

# UltraRAE

## Specific Compound Monitor



UltraRAE is a quick, spot-check monitor, typically used by occupational health, safety and environmental personnel. The combination filter tube and PID removes the disadvantages associated with colorimetric tubes and gas chromatographs. Applications include tank entry pre-screening during refinery and plant maintenance, hazardous material response, marine spill response and refinery down-stream monitoring.

### Interchangeable RAE Sep™ Filter Tubes

- Benzene
- Methylene Chloride (Halocarbon)
- Butadiene (Polymer manufacture)

### Features

- The only compound specific monitor with combination of interchangeable separation tubes and PID
- 3-10 times faster analysis vs. conventional tube or portable gas chromatograph methods
  - Results obtained in seconds (<75 seconds) rather than minutes
  - Detects benzene down to 0.1 ppm in 60 seconds
- 3,000 point datalogging storage capacity for data download to PC compatible with Windows™ 95, 98, 2000 and NT
- Excellent range and linearity
  - Good down to 0.1 ppm and up to over 200 ppm benzene (no more GC column overload problems)
  - More accurate than gas detection tubes
- Internal pump
  - Allows you to sample deep (up to 30ft or 10m) into a confined space
  - Prevents liquid flow into the monitor
  - Warns if sample tubing is blocked or crimped

- Low cost of ownership
  - Inexpensive analysis due to low cost RAE-Sep™ tubes vs. gas detection tubes
  - Cheaper than portable GC and **no** annual factory calibration
- Large keys operable with 3 layers of gloves
- Large easy to read back light display
  - Alarm activated
  - Darkness or manually activated
- 3,000 point data logging storage capacity for data download to PC
- Optional vibration alarm
- Snap-in rechargeable or alkaline battery pack, 10 hours of operation with Smart battery charging.

### Applications

Partial selection

- **Benzene**
  - Petrochemical
  - Transportation industry – tankers, railways, aircraft and barges
  - Pipelines
  - Military
  - Rubber manufacturers
- **Methylene Chloride**
  - Paint strippers in industries from airlines to furniture refinishers to ship building
  - Solvents for cleaning chemical tanks
  - Solvents in the manufacture of plastics, flexible foam, sealants, and photographic film stock
  - Adhesives in the assembly of plastic parts
- **Butadiene**
  - Polymers industries
- Manufacturers of plastics, resin, and rubber

## Specifications

	VOC	Benzene	Halocarbons	Butadiene
<b>Range</b>	0-2000 ppm	0-200 ppm	0-200 ppm	0-200 ppm
<b>Resolution</b>	0.1 ppm 0-99.9 ppm 1 ppm 100-2000 ppm	0.1 ppm	0.2 ppm	0.1 ppm
<b>Response Time</b>	30 seconds	60 seconds	Compound Dependent	75 seconds
<b>Calibration Gas</b>	100 ppm Isobutylene	5 ppm Benzene	Compound Dependent	5 ppm Butadiene
<b>UV Lamp</b>	9.8, 10.6 or 11.7 eV	9.8 eV	11.7 eV	9.8 eV
<b>Interference Rejection*</b>	None	300 ppm Toluene*	300 ppm Acetone*	150 ppm Hexane*

\*Refer to RAE Systems' Technical Notes no: 127, 133 and 147 for more details.

<b>Intrinsic Safety</b>	UL, cUL Class 1, Division 1, Group A, B, C, D EEx ia IIL C T4
<b>Size</b>	7.75" (19.7 cm) L x 2.75" (7 cm) W x 1.5" (3.8 cm) H
<b>Weight</b>	16 oz (455 gm) with battery pack
<b>Detector</b>	Photo-ionization sensor with vacuum UV lamp
<b>Battery</b>	Rechargeable, snap-in, field replaceable, NiCd battery pack
<b>Battery Charging</b>	10 hours charge through built-in charger
<b>Operating Hours</b>	10 hours
<b>Display</b>	Large LCD, manual and alarm activated back light
<b>Repeatability</b>	± 10% of reading or ± 0.1 ppm
<b>RAE-Sep™ Tube</b>	Field replaceable, bar coded, sealed at both ends for storage
<b>Keypads</b>	1 operation key and 2 program keys
<b>Alarm Setting</b>	Two adjustable alarm limit levels (Factory default 1 and 5 ppm)
<b>Audible Alarm</b>	90 dB buzzer
<b>Visual Alarm</b>	Flashing red LED
<b>External Alarm</b>	Optional plug in pen size vibration alarm
<b>Datalogging</b>	3000 points; includes sample number, gas reading, time/date, specific vapor. Header information includes monitor serial number, user ID and site number.
<b>Communication</b>	Download data to PC and up load instrument setup from PC through RS-232 link to serial port on PC
<b>Calibration</b>	Two point field calibration of zero and span
<b>Sampling Pump</b>	Internal. Flow rate 400 cc/min. with VOC tube
<b>Temperature</b>	0° to 40°C (32° to 113°F)
<b>Humidity</b>	0% to 95% relative humidity (non-condensing)

## Ordering Information

### Model PGM 7200 Monitor

- Rechargeable NiMH battery pack
- Alkaline battery adapter (accepts 4 AA size alkaline batteries)
- AC/DC charging adapter
- Inlet probe and water trap filter
- Operation and maintenance manual
- Soft carry case

### Model PGM 7200 Kit

Items included with Monitor plus:

- Calibration gas
- Calibration regulator with flow controller
- Porous metal filter and O-ring kit
- Tool kit
- Hard transport case

### Accessories

- Lamp cleaning kit
- Automotive charger/adaptor
- Remote access probe
- External vibration alarm

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