



Portable Zeeman Mercury Analyzer

RA-915M

For mercury detection in ambient air, solids and liquids, complex matrices

Method of Measurement & Principle of Operation

Atomic absorption spectrometry Zeeman background correction for methods:

- ▶ ASTM D7622-10
- ▶ SW846 series 245, 1631, 7473
- ▶ NIOSH 6009 performance-based methods

Applications

- ▶ Emergency response to mercury spills
- ▶ Mercury spill cleanup verification
- ▶ Industrial hygiene monitoring
- ▶ Environmental inspection and site remediation
- ▶ Interference free determination of mercury in ambient air, natural gas, stack gases, soil, coal, sorbent traps, crude oil, food, pharmaceuticals, water, wastewater, and more

Features & Benefits

- ▶ Real-time measurements in air and gases
- ▶ Listed on the US EPA recommended Emergency Response Equipment List
- ▶ NIST traceable calibration
- ▶ Lowest detection limit and highest selectivity on the market
- ▶ Fully automated, simple to operate
- ▶ Controlled by keypad or computer via USB interface
- ▶ Rechargeable lithium battery, up to 12 hours of operation
- ▶ Rugged design for laboratory and field
- ▶ Built-in datalogger (122 h), performance verification test cell and auto zero function
- ▶ Direct determination of mercury in solids and liquids within 60 sec.
- ▶ Wide dynamic measurement range (four orders of magnitude)
- ▶ No sample prep or conditioning
- ▶ Catalyst and carrier gases-free operation





Application Examples

Matrix	Detection Limit	Sampling	Attachments
Ambient Air	0.5 ng/m ³	10 l/min	-
Natural & other gases	2 - 500 ng/m ³	1 - 10 l/min	RP-91 NG
Water	0.5 ng/l	1 - 20 ml	RP-92 (cold vapor)
Urine	1 ng/l	1 - 5 ml	RP-92 (cold vapor)
Sold samples (solids, rocks, sediments)	0.5 ug/kg	10 - 400 mg	PYRO-915
Water & solutions	1 ug/l	10 - 200 ul	PYRO-915
Coal	1 ug/kg	10 - 300 mg	PYRO-915
Sorbent traps for stack gases *	0.5 ng	-	M324
Biological samples (tissues, liver, blood, hair, etc.)	1 - 5 ug/kg	10 - 300 mg	PYRO-915
Oil & oil products	1 - 5 ug/kg	10 - 200 mg	PYRO-915
Food, plants	0.5 - 3 ug/kg	10 - 400 mg	PYRO-915

* Range 0.5 - 50,000 ng

Specifications

Detection Limit	Measurement Range	Sampling Rate	Size
2 ng/m ³	2 - 200000 ng/m ³	10 dm ³ /min	470 x 110 x 210 mm

Weight	Power Supply	Display Resolution	Response Time
7 kg	Built-in battery: 12 V DC AC power source through external unit: 10-240V, 48-62Hz, 40 W	0.01µg/m ³ 0.1µg/m ³ 1µg/m ³	1 reading per second



RA - 915M with RP-91G
Natural Gas Analysis



RA - 915M with RP-92
Liquid Analysis



RA - 915M with PYRO-915
Solid/Liquid Analysis