

Thermo Scientific Matrix® Hydra® II

The Thermo Scientific Matrix Hydra II is a small, bench top 96- or 384-channel liquid handler capable of automating pipetting tasks, including low volume and viscous sample transfers, with the single press of a button. The Matrix Hydra II utilizes syringe-based technology to accurately and precisely dispense even the most sensitive solutions.



Matrix Hydra II shown with optional 3-position stage and Matrix eDrop dispenser.

Automate Pipetting Tasks. From microplate filling to complex pipetting applications, accomplish low volume and viscous pipetting procedures faster and with greater accuracy and precision. The Thermo Scientific Matrix Hydra II automates many low volume pipetting procedures in 96-, 384- and 1536- channel format, with a minimum dispense volume capability of 0.1 μ l (on the 100 μ l unit). Additionally, the Matrix Hydra II's positive displacement, syringe-based dispensing mechanism is able to effectively transfer viscous and sticky solutions with greater control compared to tip-based pipetting methods.

Extensive Selection and Flexibility. Of the 13 available models, choose the Matrix Hydra II instrument that best fits your liquid handling applications. To accommodate bead or cell-based solutions that require larger inner diameter needle size, choose 96-channel

resin bead syringes. Stainless steel and PTFE coated Duraflex® needle options offer material selection to fit individual application needs in 96-, 384- or 1536-microplate format.

Easy Programmability. On-board touch pad programming allows simple program creation and editing for standalone model use. In addition, users at all levels can create and modify pipetting procedures with the intuitive ControlMate software via easy drag-and-drop programmability. This PC-based, graphical interface is included with every base unit and can also be downloaded free of charge from www.controlmate.net.

Accessory Options. Add-on accessories include the 96 to 384 manual plate positioner, 3-position stage for greater walk-away capability, multiple wash solution pump module and the Thermo Scientific Matrix eDrop single channel non-contact dispenser.

Thermo Scientific Matrix Hydra II

Dimensions (W x D x H)	21" / 53 cm x 14" / 35.5 cm x 10.5" / 27 cm
Weight	38 lbs/ 17 kg
Volume Range	0.1 µl-100 µl; 0.5 µl-290 µl; 1.0 µl-580 µl; 5.0 µl-1000 µl
Dispense Type	Contact
Compatible Labware	24-, 96-, 384-, 1536-channel standard, low profile and deep well labware, tube racks
Power	Universal, 100-240 V
User Interface	On-board touch pad or ControlMate software

Thermo Scientific Matrix Pump Module

Dimensions (W x D x H)	6" / 15 cm x 13.4" / 34 cm x 12.5" / 31 cm
Weight	21.6 lbs/ 9.8 kg
Power	100-240 V

Thermo Scientific Matrix 3-Position Stage

Dimensions (W x D x H)	4" / 10 cm x 12" / 30 cm x 21" / 53 cm
Weight	19 lbs/ 9 kg
Resolution	0.1 mm

Requires ControlMate Software for stage control

Thermo Scientific Matrix eDrop Single Channel Dispenser

Dimensions (W x D x H)	13" / 33 cm x 11" / 28 cm x 8" / 20 cm
Weight	15 lbs/ 7 kg
Volume Range	0.1 µl-120 µl
Dispense Type	Non-Contact
Air Supply	30 +/-5 PSI

Requires 3-Position Stage and ControlMate software

Computer Requirements

Operating System	Microsoft® Windows® 98, Windows NT® 4, Windows 2000 and Windows XP
RAM	256 MB Recommended
Processor	1.4 GHz Recommended
Communication Port	One USB or RS232 (additional USB port required for Matrix Hydra eDrop)

Accuracy and Precision Specifications

Item No.	Channels	Volume Range	Precision	Accuracy
109610	96	0.1 µl-100 µl	+/-2.5% or 0.01 µl	+/-2.5% or 0.01 µl
109611	96	0.1 µl-100 µl	+/-2.5% or 0.01 µl	+/-2.5% or 0.01 µl
109620	96	0.5 µl-290 µl	+/-2.5% or 0.05 µl	+/-2.5% or 0.05 µl
109621	96	0.5 µl-290 µl	+/-2.5% or 0.05 µl	+/-2.5% or 0.05 µl
109625	96	1.0 µl-290 µl	+/-2.5% or 0.1 µl	+/-2.5% or 0.1 µl
109630	96	1.0 µl-580 µl	+/-2.5% or 0.1 µl	+/-2.5% or 0.1 µl
109631	96	1.0 µl-580 µl	+/-2.5% or 0.1 µl	+/-2.5% or 0.1 µl
109635	96	2.0 µl-580 µl	+/-2.5% or 0.2 µl	+/-2.5% or 0.2 µl
109640	96	5.0 µl-1000 µl	+/-2.5% or 0.5 µl	+/-2.5% or 0.5 µl
109641	96	5.0 µl-1000 µl	+/-2.5% or 0.5 µl	+/-2.5% or 0.5 µl
109645	96	8.0 µl-1000 µl	+/-2.5% or 0.8 µl	+/-2.5% or 0.8 µl
138410	384	0.1 µl-100 µl	+/-2.5% or 0.01 µl	+/-2.5% or 0.01 µl
138411	384	0.1 µl-100 µl	+/-2.5% or 0.01 µl	+/-2.5% or 0.01 µl

Accessory Options

Matrix Hydra eDrop Single Channel Dispenser
96 to 384 Manual Plate Positioner
3-Position XY Plate Stage
Thermal Control Options
Extended Warranty and Preventive Maintenance Packages