

## 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™ tubes
- Reflex PID Technology™
- Highly specific readings, combining a 9.8eV UV lamp and RAE-Sep™ benzene tube
- Built-in humidity sensor with Automatic temperature-controlled sampling time calculation
- See-through Sampling probe design for instant tube-breakthrough 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	<ul style="list-style-type: none"> <li>Rechargeable, external field-replaceable Lithium-Ion battery pack</li> <li>Alkaline battery adapter</li> </ul>
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	<ul style="list-style-type: none"> <li>VOCs as ppm by volume</li> <li>High and low values</li> <li>STEL and TWA</li> <li>Battery and shutdown voltage</li> <li>Date, time, temperature</li> </ul>
Alarms	95dB buzzer at 12" (30 cm) and flashing red LED to indicate exceeded preset limits <ul style="list-style-type: none"> <li>High: 3 beeps and flashes per second</li> <li>Low: 2 beeps and flashes per second</li> <li>STEL and TWA: 1 beep and flash per second</li> <li>Alarms latching with manual override or automatic reset</li> <li>Additional diagnostic alarm and display message for low battery and pump stall</li> </ul>
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 style="list-style-type: none"> <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	<ul style="list-style-type: none"> <li>Download data and upload instrument set-up from PC through charging cradle or using BLE module and dedicated APP</li> <li>Wireless data transmission through built-in RF modem</li> </ul>
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	<b>US and Canada:</b> CSA, 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 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

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>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	0.010 ppm	< 3 s
	100 to 999.9 ppm	0.1 ppm	< 3 s
	1000 to 9999 ppm	1 ppm	< 3 s
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™ 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
- 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