

# BS-120

## Chemistry Analyzer

### Technical Specifications

#### System Function:

automatic, discrete, random access,  
STAT sample priority  
Throughput: up to 100 tests/hour (without ISE), up to  
300 tests/hour with ISE (4 ions)

#### Measuring 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 multipoint calibration

#### Programming:

open system with user defined profiles  
and calculations

#### Reagent/Sample Handling:

##### Reagent/Sample tray:

28 positions for reagents and 8  
positions for samples in refrigerated  
compartment (4~15 °C)

##### Reagent volume:

R1: 180~450µl, step by 1µl

R2: 30~250µl, step by 1µl

Sample volume: 3~45µl, step by 0.5µl

##### Reagent/Sample probe:

liquid level detection, collision protection  
and inventory checking

##### Probe cleaning:

automatic washing both inside and  
outside  
carry-over < 0.1%

##### Automatic sample dilution:

pre-dilution and post-dilution  
dilution ratio up to 150

##### Dilution vessel:

disposable cuvette

#### External Bar Code Reader (optional):

used for sample and reagent programming;  
applicable to various bar code systems  
including Codabar, ITF (Interleaved Two of  
Five), Code128, Code39, UPC/EAN, Code93;  
capable to communicate with LIS in a  
bi-directional mode

#### ISE Module (optional)

Measuring parameter:  $K^+$ ,  $Na^+$ ,  $Cl^-$ ,  $LI^+$   
Throughput: up to 200 tests per hour

#### Reaction System:

Reaction rotor: rotating tray, containing 40 cuvettes

Cuvette: optical length 5mm

Reaction volume: 180~500 µl

Reaction temperature:  $37 \pm 0.1$  °C

Mixing system: independent mixing probe

#### Optical System:

Light Source: Halogen-tungsten lamp

Wavelength: 340nm, 405nm, 450nm, 510nm, 546nm,  
578nm, 630nm, 670nm

Linear range: 0~3.5Abs

#### Control and Calibration:

Calibration mode: linear (one point, two-point and multi-point),  
Logit-Log 4P, Logit-Log 5P, spline,  
exponential, polynomial, parabola

Control rules: X-R, L-J, Westgard multi-rule, Cumulative  
sum check, twin plot

#### Operation Unit:

Operation system: Windows XP Professional/Home SP2 or above  
Windows VISTA Home/Business

Interface: RS-232

#### Working Conditions:

Power Supply: AC200~240V, 50/60Hz, 800W or  
AC100~130V, 50/60Hz, 800W

Temperature: 15-30 °C

Humidity: 35-85%

Water consumption: 2.5L/hour

Dimension: bench top: 690mm(W)x570 mm(D)x595 mm(H)

Weight: 75 kg



**MINDRAY™**

Mindray Building, Keji 12th Road South, High-tech Industrial Park,  
Nanshan, Shenzhen 518057, P. R. China

Tel: +86 755 26582492, 26582888 Fax: +86 755 26582680

E-mail: intl-market@mindray.com Website: www.mindray.com



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