innosphere

Innovation. Precision. Excellence.

KARATMETER JL

Jewellery & Precious Metals Analyzer

Fast non-destructive precise
Karat/Percentage determination
of jewellery samples and precious alloys
using modern micro-spot Spectroscopy Technology

InnoSphere the well known name in jewellery industry since long consists the group of professionals, each having several years experience in the field of analytical, scientific, process, tests & measuring instrumentation.

InnoSphere with its experience for more than 2 decade in Spectroscopy Technology introduces always innovation in precious measurement with latest hardware technology, intuitive software package, simplicity in operations at affordable cost. The complete spectrometer is controlled by integrated touch screen computer and can be connected via USB interface to several other options.

Karatmeter JL is designed considering the present needs of all metals with high-accuracy for precious alloys. The measurement process takes few seconds and results are shown in % and karat as well. The integrated CCD camera allows to target the required spot of measuring sample. The unit is also capable of detecting coatings and non-standard alloys. The unit comes with several options including collimator changer, accurate weighing scale for direct price calculation based on purity, integrated small ticket printer, rechargeable Li-ion battery pack for analysis in the field.

Direct reading Spectroscopy 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

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TECHNICAL SPECIFICATION

PARAMETER	MODEL KARATMETER JL
Excitation Source	Integrated Lower Wavelength Source
Detector	SiPIN diode and silicon drift SDD detectors thermoelectrically cooled, 25 mm^2
Detectable Range	From Mg (12) to U (92)
Collimator	Fixed collimator, optional 5-position collimator changer available
Measurement Time	Typically 10-60 sec
Camera Image	High resolution CCD color camera
Integrated Hi-Res Display	5" touch screen, resolution 800 × 480
Integrated Printer	Optional Small ticket printer
Battery Backup	Optional 6-hours operating time
Data Transfer	2 USB ports, Micro SD, Ethernet
Data Input	Direct keyboard and mouse connections
Power Supply	230/110 VAC, 50/60 Hz
Unit Dimensions	277 mm × 393 mm × 205 mm (W×D×H)
Chamber Dimensions	185 mm × 212 mm × 90 mm (W×D×H)
Weight	8 kg

Measurement Sequence

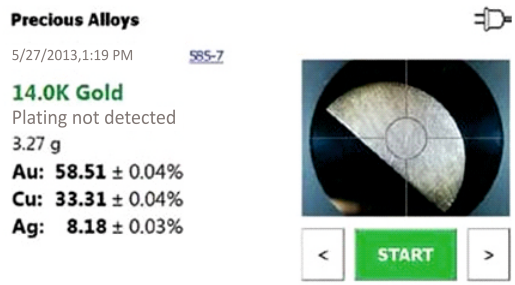
1. Put sample on the weighing scale

2. Put sample on the analytical window

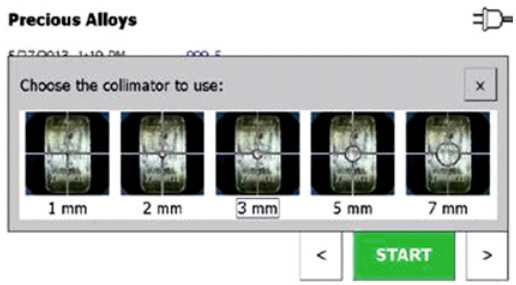
3. Close the lid. Analysis starts automatically

4. Display results & print report

Measurement results in karat and %



Camera and collimator



FEATURES :

- High accuracy better than 0.2 wt.% and speed
- Intuitive interface to work autonomously also with external PC connection
- Compact & ergonomic design with small footprint and illumination
- Transparent lid – sample is always seen by customer during measurement
- Additional customer screen and options can be connected via USB ports

All configurations and specifications are subject to change without notice.

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