

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: 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 ₂ S, 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)	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 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 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.
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

- Wireless³ 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

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