

Dimension Vista[®] 500 Intelligent Lab System Instrument Specification

Effective October 2015



Instrument Weight and Dimensions

Weight

841.41 kg (1,855 lbs.)

Dimensions

- 215.3 cm (84 ¾") wide x 141.2 cm (55 ½") high (without monitor) x 131.7 cm (51 7/8") deep
- 204 cm (80 3/8") high, cover open

Additional Instrument Clearances (Minimum)

- Service clearance in back – 60 cm (23 5/8")
- Operator clearance in front – 1 m (39 3/8")
- Doorway opening for installation – 88 cm (34 5/8") after removal of front cover, door and frame parts
- Usable power cord – 3.1 m (10') to wall

Running power, water, waste or other utility lines beneath the instrument are not recommended.

No leveling required. Front brakes lock in place. The instrument must be in a vibration-free location.

360° access is needed for service. Installation and service require at least 60 cm (23 5/8") of working space on every side and the back (see diagram).

The Uninterrupted Power Supply (UPS) detailed below must be installed and in the same room as the instrument.

The UPS (6kVA) overall measurement and rear clearance for connection is 257.4 mm (10.14") wide x 1001.7 mm (39.44") high x 730 mm (28.74") deep and weighs 189 kg (416.67 lbs.). Shipping weight is 217 kg (478.41 lbs.). Minimum clearance 102 mm (4") on all four sides for proper ventilation is required.

Room Environment

Operating Temperature

Room temperature must be 18 – 25°C (64.4 – 77°F) with a maximum fluctuation of 2.8°C (5°F) per hour. The system requires a minimum of 90 minutes to warm up from a cold start to the incubation temperature.

Relative Humidity

Maintain between 20% and 80%

Heating Venting Backpressure

- -0.05 to 0.05 in. H₂O (-12 to 12 Pa) at 30°C
- -0.10 to 0.1 in. H₂O (-25 to 25 Pa) at moderate temperatures
- Duct Diameter: 20 cm (8")

Purified Water Consumption

10.8 L/hr

Waste Requirements

Liquid Waste Output at Maximum Throughput

- Millipore fresh water: 120 L/hr (32 G/hr)
- Biowaste: 20 L/hr (5.25 G/hr)
- Chemwaste: 20 L/hr (5.25 G/hr)
- Total: 160 L/hr (42.50 G/hr)

Two 15.24 m (50') tubes are supplied for external waste disposal (one each for Biowaste and Chemwaste). Maintenance of the waste tubing from the instrument to these disposal points is the responsibility of the user. The disposal point should be selected in accordance with local hazardous waste guidelines. The waste tube cannot extend more than 3 m (9.8') above the floor and cannot exceed a total length of 15.24 m (50'). Biowaste, Chemwaste, and the Water Purification Module (WPM) reject water tubing must run independently from each other to the disposal point.

Average Thermal and Noise Output of Instrument

Configuration	BTU/Hr.	Front Noise (dBA)	Rear Noise (dBA)
Without WTCM*	10, 757	64	65
With WTCM w/o Venting	9, 725	65	66
With WTCM w/ Venting	6, 142	62	63
UPS Thermal Output	1, 023		

*Water Temperature Control Module

Water Requirements

Dissolved Solids		Feed Water Requirements	
Total Dissolved Solids	< 2000 µs/cm	Feed Water Connection	½" NPT male
Langelier Saturation Index (LSI)	< 0.3	Feed Water Temperature	5 – 30°C* 25 – 35°C
pH	4 – 10	Feed Water Tubing	10 mm OD (3/8" OD) to 6.35 mm ID (1/4" ID) Max length: 15 m (50 ft.)
CO ₂	< 30 ppm	Feed Capacity	Min 120 L/hr (32 G/hr)
Fouling Index	< 12	Feed Water Pressure	Min 2.0 bar (30 psi) Max 6.0 bar (90 psi)
Total Chlorine	< 3 ppm	WPM Reject Water Drain Capacity	120 L/hr (32 G/hr)
Total Organic Carbon	< 500 ppb	WPM Reject Water Drain Tubing	10 mm OD (3/8" OD) to 6.35mm ID (1/4" ID) max length: 10 m (32.8 ft) Max height: 3 m (9.5 ft)

*For systems with a WTCM

Electrical Installation Requirements

Operating Range

200 – 240 VAC ± 10%, 50/60 Hz

Recommend Service Outlet

- 200 – 240 VAC, 50/60 Hz, Single Phase, 50 A 2-pole, 3-wire grounding (North America)
- 230 – 240 VAC, 50 Hz, Single Phase, 32 A 2-pole, 3-wire grounding (EU)
- 200 VAC, 50/60 Hz, Single Phase, 30 A 2-pole, 3-wire grounding (Japan)

Transient Overvoltage

Installation Category II (branch circuit)

Circuit

The instrument should have a separate, dedicated line L1, L2, and Dedicated Ground in its own conduit. The conduit should start at the distribution panel and be continuous to the receptacle. Three-wire distribution to the receptacle is required for each instrument. The third (green or green/yellow) ground wire should start at the distribution panel and be continuous to the receptacle in accordance with NEC paragraph 250.146 (D), exception 4, unless local codes prohibit. The ground wire should not be tied to grounds from other loads.

Wire Size

6 AWG wire is required to minimize the voltage drop between the distribution panel and the receptacle when each instrument operates at full current load.

Receptacle

Customers must provide a receptacle installed by a qualified electrician before arrival of the instrument. The receptacle must be accessible to the 3.1 m (10') power cord furnished with the instrument.

The USA requires Twist Lock, 50 Ampere, 250 Volts Receptacle, Hubbell/Bryant Receptacle # CS8269A or equivalent.

Electromagnetic Radiation

Do not locate the instrument within 15 m (49 1/4 ft) in any direction of an electromagnetic radiation source such as diathermy apparatus.

Emission Compliance

The Dimension Vista® 500 System has been designed and tested to CISPR 11 Class A. In a domestic environment it may cause radio interference, in which case you may need to take measures to mitigate the interference.

Handheld Barcode Scanner

The handheld barcode scanner uses Class I LEDs (light-emitting diodes) which are classified as non-dangerous to the eyes or skin.

Aliquot Plate Barcode Reader

The aliquot plate barcode reader, located toward the back of the instrument to the left of the aliquot lane one is a Class II laser. This is a possible eye hazard.

Installation

A qualified Siemens representative will install the Dimension Vista® 500 System. The installation will include checkout of all aspects necessary to ensure the equipment is fully operational.

Lab Data Manager System Instrument Specifications

For the latest information refer to <http://www.healthcare.siemens.com/diagnostics-it>

For additional information or to reach a Siemens representative, please call 1-800-393-9362.

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Summary of Typical Input Power Measurements Made Under Test Conditions

Region	Transformer Tap (V)†	Freq. (Hz)	% Tap	(Vrms)	Nominal Operating Current (A)	PF	Nominal Operating Power (kW)
Japan	200V	50/60	+10	220	17.4	0.811	2500
			0	200	16.2	0.860	2510
			-10	180	17.0	0.886	2350
North America	208V	60	+10	228.5	13.2	0.850	2130
			0	208	14.5	0.880	2200
			-10	186.5	14.8	0.892	2070
North America	220V	60	+10	242	13.7	0.882	2500
			0	220	14.9	0.890	2520
			-10	198	15	0.902	2400
Europe	220V	50	+10	242	15.3	0.818	2700
			0	220	15.6	0.860	2500
			-10	198	15.4	0.880	2400
Europe	240V	50	+10	264	11.6	0.860	2300
			0	240	13	0.870	2150
			-10	216	10.81	0.890	2120

Note: Measurements displayed are for active (non-standby) operation, including air compressor.

† UPS output adjusted to nominal tap voltage for all measurements.

Leakage Current

	230 VAC/50-60 Hz
Normal Supply Connections	Under 100 µA
Ground Disconnected	Under 150 µA
Measurement Standard	EN61010-1

Code Compliance

The Dimension Vista® 500 System has been designed and tested to comply with safety standards UL6101-1, CAN/CSA C22.2#61010.1, CAN/CSA C22.2#61010-2-081, CAN/CSA C22.2#61010-2-101, EN61010-1, EN61010-2-081 and EN61010-2-101 under the following environmental conditions [subclause 1.4].

Temperature	5°C (41°F) to 40°C (104°F)
Humidity	Maximum 80% at 25°C (77°F) to 50% at 40°C (104°F)
Altitude	Maximum 2000 m (6,561 ft)
Main Supply	230±10% VAC, (allows 200-220-240 VAC input, 50/60 Hz)
Overvoltage Category	Category II, connected to a branch circuit
Pollution Degree	Degree 2, normal indoor laboratory environment. Air contains only non-conductive pollutants with occasional condensation.

