

# 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). Thanks to its numerous wireless options, when used in line with Honeywell specifications, MicroRAE can be engaged in almost any connected worker application.

- Man Down Alarm with real-time remote wireless notification<sup>1</sup>
- GPS module for location
- Bluetooth® Low Energy (BLE) connection to a Smart Phone device for uplink data communication and device configuration or to third-party wireless infrastructure
- Remote notification and Panic function
- Fully automated bump testing and calibration with AutoRAE 2

### OPTIONAL ACCESSORIES

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



### APPLICATIONS

Personal protection and general safety and compliance in:

- Lone worker applications
- Oil and gas
- Waste water treatment
- Utilities
- Telecommunications
- Firefighting
- Petrochemicals
- Construction

## FEATURES AND BENEFITS



Numerous connectivity solutions. Compact and lightweight.



Strong, protective, concussion-proof design.

Real-time gas concentration readings, location, alarm, and status enabled by state-of-the-art wireless technology.

IP67 water and dust-resistant case



Five-way local and remote notification of alarm conditions. Short bump test and calibration time. Global approval for worldwide acceptance



Filtered LEL sensor options to inhibit sensor poisoning. Compatible with Safety Communicator. Device Management with Honeywell SafetySuite



Device Management with Honeywell SafetySuite

# MicroRAE Specifications

INSTRUMENT SPECIFICATIONS	
SIZE	4.6 in x 3.0 in (2.6 in) 3.0 in x 0.9 in [11.7 mm x 7.6 mm (66) 74 mm x 24 mm]
WEIGHT	7.03 oz [206 g] (including Li-ion battery and clip)
SENSORS	LEL Catalytic bead for combustibles, Liquid Oxygen (O <sub>2</sub> ), Electrochemical Sensor for CO, H <sub>2</sub> S, HCN
BATTERY	Rechargeable Li-ion
RUNNING TIME	15 hours continuous non-wireless, 12 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 in x 1.29 in (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 100 dB 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 OPTIONS	Bluetooth Low Energy and RAE Systems dedicated wireless mesh network or standard Wi-Fi or NB-IoT <sup>4</sup>
WIRELESS RANGE (TYPICAL)	Up to 650 ft (200 m) for sub1 GHz Mesh Radio <sup>3</sup> , up to 330 ft (100 m) for WiFi <sup>3</sup> , up to 15 ft (5 m) for BLE
SIGNAL STRENGTH <sup>4</sup>	NB-IoT connectivity is ensured if signal strength is greater than -85dBm
EMC/RFI	EMC directive: 2004/108/EC
IP RATING	IP67
CALIBRATION	Two-point calibration (manual or automatic with AutoRAE 2)
SAFETY CERTIFICATIONS	US & Canada: Class I, Division 1, Groups A, B, C, and D Ex II 2G Ex ia d IIC T4 Gb Ex I M1 Ex ia I Ma INMETRO Ex da ia IIc T4 Ga Korea: Ex ia d IIC T4
TEMPERATURE	-4°F to 140°F (-20°C 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 <sup>2</sup> (1 year for HCN sensor)
MODEL NUMBER	PGM26XX
WIRELESS	ISM license free band. IEEE 802.15.4 Sub 1 GHz, IEEE 802.11 bands b/n/g 2.4 GHz, NB-IoT bands 1/3/5/8/20/28
WIRELESS APPROVALS	FCC Part 15, CE R&TTE, Bluetooth 4.0, GPS, Others <sup>4</sup>

GAS MONITOR	RANGE	RESOLUTION
OXYGEN (O <sub>2</sub> )	0 to 30%	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 <sub>2</sub> 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

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

<sup>2</sup> Against factory defects.

<sup>3</sup> Receiving > 80%.

<sup>4</sup> Contact Honeywell RAE Systems for country specific wireless approvals and certificates.

Specifications are subject to change.

## ORDERING INFORMATION

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

Get the full value of our solution by pairing this product with Honeywell Mobile Apps.  
[www.HoneywellSafety.com](http://www.HoneywellSafety.com)



Device Management with  
**Honeywell SafetySuite**  
[honeywellanalytics.com/SafetySuite](http://honeywellanalytics.com/SafetySuite)



## For more information

[www.honeywellanalytics.com](http://www.honeywellanalytics.com)  
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