NI-9207 Getting Started

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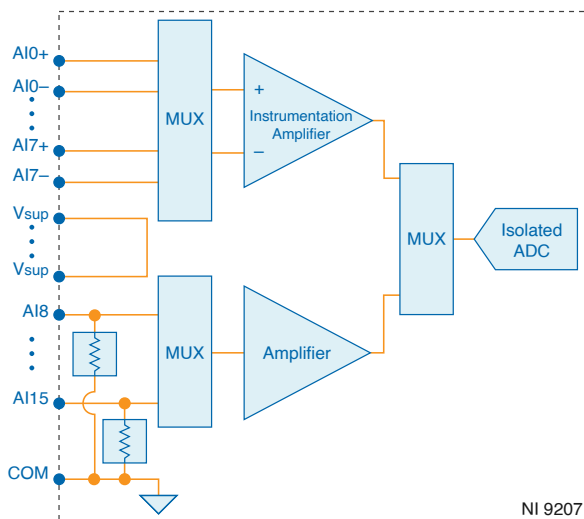
NI-9207 Getting Started

Connector Types

The NI-9207 has more than one connector type: NI-9207 with spring terminal and NI-9207 with DSUB. Unless the connector type is specified, NI-9207 refers to all connector types.

NI-9207 Block Diagram

The input signals are scanned, amplified, conditioned, and then sampled by a single 24-bit ADC.
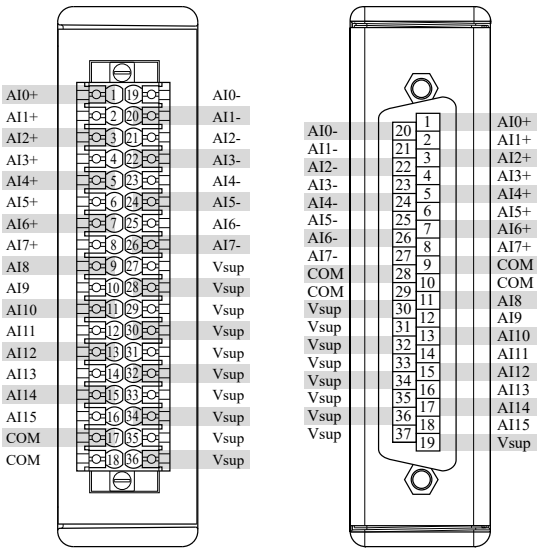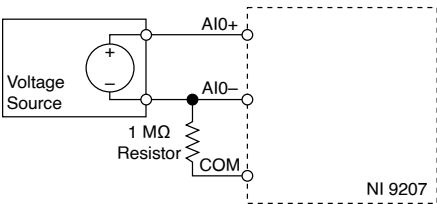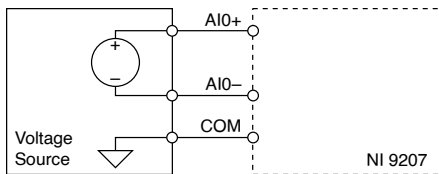
NI-9207 Pinout

Table 1. Signal Descriptions

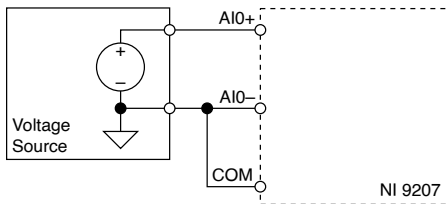| Signal	Description
AI+	Positive analog input voltage connection
AI-	Negative analog input signal connection
AI	Analog input current connection
V_{sup}	Voltage supply connection
COM	Common reference connection to isolated ground

Floating Differential Connections

Grounded Connections

Single-Ended Connections
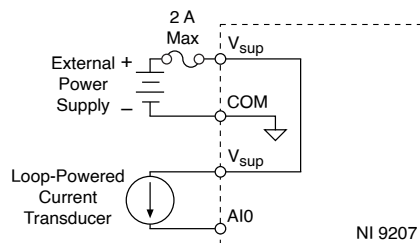

Connecting an External Power Supply

You must connect an external power supply with a 0 to 30 V voltage range to the NI-9207. This power supply provides the current for the devices you connect to the module. You can connect only one external voltage supply to the NI-9207.

1. Connect the positive lead of the power supply to V_{sup}.
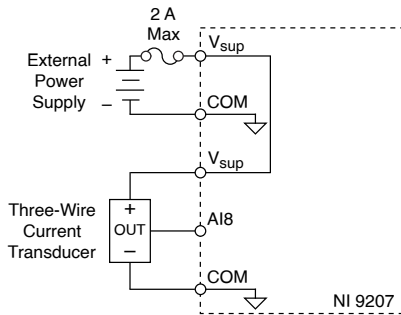2. Connect the negative lead of the power supply to COM.

> ⚠ **Caution** Do not remove or insert modules if the external power supply connected to the V_{sup} and COM pins is powered on.

Connecting a Loop-Powered Current Transducer

Connecting a Three-Wire Current Transducer

NI-9207 Connection Guidelines

- Make sure that devices you connect to the NI-9207 are compatible with the module specifications.
- You must use 2-wire ferrules to create a secure connection when connecting more than one wire to a single terminal on the NI-9207 with spring terminal.
- When using a solid wire or a stranded wire with a ferrule with the NI-9207 with spring terminal, push the wire into the terminal.
- When using stranded wire without a ferrule with the NI-9207 with spring terminal, open the terminal by pressing the push button.

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-9207 with spring terminal.