

# UltraRAE 3000+

# Portable Handheld Compound-Specific VOC Monitor

The UltraRAE 3000+ is one of the most advanced Compound-Specific Monitors on the market. Its Photoionization Detector's (PID) extended range of 0.01 to 10,000 ppm in VOC mode and 10 ppb to 200 ppm in benzene-specific mode makes it an ideal instrument for applications,



Workers can easily and quickly obtain VOC readings anywhere in the facility with the RAE Systems UltraRAE 3000+

from entry pre-screening during refinery and plant maintenance to hazardous material response, marine spill response and refinery down-stream monitoring.

- Dual detection mode for total benzene exposure assessment: 60-second snapshot or 15-minute STEL measurement
- High sensitivity to benzene provides a lower detection range for future benzene exposure limits
- Lower risk of false alarms through advanced speciation method
- Total VOC measurement mode with extended range of 0.01 to 10,000 ppm



# FEATURES & BENEFITS

- Versatile VOC or Benzene-Specific modes
- Cost effective solution and low-cost RAE-Sep<sup>™</sup> tubes
- Reflex PID Technology<sup>TM</sup>
- Highly specific readings, combining a 9.8eV UV lamp and RAE-Sep<sup>™</sup> benzene tube
- Built-in humidity sensor with Automatic temperature-controlled sampling time calculation
- See-through Sampling probe design for instant tubebreakthrough visibility
- Highly connectivity capability through multiple wireless module options
- Multi-language support
- Easy access to lamp, sensor and battery in seconds without tools

# APPLICATIONS

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









Instrument Specifications					
Size	10" L x 3.0" W x 2.5" H (25.5 x 7.6 x 6.4 cm)				
Weight	26 oz (738 g)				
Sensors	Photoionization sensor with standard 9.8 eV or optional 10.6 eV or 11.7 eV lamps				
Battery	Rechargeable, external field-replaceable Lithium-Ion battery pack     Alkaline battery adapter				
Running time	16 hours of operation				
Display Graphic	4 lines, 28 x 43 mm				
Keypad	1 operation and 2 programming keys, 1 flashlight on/off button				
Direct Readout	VOCs as ppm by volume     High and low values     STEL and TWA     Battery and shutdown voltage     Date, time, temperature				
Alarms	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				
EMC/RFI	Compliant with EMC directive (2004/108/EC) EMI and ESD test: 100MHz to 1GHz 30V/m, no alarm Contact: ±4kV Air: ±8kV, no alarm				
IP Rating	IP-65 unit running				
Datalogging	Standard 6 months at one-minute intervals				
Calibration	Two-point or three-point calibration for zero and span Reflex PID Technology™ Calibration memory for 8 calibration gases, alarm limits, span values and calibration dates				
Sampling Pump	<ul><li>Internal, integrated flow rate at 400 cc/mn</li><li>Sample from 100' (30m) horizontally or vertically</li></ul>				
Low Flow Alarm	Auto pump shutoff at low-flow condition				
Communication & Data Download	Download data and upload instrument set-up from PC through charging cradle or using BLE module and dedicated APP     Wireless data transmission through built-in RF modem				
Wireless Network	Mesh RAE Systems Dedicated Wireless Network				
Wireless Range (Typical)	Up to 15ft(5m) for BLE EchoView Host: LOS > 660 ft (200 m) ProRAE Guardian & RAEMesh Reader: LOS > 660 ft (200 m) ProRAE Guardian & RAELink3 Mesh: LOS > 330 ft (100 m)				
Safety Certifications	US and Canada: CSA, Classified as Intrinsically Safe for use in Class I, Division 1 Groups A, B, C, D Europe: ATEX II 2G EEx ia IIC T4 IECEx CSA 10.0005 Ex ia IIC/IIB GbT4				
Temperature	-4° to 122° F (-20° to 50° C)				
Humidity	0% to 95% relative humidity (non-condensing)				
Attachments	Durable bright red rubber boot				

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Instrument Specifications						
Warranty	3 years for 10.6 eV lamp, 6 months for 9.8 eV lamp and 1 year for pump, battery, sensor and instrument					
Wireless Frequency	ISM license-free band. IEEE 802.15.4 Sub 1GHz					
Wireless Approvals	FCC Part 15, CE R&TTE, Others <sup>1</sup>					
Radio Module	Supports BLE, RM900 or Bluetooth					

<sup>&</sup>lt;sup>1</sup> Contact RAE Systems for country-specific wireless approvals and certificates. Specifications are subject to change.

Sensor Specifications				
Gas Monitor	Range	Resolution	Response Time T90	
VOCs	0 to 99.99 ppm 100 to 999.9 ppm 1000 to 9999 ppm	0.010 ppm 0.1 ppm 1 ppm	<3s <3s <3s	
Benzene	0 to 200 ppm	0.010 ppm	< 60 sec	
Butadiene	0 to 200 ppm	0.010 ppm	< 60 sec	

#### MONITOR ONLY INCLUDES:

- UltraRAE 3000+ Monitor, Model PGM-7360
- Wireless communication module built-in
- Travel Charger
- RAE UV lamp and RAE-Sep™ Tubes
- Flex-I-Probe<sup>™</sup> and short probe
- External filter
- Red rubber boot
- Alkaline battery adapter
- Lamp-cleaning kit
- Tool kit
- Lithium-ion (Li-Ion) battery with universal AC/DCcharger and international plug kit
- Soft leather carrying case

## MONITOR WITH ACCESSORIES KIT:

- Hard transport case with pre-cut foam padding
- Charging/download cradle
- 5 porous metal filters and O-rings
- Organic vapor zeroing kit
- Gas outlet port adapter and tubing

### **OPTIONAL CALIBRATION KIT ADDS:**

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

# OPTIONAL GUARANTEED COST-OF-OWNERSHIP PROGRAM:

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

## **Asia Pacific**

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### **Technical Services**

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