The MultiRAE Lite is the optimal one-to-six-gas monitor for personal protection and leak detection applications. The MultiRAE Lite is available in pumped and diffusion versions and features the broadest selection of sensor options in its class. The MultiRAE Lite can be configured to exactly meet the detection needs and compliance requirements of various countries, industries, and applications.

The MultiRAE Lite’s optional wireless capability improves safety by providing commanders and safety officers real-time access to instrument readings and alarm status from any location for better situational awareness and faster incident response.

**KEY FEATURES**

- Wireless access to real-time instrument readings and alarm status from any location
- Unmistakable five-way local and remote wireless notification of alarm conditions including Man Down Alarm
- Over 25 interchangeable sensor options, including PID for VOCs, NDIR and catalytic for combustibles, and NDIR for CO₂
- Intelligent sensors store calibration data, so they can be swapped in the field
- Large graphical display with easy-to-use, icon-driven user interface
- Continuous datalogging (6 months for 5 sensors, 24x7)

**APPLICATIONS**

- Personal protection and multi-gas leak detection in industries such as:
  - Chemical
  - Food and beverage
  - Oil and gas (downstream)
  - Pharmaceutical
  - Telecommunications
  - Wastewater treatment
- Fire overhaul

- Available in pumped and diffusion versions
- Highly versatile and customizable
- Man Down Alarm with real-time remote wireless notification
- Easy maintenance with replaceable sensors, pump, and plug-and-play battery
- Fully automatic bump testing and calibration with AutoRAE 2
**SPECIFICATIONS**

**Instrument Specifications**

- **Size**
  - Pumped model: 7.6” H x 3.8” W x 2.6” D (193 x 96.5 x 66 mm)
  - Diffusion model: 6.9” x 3.8” x 2.2” (175 x 96.5 x 56 mm)

- **Weight**
  - Pumped model: 31 oz (880 g)
  - Diffusion model: 26.8 oz (760 g)

- **Sensors**
  - Over 25 intelligent interchangeable field-replaceable sensors including PID for VOCs, electrochemical sensors for toxic gases and oxygen, combustible LEL, and NDIR sensors, and CO2 NDIR sensor

- **Battery Options, Runtime and Recharge Time**
  - Rechargeable Li-ion: 12-hr. (pumped)/18-hr. (diffusion) runtime, < 8-hr. recharge time
  - Extended duration Li-ion: 18-hr. (pumped)/28-hr. (diffusion) runtime, < 8-hr. recharge time
  - Alkaline battery: 4 x AA batteries – 6-hr. (pumped)/8-hr. (diffusion) runtime

- **Display**
  - Monochrome graphical LCD display (128 x 160) with backlighting. Automatic screen “flip” feature

- **Display Readout**
  - Real-time reading of gas concentrations; PID measurement gas and correction factor
  - Man Down Alarm on/off; audible (95 dB @ 30 cm), vibration, visible (flashing bright red LED)
  - and on-screen indication of alarm conditions

- **Keypad Buttons**
  - 3 operation and programming keys (Mode, Y/+ and N/-)

- **Sampling**
  - Built-in pump or diffusion

- **Calibration**
  - Automatic with AutoRAE Test and Calibration System® or manual

- **Alarms**
  - Wireless remote alarm notification; audible (95 dB @ 30 cm), vibration, visible (flashing bright red LED), and on-screen indication of alarm conditions

- **Data Logging**
  - Continuous datalogging (6 months for 5 sensors at 1-minute intervals, 24/7)
  - User-configurable datalogging intervals (from 1 to 3,600 seconds)

- **Communication and Data Download**
  - Data download and instrument set-up and upgrades on PC via desktop charging and PC comm. cradle, travel charger, or AutoRAE 2 Automatic Test and Calibration System®
  - Wireless data and alarm status transmission via built-in RF modem (optional)

- **Wireless Network**
  - ProRAE Guardian Real-Time Wireless Safety System or EchoView Host-based Closed-Loop System

- **Wireless Range (Typical)**
  - MultiRAE Lite to RAELink® (31) Mesh modem – 330 feet (100 meters)
  - MultiRAE Lite to EchoView Host, RAEMesh Reader or RAEPoint – 600 feet (200 meters)
  - MultiRAE Lite Wi-Fi to Access Point – 330 feet (100 meters)

- **Operating Temperature**
  - 4° to 122°F (–20° to 50°C) (Typical)

- **Humidity**
  - 0% to 95% relative humidity (non-condensing)

- **Dust and Water Resistance**
  - IP-65 (pumped), IP-67 (diffusion) ingress protection rating

- **Safety Certifications**
  - CSA: Class I, Division 1, Groups A, B, C and D, T4
  - Class II, Division 1, Groups E, F, G, T85°C
  - ATEX: 05/75 II 1G Ex ia IIC T4 Ga
  - 2G Ex ia d IIC T4 Ga with IR Sensor installed
  - I1M1 Ex ia I Ma

- **IECEx/ANZE**
  - Ex ia IIC T4 Ga
  - Ex ia d IIC T4 Ga with IR Sensor installed
  - I1M1 Ex ia I Ma
  - Ex ia IIC Ga
  - Ex ia d IIC T4 Ga with IR Sensor installed
  - I1M1 Ex ia I Ma

- **EMI/RF***
  - EMC directive: 2004/108/EC

- **Performance Tests**
  - LEL: CSA C22.2 No. 152, ISA-12.13.01

- **Languages**
  - Arabic, Chinese, Czech, Danish, Dutch, English, French, German, Indonesian, Italian, Japanese, Korean, Norwegian, Polish, Russian, Spanish, Swedish, and Turkish

- **Warranty**
  - Two years on non-consumable components and catalytic LEL, CO, H2S, and O2 sensors
  - One year on all other sensors, pump, battery, and other consumable parts

- **Wireless Frequency**
  - ISM license free band. IEEE 802.15.4 Sub 1GHz
  - Wi-Fi 802.11 b/g

- **Wireless Approvals**
  - FCC Part 15, CE R&TTE, Others®

- **Radio Module**
  - Supports RM900A

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**Sensor Specifications**

- **PID Sensor**
  - Range: 0 to 1,000 ppm
  - Resolution: 1 ppm

- **Combustible Sensors**
  - Range: 0 to 100% LEL
  - Resolution: 1% LEL
  - 0 to 10% LEL
  - Resolution: 0.1% LEL

- **Carbon Dioxide Sensor**
  - Range: 0 to 50,000 ppm
  - Resolution: 100 ppm

- **Electrochemical Sensors**
  - Range: 0 to 100 ppm
  - Resolution: 0.03 ppm

- **Carbon Monoxide (CO)**
  - Range: 0 to 500 ppm
  - Resolution: 1 ppm

- **Methane (CH4)**
  - Range: 0 to 100% LEL
  - Resolution: 1 ppm

- **Ammonia (NH3)**
  - Range: 0 to 100 ppm
  - Resolution: 1 ppm

- **Ethylene Oxide (EtO-A)**
  - Range: 0 to 10 ppm
  - Resolution: 0.5 ppm

- **Ethylene Oxide (EtO-B)**
  - Range: 0 to 500 ppm
  - Resolution: 10 ppm

- **Ethylene Oxide (EtO-C)**
  - Range: 0 to 500 ppm
  - Resolution: 1 ppm

- **Formaldehyde (HCHO)**
  - Range: 0 to 10 ppm
  - Resolution: 0.05 ppm

- **Hydrogen (H2)**
  - Range: 0 to 1,000 ppm
  - Resolution: 1 ppm

- **Hydrogen Cyanide (HCN)**
  - Range: 0 to 500 ppm
  - Resolution: 0.5 ppm

- **Hydrogen Sulfide (H2S)**
  - Range: 0 to 1,000 ppm
  - Resolution: 1 ppm

- **Sulfur Dioxide (SO2)**
  - Range: 0 to 30% Vol.
  - Resolution: 0.1 Vol.

- **Hydrogen Sulfide (H2S)**
  - Range: 0 to 1,000 ppm
  - Resolution: 1 ppm

- **Methyl Mercaptan (CH3-SH)**
  - Range: 0 to 10 ppm
  - Resolution: 0.1 ppm

- **Nitric Oxide (NO)**
  - Range: 0 to 250 ppm
  - Resolution: 0.5 ppm

- **Nitrogen Dioxide (NO2)**
  - Range: 0 to 20 ppm
  - Resolution: 0.1 ppm

- **Phosphine (PH3)**
  - Range: 0 to 20 ppm
  - Resolution: 0.1 ppm

- **Sulfur Dioxide (SO2)**
  - Range: 0 to 20 ppm
  - Resolution: 0.1 ppm

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**ORDERING INFORMATION**

1. A two-gas combination sensor is required for a 6-gas configuration.
2. Additional equipment and/or software licenses may be required to enable remote wireless monitoring and alarm transmission.
3. AutoRAE 2 supports the MultiRAE Lite pumped version only.
4. PID sensor requires a pumped configuration.
5. NDIR combustible sensors require a pumped configuration in CSA countries.
6. RAE Systems recommends calibrating sensors on installation.
7. Specifications are subject to change.
9. Supported in MultiRAE Lite Diffusion only.
10. Please contact RAE Systems for specific wireless approvals.

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