

M0870004248/A 12295 03/11



**DiaSorin**  
The Diagnostic Specialist

**Worldwide Corporate Headquarters**  
**DiaSorin S.p.A.**  
Via Crescentino - 13040 Saluggia (VC) - Italy  
Tel. +39.0161.487526 - Fax: +39.0161.487670  
www.diasorin.com - E-mail: info@diasorin.it



**LIAISON<sup>®</sup>** 



## LIAISON<sup>®</sup> X

DELIVERS VALUES

- XLight**  
*All in one system: small footprint enables easy installation and avoids laboratory reconfiguration.*
- XLerate**  
*Improved performance: higher throughput than LIAISON<sup>®</sup>, long walk-away time and improved instrument reliability.*
- XLellence**  
*Safety quality, compatibility with LIAISON<sup>®</sup>. Continuous monitoring of all critical assay steps and liquid detection by pressure sensor.*
- XLarge**  
*Higher number of reagents on board and new tests available.*
- XLogic**  
*Remote assistance, LIS ready and open for future LAS connection.*



### ENHANCE YOUR LABORATORY EFFICIENCY, IMPROVED CAPACITY AND WORKFLOW

- Higher Throughput**  
*The throughput is optimized splitting the pipetting phases of Reagents and Samples into different cycles. The washer and measure chambers have double capacity.*  
  
*The incubator may host up to 80 cuvettes. The throughput is optimized for single-step assays, keeping it as high as possible.*  
  
*Throughput of the LIAISON<sup>®</sup> XL ranges from 50 to 90% more than that of LIAISON<sup>®</sup>, with most 2-step assays working at maximum throughput.*  
  
*Consistent throughput up to 180 tests per hour depending on test profile required.*
- Long Walk-away Time**  
*System gives the user upfront estimation of the consumable volumes on board and allows the user to increase the consumable volumes before starting. The disposable reaction cuvettes and sample tips, the liquid and reagents are in continuous loading and the operator can load and unload reagents in any moment.*
- New architecture, New Graphics Approach**  
*A complete and user-friendly software offers a real two-way communication. Highly secure traceability of all processes, status of reagents and consumables as well as all the information useful to monitor work and achieve higher effectiveness. Test profile organization, Rerun and Reflex test rules based on operator's input.*



## LIAISON® XL: COMPACT AND EFFICIENT DESIGN

### Consumable loading

Disposable Sample Tips and reaction Cuvettes in continuous loading.

### Sample Area

Up to 10 racks with 12 positions each in continuous loading. Sample rack may be removed as soon as sampling is completed. Barcode identification recognizes the assay required, but manual input is also allowed. Different tube sizes are allowed.

### Starter reagents

In continuous loading. LIAISON® XL recognizes position and lot number of each starter bottle and upon exhaustion of a starter bottle, it switches automatically to the next inserted bottle. All the information is updated automatically during the process.

### Cabinet Area

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

### Touch Screen Monitor with Integrated Keyboard

Easy-to-use software, the communication between operator and instrument requires neither keyboard nor mouse. Our Online help ensures that the user always gets clear explanations to each action which can be acquired at the touch of a button.

### Reagent Area

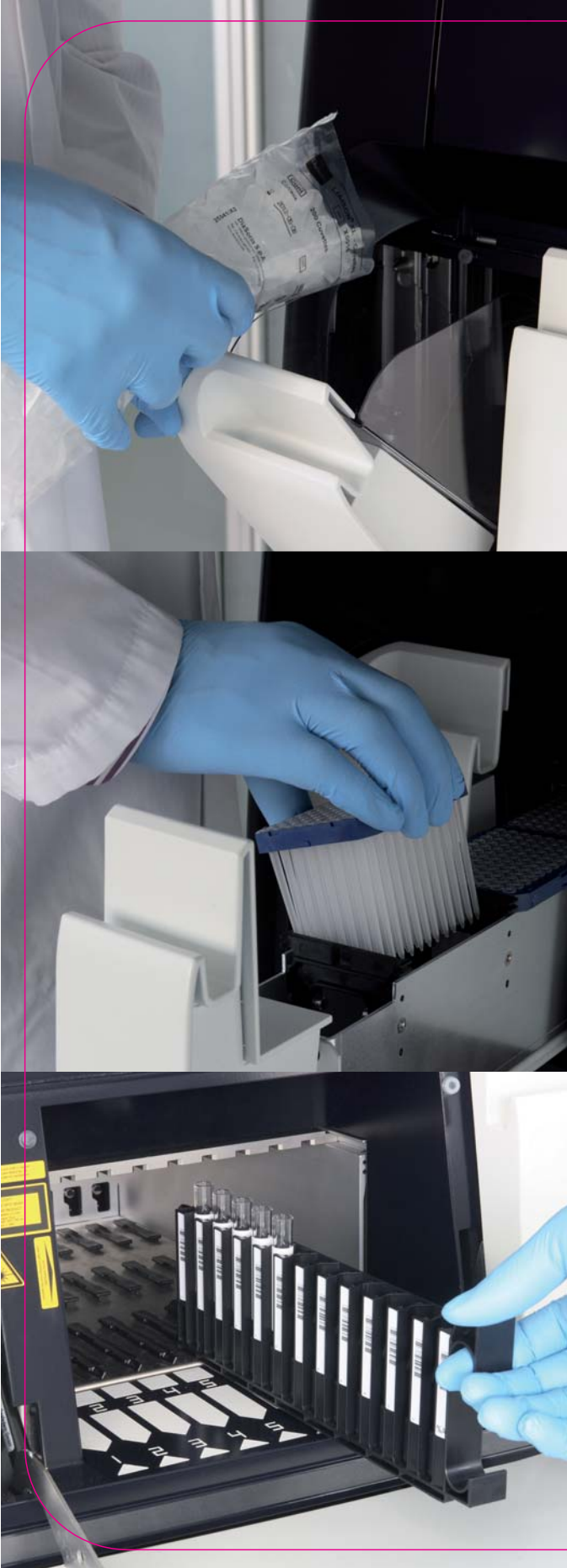
Continuous loading for all Integral reagents. Quick release features allow the operator to replace reagents as soon as they are exhausted.

### Table

Under the reagent area to place tiny items on the table for instant aid to the user (maximum weight capacity of table is 2,5 kg).







## INNOVATION TO MEET YOUR NEEDS



### **Reliable performance**

The novel technical solutions and components enhance the system reliability.

#### **LIAISON® XL has the following features to help maximize quality**

- Disposable pipette tips that prevent sample carryover
- Clot detection
- Aspiration/Dispensing verification
- Automated reflex testing and auto-rerun to ensure accuracy of results.

Single-cavity reaction cuvettes can be loaded at any time, with any orientation; cuvettes are automatically loaded and sorted into the instrument from the cuvette reservoir.



### **Maintenance**

No daily maintenance is required.

The LIAISON® XL informs the user when maintenance is due and monitors the scheduled needs automatically. If the user chooses to complete maintenance at a later time, the system allows continuation of work and traces that maintenance has not yet been completed.



### **Service Remote Access**

Direct access from our central Service center to LIAISON® XL system allows customers to obtain the fastest solution possible in the event of required assistance.



### **Sample Loading**

Up 120 tubes in continuous loading optimize the workflow.

The operator can define an automatic dilution process through a flexible assay protocol.



### **LIAISON® XL is compatible with the reagents and formats of the menu of products currently available for LIAISON® analyzer.**



#### **Proven Quality**

All components are ready to use in one integral. LIAISON® XL utilizes chemiluminescence technology with magnetic microparticles (MP), the same proven quality technology used for LIAISON®.



#### **High Reagent Capacity and Complete Traceability**

25 reagent positions allow preparation of larger reagent volumes for medium-to large-capacity customers.

Different reagent Integrals or multiples of the same assay can be loaded simultaneously. Upon exhaustion of one Integral, the instrument switches automatically to the next inserted reagents. LIAISON® XL recognizes position, expiration date and lot number of reagents loaded. All the information is updated automatically during the process.



## TECHNICAL SPECIFICATIONS

### OVERVIEW

<b>System description</b>	Random access or batch immunoassay system
<b>Throughput</b>	Up to 180 tests per hour
<b>Time to first result</b>	25 minutes
<b>Assays on board</b>	25

### SAMPLES AND SAMPLE HANDLING

<b>Sample racks</b>	6-mm to 15-mm internal diameter. Up to 100-mm height
<b>Sample capacity</b>	120 samples, 12-position sample racks in a 10-lane sample area
<b>Walk-away time</b>	Approximately 6 hours
<b>Stat handling</b>	STAT may be assigned to any position in the sample area
<b>Sample type</b>	Serum / plasma / urine / CSF
<b>Sample integrity control</b>	<ul style="list-style-type: none"><li>• Pneumatic-based level sensor</li><li>• Aspirated/dispensed volume detection and flagging</li><li>• Clot detection and flagging</li></ul>
<b>Sample carryover</b>	Absent due to the use of LIAISON® XL Disposable Tips

### BARCODES

<b>Sample tubes (all reading types may be active simultaneously)</b>	EAN / Code 128 / Code 39 / Cod-a-bar / Interleaved 2 of 5
<b>Control sera</b>	2D barcodes recognized by hand-held scanner

### REAGENTS AND REAGENT HANDLING

<b>Reagent cooling</b>	13°C ± 2°C
<b>Reagent integrity control</b>	<ul style="list-style-type: none"><li>• Radio Frequency identification (RFID)</li><li>• Automatic inventory tracking and updating to integral RFID tag</li><li>• Tracking of calibration validity</li><li>• Tracking of on-board stability</li></ul>
<b>Reagent capacity</b>	25-position cooled storage for reagent integrals + 4 position cooled storage for reagent ancillaries

### CONSUMABLE CAPACITY

<b>Cuvettes</b>	On board capacity: 1000
<b>Disposable Tips</b>	On board capacity: 576
<b>DI Water</b>	10-L container + 2-L reservoir
<b>Wash Buffer</b>	10-L container + 2-L reservoir
<b>System cleaning solution</b>	2-L container

### WASTE CAPACITY

<b>Solid waste</b>	2500 Disposable tips & cuvettes,
<b>Liquid waste</b>	Second container allow an instrument autonomy of 15 min 2 x 10-L containers

### CONTINUOUS OPERATION

<b>Loading/unloading of items during system operation</b>	Includes: Sample racks/Reagent integrals/Ancillaries/Cuvettes/Disposable tips/Control racks/Wash liquid/System liquid/Liquid waste/Solid waste/Starter reagents
---	--

### USER INTERFACE

<b>Operating system Monitor GUI</b>	Microsoft® Windows® 17" diagonal LCD touch sensitive screen <ul style="list-style-type: none"><li>• Quick access to all pages</li><li>• Critical events and actions recorded</li><li>• Software-guided and logged maintenance</li></ul>
-------------------------------------	--

### RESULTS MANAGEMENT

<b>Viewing and editing</b>	<ul style="list-style-type: none"><li>• Results available at all times</li><li>• Sort, search, filter (display customization available)</li><li>• Possibility of evaluation, validation and release of results prior to printing or LIS reporting</li></ul> Retest always available, even automated based on predefined rules Results can be stored manually or automatically Compliant with privacy/safety regulations
<b>Retest</b>	
<b>Back-up</b>	
<b>Privacy/safety</b>	

### QUALITY CONTROL

<b>Package</b>	Long-term monitoring including L-J graphs covering Westgard & RiliBÄK rules
<b>Access</b>	Accessible at all times
<b>Rule definitions</b>	Available to users

### ENVIRONMENTAL FEATURES

<b>Operating temperature</b>	15-32°C
<b>Operating humidity</b>	10%-85% RH non condensing
<b>Electrical</b>	90-240v, 50-60 Hz
<b>Dimensions (excludes monitor and accessories)</b>	Height: 59 in or 150 cm Width: 59 in or 150 cm Depth: 36 in or 90 cm
<b>Weight</b>	LIAISON® XL 661 lbs or 300 kg (includes Monitor & Accessories)
<b>Noise</b>	63.9 dBA at operator normal position

## A Wide Range of Specialty Tests

