

# BS-220E

## Chemistry Analyzer

### Technical Specifications

**System Function:**

Automatic, Discrete, Random Access  
STAT sample priority  
Throughput: Constant 200 tests/hour (without ISE), up to 330 tests/hour with ISE  
Principles: Absorbance photometry, Turbidimetry, Ion Selective Electrode technology  
Methodology: End-point, Fixed-time, Kinetic, optional ISE  
Single/Dual reagent chemistries, monochromatic/bichromatic  
Linear/non-linear multi-point calibration  
Programming: Open system with user defined profiles and chemistry calculation  
System pack reagents ready to use

**Reagent/Sample Handling:**

Reagent/Sample tray: 40 reagent positions, 40 sample positions in cooling compartment (2~12°C)  
Reagent volume:  
R1: 10~350µl, step by 1 µl  
R2: 10~200µl, step by 1 µl  
Sample volume: 2~45µl, step by 0.1 µl  
Reagent/Sample probe: Liquid level detection and tracking, vertical & horizontal collision protection and inventory checking  
Probe cleaning: Automatic washing of interior and exterior  
Carry-over < 0.1%  
Automatic sample dilution: Pre-dilution and post-dilution  
Dilution ratio up to 1: 200

**Internal Bar Code Reader (optional):**

Used for sample and reagent scan  
Applicable to various bar code systems such as Codabar, ITF (Interleaved Two of Five), code128, code39, UPC/EAN, Code93  
Bi-directional interface LIS transmission

**ISE Module (optional):**

Measure K<sup>+</sup>, Na<sup>+</sup>, Cl<sup>-</sup>  
**Optical System:**  
Light Source: Halogen-tungsten lamp  
Photometer: Grating system, reversed optics  
Wavelength: 12 wavelengths, 340nm, 380nm, 412nm, 450nm, 505nm, 546nm, 570nm, 605nm, 660nm, 700nm, 740nm and 800nm  
Absorption range: 0~3.3Abs (10mm conversion)  
Resolution: 0.0001Abs

**Reaction System:**

Reaction rotor: Rotating tray, containing 80 cuvettes  
Cuvette: Reusable, optical length 5mm  
Reaction volume: 150~500µl  
Reaction temperature: 37°C  
Temperature fluctuation: ±0.1°C

**Mixing System:**

Standalone mixing bar  
**Cuvette Washing:** 8-step washing station with pre-heated detergent and water

**Control and Calibration:**

Calibration mode: Linear (one-point, two-point and multi-point), Logit-Log 4P, Logit-Log 5P, Spline, Exponential, Polynomial, Parabola  
Control software: Westgard multi-rule, Cumulative sum check, Twin plot, L-J Chart

**Operation Unit:**

Operation system: Windows® XP Professional/Home SP2 or above  
Windows® 7  
Interface: RS-232

**Working Conditions:**

Power Supply: AC 200~240V, 50/60Hz, ≤1500VA or AC 100~130V, 50/60Hz, ≤1500VA  
Temperature: 15-30°C for operation  
Humidity: 35-85% RH  
Dimension: 860mm (W) x700mm (D) x625mm (H)  
Weight: 130 Kg



# BS-220E

## Chemistry Analyzer