

Thermo Scientific Multidrop Combi nL reagent dispenser



effortless low-volume
reagent dispensing

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Thermo Scientific Multidrop Combi nL – reproducible low-volume reagent dispensing

Thermo Scientific Multidrop Combi nL, the latest arrival in the Multidrop® bulk reagent dispenser family brings unrivalled reliability and ease of use, meeting needs of low-volume reagent dispensing in pharmaceutical and biotechnology laboratories. The Multidrop Combi nL dispenser can dispense volumes from 50 nL to 50 µL into 96, 384 and 1536-well plates with excellent precision and accuracy.

Thermo Scientific Multidrop Combi nL reagent dispenser offers you:

- Reliable low-volume dispensing – precise dispensing over a 50 nL to 50 µL range, giving high-quality assay data
- Increased flexibility – dispensing repeatably into plates with a variable height, allowing the user to fill either rows, columns or wells with the easy-to-use FILLit™ PC software
- Effortless dispensing – the visual, icon-based on-board user interface makes all functions easy to set up, use and maintain
- Reduced reagent cost – low-volume dispensing, a minimal dead volume, and the backflush function minimize the use of expensive reagents
- High throughput – the fast dispensing, combined with full robotic compatibility, ensures increased assay throughput for laboratories needing low-volume assay formats

Reliable low-volume dispensing

The Multidrop Combi nL dispenser is the newest addition to the high-performance Multidrop reagent dispensing family. The Multidrop Combi nL's valve-based dispensing technology provides an easy-to-start and easy-to-handle approach to low-volume assays. Ease of use does not mean a performance compromise. Instead, the Multidrop Combi nL dispenser guarantees high-quality assay data with unparalleled precision and accuracy.

Increased flexibility

The Multidrop Combi nL dispenser provides consistent high-throughput dispensing into 1536, 384 and 96-well plates, covering a volume range of 50 nL to 50 µL. It dispenses repeatably into plates with a variable height, allowing the user to fill low-profile and standard-format microplates without changing cartridges or manifolds. Pre-calibrated liquid types allow a quick selection at startup. Additional liquids can be set on the unit in the standalone mode or using FILLit Software. The instrument can be used to dispense all common reagents, diluents, and buffers, as well as viscous solutions, cells and beads, making it ideal for a broad range of assays. The loss of reagent is minimized with the low dead volume and the reagent recovery feature, which allows the user to backflush all the remaining reagents from the liquid path.



Applications:

- Assay development
- Primary and secondary screening
- Genomics and proteomics research
 - PCR set-up
 - Sequencing set-up
- Cell-based assays
- Bead-based assays

Increased ease of use

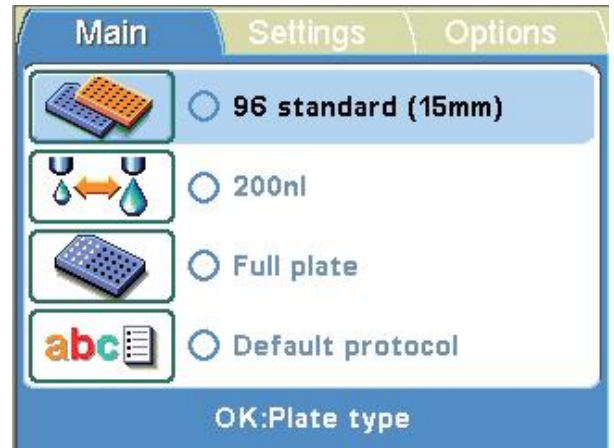
The intuitive graphical user interface of the Multidrop Combi nL dispenser makes all functions easy to set up and use. The key dispensing parameters can be selected quickly in the instrument main menu and no extensive training sessions are needed for the routine use of the unit. The maintenance of the instrument is made easy with the special tip-wash feature and the dispensing-head structure, which allows a quick and effortless cleanup procedure. The valves are easily accessible and the setup allows for a change of the individual valve. The status light of the pump pressure indicates the pressure level of the unit and makes it easy to see when the instrument is fully pressurized and ready for dispensing.

Increased functionality

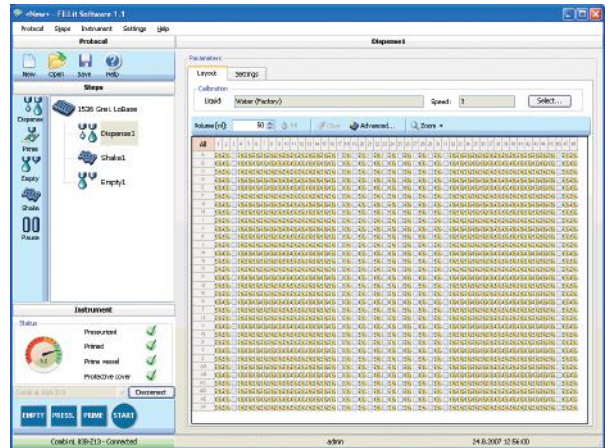
The easy-to-use FILLit Software provides increased functionality for the user. It enables the user to select discrete wells, define well volumes, build dispensing protocols and store them in the database. Additionally, protocols can be downloaded to the instrument for standalone use or transferred from the instrument back to the PC for further modification. The calibration wizard guides the user through a quick calibration process which makes it possible to add different liquids to the database. For an increased QC demand, the software enables the user to print the run log, including detailed run information.

Full robotic compatibility

The Multidrop Combi nL dispenser is designed for an easy integration with automation solutions, providing low-volume dispensing for high-throughput laboratories. The compact size of the instrument, with the optimized plate carrier makes it ideal for automated systems. The highest throughput is guaranteed by full integration with a range of robotic platforms. Together with the Thermo Scientific RapidStak™ stacker, the Multidrop Combi nL dispenser forms the most robust benchtop automation solution for low-volume dispensing.



The intuitive visual user interface makes all functions easy to set up.



FILLit Software increases the functionality and flexibility of the Multidrop Combi nL dispenser.

The RapidStak stacker with the Multidrop Combi nL dispenser creates a complete benchtop solution for automated low-volume reagent dispensing.



Technical Specifications

Plate types	96-, 384- and 1536-well plates	
Dispensing volume range	50 nl - 50 µl	
Dispensing precision	50 nl: CV≤10% 1-10 µl µl: CV≤4%	0.5 µl: CV≤5% >10 µl: CV≤2%
Dispensing accuracy	<1 µl: ±5% >1 µl: ±2%	
Dispensing speed	384-well plate: 50 nl in 6 seconds 1536-well plate: 50 nl in 21 seconds	1 µl in 8 seconds 1 µl in 27 seconds
Dispensing increments	1 nl increments 50-999 nl 10 nl increments 1.00-9.99 µl 100 nl increments 10.0-50.0 µl FILLit Software 1 nl increments	
Dead volume	<1.2 ml *	
Interface	Serial RS-232, USB	
Dimensions (HxWxD)	220(H) x 355(W) x 375(D) mm	8.6(H) x 14(W) x 14.8 (D) in.
Weight	9.6 kg (21.2 lbs.)	

*)Reagent recovery feature included

Ordering Information

Cat.No	Description
5840400	Multidrop Combi nL, 100-240 V 50/60 Hz (PC-software included)
5188020	FILLit Software for Multidrop Combi nL

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