



## Ribble Enviro Ltd

www.ribble-enviro.co.uk

# **QRAE II**

### Compact Multi-gas Detector for H2S, CO, O2, Combustible

The QRAE II is a fully featured compact, one to four sensor gas detector for detection of combustibles, oxygen, hydrogen sulphide 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 O<sup>™</sup><sub>2</sub> oxygen sensor unique feature:

- 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, filters and battery compartment without exposing electronic components to potential damage

**Big 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

- IP-65 water and dust resistant case
- Strong, protective concussion proof design

#### **Additional Advantages**

- One to four plug in sensors (combustibles, oxygen SPE O<sub>2</sub> hydrogen sulphide, 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 autozero 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** 







## **QRAE II**

#### **Specifications**

#### **Detector Specifcations**

Size	5"L x 2.8"W x 1.5"H (11.5 x 7.6 x 4.6cm)		
Weight	12oz (350g)		
Sensors	Catalytic bead for combustibles		
	<ul> <li>Oxygen: SPE O<sub>2</sub> (non consumable solid polymer electrolyte technology)</li> <li>Toxic: electrochemical Co, H<sub>2</sub>S</li> </ul>		
Battery	Interchangeable Lithium-ion and alkaline battery packs		
Operating Period	Diffusion: Up to 14 hours continuous operation with Lithium-io battery, up to 10 hours with alkaline battery (typical, without al		
Display Graphic	4 lines, with LED automatic back light in dim light or alarm condition		
Keypad	Two-key operation		
Direct Readout	Instantaneous reading 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> <li>95dB buzzer (at 30cm) and flashing red LED</li> <li>High: 3 beeps and flashes per second</li> <li>STEL and TWA: 1 beep, vibration and flash per second</li> <li>Alarms latching with manual override or automatic reset</li> <li>Additional diagnostic alarm and display message for</li> </ul>		
	low battery		
EMI/RFI	Highly resistant to EMI/RFI. Compliant with EMC directive 89/336/EEC additional +60 volts/meter		
P Rating	IP-65		
Datalogging	Standard 12 days at one-minute intervals		
Calibration	Two-point calibration for zero and span		
Sampling Pump	Optional, external manual pump		
lazardous Area	<ul> <li>US and Canada: UL, cUL, Classified as intrinsically Safe for use in Class I, Division I Groups A, B, C, D, T3C</li> </ul>		
Approval	• Europe: ATEX II 2G EEx ia d IIC T4		
	• Europe: ATEX II 2G EEx ia d IIC T4  -4° to 113°F (-20° to 50°C)		
Approval	Europe: ATEX II 2G EEx ia d IIC T4		
Approval Femperature	-4° to 113°F (-20° to 50°C)		

<sup>\*</sup>Specifications are subject to change

#### **DISTRIBUTED BY:**

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#### **Default Sensor Settings**

Gas Monitor	Range	Resolution	
Oxvaen	0 to 30.0%	0.1%	
Combustible	0 to 100%	1% LEL	
Carbon Monoxide	0 to 1000ppm	1 ppm	
Hydrogen Sulphide	0 to 100ppm	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
- (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% O<sub>2</sub>, 10ppm H<sub>2</sub>S, 50ppm CO)
- (CSK2 only) Calibration regulator and tubing





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

SPE O<sub>2</sub> sensor designed to meet RoHS directive



