



LIFE-SAVING SOLUTIONS

## Your Intrinsically Safe Toolkit from Shawcity

Intrinsic safety has long been a recognised term in gas detection but growing customer demand for monitoring and detection capability in more diverse environments means affordable IS technology is now available for several other key applications.

In the occupational hygiene arena, intrinsic safety and ATEX approval has historically been a tricky issue; to measure a specific criteria such as sound, noise or air quality you were required to have a hot works permit and would be provided with a gas monitor (usually 4-gas) for the duration of the period.

However, with the latest technologies now available from Shawcity, you can now measure what you need when you need to with intrinsically safe sound level meters, noise dosimeters and direct reading dust monitors, as well as gas detection monitoring equipment.



## Sound

The SE-401 series of sound level meters offers a revolutionary capability unavailable in any other instrument. The SE or Sound Examiner data logging SLM range is the ideal solution to measure and manage workplace noise exposure as part of a hearing conservation programme. Field testing and instant documenting of measurement has never been more straightforward, even in extreme environments.

The SE-401 has two intrinsically safe models, the SE-401is for Class/Type 1 measurements and the SE-402is for Class/Type 2 which offer the following features:

- Measurement for SPL, Peak (Lpk), L Max, LMin, Leq and Elapsed Time
- A, C and Z weightings
- User selectable data logging intervals



SE400is

SV104IS

- 2Mb internal storage
- Lithium battery rechargeable via USB
- IP65 rated casing
- DMS data management software
- >8 hour operating time on one battery charge.

## Noise

The SV 104IS is a cable-free dosimeter and is typically attached to the user's shoulder, close to the ear using mounting clips. This revolutionary instrument offers a new approach to occupational health and safety noise monitoring, presenting features such as 1/1 octave band real-time analysis and audio events recording functions; new qualities in an instrument of this size. All results are clearly displayed on an OLED screen which offers excellent visibility in full daylight or darkness. This personal dosimeter has a robust 1/2 MEMS microphone enabling easy calibration using most commonly available acoustic calibrators. The new microphone has

a large dynamic range of 90 dB which allows measurement of noise from 60 dBA to 140 dBA. The microphone has an auto calibration feature and TEDS memory that stores the calibration information in the microphone itself. It also offers vibration shock detection and recording. The instrument works with 'Supervisor' software which provides data analysis and reporting tools. The docking station supports data transfer to a PC through an infrared interface as well as charging the battery ready for 50 hours' use.

Main features include:

- Measurement range 60 dBA RMS - 140 dBA Peak
- Three parallel measurement profiles
- L(C-A) calculation
- 1/1 octave real-time analysis (option)
- Voice comments recording before and after measurement
- Audio events recording during measurement (option)
- OLED colour display with super brightness and contrast
- Extremely compact and lightweight with robust case
- 50 hour operating time on one battery charge.

## Air Quality & Dust

The newest addition to our range of personal direct reading dust monitors will be the AM520i, the intrinsically safe version of the AM520. Launching soon, it has been developed as a small, portable, battery-operated, data-logging, light-scattering laser photometer that provides real-time aerosol mass concentration readings of dusts, fumes, mists, smoke and fog within a worker breathing zone. Newly designed inlet conditioners increase the mass concentration capability and provide size fraction cut points for PM10, Respirable (PM4), PM2.5, PM1 and 0.8µm Diesel Particulate Matter (DPM).

This monitor is the perfect solution for real-time, personal aerosol sampling in a variety of workplace environments, including but not limited to chemical plants, refineries, petrochemical, general industry, foundries, construction sites, power and utilities, transportation, aerospace, maritime, confined

space and mining.

Benefits and features will include:

- A real-time exposure monitoring instrument in flammable and explosive environments
- The first of its kind suitable for use in monitoring diesel particulate matter
- User-settable audible and visual alarms and STEL alarm
- Immediate alerts to unsafe working conditions
- Instant data reporting
- >20 hour operating time on one battery charge.

## Gas Detection

Wearable gas detection technology has also taken a huge leap forward in the last few months. A standard 4-gas monitor for confined spaces has long been a requirement in a zoned environment but the big drawback has always been battery life.

Traditional instruments usually need recharging at the end of every shift or after 8 hours, which means industries running consecutive shifts need at least one instrument



SidePak AM520i



BWClip4



Multi Gas Clip Simple

for every worker to allow for one set to be in use while another is on charge.

However, the latest personal instruments, such as the BW Clip4 from Honeywell and the MGC Simple from Gas Clip Technologies, provide continuous two year battery life with no charging required. Simply turn them on and in two years' time replace them. With dedicated docks offering simple, regular bump tests you can be assured your instruments are always ready when you are. Another huge advantage is that fleet numbers can potentially be halved as workers can use the same monitors the previous shift from with complete confidence. Both the Clip4 and the MGC Simple offer the following features:

- Detection of H<sub>2</sub>S, CO, LEL and O<sub>2</sub>
- LEL sensor immune to H<sub>2</sub>S and silicon poison (IR technology)
- Low cost of ownership – no battery or sensor replacement
- Docks for daily auto bump testing and data downloading.

These days we are all used to seeing new technologies developing and merging together into something new.

For example, your mobile phone is now a smart phone, a messaging device, a camera, a pocket computer and more. The same is true of the gas detection industry technology and the latest communication, personal GPS location and gas monitoring developments have now come together in the form of the revolutionary G7 from Blackline Safety.

The modular G7 series is a ground-breaking, true 'Internet of Things' device and offers gas detection alongside two-way messaging and speakerphone, man down alarms, motion detection and GPS location tracking, all transmitted back to a remote base to provide whole environment monitoring accessible anywhere in the world, 24 hours a day. If an alarm activates, the issue is immediately and accurately diagnosed and the exact location is pinpointed for instant response.



Blackline G7 Quad Gas



GasCheck IS



MultiRAE Benzene



Titan, fixed Benzene Monitor

## Gas Leak Detection

For handheld leak detection, the GasCheck 3000is and 5000is models are the only ATEX approved, intrinsically safe gas leak detectors on the market. Designed specifically for the search and location of flammable gas leaks, GasCheck detects and measures almost any known gas or gas mixture.

Calibrated against helium, it is particularly sensitive to ammonia, argon, butane, hydrogen, SF6 and refrigerants and is ideal for use in areas classed as zone zero flammable. The 3000is model measures in cc/sec and g/yr, while the 5000is also has a ppm scale and datalogging capabilities.

downstream monitoring and confined space entry pre-screening during plant maintenance to personal protection and leak detection. Being a highly versatile and customizable instrument, the key benefits it offers include suitability for multiple applications, benzene-specific measurement up to 200ppm with 0.1 resolution, man down alarm with real-time remote wireless notification and fully automatic bump testing and calibration.

## Benzene Fixed

For fixed, continuous real-time benzene-specific monitoring, Titan is the first truly selective wall-mounted monitor ranging dynamically from 0.1ppm to 20ppm in petrochemical and chemical environments. Designed specifically to detect benzene in petrochemical zones, Titan provides minute-by-minute sampling for continuous real-time data with internally regulated heating for stable operation at extreme temperatures.

A key advantage the G7 offers is that live readings from the device give full situated awareness of the incident before help arrives, so the rescue team are already prepared for the issues they will be encountering. The G7 is the most revolutionary technology available in the safety industry today and offers the following features and benefits:

- Gas alarms (1-4 gas type sensors)
- GPS location
- Indoor location compatible
- SOS alert
- Worker check-in
- Alert received light
- Speaker phone
- Messaging
- Fall detection
- No-motion detection.

## Benzene-specific

Shawcity's portfolio of intrinsically safe personal and handheld benzene monitors is, as you may expect, comprehensive.

We offer the wearable Cub TAC monitor with market-leading ppb sensitivity; the Tiger Select Benzene handheld detector and the UltraRAE 3000 for benzene and VOC monitoring. Our latest, ground-breaking monitor in this category is the MultiRAE benzene 6-gas, the only monitor that includes up to 6-gas detection and real-time wireless capability, plus specific benzene measurement.

The MultiRAE Benzene combines the ability to make quick benzene-specific assessment ('snapshot') measurements with the advantages of a versatile multi-gas monitor that can support approximately 20 intelligent interchangeable sensor options.

Its unique features make it an ideal instrument for industrial applications, from refinery

With all of these latest developments, those working in occupational hygiene can now confidently measure, record and interpret data live with intrinsically safe equipment, even in the most arduous environments.

For any further information visit [www.shawcity.co.uk](http://www.shawcity.co.uk), contact the team on 01367 899565 or email: [solutions@shawcity.co.uk](mailto:solutions@shawcity.co.uk).

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