Honeywell

RAE SYSTEMS

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 (O_2), Combustibles, and toxic gases that include Hydrogen Sulfide (H_2S), Carbon Monoxide (CO), Sulfur Dioxide (SO_2) 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 notification[1]
- 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 SafetySuite

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_2S, CO, SO_2, HCN
BATTERY	Rechargeable Li-ion
RUNNING TIME	• 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	• 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	• 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	• 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	• 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)

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_2S 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_2S)	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

• Wireless[1] 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