

# Agilent Bravo Automated Liquid Handling Platform

# Data Sheet



## **Key Features**

- Compact footprint minimizes space requirements.
- Microplate-centric, low volume single well, column, row, array, and full plate transfers support automated hit-picking and serial dilutions.
- High-precision, rapid-swap pipette heads match liquid handling performance to the application.
- Nine pipettable deck positions provide locations for tips, plates, accessories, waste, reagents, and wash stations.
- Optional plate gripper relocates labware, removes lids, stacks tips and plates, automates vacuum filtration, and facilitates integration with automation-friendly devices.

## Introduction

The Agilent Bravo automated liquid handling platform provides precision, unparalleled versatility, and speed in a compact footprint. With seven different, easy-change liquid handling head types, numerous platepad options, and over 60 on-deck accessories, the Bravo platform can be customized for a wide range of assays. The unique, open design of the Bravo platform permits simple integration with other devices for increased throughput when used with robots or the Agilent BenchCel microplate handler. The Bravo platform's space-saving, nine plate-position footprint facilitates biohood placement, enabling liquid transfers for cell-based assays or hazardous reagents. And safety comes standard with the infrared-based, LED safety light curtain provided with all standalone Bravo instruments.

The Bravo platform is powered by the proven Agilent VWorks automation control software, featuring dynamic scheduling, an easy-to-use interface, and innovative error recover technology for instrument control that is adaptable to all levels of operators.



# **Agilent Technologies**

## Instrument specifications

Dimensions with Safety	Light Curtains <sup>1,2,3</sup>			
Model	Bravo	Bravo SRT <sup>4</sup>		
Width	67.1 cm (26.40 in)	67.1 cm (26.40 in)		
Depth	48.3 cm (19.00 in)	48.3 cm (19.00 in)		
Height	69.7 cm (27.4 in)	62.1 (24.46 in)		
Weight with Safety Ligh	t Curtains⁵			
Kg/lbs	66.4 kg (146 .4 lbs)	64.8 (142.9 lbs)		
Pipetting specifications				
Range	0.3-250 μL disposable tip (using multiple heads)			
Regulatory compliance				
Certification	CE certified			
Control				
Software	Agilent VWorks automation control software instrument license			
Controller	Windows 7 and Windows 10 compatible 10 Base T Ethernet port, RS-232 serial			
Interface				
Deck capacity				
Pipettable positions	Up to nine platepads			
Operating data				
Power consumption, operating (typical)	11.5 A/120 V, 6 A/240 V			
Energy usage per hour (continuous use)	720,000 joules (683 BTU)			

<sup>1</sup> Shipping crate dimensions are approximately 1010 x 870 x 674 mm

<sup>2</sup> Dimensions for containment-based applications not requiring the Safety Light Curtain: Bravo W 64.8 cm (25.5 in ) x D 43.8 cm (17.25 in) x H 69.7 cm (27.4 in)

Bravo SRT W 64.8 cm (25.5 in) x D 43.8 cm (17.25) x H 61.7 cm (24.3 in)

<sup>3</sup> Agilent can assist with the evaluation of a biohood to ensure the instrument and safety solution mechanically fit.
<sup>4</sup> Airflow integrity and biosafety should be confirmed by the customer, their safety team, or the hood manufacturer.
<sup>4</sup> The Brave Platform SRT version is 8 cm (3 in) shorter for biosafety cabinet-based applications. Inquire regarding accessory and labware compatibility.

<sup>5</sup> The Bravo Light Curtain itself weighs 14.3 kg (31.5 lbs); the Bravo SRT Light Curtain itself weighs 13.3 kg (29.3 lbs)

	Bravo liquid handling heads (See publication 5991-0369EN for more details)				
96LT Disposable Tip, 2.0–250 µL		384ST Disposable Tip, 0.3–70 μL			
	96ST Disposable Tip, 0.3–70 µL	96AM Microchromatography			

Bravo di	Bravo disposable pipette tips (See publication 5991-0453EN for more sizes and part numbers.)						
10 µL	96ST/384ST Head	0.3–10 µL	70 µL	96ST/384ST Head	0.75–70 μL		
30 µL	96ST/384ST Head	0.5–30 µL	250 µL	96LT Head	2.0–250 μL		

### Accessories

A wide range of accessories are available for use with the Bravo platform to automate many common analytical laboratory applications. See the Agilent Bravo automated liquid handling platform accessories catalog, publication 5991-0369EN, for more information.

## Consumables

Use Agilent-certified pipette tips together with the Bravo platform for optimal performance. See the Agilent pipette tips brochure, publication 5991-0453EN, for complete descriptions and ordering information.

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