MultiRAE

Wireless portable six-gas monitor with advanced VOC detection capability

The MultiRAE is the most advanced portable chemical detector on the market. The MultiRAE delivers the broadest PID sensor range in its class and the versatility to support 25 intelligent interchangeable sensor options (such as PID, NDIR for combustibles and CO₂, ammonia, chlorine, formaldehyde, and phosphine) to fully meet the monitoring needs in a variety of applications, including industrial hygiene, personal protection, leak detection, and HazMat response.

The MultiRAE’s optional wireless capability improves safety by providing commanders and safety officers real-time access to instrument readings and alarm status from any location for better situational awareness and faster incident response.

Applications
- Industrial hygiene, personal protection, and leak detection in industries such as:
  - Aviation (wingtankentry)
  - Chemical
  - Environmental
  - Oil and gas
  - Pharmaceutical
  - Shipping/marine
- HazMat response
- Clandestine drug labs
- Highly versatile and customizable
- Best PID in its class (0 to 5,000 ppm range, 0.1 ppm resolution)
- Man Down Alarm with real-time remote wireless notification
- Compliant with MIL-SPEC-810G performance standard
- Fully automatic bump testing and calibration with AutoRAE 2

Features & Benefits
- Wireless access to real-time instrument readings and alarm status from any location
- Unmistakable five-way local and remote wireless notification of alarm conditions, including Man Down Alarm
- Intelligent sensors store calibration data, so they can be swapped in the field
- Extensive on-board gas libraries (190 VOCs and 55 combustible gases)
- Largest display in its class
- Continuous datalogging (6 months for 5 sensors, 24x7)
- Device Management with Honeywell SafetySuite
MultiRAE Specifications

**INSTRUMENT SPECIFICATIONS**

<table>
<thead>
<tr>
<th>SIZE</th>
<th>7.6” H x 3.8” W x 2.6” D (193 x 96.5 x 66 mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEIGHT</td>
<td>31 oz (880 g)</td>
</tr>
<tr>
<td>SENSORS</td>
<td>25 intelligent interchangeable field-replaceable sensors including PID for VOCs, electrochemical sensors for toxic gases and oxygen, combustible LEL and NDIR sensors, and CO, NDIR sensor.</td>
</tr>
</tbody>
</table>
| BATTERY OPTIONS, RUNTMEAND 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; PID measurement gas and correction factor; Man Down Alarm on/off, visual/audible indicator, battery status, datalogging on/off, wireless on/off and reception quality.  
- STEL, TWA, peak, and minimum values |
| 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. |
| DATALOGGING    | Continuous datalogging (6 months for 5 sensors at 1-minute intervals, 24/7)  
- User-configurable datalogging intervals (from 1 to 3600 seconds) |
| COMMUNICATION AND DATA DOWNLOAD | - Data download and instrument set-up and upgrades on PC via desktop charging and PC 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  
MultiRAE to Ethernet 10/100 BaseT (100 meters)  
MultiRAE to EchoView Host, RAEMesh Reader or RAEPoint - 660 feet (200 meters)  
MultiRAE to Wi-Fi Access Point - 330 feet (100 meters) |
| WIRELESS RANGE (TYPICAL) | - MultiRAE to Wi-Fi Access Point - 330 feet (100 meters)  
- MultiRAE to Wi-Fi Access Point - 330 feet (100 meters) |
| OPERATING TEMPERATURE | - -4°C to 122°F (-20°C to 50°C) |
| HUMIDITY        | 0% to 95% relative humidity (non-condensing) |
| DUST AND WATER RESISTANCE | IP-65 ingress protection rating (dust-tight and waterproof against hosing jets coming from all directions) |

**SAFETY CERTIFICATIONS**

- CSA: Class I, Division 1, Groups A, B, C and D; T4  
- ATEX: 0575 II 1G Ex ia IIC T4 Ga  
- 2G Ex a d IIC T4 Ga with IR Sensor installed  
- M1 Ex ia I Ma  
- IECEx: Ex ia IIC T4 Ga  
- Ex ia d IIC T4 Ga with IR Sensor installed  
- M1 Ex ia I Ma  
- IECEx/ANZEEx: Ex ia IIC T4 Ga  
- Ex ia d IIC T4 Ga with IR Sensor installed  
- M1 Ex ia I Ma  
- EMC/RFI: EMC directive 2004/108/EC |

**PERFORMANCE TESTS**

| LANGUAGE | Arabic, Chinese, Czech, Danish, Dutch, English, French, German, Indonesian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, Spanish, Swedish, and Turkish |

**WARRANTY**

- Four years on LiO2 sensors  
- Three years on CO and H2 sensors  
- Two years on non-consumable components and catalytic LEL sensors  
- One year on all other sensors, pump, battery, and other consumable parts |

**WIRELESS FREQUENCY**

- 3 operation and programming keys (Mode, Y/+), and N/-) |

**WIRELESS APPROVALS**

- GSM license free band. IEEE 802.15.4 Sub 1GHz, Wi-Fi 802.11 b/g |

**RADIO MODULE**

- Supports RM900A  

**SENSOR SPECIFICATIONS**

<table>
<thead>
<tr>
<th>SENSOR</th>
<th>RANGE</th>
<th>RESOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PID SENSORS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VOC 10.6 EV (EXT. RANGE)</td>
<td>0 to 5,000 ppm</td>
<td>0.1 ppm</td>
</tr>
<tr>
<td>COMBUSTIBLE SENSORS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CATALYTIC LEL</td>
<td>0 to 100% LEL</td>
<td>1% LEL</td>
</tr>
<tr>
<td>NDIR (0-100% LEL METHANE)</td>
<td>0 to 100% LEL</td>
<td>1% LEL</td>
</tr>
<tr>
<td>NDIR (0-100% VOL. METHANE)</td>
<td>0 to 100% Vol.</td>
<td>0.1% Vol.</td>
</tr>
<tr>
<td>CARBON DIOXIDE SENSORS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CARBON DIOXIDE (CO)</td>
<td>0 to 50,000 ppm</td>
<td>100 ppm</td>
</tr>
</tbody>
</table>

**LAMINATED SENSORS**

- AMMONIA (NH3) | 0 to 100 ppm | 1 ppm |
- CARBON MONOXIDE (CO) | 0 to 500 ppm | 10 ppm |
- CARBON MONOXIDE (CO), EXT. RANGE | 0 to 2,000 ppm | 10 ppm |
- CARBON MONOXIDE (CO), H2 COMP. | 0 to 2,000 ppm | 10 ppm |
- CARBON MONOXIDE (CO) + | 0 to 1 ppm | 0.03 ppm |
- HYDROGEN SULFIDE (H2S) COMBO | 0 to 100 ppm | 0.1 ppm |
- CHLORINE (Cl2) | 0 to 50 ppm | 0.1 ppm |
- CHLORINE DIOXIDE (ClO2) | 0 to 1 ppm | 0.03 ppm |
- ETHYLENE DIOXIDE (ETO-A) | 0 to 100 ppm | 0.5 ppm |
- ETHYLENE DIOXIDE (ETO-B) | 0 to 100 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 (H2S) | 0 to 100 ppm | 0.1 ppm |
- METHYL MERCAPTAH (CH3-SH) | 0 to 1 ppm | 0.1 ppm |
- NITRIC OXIDE (NO) | 0 to 250 ppm | 0.5 ppm |
- NITROGEN DIOXIDE (NO2) | 0 to 20 ppm | 0.1 ppm |
- OXYGEN (O2) | 0 to 30% Vol. | 0.1% Vol. |
- OXYGEN (LIQ O2) | 0 to 30% Vol. | 0.1% Vol. |
- PHOSPHINE (PH3) | 0 to 20 ppm | 0.1 ppm |
- PHOSPHINE (P, H) | 0 to 20 ppm | 0.1 ppm |
- SULFUR DIOXIDE (SO2) | 0 to 20 ppm | 0.1 ppm |

**TECHNICAL SERVICES**

Asia Pacific  
Honeywell Analytics Asia Pacific  
Tel: +82 (0) 2 6909 0300  
India Tel: +91 124 4752700  
China Tel: +86 10 5885 8788-3000  
analytics.asia@honeywell.com  
Technical Services  
EMEA: HAExpert@honeywell.com  
US: ha.us.service@honeywell.com  
Europe, Middle East, Africa  
Life Safety Distribution GmbH  
Tel: 00800 333 222 44 (Freephone number)  
Tel: +41 44 943 4380 (Alternative number)  
Middle East Tel: +971 4 450 5800 (Fixed Gas Detection)  
gasdetection@honeywell.com  
Americas  
Honeywell Analytics Distribution Inc.  
Tel: 1 847 955 8200  
Toll free: +1 800 538 0363  
detectgas@honeywell.com  
Honeywell RAE Systems  
Phone: +1 408 952 8200  
Toll Free: +1 888 723 4800  
Datasheet_MultiRAE_DS-1070-11_US-EN  
For more information  
www.honeywellanalytics.com  
www.raesystems.com  
Device Management with Honeywell SafetySuite  
honeywellanalytics.com/SafetySuite