



# EntryRAE 1

Exclusive to Shawcity

## Personal VOC protection

### EntryRAE

The **EntryRAE 1** is a personal photoionisation (PID) detector. Reliable, easy to operate, and simple to calibrate, the **EntryRAE 1** delivers added protection without added complexity.

#### Simple, Modular, Durable PID

RAE Systems is the leader in PIDs. Their plug & play, self-cleaning (patented) PID is the most reliable and durable PID available today.

#### Why PID?

Typical gas monitors do not detect many volatile organic compounds (VOCs). Detection with an LEL monitor is unacceptable when looking to comply with toxic limit values. Toxic limits are often far below 10%LEL. VOC's are commonly found in:

- Fuels, oils, degreasers
- Industrial cleaners
- Heat transfer fluids
- Solvents, paints
- Plastics, resins, adhesives
- Pesticides and herbicides



### Key Features

- Reliable, self-cleaning VOC detector
- Simple to operate
- Easy to calibrate
- Durable, weather-resistant rubber body with belt clip
- Datalogging included - and automatic
- Big display with auto-backlight
- Loud alarm
- Bright red flashing LED alarms
- Up to 16-hours of continuous operation
- Interchangeable Lithium-ion and alkaline battery packs
- Charging cradle doubles as an external battery charger
- Powerful pump allows sample-draws up to 30 metres (100')
- Low-flow pump alarm
- Also available with extra CO, H2S, LEL and O2 sensors



### Applications

- Refineries
- Chemical processing
- Water & wastewater facilities
- Semiconductor manufacturing
- Rail wagon and tank truck cleaning
- Resin and nylon production
- Underground storage
- Sewer entries
- Cable vaults
- Agriculture



#### Shawcity Limited

Pioneer Road  
Faringdon, Oxfordshire SN7 7BU  
Tel: 0870 777 2872 Fax: 0870 777 2871  
Email: [info@shawcity.co.uk](mailto:info@shawcity.co.uk) [www.shawcity.co.uk](http://www.shawcity.co.uk)



# EntryRAE 1

Exclusive to Shawcity

## Specifications \*

### Sensor Specifications

Sensor	Range	Resolution
PID	0-999ppm	1 ppm VOC

### Detector Specifications

<b>Size</b>	15L x 8.3W x 4.8H cm (5.9"L x 3.3"W x 1.9"H ) without clip
<b>Weight</b>	567 g (20 oz ) with battery and clip
<b>Sensor</b>	<ul style="list-style-type: none"> <li>• Modular photoionisation detector for broadband detection of VOCs using 10.6 eV lamp</li> </ul>
<b>Battery</b>	<ul style="list-style-type: none"> <li>• Drop-in rechargeable Li-ion battery pack</li> <li>• Standard alkaline battery adapter</li> <li>• Charging cradle doubles as external battery charger</li> </ul>
<b>Operating hours</b>	Up to 16 hours continuous with Li-ion (typical), Up to 12 hours with alkaline
<b>Display</b>	Large 3.5 x 4.5 cm (1.4" x 1.8") display with automatic back-lighting in dim light or alarm condition
<b>Keypad</b>	Three-button operation
<b>Direct readout</b>	<ul style="list-style-type: none"> <li>• VOC's as parts-per-million by volume</li> <li>• STEL and TWA values of VOC's</li> <li>• High and low values</li> <li>• Instantaneous reading for VOC's</li> </ul>
<b>Alarms</b>	<ul style="list-style-type: none"> <li>• Audible (95Db at 30 cm), visible, and vibration</li> <li>• High: 3 bleeps and flashes per second</li> <li>• Low: 2 bleeps and flashes per second</li> <li>• STEL and TWA: 1 beep and flash per second</li> <li>• Low battery displays empty battery symbol, 1 beep per minute</li> </ul>
<b>EMI/RFI</b>	Highly resistant to EMI/RFI. Compliant with EMC Directive 89/336/EEC
<b>IP rating</b>	IP-55, protected against dust and low pressure jets of water from all directions
<b>Communication</b>	PC to monitor via RS232 (USB adapter available)
<b>Calibration</b>	Two-point field calibration for zero and span gas
<b>Sampling Pump</b>	Built-in pump, 500 cc per minute flow rate
<b>Low Flow Alarm</b>	Auto shut-off at low flow condition
<b>Hazardous area approval</b>	<ul style="list-style-type: none"> <li>• ATEX II 2G, EEx ia IIC T4</li> <li>• UL Class 1 Division 1, Groups A, B C, D T3C</li> <li>• CSA pending</li> </ul>
<b>Temperature</b>	-20° to 47°C (-4° to 113°F)
<b>Humidity</b>	0% to 95% relative humidity (non-condensing)
<b>Attachments</b>	Stainless steel alligator clip (installed), wrist strap
<b>Warranty</b>	Lifetime on non-consuming components (per RAE Standard Limited Warranty)  1 year for PID

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

### Standard kit:

- Monitor with PID sensor
- Lithium-ion rechargeable calibration adapter battery
- Alkaline battery adapter
- 5 external filters
- Charging cradle 230 V wall charger, UK plug or 120 V wall charger, US plug,
- ProRAE Studio software package
- Computer interface cable RS232 to RS232 with USB adapter
- User manual
- Shipping case

### Comprehensive Kit:

- Monitor with PID sensor
- Lithium-ion rechargeable calibration adapter battery
- Alkaline battery adapter
- 5 external filters
- Charging cradle 230 V wall charger, UK plug or 120 V wall charger, US plug,
- ProRAE Studio software package
- Computer interface cable RS232 to RS232 with USB adapter
- User manual
- Shipping case
- Watertight transport case
- Sampling wand with 3m (15') of self-coiling Teflon® tubing
- Toolkit
- Isobutylene – 34 L (100 ppm, balance air)
- Regulator valve for cal gas and tubing

### AutoRAE Docking Station:

- Automated bump test and calibration system
- Drop-in, push-button operation



# EntryRAE 1

ATEX CE



### Shawcity Limited

Pioneer Road  
Faringdon, Oxfordshire SN7 7BU  
Tel: 0870 777 2872 Fax: 0870 777 2871  
Email: info@shawcity.co.uk www.shawcity.co.uk

