

# 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.



Confined space testing with the MultiRAE Lite

### 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

## FEATURES & BENEFITS

- 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<sup>2</sup>
- Over 25 interchangeable sensor options, including PID<sup>4</sup> for VOCs, NDIR5 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>6</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	- 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 (760g)
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 <sub>2</sub> NDIR sensor
BATTERY OPTIONS, RUNTIME <sup>8</sup> AND RECHARGE TIME	- Rechargeable Li-ion ~12-hr. (pumped)/18-hr. (diffusion) runtime, < 6-hr. recharge time - Extended duration Li-ion ~18-hr. (pumped)/28-hr. (diffusion) runtime, < 9-hr. recharge time - Alkaline adapter with 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 - Real-time reading of gas concentrations; PID measurement gas and correction factor; 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
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	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>2</sup>
DATALOGGING	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 <sup>3</sup> - 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 RAELink3 [Z1] Mesh modem ~330 feet (100 meters) MultiRAE Lite to EchoView Host, RAEMesh Reader or RAEPoint ~660 feet (200 meters) MultiRAE Lite 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 (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: 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
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 - Four years on Liq O <sub>2</sub> sensors
WARRANTY	- 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>10</sup>
RADIO MODULE	Supports RM900A

SENSOR SPECIFICATIONS <sup>7</sup>	RANGE	RESOLUTION
PID SENSORS <sup>4</sup>		
VOC 10.6 EV	0 to 1,000 ppm	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) <sup>5</sup>	0 to 100% Vol.	0.1% Vol.
CARBON DIOXIDE SENSOR		
CARBON DIOXIDE (CO <sub>2</sub> ) NDIR	0 to 50,000 ppm	100 ppm
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	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>9</sup>	0 to 500 ppm	10 ppm
FORMALDEHYDE (HCHO)	0 to 10 ppm	0.05 ppm
HYDROGEN (H <sub>2</sub> ) <sup>9</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>9</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> Additional equipment and/or software licenses may be required to enable remote wireless monitoring and alarm transmission.
- <sup>3</sup> AutoRAE 2 supports the MultiRAE Lite pumped version only.
- <sup>4</sup> PID sensor requires a pumped configuration.
- <sup>5</sup> NDIR combustible sensors require a pumped configuration in CSA countries.
- <sup>6</sup> RAE Systems recommends calibrating sensors on installation.
- <sup>7</sup> Specifications are subject to change.
- <sup>8</sup> Specification for non-wireless monitors.
- <sup>9</sup> Supported in MultiRAE Lite Diffusion only.
- <sup>10</sup> Please contact RAE Systems for specific wireless approvals

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

- Wireless<sup>2</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

### For more information

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Device Management with  
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