



*Life needs answers*

# cobas c 311 analyzer

Experience the benefits of standardizing with **cobas**<sup>®</sup> solutions

**Introducing the latest addition to the cobas<sup>®</sup> family of analyzers**

## Comprehensive features in a compact footprint

- Full menu including general chemistries, TDM's, DAT's, and serum proteins
- On-board capacity of 42 channels and 3 ISE's
- 300 tests per hour

## Convenience through standardization

- Common ready-to-use reagent packs and user interface across **cobas**<sup>®</sup> platforms means less training and enhanced productivity
- Online updates and remote services via **cobas**<sup>®</sup> e-services

## Control laboratory operations

- Automatic data flag processing of requesting repeats, dilutions without operator intervention
- With Middleware Solutions, functions include archiving, autoverification, reflex testing, and delta checking



**cobas c 311 analyzer**

## Confidence in results

- Clot detection and test specific serum indices ensure reliable results
- Non-contact ultra-sonic mixing results in homogeneous distribution of reactants
- Common analytics yield comparable patient results across **cobas**<sup>®</sup> platforms
- Proven Hitachi instrument reliability



Diagnostics



<b>System</b>	Automated, discrete clinical chemistry analyzer intended for the in vitro quantitative/qualitative determination of analytes in body fluids		
<b>System Components</b>	Self contained floor model analyzer comprised of the analytical unit and control unit		
<b>Sample Throughput</b>	300 photometric tests per hour		
<b>Number of Channels</b>	42 channels and 3 ISE's		
<b>Programmable Parameters</b>	Maximum: 117 photometric, 3 ISE tests, 8 formulas, 3 serum indices		
<b>Sample Material</b>	Serum/plasma, urine, CSF		
<b>Sample Input/Output</b>	Sample disk with 108 sample positions plus: W1 position for ISE cleaning solution, W2 position for ISE activator, Real STAT interrupt		
<b>Sample Cups and Tubes</b>	<b>Sample container</b>	<b>Diameter x length</b>	
	Primary sample tube	16mm x 100mm	
	Primary sample tube	16mm x 75mm	
	Primary sample tube	13mm x 100mm	
	Primary sample tube	13mm x 75mm	
	Hitachi standard cup	17mm x 38mm, 2.5ml	
	Hitachi micro cup	8mm x 37mm, 1.5ml	
	False bottom tube	13mm x 75mm, one type definable	
<b>Sample Clot Detection</b>	Available (pressure sensitive clot detection system)		
<b>Liquid Level Sensor</b>	Capacitance sensing technology		
<b>Sample Barcode Types</b>	NW7 (Codabar); Code 39; ITF; Code 128		
<b>Control Unit</b>	Microsoft Windows XP, Pentium IV processor		
<b>System Interface</b>	RS-232C serial interface		
<b>Sample Database</b>	10,000 samples (routine, STAT, and QC samples)		
<b>Calibration Methods</b>	Start-up, re-calibration. For photometric assays: Linear, non-linear multi points, 2 point calibration, K-factor. Up to 100 calibrators pre-programmable. Storage of up to 180 curves. Preventative calibration of stand-by cassettes. Two k-factor can be defined for different sample types.		
<b>QC Methods</b>	Real-time QC, individual QC, cumulative QC. Up to 100 different controls pre-programmable. Preventative QC after calibration of stand-by cassettes. Auto QC (without operator intervention).		
<b>Electrical Requirements</b>	Power rating	AC 208 V AC/60 Hz (US/Canada)	
	Power supply fluctuation	No significant power supply fluctuation (operating on 208/230 V AC, max. power supply change: $\pm 10\%$ )	
	Overtoltage category	II	
	Pollution degree	2	
	Power consumption	1.5 kVA for analytical unit; 0.5 kVA for control unit	
	Electrical installation	Technical standard class C, Required earthing $< 10\ \Omega$ , Bonding impedance $< 0.1\ \Omega$ at 30 A, Insulation resistance $> 10\ M\Omega$ at 500 V	
<b>Water/Waste Requirements</b>	Bacteria-free, deionized water	$< 10$ cfu/mL	
	Conductivity	$> 10\ M\Omega$ resistance	
	Water pressure	5015 to 25 psi (1.054 – 1.76 g/cm <sup>2</sup> )	
	Water supply volume	40 L/h	
<b>Operating Conditions</b>	Ambient temperature	18 to 32 C	
	Ambient humidity	45-85% (non-condensing)	
	Noise output	$< 70$ dB(A) for surrounding	
<b>Physical Dimensions</b>	Depth	859 mm	34 in
	Height	1260 mm	50 in
	Height Level of Monitor	1380-1570 mm	54.3- 61.8 in
	Width	1325 mm	52 in
	Weight	270 kg	595 lb
<b>Sampling System</b>	Sample pipetting volume	1.5-35 $\mu$ L, in 0.1 $\mu$ L increments	
	Detection of sample clogging	Pressure sensitive clot detection system	
	Liquid level sensor	Capacitance sensing technology	



Diagnostics