



# ToxiRAE II

Personal Single-Gas Monitor



The ToxiRAE II is a full-featured personal clip-on gas monitor that provides a continuous display of the gas concentration, STEL, TWA and peak values for over 10 toxic gases and oxygen deficiency or enrichment hazards.

## KEY FEATURES

### Easy to Use

- One-button operation
- Field-replaceable filter and battery
- Field-replaceable sensor in Europe and Asia only
- Unmistakable alarm notification: bright red flashing LED, loud 90 dB buzzer, powerful vibration

### Durable

- Designed to meet IP-65 specifications
- Highly resistant to EMI/RFI. Compliant with EMC Directive 89/336/EEC
- Durable, highly impact-resistant, carbon-loaded ABS housing
- Stainless-steel corrosion-resistant alligator clip

### Versatile

- Multiple sensors available to cover a variety of applications, including: H<sub>2</sub>S, CO, O<sub>2</sub>, NH<sub>3</sub>, Cl<sub>2</sub>, ClO<sub>2</sub>, HCN, NO, NO<sub>2</sub>, PH<sub>3</sub>, and SO<sub>2</sub> sensors
- Hands-free use: clips onto a hardhat, shirt pocket, shoulder strap, or belt
- Displays STEL, TWA, peak values, and alarm minutes used

## APPLICATIONS

- Oil and gas
- Chemical plants
- Fire service
- Industrial safety
- Pulp and paper
- Waste-water treatment plants
- Landfill operations
- Power plants
- Steel mills

- Suits a wide variety of applications
- Compact and lightweight
- Rugged water- and dust-resistant housing
- Intrinsically safe



IECEX ATEX

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## SPECIFICATIONS

### Detector Specifications

Size	3.6" x 1.9" x 0.9" (9.3 cm x 4.9 cm x 2.2 cm)
Weight	3.6 oz (102 g) with clip
Battery	User-replaceable 2/3 AA high-capacity Lithium battery (use only RAE Systems batteries).
Operating Period	2 years typical battery life when used 8 hours/day with less than 5 minutes of alarms per day.
Display	Easy-to-read LCD continuously displays gas concentration and text messages
Keypad	One-button operation
Direct Readout	<ul style="list-style-type: none"><li>• Instantaneous display of toxic gas concentration in ppm (or oxygen in Vol %)</li><li>• STEL, TWA, and Peak values</li><li>• Alarm minutes consumed</li></ul>
Alarms	<ul style="list-style-type: none"><li>• Audible: 90dB at 10 cm</li><li>• Visible: Bright red/green LED bar visible from top, front, and sides</li><li>• Sensory: Built-in vibration alarm</li><li>• High: Displays "High," emits 3 beeps and flashes every 3 seconds</li><li>• Low: Displays "Low," 2 beeps and flashes every 3 seconds</li><li>• STEL: Displays "STEL," 1 beep and flash every 3 seconds</li><li>• TWA: Displays "TWA," 1 beep and flash every 3 seconds</li><li>• Low battery: Displays empty battery symbol, 1 beep per minute</li></ul>
Calibration	Two-point field calibration
Temperature	-40° to 131° F (-40° to 55° C) for O <sub>2</sub> , CO, and H <sub>2</sub> S. For specific temperature ranges for other sensors, please reference RAE Systems Technical Note TN-114
Humidity	0 to 95% relative humidity (non-condensing)
EMI/RFI	Highly resistant to EMI/RFI. Compliant with EMC Directive 89/336/EEC
IP Rating	Engineered to meet IP-65 specifications
Hazardous Area Approval	<ul style="list-style-type: none"><li>• UL/cUL Classified as Intrinsically Safe for use in Class I Division 1, Groups A, B, C, D</li><li>• Hazardous Locations T5 rating (UL/cUL, ATEX)</li><li>• ATEX, II 1G, EEx ia IIB T5, or II 2G, EEx ia IIC T5</li><li>• CE Mark, European Conformity</li><li>• IECEx Ex ia IIC T4</li></ul>
Attachments	Stainless steel alligator clip (installed), wrist strap
Warranty	2-year warranty for instruments with O <sub>2</sub> , CO, and H <sub>2</sub> S sensors (1 year for all others)

Specifications are subject to change

### Sensor Specifications

Gas Monitor	Range	Resolution
Ammonia (NH <sub>3</sub> )	0 to 50	1
Carbon Monoxide (CO)	0 to 500	1
Carbon Monoxide (CO)	0 to 1999	10
Chlorine (Cl <sub>2</sub> )	0 to 10	0.1
Chlorine Dioxide (ClO <sub>2</sub> )	0 to 1	0.01
Hydrogen Cyanide (HCN)	0 to 100	1
Hydrogen Sulfide (H <sub>2</sub> S)	0 to 100	1
Nitric Oxide (NO)	0 to 250	1
Nitrogen Dioxide (NO <sub>2</sub> )	0 to 20	0.1
Oxygen (O <sub>2</sub> )	0 to 30%	0.1%
Phosphine (PH <sub>3</sub> )	0 to 5	0.01
Sulfur Dioxide (SO <sub>2</sub> )	0 to 20	0.1

Sensors are not interchangeable

### MONITOR INCLUDES:

- ToxiRAE II detector with sensor as specified
- Operation and maintenance manual
- Rugged stainless-steel alligator clip (installed)
- Calibration adapter
- High-capacity Lithium battery installed

### OPTIONAL ACCESSORIES

- Protective rubber boot
- Wrist strap

