

Overview

The Itemiser® is the first trace detector to simultaneously detect positive and negative ions, enabling the detection of a broad range of explosives and narcotics. Detection of both positive and negative ions allows for effective identification from a single sample. The Itemiser delivers fast, simultaneous explosives and narcotics detection in a package that is portable and easy to use.

Standard Features

Sensitive and Versatile

- Patented ITMS® technology increases ion population, enabling detection of microscopic traces of explosives and narcotics
- Patented switching mechanism detects both positive and negative ions, enabling the detection of a broad range of explosives as well as narcotics

Flexible for a Wide range of Applications

- Detects both explosives and narcotics
- Semi-permeable membrane allows continued operation in environments that have high traffic, humidity or contamination
- Expandable libraries accommodate unique user requirements
- Three default user levels prevent unauthorized use and provides different levels of access.

Cost Effective

- Reduces capital investment by providing a single solution for both narcotics and explosives detection
- Patented regenerative dryer reduces maintenance costs and minimizes downtime
- Folding monitor screen with auto shut-off extends life of display

Reliable

- Automated calibration ensures operational accuracy
- Maintains a low, stable, humidity level at the detector allowing for consistent and reliable detection results
- Automatically saves test results, preventing deletions
- Robust internal solid-state flash drive for reliable data storage

Easy to Use

- Touchscreen menus are easy to learn and operate
- Built-in printer for instant hard-copy results or off-site printing
- Analysis and results in approximately 7 seconds
- Easy to install software upgrades
- Available local language options

Lightweight and Portable

- Lightweight with built-in handles and soft case for easy transport
- Operates from a vehicle's 12 VDC power outlet
- Internal, one-hour battery provides instant-on capability when moving between sites

Desktop Explosives and Narcotics Detection

Itemiser®



Application

GE's Itemiser desktop trace detector simultaneously analyzes both positive and negative ions, allowing for advanced explosive and narcotic detection from a single sample. Its portability makes it well suited for spot checks at multiple locations, while its inherent reliability makes it ideal for increased security and as a deterrent in a variety of settings from schools to public utilities.

Portable detection ready at a moment's notice

The Itemiser was designed with portability and flexibility in mind. It offers a compact footprint, folding touchscreen, easy-carrying handle, a 60-minute battery backup, and the potential to be relocated quickly.

Particle swipe: Reusable sample traps are swiped across a surface and then inserted into the Itemiser for analysis. Typical surfaces include backpacks, baggage, cargo, vehicles, containers, tickets, and ID cards.

Optional vacuum sampling: An optional vacuum sampler draws vapors into a sponge-like sample trap, which is then inserted into the Itemiser for analysis. Applications include lockers, cargo containers, car trunks, and luggage.



The optional vacuum sampler captures vapors for analysis.



The reusable sample trap carries minute particles to the Itemiser.

Easy-to-use operator interface leaves nothing to chance

Results require minimal interpretation, so operators can concentrate on obtaining a good sample. The Itemiser's on-board computer automatically handles all data logging, including time, date, and sample analysis for each alarm. A complete history of saved data and alarm files can be recalled and printed at any time.

Dual-mode Detection gets more definitive results sooner

In recent years, the vast array of accessible drugs and explosive materials have expanded beyond the range of substances normally detected by instruments that employ traditional Ion Mobility Spectrometry (IMS). Traditional IMS instruments operate in either positive or negative mode, but not in both modes simultaneously.

While negative mode operation detects the majority of explosives, certain explosives can only be detected in positive mode. Consequently, to rule out the presence of all explosives, conventional IMS detectors require operators to sample and test in one mode, then switch modes and test again.

The advanced technology employed in Itemiser detectors analyzes samples in both positive and negative mode simultaneously. This exclusive dual mode detection means that a single sample is all that's required to eliminate explosives that would otherwise require two separate tests. GE's dual mode detection has the potential to cut sampling and analysis time in half, thus not only speeding up the sampling process, but also arriving at a definitive conclusion in a much shorter period of time.

Specifications

Detector Type	Ion Trap Mobility Spectrometer (ITMS®)
Analysis Time	Default 7 seconds
Sample Acquisition	Surface wipe or optional vacuum collection
Warm-up Time	Allow 30 minutes minimum for system to stabilize
Operating Temperature	32 to 104° F (0 to 40° C) IP20 protection rating
Storage Temperature	32 to 122° F (0 to 50° C)
Power	AC Input: 100-120 VAC, 200-240 VAC, 47-63 Hz, 150W DC Input: 11-18 VDC input, 10A (150W) max
Battery Backup	Up to 60 minutes of standby time daily for transport
Computer	Pentium-based, industrial-grade, single-board computer, solid-state hard disk
Display	10.4 in (26.4 cm), 640 x 480 pixel, 300 nits brightness, TFT-LCD monitor with resistive touchscreen
Signal Processing	Recognition on multiple peaks and multiple controlled drugs and explosives. Output to four different display types, including bar graph display or time-of-flight plasmagram display.
Detection Modes	Explosives (optimized negative ion mode) Narcotics (optimized positive ion mode) Dual (positive and negative ion mode)

Physical Characteristics

Itemiser (with display opened)	
Height	14.9 in (38 cm)
Display Clearance	16.3 in (41 cm)
Width	18.9 in (48 cm)
Depth	19.8 in (50 cm)
Weight	26.5 lbs (12.02 Kg)

Itemiser (with display closed)	
Height	7.1 in (18 cm)
Width	18.9 in (48 cm)
Depth	18.0 in (46 cm)

Hand Wand	
Length	11 in (28 cm)
Diameter	1.1 in (2.8 cm)
Weight	2.3 oz (65g)

Optional Vacuum Sampling Unit	
Length	16.8 in (42 cm)
Diameter	3.4 in (8.5 cm)
Weight	18.9 oz (535g)

GE Security

U.S.
T 888-378-2329
F 866-503-3996

Canada
T 519 376 2430
F 519 376 7258

Asia
T 852 2907 8108
F 852 2142 5063

Australia
T 61 3 9259 4700
F 61 3 9259 4799

Europe
T 32 2 725 11 20
F 32 2 721 86 13

Latin America
T 305 593 4301
F 305 593 4300

www.gesecurity.com

© 2006 General Electric Company
All Rights Reserved.

Itemiser and *ITMS* are trademarks of
General Electric Company.



imagination at work