

# UltraRAE 3000

Portable Handheld Compound-Specific VOC Monitor



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**

- 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
  - Built-in humidity sensor
  - Automatic temperature-controlled sampling time calculation
  - Highly specific readings, combining a 9.8eV
     UV lamp and RAE-Sep<sup>™</sup> benzene tube
- New sampling probe design provides instant tube-breakthrough visibility
- Versatile VOC or Benzene-Specific modes
- Real-time wireless built-in Bluetooth (and optional RAELink3 portable modem) or Mesh Network support
- Integrated RAE Systems Correction Factors list for more than 200 compounds

#### Easy to Use

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

### **Low Cost of Ownership**

 Inexpensive analysis using low-cost RAE-Sep tubes

#### **Applications**

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

- Dual detection mode for total benzene exposure assessment: 60-second snapshot or 15-minute STEL measurement
- High sensitivity to benzene (as low as 50 ppb) 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 0.05 to 10,000 ppm



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











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#### **SPECIFICATIONS**

# **Monitor 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		
Operating Hours	16 hours of operation		
Display Graphic	4 lines, 28 x 43mm		
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	2-point or 3-point calibration for zero and span. Calibration memory for 8 calibration gases, alarm limits, span values and calibration dates		
Sampling Pump	Internal, integrated flow rate at 400 cc/min     Sample from 100' (30m) horizontally and vertically		
Low Flow Alarm	Auto shut-off pump at low-flow condition		
Communication & Data Download	<ul> <li>Download data and upload instrument set-up from PC through charging cradle or optional Bluetooth™</li> <li>Wireless data transmission through built-in RF modem</li> </ul>		
Wireless Network	Mesh RAE Systems Dedicated Wireless Network		
Wireless Range (Typical)	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: @,, 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		
Operating Temperature	-4° to 122° F (-20° to 50° C)		
Humidity	0% to 95% relative humidity (non-condensing)		
Attachments	Durable bright red rubber boot		
Warranty	3 years for 10.6 eV lamp, 1 year for 9.8. eV lamp, 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 Bluetooth or RM900		

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

# **CORPORATE HEADQUARTERS**

#### **RAE Systems by Honeywell**

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#### **Sensor Specifications**

Gas Monitor	Range	Resolution	Response Time (T90)
VOCs	0 to 99.99 ppm	0.025 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	0.025 ppm	< 60 sec
Butadiene	0 to 200 ppm	0.025 ppm	< 60 sec

#### **ULTRARAE 3000 ORDERING OPTIONS**

#### **Monitor Only Includes**

- UltraRAE 3000 Monitor, Model PGM-7360
- Wireless communication module built-in
- Datalogging with ProRAE Studio II Package for Windows® XP, Windows® Vista, or Windows® 7
- Travel Charger
- RAE UV lamp and RAE-Sep<sup>™</sup> 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-lon) 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
- 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**

Monitor with Accessories and Calibration Kit (PN 059-D311-200)



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