



MicroRAE

Wireless 4-Gas Monitor



The MicroRAE four-gas portable detector brings enhanced user-friendliness and flexibility to wireless gas detection. This enables continuous, instant visibility of safety threats for faster, more informed decisions, to protect workers, facilities, and the environment, and to optimize operations.

The MicroRAE is a wireless diffusion detector that simultaneously monitors up to four gases, including hydrogen sulfide, carbon monoxide, oxygen and combustibles (LEL). With its different wireless connectivity options the MicroRAE can deliver real-time instrument readings and alarm status to other wireless offerings such as ConneXt Plus, ConneXt Pro, ConneXt Loneworker⁴ and Safety Communicator.

KEY FEATURES

- Honeywell ConneXt compatible with Mesh and Wifi wireless configurations
- Compact and lightweight
- IP-67 water- and dust-resistant case
- Strong, protective, concussion-proof design
- Real-time gas concentration readings, location, alarm and status enabled by state-of-the-art wireless technology
- Unmistakable five-way local and remote notification of alarm conditions
- Short bump test & calibration time
- Global approval for worldwide acceptance
- Filtered LEL sensor options to inhibit sensor poisoning

INDUSTRIES

Personal protection and general safety and compliance in:

- Lone Worker Applications
- Oil and Gas
- Waste water treatment
- Utilities
- Telecommunications
- Firefighting
- Petrochemicals
- Construction

- **Man Down Alarm** with real-time remote wireless notification¹
- **GPS module** for location
- **Bluetooth®** low energy connection to a Smart Phone device for uplink data communication and device configuration.
- **Remote notification & Panic function**
- **Fully automated bump testing and calibration** with AutoRAE 2[®]



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SPECIFICATIONS

Instrument Specifications

Size	4.6" H x 3.0(2.6)3.0" W x 0.9" D 117 mm H x 76(66)74 mm W x 24 mm D
Weight	7.03 oz (206 g) including Li-ion battery and clip
Sensors	• LEL Catalytic bead for combustibles • Liquid Oxygen (O₂) • Electrochemical Sensor for CO, H₂S, HCN
Battery	Rechargeable Li-ion
Running time	15 hours continuous non-wireless 11 hours continuous wireless Note: All battery specifications at 68° F (20° C); lower temperatures and alarm conditions will affect runtime.
Display Graphic	Monochrome display 1.73" W x 1.29" H (44 mm x 33 mm) with 2 color back light modes
Keypad	Two-button operation
Direct Readout	Real time reading of gas concentration and Man Down indicators Multiple units display options Wireless and GPS ON/OFF and reception quality STEL, TWA, peak, and minimum values Intelliflash and policy enforcement indicators
Alarms	Multi-tone 100dB buzzer (at 11.8"/30 cm, typical), vibration alarm, and flashing LEDs and on-screen indication of alarm conditions Alarms: latching, non latching or manual override Additional diagnostic alarm and display message for low battery Wireless connectivity alarm Man Down Alarm and real-time remote wireless notification
Datalogging	Continuous datalogging (6 month for 4 sensors at 1-minute intervals) User-configurable datalogging intervals (from 1 to 3,600 seconds)
Communication & Data Download	Data download and instrument set-up and upgrades on PC via Travel Charger Wireless data and status transmission via built-in RF modem (optional)
Wireless Network	RAE Dedicated Wireless Mesh network or Standard WiFi
Wireless Range (Typical)	Up to 650 ft (200m) for sub1GHz Mesh Radio ³ Up to 330 ft (100m) for WiFi ³ Up to 15 ft (5m) for BLE
EMC/RFI	EMC directive: 2004/108/EC
IP Rating	IP-67
Calibration	Two-point calibration (manual, or automatic with AutoRAE 2)

Safety Certifications	US & Canada: Class I, Division 1, Groups A, B, C and D II 2G Ex ia d IIC T4 Gb I M1 EX ia I Ma
Temperature	-4° to 140° F (-20° to 60° C) for T4 temperature code
Humidity	0% to 95% relative humidity (non-condensing)
Attachments	Stainless-steel alligator clip; wrist wrap (optional)
Warranty	2-year warranty on device and sensors ²
Wireless	ISM license free band. IEEE 802.15.4 Sub 1 GHz IEEE 802.11 bands b/g 2.4 GHz
Wireless Approvals	FCC Part15, CE R&TTE, Bluetooth 4.0, GPS, Others ⁴

Default Sensor Specifications

Gas Monitor	Range	Resolution
Oxygen (O ₂)	0 to 30.0%	0.1%
Combustible	0 to 100% LEL	1% LEL
Carbon Monoxide (CO)	0 to 1,000 ppm	0 – 250 ppm / 1 ppm 250 – 1,000 ppm / 3 ppm
Hydrogen Sulfide (H ₂ S)	0 to 100 ppm	0 – 50 ppm / 0.1 ppm 50 – 100 ppm / 1 ppm
Hydrogen Cyanide (HCN)	0 to 50 ppm	0.2 ppm

ORDERING INFORMATION

- Refer to the Portables Pricing guide for monitor configurations and accessories

OPTIONAL ACCESSORIES

- AutoRAE 2 Automatic Test and Calibration Systems
- Gang Charger (5 units)
- Auxiliary filter
- Hand pump kit
- Truck mount charger

¹ Additional equipment and/or software licenses may be required to enable remote wireless monitoring and alarm transmission

² Against factory defects

³ Receiving > 80%

⁴ Contact RAE Systems for country specific wireless approvals and certificates. Specifications are subject to change

CORPORATE HEADQUARTERS

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