

ElvaX Mini is a compact Energy-Dispersive X-Ray Fluorescence (EDXRF) spectrometer ideally suited for qualitative and quantitative analysis of metal alloys and other solids, liquids and powders.

ElvaX Mini is a cost-effective, high-performance solution for applications such as jewelry, alloy sorting, and express QC in metallurgy.

With a detectable range of Ti (22) to Pu (94), **ElvaX Mini** delivers accuracy better than 0.3% when measuring metal concentrations in alloys.

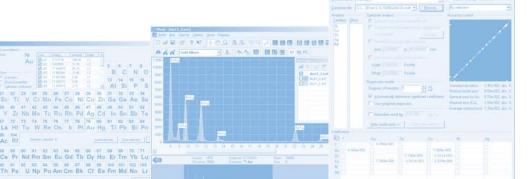
ElvaX Mini combines a powerful analytical software toolkit with an easy to use interface, meaning even novice operators can be measuring in minutes! The sample chamber accommodates a wide variety of part shapes and sizes, and no time-consuming specimen preparation is required.

In the lab or in the field, **ElvaX Mini** delivers the performance and precision of an expensive full-size bench top spectrometer - at a considerably lower cost of ownership.

Key Applications:

A versatile, cost-effective solution for hundreds of industrial and scientific applications, including:

- Jewelry and precious metals assay
- Precise metal concentrations in complex alloys
- WEEE/RoHS compliance testing and screening of regulated elements (Pb, Hg, Cr, Cd, Br)



Applications Performance

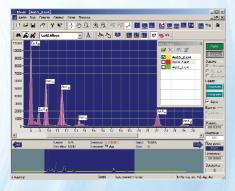
Measurement Capability		
Detectable Range	Ti (22) - Pu (94)	
Accuracy	0.05 - 0.3% for any metal alloy.	
Key Applications		
WEEE/RoHS	Elemental analysis of plastic, PCB, solder, electronic parts, plating solutions, rubber.	
Jewelry and Precious Metals Assay	Gold, Platinum, Silver, Palladium and other precious metals (with or without standard sample).	
Metallurgy	Precious and non-precious metal analysis; steel, ore, solder.	
Organics	Testing of food, feed and cosmetics for heavy metals and contaminants.	
Environmental	Water, soil, burnt ash.	
Forensics	Customs control, criminology lab analysis, archeological research.	
Medical	Research & development, medical diagnostics.	



System Specifications

X-Ray Generation	
X-Ray Tube	Ti or W target anode, 140 micron Be window, air cooled.
X-Ray Generation	Tube Voltage: 4-40kV (adjustable in 100V steps) Tube Current: 0-100uA (adjustable in 0.2uA steps), 4W max.
X-Ray Detection	
Detector	Si-PIN diode, thermoelectrically cooled.
Resolution	185 eV at 5.9 keV (Mn Ka line)
Chamber	
Dimensions/Weight	22cm x 34cm x 20cm, 10kg.
Power Supply	90-240 VAC 50/60HZ
Power Consumption	30W.
Software	
Operating Software	ElvaX™ analysis package, running under Microsoft Windows™ 98/NT/2K/ XP.
Control	X-ray source output, DAQU system parameters, filter selection (optional)
Spectrum Processing	Automatic peak search, peak deconvolution, background removal, automatic element identification, net peak intensities above background.
Quantitative Analysis Algorithms	Fundamental parameters, quadratic stepwise multiple regression, manual spectra comparison.
Reporting	User-customizable data print out.
Options (Special order; contact for details & pricing)	
Optics	Built-in CCD camera; VGA, 640 x 480 pixel field of view.





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