

VITALAB

# selectra E

CLINICAL CHEMISTRY ANALYSER

The  
economical  
solution

for  
all  
your  
needs



 **vital scientific**

GIVING YOU PEACE OF MIND

Proven and modern technology meeting all your needs: reliability, flexibility, convenience and economy. The design features and specifications make the Selectra-E a true all-round analyser. As a main system, as a back-up system, for routine chemistry or as a dedicated immunoproteins and drugs testing analyser, the Selectra-E does the job without compromising quality.

## VITALAB **selectra E**

### The economical solution

With the Selectra-E your return on investment is guaranteed:

- Reagent volume is up to 30% less than most similar systems: giving you substantial savings on reagent;
- Reusable long-life cuvette-rotor is the only dedicated consumable required, saving you significant amounts on numerous costly consumables required by other systems;
- High reliability and limited need for maintenance parts: offers you low cost of maintenance;
- Optional Concentrated Waste System: saves costly waste removal.

Whether you call it Low Cost per Test or Low Cost of Ownership, the unique features of the Selectra-E save you money and guarantees a quick payback.





REAGENT ROTOR



CUVETTE ROTOR AND WASHING STATION



SAMPLE ROTOR

### You name it, the Selectra-E does it

- Clinical Chemistry;
- Special Proteins;
- Drugs of Abuse;
- Therapeutic Drugs;
- Electrolytes.

Without any doubt, the Selectra-E continues to show excellent performance for almost every application. Low volumes, low concentrations, turbidimetrics...the superior optical design of the Selectra-E offers you the accuracy you need. Plus on-board reagent cooling under every lab condition.

### Throughput & True Walk Away Capacity

The Selectra-E combines throughput (180 tests per hour; 300 tests per hour with ISE) with true Walk Away Capacity (up to 4.5 hours), bringing a much higher true throughput than systems requiring continuous attention even with higher theoretical throughput.

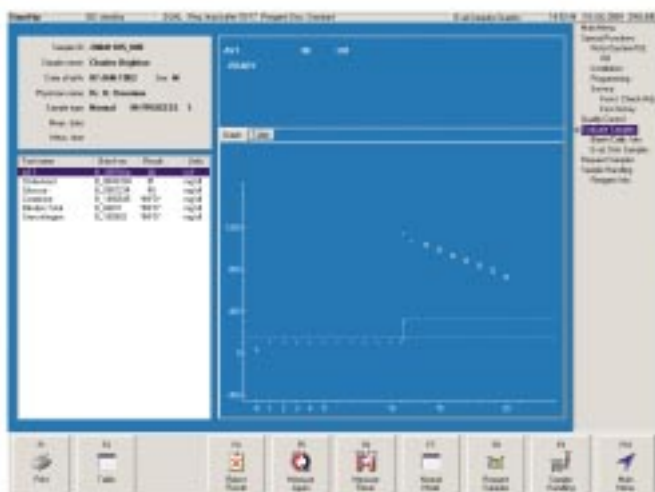
### System Intelligence

- Random Access;
- Continuous Loading;
- Level Sensing;
- Test Incompatibility;
- Pre-dilution and Automatic Rerun;
- Interactive Maintenance Procedures;
- Host Connection;
- Barcode Identification.

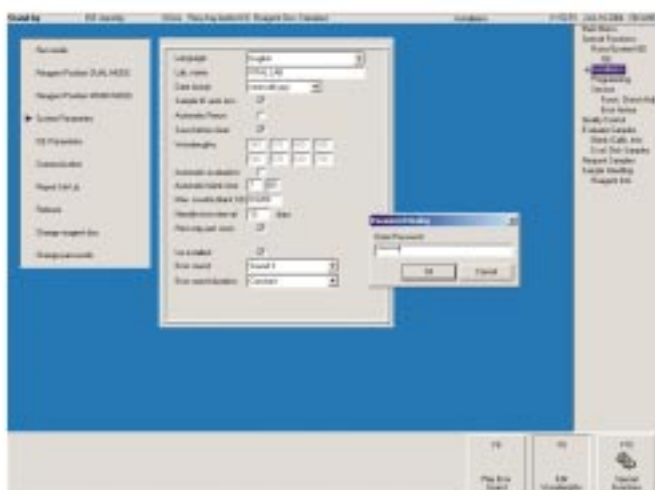
Features you normally only see in advanced high throughput systems are incorporated as standard in the Selectra-E. Giving you convenience and economical solutions.



LOAD SAMPLE MENU



EVALUATE SAMPLE MENU



SYSTEM PARAMETER MENU

### Simplicity

Discover the simplicity of operating with the new Windows™ based software. Mouse clicks and/or function keys offer the operator the maximum convenience desired.

Skilled laboratory staff will be able to run the Selectra-E within an hour. System maintenance instructions are also integrated in the software.

### On-Board Quality Control

QC results are stored in memory and are easily displayed on the screen. The software calculates the mean, standard deviation and coefficient of variation. Results validation using Westgard rules and a display of the Levey-Jennings plot are also included.

### Three Reagent System

The software supports a “three reagent system”. This feature makes the Selectra-E the ideal platform for special applications, which require long incubation times.

### Network and Host Facilities

The use of an external Operator Console easily enables the integration of the Selectra-E to a local network. Further, with dedicated remote control software the Selectra-E can be fully operated and data can be examined from any location.

Bi-directional Host Connection allows the system to receive instructions and to transmit data to the data management system.



# S P E C I F I C A T I O N S

## THROUGHPUT

- Up to 180 tests per hour;
- Up to 300 tests per hour with ISE unit.

## REAGENT SYSTEM

- Rotor with 24 positions for 25 ml bottles and 8 positions for 5 ml bottles. All positions can be assigned as R1, R2 and R3. Adapters for 5 ml bottles in 25 ml positions;
- 5 pairs of 25 ml positions can be used for 50 ml bottles;
- Reagent 1 volume 110 - 400 µl;
- Reagent 2 volume 0 - 180 µl;
- Reagent 3 volume 0 - 180 µl;
- Reagent disk compartment is cooled to approx. 12°C below ambient temperature;
- Preheated reagent needle with level detection and integrated mixer;
- Typical reagent consumption 250 µl per test.

## SAMPLE SYSTEM

- Sample rotor containing:
  - Outer segment with 51 positions for samples and/or controls;
  - Inner segment for calibrators, controls, stats, blank and wash solution;
- Stat and pediatric functionality;
- Continuous loading;
- All positions can contain 5 ml primary tubes or sample cups;
- Sample volume 1 - 30 µl per test, programmable in steps of 0.1 µl;
- Sample probe with level detection and integrated mixer;
- Optional rotor for KABE and SARSTEDT sample tubes.

## SAMPLE PREDILUTION (MULTIPLE REAGENT MODE ONLY)

- Pre-programmed ratios selectable from 1:2 to 1:100 with 3 diluents;
- Automatic parent calibrator dilution.

## PIPETTING SYSTEM

- Reagent syringe 1000 µl;
- Sample syringe 100 µl.

## CUVETTE ROTOR

- Semi-disposable rotor with 48 cuvettes. Path length 7 mm;
- > 10.000 tests per rotor;
- Min. measuring volume 220 µl;
- Measuring temperature 37°C, controlled by Peltier elements.

## WASHING UNIT

- Cuvette-washing with 4 x 500 µl of water. The unit is equipped with liquid sensors. Waste is separated into diluted and concentrated (sample/reagent mixture and optional ISE-unit) waste. Cuvettes are dried before use.

## LIGHT SOURCE

- Quartz-iodine lamp 12V-20W.

## OPTICS & WAVELENGTH RANGE

- Optical unit with an 8 position filter wheel;
- Automatic wavelength selection by 8-position filter wheel (340, 376, 405, 436, 505, 546, 578 and 620 nm);
- Other wavelengths available on request;
- Half bandwidth 8 to 12 nm.

## PHOTOMETRIC RANGE

- -0.1 to 3.0 Absorbance.

## ANALYTICAL MODES

- Kinetic measurement with linearity check;
- Bichromatic end point measurement with or without bichromatic reagent blank and/or sample blank correction;
- Two point measurement;
- Graphic plot of all measuring points;
- Automatic rerun with sample reduction;
- Non-linear calibration curves.

## AMBIENT TEMPERATURE

- 15-32°C;
- Maximum humidity 80%.

## MEASUREMENT CAPABILITIES (SINGLE REAGENT MODE)

- Reagent Absorbance (bichromatic) before sample addition;
- Kinetic during 7 minutes after sample addition;
- End Point (Bichromatic) 11.5 minutes after sample addition;
- Kinetic can contain two points for two-point measurements.

## MEASUREMENT CAPABILITIES (DUAL REAGENT MODE)

- Reagent Absorbance (bichromatic) before sample addition;
- Kinetic 1 for 4.5 minutes after sample addition (can be used as sample blank for Kinetic 2);
- Kinetic 2 for 4 minutes after reagent 2 addition;
- Kinetic 1+2 for 8.5 minutes after sample addition;
- Sample blank (bichromatic) before reagent 2;
- Endpoint (bichromatic) 4.5 minutes after sample addition or 11.5 minutes after sample addition;
- Kinetic 1, Kinetic 2 or Kinetic 1 + 2 can contain a minimum measuring time or two points for two-point measurements.

## MEASUREMENT CAPABILITIES (TRIPLE REAGENT MODE)

- Additional timings available for three reagent system.

## CALCULATION MODES

- Prozone check for immunology tests;
- Cut-off declaration.

## QUALITY CONTROL

- Up to 15 different controls can be defined, 3 per test;
- Westgard rules;
- Levey-Jennings plots.

## CERTIFICATES

- CE;
- CB.

## LANGUAGES

- In conformity with CE/IVD requirements;
- Other languages on request.

## WEIGHT

- 74 kg.

## DIMENSIONS (BENCHTOP)

- 115 x 49 x 56 cm (W x H excl. Monitor x D)

## OPTIONS

### BAR CODE READER

- Hand held CCD bar code reader (can read all common bar codes) used for test requisition and reagent identification.

### CONCENTRATED WASTE

- Separate waste container for concentrated waste.

### COMPUTER

- Minimum requirements:
  - Pentium based: 800 MHz;
  - RAM 128 MB;
  - Monitor VGA 1024 x 768 pixels;
  - Hard Disk: 2 GB;
  - Floppy: 3,5" (1.44 MB);
  - CD ROM drive;
  - Windows 2000 english / US;
  - 1 serial port for analyser; 1 serial port for host; 1 or 2 printer port(s).

### PRINTER

- The application supports two printers simultaneously; one for patient reports and one for calibration and system data;
- Most printers supported by Windows can be connected.

### ISE UNIT

- Na, K and Cl measurements;
- CO<sub>2</sub> measurement optional.

With over 40 years experience in the design and manufacture of award winning scientific and laboratory instrumentation, Vital Scientific has the proven expertise and know-how to respond to your needs.

Skilled employees, powerful design tools, precision engineering and a policy for top quality components lie at the very heart of our good manufacturing practices. By accepting nothing but the very best, Vital Scientific - an ISO 9000 / 13485 compliant and FDA registered company - is well equipped to meet the highest standards.

Over the past decades, Vital Scientific has established a solid distribution network that operates world-wide. More than twenty thousand customers have already experienced the quality, convenience and reliability of our instruments. Local support is guaranteed by dedicated and well trained sales and service organizations.

**Vital Scientific NV**

P.O. Box 100

6950 AC Dieren

The Netherlands

Telephone + 31 313 430 500

Fax + 31 313 427 807

[www.vitalscientific.com](http://www.vitalscientific.com)

[info@vital.nl](mailto:info@vital.nl)



Distributor details:



GIVING YOU PEACE OF MIND