

Deerac LX Series Systems

High-Speed Low-Volume
Liquid Handling Systems

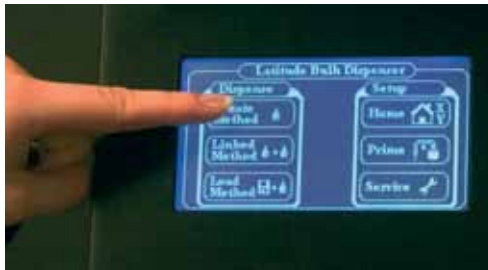


LABCYTE 

Deerac™
LX Series

LABCYTE 

The Deerac™ LX reagent dispenser is an easy to use system for high-throughput applications. Built on the same dispensing technology as the Deerac GX Series systems, LX systems provide the speed, performance and reliability required for the most demanding dispensing operations.



easy-to-use touch screen

The Deerac LX system has an easy-to-use touch screen display for instrument setup and method execution. Methods can be easily programmed within seconds.

automation to meet your needs

The Deerac LX system is compatible with all levels of automation. It can be used alone as a bench-top dispenser when plates are fed manually. Coupled to a robotic plate handler, the Deerac LX provides unattended reagent dispensing. Even greater throughput can be achieved by integrating the unit into a large-scale screening system using the on-board controller and industry-standard ActiveX controls.

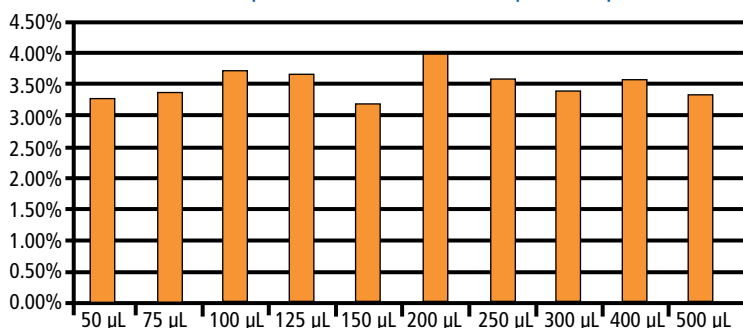
reagent dispensing capabilities

The tip technology enables high-speed, non-contact dispensing for low-volume assays, dispensing to a 1536-well plate in less than 20 seconds. The Deerac LX reagent dispensers enable dispensing of reagents across a wide range of volumes, from 0.05-50 µL, with good precision and accuracy.

Dispensing methods are programmed using the built-in touchscreen display. Up to 10 methods can be programmed and stored. Methods control plate type, dispense volumes, dispense patterns, and gradient volumes. Dispense capabilities include gradients by row or column and across the plate, as well as region dispenses. The Deerac LX reagent dispenser has a single, robot-friendly, plate position that can handle 96-, 384-, and 1536-well plates.



%CV Deerac LX Dispense Precision for 0.050 µL to 50 µL



■ CV

Dispense Volume

Labcyte® Deerac™ Fluidics high-speed, low-volume liquid handling systems are based on unique magnetic feedback-controlled technology.

single or multiple reagent dispensing

The Deerac LX system is available in versions for one-, two- or four-reagent dispensing. The single reagent version uses eight channels, while the two- and four-reagent versions use 16 channels (eight-channels/reagent or four-channels/reagent, respectively). The four-reagent version is useful for high-speed, low-volume assays, such as those used in high-throughput screening that require multiple reagents.

integration friendly

The Deerac LX reagent dispenser can be integrated with automated systems to increase throughput. It has an active plate positioner that enables a robotic arm or plate stacker to deliver plates to the deck. Once delivered, the dispensing operation can begin. Remote control of the dispensing operation is accomplished using the Labcyte automation control software to remotely launch the on-board methods using an external PC.

platemap function

The Platemap function on the Deerac LX system enables users to specify volumes to be placed into individual wells of a target plate. To use the Platemap function the Deerac LX reagent dispenser must be under PC control using automation control software. The automation control software allows the user to load the platemap from a CSV file that is downloaded to the system for dispensing.



specifications

Performance Specifications	
Liquid handling mode	Dispense only
Minimum dispense volume	0.05 μ L
Minimum fill volume	< 4 mL per reagent
Dispense speed (single reagent)	
384-well plate	< 12 sec
1536-well plate	< 20 sec
Dispense accuracy	
\leq 500 nL	\pm 10% error
$>$ 500 nL	\pm 7% error
Dispense precision	
\leq 500 nL	\leq 10% cv
$>$ 500 nL	\leq 7%cv
Hardware and Software	
Dispense channels	8 or 16
Partial plate filling	Yes
Dispense gradients	Yes
Plate positions	1 SBS standard plate
Reagent capacity	Up to 2.5 liter per reagent
Reservoirs and reagents	1, 2 or 4 reagent bottle(s)
Software control	Methods developed using touchscreen software
Remote control / integration	External PC via RS-232 port
Weight	20 kg/44 lbs
Dimensions	Height: 390 mm/15.4" Width: 390 mm/15.4" Depth: 670 mm/26.4"

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