respons®420c

Reliability in routine

Member of the respons®c-line

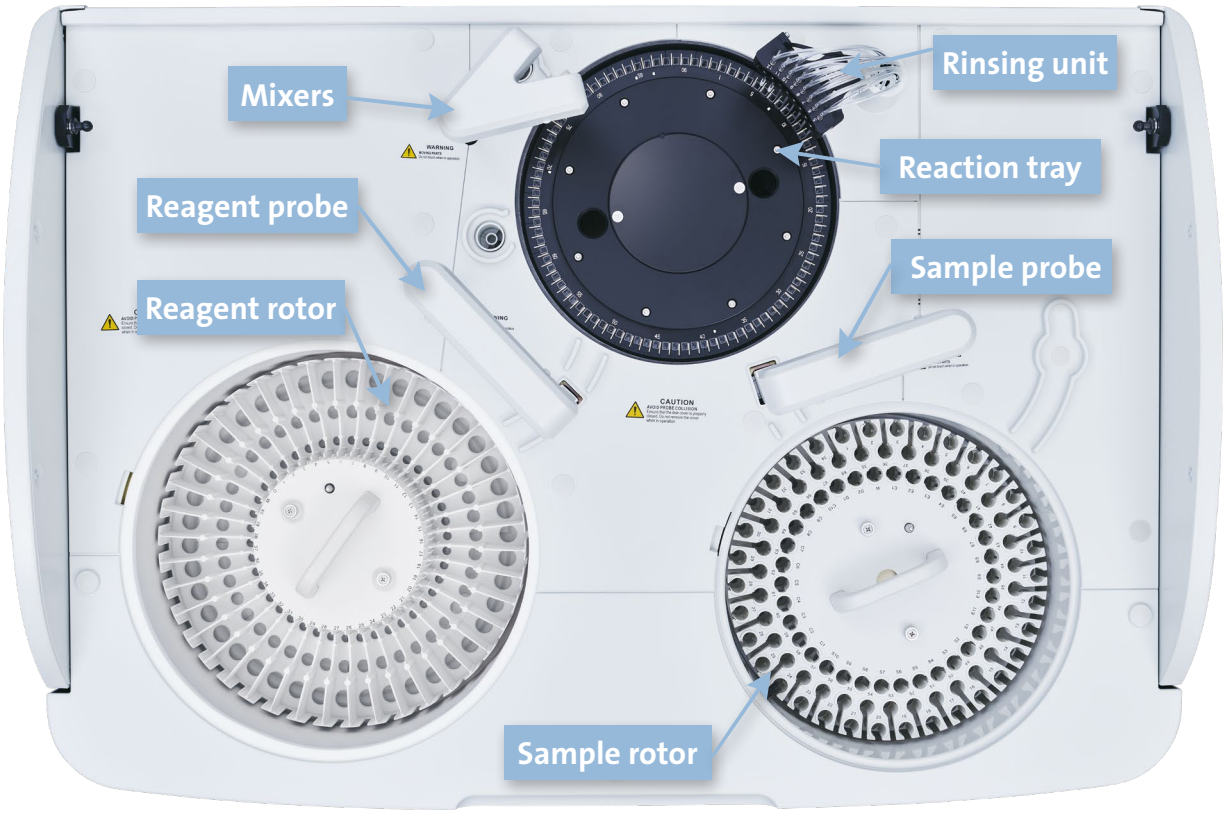
DiaSys
Diagnostic Systems

DiaSys. Total confidence in patient results.

CHOOSING QUALITY.

respons®420c at a glance

Experience laboratory work redefined. respons®420c is a fully automated random access analyzer designed to deliver reliable results with a constant throughput of up to 420 tests per hour (620 tests/hour incl. ISE). Due to its optimal cost-effectiveness and ease of use, it perfectly fits in small to medium sized laboratories.



Reaction system

- Grated photometer with 12 wavelengths for a maintenance free operation
- Wide photometric linearity up to 3.5 OD to minimize the need of reruns
- Maintenance free thermostatization of cuvettes by contact heating (metal block)
- Twin test functionality for DiaSys HbA1c net FS

Reagent rotor

- On board capacity of up to 40 DiaSys respons® reagent bottles
- Refrigerated reagent rotor (2-8°C)
- Convenient one grip loading of respons® bottles also for two component reagents to eliminate the risk of misplacements
- Barcoded bottles – automatic connection to pre-programmed applications

Performance data (preliminary)

Outstanding precision and excellent recovery of serum based controls TruLab N and TruLab P.

Parameter	Unit	Sample value	CV [%]*	Recovery of controls [%]**	
				TruLab N	TruLab P
ALAT	U/L	50.9	0.68	103	102
CHOL	mg/dL	130	0.82	99.8	97.6
CREA PAP	mg/dL	1.30	0.68	100	99.4
GGT	U/L	30.8	2.3	95.1	100
HDL-c direct	mg/dL	36.4	0.62	97.8	101
LDL-c direct	mg/dL	96.1	0.39	98.5	101
Lipase	U/L	40.9	1.38	98.5	97.1
Lp(a)	nmol/L	39.4	0.90	101	99.7
TP	g/dL	6.44	0.52	99.5	100
TRIG	mg/dL	81.8	0.53	96.4	97.3
UREA	mg/dL	17.3	0.75	100	97.8

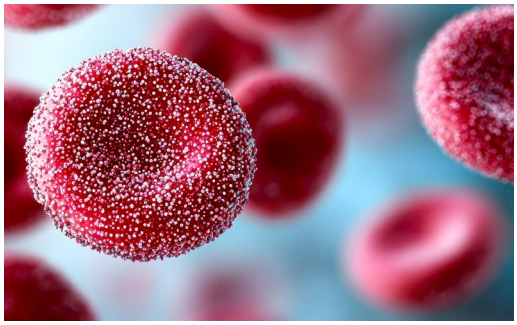
* n=20, ** n=5

Sample rotor

- 102 positions in total
  - 68 positions (outer rings) with auto-barcode reading
  - 34 positions (inner ring) for calibrators (10 positions), controls (9 positions) and STAT (11 positions), 4 positions for cleaner
- Hosting all major primary tubes and sample cups
- Processing STAT samples with highest priority
- Auto dilution and automatic adaption of measuring window in case of substrate depletion to reduce manual work, rerun costs and turn around time

Advanced HbA1c testing

- Fully automated on board hemolyzation of whole blood samples to eliminate time consuming and error prone manual steps
- HbA1c smart sampling
  - Sampling at bottom of tube for a sufficient aspiration of erythrocytes for HbA1c determination
  - Deep washing of sample probe to minimize carry over after whole blood sampling



respons®420c

Technical specifications	
Throughput	420 tests/hour (with ISE 620 tests/hour)
Sample types	Serum, plasma, urine, whole blood
Sample volume	2-45 µL, 0.1 µL steps
Sample probe	Liquid level detection, clot detection and collision protection
Reagent pipetting	10-200 µL, 0.5 µL steps
Reagent probe	Liquid level detection, bubble detection and collision protection
STAT-analytics	Yes
Ion measurement	Optional ISE (Na, K, Cl)
Barcode identification	Sample, reagent
Sample tray	102 positions
Reagent on board capacity	40 respons® containers cooled to 2-8°C
Reaction unit	93 cuvettes, 8-step auto-washing
Photometry	Grating system, 12 wavelengths (340, 380, 412, 450, 505, 546, 570, 605, 660, 700, 740 and 800 nm)
Photometric linearity	0-3.5 OD
Water consumption	< 20 liters per hour
Dimensions	105 cm (W) × 72 cm (D) x 115 cm (H)
Weight	approx. 200 kg

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