

# UltraRAE 3000

## Portable Handheld Compound-Specific VOC Monitor



**Dual detection mode for total benzene exposure assessment: 60-second snapshot or 15-minute STEL measurement**

**High sensitivity to benzene (down to 50 ppb) providing a lower detection range for potentially lower future benzene exposure limits**

**Lower risk of false alarms through advanced speciation method producing benzene readings you can trust**

**Total VOC measurement mode with extended range of 0.05 to 10,000 ppm**



The UltraRAE 3000 is the most advanced Compound-Specific Monitor on the market. Its Photoionization Detector's (PID) extended range of 0.05 to 10,000 ppm in VOC mode and 50 ppb to 200 ppm in benzene-specific mode makes it an ideal instrument for applications from entry pre-screening during refinery and plant maintenance to hazardous material response, marine spill response and refinery down-stream monitoring.

### Key Features

#### Superior Performance

- Proven PID technology
  - 3-second response in VOC mode or 60 seconds in compound-specific mode
  - Extended range up to 10,000 ppm (in VOC mode) with improved linearity
  - Humidity compensation with built-in humidity sensor
  - Automatic temperature-controlled sampling time calculation
  - Detects benzene down to 50 ppb (0.05 ppm)
- Unique 15-minute benzene STEL calculation with 15-minute real-time benzene-specific measurement and recording
- Highly specific readings, combining a 9.8eV UV lamp and RAE-Sep™ benzene tube
- New sampling probe design provides instant tube-breakthrough visibility

#### Extremely Versatile

- VOC mode or Benzene-Specific mode for extreme versatility
- Real-time wireless data transmission with built-in Bluetooth and optional RAElink3 portable modem
- Integrated RAE Systems Correction Factors list for more than 200 compounds, measuring more compounds than any other PID
- Field-interchangeable battery pack is replaceable in seconds without tools

### Easy to Use

- Large graphic display
- Multi-language support
- Easy access to lamp and sensor in seconds without tools

### Low Cost of Ownership

- Inexpensive analysis using low-cost RAE-Sep tubes vs. gas detection tubes
- Much less expensive than a portable GC, and no annual factory calibration is required

### Applications

- Confined space entry pre-screening during refinery and plant maintenance
- Hazardous material response
- Marine spill response
- Refinery down-stream monitoring




ATEX



# UltraRAE 3000

## Specifications

### Monitor Specifications\*

<b>Size</b>	10" L x 3.0" W x 2.5" H (25.5 x 7.6 x 6.4 cm)
<b>Weight</b>	26 oz (738 g)
<b>Sensors</b>	Photolization sensor with standard 9.8 eV or optional 10.6 eV or 11.7 eV lamps
<b>Battery</b>	• Rechargeable, external field-replaceable lithium-ion battery pack • Alkaline battery adapter
<b>Operating Hours</b>	16 hours of operation
<b>Display Graphic</b>	4 lines, 28 x 43mm
<b>Keypad</b>	1 operation and 2 programming keys, 1 flashlight on/off button
<b>Direct Readout</b>	• VOCs as ppm by volume • High and low values • STEL and TWA • Battery and shutdown voltage • Date, time, temperature
<b>Alarms</b>	• 95dB buzzer (at 12"/30 cm) and flashing red LED to indicate exceeded preset limits • High: 3 beeps and flashes per second • Low: 2 beeps and flashes per second • STEL and TWA: 1 beep and flash per second • Alarms latching with manual override or automatic reset • Additional diagnostic alarm and display message for low battery and pump stall
<b>EMI/RFI</b>	Highly resistant to EMI/RFI. Compliant with EMC directive (2004/108/EC); R & TTE directive (1999/5/EC)
<b>IP Rating</b>	IP-65, unit running
<b>Datalogging</b>	Standard 6 months at one-minute intervals
<b>Calibration</b>	2-point or 3-point calibration for zero and span. Calibration memory for 8 calibration gases, alarm limits, span values and calibration dates
<b>Sampling Pump</b>	• Internal, integrated flow rate at 400 cc/min • Sample from 100' (30m) horizontally and vertically
<b>Low Flow Alarm</b>	Auto shut-off pump at low-flow condition
<b>Communication</b>	• Download data and upload instrument setup from PC through charging cradle • Wireless data transmission through built-in Bluetooth™
<b>Frequency for RAELink3 Optional Modem</b>	902 to 928 MHz (License free), 2.400 to 2.4835 GHz (license-free), 433 MHz, 869 MHz
<b>RF Range</b>	Up to 15/4.5m (2.400 GHz - Bluetooth™), extendable with RAELink3 modem to 2 miles (3.2km)
<b>Hazardous Area Approval</b>	<b>US and Canada:</b>  US, Classified as Intrinsically Safe for use in Class I, Division 1 Groups A, B, C, D. <b>Europe:</b> ATEX II 2G EEx ia IIC T4
<b>Operating Temperature</b>	-4° to 113° F (-20° to 50°C)
<b>Humidity</b>	0% to 95% relative humidity (non-condensing)
<b>Attachments</b>	Durable bright red rubber boot
<b>Warranty</b>	3 years for 10.6 eV lamp, 1 year for 9.8. eV lamp, pump, battery, sensor and instrument

\*Specifications are subject to change

### Sensor Specifications\*

Gas Monitor	Range	Resolution	Response Time (T90)
VOCs	0 to 99.99 ppm	0.05 ppm	< 3 sec
	100 to 999.9 ppm	0.1 ppm	< 3 sec
	1000 to 9999 ppm	1 ppm	< 3 sec
Benzene	0 to 200 ppm	0.05 ppm	< 60 sec
Butadiene	0 to 200 ppm	0.05 ppm	< 60 sec

## UltraRAE 3000 Ordering Options

### Monitor Only Includes

- UltraRAE 3000 Monitor, Model PGM-7360
- Wireless communication module built-in, as specified
- Datalogging with ProRAE Studio Package for Windows™ 2000, NT and XP
- Travel Charger
- RAE UV lamp and RAE-Sep™ Tubes, as specified
- Flex-I-Probe™ and short probe
- External filter
- Red rubber boot
- Alkaline battery adapter
- Lamp-cleaning kit
- Tool kit
- Lithium-ion (Li-Ion) battery with universal AC/DC charger and international plug kit
- Operation CD-ROM
- Operation & Maintenance manual
- Soft leather carrying case

### Monitor with Accessories Kit

- Hard transport case with pre-cut foam padding
- Charging/download cradle (instead of charging/download travel adapter)
- 5 Porous metal filters and O-rings
- Organic vapor zeroing kit
- Gas outlet port adapter and tubing

### Optional Calibration Kit

- Calibration gas, 34L, as specified
- Calibration regulator and flow controller

### Optional Guaranteed Cost of Ownership Program

- 4-year repair and replacement guarantee
- Annual maintenance service

## Ordering Information

### Part Numbers

Monitor with Accessories, Calibration Kit P/N 059-D311-200

**JM Test Systems**

800-353-3411

www.jmtest.com