

Multi-Gas Monitors with PID

RAE Systems MultiRAE

The MultiRAE is the most advanced portable chemical detector on the market. The MultiRAE delivers the broadest PID sensor range in its class and the versatility to support over 25 intelligent interchangeable sensor options (such as PID, NDIR for combustibles and CO₂, ammonia, chlorine, formaldehyde, and phosphine) to fully meet the monitoring needs in a variety of applications, including industrial hygiene, personal protection, leak detection, and HazMat response.

The MultiRAE's wireless capability elevates worker protection by providing safety officers real-time access to instrument readings and alarm status from any location¹ for better visibility and faster incident response.

FEATURES

- Highly versatile and customizable for different applications
- 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 2²
- Wireless access to real-time instrument readings and alarm status from any location¹
- Unmistakable five-way local and remote wireless notification of alarm conditions
- Over 25 interchangeable sensor options, including 0.1 to 5,000 ppm PID
- Intelligent sensors store calibration data, so they can be swapped in the field³
- Extensive on-board gas libraries (190 VOCs and 55 combustible gases)
- Largest display in its class
- Continuous datalogging (6 months for 5 sensors, 24x7)

APPLICATIONS

- Industrial hygiene, personal protection, and multi-gas leak detection in industries such as:
 - Environmental
 - Oil and Gas
 - Chemical
 - Aviation (wing tank entry)
 - Shipping/Marine
 - Pharmaceutical
- HazMat response
- Clandestine drug labs

MULTIRAE CONFIGURATIONS:

All MultiRAEs Include:

- MultiRAE monitor with sensors, battery and wireless options as specified, and protective rubber boot, swivel belt clip and filter installed
- Continuous datalogging (6 months for 5 sensors @ 1-minute)
- Travel charger/PC communications adapter
- PC communication cable
- AC adapter
- Calibration adapter
- Alkaline battery adapter
- Toolkit with Hex tool and Phillips screwdriver
- PID sensor cap removal tool
- Quick Start Guide
- CD with documentation
- ProRAE Studio II Instrument Configuration and Data Management Software
- Calibration and test certificate
- Warranty/registration card
- Hard transport case with custom foam



MultiRAE & MultiRAE Pro Include:

- 3 spare external filters
- 6" flexi probe with inlet adapter
- Built-in pump

MultiRAE Pro Includes:

- PID zeroing filter (P/N: 008-3024-000)
- IP67/decontamination valve accessory

Pumped MultiRAE Lite Includes:

- Built-in pump
- Belt clip installed
- 3 spare external filters

CALL GEOTECH TODAY (800) 833-7958

Geotech Environmental Equipment, Inc.

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SPECIFICATIONS

Instrument Specifications⁵

Size	7.6" H x 3.8" W x 2.6" D (193 x 96.5 x 66 mm)
Weight	31 oz. (880 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 CO ₂ NDIR sensor
Battery Options	<ul style="list-style-type: none"> - Rechargeable Li-ion (~12-hr. runtime, <6-hr. recharge time) - Extended duration Li-ion² (~18-hr. runtime, <9-hr. recharge time) - Alkaline adapter with 4 x AA batteries (~6-hr. runtime)
Display	Monochrome graphical LCD display (128 x 160) with backlighting. Automatic screen "flip" feature.
Display Readout	<ul style="list-style-type: none"> - Real-time reading of gas concentrations; PID measurement gas and correction factor; battery status; datalogging on/off; wireless on/off and reception quality. - STEL, TWA, peak, and minimum values
Keypad Buttons	3 operation and programming keys (Mode, Y/+, and N/-)
Sampling	Built-in pump. Average flow rate: 250 cc/min. Auto shutoff in low-flow conditions
Calibration	Automatic with AutoRAE 2 Test and Calibration System ² or manual
Alarms	<ul style="list-style-type: none"> - Wireless remote alarm notification; multi-tone audible (95 dB @ 30 cm), vibration, visible (flashing bright red LEDs), and on-screen indication of alarm conditions - Man Down Alarm with pre-alarm and real-time remote wireless notification
Datalogging	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - Data download and instrument set-up and upgrades on PC via charging and PC comm. cradle, travel charger, or AutoRAE 2 Automated Test and Calibration System² - Wireless data and alarm status transmission via built-in RF modem (optional)
Wireless Network	ProRAE Guardian Real-Time Wireless Safety System
Wireless Frequency	ISM license-free bands
Wireless Range (Typical)	MultiRAE to RAELink3 Mesh or RAELink3 Z1 Mesh modems – 33 feet (10 meters)
Operating Temperature	-4° to 122°F (-20° to 50°C)
Humidity	0% to 95% relative humidity (non-condensing)
Dust and Water Resistance	IP65 rating
Hazardous Location Approvals	CSA: CSAUS Class I, Division 1, Groups A, B, C and D, T4 ATEX: CE 0575 Ex II 2G Ex ia d IIC T4 Gb IECEx: Ex ia d IIC T4 Gb
CE Compliance (European Conformity)	EMC directive: 2004/108/EC. R&TTE directive: 1999/5/EC. ATEX directive: 94/9/EC
EMI / RFI	No effect when exposed to 0.43mW/cm ² RF interference from a 5-watt transmitter at 12"
Performance Tests	MIL-STD-810F compliant. 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, Portuguese, Russian, Spanish, and Swedish
Warranty	<ul style="list-style-type: none"> - 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

Sensor Specifications⁵

Sensors	Range	Resolution
PID Sensors		
VOC 10.6 eV (HR)	0 to 5,000 ppm	0.1 ppm
VOC 9.8 eV ¹	0 to 1,000 ppm (benzene)	0.1 ppm
Combustible Sensors		
Catalytic LEL	0 to 100% LEL	1% LEL
NDIR (0-100% LEL Methane)	0 to 100% LEL	1% LEL
NDIR (0-100% Vol. Methane)	0 to 100% Vol.	0.1% Vol.
Carbon Dioxide Sensor		
Carbon Dioxide (CO ₂) NDIR	0 to 50,000 ppm	100 ppm
Electrochemical Sensors		
Ammonia (NH ₃)	0 to 100 ppm	1 ppm
Carbon Monoxide (CO)	0 to 500 ppm	1 ppm
Carbon Monoxide (CO), Ext. Range	0 to 2,000 ppm	10 ppm
Carbon Monoxide (CO), H ₂ -comp.	0 to 2,000 ppm	10 ppm
Carbon Monoxide (CO) + Hydrogen Sulfide (H ₂ S) Combo	0 to 500 ppm 0 to 200 ppm	1 ppm 0.1 ppm
Chlorine (Cl ₂)	0 to 50 ppm	0.1 ppm
Chlorine Dioxide (ClO ₂)	0 to 1 ppm	0.03 ppm
Ethylene Oxide (EtO-A)	0 to 100 ppm	0.5 ppm
Ethylene Oxide (EtO-B)	0 to 10 ppm	0.1 ppm
Ethylene Oxide (EtO-C), Ext. Range	0 to 500 ppm	10 ppm
Formaldehyde (HCHO)	0 to 10 ppm	0.05 ppm
Hydrogen (H ₂) ⁷	0 to 1,000 ppm	2 ppm
Hydrogen Cyanide (HCN)	0 to 50 ppm	0.5 ppm
Hydrogen Sulfide (H ₂ S)	0 to 100 ppm	0.1 ppm
Hydrogen Sulfide (H ₂ S), Ext. Range ⁷	0 to 1,000 ppm	1 ppm
Methyl Mercaptan (CH ₃ -SH)	0 to 10 ppm	0.1 ppm
Nitric Oxide (NO)	0 to 250 ppm	0.5 ppm
Nitrogen Dioxide (NO ₂)	0 to 20 ppm	0.1 ppm
Oxygen (O ₂)	0 to 30% Vol.	0.1% Vol.
Phosphine (PH ₃)	0 to 20 ppm	0.1 ppm
Sulfur Dioxide (SO ₂)	0 to 20 ppm	0.1 ppm

1 Additional equipment and/or software licenses may be required to enable remote wireless monitoring and alarm transmission.

2 Contact Geotech for availability.

3 RAE Systems recommends calibrating sensors on installation.

4 A two-gas combination sensor is required for a 6-gas configuration.

5 Specifications are subject to change.

6 Specifications for non-wireless monitors.

7 On Diffusion model only.

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