

QRAE II

Multi-gas Detector Diffusion or Pump for O₂, Combustibles, H₂S or CO



Pump or diffusion models available

Cradle enables communications with PC and can charge both the monitor and a spare battery at the same time

Rugged housing

Large graphic display can be flipped 180° with a push of a button for convenient viewing from belt or hand

Rechargeable Lithium-ion battery pack provides up to 14 hours of continuous operation



SPE O₂™ sensor designed to meet RoHS directive

The QRAE II is a full-featured, compact, one- to four-sensor gas detector for oxygen, combustibles, hydrogen sulfide or carbon monoxide. Key features include easy-to-change battery pack, a water-resistant case and a new state-of-the-art O₂ sensor.

Key Features

- Patented SPE O₂™ Oxygen sensor unique features:
 - Lead-free design that complies with RoHS directive
 - 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, minimizing electromagnetic and radio interference
- Easy access to pump, sensors, filter and battery compartment without exposing electronic components to potential damage
- IP-65 water- and dust-resistant case
- Strong, protective, concussion-proof design



Both diffusion and pump models are compatible with the AutoRAE Lite, Automated Test and Calibration Station.



QRAE II Pump being used for a confined space entry

Additional Advantages

- Plug-in sensors: oxygen, combustibles, hydrogen sulfide or carbon monoxide
- 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 (typical) audible alarm
- Bright, red flashing visible alarm
- Vibration alarm
- Interchangeable drop-in Lithium-ion or alkaline battery packs



IECEX

ATEX




CE



Specifications

Detector Specifications*

Size	Diffusion: 5" L x 2.8" W x 1.5" H (12.5cm x 7.2cm x 3.8cm) Pump: 5" L x 2.8" W x 2" H (12.5cm x 7.2cm x 5.0cm)
Weight	Diffusion: 9 oz (250 g) Pump: 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 for H₂S or CO
Battery	Interchangeable Lithium-ion or 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) Pump: Up to 10 hours with Lithium-ion battery, up to 8 hours with alkaline battery
Display Graphic	4 lines, with LED automatic back light in dim light or alarm condition
Keypad	Two-button operation
Direct Readout	<ul style="list-style-type: none"> • Instant reading from up to four sensors • Oxygen as percentage by volume • Combustible gas as percentage of lower explosive limit (LEL), scalable using correction factors • Toxic gases in parts per million • 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, typical), vibration alarm, and flashing red LED • High: 3 beeps, vibration and flashes per second • Low: 2 beeps, vibration 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 • Pump stall alarm (QRAE II Pump only)
EMI/RFI	Highly resistant to EMI/RFI. Compliant with EMC directive 2004/108/EC additional +60 volts/meter
IP Rating	IP-65
Datalogging	Standard 12 days at one-minute intervals
Calibration	Two-point calibration for zero and span (manual, or automatic with the AutoRAE Lite)
Sampling Pump	Optional, internal pump 300 cc/min
Hazardous Area Approval	<ul style="list-style-type: none"> • US and Canada:  C1, D1, Groups A, B, C, D, T4 • Europe: ATEX II 2G EEx ia d IIc T4 • IECEx: Ex ia d II C T4
Temperature	-4° to 113° F (-20° to 50° C) for T4 temperature code
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

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Default Sensor Specifications*

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	0.1 ppm

*Consult RAE Systems for custom configurations

QRAE II Ordering Options

QRAE II Monitor Includes:

- Monitor as specified
- Sensors as specified
- Calibration adapter and internal filters (diffusion only)
- Quick reference guide
- User manual and ProRAE Studio Software Package for Windows® 2000, NT and XP on CD-ROM
- Alkaline adapter
- Water trap filter (pump only)
- Rechargeable versions additionally offer:
 - Charging/download cradle with computer interface cable
 - Universal adapter
 - Lithium-ion battery pack

Confined Space Entry Kit for Pump and Diffusion Models (CSK1) (CSK2)

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