

Thermo Scientific Matrix PlateMate® 2x3

Overview

The PlateMate 2x3 is a flexible 96 or 384-channel automated pipetting workstation. The six position chemically resistant deck can accommodate tall and low profile labware as well as reservoir vessels and tip wash stations. The PlateMate 2x3 deck can also be configured with compatible vacuum manifold or 96 format piercing kits. The precise X-Y stage movement ensures reproducible plate positioning for 96, 384 and 1536-well plate access.



The Plate Mate 2x3 uses proven air displacement and positive displacement pipetting technologies for excellent liquid handling performance. Four (4) interchangeable air displacement pipetting heads have a combined volume range of 0.5µl -300µl in 96 and 384 formats. Four (4) positive displacement pipetting heads have a volume range of 0.1µl -50µl in 96 and 384 formats.

Sole Source Specifications

- Interchangeable pipetting heads with a flexible volume range of 0.1-300µl using air displacement and positive displacement technologies.
- Interchangeable pipetting heads are able to access labware in 96, 384, and 1536 configurations.
- Compatibility with a wide product offering of disposable automation research tips (D.A.R.T.s™) or PTFE coated probes.
- Sterile-filtered D.A.R.T.s available for all pipetting head and tip combinations (96 channel (0.5-30.00µl) and (5-300µl), 384 channel (0.5-30.0µl) and (1.0-100.0µl).
- Serial dilution capabilities: Allows serial dilutions in row or column configurations (8, 12, 16, 24-channel) for IC50 or EC50 applications.
- Interchangeable pipetting heads allow convenience if service repairs are necessary with calibrated loaner units available.
- The system is supplied with license free ControlMate software interface.
- ControlMate interface: user friendly interface making device programming easy and self-intuitive. ControlMate OLE interface is available for ease of robotic integration.
- Variable pipetting speed allows consistent aspiration and dispensing of liquids with various properties.
- Controlmate™ volumetric calculation allows the adjustment of accuracy for solutions with various liquid properties (i.e. viscous solutions).
- Compact foot print (25"x29.5")
- Small compact footprint: Allows for bench top use in most labs. The PlateMate 2x3 is the perfect size for integration into larger robotic systems.

Sole Source Specifications Continued

- Universal 6-position platform: Supports a variety of standard conforming labware in 96, 384, and 1536 format.
- Universal 6-position platform can also accommodate a vacuum manifold kit or 96 format piercing kit accessories.
- Universal 6-position platform has a chemically resistant treated coating for easy cleaning
- Light Safety Curtain provides exceptional operator safety during instrument operation. ControlMate will then allow the user to resume the protocol once the obstruction has been cleared.
- (2) Peristaltic pumps are standard components that can be used for either reagent addition, or tip washing. These pumps work in conjunction with 2 non-contact liquid level sensors.
- (2) Non-contact liquid level sensors allow automatic replenishment detection of bulk reagents to reservoir vessels on the PlateMate 2x3 deck.
- (4) Tip wash stations are available and are made of PTFE with stainless steel chimneys
- Tip wash stations are plumbed from the bottom and sit and seal directly on the deck
- (1) 24V DC input/output switch enable signaling on/off of a peripheral device that can be used on the PlateMate 2x3 deck and control using the Controlmate user interface.
- Universal voltage input (115-240VAC) simple set up regardless of supply voltage available.
- Standard internal vacuum pump for waste removal from the on board tip wash.
- Base unit includes installation and training by a Thermo Scientific Matrix automation specialist.

Matrix PlateMate 2x3 Process Timings

Liquid Handling Action	Duration (Seconds)
Plate to plate transfer (96), 200µl with 1.0 second dwell after Aspiration	26
Pre fill wash fluid with air gap then do plate to plate transfer (96), 200µl with 1.0 second dwell after Aspiration	36
Tip wash (1 cycle w/200µl wash volume)	30
Tip Wash (3 cycles w/ 200µl wash volume)	50
Tip Wash (6 cycles w/200µl wash volume)	86

Thermo Fisher Scientific is the sole manufacturer of Matrix PlateMate 2x3 automated pipetting system.

Kiara Williams



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