Honeywell

RAE ®
S Y S T E M S

MultiRAE Pro

Wireless Portable Multi-Threat Radiation and Chemical Detector

The MultiRAE Pro is 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[1] 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

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

FEATURES & BENEFITS

- All-in-one monitoring capabilities for radiation, VOCs, oxygen, toxic and combustible gases, up to 6 threat types at a time[2]

- 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

- Unmistakable five-way local and remote wireless notification of alarm conditions
- Intelligent sensors store calibration data, so they can be swapped in the field[3]

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

MultiRAE Pro Specifications

INSTRUMENT SPECIFICATIONS[4]

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 gamma radiation, ppb and ppm PID sensors for VOCs, electrochemical sensors for toxic gases and oxygen, combustible LEL and NDIR sensors, and CO_2 NDIR sensor
BATTERY OPTIONS, RUNTIME5 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
DISPLAY READOUT	- 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. - 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	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	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 Pro to RAELink3 [Z1] Mesh modem ~330 feet (100 meters) MultiRAE Pro to EchoView Host, RAEMesh Reader or RAEPoint ~660 feet (200 meters) MultiRAE Pro to Access Point ~ 330 feet (100 meters)
OPERATING TEMPERATURE	-4º to 122ºF (-20º to 50ºC)
HUMIDITY	0% to 95% relative humidity (non-condensing)
DUST AND WATER RESISTANCE	IP-65 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 T85ºC 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/RFI5	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	- Four years on Liq O_2 sensors - Three years on CO and H_2S 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[4]
RADIO MODULE	Supports RM900A

SENSOR SPECIFICATIONS[4]

RADIATION SENSORS	RANGE	SENSOR TYPE
GAMMA	0 to 20,000 µRem/h (dose rate)	1cc CsI (Tl) 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

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_2S) 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
FORMALDEHYDE (HCHO)	0 to 10 ppm	0.05 ppm
HYDROGEN CYANIDE (HCN)	0 to 50 ppm	0.5 ppm
HYDROGEN SULFIDE (H_2S)	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] A two-gas combination sensor is required for a 6-gas configuration.

[3] RAE Systems recommends calibrating sensors on installation.

[4] Specifications are subject to change.

[5] Specification for non-wireless monitors.

[6] Please contact RAE Systems for specific wireless approvals

ORDERING INFORMATION (MODEL: PGM-6248)

- Wireless[1] 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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