## NXT-Detect Trace Analyser Mass Spec Analytical Ltd



NXT-Detect is a high-throughput trace detection system based on the Waters™ Radian™ mass spectrometer that combines precision with portability.

Identify explosives, drugs, and other compounds in seconds, thanks to lownanogram sensitivity and near-zero error rates. NXT-Detect's intuitive design empowers even non-expert users with guided workflows and walk-up simplicity. Remote expert review and flexible library updates ensure the system stays ahead of evolving challenges. Deployable anywhere, NXT-Detect delivers instant clarity

## **Key Features:**

- Rapid, accurate identification of explosives, drugs, and other compounds of interest.
- Unique ambient environment thermal source supports highthroughput analysis, results are delivered in seconds.
- Low-nanogram detection for exceptional sensitivity.
- Near-zero error rates for highassurance results.
- Desktop-sized portability for versatile deployment
- Future-proof with easy library expansion
- Easy-to-use Scentinel<sup>™</sup> II software empowers non-experts.



## **Applications:**

From security to science, NXT-Detect delivers precision trace analysis:

- Secure: Uncover explosives, chemical threats, and more.
- Enforce: Analyse drugs, evidence, and contraband with confidence.
- Safeguard: Ensure food safety and quality control.
- Optimise: Monitor production processes for trace impurities.
- Protect: Track environmental pollutants and changes.
- Explore: Advance learning and discovery in science fields.

Contact MSA to learn more: Service@msaltd.co.uk

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NXT Detect Technical	
Specifications	
Technology	
Instrument (Waters™ RADIAN™):	Dedicated, direct analysis single quadrupole mass detector with an integrated Thermal Extraction Ion Source (TEIS)
Transfer Optics:	Dual off-axis ion guides for elimination of neutral species while providing greater sensitivity and robustness
Mass Analyser:	Single quadrupole analyser with pre-filter maximizes resolution and transmission of ions while preventing contamination of the mass analyzer. Automated mass calibration and resolution verification for consistent data quality.
Detector:	Low noise, off axis, long life photomultiplier detector
Mass Range: Temperature control:	100–500 Da. Scan speed: 2 Hz Programmable as isothermal, ballistic ramp or stepped temperature profile with programmable time and temperature set points.
MSA TEIS Source Temperature Range:	Ambient to 300°C (572°F)
Packaging Instrument Dimensions:	Width: 34.4 cm (13.5 inches) Height: 52.5 cm (20.7 inches) (including monitor) Depth: 71.5 cm (28.15 inches) Instrument Weight: 31 kg (68.5lbs)
System Dimensions (Overall):	Width: 58.5 cm (23 inches), Height: 158 cm (62.25 inches), Depth: 92.5 cm (36.4 inches) System Weight: 215.5kg (including bench, Nitrogen Generator, Instrument and vacuum pumps)
Power supply: Operational Temperature Range: Storage Temperture range: Operational Humidity: Operating altitude Packaging – Standard:	100-240 V ac 50/60 Hz 15°C to +28°C (+59°F to +82.4°F) -20°C to +60°C (-4°F to +140°F) 5% to 80% non-condensing 2000m IP-20
Regulatory:	CE, CB, NRTL {CAN/US}, ACM
Compound Detection	
Explosives Detected	Nitrates (AN/UN), HMX, EGDN, NG, DNT/TNT, PETN, RDX, TATP, HMTD, Tetryl, Taggants and others
Illicit Drugs Detected	Cocaine, Heroin, Cannabis, Amphetamine-Based Drugs, PCP, Fentanyl, MDMA, MMB-Fubinaca, Ketamine and others
Environmental contaminants (pesticides)	Ametryn, Atrazine, Prometon, Prometryn, Propazine, Simazine, Terbutryn and others
Lower Detectable Points	Dicodram/nanodram level
Analysis cycle	15 - 20 seconds
Alarm notification	Visual - audible
Software	
Instrument control:	NXT Detect <sup>m</sup> supports Waters MassLynx <sup>m</sup> . Automated mass calibration and mass resolution control and verification. Automated diagnostics, checks and alerts.
Real time sample recognition:	MSA Scentinel™ II for NXT Detect enables fully automatic sample analysis. Results from its dedicated end-user software require minimal interpretation, allowing operators to concentrate on sample acquisition. It is enabled by SpectralWorks' RemoteAnalyzer® software and can be configured to be standalone or operate as part of a multiple instrument networked deployment.
Advanced compound analysis:	NXT Detect uses SpectralWorks' AnalyzerPro* XD for qualitative and quantitative processing and visualisation. It is a sophisticated desktop software solution tailored for Direct MS data. AnalyzerPro XD provides comprehensive post-acquisition processing and statistical tools for sample-to-sample comparison, target component analysis, and library searching.
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