■ *Technical Data*

Alpha Series™

analyzers give fast, accurate alloy grade & chemistry.

For Positive Material Identification (PMI), verification and quality assurance – without radioactivity – Innov-X offers the smallest, fastest and most versatile handheld XRF analyzer available anywhere.

The Innov-X tube-based Alpha Series™ is isotope-free and delivers instant, accurate readings. It features a miniature X-ray tube and high-resolution detector. It is engineered around the HP iPAQ pocket PC.

XRF is a standard lab technique for metals analysis. Now it is available in the field.
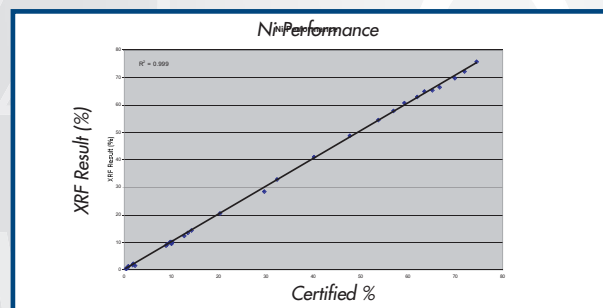
22 Ti 2 8 10 2	24 Cr 2 8 13 1	28 Ni 2 8 16 2	42 M 2	27 Co
Titanium	Chromium	Nickel	Mol	Coba
47.867	51.9415	58.6934	35.	51.94

Nickel in Alloys.

Ni Performance

Comparison of Alpha Series™ results with certified values for nickel in alloys, 10 sec. measurement.

INNOV-X SYSTEMS™
tive XRF Technologies

The lightweight, easy-to-use Alpha Series™ provides rapid grade identification.

Innov-X Alpha Series™ advantages include:

- Measure Cr in carbon steel to 0.03% -- for evaluating flow accelerated corrosion (FAC).
- Designed for tests to 800° F.
- Analyze low alloy, stainless, nickel, titanium, cobalt, copper-based alloys and more.
- Confidently separate challenging alloys such as 304 & 321, P91 & 9 Cr, Ti Grade 7 & CP Ti.
- Exceptional performance on 6061/6063 aluminum alloy separations.

Innov-X Alpha Series™

The alloy analyzer for fast and confident on-the-spot identification.

24
Cr
Chromium
51.9415
2 8 13 1

28
Ni
Nickel
58.6934
2 8 16 2

Now with SmartBeam™ technology, Innov-X combines X-ray tube expertise, multiple beam filtering capability and the HP iPAQ pocket PC. This combination, together with superior ergonomics, results in superb reliability, speed, precision and a lifetime of upgrade potential.

Designed and engineered for alloy analysis anywhere.

With its lightweight pistol grip and extended probe head, Alpha Series™ lets you reach into piping, welds, flanges and other hard-to-access areas.

Sophisticated grade IDs.

Alpha Series™ holds thousands of alloy grades. User may search on common names, UNS numbers, ASME, Mil Specs and more. The entire UNS library is available for search on the PDA. Alternative grade libraries may be imported anytime.

Cutting edge PDA technology.

Alpha Series™ is driven by the HP iPAQ pocket PC. Data entry is instant. Reports are generated on the spot. Upgrades are possible over the lifetime of the analyzer. Bluetooth™ enabled for wireless printing.

Typical Alloy Precision.

	316 Nom	316 +/-	HAST C-276 Nom	HAST C-276 +/-	HS-25 Nom	HS-25 +/-	4340 Nom	4340 +/-
Cr	16	0.3	15	0.2	20	0.5	0.9	0.03
Co	-	-	0.9	0.2	50	0.5	-	-
Ni	10	0.3	56	0.5	10	0.3	1.8	0.13
Mo	2	0.04	16	0.25	1.2	0.03	0.25	0.03
W	-	-	3.5	0.35	15	0.7	-	-

Precision for several common alloys, for 20 second test times. Note test times are 2-3 seconds for rapid sorting applications.

Custom holster lets you take Alpha Series anywhere.

Removable handle with belt-mount battery pack for testing in tight places.

Basic Specifications.

Weight: 2.625 lbs. (base wt.) 3.375 lbs (1.6 kg) with batteries.

Excitation Source: X-ray tube, Ag or W anode, 10-40 kV, 10–50 µA, up to 5 filter positions.

Smart Beam: Delivers industry-leading detection limits on critical elements Cr, V, Ti.

Detector: Si PiN diode detector, < 230 eV FWHM at 5.95 keV Mn K-alpha line. Temperature Range: -10°C to +50°C.

Operation: Trigger or Start/Stop Icon. One-touch trigger or "deadman" trigger option. Optional control from external PC.

Power: Li-ion batteries, rechargeable (charger included). Powers analyzer and iPAQ simultaneously. AC Adapter optional.

Battery life: 8 hours (typical duty cycle) using built-in; optional multiple battery pack.

Number of Elements: Standard package includes 21 elements. Customer may specify 4 additional, or use multiple suites of 25 elements each.

Display Screen: Color, high resolution touchscreen. Variable brightness provides easy viewing in all ambient lighting conditions.

Data Display: Concentrations in %. Spectral display with peak zoom and identification.

Memory, Data storage: 128 Mb standard memory. 20,000 test results with spectra, upgrade to >100,000 with optional 1 Gb flash card.

Processor: Intel 400 MHz StrongArm processor or higher.

Operating System: Microsoft Windows CE (portable system) or Windows (PC-based). Software Modes: Alloy Analytical, Fast ID, Pass/Fail. Optional lead paint, soil, others.

Specifications subject to change without notice.

INNOV-X SYSTEMS™
Innovative XRF Technologies

23
V
Vanadium
50.9415

24
Cr
Chromium
51.9415

25
Mn
Manganese
54.938049

26
Fe
Iron
55.8457

27
Co
Cobalt
51.9415

28
Ni
Nickel
58.6934

29
Cu
Copper
63.546

30
Zn
Zinc
65.39

31
Ga
Gallium
69.723

32
Ge
Germanium
72.61

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