

environmental SCIENCE

AND TECHNOLOGY

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MiniRAE 3000

Portable Handheld VOC Monitor



The MiniRAE 3000 is a comprehensive handheld VOC (Volatile Organic Compound) monitor that uses a third-generation patented PID technology to accurately measure more ionizable chemicals than any other device on the market. It provides full-range measurement from 0 to 15,000 ppm of VOCs.

The MiniRAE 3000 has a built-in wireless modem that allows real-time data connectivity with the ProRAE Guardian command center located up to 2 miles (3 km) away through a Bluetooth connection to a RAELink 3* portable modem or optionally via Mesh Network.

KEY FEATURES

- Third-generation patented PID technology
- VOC detection range from 0 to 15,000 ppm
- 3-second response time
- Humidity compensation with built-in humidity and temperature sensors
- Six-month datalogging
- Real-time wireless built-in Bluetooth (and optional RAELink3 portable modem) or Mesh Network support
- Large graphic display with integrated flashlight
- Multi-language support with 10 languages encoded
- IP- 67 waterproof design

APPLICATIONS

- Oil and Gas
- HazMat
- Industrial Safety
- Civil Defense
- Environmental and Indoor Air Quality

- Highly accurate VOC maeasurements
- Patented PID sensor
- Low maintenance—easy access to lamp and sensor
- Low cost of ownership
- 3-year 10.6eV lamp warranty



Workers can quickly measure VOCs and wirelessly transmit data via Bluetooth or optional Mesh radio.









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SPECIFICATIONS

Instrument 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 lamp | | |
| Battery | Rechargeable, external field-replaceable Lithium-lon battery pack Alkaline battery adapter | | |
| Running time | 16 hours of operation (12 hours with alkaline battery adapter) | | |
| 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 • VOCs as ppm by volume (mg/m³) • High values • STEL and TWA • Battery and shutdown voltage • Date, time, temperature | | |
| Alarms | 95dB at 12" (30 cm) buzzer and flashing red LED to indicate exceeded preset limits • 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 | | |
| EMC/RFI | Compliant with EMC directive (2004/108/EC) EMI and ESD test: 100MHz to 1GHz 30V/m, no alarm Contact: ±4kV Air: ±8kV, no alarm | | |
| IP Rating | IP-67 unit off and without flexible probe IP-65 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 | Internal, integrated flow rate at 500 cc/mn Sample from 100' (30m) horizontally or vertically | | |
| Low Flow Alarm | Auto pump shutoff at low-flow condition | | |
| Communication & Data Download | Download data and upload instrument set-up from PC through charging cradle or optional Bluetooth™ Wireless data transmission through built-in RF modem | | |
| Wireless Network | Mesh RAE Systems Dedicated Wireless Network | | |
| Wireless Range (Typical) | EchoView Host: LOS > 660 ft (200 m) ProRAE Guardian & RAEMesh Reader: LOS > 660 ft (200 m) ProRAE Guardian & RAELink3 Mesh: LOS > 330 ft (100 m) | | |
| Safety Certifications | US and Canada: CSA, Classified as Intrinsically Safe for use in Class I, Division 1 Groups A, B, C, D Europe: ATEX II 2G EEx ia IIC T4 | | |
| | Europe. ATEX II 20 EEX IO II 0 14 | | |
| Temperature | -4° to 122° F(-20° to 50° C) | | |

¹ Contact RAE Systems for country-specific wireless approvals and certificates.

Specifications are subject to change.

| Attachments | Durable bright yellow rubber boot | |
|--------------------|---|--|
| Warranty | 3 years for 10.6 eV lamp, 1 year for pump, battery, sensor and instrument | |
| Wireless Frequency | ISM license-free band. IEEE 802.15.4 Sub 1GHz | |
| Wireless Approvals | FCC Part 15, CE R&TTE, Others ¹ | |
| Radio Module | Supports Bluetooth or RM900 | |
| | | |

Sensor Specifications

| Gas Monitor | Range | Resolution | Response Time T90 |
|-------------|---------------------------------------|------------------|----------------------|
| VOCs | 0 to 999.9 ppm 1,000 to 15,000 ppm | 0.1 ppm 1 ppm | <3s |

MONITOR ONLY INCLUDES:

- MiniRAE 3000 Monitor, Model PGM-7320
- Wireless communication module built in, as specified
- Datalogging with ProRAE Studio II Package
- Charging/download adapter
- RAE UV lamp, as specified
- Flex-I-Probe[™]
- External filter
- Rubber boot
- Alkaline battery adapter
- Lamp-cleaning kit
- Tool kit
- Operation CD-ROM
- Operation and Maintenance manual
- Soft leather case

OPTIONAL CALIBRATION KIT ADDS:

- 100 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

CORPORATE HEADQUARTERS

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