

ZEEMAN MERCURY-IN-FOOD ANALYZER

RA-915F



METHOD OF MEASUREMENTS

Atomic absorption spectrometry at 254 nm with Zeeman correction for background absorption for interference-free measurement.

PRINCIPLE OF OPERATION

Is based on the atomization of mercury contained in the sample in a thermal decomposition unit and subsequent measuring the absorption of the 254-nm resonance radiation by mercury atoms using Zeeman correction for background absorption

FEATURES AND BENEFITS

- Direct mercury determination in foodstuffs and other samples with complex matrices
- Highest selectivity
- No pre-treatment procedures required
- Fast mercury determination without its preliminary accumulation on a gold trap
- Broad dynamic measurement range: 5 orders of magnitude, no memory effect
- Variable temperature of the decomposition chamber for optimal atomization with preset modes for various types of samples
- Heated analytical cell rules out interferences for a sample with a high content of organic substances and chlorides
- Monitoring the background absorption during measurement eliminates analysis errors
- Visualization of mercury output from the sample, user-friendly computer interface
- Calibration is made using standard mercury-containing sample of any composition, high calibration stability
- Automatic control of the air flow rate, no carrier gas is needed



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SPECIFICATIONS

Detection limit	0.5–3 µg/kg
Sampling	10–500 mg
Upper limit of the measurement range of concentration for a 20 mg sample	200 mg/kg
Analysis time	1–5 min
Power supply	198–242 VAC, 50±1 Hz
MEASUREMENT UNIT	
Dimensions	300x260x130 mm
Weight	4.0 kg
FOOD SAMPLING UNIT	
Dimensions of power supply unit	380x260x130
Weight of power supply unit	10 kg
Dimensions of thermal chamber unit and optical unit	350x350x120 cm
Weight of thermal chamber unit and optical unit	7.5 kg

DELIVERY SET

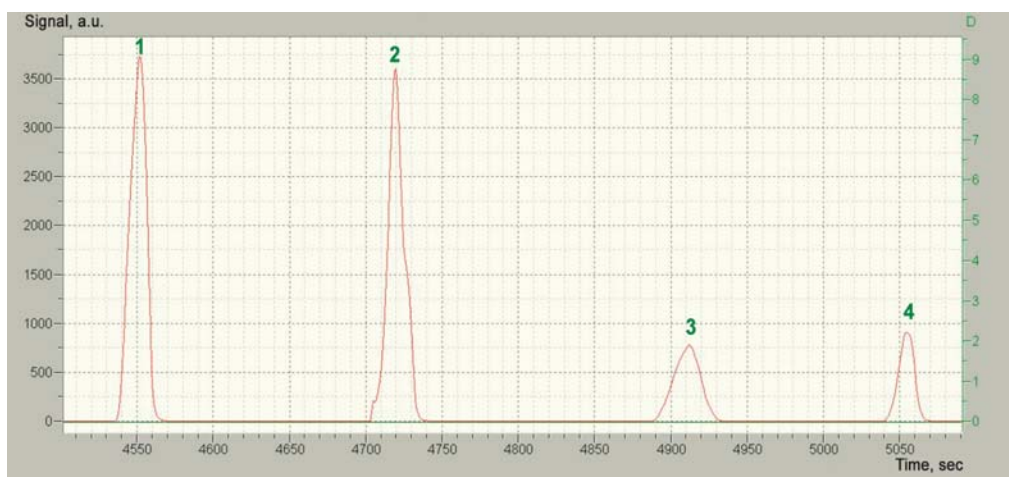
RA-915F Zeeman mercury-in-food analyzer comes with RAPID software, interface cables, user manual.

WARRANTY

RA-915F Zeeman mercury-in-food analyzer is covered by 12-months limited warranty.

SERVICES

Upon request installation and commissioning of RA-915F Zeeman mercury-in-food analyzer can be carried out on Customer's site by our service engineers. Support and training of operators, meeting Customer's specific needs, are provided by highly qualified application engineers.



A screenshot for the case of mercury determination in dried mushrooms (1) and (2) and fish (3) and (4)

(1) and (2) – 48 and 43 mg of a dried mushroom sample, measured values are 1426 and 1492 ppb
 (3) and (4) – 121 and 85 mg of a raw fish sample, measured values are 188.1 and 189.5 ppb

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