

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 notification¹
- 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 [117 mm x 76 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 ₂), Electrochemical Sensor for CO, H ₂ 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 ⁴ |
| WIRELESS RANGE (TYPICAL) | Up to 650 ft (200 m) for sub1 GHz Mesh Radio ³ , up to 330 ft (100 m) for WiFi ³ , up to 15 ft (5 m) for BLE |
| SIGNAL STRENGTH ⁴ | 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  II 2G Ex ia d IIC T4 Gb  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 ² (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 ⁴ |

| GAS MONITOR | RANGE | RESOLUTION |
|-------------------------------------|----------------|--|
| OXYGEN (O ₂) | 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 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 |

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 Honeywell RAE Systems for country specific wireless approvals and certificates.

Specifications are subject to change.