



# MultiRAE LITE

## Wireless Portable Multi-Gas Monitor

The MultiRAE Lite is the optimal one-to-six<sup>1</sup>-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.



### 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



Confined space testing with the MultiRAE Lite

### EASE & FLEXIBILITY

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

### FEATURES AND BENEFITS



Wireless access to real-time instrument readings and alarm status from any location



Five-way local and remote wireless notification of alarm conditions including Man Down Alarm<sup>3</sup>



Interchangeable sensor options, including PID<sup>4</sup> for VOCs, NDIR<sup>5</sup> and catalytic for combustibles, and NDIR for CO<sub>2</sub>  
  
Intelligent sensors store calibration data, so they can be swapped in the field<sup>5</sup>



Large graphical display with easy-to-use, icon-driven user interface



Continuous datalogging (6 months for 5 sensors, 24x7). Device Management with Honeywell SafetySuite





## MultiRAE Lite Specifications

INSTRUMENT SPECIFICATIONS <sup>7</sup>	
SIZE	<ul style="list-style-type: none"> <li>Pumped model: 7.6 in H x 3.8 in W x 2.6 in D [193 mm x 96.5 mm x 66 mm]</li> <li>Diffusion model: 6.9 in x 3.8 in x 2.2 in [175 mm x 96.5 mm x 56 mm]</li> </ul>
WEIGHT	<ul style="list-style-type: none"> <li>Pumped model: 31 oz [880 g]</li> <li>Diffusion model: 26.8 oz [760g]</li> </ul>
SENSORS	Intelligent interchangeable field-replaceable sensors
BATTERY OPTIONS, RUNTIME <sup>9</sup> AND RECHARGE TIME	<ul style="list-style-type: none"> <li>Rechargeable Li-ion ~12-hr. (pumped)/18-hr. (diffusion) runtime, &lt; 6-hr. recharge time</li> <li>Extended duration Li-ion ~18-hr. (pumped)/28-hr. (diffusion) runtime, &lt; 9-hr. recharge time</li> </ul>
DISPLAY	Alkaline adapter with 4 x AA batteries ~6-hr. (pumped)/8-hr. (diffusion) runtime Monochrome graphical LCD display (128 x 160) with backlighting. Automatic screen "flip" feature
DISPLAY READOUT	<ul style="list-style-type: none"> <li>Real-time reading of gas concentrations and correction factor; Man Down Alarm on/off; visual compliance indicator; instrument components' status</li> <li>STEL, TWA, peak, and minimum values</li> </ul>
KEYPAD BUTTONS	Automatic with AutoRAE 2 Test and Calibration System <sup>3</sup> or manual
SAMPLING	Built-in pump or diffusion
CALIBRATION	Automatic with AutoRAE 2 Test and Calibration System or manual
ALARMS	<ul style="list-style-type: none"> <li>Wireless remote alarm notification; audible (95 dB @ 30 cm), vibration, visible (flashing bright red LEDs), and on-screen indication of alarm conditions</li> <li>Man Down Alarm with pre-alarm and real-time remote wireless notification<sup>3</sup></li> </ul>
DATALOGGING	<ul style="list-style-type: none"> <li>Continuous datalogging (6 months for 5 sensors at 1-minute intervals, 24/7)</li> <li>User-configurable datalogging intervals (from 1 to 3,600 seconds)</li> </ul>
COMMUNICATION AND DATA DOWNLOAD	<ul style="list-style-type: none"> <li>Download data and upload instrument set-up from PC through charging cradle or using BLE module and dedicated APP</li> <li>Wireless data and alarm status transmission via built-in RF modem (optional)</li> </ul>
WIRELESS NETWORK	Mesh RAE Systems Dedicated Wireless Network
WIRELESS NETWORK (TYPICAL)	Up to 650 ft [200m] for sub1GHz Mesh Radio, Up to 330 ft [100m] for Wi-Fi and RAElink3 Mesh Modem, Up to 15 ft [5m] for BLE
OPERATING TEMPERATURE	-4°F to 122°F [-20°C to 50°C]
HUMIDITY	0% to 95% relative humidity (non-condensing)
DUST AND WATER RESISTANCE	IP65 (pumped); IP67 (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: 0575 II 1G Ex ia IIC T4 Ga 2G Ex ia d IIC T4 Gb with IR sensor installed I M1 Ex ia I Ma
	IECEX: Ex ia IIC T4 Ga Ex ia d IIC T4 Gb with IR sensor installed I M1 Ex ia I Ma IECEX/ANZE: Ex ia IIC T4 Ga Ex ia d IIC T4 Gb with IR sensor installed Ex ia I Ma
EMC/RFI <sup>8</sup>	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, Portuguese, Russian, Spanish, Swedish, and Turkish
WARRANTY	<ul style="list-style-type: none"> <li>Four years on Liq O<sub>2</sub> sensors</li> <li>Three years on CO and H<sub>2</sub>S sensors</li> <li>Two years on non-consumable components and catalytic LEL sensors</li> <li>One year on all other sensors, pump, battery, and other consumable parts</li> </ul>
	WIRELESS FREQUENCY
WIRELESS APPROVALS	FCC Part 15, CER&TTE, Others <sup>11</sup>

SENSOR SPECIFICATIONS <sup>7</sup>	RANGE	RESOLUTION
<b>PID SENSORS<sup>4</sup></b>		
VOC 10.6 EV	0 to 1,000 ppm	1 ppm
<b>COMBUSTIBLE SENSORS</b>		
CATALYTIC LEL	0 to 100% LEL	1% LEL
NDIR (0-100% LEL METHANE)	0 to 100% LEL	1% LEL
NDIR (0-100% VOL. METHANE) <sup>6</sup>	0 to 100% Vol.	0.1% Vol.
<b>CARBON DIOXIDE SENSOR</b>		
CARBON DIOXIDE (CO <sub>2</sub> ) NDIR	0 to 50,000 ppm	100 ppm
<b>ELECTROCHEMICAL SENSORS</b>		
AMMONIA (NH <sub>3</sub> )	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 <sub>2</sub> -COMP.	0 to 2,000 ppm	10 ppm
CARBON MONOXIDE (CO) <sup>4</sup>	0 to 500 ppm	1 ppm
HYDROGEN SULFIDE (H <sub>2</sub> S) COMBO	0 to 200 ppm	0.1 ppm
CHLORINE (CL <sub>2</sub> )	0 to 50 ppm	0.1 ppm
CHLORINE DIOXIDE (CLO <sub>2</sub> )	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 <sup>10</sup>	0 to 500 ppm	10 ppm
FORMALDEHYDE (HCHO)	0 to 10 ppm	0.05 ppm
HYDROGEN (H <sub>2</sub> ) <sup>10</sup>	0 to 1,000 ppm	10 ppm
HYDROGEN CYANIDE (HCN)	0 to 50 ppm	0.5 ppm
HYDROGEN SULFIDE (H <sub>2</sub> S)	0 to 100 ppm	0.1 ppm
HYDROGEN SULFIDE (H <sub>2</sub> S), EXT. RANGE <sup>10</sup>	0 to 1,000 ppm	1 ppm
METHYL MERCAPTAN (CH <sub>3</sub> -SH)	0 to 10 ppm	0.1 ppm
NITRIC OXIDE (NO)	0 to 250 ppm	0.5 ppm
NITROGEN DIOXIDE (NO <sub>2</sub> )	0 to 20 ppm	0.1 ppm
OXYGEN (O <sub>2</sub> )	0 to 30% Vol.	0.1% Vol.
OXYGEN (LIQ O <sub>2</sub> )	0 to 30% Vol.	0.1% Vol.
PHOSPHINE (PH <sub>3</sub> )	0 to 20 ppm	0.1 ppm
PHOSPHINE H (PH <sub>3</sub> H)	0 to 20 ppm	0.1 ppm
SULFUR DIOXIDE (SO <sub>2</sub> )	0 to 20 ppm	0.1 ppm

<sup>1</sup> A two-gas combination sensor is required for a 6-gas configuration.  
<sup>2</sup> When used in line with Honeywell specifications.  
<sup>3</sup> Additional equipment and/or software licenses may be required to enable remote wireless monitoring and alarm transmission.  
<sup>4</sup> AutoRAE 2 supports the MultiRAE Lite pumped version only.  
<sup>5</sup> PID sensor requires a pumped configuration.  
<sup>6</sup> NDIR combustible sensors require a pumped configuration in CSA countries.  
<sup>7</sup> RAE Systems recommends calibrating sensors on installation.  
<sup>8</sup> Specifications are subject to change.  
<sup>9</sup> Specification for non-wireless monitors.  
<sup>10</sup> Supported in MultiRAE Lite Diffusion only.  
<sup>11</sup> Please contact Honeywell RAE Systems for specific wireless approvals.

### ORDERING INFORMATION

#### (MODELS: PGM-6208 and PGM-6208D)

- Wireless<sup>3</sup> and non-wireless configurations are available
- Refer to the Portables Pricing Guide for part numbers for monitors, accessories, sampling and calibration kits, gas, sensors, and replacement parts

Get the full value of our solution by pairing this product with Honeywell Mobile Apps: [www.HoneywellSafety.com](http://www.HoneywellSafety.com)

Device Management with Honeywell SafetySuite



[honeywellanalytics.com/SafetySuite](http://honeywellanalytics.com/SafetySuite)



# MultiRAE PRO

Wireless Portable Multi-Threat Radiation and Chemical Detector

The MultiRAE Pro is one of the industry's only portable wireless multi-threat monitor. The MultiRAE Pro's ability to simultaneously detect gamma radiation and toxic industrial chemicals (TICs/TIMs) enables responders to reduce the equipment footprint and achieve greater agility when operating downrange.



The MultiRAE Pro's optional wireless capability improves safety by providing commanders and safety officers real-time access to instrument readings and alarm status from any location<sup>1</sup> for better situational awareness and faster incident response.

## APPLICATIONS

- Civil defense (Search and rescue)
- Homeland security
- HazMat response
- Military
- Semiconductor manufacturing
- Environmental



CBRN detection with the MultiRAE Pro

## EASE & FLEXIBILITY

- Detector of choice for government agencies and top HazMat teams worldwide
- Highly versatile and customizable
- Man Down Alarm with real-time remote wireless notification<sup>2</sup>
- Compliant with MIL-STD-810G and 461F performance standards
- Fully automatic bump testing and calibration with AutoRAE 2

## FEATURES AND BENEFITS



All-in-one monitoring capabilities for radiation, VOCs, oxygen, toxic, and combustible gases, up to 6 threat types at a time<sup>3</sup>

Large graphical display with easy-to-use, icon-driven user interface. Device Management with Honeywell SafetySuite



Over 25 interchangeable sensor options, including parts-per-billion PID and gamma radiation



Wireless access to real-time instrument readings and alarm status from any location



Five-way local and remote wireless notification of alarm conditions. Intelligent sensors store calibration data, so they can be swapped in the field<sup>4</sup>





## MultiRAE Pro Specifications

INSTRUMENT SPECIFICATIONS <sup>4</sup>	
SIZE	7.6 in H x 3.8 in W x 2.6 in D [193 mm x 96.5 mm x 66 mm]
WEIGHT	31 oz [880 g]
SENSORS	Intelligent interchangeable field-replaceable sensors
BATTERY OPTIONS, RUNTIMES AND RECHARGE TIME	<ul style="list-style-type: none"> <li>Rechargeable Li-ion (~12-hour runtime, &lt; 6-hour recharge time)</li> <li>Extended duration Li-ion (~18-hour runtime, &lt; 9-hour recharge time)</li> <li>Alkaline adapter with 4 x AA batteries (~6-hour runtime)</li> </ul>
DISPLAY	<ul style="list-style-type: none"> <li>Monochrome graphical LCD display (128 x 160) with backlighting</li> <li>Automatic screen "flip" feature</li> </ul>
DISPLAY READOUT	<ul style="list-style-type: none"> <li>Real-time reading of gas concentrations and correction factor;</li> <li>Man Down Alarm on/off; visual compliance indicator; Instrument components' status</li> <li>STEL, TWA, peak, and minimum values</li> </ul>
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 or manual
ALARMS	<ul style="list-style-type: none"> <li>Wireless remote alarm notification; multi-tone audible (95 dB @ 30 cm), vibration, visible (flashing bright red LEDs), and on-screen indication of alarm conditions</li> <li>Man Down Alarm with pre-alarm and real-time remote wireless notification</li> </ul>
DATALOGGING	<ul style="list-style-type: none"> <li>Continuous datalogging (6 months for 5 sensors at 1-minute intervals, 24/7)</li> <li>User-configurable datalogging intervals (from 1 to 3,600 seconds)</li> </ul>
COMMUNICATION AND DATA DOWNLOAD	<ul style="list-style-type: none"> <li>Download data and upload instrument set-up from PC through charging cradle or using BLE module and dedicated App</li> <li>Wireless data and alarm status transmission via built-in RF modem (optional)</li> </ul>
WIRELESS NETWORK	Mesh RAE Systems Dedicated Wireless Network
WIRELESS RANGE (TYPICAL)	Up to 650 ft [200 m] for sub 1 GHz Mesh Radio, Up to 330 ft [100 m] for Wi-Fi and RAE Link3 Mesh Modem, Up to 15 ft [5 m] for BLE
OPERATING TEMPERATURE	-4°F to 122°F (-20°C to 50°C)
HUMIDITY	0% to 95% relative humidity (non-condensing)
DUST AND WATER RESISTANCE	IP65 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: 0575 II 1G Ex ia IIC T4 Ga 2G Ex ia d IIC T4 Gb with IR Sensor installed I M1 Ex ia I Ma
	IECEX: Ex ia IIC T4 Ga Ex ia d IIC T4 Gb with IR Sensor installed I M1 Ex ia I Ma
IECEX/ANZEx:	Ex ia IIC T4 Ga Ex ia d IIC T4 Gb with IR Sensor installed Ex ia I Ma
EMI/RFI <sup>6</sup>	EMC directive: 2004/108/EC
PERFORMANCE TESTS	MIL-STD-810G and 461F 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, Swedish, and Turkish <ul style="list-style-type: none"> <li>Four years on Liq O<sub>2</sub> sensors</li> <li>Three years on CO and H<sub>2</sub>S sensors</li> <li>Two years on non-consumable components and catalytic LEL sensors</li> <li>One year on all other sensors, pump, battery, and other consumable parts</li> </ul>
WARRANTY	
WIRELESS FREQUENCY	ISM license free band. IEEE 802.15.4 Sub 1 GHz, IEEE 802.11 bands b/n/g 2.4 GHz
WIRELESS APPROVALS	FCC Part 15, CE R&TTE, Others <sup>5</sup>

SENSOR SPECIFICATIONS <sup>5</sup>		
RADIATION SENSORS	RANGE	SENSOR TYPE
GAMMA	0 to 20,000	1cc CsI (TI)
	µRem/h (dose rate)	scintillator with photodiode
PID SENSORS	RANGE	RESOLUTION
VOC 10.6 EV (EXT. RANGE)	0 to 5,000 ppm	0.1 ppm
VOC 10.6 EV (PPB)	0 to 2,000 ppm	1.0 ppb
VOC 9.8 EV	0 to 2,000 ppm	0.1 ppm
BENZENE-SPECIFIC SNAPSHOT <sup>8</sup>	0 to 200 ppm	0.1 ppm
COMBUSTIBLE SENSORS	RANGE	RESOLUTION
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	RANGE	RESOLUTION
CARBON DIOXIDE (CO <sub>2</sub> ) NDIR	0 to 50,000 ppm	100 ppm
ELECTROCHEMICAL SENSORS	RANGE	RESOLUTION
AMMONIA (NH <sub>3</sub> )	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	1.0 ppm
CARBON MONOXIDE (CO), H <sub>2</sub> -COMP.	0 to 2,000 ppm	1.0 ppm
CARBON MONOXIDE (CO) + HYDROGEN SULFIDE (H <sub>2</sub> S) COMBO	0 to 200 ppm	0.1 ppm
CHLORINE (CL <sub>2</sub> )	0 to 50 ppm	0.1 ppm
CHLORINE DIOXIDE (CLO <sub>2</sub> )	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
FORMALDEHYDE (HCHO)	0 to 10 ppm	0.05 ppm
HYDROGEN CYANIDE (HCN)	0 to 50 ppm	0.5 ppm
HYDROGEN SULFIDE (H <sub>2</sub> S)	0 to 100 ppm	0.1 ppm
METHYL MERCAPTAN (CH <sub>3</sub> -SH)	0 to 10 ppm	0.1 ppm
NITRIC OXIDE (NO)	0 to 250 ppm	0.5 ppm
NITROGEN DIOXIDE (NO <sub>2</sub> )	0 to 20 ppm	0.1 ppm
OXYGEN (O <sub>2</sub> )	0 to 30% Vol.	0.1% Vol.
OXYGEN (LIQ O <sub>2</sub> )	0 to 30% Vol.	0.1% Vol.
PHOSPHINE (PH <sub>3</sub> )	0 to 20 ppm	0.1 ppm
PHOSPHINE (PH <sub>3</sub> H)	0 to 20 ppm	0.1 ppm
SULFUR DIOXIDE (SO <sub>2</sub> )	0 to 20 ppm	0.1 ppm

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

<sup>2</sup> When used in line with Honeywell specifications.

<sup>3</sup> A two-gas combination sensor is required for a 6-gas configuration.

<sup>4</sup> Honeywell RAE Systems recommends calibrating sensors on installation.

<sup>5</sup> Specifications are subject to change.

<sup>6</sup> Specification for non-wireless monitors.

<sup>7</sup> Please contact Honeywell RAE Systems for specific wireless approvals.

<sup>8</sup> Requires Benzene RAE-Sep Tube Cartridge.

Device Management with  
Honeywell SafetySuite



[honeywellanalytics.com/SafetySuite](https://honeywellanalytics.com/SafetySuite)

### ORDERING INFORMATION (MODEL: PGM-6248)

- Wireless<sup>1</sup> and non-wireless configurations are available
- Refer to the Portables Pricing Guide for part numbers for monitors, accessories, sampling and calibration kits, gas, sensors, and replacement parts





## MultiRAE Benzene

### Wireless Portable Six-Gas Monitor With Benzene-Specific Measurement

The MultiRAE Benzene is the only gas monitor that includes up to 6-gas<sup>1</sup> detection and real-time wireless capability, plus benzene-specific measurement.

The MultiRAE Benzene monitor combines the ability to make quick benzene-specific assessment (“snapshot”) measurements<sup>2</sup> with the advantages of a versatile multi-gas monitor that can support approximately 20 interchangeable sensor options.

Its optional wireless capability improves safety by providing real-time access to instrument readings and alarm status from any location, which delivers better situational awareness and faster incident response.

The MultiRAE Benzene monitor’s unique features make it an ideal instrument for industrial applications, from confined space entry pre-screening to personal protection, leak detection and refinery downstream monitoring.



Multi RAE Benzene used for leak detection

#### APPLICATIONS

- Confined space entry pre-screening
- Plant Shutdown (downstream)
- Personal Protection
- Leak detection

- Unique instrument for multiple applications
- Highly versatile and customizable
- Benzene-specific measurement up to 200 ppm with 0.1 ppm resolution
- Man Down Alarm with real-time remote wireless notification
- Fully automatic bump testing and calibration with Auto RAE 2

#### FEATURES & BENEFITS

- Versatile multi-gas and Benzene-specific<sup>2</sup> readings and alarm status from any location<sup>3</sup>
- Unmistakable five-way local and remote notification of conditions, Man Down
- Intelligent sensors store calibration data, so they can be swapped in the field<sup>4</sup>
- Continuous data logging (up to 6 months for 5 sensors) and snapshot datalogging capabilities





## MultiRAE Benzene Specifications

INSTRUMENT SPECIFICATIONS	
SIZE	7.6" H x 3.8" W x 2.6" D (193 x 96.5 x 66 mm) without RAE SepTube Cartridge
WEIGHT	31 oz (880g) without RAE SepTube Cartridge
SENSORS	More than 20 intelligent interchangeable field-replaceable sensors, including PID sensor for VOCs, electrochemical sensors for toxic gases, and oxygen and LEL sensor
BATTERY OPTIONS, RUNTIMES AND RECHARGE TIME	- Rechargeable Li-ion (~12-hr. runtime, < 6-hr. recharge time) - Extended-duration Li-ion (~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. - Real-time reading of gas concentrations; non-specific PID measurement; Man Down Alarm on/off; visual compliance indicator; battery status; datalogging on/off; wireless on/off and reception quality.
DISPLAY READOUT	- STEL, TWA, peak, and minimum values - Benzene-specific snapshot measurement <sup>2</sup>
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 or manual
ALARMS	- Wireless remote alarm notification; 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 <sup>3</sup>
DATALOGGING	Continuous datalogging (6 months for 5 sensors at 1-minute intervals) - User-configurable datalogging intervals (from 1 to 3,600 seconds) - Snapshot datalogging
COMMUNICATION AND DATA DOWNLOAD	- Data download, instrument set-up and upgrades on PC via desktop charging and PC communications 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 to RAElink3 (Z1) Mesh modem ~330 feet (100 meters) MultiRAE to EchoView Host, RAEMesh Reader or RAEPoint ~660 feet (200 meters) MultiRAE to Wi-Fi Access Point ~330 feet (100 meters)
OPERATING TEMPERATURE	-4° to 122° F (-20° to 50° C)
HUMIDITY	0% to 95% relative humidity (non-condensing)
DUST AND WATER RESISTANCE	IP-65 ingress protection rating
HAZARDOUS LOCATION APPROVALS	CSA: Class I, Division 1, Groups A, B, C and D, T4 Class II, Division 1; Groups E, F, G; T85°C ATEX: II 1G Ex ia IIC T4 Ga II 2G Ex ia d IIC T4 Gb with IR Sensor installed I M1 Ex ia I Ma IECEX: Ex ia IIC T4 Ga Ex ia d IIC T4 Gb with IR Sensor installed I M1 Ex ia I Ma
EMC/RFI	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, Portuguese, Russian, Spanish, Swedish, and Turkish
WARRANTY	- Four years on Liq O <sub>2</sub> sensors - Three years on CO and H <sub>2</sub> S sensors - Two years on non-consumable components and catalytic LEL 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 <sup>5</sup>
RADIO MODULE	Supports RM900A

SENSOR SPECIFICATIONS	RANGE	RESOLUTION
PID SENSORS		
VOC 9.8EV	0 to 2,000 ppm	0.1 ppm
BENZENE-SPECIFIC SNAPSHOT <sup>2</sup>	0 to 200 ppm	0.1 ppm
COMBUSTIBLE SENSORS		
CATALYTIC LEL	0 to 100% LEL	1% LEL
ELECTROCHEMICAL SENSORS		
AMMONIA (NH <sub>3</sub> )	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	1.0 ppm
CARBON MONOXIDE (CO), H <sub>2</sub> -COMP.	0 to 2,000 ppm	1.0 ppm
CARBON MONOXIDE (CO) + HYDROGEN SULFIDE (H <sub>2</sub> S) COMBO	0 to 500 ppm	1 ppm
	0 to 200 ppm	0.1 ppm
CHLORINE (CL <sub>2</sub> )	0 to 50 ppm	0.1 ppm
CHLORINE DIOXIDE (CLO <sub>2</sub> )	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
FORMALDEHYDE (HCHO)	0 to 10 ppm	0.05 ppm
HYDROGEN CYANIDE (HCN)	0 to 50 ppm	0.5 ppm
HYDROGEN SULFIDE (H <sub>2</sub> S)	0 to 100 ppm	0.1 ppm
METHYL MERCAPTAN (CH <sub>3</sub> -SH)	0 to 10 ppm	0.1 ppm
NITRIC OXIDE (NO)	0 to 250 ppm	0.5 ppm
NITROGEN DIOXIDE (NO <sub>2</sub> )	0 to 20 ppm	0.1 ppm
OXYGEN (O <sub>2</sub> )	0 to 30% Vol.	0.1% Vol.
LIQ OXYGEN (O <sub>2</sub> )	0 to 30% Vol.	0.1% Vol.
PHOSPHINE (PH <sub>3</sub> )	0 to 20 ppm	0.1 ppm
PHOSPHINE H (PH <sub>3</sub> H)	0 to 20 ppm	0.1 ppm
SULFUR DIOXIDE (SO <sub>2</sub> )	0 to 20 ppm	0.1 ppm

<sup>1</sup> A two-gas combination sensor is required for a 6-gas configuration.  
<sup>2</sup> Requires Benzene RAE-Sep Tube Cartridge  
<sup>3</sup> Additional equipment and/or software licenses may be required to enable remote wireless monitoring and alarm transmission.  
<sup>4</sup> RAE Systems recommends calibrating sensors on installation.  
<sup>5</sup> Contact RAE Systems for country-specific wireless approvals and certificates.  
 Specifications are subject to change.

### ORDERING INFORMATION

- Wireless<sup>3</sup> and non-wireless configurations are available
- Refer to the Portables Pricing Guide for part numbers for monitors, consumables (RAE-Sep Tube Cartridge), accessories, sampling and calibration kits, gas, sensors, and replacement parts

