



UltraRAE

Specific Compound Monitor

Quick Spot-check 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)

Key Features

- The only compound-specific monitor with combination of interchangeable separation tubes and PID
- 3 to 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 98, NT, 2000 and XP
- 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 backlight display
 - Alarm activated
 - Darkness or manually activated
- Optional vibration alarm
- Snap-in rechargeable or alkaline battery pack, 10 hours of operation with smart battery charging

Applications

- 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 foams, sealants and photographic film stock
 - Adhesives in the assembly of plastic parts
- Butadiene
 - Polymers industries
 - Manufacturers of plastics, resin and rubber

ATEX



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Specifications*

Sensor Specifications¹

	VOC	Benzene	Halocarbons	Butadiene
Range	0 to 2000 ppm	0 to 200 ppm	0 to 200 ppm	0 to 200 ppm
Resolution	0.1 ppm 0-99.9 ppm 1 ppm 100-2000 ppm	0.1 ppm	0.2 ppm	0.1 ppm
Calibration Gas	100 ppm Isobutylene	5 ppm Benzene	Compound Dependent	5 ppm Butadiene
UV Lamp	9.8, 10.6 or 11.7eV	9.8 eV	11.7 eV	9.8 eV
Inference Rejection	None	300 ppm Toluene*	300 ppm Acetone*	150 ppm Hexane*

¹Refer to RAE Systems' Technical Notes 127, 133 and 147 for more details

Detector Specifications

Size	7.75"L x 2.75"W x 1.5"H (19.7 x 7.0 x 3.8 cm)
Weight	16 oz with battery pack (455g)
Sensor	Photoionization detector with vacuum UV lamp
Battery	<ul style="list-style-type: none">Rechargeable snap-in, field-replaceable Nimh battery pack10 hours charge through built-in charger
Operating Hours	10 hours continuous operation
Display	Large LCD, manual and alarm-activated back light
Keypads	1 operation and 2 programming keys
Alarm	<ul style="list-style-type: none">90dB buzzer and flashing LED to indicate exceeded preset limitsHigh: 3 beeps and flashes per secondLow: 2 beeps and flashes per secondUser-adjustable alarm limitsOptional plug-in pen-size vibration alarm
Datalogging	<ul style="list-style-type: none">Standard 3,000 points including sample number, gas reading, time/date, specific vaporHeader information includes monitor serial number, user ID and site number
Communication	Download data to PC and upload instrument setup from PC through RS-232 link to serial port on PC
Calibration	Two-point field calibration of zero and span
Sampling Pump	Internal pump with 400 cc/min flow rate with VOC tube
Hazardous Area Approval	<ul style="list-style-type: none">US/Canada UL, cUL, Classified as Intrinsically Safe for use in Class I, Division 1 Groups A, B, C, D, Hazardous Locations T6 ratingEurope: ATEX II IG EEx ia IIC T4
Temperature	32° to 113°F (0° to 40°C)
Humidity	0% to 95% relative humidity (non-condensing)
Warranty	1 year on instrument (per RAE Systems Standard Warranty), 1 year 10.6 eV lamp, 1 year pump, 1 year battery

*Ongoing projects to enhance our products mean that these specifications are subject to change

Monitor-only Includes:

- Monitor as specified
- RAE Systems UV Lamp as specified
- 10 RAE-Sep™ bar coded tubes as specified
- Total VOC tube
- Rubber boot with belt clip
- Rechargeable Nimh battery pack
- 120 V AC/DC wall adapter (if specified)
- Alkaline battery adapter
- ProRAE Suite Software package for Windows 98, NT, 2000 and XP
- Computer interface cable
- Operation and maintenance manual
- Soft carrying case

Monitor with accessories kit also includes:

- Hard transport case with pre-cut foam
- Spare rubber connector kit
- Organic vapor zeroing kit
- Gas outlet port and tubing
- Tool kit
- Lamp-cleaning kit

Optional calibration kit also includes:

- 5 ppm benzene calibration gas, 34L
- Tedlar® bag for calibration
- Regulator (3 liters/minute) and Teflon® tubing

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