

NI 9260/9262/9263/9264/9269

NI 9260: 51.2 kS/s/ch Simultaneous, 3 Vrms, 2-Channel C Series Voltage Output Module

NI 9262: 1 MS/s/ch Simultaneous, ± 10 V, 6-Channel C Series Voltage Output Module

NI 9263: 100 kS/s/ch Simultaneous, ± 10 V, 4-Channel C Series Voltage Output Module

NI 9264: 25 kS/s/ch Simultaneous, ± 10 V, 16-Channel C Series Voltage Output Module

NI 9269: 100 kS/s/ch Simultaneous, ± 10 V, Isolated, 4-Channel C Series Voltage Output Module

Physical Characteristics

Weight

NI 9260 with BNC	150 g (5.3 oz)
NI 9260 with mini XLR	140 g (4.9 oz)
NI 9262 with DSUB	147 g (5.0 oz)
NI 9263 with screw terminal	150 g (5.3 oz)
NI 9263 with spring terminal	139 g (4.9 oz)
NI 9264 with push-in spring terminal	161 g (5.7 oz)
NI 9264 with spring terminal	156 g (5.5 oz)
NI 9264 with DSUB	146 g (5.2 oz)
NI 9269 with screw terminal	156 g (5.5 oz)

Dimensions

Visit ni.com/dimensions and search by module number.



Note Some NI C Series modules offer two types of spring terminal connectors: push-in spring terminal and spring terminal. The black/orange push-in spring terminal connectors do not require a tool for signal connection; push the wire into the terminal when using solid wire or stranded wire with a ferrule, or by pressing the push button when using stranded wire without a ferrule. The black spring terminal connectors require a flathead screwdriver with a 2.3 mm \times 1.0 mm (0.09 in. \times 0.04 in.) blade for signal connection; insert the screwdriver into a spring clamp activation slot to open the corresponding connector terminal, press a wire into the open connector terminal, and then remove the screwdriver from the activation slot to clamp the wire into place.

NI 9263 with screw terminal

Screw terminal wiring

Gauge	0.2 mm ² to 2.5 mm ² (26 AWG to 14 AWG) copper conductor wire
Wire strip length	13 mm (0.51 in.) of insulation stripped from the end
Temperature rating	90 °C, minimum
Torque for screw terminals	0.5 N · m to 0.6 N · m (4.4 lb · in. to 5.3 lb · in.)
Wires per screw terminal	One wire per screw terminal; two wires per screw terminal using a 2-wire ferrule
Ferrules	0.25 mm ² to 2.5 mm ²

Connector securement

Securement type	Screw flanges provided
Torque for screw flanges	0.2 N · m (1.80 lb · in.)

NI 9263 with spring terminal

Spring terminal wiring

Gauge	0.2 mm ² to 2.5 mm ² (30 AWG to 12 AWG) copper conductor wire
Wire strip length	10 mm (0.39 in.) of insulation stripped from the end
Temperature rating	90 °C, minimum
Wires per spring terminal	One wire per spring terminal; two wires per spring terminal using a 2-wire ferrule
Ferrules	0.25 mm ² to 2.5 mm ²

Connector securement

Securement type	Screw flanges provided
Torque for screw flanges	0.2 N · m (1.80 lb · in.)

NI 9264 with push-in spring terminal (black/orange connector)

Push-in spring terminal wiring

Gauge	0.14 mm ² to 1.5 mm ² (26 AWG to 16 AWG) copper conductor wire
Wire strip length	10 mm (0.394 in.) of insulation stripped from the end

Temperature rating	90 °C, minimum
Wires per spring terminal	One wire per spring terminal; two wires per spring terminal using a 2-wire ferrule
Ferrules	0.14 mm ² to 1.5 mm ²
Connector securement	
Securement type	Screw flanges provided
Torque for screw flanges	0.2 N · m (1.80 lb · in.)

NI 9264 with spring terminal (black connector)

Spring terminal wiring

Gauge	0.08 mm ² to 1.0 mm ² (28 AWG to 18 AWG) copper conductor wire
Wire strip length	7 mm (0.28 in.) of insulation stripped from the end
Temperature rating	90 °C, minimum
Wires per spring terminal	One wire per spring terminal

Connector securement

Securement type	Screw flanges provided
Torque for screw flanges	0.2 N · m (1.80 lb · in.)

NI 9269

Screw terminal wiring

Gauge	0.05 mm ² to 1.5 mm ² (30 AWG to 14 AWG) copper conductor wire
Wire strip length	6 mm (0.24 in.) of insulation stripped from the end
Temperature rating	90 °C, minimum
Torque for screw terminals	0.22 N · m to 0.25 N · m (1.95 lb · in. to 2.21 lb · in.)
Wires per screw terminal	One wire per screw terminal; two wires per screw terminal using a 2-wire ferrule
Ferrules	0.25 mm ² to 1.5 mm ²

Connector securement

Securement type	Screw flanges provided
Torque for screw flanges	0.2 N · m (1.80 lb · in.)

Environmental

Refer to the manual for the chassis you are using for more information about meeting these specifications.

Operating temperature	-40 °C to 70 °C
Storage temperature	-40 °C to 85 °C
Ingress protection	IP40
Operating humidity	10% RH to 90% RH, noncondensing
Storage humidity	5% RH to 95% RH, noncondensing
Pollution Degree	2
Maximum altitude	
NI 9260	5,000 m
NI 9262	5,000 m
NI 9263	2,000 m
NI 9264 with push-in spring terminal	4,000 m
NI 9264 with spring terminal	2,000 m
NI 9264 with DSUB	2,000 m
NI 9269	2,000 m

Indoor use only.

Hazardous Locations

Explosive atmospheres rating	Ex nA IIC T4 Gc
CCC certificate number	2021312310000312

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.



Hazardous Voltage This icon denotes a warning advising you to take precautions to avoid electrical shock with the product.

Safety Guidelines for Hazardous Voltages (Screw Terminal and Spring Terminal Products)

If hazardous voltages are connected to the device, take the following precautions. A hazardous voltage is a voltage greater than 42.4 Vpk voltage or 60 VDC to earth ground.

You may connect signals which may be floating at hazardous voltages only to the products with screw terminal or spring terminal connectors. Do not connect hazardous voltages to the products with DSUB, BNC, or mini XLR connectors.



Caution Ensure that hazardous voltage wiring is performed only by qualified personnel adhering to local electrical standards.



Caution All wiring must be insulated for the highest voltage used.



Caution Do not mix hazardous voltage circuits and human-accessible circuits on the same module.



Caution Ensure that devices and circuits connected to the module are properly insulated from human contact.



Caution (NI 9263) You must use the NI 9927 connector backshell kit with the product with screw terminal and the NI 9981 connector backshell kit with the product with spring terminal to ensure that the terminals are not accessible.



Caution (NI 9264 with push-in spring terminal/NI 9264 with spring terminal) You must use the NI 9940 connector backshell kit with the product with spring terminal to ensure that the terminals are not accessible.



Caution (NI 9269) You must use the NI 9971 connector backshell kit to ensure that the terminals are not accessible.

Safety Guidelines for Hazardous Locations

These products have been evaluated as Ex nA IIC T4 Gc equipment and are CCC certified. Each product is suitable for use within ambient temperatures of $-40\text{ }^{\circ}\text{C} \leq T_a \leq 70\text{ }^{\circ}\text{C}$ in either nonhazardous locations or Zone 2 hazardous locations. If you are using the products in Gas Group IIC hazardous locations, you must use the device in an NI chassis that has been evaluated as Ex nA IIC T4 Gc equipment.

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 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 Transient protection shall be provided that is set at a level not exceeding 140% of the peak rated voltage value of 85 V channel-to-COM at the supply terminals.



Caution For products with maximum 60 V DC channel-to-earth ground isolation, transient protection shall additionally be provided that is set at a level not exceeding 140% of the peak rated voltage value of 85 V channel-to-earth ground at the supply terminals.



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

NI 9260 with BNC, NI 9260 with Mini XLR

AO-to-COM voltage	3.16 V RMS (± 4.68 V peak) maximum
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Oversvoltage protection	± 30 V
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Channel-to-earth ground	± 30 V maximum
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Isolation Voltages

Channel-to-channel	None
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Channel-to-earth ground	None
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Caution Do not connect the product to signals or use for measurements within Measurement Categories II, III, or IV.

NI 9262 with DSUB

Connect only voltages that are within the following limits.

AO-to-COM	± 30 V maximum
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Oversvoltage protection	± 30 V maximum
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Isolation

Channel-to-channel	None
Channel-to-earth ground	
Continuous	60 V DC, Measurement Category I
Withstand	1,000 V RMS, verified by a 5 s dielectric withstand test



Caution Do not connect the product to signals or use for measurements within Measurement Categories II, III, or IV.

NI 9263 with Screw Terminal, NI 9263 with Spring Terminal

Connect only voltages that are within the following limits:

AO-to-COM	±11 V maximum
Overvoltage protection	±30 V
Channel-to-channel	None
Channel-to-earth ground	
Continuous	250 V RMS, Measurement Category II
Withstand	2,300 V RMS, verified by a 5 s dielectric withstand test
Zone 2 hazardous locations applications (Channel-to-earth ground)	60 V DC, Measurement Category I



Caution If using in Zone 2 hazardous locations, do not connect the product to signals or use for measurements within Measurement Categories II, III, or IV.



Caution Do not connect the product to signals or use for measurements within Measurement Categories III or IV.

NI 9264 with Push-In Spring Terminal (Black/Orange Connector)

Connect only voltages that are within the following limits:

AO-to-COM	±10.65 V maximum
Overvoltage protection	±27 V at 25 °C
Channel-to-channel	None

Channel-to-earth ground

Continuous	250 V RMS, Measurement Category II
Withstand up to 4,000 m	3,000 V RMS, verified by a 5 s dielectric withstand test



Caution Do not connect the product to signals or use for measurements within Measurement Categories III or IV.

NI 9264 with Spring Terminal (Black Connector)

Connect only voltages that are within the following limits:

Isolation

AO-to-COM	±10.65 V maximum
Overvoltage protection	±27 V at 25 °C
Channel-to-channel	None
Channel-to-earth ground	
Continuous	250 V RMS, Measurement Category II
Withstand	2,300 V RMS, verified by a 5 s dielectric withstand test



Caution Do not connect the product to signals or use for measurements within Measurement Categories III or IV.

NI 9264 with DSUB

Connect only voltages that are within the following limits:

Isolation

AO-to-COM	±10.65 V maximum
Overvoltage protection	±27 V at 25 °C
Channel-to-channel	None
Channel-to-earth ground	
Continuous	60 V DC, Measurement Category I
Withstand up to 2,000 m	1,000 V RMS, verified by a 5 s dielectric withstand test



Caution Do not connect the product to signals or use for measurements within Measurement Categories II, III, or IV.

NI 9269 with Screw Terminal

Connect only voltages that are within the following limits:

AO-to-COM	±10.56 V maximum
Overvoltage protection	±30 V
Channel-to-channel	
Continuous	250 V RMS, Measurement Category II
Withstand	1,390 V RMS, verified by a 5 s dielectric withstand test
Channel-to-earth ground	
Continuous	250 V RMS, Measurement Category II
Withstand	2,300 V RMS, verified by a 5 s dielectric withstand test
Zone 2 hazardous locations applications (Channel-to-channel and channel-to-earth ground)	60 V DC, Measurement Category I



Caution If using in Zone 2 hazardous locations, do not connect the product to signals or use for measurements within Measurement Categories II, III, or IV.



Caution Do not connect the product to signals or use for measurements within Measurement Categories III or IV.

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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