

Real-time Explosives Trace Detection

Features

- Photonic (non-radioactive) ionization
- Patented non-contact vortex collector sample acquisition
- Automatic continuous self-calibration
- No calibration or verification traps
- Simultaneous vapor and particulate detection
- Threat and taggant identification

Benefits

- Lower total cost of ownership
- Very low false positive rate
- Full range of detectable substances
- User-expandable threat library
- Fast analysis
- Ultra-fast clear-down
- Minimal maintenance requirements



Quantum Sniffer™ QS-H150 Portable Explosives Detector

Quantum Sniffer Technology

The Quantum Sniffer QS-H150 employs a patented vortex collector for the simultaneous detection of explosives particulates and vapors with or without physical contact and in real-time.

Far more sensitive than other detection devices, the advanced Quantum Sniffer can detect parts-per-trillion (ppt) levels of explosives vapor and nanogram quantities of explosives particulates for most threat substances.

Accurate and Efficient

The QS-H150 has automatic and continuous self-calibration. It monitors its environment, senses changes that would affect its accuracy, and re-calibrates accordingly. No user intervention, no calibration consumables, no system down-time.

For detection, the sample is collected by the vortex, ionized photonically, and analyzed via ion mobility spectrometry (IMS). The presence of a threat is indicated by a visible and audible alarm, and the substance is identified and displayed on the integrated LCD screen. Optionally, and at any time, a monitor and keyboard may be connected for convenient access to spectrogram display and analysis tools, administrative tools, and diagnostics.

When detecting a threat substance, the QS-H150 rapidly alarms. This real-time detection limits equipment contamination and allows for ultra-fast clear-down.

Lower Total Cost of Ownership (TCO)

Operation and maintenance are extremely cost-effective with the QS-H150. Consumables costs are greatly minimized, no dopants are used, no calibration or verification consumables are required.

Routine maintenance consists only of care and cleaning using common supplies, and desiccant replacement as required.

There is no radioactive material used in the QS-H150, so there are no associated certifications, licenses, inspections, or end-of-life disposal issues.

System Characteristics

Detector Type	Ion Mobility Spectrometer (IMS) with photonic nonradioactive ionization (U.S. Patent #6828795)
Analysis Time	User-selectable, 5-30 sec (10 sec default)
Cleardown Time	15 seconds (typical) • No user intervention
Sample Acquisition	Non-contact vapor collection • Particulate collection via wiping
Power	AC Input: 100-240VAC, 47-63Hz • DC Input: 12-15VDC, 15A via battery (included) or vehicle adapter (optional)
Batteries	Lithium Ion (Li-ion) rechargeable (2 ea) • Up to 4 hrs operating time per battery
Warm-up Time	<15 minutes typical
Operating Temperature	-10 to 55°C (14 to 131°F)
Operating Altitude (max)	4572 m (15,000 ft)
Operating Humidity	0 to 95% non-condensing
Substances Identified	Military and commercial explosives, including: RDX, TNT, PETN, HMX, nitroglycerin, nitrates, others • Improvised and homemade explosives, including: TATP, HMTD, ANFO, others • Propellants and taggants, including: Black and smokeless powders, EGDN, others • Additional substances via user expandable threat library
Alarm Method	Visible and configurable audible alarm
Data Display	Integrated LCD • Connections for optional external monitor and keyboard
Calibration	Automatic and continuous self calibration
Dimensions (L W H)	493 x 127 x 188 mm (19.4 x 5 x 7.4 in)
Weight	5.4 kg (12 lbs) with Li-ion battery

Configuration and Ordering Guide

DESCRIPTION	SELECT	QTY
QS-H150 Portable Explosives Trace Detector	<input type="checkbox"/>	_____
Included:		
AC Power Supply		
Battery, Lithium Ion (Li-ion), Rechargeable (2 ea)		
Battery Charger, Li-ion (incl. control module, 36" cable, power supply, line cord)		
User's Manual (CD)		
USB Flash Drive		
Shoulder Strap		
Sample Traps (qty 100)		
Verification Sample (long-life)		
Desiccant (Molecular Sieve Adsorbent), 226 g (.5 lb)		
Options:		
Vehicle Power Adapter, QS-H150	<input type="checkbox"/>	_____
Vehicle Power Adapter, Battery Charger	<input type="checkbox"/>	_____
User's Manual (Printed)	<input type="checkbox"/>	_____
Headset	<input type="checkbox"/>	_____
Battery, Lithium Ion (Li-ion), Rechargeable (1 ea)	<input type="checkbox"/>	_____
Verification Sample (long-life)	<input type="checkbox"/>	_____
Sample Traps (qty 100)	<input type="checkbox"/>	_____
Desiccant (Molecular Sieve Adsorbent), 226 g (.5 lb)	<input type="checkbox"/>	_____
Desiccant (Molecular Sieve Adsorbent), 1 kg (2.2 lb)	<input type="checkbox"/>	_____

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