

MiniRAE 2000

Portable VOC Monitor

- The MiniRAE 2000 is the World's most popular hand-held photoionization detector (PID) for volatile organic compound (VOC) measurement.
- New RAE Photo-Ionization Detector (PID) 3-D sensor
 - 3 second response time
 - Easily accessible lamp and sensor
 - Reduced humidity interference
 - Improved linearity
 - Increased sensitivity
 - Extended range 0-10,000 ppm
 - Self-cleaning
- Strong, built-in sample draw pump with pump stall feature
 - Sample up to 100' (30m) horizontally or vertically
 - Prevents liquid flow into the monitor
 - Warns if sample tubing is blocked or crimped
- External, field replaceable NMH rechargeable battery
 - 10 hours of continuous monitoring
 - Smart battery charging
 - Alkaline battery holder supplied
 - Automotive charger available
- Robust inlet probe
- Large keys operable with 3 layers of gloves
- Large easy to read back light display
 - Alarm activated
 - Darkness or manually activated
- Preset alarm thresholds for STEL, TWA, low and high level peak values. Audio buzzer and flashing LED display will be activated when the limits are exceeded
- 15,000 point data logging storage capacity for data download to PC
- Rubber protective boot
- 102 built-in correction factors from a RAE list of 250+ chemicals
- User selectable hygiene and survey modes
- Protected from portable radios
- Ppm or mg/m³ readout

Environmental Applications

- Air pollution — trace, toxic gases
- Leaking underground storage tanks
- Monitoring drums, perimeter fence line
- Leak detection — fugitive emissions (EPA Method 21)
- Soil, well and water head space analysis
- Vapor recovery breakthrough

Industrial Hygiene, Health, Safety and Plant Applications

- Confined space entry — broad band, real time monitoring of low level toxic gases
- Emergency response to hazardous spills
- Indoor air quality in new, sick and mixed usage buildings
- Personnel monitoring — determine levels for personal protective equipment (PPE)
- Survey instrument — prioritization of sample collection
- Work place monitoring — peak, STEL and TWA



Specifications

Size	8.2" (21.8 cm) L x 3.1" (7.62 cm) W x 2.1" (5.08 cm) H
Weight	19.5 oz (553 gm) with battery pack
Detector	Photo-ionization sensor with standard 10.6 eV or optional 9.8 or 11.7 eV UV lamp
Battery	Rechargeable, external, field replaceable Nickel Metal Hydride battery pack. Alkaline battery holder (for 4 AA) supplied
Operating Hours	10 hours continuous
Battery Charging	Up to 10 hours charge through built-in smart charger
Display	Large LCD, manual, darkness and alarm activated
Range, Resolution and Response Time (t90)	Isobutylene (calibration gas) 0-999 ppm 0.1 ppm < 3 sec 100-10,000 ppm 1 ppm < 3 sec
Measurement Accuracy	± 2 ppm or 10% of reading < 2000 ppm ± 20% of reading > 2000 ppm Calibrated to 100 ppm isobutylene
PID Detector	Easy access to lamp and sensor for cleaning and replacement
Correction Factors	102 built-in VOC gases
Calibration	Two points field calibration of zero and standard reference gas. Calibration memory of 8 calibration gases, alarm limits, span values and calibration date
Robust Inlet Probe	Flexible 5" (13 cm) tubing
Large Keypads	1 operation and 2 program keys
Direct Readout	Instantaneous, average, STEL and peak value, battery voltage and elapsed time
Intrinsic Safety	UL & cUL Class 1, Division I, Group A, B, C, D (US & Canada), Ex ia IIC T4 (Europe)
Alarm Setting	Separate preset alarm limit for high, low, STEL and TWA alarm
Operating Mode	Survey or Hygiene, user selectable
Audible Alarm	90 db buzzer
Visual Alarm	Flashing red LED
External Alarm	Optional plug in pen size vibration alarm
Alarm Mode	Latching or automatic reset
Data Logging	15,000 points with time/date. Header information includes monitor serial number, user ID, site ID, date and time
Communication	Download data and upload instrument setup from PC through RS-232 link to serial port
Remote Control	Power On/Off and data logging through RS-232 port
Analog Output	Calibrated output, user selectable full-scale range
Sampling Pump	Internal integrated flow rate 400 cc/minute Sample from 100' (30m) horizontally or vertically
Low Flow Alarm	Auto shut off pump at low flow condition
Temperature	14°F to 104°F (-10°C to 40°C)
Humidity	0% to 95% relative humidity (non-condensing)
Attachment	Wrist strap

MiniRAE 2000 Accessories

Model PGM-7600 Monitor

- MiniRAE 2000 unit with UV lamp as specified
- Nickel metal hydride batteries
- Alkaline battery holder
- Rubber boot
- Inlet probe and water trap filter
- Operation and maintenance manual
- Soft carry case
- Pro-RAE Suite software (data logging version)

Model PGM-7600 Kit

Items included with Monitor Plus

- Calibration Gas
- Calibration Regulator with flow controller
- Porous metal filter and O-ring kit
- Gas outlet port and tubing
- Tool kit
- Hard transport case

Accessories

- 9.8 & 11.7 eV lamps
- Lamp cleaning kit
- Remote access probe
- External vibration alarm
- Automotive charger adapter

Datalogging Monitors also include:

- Software, ProRAE Suite Package for Windows™ 98, NT & XP
- Computer Interface cable

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