

cRIO-9022/9023/9024/9025

cRIO-9022: 533 MHz CPU, 256 MB DRAM, 2 GB Storage CompactRIO Controller (Legacy)

cRIO-9023: 533 MHz CPU, 256 MB DRAM, 2 GB Storage CompactRIO Controller (Legacy)

cRIO-9024: 800 MHz CPU, 512 MB DRAM, 4 GB Storage CompactRIO Controller (Legacy)

cRIO-9025: 800 MHz CPU, 512 MB DRAM, 4 GB Storage CompactRIO Controller (Legacy)

Physical Characteristics

Weight	609 g (21.5 oz)
Dimensions	Visit ni.com/dimensions and search by model number.
Power Connector	
Screw-terminal wiring	
Gauge	0.33 mm ² to 2.1 mm ² (22 AWG to 14 AWG) copper conductor wire
Wire strip length	6 mm (0.24 in.) of insulation stripped from the end
Temperature rating	85 °C
Torque for screw terminals	0.20 N · m to 0.25 N · m (1.8 lb · in. to 2.2 lb · in.)
Wires per screw terminal	One wire per screw terminal
Connector securement	
Securement type	Screw flanges provided
Torque for screw flanges	0.3 N · m to 0.4 N · m (2.7 lb · in. to 3.5 lb · in.)

Environmental

Operating temperature

cRIO-9022	-20 °C to 55 °C
cRIO-9023	-40 °C to 70 °C
cRIO-9024	-20 °C to 55 °C
cRIO-9025	-40 °C to 70 °C
Storage temperature	-40 °C to 85 °C



Notice Failure to follow the mounting instructions in the user manual can cause temperature derating.

Ingress protection

cRIO-9022	IP40
cRIO-9023	IP20
cRIO-9024	IP40
cRIO-9025	IP20

Operating humidity	10% RH to 90% RH, noncondensing
Storage humidity	5% RH to 95% RH, noncondensing
Pollution Degree	2
Maximum altitude	5,000 m

Indoor use only.

Hazardous Locations

Explosive atmospheres rating	Ex nA IIC T4 Gc
CCC certificate number	2021312304000993

Safety Guidelines

Operate the product only as described in this document.



Caution This icon denotes a caution, which advises you to consult documentation where this symbol is marked.



Caution Do not operate this product in a manner not specified in this document. Product misuse can result in a hazard. You can compromise the safety protection

built into the product if the product is damaged in any way. If the product is damaged, return it to NI for repair.

Safety Guidelines for Hazardous Locations

The cRIO-9022/9024 have been evaluated as Ex nA IIC T4 Gc equipment and are CCC certified. Each product is suitable for use within ambient temperatures of $-20\text{ °C} \leq T_a \leq 55\text{ °C}$ in either nonhazardous locations or Zone 2 hazardous locations.

The cRIO-9023/9025 have been evaluated as Ex nA IIC T4 Gc equipment and are CCC certified. Each product is suitable for use within ambient temperatures of $-40\text{ °C} \leq T_a \leq 70\text{ °C}$ in either nonhazardous locations or Zone 2 hazardous locations.

Follow these guidelines if you are installing the product in a potentially explosive environment. Not following these guidelines may result in serious injury or death.



Caution Do not disconnect the power supply wires and connectors from the controller unless power has been switched off.



Caution Do not install or remove the controller unless power has been switched off.



Caution Do not disconnect I/O-side wires or connectors unless power has been switched off or the area is known to be nonhazardous.



Caution Do not remove modules unless power has been switched off or the area is known to be nonhazardous.



Caution Substitution of components may impair suitability for Zone 2.



Caution You must make sure that transient disturbances do not exceed 140% of the rated voltage.



Caution The system shall only be used in an area of not more than Pollution Degree 2, as defined in IEC/EN 60664-1.



Caution The system shall be mounted in a CCC-certified enclosure with a minimum ingress protection rating of at least IP54 as defined in GB3836.1.



Caution The enclosure must have a door or cover accessible only by the use of a tool.

Safety Voltages

Connect only voltages that are within these limits.

V-to-C

9 V DC to 35 V DC

Power Requirements

Recommended power supply

55 W secondary, 35 V DC maximum

Installing C Series Modules

Verify that power is not connected to the I/O connector(s) on the C Series module.

Removing C Series Modules

Verify that power is not connected to the I/O connector(s) on the C Series module before you remove a module from the chassis.

Safety Compliance and Hazardous Locations Standards

This product is designed to meet the requirements of the following electrical equipment safety standards for measurement, control, and laboratory use:

- IEC 61010-1
- IEC 60079-0: Ed 6, IEC 60079-15; Ed 4
- GB3836.1, GB3836.8



Note For safety certifications, refer to the product label or the [Product Certifications and Declarations](#) section.

Product Certifications and Declarations

To obtain product certifications and the DoC for NI products, visit ni.com/product-certifications, search by model number, and click the appropriate link.

Worldwide Support and Services

NI corporate headquarters is located at 11500 North Mopac Expressway, Austin, Texas, 78759-3504, USA.

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378445A-01 March 11, 2021