



**LIAISON<sup>®</sup>** 

**LIAISON<sup>®</sup>X**

***INNOVATION TO MEET YOUR NEEDS***





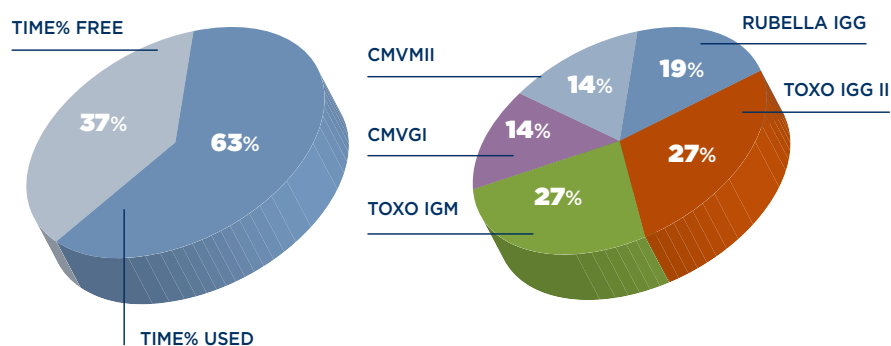
## High Throughput

The throughput is optimized splitting the pipetting phases of Reagents and Samples into different cycles. The innovative technical solutions adopted by LIAISON® XL, as the double washing capacity, the incubator that may host up to 80 cuvettes and the optimization of the assay process, can keep the **throughput of system as high as possible**.

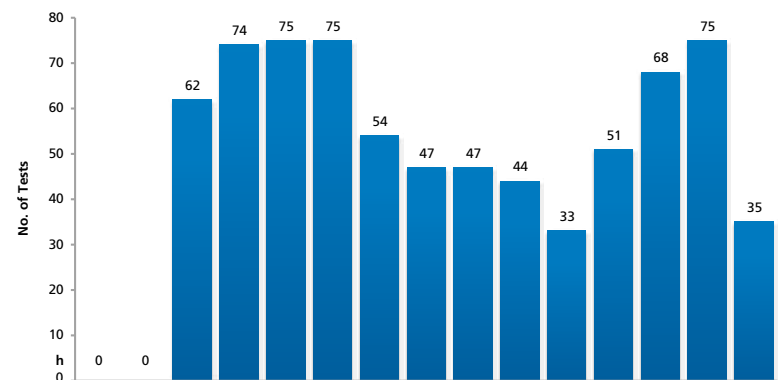
## XLAB Software

A professional simulator software, **XLAB**, allows DiaSorin specialist to tailor efficient organization based on your workflow.

### ASSAY DISTRIBUTION



### RESULTS DISTRIBUTION



# COMPACT AND EFFICIENT DESIGN



## Consumable loading

Disposable Sample Tips and reaction Cuvettes in continuous loading.

## Touch Screen Monitor

## Sample Area

Continuous loading of Sample tube through LIAISON® XL sample racks. Up to 120 sample. Different tube sizes are allowed. Barcode identification recognizes samples.

## Reagent Area

Continuous loading for all Integral reagents.

## Starter Reagents

Continuous loading and easy replacement with the Click-on cup technology.

## Table

Under the reagent area to place tiny items on the table for instant aid to the user (max weight capacity is 2,5 Kg/ 5.5 lbs)

## Cabinet Area

System liquid tanks in continuous loading. Solid and liquid waste allows continuous unloading.



## Integral Technology

LIAISON® XL utilizes **chemiluminescence technology** with magnetic microparticles, the same proven quality technology used for **LIAISON®**.

All the components are **ready to use** in one Integral.

Most of the Integrals, f.e. all the Infectious Disease tests, **include the calibrators**.

The Integral technology with long term of stability on board, improves efficiency and results standardization.

## Reagents area

The loading bay for reagents allows a **continuous loading** of the LIAISON® XL system with reagents in the form of Integrals or ancillary. The operator will be driven by a led-light in order to optimize the load and unload activities. **Up to 25 Integrals** and up to 4 ancillary reagents can be used at the same time. The high number of reagents and consumable loaded on board, reduces the operator activities and **improves the walk away** time. Integrals can be loaded directly in one of the 25 lanes according to the specifications of the LIAISON® XL, **multiple of the same Integral can be loaded** at the same time if needed. Upon exhaustion of one Integral, **the instrument switches automatically to the next** inserted reagents, in case of lot consistency LIAISON® XL recognizes position, expiration date and lot number of reagents loaded. **All the information is updated automatically** during the process.



### **Maximize quality**

LIAISON® XL **prevents sample carry over** due to adoption of single cavity reaction module (cuvette) and sample tips.

Both are in continuous loading and the software monitors the quantity on board. Single-cavity reaction cuvettes can be loaded with any orientation. In each sample are detected Clot and/or risk of insufficient Volume by pressure profile sensor. The high number of cuvettes and sample tips on board allows an high walk away system.

### **Easy to use and long walk way time**

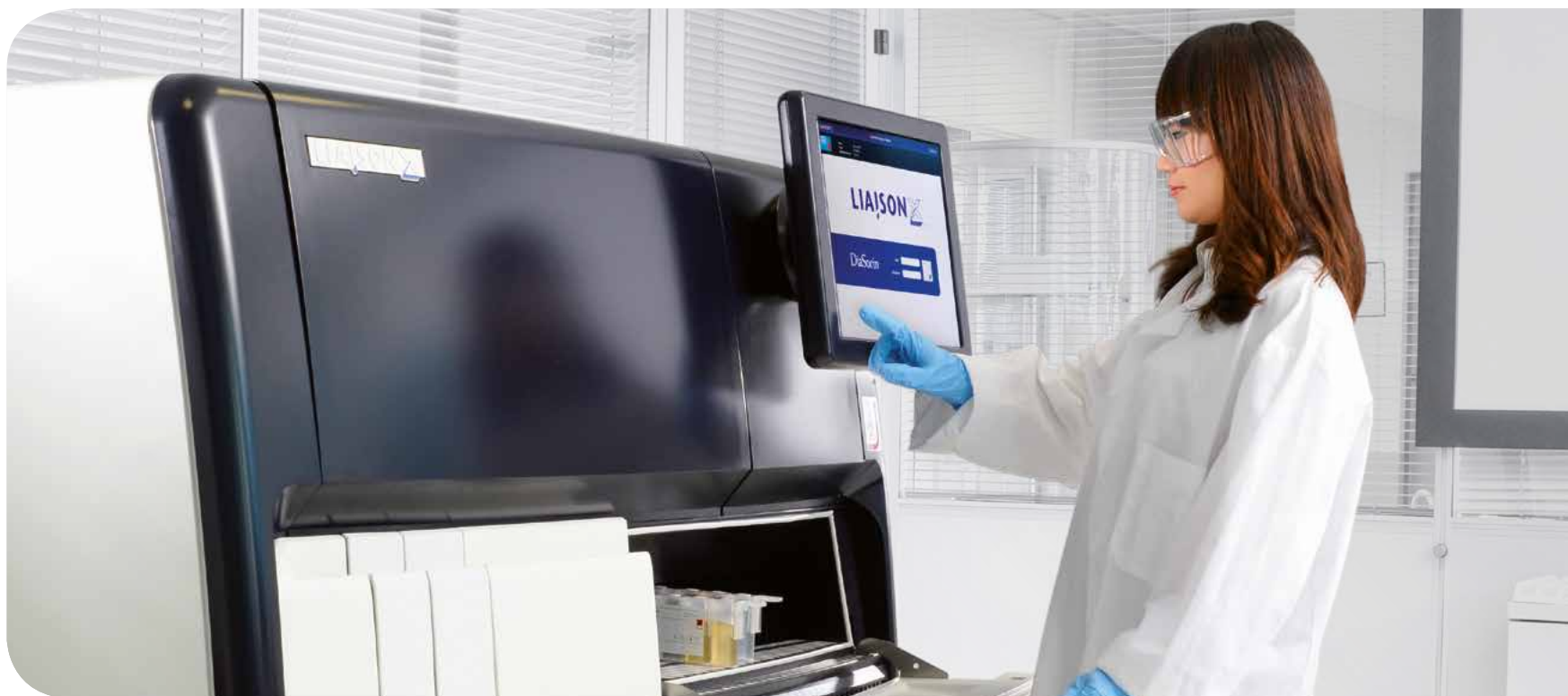
According with the IFU of each assay, most of the tests **don't require any daily maintenance**.

LIAISON® XL informs the user when maintenance is due and monitors the scheduled needs automatically. The Cabinet area of LIAISON® XL offers the **continuous loading** of System Liquid tanks and the **continuous unloading** of Liquids and Solid waste.

The high consumable volumes on board offer a long walk away time.

LIAISON® XL recognizes position and lot number of each bottle of **Starter Reagents** and upon exhaustion of a starter bottle, **it switches automatically to the next inserted bottle**, in case of lot consistency.

The replacement is in **continuous loading** and extremely easy due to the "Clip-on" technology. All the information is **updated automatically** during the process.



*Easy to use with functional icons that help the operator, the LIAISON® XL Software allows the laboratory to achieve a superior level of efficiency and a complete traceability of its activities. The communication between operator and instrument requires neither keyboard nor mouse.*

### **Performance Monitoring**

- The software informs the operator about the **status of systems** (Stand by; Ready; Run) and the amount of reagents and consumable available on board.
- Through the features **System Test Statistics** the operator is allowed to monitor all the Successful and the Failed samples or Control.
- System gives the user upfront estimation of the consumable volumes needed to perform the number of tests requested and allows the user to increase the consumable volume before starting or during the routine.
- LIAISON® XL Software is connectable to LIS (Laboratory Information System) and offers a **Service remote access** with direct access from our central service to the system.

### **Traceability**

- All the activities planned and scheduled are **continuously monitored** and all the results, samples and calibrators and quality controls, **are traced**.
- In every screen-page there is the **Help features**, that offer to the operator an **On-Line Operator Guide**.

## TECHNICAL SPECIFICATIONS



### OVERVIEW

**System description**  
**Throughput**  
**Time to first result**  
**Assays on board**

Random access or batch immunoassay system  
Up to 180 tests per hour  
17 minutes - assay dependent  
25



### SAMPLES AND SAMPLE HANDLING

**Sample racks**  
**Sample capacity**  
**Walk-away time**  
**Stat handling**  
**Sample type**  
**Sample integrity control**

6-mm to 15-mm internal diameter. Up to 100-mm height  
120 samples, 12-position sample racks in a 10-lane sample area  
Approximately 6 hours  
STAT may be assigned to any position in the sample area  
Serum / plasma / urine / CSF  

- Pneumatic-based level sensor
- Aspirated/dispensed volume detection and flagging
- Clot detection and flagging

Absent due to the use of LIAISON® XL Disposable Tips

**Sample carryover**



### BARCODES

**Sample tubes (all reading types may be active simultaneously)**  
**Control sera**

EAN / Code 128 / Code 39 / Cod-a-bar / Interleaved 2 of 5  
2D barcodes recognized by hand-held scanner



### REAGENTS AND REAGENT HANDLING

**Reagent cooling**  
**Reagent integrity control**

13°C ± 2°C / 52°F ± 59°F  

- Radio Frequency identification (RFID)
- Automatic inventory tracking and updating to integral RFID tag
- Tracking of calibration validity
- Tracking of on-board stability

**Reagent capacity**

25-position cooled storage for reagent integrals + 4 position cooled storage for reagent ancillaries



### CONSUMABLE CAPACITY

**Cuvettes**  
**Disposable Tips**  
**DI Water**  
**Wash Buffer**  
**System cleaning solution**

On board capacity: up to 1000  
On board capacity: 576  
10-L container + 2-L reservoir  
10-L container + 2-L reservoir  
2-L container





## WASTE CAPACITY

**Solid waste**  
**Liquid waste**

Up to 2500 Disposable tips and cuvettes  
A second container allows an instrument autonomy of 15 min  
2 x 10-L containers



## CONTINUOUS OPERATION

**Loading/unloading of items during system operation**

Includes:  
Sample racks / Reagent integrals / Ancillaries / Cuvettes / Disposable tips / Control racks / Wash liquid / System liquid / Liquid waste / Solid waste / Starter reagents



## USER INTERFACE

**Operating system Monitor GUI**

Microsoft® Windows®  
17" diagonal LCD touch sensitive screen

- Quick access to all pages
- Critical events and actions recorded
- Software-guided and logged maintenance



## RESULTS MANAGEMENT

**Viewing and editing**

- Results available at all times
- Sort, search, filter (display customization available)
- Possibility of evaluation, validation and release of results prior to printing or LIS reporting

Retest always available, even automated based on predefined rules  
Results can be stored manually or automatically  
Compliant with privacy / safety regulations

**Retest**  
**Back-up**  
**Privacy/safety**



## QUALITY CONTROL

**Package**

Long-term monitoring including L-J graphs covering Westgard and RilibÄK rules

**Access**  
**Rule definitions**

Accessible at all times  
Available to users



## ENVIRONMENTAL FEATURES

**Operating temperature**  
**Operating humidity**  
**Electrical**  
**Dimensions (excludes monitor and accessories)**

15-32°C / 59°F ± 90°F  
10%-85% RH non condensing  
90-240v, 50-60 Hz  
Height: 59 in or 150 cm  
Width: 59 in or 150 cm  
Depth: 36 in or 90 cm  
LIAISON® XL 661 lbs or 300 kg (includes Monitor and Accessories)  
63.9 dBA at operator normal position

**Weight**  
**Noise**

# LIAISON® XL DELIVERS VALUE



- ✉ **Fully automated solution**
  - Continuous loading of samples, reagents and consumables.
- ✉ **Quality of results**
  - Proven technology.
- ✉ **Flexible configuration**
  - DiaLink 3000 is the DiaSorin middleware to connect multiple LIAISON® offering a unique operator interface;
  - LIAISON® XL is suitable for “point in space” connectivity to Laboratory Automation Systems.
- ✉ **High efficiency**
  - Long walk-away;
  - High Throughput;
  - Low maintenance.
- ✉ **Safe process**
  - Traceability;
  - Avoid carry over;
  - Remote assistance.

## Ordering information

LIAISON® XL (code 10050)

\*LIAISON® XL LAS (code 10050LAS)

LIAISON® XL Workcell Upgrade Kit (code 100001197)

LIAISON® Wash/System Liquid (code 319100)

LIAISON® XL Cuvettes (code X0016)

LIAISON® XL Disposable Tips (code X0015)

LIAISON® XL Starter Kit (code 319200)

LIAISON® XL Cleaning Tool (code 310995)

LIAISON® XL Waste Bags (code X0025)

LIAISON® Light Check 12 (code 319150)

LIQUI-NOX (code X0022)

\*FOR OUTSIDE THE US AND CANADA ONLY

CHECK AVAILABILITY IN YOUR COUNTRY BY CONTACTING THE DIASORIN SUBSIDIARY OR THE DISTRIBUTOR ON SITE





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Product availability subject to required regulatory approval



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