innovadyne Technologies, Inc.

www.innovadyne.com

leading the way in high-precision dispensing

Platemaker HTS™

Innovadyne Technologies, Inc.'s **Platemaker HTS™** is an instrument designed to offer both high-throughput liquid transfers and reagent additions on one integrated platform. Like the Nanodrop™, Innovadyne's Platemaker HTS incorporates the company's proprietary non-contact dispense technology, coupled with traditional syringe dispensing. The result is a next generation workstation, which enables the dispensing of reagents of widely varying viscosity across a broad volume range (nanoliters to microliters) with excellent precision and accuracy.

The unique combination of a 96-channel, non-contact dispense head coupled to an 8-channel, non-contact/contact dispense capability facilitates a variety of applications from HTS to protein crystallography. Additionally, individual control of each channel allows customized liquid handling on a per well basis enabling applications such as normalization, dispensing of gradients, multiplexing and the dispensing of unique plate maps such as molecular diagnostic assays. The product features the Nanobuilder software system that enables a wide range of applications and data manipulation.

Features

- Non-contact and contact dispensing on one platform
- Reliable valve free flow path
- Exceptional dynamic range (nanoliters to milliliters)
- High-speed sample transfer and reagent addition
- Independent operation of each channel (no manifolds)
- Fast washing of all tips
- Individual channel articulation
- High-resolution, 5-plate stage (96, 384, and 1536 formats)
- Deep well and crystal plate formats supported
- Easy daily maintenance and installation procedures

Applications

PCR
- Template transfers
- Cocktail additions

HTS
- Sample Transfer
- Reagent Addition

Protein Crystallography
- Coarse and fine screen creation
- Mother liquor transfers
- Protein additions
- Hanging and sitting drop

Assay Development - Miniaturization

Cell-based Assays
- Cell plating
- Cell dosing

Bead-based Assays
- SPA Bead Assays
- YOx Bead Assays
- Polystyrene Bead Assays

Innovadyne Technologies, Inc. (USA), PO Box 7329, Santa Rosa, CA 95407-7329 Ph: 707-547-2500 Fax: 707-547-2501
Innovadyne Technologies, Inc. (Europe), PO Box 360, Chorley, PR6 7WW, UK Ph: 44(0) 1772-698948 Cell: 44(0) 7966-079154
Web: www.innovadyne.com Email: info@innovadyne.com Europe Fax: 44(0) 1772-698948

Performance Specifications

	96-Tip Head	8-Tip Head
Plate Formats	96, 96 deep well, 384, 384 deep well, 1536, 1536 low profile, crystallography plates, custom formats	96, 96 deep well, 384, 384 deep well, 1536, \ 1536 low profile, crystallography plates, custom formats
Plate Positions	5	4
Return to Spot Accuracy	0.1 mm	0.1 mm
Dispense Functions	96-tip transfer via contact or not-contact, reagent addition (non-contact)	Transfer (contact/non-contact), single tip reagent addition, 8-tip reagent addition
Dispense Modes	All the same volumes, independent	All the same volumes, independent
Aspiration Range	0.1 - 500 µL	0.1 - 500 µL
Dispensing Range	0.1 - 80 µL	0.1 - 40 µL (non-contact) 25 - 500 µL (contact)
Dispensing Precision	CV < 10% at 100 nL CV < 7% at 200 nL CV < 5% at 1 µL	CV < 10% at 100 nL CV < 7% at 200 nL CV < 5% at 1 µL
Dispensing Accuracy	±10% at 100 nL ±7% at 200 nL ±5% at >1 µL	±10% at 100 nL ±7% at 200 nL ±5% at >1 µL
Dead Volume	<1 µL/channel	1.5 µL/channel at 1 µL across 384-well plate
Syringe Capacity	500, 1000 µL	500, 1000 µL
Cycle Time	36 s/transfer, 96-well plate 45 s/transfer, 96 (incl. asp, disp, wash) <4 min, 4X 96 well plate transfer into a 384-well plate	20 s/transfer <60 s 1 µL reagent addition (single tip/96-well plate) <17 s 1 µL reagent addition (8 tips/1536-well plate)

Technical Specifications

Dimensions	124.5 cm (49 in) Height, 112 cm (46 in) Width, 63.5 cm (25 in) Depth, 295 kg (650 lb) Weight
Environmental	10 to 40°C, 80% RH
System Gas	Standard grade helium (99.7% pure)
Dispense Tips	304 SS, sapphire
Reagent Trays	Custom, deep well plates
Interface	Ethernet, Nanobuilder software GUI
Automation Control	Nanobuilder component library