

UltraRAE 3000

Portable Handheld Compound-Specific VOC Monitor.

Product description

Advanced Compound-Specific Monitor. 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.

Applications

Confined space entry pre-screening during refinery and plant maintenance

Hazardous material response

Marine spill response

Refinery downstream monitoring

Plant overhaul



Features

- ✓ 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™ benzene tube
- ✓ 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
- ✓ Dual detection mode for total benzene exposure assessment: 60-second snap-shot 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

Technical specifications

UltraRAE 3000

Size	10" L x 3.0" W x 2.5" H (25.5 cm x 7.6 cm x 6.4 cm)
Weight	26 oz (738 g)
Sensors	Photoionization sensor with standard 10.6 eV or optional 9.8 eV or 11.7 eV lamp
Battery	<ul style="list-style-type: none"> • Rechargeable, external field-replaceable Lithium-Ion battery pack • Alkaline battery adapter
Operating Hours	16 hours of operation
Display Graphic	4 lines, 28 x 43 mm
Keypads	1 operation and 2 programming keys, 1 flashlight on/off
Direct Readout	<ul style="list-style-type: none"> - VOCs as ppm by volume - High values - STEL and TWA - Battery and shutdown voltage - Date, time, temperature
Alarms	<ul style="list-style-type: none"> 95dB (at 12"/30 cm) buzzer 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
EM/RFI	<p>Compliant with EMC directive (2004/108/EC)</p> <p>EMI and ESD test: 100MHz to 1GHz 30V/m, no alarm</p> <p>Contact: ±4kV</p> <p>Air: ±8kV, no alarm</p>
IP Rating	IP65 unit running
Data Logging	Standard 6 months at one-minute intervals
Calibration	<p>2-point or 3-point calibration for zero and span.</p> <p>Calibration memory for 8 calibration gases, alarm limits, span values and calibration dates</p>
Sampling Pump	<ul style="list-style-type: none"> - Internal, integrated flow rate at 400 cc/min - Sample from 100' (30m) horizontally and vertically
Low Flow Alarm	Auto pump shut-off at low-flow condition
Communications & Data Download	<p>Download data and upload instrument set-up from PC through charging cradle or optional Bluetooth™.</p> <p>Wireless data transmission through built-in RF modem.</p>
Wireless Network	Mesh RAE Systems Dedicated Wireless Network
Wireless Range (Typical)	<p>EchoView Host: LOS > 660 ft (200 m)</p> <p>ProRAE Guardian & RAEMesh Reader: LOS > 660 ft (200 m)</p> <p>ProRAE Guardian & RAELink3 Mesh: LOS > 330 ft (100 m)</p>
Safety Certifications	<ul style="list-style-type: none"> - US and Canada: SA, 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)
Attachment	Durable bright yellow rubber boot with belt clip
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
Radio Module	Supports Bluetooth or RM900

(*) Specifications are subject to change.

Sensor specifications

Gas Monitor	Range	Resolution	Response time T90
VOCs	0 to 99.99 ppb	0.025 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	0.025 ppm	< 60 sec
Butadiene	0 to 200 ppm	0.025 ppm	< 60 sec

The Bruusgaard System



TBS is a unique turnkey portable gas detection solution, giving you increased safety and substantial cost savings through standardised instruments, routines, training and procurement.

Logistic Support

At any given time we know the status of all vessels and sites covered by The Bruusgaard System. We consolidate all shipments and make sure you have everything you need on board until next scheduled delivery. This results in fewer shipments and substantial savings!

- Year round follow up of instruments, spares and consumables
- Handling of all shipments & logistics
- Annual reports per vessel including budgeting



Safety

QA – strict routines and logging

- Crew are able to use instruments and follow routines correctly
- Instruments are in proper working condition at all times
- Instruments are calibrated at correct intervals
- Sensors and other items are replaced at correct intervals
- Usage of instruments is logged, including abnormal observations
- Traceability – instrument history and usage
- Routines and procedures can merge into the overall QA-system

Effective and proven training is an integrated part of The Bruusgaard System.

Instruments

All the equipment used for gas detection and calibration is placed in a custom-made wall cabinet. Including Log & Instruction Manual, which are crucial to maintaining the safety integrity.

- Standardised vessel specific gas detector solutions
- Total solutions including all equipment and routines necessary for efficient and safe use, storage and maintenance

Cost Savings

Some of our customers have been able to go from 8 to 10 suppliers down to 1 – translating into cost savings of up to 40-50%. For one vessel, this could be thousands of dollars annually, and for a whole fleet, the cost savings can be dramatic. This is achieved through:

- One contact for worldwide supply of spares & gases
- All service and calibration can be done on site.
- Reductions of instrument types from 10-12 to 2-3

Reduced maintenance costs through:

- On board calibration
- Fewer instruments on board
- No need for spares on board
- One PO per year
- Increased safety
- Less use of administrative time