respons®910

Discover Your Potential

reddot design award
winner 2009

Efficiency. Power. Flexibility.
Small In Size – Big In Performance.

DiaSys
Diagnostic Systems

CHOOSING QUALITY.

respons®910
A Leap Forward For Your Laboratory.

- Superior system solution including respons system reagents, analyzer, and software
- High-performance technology in its most compact form: the perfect fit for laboratories with small to mid-range throughput
- Integrated system components for the greatest possible security and precision in your results
- Ideal as dedicated analyzer or backup instrument
- An economical investment for collaborative laboratories
- A great leap forward in performance for small laboratories

A System Whose Every Detail Makes Your Laboratory More Efficient. Automatically.

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

Just a push of a button: easy to use
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, and for this their instruments must be easy to use. The 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 the perfect integration of all components. Features like clot detection and the 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. It can perform up to 30 different tests and up to 30 samples in one run. And if you need to do emergency tests, such samples can be introduced effortlessly into the test run through the STAT drawer. respons®910 can handle 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
Another innovation and a sign for the high level of efficiency this system offers is its unique container concept. This concept was designed especially for the respons family of instruments. Both the containers for mono and 2-component tests have the same shape. The container for mono reagents has one chamber, whereas reagent 1 and reagent 2 are stored in two chambers in the twin container. The decisive advantage here is the one-grip loading that eliminates the need to deal with multiple containers. The result: rapid, easy loading, which, combined with DiaSys' liquid-stable reagents, has elevated the respons®910 to a new level of performance in its class. A further demonstration of its broad applicability: the broad portfolio of 68 fast and secure tests for very different parameters using barcode identification.

Reduced To The Max: Rethinking Technology.

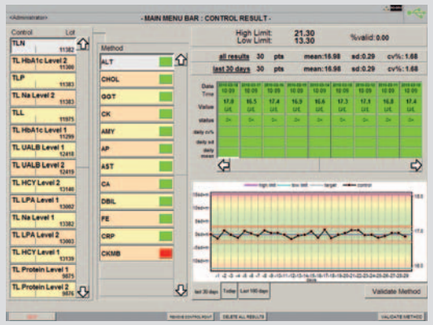
The respons®910 sets new standards for maximum efficiency, uncommon robustness, and minimal wear by its slimmed-down, intelligent technology. The system software is both user-friendly and self-explanatory: it guides users intuitively and quickly through the entire testing process. Easy handling based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

Superior performance for quality results

Highly secure results, outstanding user-friendliness, easy-to-learn operation – these 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 with those of a large laboratory analyzer. The result: with its high level of result integrity and precision, the respons is the ideal solution for small to mid-sized laboratories. And in big laboratories, it is the perfect analyzer for specialized tests or backup instrument.

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

Self-explanatory calibration curve



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/d)	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

n = 20; Preliminary data; * TruLab N = Normal control; ** TruLab P = Pathological control

Smart technology means reduced costs

The principle underlying the respons®910 – integration to the highest level – makes for a highly independent system. Operation is simplified for the user without sacrificing precision. The reagent tray, for example, is a DiaSys innovation that integrates reagent and sample into a single module. Sensor technology in the respons®910 is also a good example for efficient, highly developed design. The respons®910 is the only analyzer with a multifunctional arm that integrates both clot detection and a crash sensor. This arm handles also sample/reagent pipetting and mixing and the liquid level detection. The instrument is user-friendly as well since all components are almost maintenance-free.

High quality for low maintenance

The respons®910 was designed to be low-maintenance by keeping the number of moving parts to a minimum, while providing maximum efficiency and value. This is why the respons®910 does not include a refrigeration unit: the liquid-stable reagents from DiaSys have an extremely high on-board stability, so that cooling is optional. On the other hand, the rotor can, of course, simply be removed. So the reagents can be stored in the refrigerator when they are not being used.

respons®910 From DiaSys

Technical specifications

System type	Bench top clinical chemistry analyzer
Throughput	150 tests/hour with a cycle time of 12 seconds for mono and 100 tests/hour for 2-component tests
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 1:120-250 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
Ion measurement	Photometric tests for Na, K, Cl
Bar code identification	Automated bar code reader for reagent and sample
Measuring principle	Colorimetry (rate; end point); immunoturbidimetric assay
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 ± 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

Handed over by:

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