



# BIOLIS30i

Automated Clinical Analyzer

 **TOKYO BOEKI MEDISYS INC.**

**Headquarters & R&D Center**

1-14-21, Higashitoyoda, Hino, Tokyo 191-0052, Japan  
Tel: +81-42-587-7777 Fax: +81-42-587-7781  
URL <http://www.tb-medisys.co.jp/eng/>

**Global Marketing Division**

2-13-8, Hatchobori, Chuo-ku, Tokyo 104-8510, Japan  
Tel: +81-3-3555-7354 Fax: +81-3-3555-7367



ISO9001: 2008 ISO13485: 2003

# LABORATORY SOLUTION

## BIOLIS30i

*Improved user-friendly interface and test efficiency*

*The latest model of Biolis series meeting various needs of clinical laboratory tests*



### Compact & Easy Operability & Excellent Function

## BIOLIS30i

#### Brand new user interface

- Intuitive screen layout with a sense of unity
- Item parameter in one screen relieving the bother of page feeding

#### Upgraded operability

- Various touch panel operation (swipe-to-select / drag & drop ) contributing to better facility of operation
- Enlarged touch buttons for reducing operation errors.

#### Upgraded throughput

- 270 tests/hour (maximum 450 tests/hour with ISE )

#### Hemolysis of whole blood sample for HbA1c

- Automatic process on board contributing to the test efficiency.

#### Automatic sample clot detection

- Automatic detection & clean-up of sample probe clots (such as fibrin)

#### Crash prevention

- Prevent reagent & sample probes from crash during operation for safety

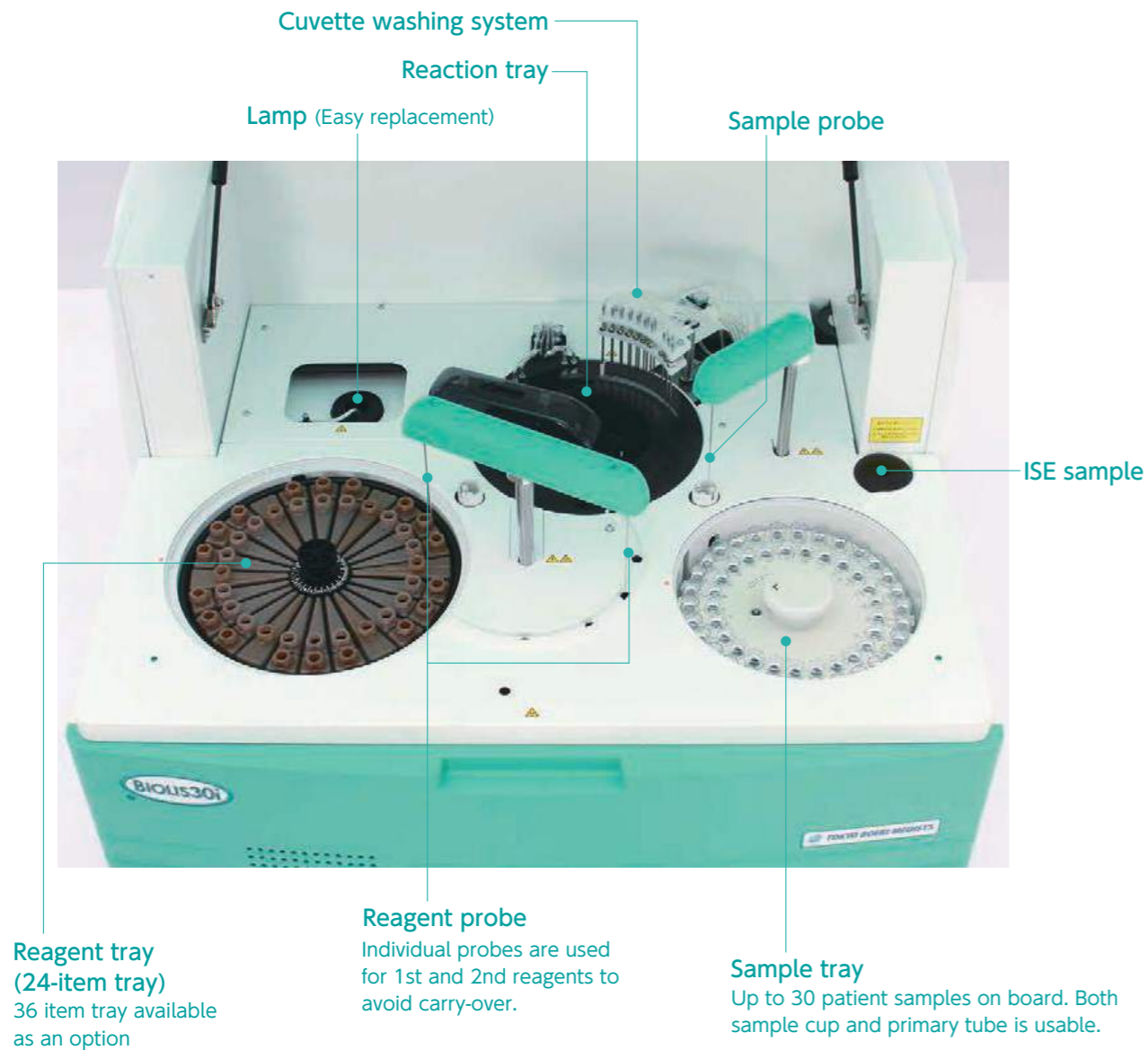
#### Automatic startup and shutdown

- Stress-free operation by cutting waiting time

#### LAN connections

- LAN connections between machine and operation PC for higher-speed and more stable communication

## Main unit arrangement



## Specifications

Analysis	System	Discrete single line random access multi-test analysis
	Number of test items on board	36+3 (ISE) or 24+3(ISE)
	Throughput	270 tests/hour, 450 tests/hour including ISE, 90tests/hour for HbA1c only
	Analysis method	End point, Rate, ISE
Sample	Calibration curve	8 kinds (linear , spline, etc)
	Sample kind	Serum, Plasma, Blood cell, Urine, Dialysis, CSF (ISE not available for CSF and Blood cell)
	Sample container	Sample cups , primary tube (5, 7, 10ml)
	Number of samples on board	Software tray (30 positions for patient sample, and 45 positions for standard and blank sample)
	Sample tray mode (software tray)	Selectable modes for patient sample, calibration and QC
	Sample dispensing volume	2.0 ~ 25.0μl(0.1μl step)
Reagent	Dilution ratio	0.5 ~ 100 times
	STAT	available during measurement (step between samples by priority)
	Reagent tray	36 items or 24 items (removable)
	Number of bottles on board	72 (36 items) or 48 (24 items)
Reaction	Bottle size	36 items : 13, 25, 40 ml 24 items : 20, 40, 60 ml
	Reagent dispensing volume	R1 : 140 ~ 300μl(1μl step), R2 : 20 ~ 260μl(1μl step)
	Reagent storage	24 hours cooling
	Reagent volume check	Level sensing or count down
Interface	Cuvette material	Plastics (semi-disposable)
	Reaction volume	140μl ~ 400μl
	Reaction time	approx 10 min. (1st reaction 5 min., 2nd reaction 5 min.)
	Reaction temperature	37±0.1°C
	Optical measurements	Fixed 13 wavelengths (340 ~ 800nm)
	Optical source	Tungsten halogen lamp
	Optical range	OD 0 ~ 2.5
	Cuvette washing	Auto washing with heated water and 2 kinds of washing solutions
Option	Reaction waste collection	Reaction waste stored in a dedicated tank
	Pure water consumption	Maximum 3.8l /hour
	Operation	Personal computer
	OS	Windows 10
Option	Reaction monitor	Optical absorbance graphic display
	Quality control	Current, Daily and Cumulative QC. Westgard algorithms
	Output	LAN connection
Option	ISE module	
	Sample barcode reader, Reagent barcode reader	

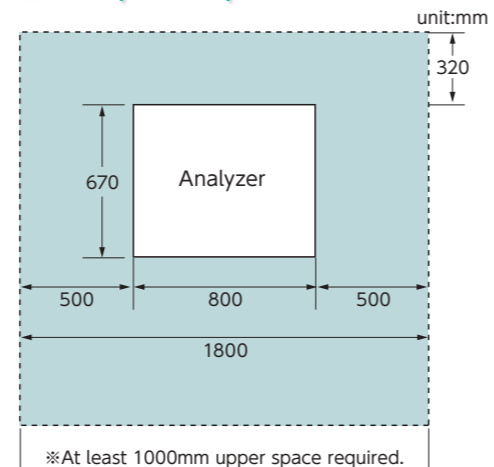
※Specifications are subject to change without notice.

## Installation

### Conditions

Item	Description
Dimensions and Weight	Analyzer W800×D670×H555(mm) Approx. 95Kg
Power supply	AC 100/115/220/230V, 50/60Hz Voltage fluctuation less than 10%
Power consumption	600VA
Grounding	Earth resistance of ground terminal should be less than 100Ω
Ambient temperature	15~30°C
Humidity	45~85% (No condensation)
Water consumption	Max 3.8 l / hour
Waste liquid	Separate drainage (low and high density waste)

### The space required for installation



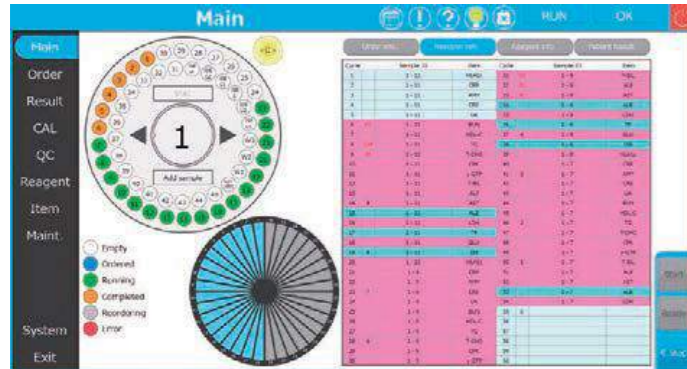
## Test Items List

Clinical chemistry	LD(LDH)	AST(GOT)	ALT(GPT)	ALP	γ-GTP	CK(CPK)	CK-MB
	ChE	AMY	P-AMY	LAP	CRE	UA	BUN
	Cys-C	TG	T-CHO	HDL-C	LDL-C	TP	ALB
	IP	Mg	Ca	Fe	UIBC	Zn	Cu
	GLU	HbA1c	1,5-AG	GA	μTP	μALB	IRI
	L-FABP	T-BIL	D-BIL	TTT	ZTT	NH3	*NEFA
	*PL	*SIA	*Fer	*Li			
	Couglution	*ATIII	*FDP	*D-dimer			
Immuno-assay	CRP	RF	TPAb	RPR	*IgG	*IgA	*IgM
	*IgE	MMP-3					
TDM	VCM	ABK	TPM	MTX	EVER	TACR	BRP
	CBZ	DIG	HAL	PB	PHT	THEO	VPA
ISE	Na	K	Cl				

\* Above includes test items under verification.

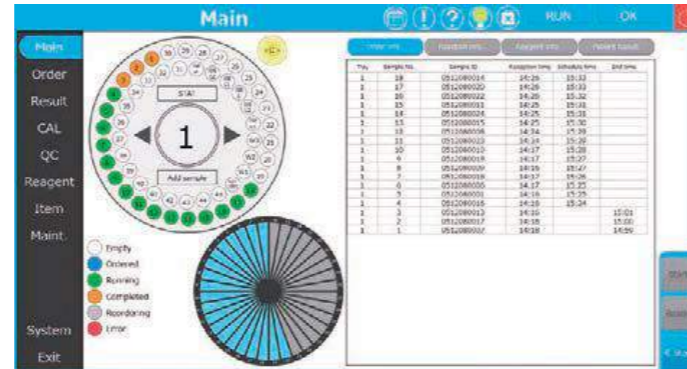
## User Interface

### Run monitor screen



Monitor measurement info by cycles

### Journal screen



View sample ordered time and result out-put time

### Order screen



Easy to select test items by swiping the touch screen

### QC graph screen



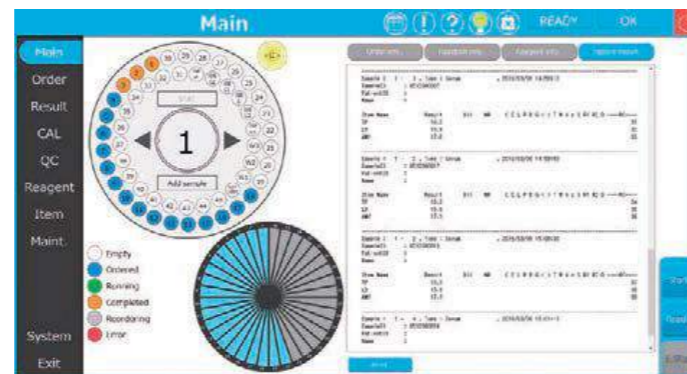
Current,daily,and cumulative QC

### Auto startup & shutdown screen



Auto maintenance available before shutdown

### Result screen



Show current day test results  
(Separate printer needed for output)

## Air pressure mixing system

Our original system for mixing the sample and reagent using air pressure alone.

**Reaction cuvette**

- Specially developed to utilize air pressure mixing system.
- The material is water repellent plastic (Semi-disposable)

**Advantages of Air Pressure Mixing**

- No carry-over because a stirrer is not used
- No water consumption for stirrer washing
- No dilution of the reaction solution by washing water from the stirrer

## HbA1c sample preparation and measurement

Centrifuged sample → Aspirating the red blood cell → Cuvette1 → Cuvette2 → HbA1c(%) is calculated from hemoglobin and A1c results.

Dispensing the red blood cell into the hemolyzing reagent and mixing them.

Hemoglobin (Hb) is measured by R1. A1c is measured by R2. In the case of Enzymatic method

## ISE module (OPTION)

Side view

ISE is Direct Method

- Throughput is 450 tests/hour including ISE
- ISE module is equipped with Biolis 30i
- Easy to replace electrodes

Consumables for ISE module

- Calibrator
- Cleaning solution
- Electrode (Na, K, Cl, Ref)