

PHOENIX II

using Direct Excitation Optics

Benchtop ED-XRF Analyzer

The PHOENIX II using Direct Excitation Optics (DE) is an Energy Dispersive-X-Ray Fluorescent (ED-XRF) benchtop analyzer that offers extreme simplicity of operation in a lowcost compact design. It is ideal for elemental analysis of liquids, solids, pastes, slurries and powders for various elements qualitatively and quantitatively. This ED-XRF spectrometer has been designed for use in the rugged environment of production process and quality control, but is also well suited for the laboratory. An onboard PC makes use of Windows™ operating system along with a simple, intuitive touchscreen display, making analysis easy for nontechnical operators, but advanced enough for even the more experienced user as well.

The PHOENIX II DE combines direct source X-rays, optional source and/or detector filter, and a rugged gas-filled proportional counter detection system, giving the PHOENIX II DE improved performance. The detector design yields a high X-ray count rate throughput and utilizes a detector filter for specific applications to enhance analytical performance. With its onboard computer, no external computer is needed. The PHOENIX II DE does not require an external mouse or keyboard, yet offers USB, VGA and Ethernet connections for networking and connecting to external devices. This compact, simple to operate XRF system offers a unique combination of close-coupled geometry with a rugged detector for high sample throughput at a very affordable price and low cost of ownership.

Typical Applications include:

- ▶ S, Ca, Ni, Fe, Zn in engine oils
- ▶ S, Cl, Ca in waste oils
- ▶ S, V, Fe, Ni in residual oils
- ▶ TIO₂ in various matrices
- ▶ Zn Stearate in plastics
- ▶ Fe in Silica Sand
- ▶ Fe in Cocoa
- ▶ Many other applications possible



ASOMA Instruments was established in Austin, Texas, in 1979 as one of the first companies to offer low-cost benchtop EDXRF instrumentation. Throughout the next decade and a half, ASOMA became established as an industry leader with the development and release of the Models 100, 200 and 200T-series of XRF analyzers, as well as on-line instrumentation for measuring sulfur in liquid hydrocarbon streams.

ASOMA

Features and Benefits

- ▶ 30kV X-ray tube
- ▶ Direct excitation using X-ray tube
- ▶ Source filter for optimizing excitation conditions
- ▶ Rugged proportional counter detector
- ▶ Onboard computer with touch-screen interface
- ▶ Windows XP™ operating system
- ▶ Networking capability
- ▶ Simple one-button analysis
- ▶ Low cost of ownership

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ASOMA®



Technical Data

Excitation

- ▶ Direct X-ray excitation
- ▶ Side-window X-ray tube
- ▶ Configured with one of a wide selection of anodes
- ▶ Max voltage 30 kV
- ▶ Max power 9 W
- ▶ Optional source filter

Detection Systems

- ▶ Rugged gas-filled proportional counter detector
- ▶ Gas fill optimized for application
- ▶ Automatic energy drift compensation
- ▶ Optional detector filter

Sample Chamber

- ▶ Single position (30mm cups)
- ▶ Bulk or flat samples (12 x 12 x 3 cm)
- ▶ Analysis of solids, liquids, powders, pastes, slurries, coatings, films, filter deposits
- ▶ Sample Spinner (optional)

Software/User Interface

- ▶ Touch-screen display
- ▶ Embedded Panel PC computer
- ▶ Password protection
- ▶ Windows XP™ operating system
- ▶ USB and Ethernet connections
- ▶ Networking capability
- ▶ External monitor connection
- ▶ Onboard thermal printer

Spectrometer Data

- ▶ Voltage: 115-220 VAC ±10% , 60W, 50/60Hz
- ▶ Dimensions: W x D x H:
38 x 46 x 31 cm (15 x 18 x 12")
- ▶ Weight: 18 kg (40 lbs)

Environmental Specifications

- ▶ Ambient Temperature: 10°C to 35°C
- ▶ Humidity: 10% to 90% non-condensing

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One of a family of innovative process analyzer solutions from AMETEK Process Instruments.
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