QS-H150
Handheld Explosives Trace Detector

Product Highlights

- Detects explosives in seconds
- Non-radioactive ion source
- Choice of sampling modes:
  - Simultaneous non-contact particulate and vapor detection
  - Wipe sampling
- inCal™ automatic calibration
- Rapid clear-down
- Low total cost of ownership
- One-handed operation

Implant Sciences’ Technology

The QS-H150 is a handheld explosives detector that rapidly detects and identifies trace amounts of a wide variety of military, commercial, and homemade explosives (HMEs).

The QS-H150’s innovative design, which includes Implant Sciences’ patented heated vortex collector and patented non-radioactive Ion Mobility Spectrometry technology, provides operational advantages that make it highly effective in real world detection situations – advantages proven time and again in customer evaluations.

Lower Total Cost of Ownership

Operation and maintenance expenses are extremely low with the QS-H150. Consumables costs are greatly minimized and routine maintenance consists of only cleaning using common supplies, and desiccant replacement as required.

No radioactive material is used in the QS-H150, so there are no associated certification, licensing, inspection, testing or decommissioning costs.

Accurate and Efficient

The QS-H150 is portable, easy-to-use, and offers the choice of collecting samples directly from a surface or using sample traps. The system’s real-time detection algorithm delivers fast results, alerting the operator as soon as a threat is detected. It also minimizes system contamination, allowing the QS-H150 to be ready for the next sample in seconds, even after a positive detection.

The presence of a threat is indicated by both visible and audible alarms, with the substance identification displayed on the integrated LCD screen. A standard monitor and USB keyboard may be connected at any time for access to spectrogram display and analysis tools, administrative tools, and diagnostics.

Implant Sciences’ patented automatic calibration system, inCal, prevents errors that could result from an uncalibrated instrument. The QS-H150 monitors its environment, senses changes that would affect its analysis, and recalibrates accordingly. No user intervention, no calibration consumables, and no system down-time required.

Implant Sciences Corporation

Made in USA
### Specifications

**Detector Type:**
Ion Mobility Spectrometer (IMS) with photonic non-radioactive ionization (U.S. Patent #7,576,320), heated vortex collector (U.S. Patent #6,828,795), and inCal automated chemical calibration system (U.S. Patent #7,709,788)

**Analysis Time:**
User-selectable, 5-30 seconds (10 second default)

**Clear-down Time:**
10 seconds or less (typical)

No user intervention

**Warm-up Time:**
Less than 15 minutes (typical)

**Sample Acquisition:**
Non-contact vapor collection
Particulate collection via wiping

**Calibration:**
inCal automatic internal calibration system

**Alarm Method:**
Configurable visual and audible alarms

Substance identification by name

**Data Display:**
Integrated LCD screen
Connections for optional external monitor & keyboard

**Consumable Materials:**
Low-cost molecular sieve drying agent (desiccant)
Sample traps (if using particulate collection)

**Substances Detected:**
Military, Commercial, and Homemade Explosives (HMEs) including:
Ammonium Nitrate, ANFO, Black Powder, C-4, Detasheet, Detonating Cord, Dinitrotoluene, DMNB, Dynamite, EGDN, HMTD, HMX, Nitroglycerin (NG), o-MNT, p-MNT, Peroxides, PETN, RDX, Semtex, Smokeless Powder, Tetryl, Triacetone Triperoxide (TATP), Trinitrotoluene (TNT), Urea Nitrate, and others

Additional substances can be added through user-expandable detection library.

**Power:**
AC Input: 100-240VAC, 47-63Hz
DC Input: 15VDC, 15A via battery (included)
Optional vehicle adapter

**Batteries:**
Lithium Ion (Li-ion) rechargeable (2 ea)
Up to 4 hours operating time per battery

**Operating Temperature:**
-10° C to 55° C (14° F to 131° F)

**Operating Altitude:**
4,572 m (15,000 ft)

**Operating Humidity:**
0 to 95% non-condensing

**Dimensions:**
49.3 cm x 12.7 cm x 18.8 cm (19.4 in x 5 in x 7.4 in)

**Weight:**
5.1 kg (11.3 lb)

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### QS-H150 Accessories

- Vehicle battery charger
- System vehicle adapter
- Printing kit
- Headset

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Operating the H150 is as simple as pushing a button. Its one-handed maneuverability allows for easy, quick, and agile use.

Detailed sample information is available to administrator and supervisor levels by connecting an external monitor.

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