

ElvaX *Jewelry Lab*

XRF Analyzer for Precious Metals and Jewelry



ElvaX Jewelry Lab was designed for high-accuracy analysis of precious metals and jewelry. Measurement process takes only several seconds; result is shown in % and karats. **ElvaX Jewelry Lab** is also capable of detecting coatings and non-standard alloys. The instrument can be operated both using the embedded hi-res display and using **ElvaX** software installed on a PC. The integrated CCD camera allows you to target the required spot of the analyzed sample. Automatic collimator change allows you to select the required measurement spot diameter. **ElvaX Jewelry Lab** has integrated high-accuracy scales and an integrated printer, which allows you to print out analytical certificates containing chemical composition, weight, and even price. A rechargeable Li-ion battery allows for analysis in the field.

X-ray fluorescence analysis surpasses the rest of analytical methods in terms of speed, accuracy, and simplicity. It's a non-destructive method, in which analysis is targeted at the spot of interest. The diameter of an analytical spot can be easily changed.

20 seconds

Measurement sequence

1. Put sample on the scales



2. Put sample on the analytical window



3. Close the lid. Measurement is started automatically



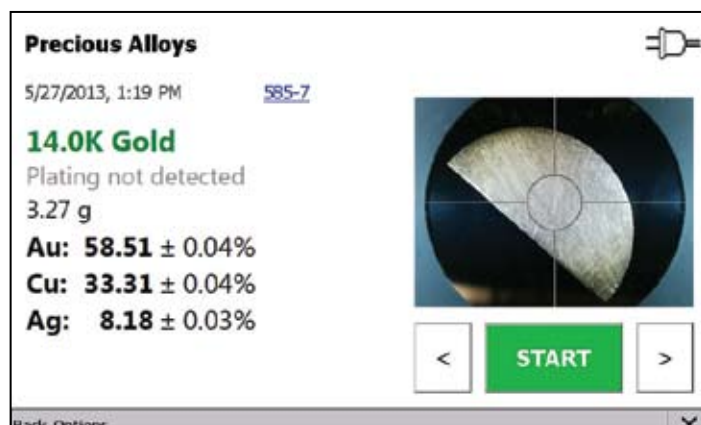
4. Measurement result on the screen and automatic printing of certificate



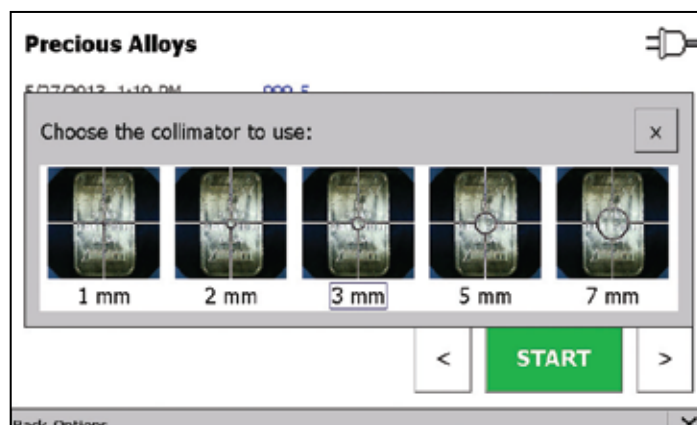
User Advantages

- High accuracy and speed.
- Intuitive interface. ElvaX Jewelry Lab can work autonomously as well as connected to a PC.
- Coatings detection.
- Compact. Doesn't occupy much space on a counter.
- Ergonomic design with a LED lighting looks very good in a jewelry shop.
- Transparent lid – sample is always seen by customer.
- Customer display – sample's weight and chemical composition are seen by customer during measurement.
- Additional customer screen can be connected to ElvaX Jewelry Lab.
- USB port for data export.

Measurement results in karat and %



Camera and collimator

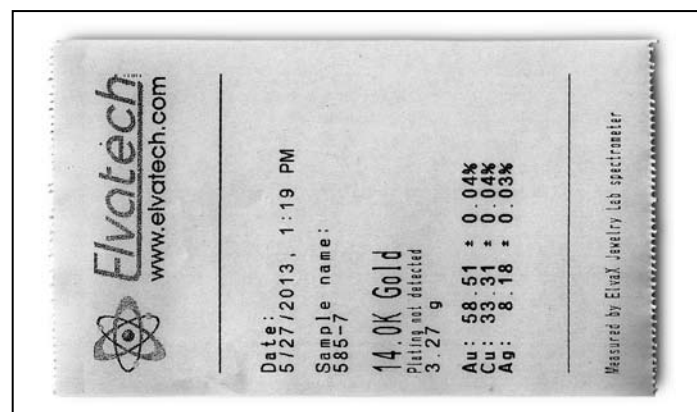


Bonus features

Sample weighing



Analysis results printing



Repeatability Test for 14-karat gold. Measurement Time 5 Seconds

	Au	Ag	Cu
1	58.55	8.21	33.24
2	58.59	8.18	33.23
3	58.63	8.20	33.17
4	58.60	8.16	33.24
5	58.56	8.19	33.25
6	58.61	8.22	33.17
7	58.64	8.18	33.18
8	58.58	8.17	33.25
9	58.59	8.24	33.17
10	58.63	8.16	33.21
Average	58.60	8.19	33.21
St. Deviation	0.03	0.03	0.04

Specifications

Detectable Range	From Mg (12) to U (92)
Measurement Time	From 1 second
Power Supply	100-240 V, 50 – 60 Hz
Analytical Chamber Dimensions	185 mm × 212 mm × 90 mm
Weight	7 kg

X-ray Tube	W target anode, Be window, air cooled
Detector	SDD detector, thermoelectrically cooled, 25 mm ²
Camera and Collimator	Automatic change in the range from 1mm до 10 mm
Integrated Scales	Accuracy 0,01 g
Battery	6 operating time before charging
Integrated Hi-Res Screen	5", resolution 800 × 480
Data Transfer	2 USB ports, Micro SD, Ethernet
Data Input	Keyboard and mouse can be connected for data input