NI-9264 Getting Started





Contents

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Connector Types

The NI-9264 has more than one connector type: NI-9264 with spring terminal and NI-9264 with DSUB. Unless the connector type is specified, NI-9264 refers to all connector types.

The NI-9264 with spring terminal is available in two types: push-in spring terminal and spring terminal. The push-in type spring terminal connector is black and orange. The spring terminal connector is black. NI-9264 with spring terminal refers to both types unless the two types are specified. Differences between the two types of spring terminal connectors are noted by the connector color.

NI-9264 Block Diagram



Each channel has a digital-to-analog converter (DAC) that produces a voltage signal. Each channel also has overvoltage and short-circuit protection.

NI-9264 with Spring Terminal (Black Connector) Pinout

	ID-					-60	
		_		~ 1			
		Ц		2			
AO0		\odot	1	19	\odot		COM
AO1		\odot	2	20	\odot		COM
AO2		\odot	3	21	\odot		COM
AO3		\odot	4	22	\odot		COM
AO4		\bigcirc	5	23	\odot		COM
AO5		\odot	6	24	\odot		COM
AO6		\bigcirc	7	25	\odot		COM
AO7		\odot	8	26	\odot		COM
AO8		\bigcirc	9	27	\odot		COM
AO9		\odot	10	28	\odot		COM
AO10		\bigcirc	11	29	\bigcirc		COM
AO11		\bigcirc	12	30	\bigcirc		COM
AO12		\bigcirc	13	31	\bigcirc		COM
AO13		\bigcirc	14	32	\bigcirc		COM
AO14		0	15	33	0		COM
AO15		Õ	16	34	\bigcirc		COM
COM		0	17	35	0		COM
COM		Õ	18	36	Õ		COM
				\mathbb{D}			
				- 1			
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Table 1. Signal Descriptions

Signal	Description
AO	Analog output signal connection
СОМ	Common reference connection to isolated ground

NI-9264 with Push-in Style Spring Terminal (Black/Orange Connector) Pinout

		1
AO0		COM
AO1	200-	COM
AO2	<u>19306</u>	COM
AO3		COM
AO4	0530	COM
AO5	2629	COM
AO6	0720	COM
AO7		COM
AO8	0920	COM
AO9		COM
AO10	01020	COM
AO11		COM
AO12	13310	COM
AO13		COM
AO14	-1530-	COM
AO15	016340	COM
COM	017350	COM
COM	-1836-	COM

Table 2. Signal Descriptions

Signal	Description
AO	Analog output signal connection
СОМ	Common reference connection to isolated ground

NI-9264 with DSUB Pinout



Table 3. Signal Descriptions

Signal	Description
AO	Analog output signal connection
СОМ	Common reference connection to isolated ground
NC	No connection

NI-9264 Connection Guidelines

Make sure that devices you connect to the NI-9264 are compatible with the module specifications.

Connecting Wires to the NI-9264 with Spring Terminal (Black Connector)

What to Use

- NI-9264 spring-terminal connector
- 0.14 mm2 to 1.5 mm2 (26 AWG to 16 AWG) copper conductor wire with 10 mm (0.394 in.) of insulation stripped from the end
- Flathead screwdriver with a 2.3 mm x 1.0 mm (0.09 in. x 0.04 in.) blade, included with the NI-9264

What to Do

Complete the following steps to connect wires to the spring-terminal connector.



- 1. Insert the screwdriver into a spring clamp activation slot to open the corresponding connector terminal.
- 2. Press a wire into the open connector terminal.
- 3. Remove the screwdriver from the activation slot to clamp the wire into place.

Connecting Wires to the NI-9264 with Push-in Style Spring Terminal (Black/Orange Connector)

What to Use

- NI-9264 with push-in style spring terminal (black/orange connector)
- 0.14 mm2 to 1.5 mm2 (26 AWG to 16 AWG) copper conductor wire with 10 mm (0.394 in.) of insulation stripped from the end
- Ferrules (optional)

What to Do

Refer to the following table for how to insert a wire into a terminal depending on what type of wire you are using or if you are using a ferrule.

Option	Description
When using a solid wire or stranded wire with a ferrule	Push the wire into the terminal when using a solid wire or stranded wire with a ferrule
When using a stranded wire without a ferrule	Press the push button and then push the wire into the terminal

Note You must use 2-wire ferrules to create a secure connection when connecting more than one wire to a single terminal.

High-Vibration Application Connections

If your application is subject to high vibration, NI recommends that you use the NI-9940 backshell kit to protect connections to the NI-9264 with spring terminal.

Analog Output Connections



Conformal Coating

The NI-9264 is available with conformal coating for additional protection in corrosive and condensing environments, including environments with molds and dust.

In addition to the environmental specifications listed in the *NI-9264 Safety, Environmental, and Regulatory Information*, the NI-9264 with conformal coating meets the following specification for the device temperature range. To meet this specification, you must follow the appropriate setup requirements for condensing environments. Refer to *Conformal Coating and NI RIO Products* for more information about conformal coating and the setup requirements for condensing environments.

Operating humidity (IEC 60068-2-30 Test Db) 80 to 100% RH, condensing

Related information:

<u>Conformal Coating and NI RIO Products</u>