

# 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<sup>\*</sup> 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



- 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.

ATEX







# MiniRAE 3000

Portable Handheld VOC Monitor



# **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                          | <ul> <li>Rechargeable, external field-replaceable Lithium-Ion battery pack</li> <li>Alkaline battery adapter</li> </ul>   |  |  |
| 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 readabilit   |  |  |
| Keypad                           | 1 operation and 2 programming keys, 1 flashlight on/off   |  |  |
| Direct Readout                   | Instantaneous reading<br>• VOCs as ppm by volume (mg/m <sup>3</sup> )<br>• High values<br>• STEL and TWA<br>• Battery and shutdown voltage<br>• Date, time, temperature   |  |  |
| Alarms                           | <ul> <li>95dB at 12" (30 cm) buzzer and flashing red LED to indicate exceeded preset limits</li> <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> |  |  |
| EMC/RFI                          | Compliant with EMC directive (2004/108/EC)<br>EMI and ESD test: 100MHz to 1GHz 30V/m, no alarm<br>Contact: ±4kV<br>Air: ±8kV, no alarm  |  |  |
| IP Rating                        | <ul> <li>IP-67 unit off and without flexible probe</li> <li>IP-65 unit running</li> </ul>   |  |  |
| Datalogging                      | Standard 6 months at one-minute intervals   |  |  |
| Calibration                      | Two-point or three-point calibration for zero and span.<br>Calibration memory for 8 calibration gases, alarm limits,<br>span values and calibration dates   |  |  |
| Sampling Pump                    | <ul> <li>Internal, integrated flow rate at 500 cc/mn</li> <li>Sample from 100' (30m) horizontally or vertically</li> </ul>  |  |  |
| Low Flow Alarm                   | Auto pump shutoff at low-flow condition   |  |  |
| Communication &<br>Data Download | <ul> <li>Download data and upload instrument set-up from PC through<br/>charging cradle or optional Bluetooth<sup>™</sup></li> <li>Wireless data transmission through built-in RF modem</li> </ul>  |  |  |
| Wireless Network                 | Mesh RAE Systems Dedicated Wireless Network   |  |  |
| Wireless Range<br>(Typical)      | EchoView Host: LOS > 660 ft (200 m)<br>ProRAE Guardian & RAEMesh Reader: LOS > 660 ft (200 m)<br>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  |  |  |
| Temperature                      | -4° to 122° F (-20° to 50° C)   |  |  |
| Humidity                         | 0% to 95% relative humidity (non-condensing)<br>for country-specific wireless approvals and certificates.   |  |  |

Specifications are subject to change.

#### **CORPORATE HEADQUARTERS**

# WORLDWIDE SALES OFFICES

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| 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, Others1  |  |
| Radio Module       | Supports Bluetooth or RM900   |  |

# **Sensor Specifications**

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

# **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<sup>™</sup>
- 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



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