sede legale: Via ferrarecce 191 81100 Caserta
sede operativa: via Willy Brandt snc 81100 Caserta
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Instrument Standard Specifications

Item	Specification					
Module configuration	Floor standing type, configured from cobas c 501, cobas e 601 and PC					
System throughput	cobas c 501: 600test/h(without ISE), cobas e 601: 170test/h					
Stat sample processing	Provided					
Rerun processing	Provided					
PC	Based on Microsoft Windows XP and Windows 7					
Display	TFT 17-inch (Touch panel)					
Printer	Not provided, usable printer recommended					
External connection	Current port: RS232C (1 port), Network port: Ethernet					
Remote service	Possible (via modem)					
Power supply	100-120/200-240 V AC, 50/60 Hz					
Power dissipation	Max. 4.6kVA for cobas6000 (for any combinations)					
(see Note 1)	Results of Power dissipation [kVA]	Combinations	Standby		Operation	
			TYP	MAX	TYP	MAX
		C	0.9	1.6	1.1	1.8
		E	1.0	1.2	1.2	1.4
		CE	1.8	2.2	2.1	2.4
		CC	1.8	2.4	2.1	2.6
		EE	1.7	2.4	2.0	2.6
		CCE	2.3	3.3	2.9	3.7
		CEE	2.4	3.0	3.0	3.6
Water requirements	Bacteria free, deionized water		< 10cfu/ml		-	
	Conductivity		1.0 µS/cm or less		-	
	Water pressure		50 – 340kPa		-	
	Water Supply Volume		cobas c 501 in routine 10 L/h		any combination as sum.	
			cobas e 601 in routine 12L/h			
Water Supply Unit	Water Supply rate		cobas c 501 max 40 L/h		any combination as sum.	
			cobas e 601 max 30 L/h			
Ambient temperature	18 to 32 °C (variation within ±2 °C during analysis)					
Ambient humidity	30 to 85% RH (non-condensing) see (a) below					
Size	see 1.2 System Layout and Size After					

Weight	System: Max. About 1500 kg				
	Sampler: About 180 kg, cobas c 501: About 330 kg, cobas e 601: About 360 kg				
	c-extension: About 20 kg, e-extension: About 70 kg e-connection : About 90kg (Conveyor unit: 70kg, Connect unit:20kg) 2nd rotor: About 85kg				
	C	510kg	Sampler, cobas c 501		
	E	630kg	Sampler, cobas e 601, e-connection		
	CE	960kg	Sampler, cobas c 501, cobas e 601, c-extension, e-extension		
	CC	945kg	Sampler, cobas c 501*2, c-extension, 2nd rotor		
	EE	1060kg	Sampler, cobas e 601*2, e-connection, e-extension		
	CCE	1395kg	Sampler, cobas c 501*2, cobas e 601, c-extension*2, 2nd rotor, e-extension		
	CEE	1495kg	Sampler, cobas c 501, cobas e 601*2, c-extension, 2nd rotor, e-connection, e-extension		
Noise level	65 dB or less during operation; 55 dB or less during standby				
	Results of Noise level (see Note 2)		Combinations	Standby	Operation
			C	50 dB	60 dB
			E	50 dB	65 dB
			CE	55 dB	65 dB
			CC	55 dB	65 dB
			EE	55 dB	65 dB
			CCE	55 dB	65 dB
			CEE	55 dB	65 dB
Number of analyzable tests (Biochemical)	Max. 100 tests (86 photometric tests, 3 electrolyte tests, 8 calculation items items, 3 serum indices)				
Number of channels (Immunity)	2/module (built-in 2 detection units)				
Number of analysis channels	Biochemical: Max.126 items + Immunity: Max.60 items				
Conformity to standards	IVD directive, UL				
Data storage	Sample: 10,000 samples (1^{st}/rerun)				
	Reaction process: Sample > 10,000 tests				
	Control > 1,000 tests				
	Calibration > 1,000 test				

Sample ID	Barcode ID
Rack ID	Barcode ID
STAT sample	Insertion from STAT sample inlet
Sample container	Hitachi standard sample cup Hitachi micro sample cup (exclusion cobas e 601) Blood-collecting tube: Diameter 16 mm × length 75 mm, Diameter 16 mm × length 100 mm TIP: For using a test tube of diameter 13 mm, contact the service division Blood-collecting tube + Hitachi standard sample cup (Hitachi standard sample cup is set on a blood collecting tube): Diameter 16 mm × length 75 mm, Diameter 16 mm × length 100 mm Blood-collecting tube + Hitachi micro sample cup (Hitachi micro sample cup is set on a blood collecting tube): Diameter 16 mm × length 75 mm, Diameter 16 mm × length 100 mm False bottom tube: need to setting the tube height and tube bottom Non-standard tube: need to setting the tube height and tube bottom

(a) Only valid for systems with appropriate hardware update

TIP: 1: Power dissipation is measured in 1 hour. (at 25 degrees Celsius) and measured at AC200V 50Hz.

TIP: 2: Noise level is measured 1m away from the front of the system during 90 seconds and measured at AC200V 50Hz. Dark noise level (atmosphere noise) about 40dB is contained.

Sampler Unit

Item	Specification
Rack conveyance processing speed	120 racks/hour
Rack loader	150 samples/30 racks (15 racks/tray + a buffer for 15 racks)
Rack unloader	150 samples/30 racks (15 racks/tray + a buffer for 15 racks)
Rerun buffer	100 samples/ 20 racks
Sample rack	Hitachi rack (Universal rack)
Rack discrimination	Reading of the rack ID by a barcode reader

Instrument Standard Specifications

cobas c **501**

Item		Specification
Throughput		600 tests/h
Number of channels		60 slots/unit
Assay		End point, rate, ISE
Sample volume		5-35 µl in 0.1-µl steps (rerun: 1.0-35 µl)
		• 1.0-1.9 µl, water extrusion (rerun:1.0-1.5)
		• 2.0-35 µl, sample dummy 10 µl
		• 2 cycles used for 20.1-35 µl(does not work for pre-dilution)
Sample dilution		3-121 times, diluent > 100 µl
Sample liquid level detection		Improved type electrostatic capacitance system
Sample nozzle clogging detection		Possible (design target)
Reagent		Integra-cassette
Reagent pipetting number		R1: 1 nozzle; R2/R3: 1 nozzle
Reagent pipetting volume		• 5 µl + water 20 µl
		• 20-180 µl in 1-µl steps
Reagent remaining volume check		Test count down
Reagent dummy		Dummy 0 µl, dummy present
Reaction time		3-10 minutes, every minute
Reaction cell		ZEONEX, 3.8 (W) × 5.6 (D)
Reaction solution volume		100-250 µl
Reaction temperature		37°C ± 0.1°C
Mixing		Ultrasonic mixing, R1/R2/R3 independent
Photometer	Wavelengths	340, 376, 415, 450, 480, 505, 546, 570, 600, 660, 700, 800nm
	Linearity	<Abs.3.0
	Maintenance	Programmable (Pipe function)

ISE

Item	Specification
Measurement system	Ion selective electrode, flow system
Throughput	200 samples/h max.
Sample volume	9.7 µl (31 times dilution)
Reagent pipetting volume	IS: 450 µl/sample; DIL: 291 µl/sample; KCL: 130 µl/sample

Reagent pipetting	Pipetting, diluted in reaction cell
Reagent bottle	Designated bottle
Reagent level detection	Electrostatic capacitance sensor
Maintenance	Green rack concept

Standard Specifications of E601 Module

Item	Specifications
Measuring method	Integral measuring of an electrochemiluminescence signal
Reaction volume/test	Nominal: ≈ 200 µL Real: ≈ 160 µL
Incubator	54 positions disk
Incubator temperature	37 °C ± 0.3 °C [98.6 °F ± 0.5 °F]
Reaction times	18 – 27 minutes
Throughput	Max. 170 tests/hour
Mixing	Non-invasive vortex mixers
Sample Pipetter principle	Conductive disposable tip handling
Sample volume per test	Nominal: 10 to 50 µL Real: 8 to 40 µL
Sample detection	Liquid level detection (LLD) and clot detection
Sample loading capacity	300 samples: 2 × 30 rack trays, continual loading
STAT capacity	5 samples: 1 × 5 position rack, continual loading
AssayTips	84 tips per magazine (max. 12 loaded magazines are possible with 1008 AssayCups and 1008 AssayTips)
AssayCups	84 cups per magazine (max. 12 loaded magazines are possible with 1008 AssayCups and 1008 AssayTips)
Reagent Pipetter principle	Positive displacement
Reagent disk temperature	20 °C ± 3 °C [68 °F ± 5.4 °F]
Reagent disk capacity	25 reagent packs in 25 positions
R1/R2 consumption	Assay dependent
Reagent pipetting volume	Nominal 40 to 64 µL/test dependent upon the assay
Microparticle consumption	Nominal 24 to 40 µL/test dependent upon the assay
ProCell M consumption	≤ 2.0 mL/cycle
CleanCell M consumption	≤ 2.0 mL/cycle (CleanCell is used less than ProCell)
PreClean M consumption	≤ 550 µL/pre-wash
PreClean M temperature	20 °C ±1 °C [68 °F ± 1.8 °F]
Reagent detection	Available (Liquid level detection)
Positive reagent identification	2-dimensional barcode (PDF417) The barcode reader is "CLASS1 LED PRODUCT" in IEC60825-1 +A2: 2001.
Automatic dilution	Available

Evaporation protection	Reagents are automatically opened and closed
Reagent inventory control	Available for ProCell M, CleanCell M, and PreClean M
Calibration mode	2-point calibration
Test protocols	26 test methods
System reagents temperature	28 °C ± 2 °C [82.4 °F ± 3.6 °F]
Detection unit temperature	28 °C ± 0.3 °C [82.4 °F ± 0.5 °F]
Pre Clean M temperature	20 °C ± 1 °C [68 °F ± 1.8 °F]
Liquid waste handling	Optional: 2 waste containers (20 l)
Solid waste handling	2 waste boxes for used AssayTips and AssayCups (max. 1344) and the magazine waste section for magazine waste (max.12 magazines)

System Layout and Size

c 501 Layout

width: 1980
height: 1300
length: 1040

e 601 Layout

width: 3090
height: 1300
length: 1040

c 501 + c 501 Combination Layout

width: 3500
height: 1300
length: 1040

c 501 + c 501 + e 601 Combination Layout

width: 4980
height: 1300
length: 1040