NIC

Simple, Powerful & Multi-Configurable
Reducing Vaporization CVAAS
Mercury Analyzer RA-5A

Simple, yet Powerful !

The RA-5A delivers Ultra-High Sensitivity and Excellent Precision while only requring 5mL of sample. The RA-5A is also Environmentally-friendly through its direct purge design that reduces reagent consumption and waste production by over 80% versus comparable models without any need for compressed gases.

Options

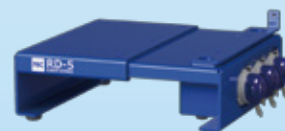**SC-5 auto sample changer**
(Sample vessel for 5mL)

SC-5 auto sample changer
(Sample vessel for 20mL)

SC-5 auto sample changer
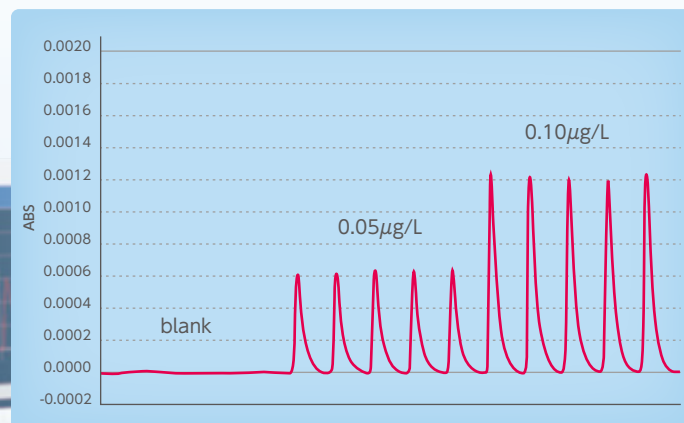**(Sample vessel for 100/250mL)**
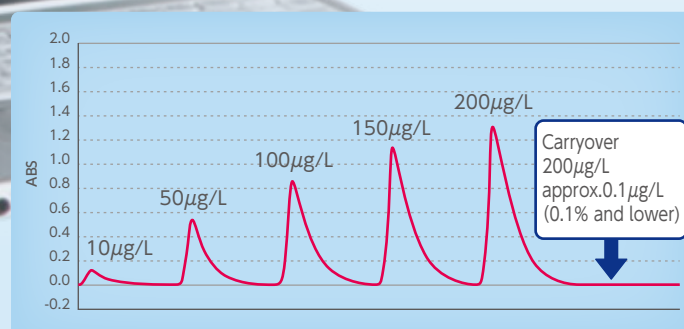
RD-5 auto dispenser

Best Sensitivity, Accuracy

RA-5A has achieved the highest level of Sensitivity and Accuracy with new innovatory-crafted detector optics.

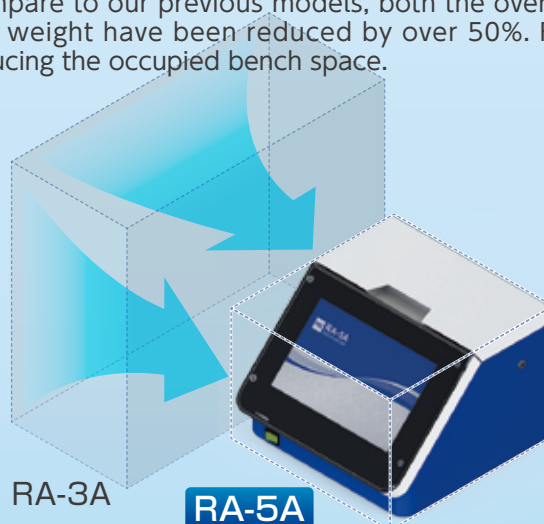| Sample	N	Average	C.V.
0.05 μg/L	5回	0.052 μg/L	2.2%
0.10 μg/L	5回	0.101 μg/L	1.7%

Excellent Repeatability

Memory effect from high mercury concentration is virtually unnoticeable.

Super Compact

The RA-5A takes up about as much bench space as a sheet of A4-sized paper.
Compare to our previous models, both the overall size and weight have been reduced by over 50%. Further reducing the occupied bench space.
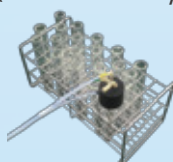
RA-3A

RA-5A

Setting space is less than 50% (compared to RA-3A)

Impinger unit(5mL)
(Standard accessory of RA-5A)
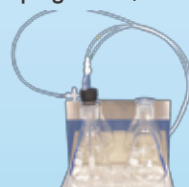
Bottle stand for 5mL
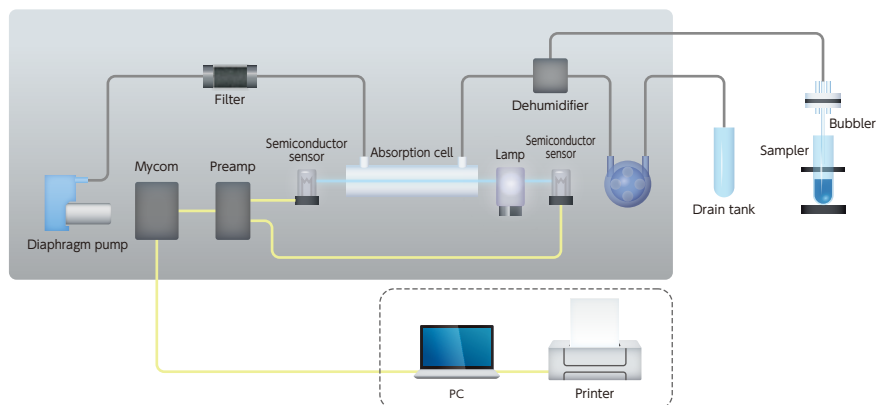(Standard accessory of RD-5)

Impinger unit(20mL)

Bottle stand for 20~250mL

Impinger unit(100/250mL)

SCHEMATIC DIAGRAM

Filter | Dehumidifier | Bubbler | Sampler | Mycom | Preamp | Semiconductor sensor | Absorption cell | Lamp | Semiconductor sensor | Drain tank | Diaphragm pump | PC | Printer

APPLICATIONS

The RA-5a is suitable for a wide variety of aqueous samples, including digested solids.
It can be used for mercury analysis in drinking waters, industrial wastewaters, fresh water sources, seawater, soils, sludges, tissues & more.

TEST METHODS

USEPA 245.1, 245.2, 245.5, 7470A, 7471B, ASTM D 3223-02, EN-1483, APHA 3112, JIS K0102 and more

SPECIFICATIONS

Mercury detecting section	Measurement Principle	Non-dispersive double-beam cold vapor atomic absorption spectrometry `Patent-pending`
	Measurement method	Reducing Vaporization with open air-supply (Peak height measuring and integration measuring selectable)
	Light source	Low pressure mercury discharge lamp
	Wave length	253.7nm
	Detector	Semiconductor sensor (w/254nm bandpass filter)
	Detection Limit	0.0025ng/5mL(0.5ppt)
	Maximum range	2,000ng/5mL(400 ppb)
	Carrier gas required	No Compressed Purified Gas required
	Measuring flow rate	Adjustable (0.1 ～ 0.9 L/min) (just operate with ambient air)
	Measuring time	30sec ～ 999sec
	Dehumidifier	Peltier device
	Mercury removal	Removal by activataed carbon
Data processing system (PC-Win / RA-5)	OS	Windows 10 Pro
	Communication	USB
	Display	Peak wave shape, Calibration curve, Measuring time and measuring result
	Data processing software	Selectable from 6 formulas (3 linear and 3 3rd Order fits) , Correlation coefficient is automatically calculated. Statistic calculation : Mean value, standard deviation, Coefficient of variation (All values are automatically calculated.), Self-check function
	Print	Measuring conditions, Calibration curve, Measured values, Statistical calculations, Peak wave shape and Measuring time
	Quality control	Check standard, Avoid abnormally high mercury etc
Installation requirements	Installation dimensions	248W × 253D × 180H (mm)
	Weight	4.7 (kg)
	Installation environment	10℃～ 35℃, < 10 ～ 80% RH (Non condensing environment is allowed)
Power supply		AC, single phase, 100 ～ 240V 50/60 Hz, 150VA (AC adaptor included)

SPECIFICATIONS (OPTIONS)

SC-5	Sample vessel : Number	[Standard] : Sample vessel for 5mL : 30 (with vessel sensor function) [Option] : Sample vessel for 20mL : 12 (with vessel sensor function) Sample vessel for 20mL, 100mL and 250mL : 5 (with vessel sensor function)
	Sample access	Random access
	Bubbler tube	PEEK tube (for sample 5mL) / Glass Frit (for sample 20, 100 and 250mL)
	Power supply	AC100 ～ 240V, 50/60Hz, 150VA (AC adaptor included)
	Measurement	180Wx250Dx490H
	Weight	Approx. 7kg
RD-5	Dispensing	Tube pump (3 lines)
	Dispensing volume	Adjustable (Minimum 0 ～ 99.9mL)
	Dispensed reagents	・Sulfuric acid ・Tin (II) chloride solution
	Control・Power supply	Direct pump driving from RA-5A
	Measurement	250W x 230D x 80H (with RA-5A connection)
	Weight	Approx. 2kg (Stand inclusive)

STANDARD ACCESSORIES

Sample bottle [Qty 10] / Bottle stand [Qty 1] / Impinger [Qty 1] / Bubbler [Qty 2] / Filter unit [Qty 2]

★RA-5A is available to equip with optional attachment accessories, auto sample changer SC-5 and auto dispenser RD-5.
Reagent tube [Qty 1] and reaction tube [Qty 1] for Optional attachment: SC
Reagent bottle [Qty 1] and Reagent tube [Qty 1] for Optional attachment :RD

RA-5A series Configurations	RA-5100A —— RA-5A RA-5200A —— RA-5A, RD-5 RA-5300A —— RA-5A, RD-5, SC-5

NIC Nippon Instruments Corporation

Identify the right mercury analyzer for you

Distributors

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Pricing on any accessories shown can be found by keying the part number into the search box on our website.

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