OPTOSKY Spectroscopy Solutions

Datasheet

Handheld Alloy Analyzer ATX3100A

Features

- One-touch operation
- The software exits and shuts down automatically
- Automatically calibrate instruments
- Non-destructive testing
- It only takes 45 seconds from boot to test, and the results are available in 0.8 seconds.
- Light weight (1.6kg)

Application

- Scrap recycling and sorting

Recycling and reuse of scrap metal, complex and diverse alloy types and materials, on-site analysis, testing and sorting

- Volumetric analysis of metal components

Such as copper alloy, aluminum alloy, copper-iron alloy, lead-tin alloy, hybrid alloy, and rapid on-site material identification and sorting

- Alloy Material Identification (PMI)

Inventory material management, installation material re-inspection

Description

ATX3100A is a handheld alloy analyzer using X-ray fluorescence spectroscopy technology. With the continuous promotion of X-ray fluorescence spectrometry analysis technology, the use of X-ray fluorescence spectrometer analysis and detection has become the main means of quality control in many industries.

The ATX3100A handheld alloy analyzer (XRF) can analyze alloy material elements. It can quickly, accurately and completely non-destructively measure and identify various stainless steel, tool steel, chromium/molybdenum steel, copper alloy, nickel alloy, cobalt alloy, nickel /Cobalt heat-resistant alloy, titanium alloy, aluminum alloy, magnesium alloy and other alloys, it only takes 45 seconds from boot to test, and the alloy grade and data are output in 0.8 seconds.

More than 2/3 of the ATX3100A body is designed with an aluminum alloy shell. There is a trough-type heat dissipation device on the top of the instrument. The entire system makes heat dissipation very effective, extending the life of the machine. The X-ray analyzer works more stably, resulting in an extremely low failure rate.

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1. Parameter

Table 1 ATX3100A handheld alloy analyzer configuration

Model	Remark
Examination Range	Sulfur (S) ~ Uranium (U)
Detector	Si-pin detector, which can record analysis data and spectra at the same time; Moxtek Si-PIN detector (6 mm2 energy resolution 170eV FWHM) or Amptek Si-PIN detector (25mm2) energy resolution 190eV FWHM)
Excitation Source	High-power miniature straight-plate electronic X-ray tube with an excitation voltage of 35kV; no high-voltage cables, no radio frequency noise, better X-ray shielding, and better heat dissipation. Fixed voltage 35kV, current 100uA (Moxtek, USA), standard Ag target, W target and Rh target can be customized
Display	LCD resistive touch screen
Data Transmission	MicroSD card
Data Display	Elements can be displayed in order or whether to be displayed according to test requirements.
Data Output	One is to export the data directly through the storage device SD card or U disk; the other is to export the data through PC software
Data Format	pdf or Excel format, including element content, maps, images, etc., with a variety of templates to choose from
Data Storage	4GB embedded storage, standard 32G MicroSD card, can store 300,000 sets of data and its X-Ray spectrum, and the storage capacity can be expanded
Detection Object	solid
Battery Capacity	Original 7.2V large-capacity rechargeable potassium battery. You can check the power directly at the bottom without removing the battery. One potassium battery is included as standard.
Operating System	Window CE 6.0 special operating system for industrial-grade instruments, safe and secure
Operation Method	KMX-FP standard-free testing method supports empirical coefficient method correction
Filter	Equipped with a single optical filter, no need to switch motors
Weight, Size	Light weight (1.6kg); small size (220mm*150mm*220); sturdy and durable, anti-fall wrist strap
Environmental Requirements	Temperature: -20~50℃, relative humidity: 10~90% (no condensation)

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2. Elemental analysis

1. The content of more than twenty-five elements between titanium (Ti) and uranium (U).

2. Analyze the main elements in the alloy:

Can analyze 23 types of Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, Hf, Ta, W, Re, Pb, Bi, Zr, Nb, Mo, Pd, Ag, Cd, Sn, Sb, etc. element

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