

SKTM500
CHEMISTRY

Automated Clinical Analyzer



SEKISUI MEDICAL CO.,LTD.

The best to the requirements for functionality and usability

The highest throughput in BIOLIS series

- 480 tests/hour for photometry. 580 tests/hour with ISE.

A new function for HbA1c sample preparation

- Hemolysis of whole blood sample for HbA1c on board.
*The throughput of HbA1c is different from that of general chemistry tests.

Automatic sample clot detection & cleaning

- Clot detector for the sample probe enhances the accuracy of the test results.
- Automatically cleaning the sample probe in instances where clots are detected.
- Sampling ceases automatically in case clots are not removed.

Multiple languages support (option)

- Multilingual support software provides a user-friendly interface and higher usability.

User interface

- Easy touch screen operation.
- The interface includes improved and additional functions such as sample status screen and others.

Dedicated sample probe for ISE

- The sample probe directly connected to ISE transfers the sample to electrodes.

Common reagent bottles

- R1: 70 mL, R2: 20 mL, two sizes can be used.



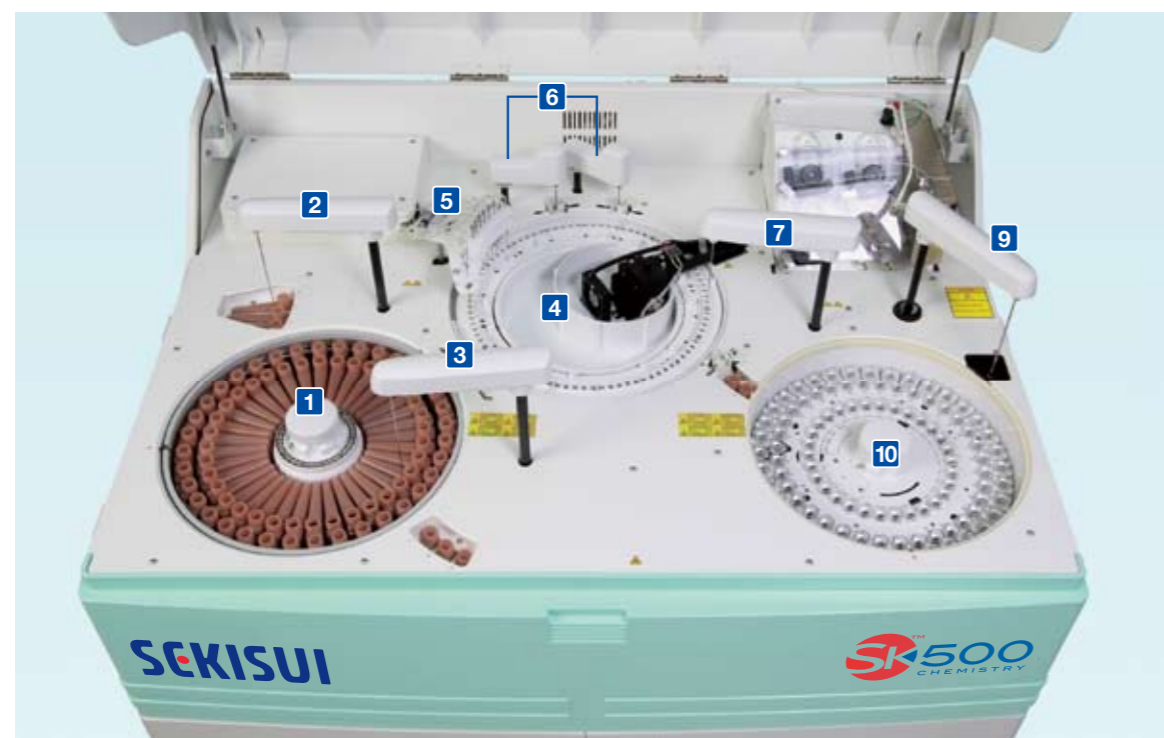
Accuracy Features

- Sample clot detection
- Dedicated sample probe for ISE
- Carry-over protection program for reaction cuvettes and probes
- Pre-dilution
- Auto-rerun
- Cuvette skip
- Five mixing speeds

Operation Features

- Sample cups (0.5 mL, 1.5 mL), Primary tubes (2 mL, 5 mL, 7 mL, 10 mL)
- Availability for using multiple bottles of the same item
- Reaction waste stored in a dedicated tank
- Common reagent bottles (R1: 70 mL, R2: 20 mL)
- Hemolysis of whole blood sample for HbA1c
- Sample and reagent barcode readers as standard feature
- Bidirectional communication

Main Unit Arrangement



Specifications

Analysis	System	Discrete single line random access multi-test analysis
	Number of test items on board	36 + 3 items (ISE)
	Throughput	480 tests/hour, 580 tests/hour with ISE *160 tests/hour for HbA1c only (with hemolysis)
	Analysis methods	End point assay, Rate assay, ISE
	Calibration curve	8 kinds (Linear, Spline, etc)
Sample	Contents of test	Serum, Plasma, Urine, Dialysis, Blood cell, CSF (ISE not available for CSF)
	Sample container	Sample cups (0.5 mL, 1.5 mL), Primary tubes (2 mL, 5 mL, 7 mL, 10 mL)
	Number of samples on board	72 patient and standard samples, 30 QC and STAT samples
	Sample dispensing volume	1.0- 20.0 μ L (in 0.1 μ L steps)
	Dilution ratio	3-100 times
	STAT	Available during measurement
	Sample barcode reader	Available as standard feature
Reagent	Number of bottles on board	R1: 36 positions, R2: 35 positions
	Bottle size	R1: 70 mL, R2: 20 mL
	Reagent dispensing volume	20-240 μ L (in 1 μ L steps)
	Cooling System	Available
	Reagent residual volume	Level sensing or count down calculation
	Reagent barcode reader	Available as standard feature
Reaction	Cuvette material	Plastics (Semi-disposable)
	Number of cuvettes	90
	Cuvette washing	Auto washing with heated water and 2 kinds of washing solutions
	Washing solution	Alkaline and acid washing solutions
	Cuvette skip function	Available
	Reaction time	3.5 min. after sample dispensing + 5 min. after R2 dispensing
	Reaction volume	100- 300 μ L
	Reaction temperature	37.0°C \pm 0.3°C
	Photometric assay method	Grating method
	Optical measurements	12 fixed wavelengths (340, 380, 405, 450, 505, 546, 570, 600, 660, 700, 750, 800 nm)
	Optical source	Tungsten halogen lamp
Optical range	OD 0- 3.0	
Mixing	By stirrers	
Mixing speed	5 speed levels available	
Interface	Operation	Personal computer
	OS	Windows 7, 8, 10
	Output	RS232C serial cable, LAN (TCP/IP)
	Reaction curve monitor	Optical absorbance graphic display
	Quality control	Realtime QC, Within a day, Day-to-day variation
	Test results storage	100,000 tests

※ The specifications are subject to change without notice.

1 Reagent tray

R1: 36, R2: 35 position.
Cooling System is available.

2 R1 probe

20-240 μ L (in 1 μ L steps) dispensing
※ Minimum total reaction volume is 100 μ L

3 R2 probe

4 Reaction tray

90 semi-disposable cuvettes.
Cuvette skip function is available.

5 Cuvette washing station

Cuvette washed with heated water and alkaline & acid washing solutions.

6 Mixing unit

Five mixing speeds

7 Sample probe

1-20 μ L (in 0.1 μ L steps) dispensing

8 ISE module

Na, K, Cl measurement

9 ISE probe

Dedicated sample probe for ISE

10 Sample tray

72 patient and standard samples
30 QC and STAT samples

User Interface

Simple Operation

Direct access to each function by clicking tabs and buttons shown on the main screen

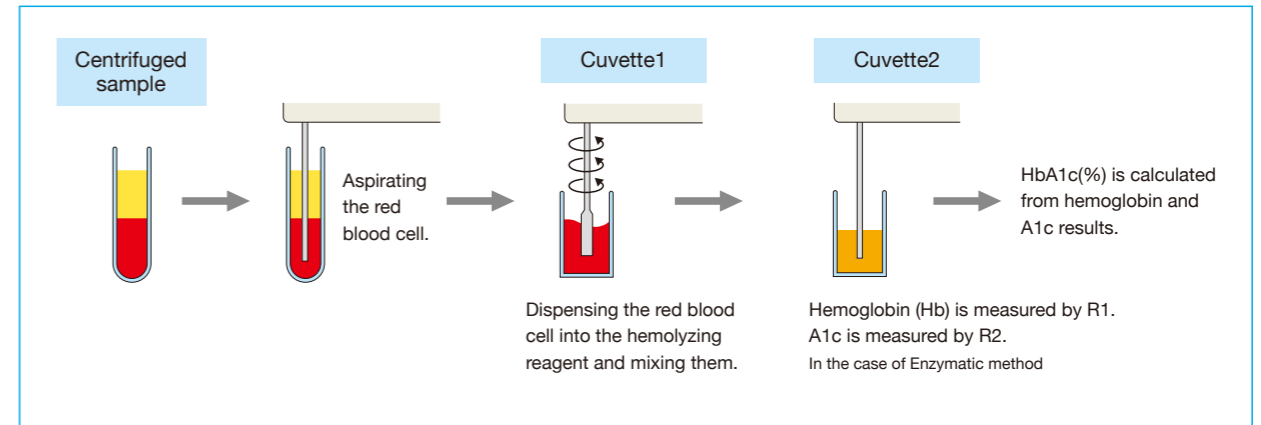
New feature for time management

The list of time records for orders or test results is displayed in "Sample Status Screen"

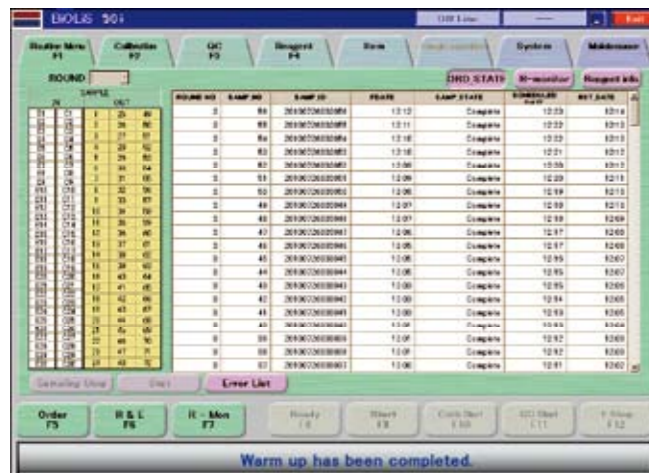
Order Entry Screen



HbA1c sample preparation and measurement



Sample Status Screen



Test Result Screen

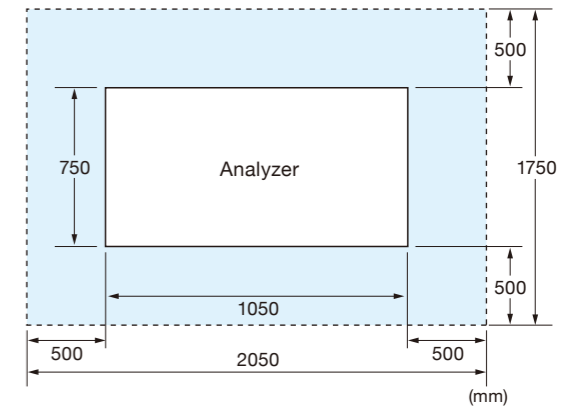


Installation

Conditions

Item	Description
Dimensions and weight	Analyzer W1050 x D750 x H1145 (mm) Approx. 300 kg
Power supply	AC 100/115/230 V ± 10 %, 50/60 Hz Voltage fluctuation: Less than 10 %
Power consumption	1.2 kVA
Grounding	Earth resistance of ground terminal should be less than 10Ω.
Ambient temperature	15-30°C ± 2°C/hour during measurement
Humidity	45-85 % (No condensation)
Water consumption	Max. 13 L/hour
Waste liquids	Separate drainage (low and high density waste)

The space required for installation



※ At least 500 mm space required for safety and maintenance.

Run Monitor Screen



QC Graph Screen



ISE module (Option)

- Direct method
- Dedicated sample probe for ISE
- Na, K, Cl in serum, plasma and urine can be measured
- Electrodes can be commonly used in BIOLIS series

