

WebDAQ 904 SAFETY, ENVIRONMENTAL, AND REGULATORY INFORMATION

The guidelines in this document are specific to the WebDAQ 904

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Read this document and the documents listed in the additional resources section about installation, configuration, and operation of this equipment before you install, configure, operate, or maintain this product. Users are required to familiarize themselves with installation and wiring instructions in addition to requirements of all applicable codes, laws, and standards.

Icons



Notice Take precautions to avoid data loss, loss of signal integrity, degradation of performance, or damage to the device.



Caution Take precautions to avoid injury. Consult the device documentation for cautionary statements when you see this icon printed on the device.

Safety Guidelines



Caution Observe all instructions and cautions in the user documentation. Using the device in the manner not specified can damage the device and compromise the built-in safety protection.



Attention Suivez toutes les instructions et respectez toutes les mises en garde de la documentation utilisateur. L'utilisation d'un modèle de toute autre façon que celle spécifiée risque de l'endommager et de compromettre la protection de sécurité intégrée. Renvoyez les modèles endommagés à NI pour réparation.



Caution Fire, explosion, and severe burn hazard. This device contains a replaceable lithium battery. Do not insert improperly, recharge or disassemble the battery. Do not heat the battery or the device above 100 °C. Do not incinerate the battery or the device. Do not expose the battery contents to water. Take precautions to ensure correct polarity of the battery in the device.



Caution Risque d'incendie, d'explosion et de brûlures graves. Cet appareil contient une pile au lithium remplaçable. Insérer la pile correctement. Ne pas recharger ou démonter la pile. Ne pas chauffer la pile ou l'appareil à une température supérieure à 100 °C. Ne pas incinérer la pile ou l'appareil. Éviter tout contact du contenu de la pile avec de l'eau. Prenez des précautions pour vous assurer que la polarité de la batterie dans l'appareil est correcte



Caution The device is designed for non-hazardous live signals. You must ensure that all signals connected to the device are isolated from hazardous live circuits and no unsafe voltages are present at the device inputs. Voltages that exceed the specifications could result in damage to the device.



Caution L'appareil est conçu pour les signaux en direct non dangereux. Vous devez vous assurer que tous les signaux connectés à l'appareil sont isolés des circuits dangereux sous tension et qu'aucune tension dangereuse n'est présente à ses entrées. Des tensions supérieures à celles mentionnées dans les spécifications peuvent endommager l'appareil.



Caution Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.



Caution Risque d'explosion si la pile est remplacée par un type de pile incorrect. Reportez-vous à la documentation de l'appareil sur ni.com/manuals pour obtenir des informations sur le remplacement, l'élimination et le recyclage de sa pile.

Safety Voltages

Connect only voltages that are within these limits.

Channel-to-earth ground isolation

Continuous.....60 VDC for analog inputs, 15 VDC for DIO, CAT I

Withstand.....60 VDC, verified by a 5 second dielectric withstand test

Channel-to-channel ground isolation

Continuous.....60 VDC for analog inputs, 15 VDC for DIO, CAT I

Withstand.....60 VDC, verified by a 5 second dielectric withstand test



Note The I/O terminals are functionally isolated from chassis ground to prevent ground loops, but do not meet IEC 61010-1 for safety isolation.

Measurement Category I is for measurements performed on circuits not directly connected to the electrical distribution system referred to as *MAINS* voltage. *MAINS* is a hazardous live electrical supply system that powers equipment. This category is for measurements of voltages from specially protected secondary circuits. Such voltage measurements include signal levels, special equipment, limited-energy parts of equipment, circuits powered by regulated low-voltage sources, and electronics.



Note Measurement Categories CAT I and CAT O are equivalent. These test and measurement circuits are for other circuits not intended for direct connection to the *MAINS* building installations of Measurement Categories CAT II, CAT III, or CAT IV.



Caution Do *not* connect the WebDAQ 904 to signals or use for measurements within Measurement Categories II, III or IV



Caution Ne connectez pas le WebDAQ 904 à des signaux et ne l'utilisez pas pour effectuer des mesures dans les catégories de mesure II, III ou IV.

Electrical

Input range by mode (nominal range and actual range)

Voltage±60 V, ±15 V, ±4 V, ±1 V, ±125 mV (nominal and actual)

Current.....±25 mA (nominal and actual)

Thermocouple.....±125 mV (nominal and actual)

Resistance (4-wire and 2-wire).....10 kΩ, 1 kΩ nominal, 10.5 kΩ, 1.05 kΩ actual

RTD (3-wire and 4-wire)Pt 1000, Pt 100 nominal, 5.05 kΩ, 505 Ω actual

Quarter-bridge350 Ω, 120 Ω nominal, 390 Ω, 150 Ω actual

Half-bridge	±500 mV/V (nominal and actual)
Full-bridge	±62.5 mV/V, ±7.8 mV/V nominal, ±62.5 mV/V, ±7.8125 mV/V actual

Safety Compliance Standards

This product meets the requirements of the following standards of safety for electrical equipment for measurement, control, and laboratory use:

- IEC 61010-1, EN 61010-1
- UL 61010-1, CSA C22.2 No. 61010-1



Note For UL and other safety certifications, refer to the product label or the Product Certifications and Declarations section.


Electromagnetic and Radio Equipment Compatibility Guidelines


This device was tested and complies with the regulatory requirements and limits for electromagnetic compatibility (EMC) as stated in the device specifications. These requirements and limits provide reasonable protection against harmful interference when the device is operated in its intended operational electromagnetic environment.


This device is intended for use in controlled Electromagnetic locations. However, harmful interference may occur in some installations, when the product is connected to a peripheral device or test object, or if the product is used in residential, commercial, industrial, or EM uncontrolled areas. To minimize interference with radio and television reception and prevent unacceptable performance degradation, install and use this product in strict accordance with the instructions in the product documentation.


Furthermore, any modifications to the device not expressly approved by Digilent could void your authority to operate it under your local regulatory rules.


EMC Notices

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Notice For EMC declarations and certifications, and additional information, refer to the Declaration of Conformity (DoC) on our website at [Calibration Certificates](#).
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Notice Changes or modifications to the device not expressly approved by Digilent could void your authority to operate the device under your local regulatory rules.
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Notice The performance of this product can be disrupted if subjected to Electrostatic Discharge (ESD) during operation. To prevent damage, industry-standard ESD prevention measures must be employed during installation, maintenance, and operation.
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Notice Shielded cables are required in order to meet the stated EMC specifications.
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Notice The length of all I/O cables must be no longer than 3 m (10 ft).

Electromagnetic Compatibility Standards

This product meets the requirements of the following EMC standards for electrical equipment for measurement, control, and laboratory use:

- EN 61326-1 (IEC 61326-1): Class A emissions; Controlled immunity
- EN 55011 (CISPR 11): Group 1, Class A emissions

Environmental Guidelines



Notice This device is not intended for use in outdoor or hazardous locations.

Environmental Characteristics

Temperature

Operating0 °C to 50 °C

Storage-40 °C to 85 °C

Ingress protectionIP30

Humidity

Operating10% to 90%, noncondensing

Storage.....5% to 95% RH, noncondensing

Pollution Degree2

Maximum Altitude.....2,000 m (6,562 ft)

Indoor use only.

Environmental Management

Digilent is committed to designing and manufacturing products in an environmentally responsible manner. Digilent recognizes that eliminating certain hazardous substances from our products is beneficial to the environment and to Digilent customers.

Waste Electrical and Electronic Equipment (WEEE)



EU Customers At the end of the device life cycle, all Digilent devices must be disposed of according to local laws and regulations.

电子信息产品污染控制管理办法（中国 RoHS）



中国客户 Digilent符合中国电子信息产品中限制使用某些有害物质指令(RoHS)。关于 Digilent 中国 RoHS 合规性信息，请登录 ni.com/environment/rohs_china。(For information about China RoHS compliance, go to ni.com/environment/rohs_china)

Battery Recycling

The model contains a user-replaceable battery. Products containing lithium must be disposed of or recycled in accordance with all local laws and site regulations. For more information about disposing of or recycling this device's battery, refer to <https://www.panasonic-batteries.com/>.

Power Requirements

The WebDAQ 904 is powered by an external adapter.

Input voltage.....	6 VDC to 16 VDC, center positive
Input wattage	4 W typ, 10 W max
External power adapter	Adapter Technology ATS018T-W090V 18W adapter included.
.....	9 V, 2.2 A, 110 VAC to 240 VAC input range required.
Power behavior.....	W1 jumper installed (factory default): Soft power on using the momentary power button; device can turn its power off to shut down. Device does not resume operation if power is lost.
.....	W1 jumper removed: Device is always on if power is applied. Power button functions only as a reboot button.
Battery	One 3 V button cell lithium battery required to maintain time of day clock when device is powered off.
Battery replacement:	Panasonic BR-1225 3V lithium coin cell battery (755203-01); user-replaceable.



Note Refer to the WebDAQ 904 User's Guide stored on the device for the location of the W1 jumper or the battery replacement procedure. This document is also available on our website at diligent.com.

Physical Characteristics

Dimensions (L × W × H)	158.8 × 146.1 × 38.1 mm (6.25 × 5.75 × 1.50 in.)
.....	179.4 × 146.1 × 38.1 mm (7.06 × 5.75 × 1.50 in.) includes spring connectors.
Weight	680 g (1.50 lb)

Maintenance

If you need to clean your device, wipe it with a dry towel.

Export Compliance

This device is subject to control under the U.S. Export Administration Regulations (15 CFR Part 730 et. seq.) administered by the U.S. Department of Commerce's Bureau of Industry and Security (BIS) (www.bis.doc.gov) and other applicable U.S. export controls laws and sanctions regulations. This device may also be subject to additional license requirements of other countries' regulations.

Additionally, this device may also require export licensing before being returned to Digilent. The issuance of a Return Material Authorization (RMA) # by Digilent does not constitute export authorization. The user must comply with all applicable export laws prior to exporting or re-exporting this device. See diligent.com/legal for more information and to request relevant import classification codes (such as HTS), export classification codes (such as ECCN), and other import/export data.

CE Compliance

This product meets the essential requirements of applicable European Directives as follows:

- 2014/30/EU; Electromagnetic Compatibility Directive (EMC)
 - 2011/65/EU; Restriction of Hazardous Substances (RoHS)
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Product Certifications and Declarations

Hereby, Digilent declares that the WebDAQ 904 is in compliance with the essential requirements and other relevant provisions of Directive 2014/30/EU, Directive 2011/65/EU, and Directive (EU) 2015/863. Refer to the product Declaration of Conformity (DoC) on our website at diligent.com for additional regulatory compliance information.

Additional Resources

Refer to the WebDAQ 904 User's Guide for more information about your device, including specifications, signal pinouts, and instructions for configuring your device. This document is stored on the device and also available on our website at diligent.com.

Worldwide Support and Services

The Digilent website is your complete resource for technical support. At the [Digilent Forum](http://diligent.com/forum), you have access to application development self-help resources to email and phone assistance from Digilent Application Engineers. For international customers, visit the International Distributors section of diligent.com for your local distributor contact information.

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