

# Agilent Bravo Automated Liquid Handling Platform

# **Data Sheet**



#### **Applications**

- 1. General Liquid Handling
- 2. Serial Dilutions
- 3. PCR Preparation and Cleanup
- 4. Cell Based Assays
- 5. Filtration Assays and more...

#### Introduction

The Agilent Bravo Automated Liquid Handling Platform provides unparalleled versatility and precision in a compact footprint. This platform is the fastest and most versatile small footprint liquid handling system available. Its space-saving nine plate-position footprint can fit inside a standard laminar flow hood, enabling automated liquid handling for cell-based assays or hazardous reagent handling. For hoods with short internal height, the Bravo SRT Platform is three inches (7.62 cm) shorter, giving the extra clearance you need. The Bravo Platform utilizes the proven high-accuracy pipette heads of Agilent's Vertical Pipetting Station for dispensing from 100 nL to 200  $\mu$ L in 96-, 384-, and 1536-well formats. Additionally, it can access a single column, row, or well of any of these microplate types utilizing the standard 96- and 384-channel heads. With seven different easy-change head types and numerous platepad options, it can be fully customized to meet the needs of a wide range of assays.

The unique, open design of the Bravo Platform permits access from all sides for simple integration with other devices and unencumbered standalone use. The Bravo Platform is powered by the proven Agilent VWorks Automation Control software, whose outstanding dynamic scheduling, easy-to-use interface, and innovative error recover technology allows complete control that is easy for all levels of operators.



#### Features & Benefits

#### **System Features**

Performance

- Compact enough to perform in a laminar hood without disrupting air flow
- Performs serial dilutions in either direction with standard disposable tip heads
- Easy-change 96- and 384-channel heads can be swapped in minutes
- Accurately dispenses from 0.100 to 200 μL
- Configure any deck position for shaking, heating, cooling, filtration, and more
- Easily write and share liquid handling protocols with Agilent VWorks Automation Control software
- Disposable and fixed tips available for specific applications
- · Labware compatibility
- Microplates: ANSI-compliant microplates and reservoirs, PCR microplates, tube racks, and septum tubes in 96-, 384-, and 1536-wells
- Pipette tips: Agilent-certified thin-walled, low-retention tips in 96- and 384-formats

#### **Benefits**

- Compact: space-saving nine microplateposition footprint fits in a laminar flow hood
- **Precise:** uses the proven high-accuracy pipette heads of the Agilent Vertical Pipetting Station for dispensing from 100 nL to 200 µL in 96-, 384-, and 1536-well microplates
- Versatile: seven different easy-change head types and numerous platepad options are available to enable a wide range of assays
- Functional: unique open design permits access from all sides for simple system integration as well as standalone use
- Easy to use: powered by VWorks
   Automation Control software for complete control that is easy to use for all levels of operators

#### **Additional Information**

#### **Pipetting**

#### **Disposable Tips**

Head	Tip Type	Range	Min. Certified Volume*
96LT	200 μL	1 μL - 200 μL	2 μL
96ST	10 μL	300 nL - 10 μL	300 nL
	30 μL	300 nL - 30 μL	500 nL
	70 μL	750 nL - 70 μL	750 nL
384ST	10 μL	300 nL - 10 μL	300 nL
	30 μL	300 nL - 30 μL	500 nL
	70 μL	750 nL - 70 μL	750 nL

#### **Fixed Tips**

Head	Tip Type	Range	Min. Certified Volume*
96F200	Fixed	50 nL - 200 μL	500 nL
96F50	Fixed	20 nL - 50 μL	100 nL
384F50	Fixed	20 nL - 50 μL	100 nL

<sup>\*</sup> Wet transfer of an aqueous solution measured by absorbance with <5% CV. Smaller volumes at higher CVs are possible.

# **Available Head Types**

## **Disposable-Tip Heads**

Head	Max. Vol.	Format
8LT	200 μL	8 and serial dilution
16ST	70 μL	16 and serial dilution
96LT	200 μL	8, 12, 96 and 384
96ST	70 μL	8, 12, 96 and 384
384ST	70 μL	16, 24, 384 and 1536

# **Fixed-Tip Heads**

Max. Vol.	Format
200 μL	8, 96 and 384
50 μL	96 and 384
200 μL	96 and 384
50 μL	384 and 1536
	50 μL 200 μL

#### **Specifications**

## **Operating Requirements**

**Electrical**: 110–240 VAC, 50/60Hz, 4A for 96-or 384-channel head, 5A for 8-channel head

**Operating temperature**: 5–40°C, 10–90% RH, non-condensing

**Software:** VWorks Automation Control software, ActiveX Control

Controller: Windows 2000 and Windows XP

Interface: 10Base T Ethernet port,

RS-232 serial

**Certification:** CE certified

#### **Dimensions**

Bravo	Bravo SRT
Height: 69.7 cm [27.4 in]	Height: 61.7 cm [24.3 in]
Width: 64.8 cm [25.5 in]	Width: 64.8 cm [25.5 in]
Depth: 43.8 cm [17.25 in]	Depth: 43.8 cm [17.25 in]
Weight: 52.1 kg [114.9 lbs]	Weight: 51.5 kg [113.5 lbs]

Part No.	Description
G5409/A	Agilent Bravo

# Consumables

Tip Type	Part Number	Min. Certified Value*	
96LT 60 μL	06879-102	2.0 μL	
96LT 200 μL	06880-102	2.0 μL	
384ST 10 μL	10734-202	0.3 μL	
384ST 30 μL	11484-202	0.5 μL	
384ST 50 μL	06881-102	1.0 μL	
384ST 70 μL	19133-102	0.75 μL	

 $<sup>^*</sup>$ Typical data utilizing optimized conditions with DMSO and tartrazine dye dry microplate dispensing.

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