



# ppbRAE 3000

## Portable Handheld VOC Monitor

The ppbRAE 3000 is the most advanced handheld volatile organic compound (VOC) monitor on the market. Its photoionization detector's (PID) extended range of 1 ppb to 10,000 ppm makes it an ideal instrument for applications from HazMat/Homeland Security and industrial hygiene to Indoor Air Quality and military applications.

The **RF modem allows real-time data communication** with a base controller located up to 500 feet away from the ppbRAE 3000 detector (or two miles with optional RAELink3 portable modem). A personal computer can be used as the base station for a ppbRAE 3000 system. The standard ProRAE Remote software is capable of monitoring the input of up to 64 remotely located monitors, including ppbRAE 3000, AreaRAE, etc.



### Key Features

- **Proven PID technology.**  
The patented sensor provides the following unique features:
  - 3-second response time
  - Extended range from 1 ppb to 10,000 ppm with improved linearity
  - Humidity compensation with integral humidity and temperature sensors
- **Real-time wireless** data transmission with built-in RF modem or Bluetooth
- **Designed for simple service** Easy access to lamp and sensor in seconds without tools
- **Big graphic display** for easy overview of gas type, Correction Factor and concentration
- **Field-interchangeable battery pack** replaced in seconds without tools
- **Integrated flashlight** for better view in dark conditions
- **User-friendly screens including dataplot chart view**
- **Integrated RAE Systems Correction Factors list for more than 200 compounds** to measure more chemicals than any other PID
- **Multi-language support** with 12 languages encoded
- **Rugged housing** withstands use in harsh environments
  - IP67 waterproof design for easy cleaning and decontamination in water
  - Strong, protective removable rubber boot

### Additional Advantages

- View real-time sensor data and alarm status at headquarters or command center
- Automatic lamp type recognition
- Duty-cycling™ lamp and sensor auto-cleaning technology
- Tough, flexible inlet Flexi-Probe™
- 3 Large keys operable with 3 layers of gloves
- Strong, built-in sample pump draws up to 100 feet (30m) horizontally or vertically
- Loud 95 dB audible alarm
- Bright red flashing visual alarm
- Interchangeable drop-in Lithium-Ion and alkaline battery packs
- Charging cradle doubles as an external battery charger
- Compatible with AutoRAE™ calibration station
- ProRAE Remote software simultaneously controls and displays readings for up to 64 remote detectors
- License free, ISM band RF transmission with communication range up to 500 feet (2 miles with optional RAELink3 modem)
- Optional RAELink3 modem provides GPS capability to track and display readings from remote detectors and provides up to 2 miles long distance transmission
- Data logging with up to 6 months of data at one-minute intervals
- 3-year 10.6 eV lamp Warranty



Wireless



AutoRAE Compatible

## Specifications\*

### Detector Specifications

<b>Size</b>	10" L x 3.0" W x 2.5" H (25.5 cm x 7.6 cm x 6.4 cm)
<b>Weight</b>	26 oz (738 g)
<b>Sensors</b>	Photoionization sensor with standard 10.6 eV or optional 9.8 eV or 11.7 eV lamps
<b>Battery</b>	<ul style="list-style-type: none"> <li>• Rechargeable, external field-replaceable Lithium-Ion battery pack</li> <li>• Alkaline battery adapter</li> </ul>
<b>Operating Hours</b>	16 hours of operation (12 hours with alkaline battery)
<b>Display Graphic</b>	4 lines, 28 x 43 mm, with LED backlight for enhanced display readability
<b>Keypad</b>	1 operation and 2 programming keys, 1 flashlight on/off
<b>Direct Readout</b>	Instantaneous reading <ul style="list-style-type: none"> <li>• VOCs as ppm by volume</li> <li>• High values</li> <li>• STEL and TWA</li> <li>• Battery and shutdown voltage</li> <li>• Date, time, temperature</li> </ul>
<b>Alarms</b>	95dB at 12" (30 cm) buzzer and flashing red LED to indicate exceeded preset limits <ul style="list-style-type: none"> <li>• High: 3 beeps and flashes per second</li> <li>• Low: 2 beeps and flashes per second</li> <li>• STEL and TWA: 1 beep and flash per second</li> <li>• Alarms latching with manual override or automatic reset</li> <li>• Additional diagnostic alarm and display message for low battery and pump stall</li> </ul>
<b>EMI/RFI</b>	Highly resistant to EMI/RFI Compliant with EMC Directive 2004/108/EC
<b>IP Rating</b>	<ul style="list-style-type: none"> <li>• IP67 unit off and without flexible probe</li> <li>• IP65 unit running</li> </ul>
<b>Datalogging</b>	Standard 6 months at one-minute intervals
<b>Calibration</b>	Two-point or three-point calibration for zero and span. Calibration memory for 8 calibration gases, alarm limits, span values and calibration dates
<b>Sampling Pump</b>	<ul style="list-style-type: none"> <li>• Internal, integrated flow rate at 500 cc/mn</li> <li>• Sample from 100' (30m) horizontally and vertically</li> </ul>
<b>Low Flow Alarm</b>	• Auto pump shutoff at low-flow condition
<b>Communication</b>	<ul style="list-style-type: none"> <li>• Download data and upload instrument set-up from PC through charging cradle or optional Bluetooth™</li> <li>• Wireless data transmission through built-in RF modem</li> </ul>
<b>Frequency</b>	902 to 928 MHz (license-free), 2.400 to 2.4835 GHz (license-free), 433 MHz, 869 MHz
<b>RF Range</b>	Up to 500' (152m; 900 MHz, 433 Mhz, 869 Mhz), extendable with RAElink3 Repeater to 2 miles (3.2km)
<b>Hazard Area Approval</b>	<ul style="list-style-type: none"> <li>• <b>US and Canada:</b> c<sup>CS</sup>us, Classified as Intrinsically Safe for use in Class I, Division 1 Groups A, B, C, D</li> <li>• <b>Europe:</b> ATEX II 2G EEx ia IIC T4</li> </ul>
<b>Temperature</b>	-4° to 113° F (-20° to 50° C)
<b>Humidity</b>	0% to 95% relative humidity (non-condensing)
<b>Attachments</b>	Durable black rubber boot
<b>Warranty</b>	3 years for 10.6 eV lamp, 1 year for pump, battery, sensor and instrument

\*Specifications are subject to change

### Sensor Specifications

Gas Monitor	Range	Resolution	Response Time T90
VOCs	0 to 9999 ppb	1 ppb	< 3 s
	10 to 99 ppm	0.01 ppm	< 3 s
	100 to 999.9 ppm	0.1 ppm	< 3 s
	1000 to 9999 ppm	1 ppm	< 3 s

### Monitor only includes:

- ppbRAE 3000 Monitor, Model PGM-7340
- Wireless communication module built in, as specified
- Datalogging with ProRAE Studio Package for Windows™ 98, 2000, NT, ME & XP
- Charging/download adapter
- RAE UV lamp, as specified
- VOC Zeroing Tubes (1 box)
- Tube adapter
- Tedlar® bag for calibration
- Flex-I-Probe™
- External filter
- Rubber boot with straps
- Alkaline battery adapter
- Lamp-cleaning kit
- Tool Kit
- Operation CD-ROM
- Operation & Maintenance manual
- Soft leather case

### Monitor with accessories kit adds:

- Hard transport case with pre-cut foam padding
- Charging/download cradle
- 5 Porous metal filters and O-rings
- Organic vapor zeroing kit
- Gas outlet port adapter and tubing

### Optional calibration kit adds:

- 10 ppm isobutylene calibration gas, 34L
- Calibration regulator and flow controller

### Optional Guaranteed Cost of Ownership Program:

- 4-year repair and replacement guarantee
- Annual maintenance service

DISTRIBUTED BY:

**RAE Systems Inc.**  
 3775 North First Street  
 San Jose, CA 95134 USA  
 raesales@raesystems.com

USA/Canada 1-877-723-2878  
 Europe/Russia +45 8652 5155  
 Middle East/Australia +971 4 3639 427  
 China +86 10 58858788  
 Asia +852 2669 0828

[www.raesystems.com](http://www.raesystems.com)