

MultiRAE

Wireless Portable Six-Gas Monitor with Advanced VOC Detection Capability

The MultiRAE is one of the most advanced portable chemical detectors on the market, and delivers the broadest PID sensor range in its class.

It has the versatility to support more than 25 intelligent interchangeable sensor options to fully meet monitoring needs in a variety of applications. These include Industrial Hygiene, Personal Protection, Leak Detection, Confined Space Entry pre-screening where Benzene might be present, and HazMat response.

The MultiRAE's optional wireless capability improves safety by providing commanders and safety managers real-time access to instrument readings and alarm status from any location¹ for better situational awareness and faster incident response. Its Bluetooth® Low Energy (BLE) module and Honeywell Mobile App suite provide enhanced datalogging and connectivity capabilities.



APPLICATIONS

- Industrial hygiene, Personal protection, Leak detection, Confined space entry pre-screening, and Plant shutdown in industries such as:
 - Aviation wing tank entry
 - Chemical
 - Environmental
 - Oil & gas
 - Pharmaceutical
 - Shipping marine
- Hazmat response
- Clandestine drug labs



MultiRAE used for worker exposure monitoring at an oil refinery

EASE & FLEXIBILITY

- Highly versatile and customizable
- Enhanced PID (0 to 5,000 ppm range, 0.1 ppm resolution)
- Benzene-specific measurement up to 200 ppm with 0.1 ppm resolution
- Man Down Alarm with real-time remote wireless notification
- Compliant with MIL-SPEC-810G performance standard
- Fully automatic bump testing and calibration with AutoRAE 2

FEATURES AND BENEFITS



Wireless access to real-time instrument readings and alarm status from any location¹

Multiple connectivity capabilities through multiple wireless module options



Five-way local and remote wireless notification of alarm conditions including Man Down Alarm¹



Intelligent sensors store calibration data, so they can be swapped in the field². Versatile multi-gas and Benzene-specific⁷ modes.



Extensive on-board gas libraries. Largest display in its class



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

MultiRAE Specifications

| INSTRUMENT SPECIFICATIONS ⁴ | |
|--|--|
| SIZE | 7.6 in x 3.8 in 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, | • Rechargeable Li-ion (~12-hour runtime, < 6-hour recharge time) |
| RUNTIME ⁵ AND | • Extended duration Li-ion (~18-hour runtime, < 9-hour recharge time) |
| RECHARGE TIME | • Alkaline adapter with 4 x AA batteries (~6-hour runtime) |
| DISPLAY | Monochrome graphical LCD display (128 x 160) with backlighting, Automatic screen "flip" feature |
| DISPLAY READOUT | • Real-time reading of gas concentrations and correction factor; Man Down Alarm on/off; visual compliance indicator; instrument components' status |
| KEYPAD BUTTONS | • STEL, TWA, peak, and minimum values |
| SAMPLING | 3 operation and programming keys (Mode, Y/+, and N/-) |
| CALIBRATION | Built-in pump. Average flow rate: 250 cc/min. Auto shutoff in low-flow conditions |
| ALARMS | Automatic with AutoRAE 2 Test and Calibration System or manual |
| DATALOGGING | Wireless remote alarm notification; audible (95 dB @ 30 cm), vibration, visible (flashing bright red LEDs), and on-screen indication of alarm conditions |
| COMMUNICATION AND DATA DOWNLOAD | • Man Down Alarm with pre-alarm and real-time remote wireless notification ¹ |
| WIRELESS NETWORK | • Continuous datalogging (6 months for 5 sensors at 1-minute intervals, 24/7) |
| WIRELESS RANGE (TYPICAL) | • User-configurable datalogging intervals (from 1 to 3,600 seconds) |
| OPERATING TEMPERATURE | • Download data and upload instrument set-up from PC through charging cradle or using BLE module and dedicated App |
| HUMIDITY | • Wireless data and alarm status transmission via built-in RF modem (optional) |
| DUST AND WATER RESISTANCE | RAE Systems Dedicated Wireless Network |
| SAFETY CERTIFICATIONS | Up to 650 ft [200 m] for sub1 GHz Mesh Radio |
| EMC/RFI | Up to 330 ft [100 m] for Wi-Fi and RAElink3 Mesh Modem |
| PERFORMANCE TESTS | Up to 1.5 ft [5m] for BLE |
| LANGUAGES | Operating Temperature: -4°F to 122°F (-20°C to 50°C) |
| WARRANTY | Humidity: 0% to 95% relative humidity (non-condensing) |
| WIRELESS FREQUENCY | Dust and Water Resistance: IP65 ingress protection rating |
| WIRELESS APPROVALS | 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 IEC Ex: Ex ia IIC T4 Ga Ex ia d IIC T4 Gb with IR sensor installed I M1 Ex ia I Ma IEC Ex/ANZ Ex: Ex ia IIC T4 Ga Ex ia d IIC T4 Gb with IR sensor installed Ex ia I Ma |
| | EMC directive: 2004/108/EC |
| | MIL-STD-810G and 461F compliant. LEL CSA C22.2 No. 152; ISA-12.13.01 |
| | 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 ₂ sensors |
| | • Three years on CO and H ₂ S sensors |
| | • Two years on non-consumable components and catalytic LEL sensors |
| | • One year on all other sensors, pump, battery, and other consumable parts |
| | ISM license-free band. IEEE 802.15.4 Sub 1 GHz, IEEE 802.11 bands b/n/g 2.4 GHz |
| | FCC Part 15, CE R&TTE, Others ⁶ |

| SENSOR SPECIFICATIONS ⁴ | RANGE | RESOLUTION |
|--|-----------------|------------|
| PID SENSORS | | |
| VOC 10.6 EV (EXT. RANGE) | 0 to 5,000 ppm | 0.1 ppm |
| VOC 9.8 EV | 0 to 2,000 ppm | 0.1 ppm |
| BENZENE-SPECIFIC SNAPSHOT ⁷ | 0 to 200 ppm | 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) ⁵ | 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 | 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 RAE Systems recommends calibrating sensors on installation.

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

⁴ Specifications are subject to change.

⁵ Specification for non-wireless monitors.

⁶ Contact Honeywell RAE Systems for country specific wireless approvals and certificates.

⁷ Requires Benzene RAE-Sep Tube Cartridge.

ORDERING INFORMATION

(MODEL: PGM-6228)

- Wireless¹ 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

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