under a variety of environmental conditions including inclement weather, wind and temperatures from -20° F to +110° F. The OMD’s sensitivity is not affected by small fluctuations in the light beam caused by reasonable amounts of dust, dirt, water or snow. An internal calibration check cell is included so the operator can verify proper operation from the vehicle cab at any time before, during or after the survey, as well as alerting the operator if conditions are not optimal.

Installation on various types of survey vehicles is very simple and can normally be accomplished in a matter of hours. All cables are provided with the OMD including the power cable to operate the unit from the survey vehicle’s 12 volt battery. An RS232 port is available whereby a personal computer may be connected to acquire and save survey data.
### SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
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<tbody>
<tr>
<td><strong>Configuration:</strong></td>
<td>Double ended</td>
</tr>
<tr>
<td><strong>Sensitivity:</strong></td>
<td>1 PPM / meter CH₄ at 25 MPH</td>
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<tr>
<td><strong>Measurement Range:</strong></td>
<td>1 to 200 PPM</td>
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<tr>
<td><strong>Display Ranges:</strong></td>
<td>10, 30 and 90 PPM</td>
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<tr>
<td><strong>Self Test:</strong></td>
<td>During boot up</td>
</tr>
<tr>
<td><strong>Calibration Test:</strong></td>
<td>Via operator, self contained</td>
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<tr>
<td><strong>Calibration:</strong></td>
<td>Via RS-232 through software</td>
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<tr>
<td><strong>Base Line Compensation:</strong></td>
<td>Via RS-232 through software</td>
</tr>
<tr>
<td><strong>Display:</strong></td>
<td>Backlit 1.5” x 5.125” graphics LCD</td>
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<tr>
<td><strong>Operator Interface:</strong></td>
<td>Sealed membrane switch overlay</td>
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<tr>
<td><strong>Operator Alarms:</strong></td>
<td>Audible with adjustable setpoint</td>
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<tr>
<td><strong>Signal:</strong></td>
<td>High pitch increases with concentration</td>
</tr>
<tr>
<td><strong>Error:</strong></td>
<td>Low pitch for Warm up, Low Light, Failure &amp; Battery Low</td>
</tr>
<tr>
<td><strong>System Power:</strong></td>
<td>60 watts @ 12 VDC</td>
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<tr>
<td><strong>System Voltage:</strong></td>
<td>10-16 VDC</td>
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<tr>
<td><strong>System Weight:</strong></td>
<td>Sub-Systems: 17 pounds, Power Box: 6 pounds, Cables 4 pounds, Internal Display: 3 pounds</td>
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<tr>
<td><strong>Sub-Systems:</strong></td>
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<tr>
<td><strong>Power Box:</strong></td>
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<tr>
<td><strong>Internal Display:</strong></td>
<td></td>
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<tr>
<td><strong>Mechanical Mounting:</strong></td>
<td>Strut bracket mount</td>
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<tr>
<td><strong>Installation Time:</strong></td>
<td>2 hours (typical)</td>
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<tr>
<td><strong>External Housing Rating:</strong></td>
<td>NEMA 35 and IP 54</td>
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<tr>
<td><strong>Display Housing Rating:</strong></td>
<td>Spill proof</td>
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<tr>
<td><strong>External Sub-System Materials:</strong></td>
<td>Aluminum and plastic</td>
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<tr>
<td><strong>Environmental PCB Control:</strong></td>
<td>Conformal PCB coating</td>
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<tr>
<td><strong>Operating Temperature Range:</strong></td>
<td>-22 °F to 122 °F</td>
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<tr>
<td><strong>Operating Humidity Range:</strong></td>
<td>5 to 100% RH</td>
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HEATH CONSULTANTS
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www.heathus.com  PH: 713.844.1300

Heath Consultants Incorporated operates under a continual product improvement program and reserves the right to make improvements and/or changes without prior notification.

### ORDERING DETAILS

- Part No. 2500100 - OMD, Complete, 32” Crossbar (plus 6”)
- Part No. 2500300 - OMD, Complete, 51” Crossbar (plus 6”)
- Part No. 2500400 - OMD, Complete, 63” Crossbar (plus 6”)

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