

# OMD™ Optical Methane Detector

## *Increase Speed, Accuracy and Productivity*

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 wave-

lengths 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.

The OMD was designed and tested in a Gas Technology Institute (GTI) program.



*Visit our website at [www.heathus.com](http://www.heathus.com) for customer testimonials and comparison documentation.*

# OMD™

## Optical Methane Detector



## System Specifications

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

## HOW TO ORDER

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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