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C Series with D-Sub Terminal: I/O Cable & Accessory Guide

Updated Jan 5, 2023

Overview

Use this guide to match your C Series Modules with a D-Sub 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

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.

Cable and Accessory Compatibility Tables

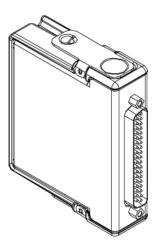


Figure 1: C Series Accessory Guide with **D-Sub Terminal** Front Connection

Note: All DIN Rail Terminal Blocks require a cable.

Note: N/A= Not Applicable

Modules	Number of Pins	Front Mount Terminal Block	Strain Relief & Operator Protection	DIN Rail Mount Terminal Block	Cable
NI-9205 NI-9207 NI-9208 NI-9209 NI-9220 NI-9226 NI-9262 NI-9264 NI-9266 NI-9361 NI-9375 NI-9381 NI-9403 NI-9425 NI-9476 NI-9476 NI-9477 NI-9478 NI-9478 NI-9216 NI-9202 NI-9252	37	NI 9923 Screw Terminal Block (Recommended)P/N: 781503-01 NI TB-37F-37SC P/N: 779184-01	N/A	Spring Terminal Block Vertical Mount P/N: 778685-01 Spring Terminal Block Horizontal Mount P/N: 778676-01 Screw Terminal Block Vertical Mount P/N:778672-01 Screw Terminal Block Horizontal Mount P/N: 778673-01 High-Voltage Screw Terminal Horizontal Mount P/N: 779491-01	SH37F-37M P/N:778621-01 SH37F-P-4 Pigtail P/N:778620-04 DB37F-DB37M Low Profile P/N: 154302-01 DB37F-Pigtail Low Profile P/N: 782316-04

				Spring Terminal Block Vertical Mount P/N: <u>778685-01</u>	SH37F-37M P/N: <u>778621-01</u>
		NI 9923 Screw Terminal Block (Recommended)P/N: 781503-01		Spring Terminal Block Horizontal Mount P/N: <u>778676-01</u>	SH37F-P-4 Pigtail P/N: <u>778620-04</u>
NI-9237	37	NI TB-37F-37SC P/N: 779184-01 NI CB-37F-LP	N/A	Screw Terminal Block Vertical Mount P/N: <u>778672-01</u>	DB37F-DB37M Low Profile P/N: <u>154302-01</u>
		P/N: <u>779353-01</u>		Screw Terminal Block Horizontal	DB37F-Pigtail Low Profile P/N: <u>782316-04</u>
				Mount P/N: <u>778673-01</u>	SH37F-Tajimi P/N: <u>199254-01</u>

Cable & Accessories for C Series Module with D-Sub connection

Modules	Number of Pins	Front Mount Terminal Block	Strain Relief & Operator Protection	DIN Rail Mount Terminal Block	Cable
NI-9201 NI-9221 NI-9401 NI-9421 NI-9472 NI-9475	25	NI 9924 Screw Terminal Block (Recommended) P/N: 781922-01	N/A	Screw Terminal Block Horizontal Mount P/N: 781081-01	SH25F-25M P/N: <u>192568-01</u> SHDB25F- DB25M Low Profile P/N: <u>154742-01</u>

Cable & Accessories for C Series Module with D-Sub connection

Modules	Number of Pins	Front Mount Terminal Block	Strain Relief & Operator Protection	DIN Rail Mount Terminal Block	Cable
NI-9411	15	NI 9935 Screw Terminal Block (Recommended) P/N: <u>785338-</u> <u>01</u>	N/A	Screw Terminal Block Horizontal Mount P/N: 785334-01	DB15F-DB15M P/N: 141856- 01

Modules	Number of Pins	Front Mount Terminal Block	Strain Relief & Operator Protection	DIN Rail Mount Terminal Block	Cable
NI-9218	9	NI 9982F Screw Terminal Block P/N: 784137-01 NI 9983F Current Shunt P/N: 784138-01 NI 9984F 1/4 Bridge Completion 1200hm P/N: 784139-01 NI 9985F 1/4 Bridge Completion 3500hm P/N: 784140-01 NI 9986F 1/2 Bridge Completion P/N: 784141-01 NI 9987F 60V P/N: 784142-01 2-Pos Micro-Fit Plug And Crimp Terminal Kit P/N: 783799-01	N/A	N/A	NI 9982D Screw Terminal Block P/N: 783411-01 NI 9983D Current Shunt P/N: 783413-01 NI 9984D 1/4 Bridge Completion 120Ohm P/N: 783415-01 NI 9985D 1/4 Bridge Completion 350Ohm P/N: 783417-01 NI 9986D 1/2 Bridge Completion P/N: 783419-01 NI 9987D 60V P/N: 783421-01 Pigtail Cable P/N: 157867-01 Micro-Fit to Pigtail Power Cable P/N: 157935-01

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. <u>Click here for an example.</u>
- Strain Relief and Operator Protection Surrounds the male or female cable connector to protect the cable connections and to provide cable strain relief. <u>Click here for an example.</u>
- Screw Terminal Block A type of connector block that uses screw terminals as the method for connecting wires to your sensor. <u>Click here for an</u> 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. <u>Click here for an example.</u>

Additional Resources

- <u>C Series I/O Cable & Accessory Compatibility Guide</u>
- C Series Module Compatibility ChartShop for Terminal Blocks