Olink® Signature Q100

Site Requirements Guide

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1. About Site Requirement Signature Q100

This document describes the site requirements for the Olink® Signature Q100 instrument. It should be read and understood prior receiving the Olink Signature Q100 to the laboratory where it will be used. The purpose of the document is to make sure that the right preparations have been made prior receiving the instrument, so that unpacking and installation can be performed and operation of the Olink Signature Q100 will be successful.

To perform Olink assays, standard PCR machine and sample prep set up will also be needed, but this guide only describes the site requirements for the Olink Signature Q100 instrument.

For more information about Olink Signature Q100, see *9. Appendix A: Related Documents*.

2. System Dimensions and Laboratory Bench Requirements

To accommodate the Signature Q100 instrument you need to consider the following dimensions:

	Height	Width	Depth	Weight
Instrument dimensions	540 mm (21.3 in)	265 mm (10.5 in)	600 mm (23.6 in)	41.5 kg (91.5 lb)
Lab bench minimum dimensions	780 mm (30.7 in)	500 mm (19.7 in)	600 mm (23.6 in)	—

At least 1 m (3 ft) of "service area" clearance should be available on the front and 30 cm (1 ft) on either side of Signature Q100 so that it can be rotated 360° if required. The clearance need not be retained at all times. However, any ancillary equipment occupying that space should be easily movable.

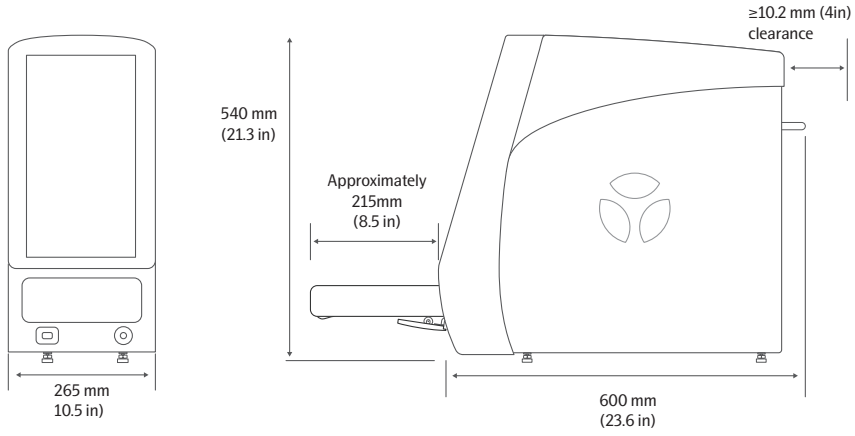

Figure 1. Signature Q100 dimensions.

- Your laboratory bench must support a weight of at least 42 kg (92.5 lb).
- During a run, make sure that the instrument is on a sturdy lab bench that is away from vibration-generating lab equipment (such as shakers, vortexes, centrifuges, or instruments with heavy fans) and from doors that might generate vibrations when opening or closing.
- Do not place the instrument on a heated surface, near a source of heat or in direct sunlight.
- Position the system so the power cord can be easily disconnected.

IMPORTANT: *Olink does not install, service, or repair the Signature Q100 system in areas designated BioSafety Level 3 (BSL-3) or BioSafety Level 4 (BSL-4). Pick another location for the installation.*

2.1 Environmental Conditions

Signature Q100 is for indoor use only and should be used in an environment that meets these conditions:

Conditions	Requirements
Temperature	Ambient between 15–30 °C (59–86 °F)
Humidity	20–80%, non-condensing
Pollution	Degree 2 rating, whereby only nonconductive pollution occurs for electrical and laboratory equipment. Signature Q100 conforms to standard laboratory environments. Do not install the system where conductive pollutants are present.
Altitude	Signature Q100 is for use in altitudes not exceeding 2,000 m (6,562 ft) above sea level. If your facility is located above this elevation, call technical support.
Ventilation	Ensure your lab space is ventilated using non-recirculating air exchanges. Maintain at least 10 cm (4 inches) of clearance at the exhaust grill exit. Signature Q100 produces only hot air exhaust (no fumes or vapors). It has an exhaust grill exit at the back of the instrument, and the air intake is on the bottom of the instrument. **IMPORTANT:** • *Do not place paper or any object underneath the instrument.* • *Do not locate the system next to heat sources or cooling ducts, or in direct sunlight or extreme ambient lighting. Temperature extremes can cause system instability.*

3. Electrical Requirements

3.1 Instrument Electrical Requirements

The Signature Q100 system requires one electrical power outlet. The system operates through 100–240 V AC power at 50–60 Hz (8.0 Amps). Power consumption is variable due to ambient conditions, such as temperature and humidity extreme, operating frequency, and mode of operation.

Customer Location	Voltage (VAC)	Frequency (Hz)	Maximum Current (A)	Typical Average Power Consumption (W)
U.S., Canada	115 ±10%	50/60 ±1%	3.7	Idle: 150 Operating: 250
Japan	100 ±10%	50/60 ±1%	4.2	Idle: 150 Operating: 250
Europe, Australia, United Kingdom	230 ±10%	50/60 ±1%	1.8	Idle: 150 Operating: 250
China	220 ±10%	50 ±1%	1.9	Idle: 150 Operating: 250

IMPORTANT: *Supply voltage fluctuation must not exceed 10% of the normal value. If the voltage fluctuation exceeds the normal value, refer to 4. Uninterruptible Power Supply (optional).*

3.2 Power Cord Requirements

Use only power cords provided by Olink or power cords that meet the minimum ratings of 250V/8A, 18 AWG, and a length not exceeding 2.5 meters (8 feet). The instrument has a connection to protective earth through the power cord provided by Olink.

Olink provides a country-specific power cord.

Minimum Wire Gauge	Maximum Length (m)	Instrument End Plug	Receptacle End Plug
1 mm^2 (AWG 18/CWG 1)*	2.5	IEC C13	Country-specific

*AWG 18 is valid for e.g. Japan, US, Canada, Europe and Australia. CWG 1 for e.g. China.

IMPORTANT: *Do not use extension cords.*

3.3 Receptacle Requirements

When connecting this instrument to an electrical receptacle, check with your facilities manager to ensure the circuit will not be overloaded. If you connect multiple devices to the same electrical receptacle or circuit, be sure the sum of maximum currents for all the devices is within the current limit of the circuit. Receptacles must be grounded. Signature Q100 requires only one grounded electrical connection.

3.4 Disconnecting Power

In case of emergency, you must immediately disconnect the main power supply to the instrument. Therefore, make sure that the disconnecting the main power supply can be easily done.

4. Uninterruptible Power Supply (optional)

Olink strongly recommends that you protect your Signature Q100 system with an uninterruptible power supply (UPS) with voltage regulating capability. For example, such as an APC Smart-UPS™ (APC, PN SRT3000XLW-IEC or equivalent) with battery power (APC, SRT96BP or equivalent), to prevent any damage to the equipment due to power fluctuations. For customers who will connect the instrument to backup power in the event of power loss, Olink recommends purchasing sufficient UPS battery power to support the transition from UPS to backup power at your site. We recommend checking with your site's Facilities department for their guidelines on how much time they suggest.

Conditions	Requirements
UPS type	Double conversion online (AC to DC to AC for cleanest power)
Output power capacity	2.7 kW/3.0 kVA
Power factor	0.9
Backup time (run time)	7 minutes (for a longer backup time, install additional battery packs)
APC battery power (optional)	30 minutes
Power draw (load)	250 W

5. In-House Air Supply (optional)

The Signature Q100 system has an internal compressor to generate compressed air and draws in ambient air by default.

It is strongly recommended to use a clean, dry air (CDA) system to prevent corrosion within the pneumatic system. To do this, connect your CDA system with 4 mm tubing to the compressed air inlet on the back of the Signature Q100 and regulate the incoming air to 80–90 psi or 5.5 to 6.2 bar of CDA.

For detailed instructions on enabling the use of in-house air, refer to the Olink Signature Q100 User Manual.

6. Network Connection (optional)

Data can be exported from Signature Q100 using a USB stick. If a domain authentification to manage user accounts, import data directly from the instrument using the NPX Signature software, or enable remote technical support, a nearby Ethernet port is required on a wall or on a router, to connect the instrument to your network using an Ethernet cable.

Please consult your local IT department to connect the instrument to your local network. To use the remote options, ensure that TCP port 8085 is accessible over the network.

For instructions on how to securely connect the Signature Q100 to a network, please refer to the Olink Signature Q100 User manual.

7. Installation, instrument qualifications and user training

The Signature Q100 is straightforward to install and use.

Installation of the Signature Q100 is estimated to take 1 hour. Site readiness, and other factors may impact the installation time. Please refer to the Installation Procedure for detailed instructions. Reach out to support@olink.com for any questions.

NOTE: *A clear path from the loading dock to the laboratory bench must be established prior installation takes place. The path must accommodate the dimensions of the box, a width of 1 meter (40 inches) and a height of 2 meters (79 inches) is recommended.*

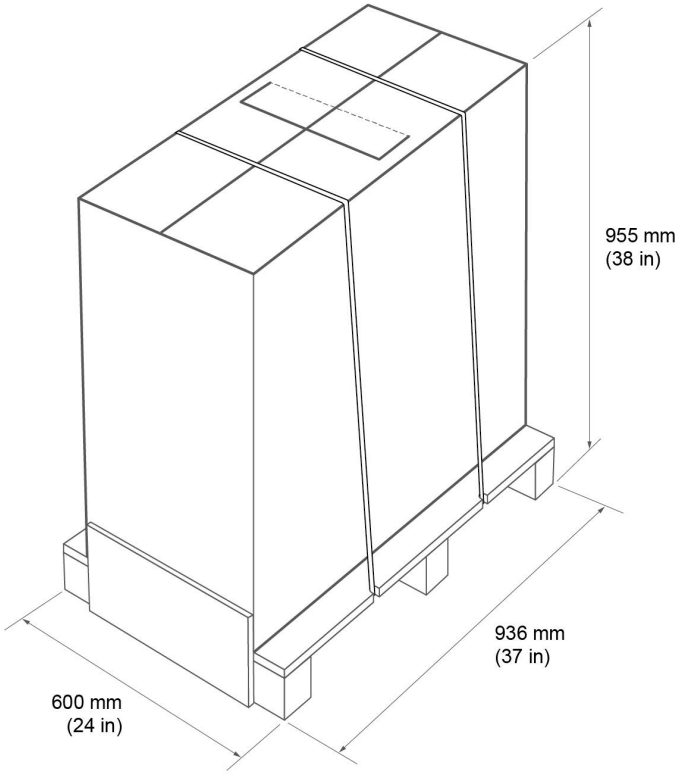

Figure 2. Dimensions of boxed Signature Q100

The measurements for the Signature Q100 system as shipped are:

	Length	Width	Height	Weight
Boxed Signature Q100	936 mm (37 in)	600 mm (24 in)	955 mm (38 in)	68 kg (150 lb)

8. Revision history

Version	Date	Description
v1.4	2022-12-09	Changed powercord minimum ratings to 250V/8A in 3.2. Editorial changes.
v1.3	2022-01-25	Added reference in chapter *6* Revision added Editorial changes

9. Appendix A: Related Documents

Go to https://www.olink.com/resources-support/document-download-center/ to download these related documents.

Title	Document Number
Olink® Signature Q100 User Manual	1172
Olink® Signature Q100 Installation Guide	1171

10. Appendix B: Regulatory Directives and Harmonized Standards

The following directives and harmonized standards were used to evaluate the safety and performance of the Signature Q100 system:

Regulatory Directives

- Low Voltage Directive (LVD) 2014/35/EU
- Electromagnetic Compatibility (EMC) 2014/30/EU
- Restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) 2011/65/EU
- Waste Electrical and Electronic Equipment (WEEE) 2012/19/EU
- EU Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), Regulation (EC) No 1907/2006
- UK Electromagnetic Compatibility Regulations 2016
- UK Electrical Equipment (Safety) Regulations 2016
- UK The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012) No 3032

Harmonized Standards

- EN 61326-1
- IEC 61010-1 (including EN, CAN/CSA22.2, UL national deviations)
- IEC 61010-2-010
- IEC 61010-2-081 (including CAN/CSA22.2 national deviations)

Olink Proteomics, Dag Hammarskjölds väg 52B , SE-752 37 Uppsala, Sweden

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