

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 and HazMat.

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 best-in-class linearity
 - Humidity compensation with integral humidity and temperature sensors
- **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 (MiniRAE 3000) and 220 compounds (ppbRAE 3000)**
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

Geotech Environmental Equipment, Inc.

2650 East 40th Avenue • Denver, Colorado 80205

(303) 320-4764 • **(800) 833-7958** • FAX (303) 322-7242

email: sales@geotechenv.com website: www.geotechenv.com

Photoionization Detector (PID)

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 or mg/m³ High values (MiniRAE 3000) STEL, TWA and PEAK Battery and shutdown voltage Date, time, temperature
Alarms	95 dB at 12" (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
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
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 Ex II 2GEx ia IIC/IIB T4 IECEx: Ex ia IIC/IIB T4
Temperature	-4° to 113°F (-20° to 50°C)
Humidity	0% to 95% relative humidity (non-condensing)
Attachments	MiniRAE 3000 – Durable bright yellow rubber boot with belt clip ppbRAE 3000 – Durable black rubber boot with straps
Warranty	3-year for 10.6 eV lamp, 1 year for pump, battery, sensor, and instrument

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 II
- Charging/download adapter
- RAE UV lamp, as specified
- Flex-I-Probe™
- External filter
- Soft leather case
- 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

ppbRAE 3000 Monitor only includes:

- ppbRAE 3000 Monitor, with RAE Systems UV lamp, as specified
- Datalogging with ProRAE Studio II
- Charging/download adapter
- VOC Zeroing Tubes (1 box)
- Tube adapter
- Tedlar® bag for calibration
- Soft leather case
- Flex-I-Probe™
- External filter
- Rubber boot with straps
- Alkaline battery adapter
- Lamp-cleaning and tool kit
- Operation CD-ROM
- Operation & Maintenance Manual

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:

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

*Specifications are subject to change

CALL GEOTECH TODAY (800) 833-7958

Geotech Environmental Equipment, Inc.

2650 East 40th Avenue • Denver, Colorado 80205
 (303) 320-4764 • **(800) 833-7958** • FAX (303) 322-7242
 email: sales@geotechenv.com website: www.geotechenv.com