



Semi-automatic biochemistry Analyzer Performance and Convenience without Compromise

# BSA 3000 - A Robust Programmable Spectrophotometer







The BSA 3000 is a semi-automated biochemistry instrument used to perform routine clinical chemistry tests. The BSA 3000 performs certain operations automatically such as heating, analyzing, calculating and printing; the reaction solutions being prepared manually by the operator beforehand.

The BSA 3000 is the perfect primary instrument for mid-size to small laboratories and hospitals with small sample volumes. The BSA 3000 can also be useful as a secondary unit for bigger laboratories and hospitals that voluntarily prefer not to automate certain tests: (1) to avoid contamination from certain polluting and unstable reagents; (2) to obtain quick and precise results in emergency cases.

- Multiple measuring methods: End point,
   Kinetic, Fixed-time and Absorbance analysis
- Highly accurate and reliable results due to anti-vibration and anti-disturbance optical system
- Measurement precision of 0.0001ABS
- Wavelenths range 340 nm to 630 nm

- Testing mode: flowcell
- Bichromatic testing available
- Calibration: linear and non-linear
- Comprehensive quality control program
- User-friendly interface
- Reaction curves displayed
- Open reagent system







#### **Guaranteed Precise Results**

The BSA 3000 large photometric range, high resolution and very low drift, ensure very precise and highly reliable results. Carryover and cross-contamination are avoided thanks to aspiration volume (recommended 400µl for 32µl measuring volume) and rinse cycle. Comprehensive quality control program including Levey-Jenning charts ensure top quality results.

#### Easy Work Flow

The instrument stores up to 90 different test programs to be recalled by operator at any time. 26 tests are preprogrammed with SFRI reagents for immediate testing.

Operator can program up to 64 customized tests and can create work list for efficient work flow. Linear and non-linear calibration curves are memorized to avoid unnecessary recalibration due to high costs of certain reagents (for turbidimetry).

# Powerful Features in a Compact Unit for Biochemical Investigations, Enzymes and Immunoturbidimetrics

#### Simple Operations

Simple and clear-cut parameters setup allows operators to program tests quickly. Real-time monitoring of reaction curves and data, as well as temperature change, ensure operators can follow all reactions as they occur and control discrepancies. 3000 results per day are available in memory at any time and can be printed or transferred via LIS.

#### **User-friendly**

The large LCD touch screen and straightforward interface make for comfortable and easy use. BSA 3000 can be ordered with either English or French software and comes with a built-in thermal printer for standalone operations. A visual and audible alarm sounds to alert operator to any errors.



#### **Cost efficient**

High stability reagents; lamp saving features that largely prolong lamp life; and simple, easy-to-follow maintenance operations that ensure long life of instrument make the BSA 3000 a very cost efficient analyzer.

# Reliable and Repeatable

The optics and the automatic filter selection assure reliable and repeatable measurements. Calculation is performed automatically so that results are displayed directly in the required measuring unit.

#### Flexible and Practical

BSA 3000 is an open system and is compatible with all reagents and tests. It supports bichromatic tests for Kinetic, End point and Fixed-time measurements. Its temperature control option allows for quick interchange between 3 temperatures (25°, 30°, and 37°C) for optimum analysis. Measurement times can also be adjusted for faster results.

## **Robust and Sturdy**

With several thousand units sold worldwide, never have there been any significant malfunctions or complaints received from clients. The BSA 3000 is one of the most robust instruments on the market today.

### **Parameter Settings**

Method Absorbance limit Temperature Reagent blank y/n Sample blank y/n Delay time Unit for results Reaction type
Absorbance limit
Aspiration volume
Standards
Linearity check
Measuring time

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# BSA 3000

## **TECHNICAL SPECIFICATIONS BSA 3000: REFERENCE A0101**

#### **MEASURING METHOD**

End point, Kinetic, two point Kinetic, Fixed time, Absorbance, Turbidimetry Regent blank, Sample blank Monochromatic and bichromatic method.

#### **LIGHT SOURCE**

Quartz halogen lamp 12 V/ 20 W Stray light: < 1.0% at 340 nm

#### **OPTICS**

Filter wheel can hold up to 8 filters 7 standard filters: 340 nm, 405 nm, 492 nm, 510 nm, 546 nm, 578 nm, and 630 nm 1 free position for extra filter Bandwidth < 8 nm

#### PHOTOMETRIC RANGE

Measuring range: 0.0000 to 3.0000 ABS Resolution: 0.0001 ABS

Drift: 0.002 ABS

#### **FLOWCELL**

Stainless steel with quartz window

Optical path: 10 mm Measuring volume: 32 µl

Programmable aspiration volume: 200 - 2000 μl

#### **CALIBRATION**

Linear

Non linear up to 6 points

Factor

#### **MEMORY STORAGE**

3000 results per day available in memory at any time and transferable via LIS.

#### THERMOSTATIC CONTROL

By means of Peltier elements 25°, 30°, 37°C optional Precision: ± 0.1°C

#### INPUT/OUTPUT

RS232 port for mono-directional LIS

#### **PRINTOUT**

Built-in thermal printer, 57.5 mm wide paper, recording width 48 mm

#### **DISPLAY**

6" LCD touch screen Mono-color display

#### **OPERATING ENVIRONMENT**

15°C - 30°C Temperature

20% - 80% (max humidity) Humidity

#### **POWER REQUIREMENTS**

A.C. 110/220 V ±10%; 50 - 60 Hz

#### **DIMENSIONS**

445(W) x 190(H) x 420(D) mm

#### **WEIGHT**

9 kg

Your Local Distributor:



