

Photoionization Detector (PID)

RAE MiniRAE 3000 and ppbRAE 3000

The MiniRAE 3000 and ppbRAE 3000 are the most advanced handheld volatile organic compound (VOC) monitors on the market. Their photoionization detector's (PID) extended range of 0 to 15,000 ppm (1 ppb to 10,000 ppm – ppbRAE 3000) make them ideal instruments for industrial hygiene, leak detection, HazMat/Homeland Security, indoor air quality and military applications.

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

FEATURES

- **Proven PID technology**
The patented sensor provides the following unique features:
 - 3-second response time
 - Extended range up to 15,000 ppm (MiniRAE 3000), or 1 ppb to 10,000 ppm (ppbRAE 3000) with improved linearity
 - Humidity compensation with integral humidity and temperature sensors
- **Real-time wireless data transmission**
Built-in RF modem or Bluetooth
- **Designed for simple service**
Easy access to lamp and sensor in seconds without tools
- **Big graphic display**
Easy overview of gas type, correction factor and concentration
- **Field-interchangeable battery pack**
Replaced in seconds without tools
- **Integrated flashlight**
Better view in dark conditions
- **User-friendly screens, including dataplot chart view**
- **Integrated RAE Systems Correction Factors list for more than 200 compounds**
Measures 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



MiniRAE 3000



ppbRAE 3000

CALL GEOTECH TODAY (800) 833-7958

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RAE MiniRAE 3000 and ppbRAE 3000

SPECIFICATIONS

Detector Specifications*

Size	10" L x 3.0" W x 2.5" H (25.5 cm x 7.6 cm x 6.4 cm)
Weight	26 oz (738 g)
Sensors	Photoionization sensor with standard 10.6 eV or optional 9.8 eV or 11.7 eV lamps
Battery	<ul style="list-style-type: none"> Rechargeable, external field-replaceable Lithium-Ion battery pack Alkaline battery adapter
Operating Hours	16 hours of operation (12 hours with alkaline battery)
Display Graphic	4 lines, 28 x 43 mm, with LED backlight for enhanced display readability
Keypad	1 operation and 2 programming keys, 1 flashlight on/off
Direct Readout	Instantaneous reading <ul style="list-style-type: none"> VOCs as ppm by volume High values STEL and TWA Battery and shutdown voltage Date, time, temperature
Alarms	95 dB (at 30 cm) buzzer and flashing red LED to indicate exceeded preset limits <ul style="list-style-type: none"> High: 3 beeps and flashes per second Low: 2 beeps and flashes per second STEL and TWA: 1 beep and flash per second Alarms latching with manual override or automatic reset Additional diagnostic alarm and display message for low battery and pump stall
EMI/RFI	Highly resistant to EMI/RFI Compliant with EMC Directive 89/336/EEC
IP Rating	<ul style="list-style-type: none"> IP67 unit off and without flexible probe IP65 unit running
Datalogging	Standard 6 months at one-minute intervals
Calibration	Two-point or three-point calibration for zero and span. Calibration memory for 8 calibration gases, alarm limits, span values and calibration dates
Sampling Pump	<ul style="list-style-type: none"> Internal, integrated flow rate at 500 cc/mn Sample from 100' (30m) horizontally and vertically
Low Flow Alarm	Auto pump shutoff at low-flow condition
Communication	<ul style="list-style-type: none"> Download data and upload instrument set-up from PC through charging cradle or optional Bluetooth™ Wireless data transmission through built-in RF modem
Frequency	902 to 928 MHz (license-free), 2.400 to 2.4835 GHz (license-free), 433 MHz, 869 MHz
RF Range	Up to 500' (900 MHz, 433 Mhz, 869 Mhz), extendable with RAElink3 Repeater to 2 miles
Hazard Area Approval	<ul style="list-style-type: none"> US and Canada: UL, cUL, Classified as Intrinsically Safe for use in Class I, Division I Groups A, B, C, D Europe: ATEX II 1G EEx ia IIC T4 (pending) IECEX: II 1G EEx ia IIC T4 (pending)
Temperature	-4° to 113°F (-20° to 50°C)
Humidity	0% to 95% relative humidity (non-condensing)
Attachments	Durable bright yellow rubber boot with belt clip
Warranty	Lifetime on non-consumable components (per RAE Systems Standard Warranty), 3-year warranty for 10.6 eV lamp, 1 year for pump and battery

Sensor Specifications for VOCs*

Gas Monitor	Range	Resolution	Response Time T90
MiniRAE 3000	0 to 999.9 ppm	0.1 ppm	< 3 s
	1000 to 15,000 ppm	1 ppm	< 3 s
ppbRAE 3000	0 to 9999 ppb	1 ppb	< 3 s
	10 to 99 ppm	0.01 ppm	< 3 s
	100 to 99 ppm	0.1 ppm	< 3 s
	1000 to 9999 ppm	1 ppm	< 3 s

MiniRAE 3000 Monitor only includes:

- Model PGM-7320 MiniRAE 3000 Monitor
- Wireless communication module built-in, as specified
- Datalogging with ProRAE Studio Package for Windows™ 95, 98, 2000, NT, ME & XP
- Charging/download adapter
- RAE UV lamp, as specified
- Flex-I-Probe™
- External filter
- Rubber boot with belt clip and straps
- Alkaline battery adapter
- Lamp-cleaning kit
- Tool kit
- Lithium-ion (li-Ion) battery with universal AC/DC charger and international plug kit
- Operation CD-ROM
- Operation & Maintenance Manual
- Soft leather case

ppbRAE 3000 Monitor only includes:

- Model PGM-7340 ppbRAE 3000 Monitor
- Wireless communication module built-in, as specified
- Datalogging with ProRAE Studio Package for Windows™ 95, 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
- Lithium-ion (li-Ion) battery
- 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:

- ppm isobutylene calibration gas, 34L 100 ppm for MiniRAE 3000, 10 ppm for ppbRAE 3000
- Calibration regulator and flow controller

Optional Guaranteed Cost of Ownership Program:

- Available in North America only
- 4-year repair and replacement guarantee
- Annual maintenance service

*Specifications are subject to change

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