

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 location¹ 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 notification²
- 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 time³

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 field⁴

MultiRAE Pro Specifications

INSTRUMENT SPECIFICATIONS ⁴	
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"> Rechargeable Li-ion (~12-hour runtime, < 6-hour recharge time) Extended duration Li-ion (~18-hour runtime, < 9-hour recharge time) Alkaline adapter with 4 x AA batteries (~6-hour runtime)
DISPLAY	<ul style="list-style-type: none"> 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 and correction factor; Man Down Alarm on/off; visual compliance indicator; Instrument components' status 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 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 Continuous datalogging (6 months for 5 sensors at 1-minute intervals, 24/7) User-configurable datalogging intervals (from 1 to 3,600 seconds)
DATALOGGING	<ul style="list-style-type: none"> Download data and upload instrument set-up from PC through charging cradle or using BLE module and dedicated App Wireless data and alarm status transmission via built-in RF modem (optional)
COMMUNICATION AND DATA DOWNLOAD	
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 RAELink3 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 ⁶	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
WARRANTY	<ul style="list-style-type: none"> Four years on Liq O₂ sensors Three years on CO and H₂S 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 1 GHz, IEEE 802.11 bands b/n/g 2.4 GHz
WIRELESS APPROVALS	FCC Part 15, CE R&TTE, Others ⁵

SENSOR SPECIFICATIONS ⁵		
RADIATION SENSORS	RANGE	SENSOR TYPE
GAMMA	0 to 20,000 μRem/h (dose rate)	1cc CsI (TI) 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	10 ppb
VOC 9.8 EV	0 to 2,000 ppm	0.1 ppm
BENZENE-SPECIFIC SNAPSHOT ⁸	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 ₂) NDIR	0 to 50,000 ppm	100 ppm
ELECTROCHEMICAL SENSORS	RANGE	RESOLUTION
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	1 ppm
HYDROGEN SULFIDE (H ₂ S)	0 to 200 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
FORMALDEHYDE (HCHO)	0 to 10 ppm	0.05 ppm
HYDROGEN CYANIDE (HCN)	0 to 50 ppm	0.5 ppm
HYDROGEN SULFIDE (H ₂ S)	0 to 100 ppm	0.1 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.
OXYGEN (LIQ O ₂)	0 to 30% Vol.	0.1% Vol.
PHOSPHINE (PH ₃)	0 to 20 ppm	0.1 ppm
PHOSPHINE (PH ₃ H)	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 When used in line with Honeywell specifications.

³ A two-gas combination sensor is required for a 6-gas configuration.

⁴ Honeywell RAE Systems recommends calibrating sensors on installation.

⁵ Specifications are subject to change.

⁶ Specification for non-wireless monitors.

⁷ Please contact Honeywell RAE Systems for specific wireless approvals.

⁸ Requires Benzene RAE-Sep Tube Cartridge.

Device Management with
Honeywell SafetySuite



honeywellanalytics.com/SafetySuite

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