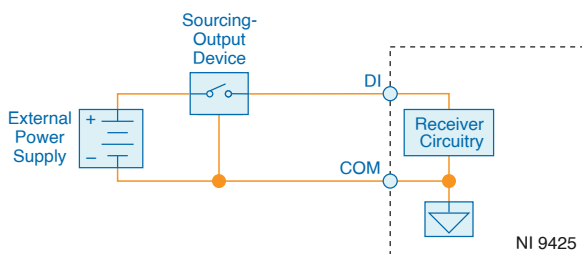# NI-9425 Getting Started

Contents

NI-9425 Getting Started

Introduction

In this document, the NI-9425 with spring terminal and NI-9425 with DSUB are referred to inclusively as the NI-9425. The information in this document applies to all versions of the NI-9425 unless otherwise specified.

NI-9425 Block Diagram

- The NI-9425 has sinking inputs. Sinking inputs provide a path to COM when the sourcing device connected to the NI-9425 drives current or applies voltage to DI.

Tip For more information about sinking inputs, visit ni.com/info and enter the Info Code `sinksource`.
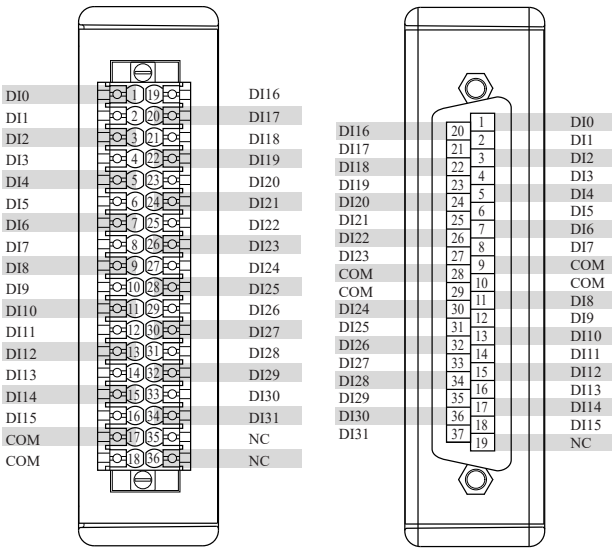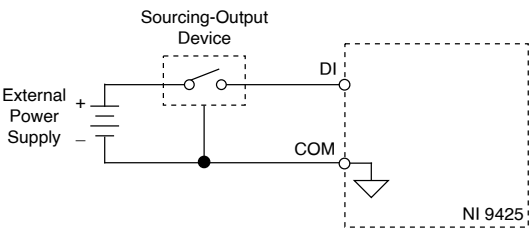
NI-9425 Pinout

Table 1. Signal Descriptions

Signal	Description
COM	Common reference connection to isolated ground
DI	Digital input signal connection
NC	No connection

Connecting a Sourcing-Output Device

You can connect 2-, 3-, and 4-wire sourcing-output devices to the NI-9425.

The NI-9425 channel registers as ON when the sourcing-output device applies a voltage or drives a current that is in the input ON range to DI. The channel registers as OFF when the device applies a voltage or drives a current that is in the input OFF range to DI. If no device is connected to DI, the channel registers as OFF.

NI-9425 Connection Guidelines

- Make sure that devices you connect to the NI-9425 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-9425 with spring terminal.
- For the NI-9425 with spring terminal, push the wire into the terminal when using a solid wire or a stranded wire with a ferrule.
- For the NI-9425 with spring terminal, open the terminal by pressing the push button when using stranded wire without a ferrule.
- For CAT II measurements, you must use a power supply with isolated DC outputs if you are using an external power supply.

High-Vibration Application Connections

If your application is subject to high vibration, NI recommends that you use the cRIO-9940 backshell kit to protect connections to the NI-9425 with spring terminal.

Conformal Coating

The NI-9425 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-9425 Safety, Environmental, and Regulatory Information***, the NI-9425 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:

- Conformal Coating and NI RIO Products