

## EXPLOSIVES AND NARCOTICS DETECTION IN A DESKTOP SYSTEM

World's first simultaneous dual-mode  
explosives and narcotics detector

Can detect a wide range of  
targeted substances

Results in as little as 8 seconds

Easy to learn and operate

Expandable libraries

A comprehensive history of  
saved data and alarm files can  
be recalled and printed

# ITEMISER®3 ENHANCED



RAPISCAN® SYSTEMS FLEXIBLE, LIGHTWEIGHT DESKTOP DETECTOR  
SIMULTANEOUSLY ANALYZES BOTH POSITIVE AND NEGATIVE IONS,  
ALLOWING FOR ADVANCED EXPLOSIVE AND NARCOTIC CONTRABAND  
DETECTION.

The Itemiser® 3 Enhanced is the first trace detector in the world 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. It delivers fast, simultaneous explosives and narcotics detection in a package that is ergonomic and portable.

### SIMULTANEOUS DUAL-MODE DETECTION

In recent years, the arsenal of explosives used by terrorist groups has expanded beyond the range of substances easily detected by instruments utilizing traditional Ion Mobility Spectrometry (IMS) technology. Traditional IMS instruments operate in either positive or negative mode, but not both modes simultaneously.

While negative mode operation detects the majority of explosives, certain explosives are detected in positive mode. Therefore to rule out the presence of all explosives, conventional IMS detectors require operators to sample and test using two separate detectors.

### EASILY TRANSPORTED AND FLEXIBLE DESKTOP TRACE DETECTION

The Itemiser® 3 Enhanced was designed with portability and flexibility in mind. This unit offers a compact footprint, folding touch screen, 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® 3 Enhanced for analysis. Typical surfaces include 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® 3 Enhanced for analysis. Applications include cargo containers, car trunks, and luggage.

### EASY-TO-USE OPERATOR INTERFACE

Results require minimal interpretation, so operators may concentrate on obtaining a good sample. Itemiser® 3 Enhanced's onboard 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.

### SENSITIVITY/SELECTIVITY

Patented ITMS™ technology helps increase ion population, enabling detection of microscopic traces of explosives and narcotics.

Patented switching mechanism simultaneously detects positive and negative ions, enabling the detection of a broad range of explosives, while also detecting narcotics.

### VERSATILE

Remote monitoring capable.

Detects both explosives and narcotics.

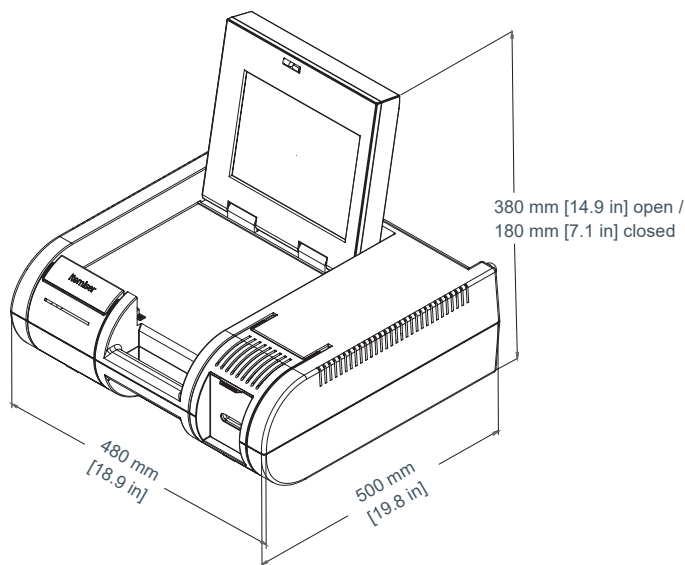
Semi-permeable membrane excludes dust and dirt to allow continued operation in environments that have high traffic, humidity or contamination.

Expandable libraries to accommodate unique user requirements.

Three default user levels (operator, maintenance and administrator) for greater access control.

# ITEMISER®3 ENHANCED

**Rapiscan®**  
systems  
An OSI Systems Company



## PHYSICAL SPECIFICATIONS

Dimensions:	Length: 500 mm (19.8 in.) open/ 460 mm (18 in.) closed Width: 480 mm (18.9 in.) Height: 370 mm (14.9 in.) open/ 180 mm (7.1 in.) closed
Handwand Dimensions:	Length: 500 mm (19.8 in.) open/ 460 mm (18 in.) closed Width: 480 mm (18.9 in.) Height: 370 mm (14.9 in.) open/ 180 mm (7.1 in.) closed
Optional Vacuum Sampling Unit: Weight (Approx.):	L x W x H: 500 mm (19.8 in.) W: 480 mm (18.9 in.) H: 370 mm (14.9 in.) Net: 12.02 Kg (26.5 lbs)

## TECHNICAL SPECIFICATIONS

Detector Type:	Ion Trap Mobility Spectrometer (ITMS™)
Analysis Time:	Default 8 seconds
Sample Acquisition:	Surface wipe or optional vacuum collection
Warmup Time (Cold Start):	Allow approximately 30 minutes for system to stabilize
Operating Temperature:	0 to 50°C (32 to 122°F) IP20 protection rating
Power:	AC Input: 100-120 VAC, 200-240 VAC, 47-63 Hz, 150W, 65W nominal DC Input: 11-18 VDC input Up to 60 minutes of standby time
Battery Backup:	80 GB Hard drive
Computer:	10.4 in (26.4 cm) TFT-LCD monitor with resistive touch screen
Display:	Recognition on multiple peaks and multiple controlled drugs and explosives
Signal Processing:	Output to 4 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)
Data Transfer Capability:	Two USB 2.0 ports; Ethernet port

## COST EFFECTIVE

Helps reduce capital investments by providing a single solution for both narcotics and explosives detection.

Patented regenerative dryer can eliminate the need for monthly dryer replacement, and may reduce maintenance downtime, and lower consumables cost.

Folding monitor screen automatically shuts off backlight to extend life of display.

## RELIABLE

Automated calibration helps assure operational accuracy.

Maintains a low, stable, humidity level in the detector allowing for consistent and reliable detection results.

Automatically saves test results, preventing deletions.

## EASE OF USE

On screen keyboard.

Touch screen menus on a graphical user interface can be easy to learn and operate.

Built in printer for fast hard copy results or printing at a later date.

Quick analysis and results in approximately 8 seconds.

Software upgrades can be easy to install.

Local language options available.

## EASE OF USE

Lightweight (26.5 lb/ 12 kg) with built-in handles and soft case for easy transport.

Operates from a vehicle's 12 VDC power outlet.

Internal, one-hour battery allows instrument relocation without having to shut it off, eliminating warmup time.

With continual development of our products Rapiscan® Systems reserves the right to amend specifications without notice. Product pictures are for general reference. Please note that due to US laws and regulations, not all Rapiscan® products are available for sale in all countries without restriction. Please contact your Rapiscan® Systems sales representative for more information.



Rapiscan® Systems is ISO 9001:2008 Certified

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