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C Series with Spring Terminal Front Connection: I/O Cable & Accessory Guide

Updated Jan 6, 2023

Overview

Use this guide to match your C Series Modules with spring terminal front connection with a compatible cable and accessory to meet the needs of your application, whether you are creating a new configuration, replacing or expanding your current configuration, or verifying that existing parts can be used in a different configuration.

This page is part of the C Series I/O Cable and Accessory Compatibility Guide.

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- Using this C Series I/O Cable and Accessory Guide
- Finding Your C Series Module
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Using this C Series I/O Cable and Accessory Guide

This guide is intended to cover connectors and cables for use with C Series Modules. It does not explicitly cover other NI product families such as DAQ Multifunction I/O, Digital Waveform Instruments (formerly HSDIO), or R Series. It also does not cover legacy or End of Life (EOL) parts or products. Additionally, these products are supported in cRIO and/or cDAQ chassis, but this guide does not cover chassis accessories.

Note: Using the page search functionality in your browser to locate your model may speed up this process. This is typically CTRL+F on Windows or ⌘+F on MacOS.

Finding Your C Series Module

This page is arranged by first having you identify the connector type on your C Series Module, locating the information for your specific model, and then choosing the accessory or cable combination that best fits your needs.

How to identify the model number of your C Series Module:

The model number of the C Series Module is printed on the faceplate of the module and also in the Getting Started that ships with the module.

How to identify the part number (P/N) and revision of your C Series Module:

The assembly part number and revision of the C Series Module is printed on a label adhered directly to the back of the module. The part number should be formatted as a 10-character alphanumeric string ######<REV>-#<VER>L. For example, a valid part number would be 157874A-01L. In this example, the board would be revision A and version 1.



Figure 1: C Series Module backside showing part number highlighted in green followed by serial number highlighted in blue.

Cable and Accessory Compatibility Tables

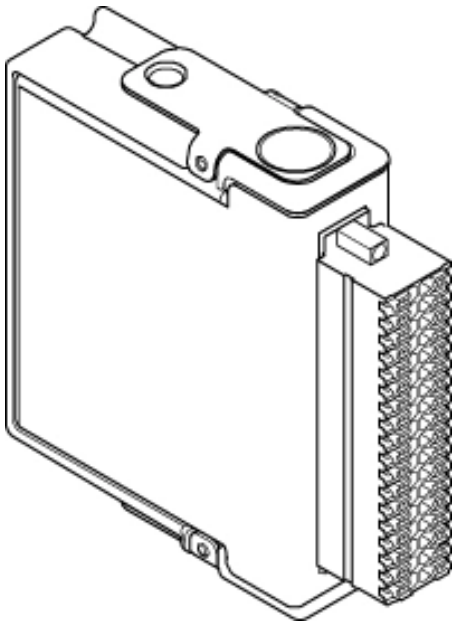


Figure 2: C Series with **Spring Terminal** Front Connection

Note: All C Series Modules with spring terminal front connection ship with the one unit of the recommended spring terminal block. This guide provides accessory guidance for the spring terminals to assist with replacements or the purchasing of additional spring terminal blocks.

Note: N/A= Not Applicable

Cable & Accessories for C Series Module with Spring connection

Modules	Number of Pins	Spring Terminal Block	Strain Relief & Operation Protection	DIN Rail Mount Terminal Block	Cable
NI-9205 NI-9206 NI-9207 NI-9208 NI-9209 NI-9213 NI-9216 NI-9220 NI-9226 NI-9264 NI-9375 NI-9425 NI-9476	36	NI 9974 36-pos Spring Terminal P/N: 196740-01[1], 785502-01[2]	NI 9940 Strain Relief P/N: 779567-01[1], 785080-01[2]	N/A	N/A

[1]for C Series Module version 1, 2, or 3
[2]for C Series Module version 6

Modules	Number of Pins	Spring Terminal Block	Strain Relief & Operation Protection	DIN Rail Mount Terminal Block	Cable
NI-9202	36	NI 9974 36-pos Spring Terminal P/N: 785502-01[1]	NI 9940 Strain Relief P/N: 785080-01[1]	N/A	N/A

[1]for all C Series Module versions

Modules	Number of Pins	Spring Terminal Block	Strain Relief & Operation Protection	DIN Rail Mount Terminal Block	Cable
NI-9253	28	NI 9964 28-pos Spring Terminal P/N: 786432-01	N/A	N/A	N/A

Modules	Number of Pins	Spring Terminal Block	Strain Relief & Operation Protection	DIN Rail Mount Terminal Block	Cable
NI-9235 NI-9236	24	NI 9966 34-pos Spring Terminal P/N: 780542-01[1], 785992-012	NI 9965 24-pos P/N: 780216-01[1]	N/A	N/A

[1]for C Series Module version 1, 2, or 3
[2]for C Series Module version 6

Modules	Number of Pins	Spring Terminal Block	Strain Relief & Operation Protection	DIN Rail Mount Terminal Block	Cable
NI-9201 NI-9203 NI-9215 NI-9221 NI-9263 NI-9265 NI-9421 NI-9423 NI-9437 NI-9472 NI-9474 NI-9482	10	NI 9980 10-pos Spring Terminal P/N: 197991-01	NI 9981 10-pos P/N: 783787-01	N/A	N/A
NI-9210	10	N/A	NI 9210 Spring Terminal Backshell P/N: 785628-01	N/A	N/A

Modules	Number of Pins	Spring Terminal Block	Strain Relief & Operation Protection	DIN Rail Mount Terminal Block	Cable
NI-9219	6	NI 9973 6-pos Front Mount Spring Terminal P/N: 785993-01	NI 9972 6-pos Strain Relief P/N: 786162-01	N/A	N/A

Ordering Information

For more information on any of the listed NI orderable parts, please visit http://www.ni.com/contact-us/ to contact an NI representative. Most NI orderable parts listed in this guide without a product page can still be purchased by contacting NI.

Glossary of Terms Used

- **Backshell** - A component that provides Strain Relief and Operator Protection. These terms are synonymous. Click here for an example.
- **EMI Suppression Ferrite** - Passive electrical component clamped around a cable to reduce Electromagnetic Interference (EMI) on the line. Click here for an example.
- **Strain Relief and Operator Protection** - Surrounds the male or female cable connector to protect the cable connections and to provide cable strain relief. Click here for an example.
- **Screw Terminal Block** – A type of connector block that uses screw terminals as the method for connecting wires to your sensor. Click here for an example.
- **DIN Rail Mount Terminal Block** - A type of connector block that allows you to mount the block to a DIN rail. Click here for an example.
- **Front Mount Terminal Block** – A type of connector block that connects to the front of the module. Click here for an example.

- **Spring Terminal Block** - A type of connector block that uses spring terminals as the method for connecting wires to you sensor. Click here for an example.

Additional Resources

- C Series I/O Cable & Accessory Compatibility Guide
- C Series Module Compatibility Chart
- Shop for C Series Terminal Blocks

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