



**Guartel**  
Technologies Ltd

# QUANTUM

# SNIFFER

**QSH150 PORTABLE EXPLOSIVE DETECTOR**

## QUANTUM SNIFFER TECHNOLOGY

The Quantum Sniffer QS-H150 employs a patented vortex collector for the simultaneous detection of explosives particulates and vapours 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 vapour 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 effect 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, ionised photonically and analysed 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. Consumable costs are greatly minimised, 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, licences, inspections or end-of-life disposal issues.



## REAL-TIME EXPLOSIVES TRACE DETECTION

### Features

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

### Benefits

- Lower total cost of ownership
- Very low false positive rate
- Full range of detectable threat library
- Fast analysis
- Ultra-fast clear-down
- Minimal maintenance requirements in the QS-H150, so there are no associated certifications, licences, inspections or en-of-life disposal issues.

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### SYSTEM CHARACTERISTICS

Detector Type	Ion Mobility Spectrometer (IMS) with photonic nonradioactive ionization (U.S. Patent 6628795)
Analysis Time	User-selectable, 5-30 sec (10sec default)
Cleardown Time	15 seconds (typical) • No user intervention
Sample Acquisition	Non-contact vapour collection • Particulate collection via wiping
Power	AC input: 100-240VAC, 47-63Hz DC input: 12-15VDC, 15A via battery included or vehicle adapter (optional)
Warm-Up Time	<15 minutes typical
Operating Temperature	-10 to 55°C (15 to 131°F)
Operating Altitude (Max)	4572m (15,000ft)
Operating Humidity	0 to 95% non-condensing
Substances Identified	Military and commercial explosives, including: RDX, TNT, PETN, HMX, nitroglycerin, nitrates, other 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 (Max)	Visible and con gurgle 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	5.4kg (12lbs) with Li-ion battery



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FM 74298

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