



QRAE II

Compact Multi-gas Detector for H₂S, CO, O₂, Combustibles

The QRAE II is a full-featured, compact, one- to four-sensor gas detector for detection of combustibles, oxygen, hydrogen sulfide, and carbon monoxide. Key features include easy-to-change, externally accessed battery packs (available in rechargeable and alkaline versions), a water-resistant case and a new state-of-the-art O₂ sensor technology with extended life. The rechargeable Lithium-ion battery pack provides up to 14 hours of continuous operation. The QRAE II includes storage capacity for 64,000 datalogging points, which can be downloaded to any PC compatible with Windows 98, NT, 2000 or XP.

Key Features

Patented SPE O₂[™] Oxygen sensor unique features:

- Lead-free design that already complies with future RoHS Standard
- Extended life compared to lead-type electrochemical oxygen sensors resulting in low cost of ownership
- Leak-free design, minimizing downtime

Best EMI/RFI immunity technology for products in its class, eliminating radio interference

Easy access to sensors, filter and battery compartment without exposing electronic components to potential damage

Large graphic display for easy overview of gas type and concentration

Alkaline adapter and rechargeable Lithium-ion battery pack provide up to 14 hours of continuous operation

Rugged housing withstands harsh environments

- IP65 water- and dust-resistant case
- Strong, protective concussion-proof design

Additional Advantages

- One to four plug-in sensors (combustibles, oxygen SPE O₂[™], hydrogen sulfide, carbon monoxide)
- Diffusion mode, with optional manual sample pump
- Intuitive simple-to-operate two-button user interface
- Display can be flipped 180° with the push of a button for easy viewing from belt or hand

- Multi-language support
- One-button calibration with auto-zero capability
- Loud 95dB audible alarm
- Bright red flashing visible alarm
- Vibration alarm
- Interchangeable drop-in Lithium-ion and alkaline battery packs
- Charging cradle doubles as an external battery charger
- Compatible with AutoRAE calibration station
- Optional Confined Space Entry Kit



Actual Size

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www.raesystems.com

IECEX

ATEX



Specifications*

Detector Specifications

Size	5" L x 2.8" W x 1.5" H (12.5 x 7.2 x 3.8 cm)
Weight	12 oz (350 g)
Sensors	<ul style="list-style-type: none"> Catalytic bead for combustibles Oxygen: SPE O₂[™] (non-consumable Solid Polymer Electrolyte technology) Toxic: electrochemical CO, H₂S
Battery	Interchangeable Lithium-ion and alkaline battery packs
Operating Period	Diffusion: Up to 14 hours continuous operation with Lithium-ion battery, up to 10 hours with alkaline battery (typical, without alarm)
Display Graphic	4 lines, with LED automatic back light in dim light or alarm condition
Keypad	Two-key operation
Direct Readout	<ul style="list-style-type: none"> Instantaneous reading of up to four sensors Oxygen as percentage by volume Combustible gas as percentage of lower explosive limit (LEL), scaleable using correction factors Toxic gases as parts per million by volume High and low values for all gases Battery and shutdown voltage Date, time, elapsed time, temperature
Alarms	<ul style="list-style-type: none"> 95dB buzzer (at 30 cm) and flashing red LED High: 3 beeps and flashes per second STEL and TWA: 1 beep, vibration and flash per second Alarms latching with manual override or automatic reset Additional diagnostic alarm and display message for low battery
EMI/RFI	Highly resistant to EMI/RFI. Compliant with EMC directive 89/336/EEC additional +60 volts/meter
IP Rating	IP65
Datalogging	Standard 12 days at one-minute intervals
Calibration	Two-point calibration for zero and span
Sampling Pump	Optional, external manual pump
Hazardous Area Approval	<ul style="list-style-type: none"> US and Canada: c_{US} C1, D1, Groups A, B, C, D, T4 Europe: ATEX II 2G EEx ia d IIc T3 and T4 IECEX: Ex ia d II C T3 and T4 (pending)
Temperature	<ul style="list-style-type: none"> -4° to 113° F (-20° to 50° C) for T4 Temperature code -4° to 131° F (-20° to 55° C) for T3 Temperature code (ATEX and IECEX only)
Humidity	0% to 95% relative humidity (non-condensing)
Attachments	Stainless steel alligator clip
Warranty	Full 2-year warranty including all sensors

*Specifications are subject to change

DISTRIBUTED BY:

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Default Sensor Settings

Gas Monitor	Range	Resolution
Oxygen	0 to 30.0%	0.1%
Combustible	0 to 100% LEL	1% LEL
Carbon Monoxide	0 to 1000 ppm	1 ppm
Hydrogen Sulfide	0 to 100 ppm	1 ppm

QRAE II Monitor includes:

- Monitor as specified
- Sensors as specified
- Calibration adapter
- Quick reference guide
- User manual and ProRAE Studio Software Package for Windows 2000, NT and XP on CD-ROM
- Alkaline adapter
- (Rechargeable version only) Charging/download cradle with computer interface cable
- (Rechargeable version only) Universal charger
- (Rechargeable version only) Lithium-ion battery pack

Confined Space Entry Kit (CSK1) (CSK2)

- Hard transport case with pre-cut foam
- 6' (2 meters) Tygon® tubing
- 10" (25cm) stiff aluminum sample probe with replaceable filter
- Constant flow hand pump
- Tool Kit
- (CSK2 only) Four-gas mix in a 34L cylinder (50% LEL, 18% O₂, 10 ppm H₂S, 50 ppm CO)
- (CSK2 only) Calibration regulator and tubing



QRAE II exploded view



QRAE II shown with optional AutoRAE charging, bump test and calibration station



SPE O₂[™] sensor designed to meet RoHS directive

