respons®910

Technical Specifications					
System type	Bench top clinical chemistry analyzer				
Throughput	Up to 150 tests/hour				
Combined reagent/ sample tray	30 reagent positions plus 30 sample positions; Easy removable tray for storage in refrigerator				
Sample types	Serum, plasma, whole blood, CSF, urine				
Sample volume	2 – 30 μL				
Reagent pipetting volume	Reagent 1: 90 – 250 μL Reagent 2: 10 – 130 μL				
Sensors	Liquid level sensor, clot sensor and crash sensor				
STAT analytics	Two sample positions for loading of emergency samples at any time				
lon measurement	Photometric tests for Na, K, CI				
Bar code identification	Automated bar code reader for reagent and sample				
Measuring principle	Photometric/Turbidimetric				
Calibration	Linear, non-linear, multi-point				
Sample tubes/cups	Primary tubes of 5, 7, and 10 mL and sample cups (1.5 and 2.5 mL)				
Reagent on board capacity	30 different methods in bar coded mono or twin containers for adapter free one grip loading				
Reaction temperature	37 ± 0.2°C				
Reaction unit	Temperature controlled heated rotor with 105 disposable plastic cuvettes (37 \pm 0.2°C); Maintenance free heater elements				
Photometry	12 wavelengths: 340, 380, 405, 450, 480, 508, 546, 570, 600, 660, 700 and 800 nm (mono and bichromatic)				
Photometric linearity and resolution	Linearity: 0 – 3.0 OD Resolution: 0.0001 OD				
Water consumption	< 1 Liter per hour				
System interface	Analyzer to PC: USB 2.0 connectivity bi-directional; PC: Pentium IV or higher				
LIS connectivity	Yes				
Remote control	Yes				
Power source	AC 110/220 V, 60/50 Hz; 300 VA excluding PC/printer/monitor				
Dimensions	60 cm (W) x 67 cm (D) x 60 cm (H)				
Weight	Approximately 60 kg				

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Climate neutral print (Carbon neutral) ID: DE-626-057547 Printed on FSC certified paper



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820094 LJune 2019



CESPONS®910 Discover Your Potential





Every Detail Makes Your Laboratory More Efficient. Automatically.

Laboratories performing up to 800 analyses per day can noticeably improve their performance – immediately. The fully automated respons®910 system makes routine operations more efficient while simplifying workflows. Versatile, robust, compact – an instrument whose superior performance exceeds even highest expectations.





Laboratories need to be both highly efficient and economical in order to succeed in today's competitive world. Their workflow has to be optimized and run without interruption; therefore instruments must be easy to use. respons®910 is the ideal solution: It can be put to work right away by experienced employees. And it requires minimal maintenance and service.







Intelligent Features for Maximum Efficiency

DiaSys has designed all respons®910 components with a view to perfect interaction. Features like clot detection and crash sensor (patent pending) are major advantages in a system that is also easy to use, guarantees consistently high result security, and is uniquely flexible. respons®910 can process up to 30 samples in one run, and methods may be chosen out of a portfolio of over 60 different parameters. If you need to do emergency tests, such samples may be introduced effortlessly into the test run via the STAT drawer. respons®910 handles between 100 and 150 tests per hour automatically which means that laboratory personnel are freed for other duties.

Unique Container System for Liquid-Stable Reagents

This concept was designed especially for respons® instruments. Both containers for mono as well as for two component tests have the same shape. The mono container has one chamber, whereas reagent 1 and reagent 2 are stored in two chambers in the twin container. One grip loading eliminates the need to deal with multiple containers thus representing a decisive advantage. The result: Rapid, easy loading which, combined with DiaSys' liquid-stable reagents, has elevated respons®910 to a new level of performance in its class.

Reduced to the Max: Rethinking Technology.

respons®910 sets new standards for maximum efficiency, uncommon robustness, and minimal wear. The system software is both user friendly and self-explanatory: It guides users intuitively and quickly through the entire testing process. Easy handling based on progressive technology, designed to meet highest requirements.

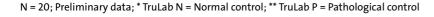
Superior Performance for Quality Results

Highly secure results, outstanding user friendliness, and easy-to-learn operation are important characteristics of respons®910 which have been documented in a comparative study from a major laboratory diagnostic center*. Its performance and quality were compared to those of large laboratory analyzers. The result: With its high level of reliability and precision, respons®910 is the ideal solution for small to medium sized laboratories. However, in big laboratories, it is the perfect analyzer for specialized tests or backup instrument.

*Evaluation of DiaSys respons®910, Center for Laboratory Diagnostics, St. Francis Hospital, Linz (Rhine), Germany, November 2010



Intra-assay Precision and Recovery									
Parameter	Target TLN* value	Mean TLN* value	Recovery %	Target TLP** value	Mean TLP** value	Recovery %	CV % TLN*	CV % TLP**	
ALT (U/L)	31.8	34.7	109	105	114	109	1.80	0.69	
CHOL (mg/dL)	136	133	98.1	204	201	98.4	1.79	1.99	
CREA-PAP (mg/dL)	1.02	1.08	106	7.43	7.77	104	1.95	1.30	
CRP (mg/dL)	19.8	18.7	94.5	59.8	55.8	93.3	2.09	1.86	
DBIL (mg/dL)	0.53	0.56	106	2.24	2.46	110	1.94	1.32	
IRON (μg/dL)	88.4	88.8	101	284	271	95.4	1.74	1.03	
GGT (U/L)	27.0	27.8	103	83.0	80.4	96.9	1.55	2.05	
Lipase (U/L)	42.1	43.8	104	80.9	78.5	97.0	2.99	2.49	
TP (g/dL)	5.32	5.29	99.5	6.39	6.39	100	1.79	1.83	
TRIG (mg/dL)	116	112	96.3	172	160	93.3	1.82	2.10	
UREA (mg/dL)	40.1	40.9	102	152	150	99.1	2.29	2.06	





Smart Technology Means Reduced Costs

Operation is simplified for the user without sacrificing precision. For example, the reagent tray is a DiaSys innovation integrating reagent and sample into a single module. Sensor technology in the respons®910 analyzer is as well a good feature for highly developed and efficient design. respons®910 is the only analyzer in its class with a multifunctional arm with integrated clot detection and crash sensor, liquid level detection and pipetting of sample and reagent. Since all components are almost maintenance free, the instrument is user friendly, too.

High Quality for Low Maintenance

respons®910 is designed to offer low maintenance by reducing the number of moving parts to a minimum while providing maximum efficiency and value. This is why respons®910 does not include a refrigeration unit: Liquid-stable DiaSys reagents provide superb onboard stability, so that cooling is optional. On the other hand, the rotor may simply be removed. The reagents may thus be stored in the refrigerator when not in use.

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