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, which features dynamic scheduling, an easy-to-use interface, and innovative error recover technology for instrument control that is adaptable to all levels of operators.

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Instrument specifications

Dimensions with Safety Light Curtains[1,2,3]		
Model	Bravo	Bravo SRT[4]
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 Light Curtains[5]		
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)	
Performance	5 % CV with DMSO-based solutions (using disposable pipette-tip head)	
Regulatory compliance		
Certification	CE certified	
Control		
Software	Agilent VWorks Automation Control Software Instrument License	
Controller	Windows 7 computer	
Interface	10 Base T Ethernet port, RS-232 serial	
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)	

[1] Crate G5409-80006 is approximately 1010 x 870 x 674 mm
[2] 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)
[3] Agilent can assist with the evaluation of a biohood to ensure the instrument and safety solution mechanically fit Airflow integrity and biosafety should be confirmed by the customer, their safety team or the hood manufacturer.
[4] The Bravo Platform SRT version is 8 cm (3 in) shorter for biosafety cabinet-based applications. Inquire regarding accessory and labware compatibility
[5] 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	G5498B#042	DT, 2.0–250 µL	96F	G5498B#044	FT, 0.1–50 µL
96ST	G5498B#041	DT, 0.3–70 µL	384F	G5498B#045	FT, 0.1–50 µL
384ST	G5498B#043	DT, 0.3–70 µL	96AM	G5498B/G#046	MC, 2.0–250 µL
Custom Pin Tool Head G5420A		Specify pins (1536, 384, 96, 48, or 24) and volume (3.0–5,000 nL)			

FT = Fixed-Tip Pipette Head
DT = Disposable-Tip Pipette Head
MC = Microchromatography Head

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 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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