

ElvaX[®] Jewelry Lab[®]

XRF Analyzer for Precious Metals & Jewelry



ElvaX Jewelry Lab was designed for the highly accurate analysis of precious metals and jewelry. The measurement process takes only seconds, with the results shown in % and karats. **ElvaX Jewelry Lab** is also capable of detecting coatings and nonstandard 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 both an integrated, high-accuracy scale and a 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.

For more information, contact us today at 631.435.9749 • www.xcaliburxrf.com

XRF Analyzer for Precious Metals & Jewelry

X-ray fluorescence analysis surpasses all other 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.

Measurement Sequence

1. Place sample on the scale.



2. Place sample on the analytical window.



3. Measurement auto-starts when lid is closed.



4. On screen & printed measurement results.



20 seconds



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.

Measurement Results in Karats and %

Precious Alloys

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14.0K Gold
Plating not detected
3.27 g

Au: 58.51 ± 0.04%
Cu: 33.31 ± 0.04%
Ag: 8.18 ± 0.03%

START

Bonus Features

Sample Weighing



- 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.

Camera and Collimator

Precious Alloys

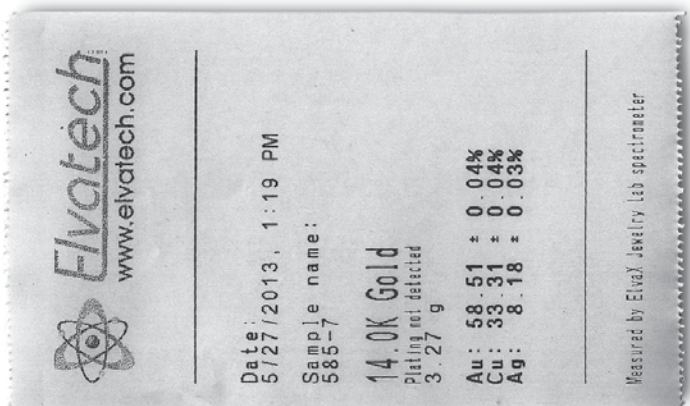
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Choose the collimator to use:

1 mm 2 mm **3 mm** 5 mm 7 mm

START

Printed Analysis Results



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 x 212 mm x 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 to 10 mm |
| Integrated Scales | Accuracy 0,01 g |
| Battery | 6 operating time before charging |
| Integrated Hi-Res Screen | 5", resolution 800 x 480 |
| Data Transfer | 2 USB ports, Micro SD, Ethernet |
| Data Input | Keyboard and mouse can be connected for data input |

For more information on these and other Xcalibur products, contact us today!

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