

Screenmaker 96+8™



www.innovadyne.com

leading the way in high-precision dispensing



Innovadyne Technologies, Inc.'s Screenmaker 96+8™ is an instrument designed to offer both high-throughput liquid transfers and reagent additions on one integrated platform. Like the **Nanodrop™**, Innovadyne's **Screenmaker 96+8™** 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 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 screening 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 DNA normalization. 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
- Exceptional dynamic range (nanoliters to milliliters)
- High-speed delivery of reagents for time-sensitive assays
- Hanging and sitting drop
- Discrete operation of each channel (no manifolds)
- Fast, rigorous wash of all tips simultaneously
- Individual channel articulation
- High-resolution, 5-plate stage (96, 384, and 1536 formats)
- Deep well and crystal plate formats supported
- Isolation of moving parts from sample path
- Easy daily maintenance and installation procedures

Applications

Protein Crystallography

- Coarse and fine screen creation
- Mother liquor transfer
- Protein additions

HTS

- Sample transfer
- Reagent addition

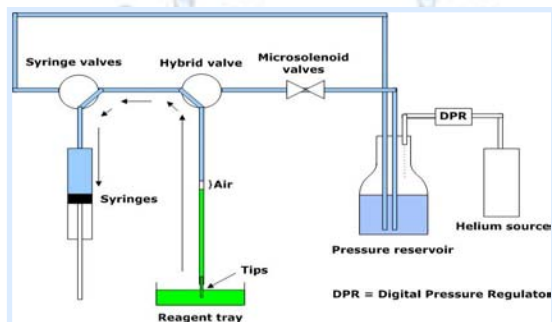
Cell-based Assays

- Cell plating
- Cell dosing

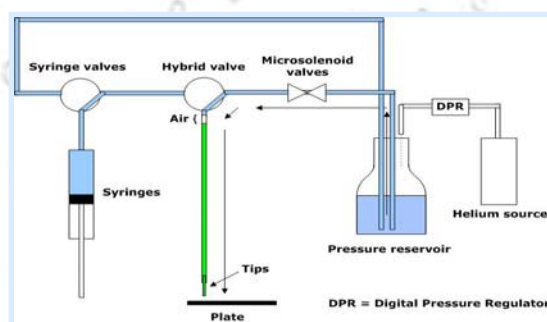
Bead-based and Membrane-based Assays

PCR

- Template transfers
- Cocktail addition



System Schematic - Aspirate



System Schematic - Dispense

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Screenmaker 96+8™ Specifications

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Performance Specifications

	96-Tip Head	8-Tip Head
Plate Formats	96, 96 deep well, 384, 384 deep well, 1536, 1536 low profile, crystallography plates	96, 96 deep well, 384, 384 deep well, 1536, 1536 low profile, crystallography plates
Plate Positions	5	4
Return to Spot Accuracy	0.1 mm	0.1 mm
Dispense Functions	96-tip transfer via contact or non-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 - 125 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 - 500 nL ±5% at >500 nL	±10% at 100 nL ±7% at 200 nL ±5% at >1 µL
Dead Volume	<1 µL/channel	1.44 µL/channel at 1 µL across 384-well plate
Syringe Capacity	500, 1000 µL	500, 1000 µL
Cycle Time	180 s/transfer (includes wash)	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	102 cm (40 in) Height, 107 cm (42 in) Width, 63.5 cm (25 in) Depth, 203 kg (448 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	RS-232, Nanobuilder software
Automation Control	Screenmaker Automation Control

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