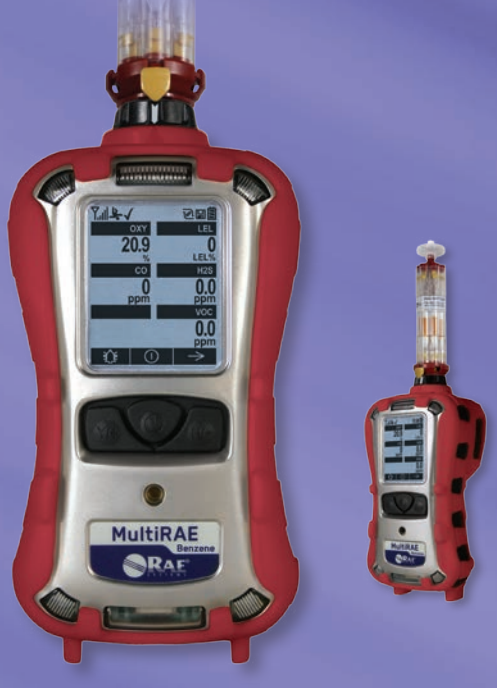
RAE SYSTEMS by Honeywell

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[1] 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[2] with the advantages of a versatile multi-gas monitor that can support approximately 20 intelligent 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 during plant maintenance to personal protection, leak detection and refinery downstream monitoring.

- **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 AutoRAE 2**

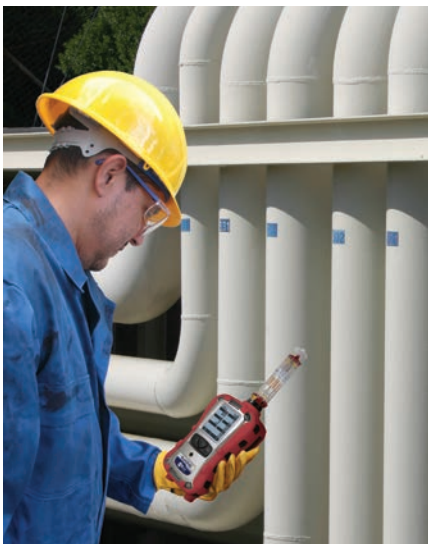
KEY FEATURES

Wireless. Versatile. Proven.

- Versatile multi-gas and Benzene-specific[2] modes
- Wireless access to real-time instrument readings and alarm status from any location[3]
- Unmistakable five-way local and remote wireless notification of alarm conditions, including Man Down Alarm[3]
- Intelligent sensors store calibration data, so they can be swapped in the field[4]
- Continuous datalogging (up to 6 months for 5 sensors) and snapshot datalogging capabilities

APPLICATIONS

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



MultiRAE Benzene used for leak detection

CONNEXT COMPATIBLE · Wireless · AutoRAE 2 Compatible · ISO 9001 CERTIFIED · ATEX · IECEx · CE · Ex · FCC

MultiRAE Benzene

Wireless Portable Six-Gas Monitor With Benzene-Specific Measurement

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	31oz (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, Runtime[5] 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; non-specific PID measurement ; 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 - Benzene-specific snapshot measurement[2]
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[3]
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)
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: Ⓔx 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	- Two years on non-consumable components and catalytic LEL, CO, H_2S, and O_2 sensors - One year on all other sensors, pump, battery, and other consumable parts - 6 months on PID sensor
Wireless Frequency	ISM license-free band. IEEE 802.15.4 Sub 1GHz
Wireless Approvals	FCC Part 15, CE R&TTE, Others[5]
Radio Module	Supports RM900A

Sensor Specifications

PID Sensors	Range	Resolution
VOC 9.8eV	0 to 2,000 ppm	0.1 ppm
Benzene-specific snapshot[2]	0 to 200 ppm	0.1 ppm
Combustible Sensors	**Range**	**Resolution**
Catalytic LEL	0 to 100% LEL	1% LEL
Electrochemical Sensors	**Range**	**Resolution**
Ammonia (NH_3)	0 to 100 ppm	1 ppm
Carbon Monoxide (CO) Carbon Monoxide (CO), Ext. Range Carbon Monoxide (CO), H_2-comp.	0 to 500 ppm 0 to 2,000 ppm 0 to 2,000 ppm	1 ppm 10 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) Ethylene Oxide (EtO-B)	0 to 100 ppm 0 to 10 ppm	0.5 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.
Phosphine (PH_3)	0 to 20 ppm	0.1 ppm
Sulfur Dioxide (SO_2)	0 to 20 ppm	0.1 ppm

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

2 Requires Benzene RAE-Sep Tube Cartridge

3 Additional equipment and/or software licenses may be required to enable remote wireless monitoring and alarm transmission.

4 RAE Systems recommends calibrating sensors on installation.

5 Contact RAE Systems for country-specific wireless approvals and certificates.

Specifications are subject to change.

ORDERING INFORMATION

- Wireless[3] 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

CORPORATE HEADQUARTERS

RAE Systems by Honeywell
3775 North First Street
San Jose, CA 95134 USA
RAE-InsideSales@honeywell.com

WORLDWIDE SALES OFFICES

USA/Canada 1.877.723.2878
Europe +800.333.222.44/+41.44.943.4380
Middle East +971.4.450.5852
China +86.10.5885.8788-3000
Asia Pacific +852.2669.0828