Product Datasheet

Icon-X

Chemical Threat Detector

While Icon-X is Rigaku's fourth generation in its line of 1064 nm Raman analysers, it is the first to provide standoff chemical analysis in order to scan potentially dangerous substances from a safe distance. This is critical for military, first responders, EOD, and border protection teams who could potentially be exposed to explosive threats, such as improvised explosive devices (IEDs), homemade explosives (HMEs), and chemical threats. This new feature also reduces the need for time-consuming sample collection, while allowing responders to assess hazards without disrupting the scene.

Users now have the unique ability to scan samples from a distance or scan with contact – providing more versatility in stressful environments.

Features

- More ergonomic form factor makes it easier to use and hold.
- Higher operational temperature threshold.
- Improved mixtures performance.
- Faster scan processing.
- Latest LCD technology for improved responsiveness in harsh conditions.
- Optional GPS for data marking.
- 13 MP integrated camera for better quality images.
- Capacitive 5" touchscreen LCD.
- No user calibration required.
- On-board library with >13,000 materials.

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Specifications

Size	220 mm x 108 mm x 42 mm
Weight	1.7 kg
Lase Wavelength/ Max. Power	1064 nm/490mW
Spectral Resolution	~ 6 - 13 cm^{-1}
Spectral Range	200 - 2450 cm^{-1}
Spectrometer Type	Transmissive Volume Phase Grating
Detector	TE Cooled InGaAs - 512 pixel
Operating Temperature	-20 to 50°C
Battery Type	Default: 7.2 V Li-ion, 3350mAh, >4 hours (hot-swappable)
Adjustable Laser Power (Auto Mode)	10, 20, 30, 40, 50, 60, 70, 80, 90, 100%
Auto Collection Mode	Included
Adjustable Laser Power (Manual Mode)	5 - 100%
Adjustable Exposure Time (Manual Mode)	200 - 7000 ms
Scan Modes	Identification, ThreatAlert, ChemGuard
Spectral Library Size	13,250+ items
Included Libraries	Biomolecule (including Amino Acids), Cutting Agent, CWA, CWA Precursor, Explosive, Explosives Precursor, General Chemical, General Precursor, Household Chemical, Industrial Chemical 1 - 4, Narcotic, Narcotic Precursor, Pesticide, Pharmaceutical, Polymer, Solvent, Steroid, TIC/TIM

Laser Safety Features	Laser arm code, Laser arm / disarm keypad button, Scan delay, and Scan timeout
Environmental Ruggedness	IP-68 & MIL810H
Connectivity to Desktop or Mobile Device via WebUI	Waterproof USB-Type C / Wi-Fi / Peer-to-Peer
4C Precursor Monitoring	Included
Data Output Formats	.spc, .rrb, .pdf, .txt
CommandSuite Fleet Management	Available
GPS	Optional
Manufacturer Warranty	36 months

Specifications are subject to change without notice.
For the most up-to-date specifications, please visit www.rigakuanalytical.com

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