USER GUIDE AND SPECIFICATIONS

NI 9923

37-Pin DSUB to Screw-Terminal Connector Block

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NATIONAL INSTRUMENTS
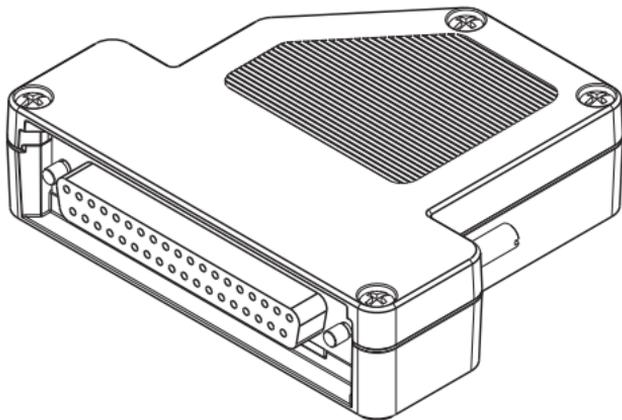
This user guide describes the features of the National Instruments 9923 DSUB to Screw-Terminal Connector Block. You can use the NI 9923 to create custom cables for C Series modules that use 37-pin DSUB connectors.

Note The NI 9923 is compatible with NI Compact FieldPoint devices.

Caution Do not remove the NI 9923 circuit board from the enclosure.

Caution Do not supply hazardous voltages (>30 V_{rms}/42 V_{pk}/60 VDC) to the NI 9923.
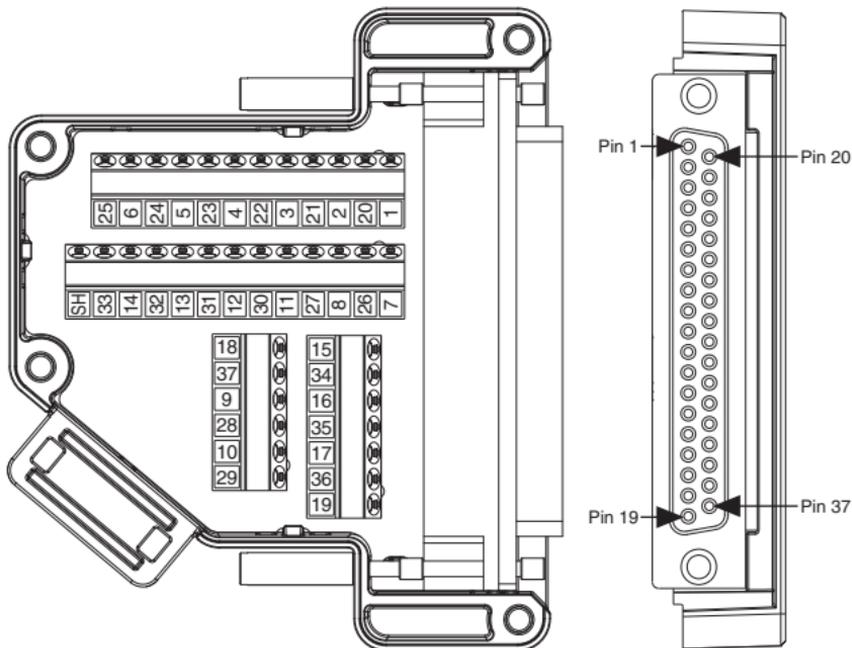
Caution Before using the NI 9923, read the *Operating Instructions and Specifications* for the C Series module to ensure compliance with safety, EMC, and environmental regulations.

Connecting the NI 9923

The NI 9923 provides connections for C Series 37-pin DSUB modules.

Figure 1. NI 9923 Terminal Assignments

Connecting the Signals

To wire the NI 9923, complete the following steps while referring to Figure 2.

> **Note** When using shielded wires or cable, use the SH terminal on the NI 9923 to terminate the shields.

1. Loosen the captive screws and remove the top cover.

2. Prepare the screw-terminal wire by stripping the insulation. Refer to the *Specifications* section for more information on screw-terminal wiring.

3. Insert the stripped end of the wire fully into the appropriate terminal. Make sure no exposed wire extends past the screw terminal.

4. Secure the connection by tightening the screw for the terminal. Refer to the *Specifications* section for information on screw-terminal torque.

5. Route the wire to the NI 9923 opening.

6. Remove slack in the NI 9923 wiring and secure the wires or cable by threading a zip tie through the two strain relief holes on the NI 9923 opening.

7. Reinstall the top cover on the NI 9923 and tighten the four captive screws.

Figure 2. NI 9923 Parts Locator Diagram
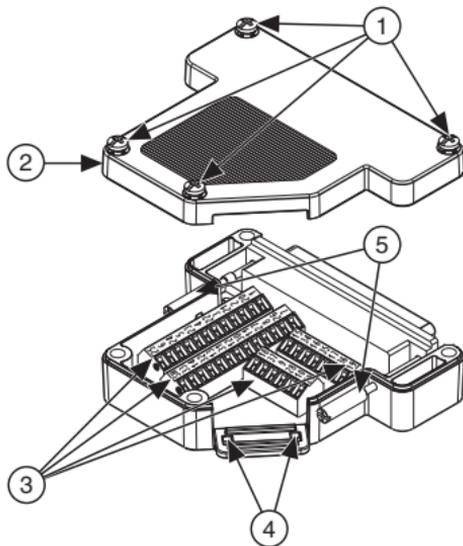
| 1	Captive Screws	3	Terminals	5	Jackscrews
2	Top Cover	4	Strain Relief Holes		

Installing the NI 9923

Connect the NI 9923 to the 37-pin DSUB connector on the module as shown in Figure 3. Tighten the two jackscrews on the NI 9923 to hold it securely in place. Do *not* overtighten the jackscrews. Refer to Figure 2 for the location of the jackscrews.

Figure 3. Installing the NI 9923
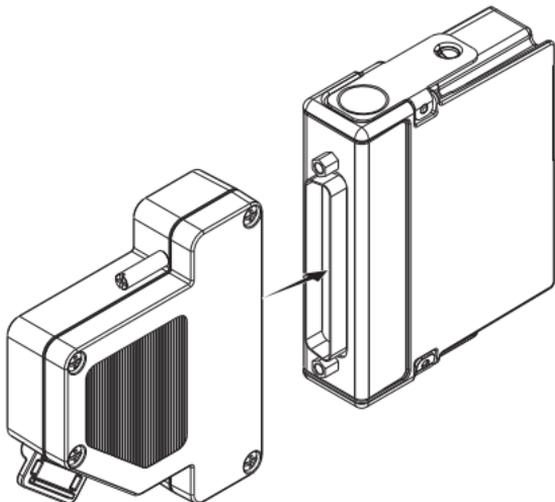
Specifications

The following specifications are typical unless otherwise noted.

Maximum voltage .... 30 V_{rms}/42 V_{pk}/60 VDC

Operating temperature .... –40 °C to 70 °C

Maximum current rating by temperature

    Pins 9, 10, 19, 28, & 29
        –40 °C to 55 °C .... ≤5 A
        56 °C to 70 °C .... ≤4 A

    Pins 1–8, 11–18, 20–27, & 30–37
        –40 °C to 55 °C .... ≤1 A
        56 °C to 70 °C .... ≤1 A per channel,
                                       ≤16 A aggregate

Screw-terminal wiring .... 16 AWG to 26 AWG copper conductor wire with 4.5 mm (0.18 in.) of insulation stripped from the end

Torque for screw terminals .... 0.4 N · m max (3.4 lb · in. max)

Weight .... 82 g (2.9 oz)

Where to Go for Support

The National Instruments Web site is your complete resource for technical support. At ni.com/support you have access to everything from troubleshooting and application development self-help resources to email and phone assistance from NI Application Engineers.

National Instruments corporate headquarters is located at 11500 North Mopac Expressway, Austin, Texas, 78759-3504. National Instruments also has offices located around the world to help address your support needs. For telephone support in the United States, create your service request at ni.com/support and follow the calling instructions or dial 512 795 8248. For telephone support outside the United States, visit the Worldwide Offices section of ni.com/niglobal to access the branch office Web sites, which provide up-to-date contact information, support phone numbers, email addresses, and current events.