

# Sensit PMD

# History

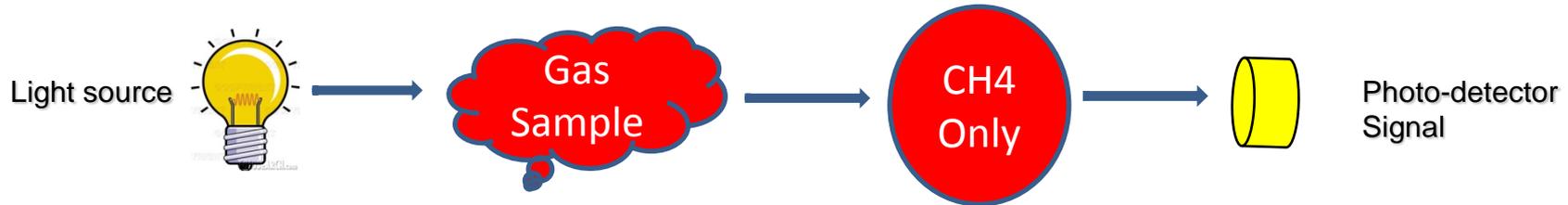
## Gas Technology Institute Project

- Begun 1998
- Open path hand held to closed path initiated in ~2004
- Research conducted through Carnegie-Mellon and several members of Operational Technology Development, Inc. (OTD)
- Sensit Technologies began commercialization project 2009



# Product Overview

## How does it detect



PMD uses an infrared light source that is of the same frequency that methane gas will absorb.

A specialized filter allows only the illuminated methane molecules to be detected.

The number of methane molecules detected through the filter by photo-detector is measured and given to the operator in the form of a gas reading.

# Product overview

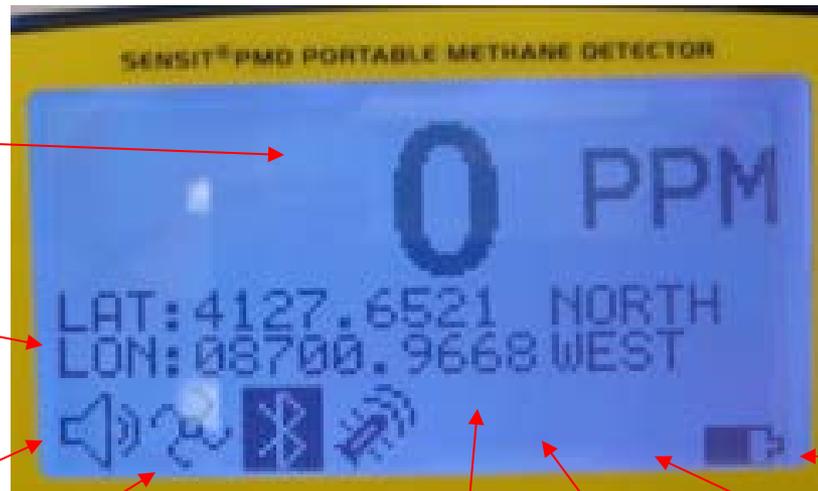
## Housing

- Aluminum front for heat removal
- Easy access filter
- Auxiliary pump connection (vehicle app)



# User Interface

## Icons



Concentration

Unit of measure

GPS Coordinates

Battery Strength

Mute indicator

Pump status

Warning Indicator  
NOT SHOWN ON DISPLAY

Tick rate

Bluetooth

GPS signal



Data logging

NOT SHOWN ON DISPLAY

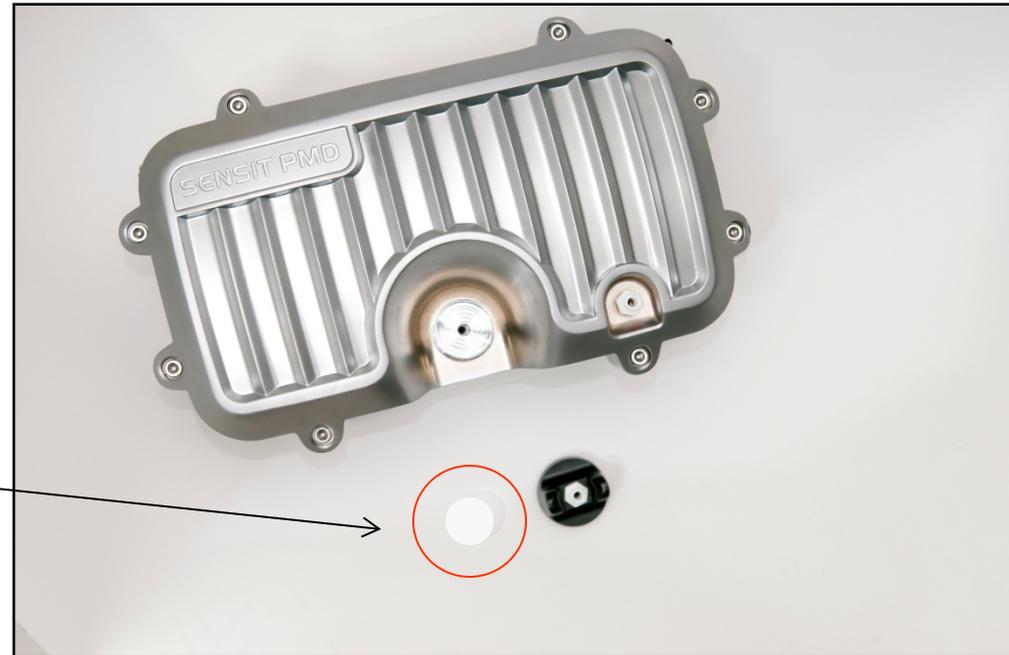
FIND IT with

**SENSIT**  
Technologies

# Product overview

## Housing

- Easy access filter
  - Replacement disc
  - Adhesive side onto aluminum mount



# Sensit VMD

# Sensit VMD

Vehicle Methane Detector



## Description

- Bumper mount open path IR methane detector
- Detects ~1ppm
- Detects 10ppm @ 25mph

## Features

- Adjustable path length
- Bluetooth data streaming
- Use for car, truck, or ATV
- Extremely rugged design
- Easy to install

# Sensit VMD

Vehicle Methane Detector



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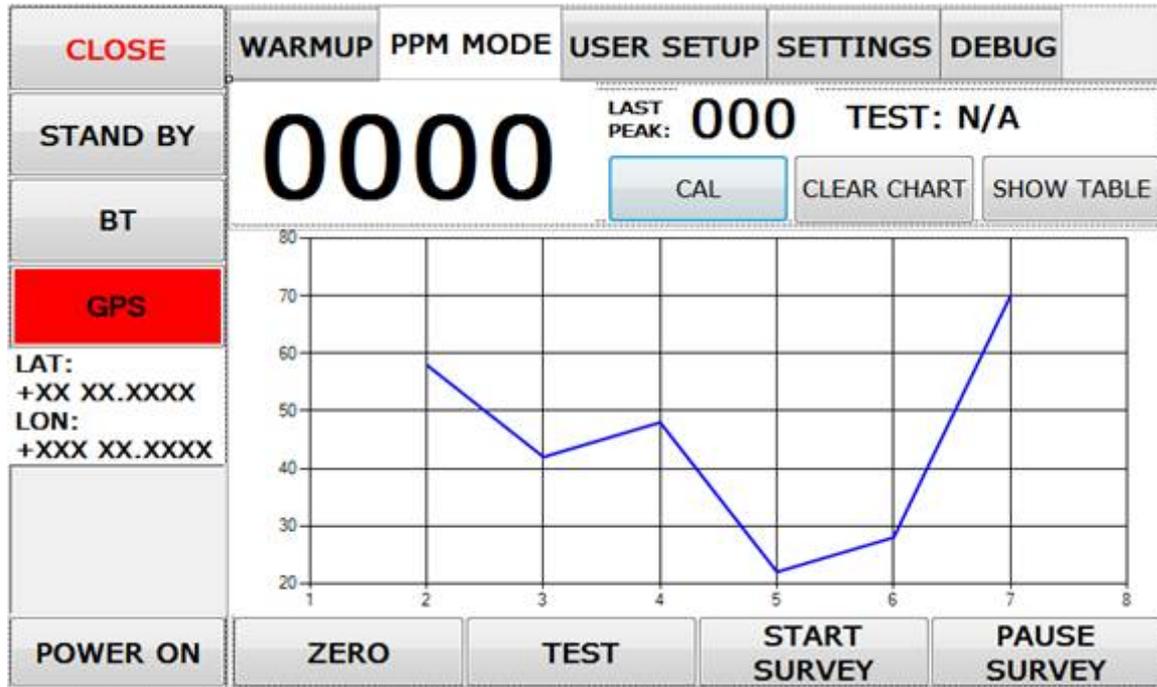
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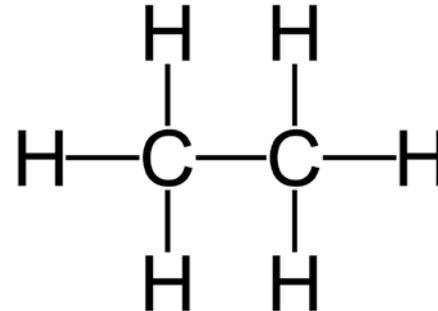


## Water Resistant Computer

- Touch screen operation
- Bluetooth data transfer
- GPS data recording
- Real time data streaming
- Adjustable alarms
- Ideal for all terrain vehicle use in all weather conditions

# Sensit IRed

# Ethane



- Ethane is the 2<sup>nd</sup> main component of natural gas
- Typically 1-3% of natural gas concentration
- Primary alkane with methane, propane, butane
- Not found in naturally occurring methane (swamp gas, sewer gas, decomposition)

# Sensit IRed

## Infrared Ethane Detector



- Power on
- Allow zeroing
- Perform measurement
- Read results in actual ethane concentration
- Store and print results
- Field calibrate – Manual or using Smart-Cal
- GPS data collection available

# Sensit IRed

## Infrared Ethane Detector

- GTI/OTD Project
- Distinguish pipeline gas from naturally occurring methane
- Detects 250ppb ethane in as little as 20ppm methane sample
- Detection method–Infrared Absorption Spectroscopy
- Analyzing type instrument
- Results from turn on to finish in less than 30 minutes

