Smartchem

Water, Waste and Sea Water

Acidity
Alkalinity*
Aluminum
Ammonia*
Chemical Oxygen Demand (COD)*
Chloride*
Chlorine
Chromium*
Cyanide*
Fluoride*
Hardness*
Iron
Manganese
Nitrate*
Nitrite*
Phenol*
Phosphate*
Silicate*
Sulfate*
Total Kjeldahl Nitrogen*
Total Kjeldahl
Phosphorous*
Urea

* Follows EPA, ISO approved Methods

Soils & Plants

Ammonia
Boron
Calcium
Chloride
Lysine
Magnesium
Nitrate
Nitrite
Phosphate
Total Nitrogen
Total Phosphorous
Urea

Feeds

Ammonia or Protein
Calcium
Phosphate
Total Nitrogen
Total Phosphorous
Urea

Fertilizers

Ammonia or Protein
Calcium
Phosphate
Total Nitrogen
Total Phosphorous
Urea

Tobbaco

Ammonia
Chloride
Nicotine
Nitrate
Phosphate

Also,
Cyanide for smoke
Formaldehyde for smoke

Wine

Glucose, Fructose, Succrose
Malic acid, tartric acid ,Acetic acid, Gluconic acid
Iron, Cupper, total acidity, pH, Free SO2 ,total SO2,
PANOPA, Ammonia






Description

Fully automated - random access, continuous loading, benchtop analyzer
r

Assay type

End Point, Kinetic, Differential, Bichromatic and Immunoturbidimetric assays; up to 100 different test,all user programmable.

Test Entry Mode

selective - profiles- batch - Urgent

On LineReagents

2 racks cooled by Peltier cells are provided to contain up to 20 reagents -
2 racks for 13 reagent positions at room temperature, 14 standards and controls
2 more positions for diluents.

Samples Loading

5 racks for continuous loading of samples split in:
- 64 positions for routine samples
- 14 positions for Urgent samples

Sample tube size

Max 16 mm x 100 mm (height)

Urgent Sample Analysis

allowed at any time

Throughput

Up to 200 tests / heure

Incubation Temperature

37° C

Reading System

Direct photometry

Minimum reaction Volume

300 µl

Optics System

Photometer : multi - wavelenght optics, double beam
Wavelength : 8 narrow band interferential filters
Source: halogen lamp 6V/10W
Optical Path: 10 mm
Linear range: 0.001 - 2.500 Abs
Resolution: 0.0001 Abs

Sampling system

one mechanic arm provides all sampling operation with:

§ capacitive liquid level sensing
§ reagent pre-warming at 37°C ·
§ automatic probe washing
§ Sample Volume : 3.0 µl- 300 µl (1µl incr.)
§ Reagent Volume : 3.0 µl-300 µl (1µl incr.)

Dilutor

dilutions are made without using traditional syringes (up to 100 times)

Reaction plate

circular 60 semi-disposable cuvettes tray with following carachteristics:
- automatic cuvette washing
- cuvettes Q.C. continuously computer controlled
- incubation temperature: 37°C

Installation

Power supply

- 90 - 250 VAC
- 47/63 Hz
- 300 W

Water Consumption

2 ml/test

Ambient Temperature

18° C – 30° C

Analytical Module

- Height: 42 cm
- Width: 65 cm
- Length: 100 cm
- Weight : 65 Kg

Relative Humididty

20% - 85%.

Your Alliance Instruments Distributor

www.alliance-instruments.com
Alliance Instruments – 10 Avenue Charles de Gaulle – 95740 – FREPILLON – France.
Tel : 01.34.18.71.10. Fax : 01.39.60.72.39 e-mail : dialog@alliance-instruments.com

Smartchem



Discrete Auto Analyzer

Smartchem

Discrete Analysis

- True sample blanking
- No flowing streams
- No pump tubes
- No baseline stabilization
- No shutdown
- No hardware changes
- Minimize hazardous waste
- Use only volumes the method requires
- Each reaction in its own cuvette

SmartStart Software

- Ready to run with one click
- True unattended operation, including after hours
- Unlimited number of methods ready to be run at any time
- Automated method changeovers
- Automatic standards preparation
- Automatic dilutions
- Automatic spikes

Computer controlled micro pipettor

- Precise dispensing of all liquids
- Probe cleaning after every liquid contact prevents cross contamination and carryover
- Reduction of reagents and hazardous wastes
- An integral sensor for low level alerts

Wash Station

- Automatic cuvette cleaning provides continuous operation
- Reduce operating costs
- Optical integrity of each cuvette is verified before each use

Nitrate - Nitrite Module

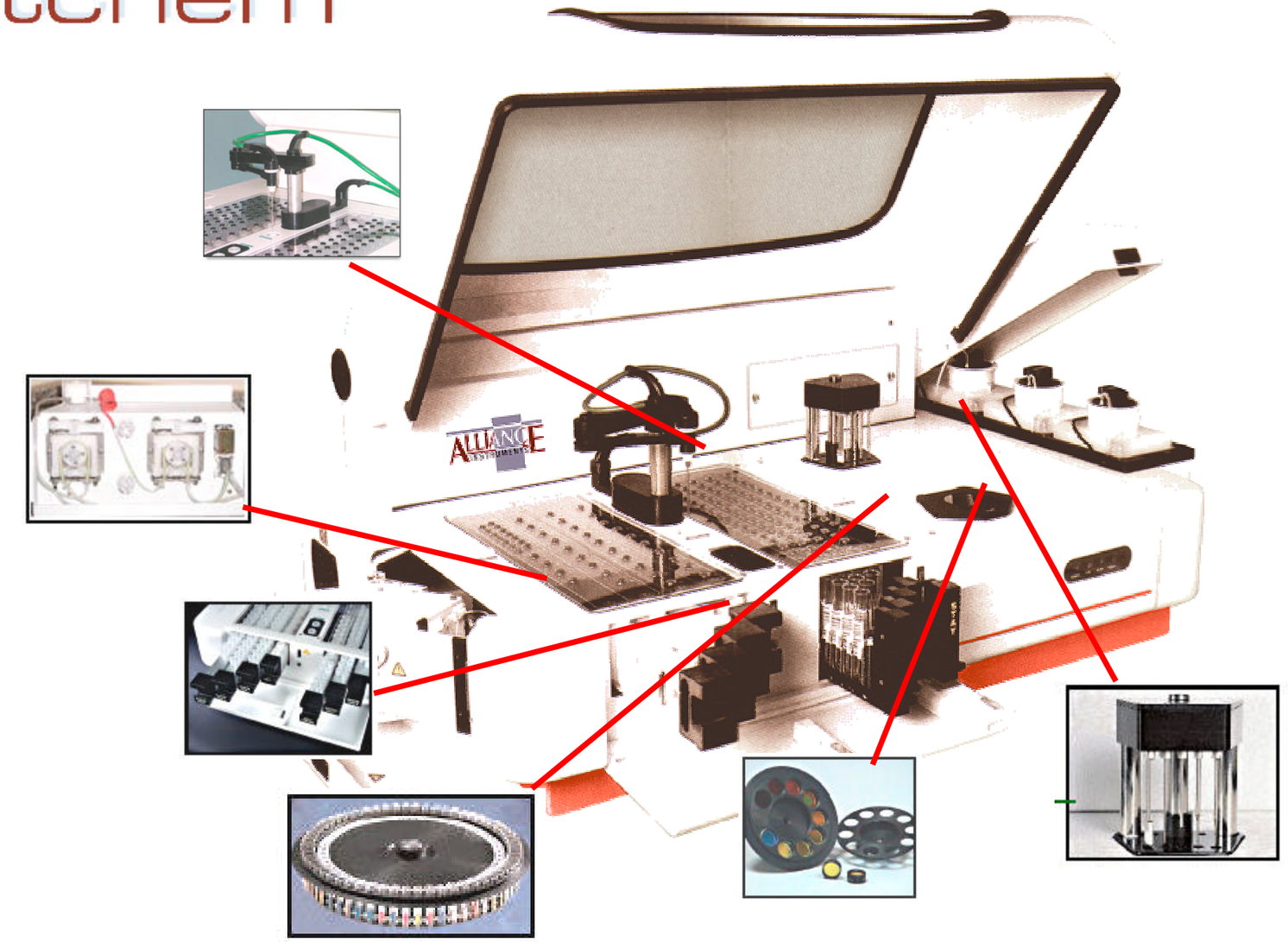
- Replicates US EPA Method # 353.2
- Automated cadmium reduction of nitrate to nitrite followed by diazotization and coupling
- Total Nitrite is determined by diazotizing with sulfanilamide and coupled with N-1-naphthylethylene•HCl and the color intensity is measured at 520 to 540 nm
- Reagent concentrations and molar ratios used in the SmartChem method are identical to US EPA method 353.2

Continuous sample loading

- Sample racks may be exchanged withoutinterrupting the analysis

Reaction Plate

- Accurately maintains temperature +/- 0.1ºC



Photometer

- A high resolution, dual beam digital detector
- Expanded absorbance range to 2.500 AUFS reduces the need to reanalyze over range samples
- 5 detection modes: endpoint, fixed time, differential, bichromatic, and kinetic

Filter wheel

- 9 optical filters, plus 1 dark filter, ranging from420 to 880 nm with others optionally available

Options

- ISE detector
- Bar code reader

Long Life time

We have selected high quality components (electronic, glassware...)
To offer our customers instruments that will last and give the same quality over 10 years...

State of the art

Smartchem combine latest technology with innovative components to provide you the best analysis.
Smartchem will guarantee reliable and repeatable results.