Portable EXPLONIX Integrates Explosives, Radio-nuclides and Hazardous Liquids Detection

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By integrating several new technologies into a single hand-held device, EXPLONIX represents a truly innovative approach to substance detection that effectively addresses the increasing demands of the security industry.

This independent portable system is capable of detecting:

- Traces of explosives using novel sampling and analysis techniques, providing high sensitivity and maximum operational robustness even with high concentrations of masking compounds
- Sensitive nuclear agents by identification of radio-nuclides (meets US ANSI standards)
- Hazardous liquids.

This combination of capabilities in one device sets a new benchmark for the industry by offering a solution to the detection of so-called 'dirty' bombs that may pose a threat to security in the future.

Exlosives trace detection

The operator can select from the following operational modes:

Vapour mode

Instant vapour detection
This long-awaited instant vapour analysis and identification capability can reveal the presence of explosives material within a single second and display the concentration on the screen while sampled air is continuously being sucked into the instrument.

Vapour analysis
The latest analytical vapour mode offers the ideal combination of a single second reading (effective during the sampling phase), followed by a 28 second analysis and identification period. The presence of explosives contraband is thus indicated instantaneously during sampling, followed by detailed analysis enabling the maximum level of inspection effectiveness and reliability.

Post-explosion residues
In this sampling technique air can be sucked into the instrument at a high rate (8 litres/min) to collect the maximum quantity of explosives micro-particles adhering to flying dust particles. The collected explosives material is then processed and analysed. This sampling technique thus provides an unbeatable capability for identifying suspected users of firearms. The reading is effective even several days after the use of firearms.

Particulate mode
The EXPLONIX fast sampling and identification particulate mode uses a recently patented Needle Sampler that can easily collect samples even from the smallest crevices. Sampling with a Needle Sampler provides effective, first level temperature pre-separation and a high level of false alarm suppression.

Nuclear agent detection

EXPLONIOX has a built-in sensitive and fast gamma ray spectrometer for simultaneous detection and identification of radiological spectra. While the explosives analyser samples and analyses traces of explosives, the gamma ray spectrometer measures high energy photons and calculates the X-Ray spectra. While the operator is obtaining explosives measurement results, the system provides detailed information about possible radioactive contraband. The library of identified radio-nuclides is updatable.

Hazardous liquids detection

This is an optional add-on sensor unit that can be connected to the EXPLONIX. Any plastic or glass or ceramic bottle up to 2 litres volume can be attached to the detector body surface and the EXPLONIX will display the type of liquid on screen within a second.

Internet connectability

The EXPLONIX has excellent connection capabilities. Connection can be established either with or without a computer by direct system connectivity to the Internet.

Once communication has been established, data can be downloaded and the instrument checked and configured on-line. Advanced software also provides remote factory checking and manufacturer service through an automatic 24-hour internet checking service available to all customers. ■

Contact information

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