

Photo Ionization Detector (PID)

UltraRAE PID

The 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.

FEATURES

Interchangeable RAE Sep™ Filter Tubes

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

Standard 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
- 3000 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
 - Warns if sample tubing is blocked or crimped



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Sensor Specifications

	VOC	Benzene	Halocarbons	Butadiene
Range	0 - 2000 ppm	0 - 200 ppm	0 - 200 ppm	0 - 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 11.7 eV	9.8 eV	11.7 eV	9.8 eV
Inference Rejection	None	300 ppm Toluene*	300 ppm Acetone*	150 ppm Hexane

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	Photo-Ionization detector with vacuum UV lamp
Battery	Rechargeable, snap in, field replaceable, NiCd battery pack 10 hours charge through built in charger
Operating Hours	10 hours continuous operation
Display	Large LCD, manual and alarm activated back light
Keypads	10 operation and 2 programming keys
Alarm	90 dB buzzer and flashing LED to indicate exceeded preset limits High: 3 beeps and flashes per second, Low: 2 beeps and flashes per second, User adjustable alarm limits, Optional plug in pen size vibration alarm
Datalogging	Standard 3,000 points including sample number, gas reading, time/date, specific vapor Header 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	US: UL, cUL, Classified as Intrinsically Safe for use in Class I, Division 1, Groups A, B, C, and D Hazardous Locations T6 Rating, Europe: EExia III C 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 Standard Warranty), 1 year 10.6 eV lamp, 1 year pump, 1 year battery

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