Small size, big power

Fast, accurate, versatile XRF analysis

When versatility, low limits of detection (LODs) and high sample throughput are critical, industrial businesses rely on the Thermo Scientific™ Niton™ XL5 handheld XRF analyzer. Providing customers with solutions designed to meet their most demanding applications, the Niton XL5 maximizes performance and productivity.

Applications

- Verification of metal alloys in manufacturing operations
- Non-destructive field inspections for positive material identification
- Point-and-shoot sorting at scrap recycling operations
- Measurement of mono and multilayer coating weight and thickness in Surface Treatment Control
- Precious metal assay of bullion and jewelry
- Real-time geochemical analysis for mining exploration
- On-site heavy metal screening of polluted soils
- Spectral Fingerprint matching for the detection of counterfeit investigation

Analytical performance

Designed to return lab quality results, the Niton XL5's low limits of detection allow operators to scan a broad range of materials for diverse applications. Identify pure metals and alloys, obtain geochemical data, or utilize the XL5 to determine plating and coating thickness for up to four layers. From metals to mining, and everything in between, the Niton XL5 is ready to work.

Rapid results

Powered by a 5W x-ray tube, the Niton XL5 generates fast and accurate results. A dynamic current adjustment ensures optimum sensitivity for each measurement. Results are displayed in real time, enabling you to make faster decisions.

Size and weight

Make light work of heavy industrial tasks utilizing the Niton XL5. Weighing an industry leading 2.8 pounds (1.3 kilograms), the Niton XL5 is the lightest handheld XRF analyzer available for elemental determination and alloy identification. It's small footprint and featherweight design reduce operator fatigue while increasing productivity.

Design

Tight spots are no match for the Niton XL5. Discover expanded field use with improved compact geometry and ergonomics. Reaching tight welds, corners and joints, are no longer defined as awkward test spots for the Niton XL5.

The Niton XL5 in use, analyzing a tight weld in an oil refinery.

Functionality

Vivid new icons and an application interface ease navigation and configuration. Utilize swipe and touchscreen functionality, even with a gloved hand. Optional directional keys provide added usability. A micro and macro camera enable precise sample positioning and collect images for better record keeping. WiFi accessibility automatically transmits data from your device to PC.

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Product Specifications

Weight	2.8 lbs with battery (1.3 kg)
Dimensions	9.54 x 8.19 x 2.67 in. (242.56 x 208.17 x 67.9mm)
Tube	Ag anode (6-50kV, 500uA max, 5W max) Dynamically adjustable current for optimal sensitivity for every analysis
Detector	Geometrically Optimized Large Area Drift Detector (GOLDD) Proprietary detector with up to 180,000 cps throughput Typical Resolution: 150 ev- 185 eV depending on shaping time used
System Electronics Processor	iMX6 quad core ARM A9 running at 800 MHz 80 MHz ADC ASIC for digital pulsed processing 4096 channel MCA 512 MB internal system memory / 16 GB industrial grade storage
Standard Alloy Analytical Range	More than 30 common elements for rapid alloy identification Ultra-low light element detection
Modes Available	General Metals, Precious Metals, Coatings, Mining, Soils, Spectral Fingerprint
Libraries	Users may create, clone and edit libraries Default alloy libraries based on: - SAE, AISI, ASTM, AA standards - DIN standards - GB standards
Display	Tilting, color, touch-screen display
Data Storage	Approximately 130,000 readings with spectra (fewer, if micro and macro images are saved)
Data Transfer	WiFi, USB
Global Positioning	GPS data included with sample information
Bluetooth	Supports print functionality and external GPS connectivity
Security	Password-protected user security
Data Entry	Touch-screen keyboard User-programmable pick lists Customizable data field sets
Camera	Integrated CCD Macro Camera for capturing overview images of parts and tagging measurement locations Integrated CCD Micro Camera for locating and recording measurement positions
Languages	English, Chinese, Spanish, Portuguese, Russian, Japanese, German, Korean, French, Turkish, Italian
Standard Accessories	Locking shielded carrying case Two lithium-ion battery packs 110/220 VAC battery charger/AC adaptor PC connection cables (USB) NitonConnect PC software Safety lanyard Check samples
Optional Features and Accessories	3mm small-spot collimation Thermo Scientific™ portable test stand Thermo Scientific™ mini test stand Thermo Scientific™ backscatter shield Thermo Scientific™ hotwork stand off Thermo Scientific™ soil guard Belt holster
Compliance	CE, RoHS, FCC, Industry Canada, Safety to IEC 61010-1:2010, IP54
Licensing/Registration	Varies by region. Contact your local distributor.

Learn more at **thermofisher.com/XL5**

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