MICRORAE

Wireless 4-Gas Monitor

The MicroRAE four-gas portable detector brings enhanced userfriendliness 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.

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

KEY FEATURES

- **Man Down Alarm with real-time remote wireless notification[1]**
- **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®**

RANGE OF GASES DETECTED

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

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SPECIFICATIONS
Specifications subject to change without notice

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	**Datalogging**	Continuous datalogging (6 month for 4 sensors at 1-minute intervals) User-configurabel datalogging intervals (from 1 to 3,600 seconds)
Weight	7.03 oz (206 g) including Li-ion battery and clip	**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)
Sensors	LEL Catalytic bead for combustibles Liquid Oxygen (O_2) Electrochemical Sensor for CO, H2S, HCN		
Battery	Rechargeable Li-ion	**Wireless Network**	RAE Dedicated Wireless Mesh network or Standard WiFi
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.	**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
Display Graphic	Monochrome display 1.73" W x 1.29" H (44 mm x 33 mm) with 2 color back light modes	**Calibration**	Two-point calibration (manual, or automatic with AutoRAE 2)
Keypad	Two-button operation	**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
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		
		Temperature	-4° to 140° F (-20° to 60° C) for T4 temperature code
		Humidity	0% to 95% relative humidity (non-condensing)
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	**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]

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.

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