



# ToxiRAE II

## Personal Gas Monitor

### A full-featured instrument for the price of a disposable

The ToxiRAE II single-gas monitor continuously displays toxic gas concentrations and costs just a little more than disposable detectors. Unlike typical disposables that only display remaining life, the ToxiRAE II is a full-featured gas monitor providing continuous, digital display of the gas concentration, STEL, TWA and peak values as well as high, low, TWA and STEL alarms.

A simple-to-use one-button product, the ToxiRAE II is easy to calibrate. Use the preset alarms or modify the alarms to meet your specific requirements. In

contrast to disposables that are turned on once and remain on until their batteries expire, you decide when and where to use your ToxiRAE II, and you turn it on and off accordingly.

The ToxiRAE II does not have a pre-programmed expiration date, so you get the full life out of the battery and sensor. Its sensor and battery are easily replaced in the field. And because the cost of the ToxiRAE II is about the same as many reduced-feature disposables, you have the choice of renewing it or disposing of it and starting with a fresh, new monitor.

### Applications

- Oil production
- Contractors
- Scheduled plant maintenance turnarounds
- Chemical plants
- Fire service
- Industrial safety
- Pulp & paper
- Heavy industry
- Waste-water treatment plants
- Shipyards and maritime
- Landfill operations
- Trenches, silos, railcars
- Power plants
- Steel mills

### Key Features

- IP Rating: IP 65 \*
- Field-replaceable battery and sensor
- Highly resistant to EMI/RFI. Compliant with EMC Directive 89/336/EEC, +60 volts/meter
- Sensors available: 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>, SO<sub>2</sub>
- Stainless-steel corrosion-resistant alligator clip

### More Key Features

- Large, easy-to-read continuous display of gas concentration in ppm
- Displays STEL, TWA, peak values, and alarm minutes used
- 2-year warranty
- User-adjustable High, Low, STEL and TWA alarms
- Varying audio alarm signals for different alarm conditions
- Bright red flashing alarm
- Loud, 90 dB buzzer
- Built-in vibration alarm
- Holds Peak values
- Simple calibration
- Durable, highly impact-resistant, carbon-loaded ABS housing
- Highly resistant to RF interference
- Hands-free use: clips onto a hardhat, shirt pocket, shoulder strap, or belt

\* expected



Actual Size

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IECEX

ATEX



## Specifications\*

### Detector Specifications

<b>Size</b>	3.6" (9.3 cm) x 1.9" (4.9 cm) x 0.9" (2.2 cm)
<b>Weight</b>	3.6 oz (102 g) with clip
<b>Battery</b>	User-replaceable 2/3 AA high-capacity Lithium battery (use only RAE Systems batteries)
<b>Operating Period</b>	Typical battery life is 2 years or 730 minutes of alarm for CO and H <sub>2</sub> S sensors. One year typical life or 360 minutes of alarm for all other sensors
<b>Display</b>	Easy-to-read LCD for continuous display of concentration in ppm and text messages
<b>Keypad</b>	One-button operation
<b>Direct Readout</b>	<ul style="list-style-type: none"> <li>Instantaneous display of toxic gas concentration in ppm (or oxygen in vol %)</li> <li>STEL &amp; TWA values</li> <li>Peak hold</li> <li>Alarm minutes consumed</li> </ul>
<b>Alarms</b>	<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 flash 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>
<b>Calibration</b>	Two-point field calibration; auto-zero at startup, user-initiated span/standard reference gas
<b>Temperature</b>	-40° to 131°F (-40° to 55°C) for O <sub>2</sub> , CO, and H <sub>2</sub> S. Other toxic sensors are similar; for specific temperature ranges for other sensors, please reference RAE Systems Tech Note TN-114
<b>Humidity</b>	0 to 95% relative humidity (non-condensing)
<b>EMI/RFI</b>	Highly resistant to EMI / RFI. Compliant with EMC Directive 89/336/EEC
<b>IP Rating</b>	IP-65: protected against dust, protected against low-pressure jets of water from all directions
<b>Hazardous Area Approval</b>	<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>
<b>Attachments</b>	Wrist strap, stainless steel alligator clip (installed), stainless steel belt clip/hardhat adapter
<b>Warranty</b>	2 years for instrument and CO, O <sub>2</sub> and H <sub>2</sub> S sensors 1 year for instrument, battery and all other sensors

\*Specifications are subject to change

### Default Sensor Settings

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

Sensors are not interchangeable.

### ToxiRAE II Monitor includes:

- ToxiRAE II detector with sensor as specified
- Operation and maintenance manual
- Rugged stainless-steel alligator clip (installed)
- Stainless-steel belt clip / hardhat adapter
- Wrist strap
- Calibration gas test adapter
- High-capacity Lithium battery installed

### Accessories

Protective rubber boot



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