

QRAE 3

Wireless 4-Gas Monitor

QRAE 3 is a wireless compact monitor for one to four gases.

The QRAE 3 provides detection and monitoring of Oxygen (O₂), Combustibles, and toxic gases that include Hydrogen Sulfide (H₂S), Carbon Monoxide (CO), Sulfur Dioxide (SO₂) and Hydrogen Cyanide (HCN). QRAE 3 can deliver wireless real-time instrument readings and alarm status 24/7. This provides better incident visibility and can improve response time.

- Man Down Alarm with real-time remote wireless notification¹
- Easy maintenance with fieldreplaceable sensors and pump
- Fully automated bump testing and calibration with AutoRAE 2
- Pumped or diffusion models available
- Large graphic display can rotate 180°

Applications

Confined space entry and general safety and compliance in:

- Industrial safety
- Oil and gas
- Fireground "Toxic Twins" detection
- Environmental
- Fire and Emergency response



Optional Accessories

- AutoRAE 2 Automatic Test and Calibration System
- External battery charger

FEATURES & BENEFITS

- Available in Diffusion or Pumped version
- IP-65/67 water- and dust-resistant case
- Strong, protective, concussion-proof design
- Real-time gas concentration readings and alarm status enabled by state-of-the-art wireless technology
- Unmistakable five-way local and remote wireless notification of alarm conditions
- Large graphical display icon-driven user interface through intuitive, simple-to-operate two-button user interface.
- Multi-language support: 18 languages encoded
- Easy access to pump, sensors, filter and battery compartment
- Device Management with Honeywell Sotera™

QRAE 3 Specifications

| INSTRUMENT SPECIFICATIONS | |
|---|---|
| SIZE | Diffusion: 5.5 "H x 3.2 "W x 1.5" W (140 mm x 82mm x 42mm) Pumped: 5.7 "H x 3.2 "W x 1.7" D (145 mm x 82 mm x 42mm) |
| WEIGHT | Diffusion: 12.9 oz (365 g with Li-ion battery and clip) Pumped: 14.5 oz (410 g with Li-ion battery, clip, and external filter) |
| SENSORS | Up to four field-replaceable sensors: • LEL: Catalytic bead for combustibles (built-in Correction Factor library) • Oxygen: Liquid electrolyte O ₂ • Toxic: electrochemical for H ₂ S, CO, SO ₂ , HCN |
| BATTERY | Rechargeable Li-ion |
| RUNNING TIME | <ul style="list-style-type: none"> • 14 hours continuous non-wireless, diffusion • 11 hours continuous non-wireless, pumped • 10 hours continuous with wireless, diffusion • 8 hours continuous with wireless, pumped Note: All battery specifications at 68° F (20° C); lower temperatures and alarm conditions will affect runtime. |
| DISPLAY GRAPHIC | Monochrome graphic display (128 x 80) Display size: 1.57" W x 1.06" H (40 x 27 mm) with backlighting Automatic or on-demand screen rotation |
| KEYPAD | Two-button operation |
| DIRECT READOUT | <ul style="list-style-type: none"> • Real-time reading of gas concentrations • Battery status • Pump status (if equipped with pump) • Wireless on/off and wireless reception quality • STEL, TWA, peak, and minimum values • Man Down and policy enforcement indicators |
| DATALOGGING | <ul style="list-style-type: none"> • Multi-tone 95dB buzzer (at 11.8" / 30 cm, typical), vibration alarm, and flashing red LEDs and on-screen indication of alarm conditions • Alarms: latching, non latching or manual override • Additional diagnostic alarm and display message for low battery • Pump stall alarm (pumped version only) • Man Down Alarm with pre-alarm and real-time remote wireless notification |
| DATALOGGING | <ul style="list-style-type: none"> • Continuous datalogging (3 months for 4 sensors at 1-minute intervals, 24/7) • User-configurable datalogging intervals (from 1 to 3,600 seconds) |
| COMMUNICATION AND DATA DOWNLOAD | <ul style="list-style-type: none"> • 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 | Mesh RAE Systems Dedicated Wireless Network |
| WIRELESS FREQUENCY AND APPROVALS ⁴ | ISM license free band, 868Mhz or 900Mhz FCC Part15, CE R&TTE, ANATEL |
| WIRELESS RANGE (TYPICAL) | EchoView Host: LOS > 650 ft (200 m) ³ ProRAE Guardian and RAEMesh Reader: LOS > 650 ft (200 m) ³ ProRAE Guardian and RAELink3 Mesh: LOS > 330 ft (100 m) ³ |
| EM IMMUNITY | EMI and ESD test: 100MHz to 1GHz 30V/m, no alarm Contact: ±4kV Air: ±8kV, no alarm |
| IP RATING | Pumped: IP-65 Diffusion: IP-67 |
| CALIBRATION | Two-point calibration for zero and span (manual, or automatic with AutoRAE 2) |

For more information

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| INSTRUMENT SPECIFICATIONS | |
|---------------------------|---|
| SAMPLING PUMP | Built-in pump or diffusion Can sample through tubing up to 98ft (30m) |
| HAZARDOUS AREA APPROVAL | US and Canada: classified for use in Class I, Division 1, Groups A, B, C and D Europe: IECEx/ATEX (II 1G Ex ia IIC T4) |
| TEMPERATURE | -4° to 122° F (-20° to 50° C) for T4 temperature code |
| HUMIDITY | 0% to 95% relative humidity (non-condensing) |
| ATTACHMENTS | Stainless-steel alligator clip Swivel belt clip (optional) Pouch (optional) |
| LANGUAGES | Arabic, Chinese, Czech, Dutch, English, French, German, Indonesian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, Spanish, and Swedish (language must be changed through ProRAE Studio II) |
| WARRANTY | 2-year warranty on device ² 3-year warranty on LEL, O ₂ , CO, H ₂ S sensors ² 1-year warranty on SO ₂ , HCN sensors ² |

Specifications are subject to change.

| 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 500 ppm | 1 ppm |
| HYDROGEN SULFIDE (H ₂ S) | 0 to 100 ppm | 0.1 ppm |
| SULFUR DIOXIDE (SO ₂) | 0 to 20 ppm | 0.1 ppm |
| HYDROGEN CYANIDE (HCN) | 0 to 50 ppm | 0.2 ppm |
| AMMONIA (NH ₃) | 100 ppm | 1 ppm |
| PHOSPHINE (PH ₃) | 20 ppm | 0.01 ppm |
| CHLORINE (CL ₂) | 0 to 50 ppm | 0.05 ppm |
| NITROGEN DIOXIDE (NO ₂) | 0 to 50 ppm | 0.1 ppm |

ORDERING INFORMATION

- Wireless¹ and non-wireless options available for all configurations
- Diffusion and pumped versions available for all configuration
- Refer to the Portables Pricing guide for monitor configuration and accessories

- 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 Please contact RAE Systems for specific wireless certifications

Device Management with
Honeywell Sotera™



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