Elvatech

Advanced XRF equipment and solutions

DESIGNED FOR HIGH-ACCURACY ANALYSIS OF PRECIOUS METALS AND JEWELRY

ElvaX
Jewelry Lab

ElvaX Jewelry Lab is aimed on high-accuracy analysis of jewelry and precious metals. Measurement process only takes several seconds. The result is shown in both percent share and karats. ElvaX Jewelry Lab is also capable of detecting coatings and nonstandard alloys. This instrument can be operated either using the embedded computer with the high-resolution touchscreen display, or using a PC with ElvaX™ software installed.

ACCURACY

Analysis accuracy of precious metals and jewelry is better than 0,1%
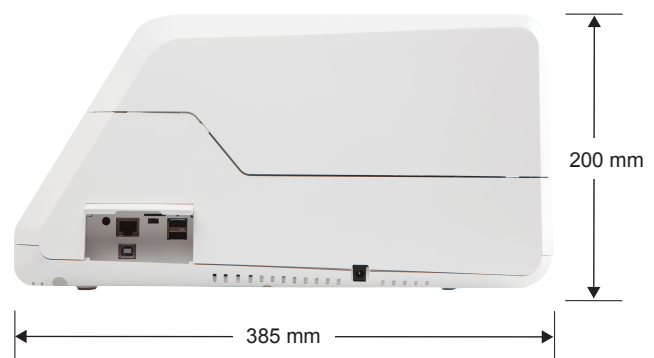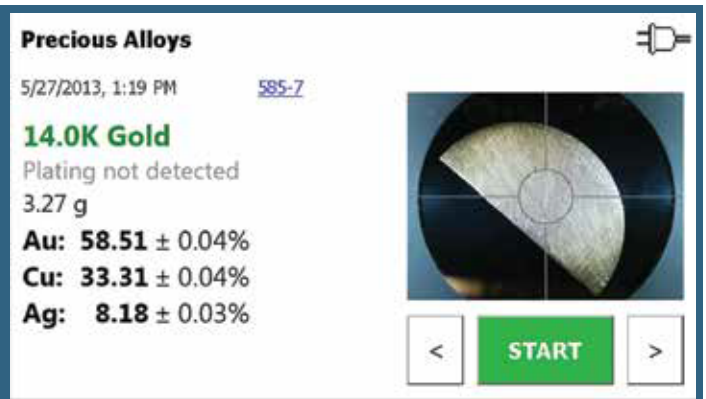
SPEED

The whole measurement process takes just several seconds

COMPLETENESS

Integrated computer, high-accuracy scales, printer and a rechargeable Li-ion battery

The integrated CCD camera makes it possible to target the required spot of the sample undergoing analysis.

Automatic collimator changer allows you to select the required measurement spot diameter.

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%

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280 mm

385 mm

200 mm

- ✓ High speed and accuracy
- ✓ Intuitive interface
- ✓ Autonomous operation as well as connected to a PC
- ✓ Coatings detection
- ✓ Compact, doesn't take much space on a desk or a counter
- ✓ Leaded glass to keep analyzed items always in sight
- ✓ Customer display

14 KARATT GOLD ANALYSIS RESULTS

	Au	Ag	Cu
1	58.55	8.21	33.24
2	58.59	8.18	33.23
3	58.63	8.2	33.17
4	58.6	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	58.6	8.19	33.21
Std. deviation	0.03	0.03	0.04

Digital X-Ray Source digiX-40
Anode: W
Voltage: 40 kV
Current: 200 uAmp
Power: 4 W
5 position collimator changer from 1 to 10mm

X-Ray Detector
Type: Fast SDD (optional Si-PIN)
Area: 25 mm2 (6 mm2 for Si-PIN)
Energy resolution: 140 eV (165 eV for Si-PIN) at Mn Kα

Electronics
DPP: proprietory DAS (Dynamically Adaptive Shaping) type
MCA: 4096 channels

General
Dimensions: 280 x 385 x 200 mm
Analitycal chamber: 185 x 212 x90 mm
Weight: 7 kg
Power supply: 90 – 240 V, 50/60 Hz
Power consumption: 40 W
Battery: 6 hours continuous operation

Software
Operating system: Windows EC
Analysis algorithm: Fundamental parameters (FPA)

Connectivity
Data transfer: 2 USB ports, Micro SD, Ethernet
Data input: Keyboard and mouse can be connected for data input