

# MiniRAE PLUS Classic

## PID Monitor

**Rugged, reliable, and operates on durable lead-acid batteries to provide up to 10 hours of continuous operation.**



The MiniRAE was the world's first hand-held, portable Photo-Ionization Detector (PID). It has proved itself rugged and reliable, withstanding environments beyond its original design specifications. The MiniRAE PLUS Classic is the newest improved and simplified version of the MiniRAE VOC monitor. Durable lead-acid batteries still provide continuous monitoring for up to ten hours of continuous operation. Improvements include better linearity, increased range from 0.1 - 4000 ppm, easier lamp and sensor access, faster pump, and better leak-tightness, all at a lower cost.

### Key Features

- Lower Cost
- Lightweight and Compact
  - 18 ounces with batteries
- Dependable and Accurate
  - Rugged design, microprocessor control
- User Friendly
  - Menu driven, intuitive end-user operation
  - Large easy-to-read back-light display
  - Simple calibration instructions

- Functional Performance
  - Extended range of 0.1 to 4,000 ppm
- Mechanical Quality
  - Airtight gas inlet probe and sensor
  - Easier lamp and sensor access
  - Easy-to-replace metal filter

### Applications

- Confined Space Entry
  - Shipyard and maritime
  - Land-fill operations
  - Trenches, silos, railcars
- Waste water treatment plants
- Refineries and petrochemical plants including offshore drilling and plant shut-downs
- Power plants
- Pulp and paper
- Steel mills
- Environmental clean-up
- Hazardous waste spills
- Chemical process control and leak detection

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AL001 Rev. 1-10/00



## Detector Specifications

<b>Intrinsic Safety</b>	UL, and c-UL, Classified as to Intrinsic Safety for use in Class 1, Division I, Groups A, B, C and D (US & Canada), EEx ia IIC T4 (Europe)									
<b>Size</b>	7.1"L X 2.7"W X 1.8"H (18.0 cm X 6.9 cm X 4.6 cm)									
<b>Weight</b>	18 ounces with battery (0.5 kg)									
<b>Detector</b>	Photo-ionization sensor with interchangeable 9.8 eV, 10.6 eV or 11.7 eV lamps									
<b>Operating Hours</b>	10 hours of continuous operation									
<b>Battery Charging</b>	Two rechargeable 6V, 500 mAh sealed lead-acid. Field replaceable.									
<b>Gas Sampling</b>	Diaphragm pump with >500 ml/min. intake flow rate									
<b>Gas Inlet Probe</b>	6" flexible, 5/32" diameter tube									
<b>Gas Outlet</b>	5/32" diameter barb fitting									
<b>Attachment</b>	Wrist strap									
<b>Display</b>	7 digit LCD with LED back light									
<b>Analog Output</b>	0 V to 2.5 V									
<b>Range, Resolution and Accuracy</b>	<table border="0"> <tr> <td>0.0 - 99.9 ppm</td> <td>0.1 ppm</td> <td>+/- 2ppm or +/-10%</td> </tr> <tr> <td>100 - 999 ppm</td> <td>1 ppm</td> <td>+/- 10%</td> </tr> <tr> <td>1000 - 4000 ppm</td> <td>1 ppm</td> <td>+/- 20%</td> </tr> </table>	0.0 - 99.9 ppm	0.1 ppm	+/- 2ppm or +/-10%	100 - 999 ppm	1 ppm	+/- 10%	1000 - 4000 ppm	1 ppm	+/- 20%
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<b>Response Time</b>	<5 seconds to reach 90% of exposed concentration									
<b>Keypads</b>	2 operation keys, 2 programming keys and ON/OFF key									
<b>Alarm Setting</b>	Low and high alarm limits in the Survey Mode									
<b>Alarm</b>	90 dB buzzer and flashing red LED to indicate exceeded preset limits, low battery, or lamp failure									
<b>Calibration</b>	Two-point field calibration for zero and span gases									
<b>Temperature</b>	0°C to 40°C (32°F to 104°F)									
<b>Humidity</b>	0% to 95% relative humidity (non-condensing)									

## Ordering Information

### MiniRAE PLUS Classic (PGM-76)

#### Basic Kit 76:

- MiniRAE PLUS Classic unit with 10.6 eV PID detector and rechargeable battery pack
- Leather carrying case
- 6" Inlet probe
- Operation & Maintenance Manual

#### Accessories:

- Spare rechargeable battery pack
- Remote access probe
- Calibration kit: 34 liter calibration gas bottle, calibration adapter with Teflon tubing and Tedlar bag
- 9.8 eV and 11.7 eV lamps for VOC monitor
- Replacement filters and O-rings
- Tool kit

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