# RTI-12308 Getting Started

2025-03-22

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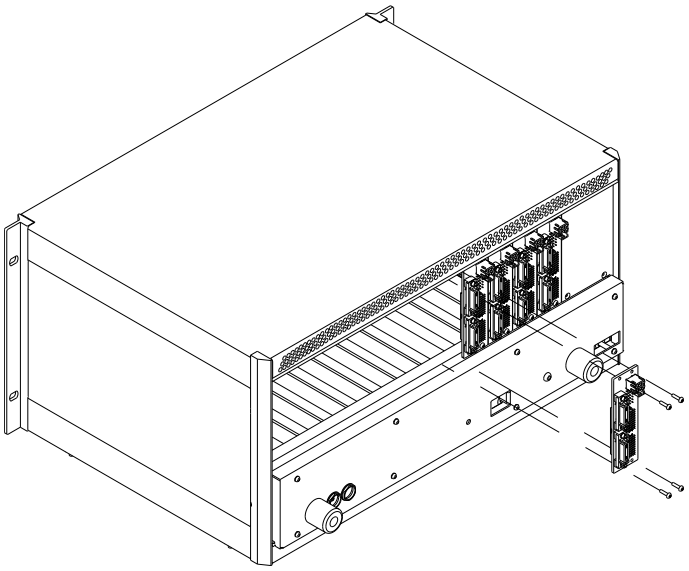
# RTI-12308 Getting Started

This document describes the features of the RTI-12308. You can use the RTI-12308 to connect to any SLSC module supporting fully compatible rear I/O. The two 26-pin MDR connectors provide access to up to 4 banks of signals for DIO, AI, or AO.

**Note** Before you begin, read the ***RTI-12308 Safety, Environmental, and Regulatory Information*** document and complete the software and hardware installation procedures in your chassis documentation.

# Installing the RTI-12308

**Figure 1.** Installing the RTI-12308 into the SLSC chassis



**Caution** Do not touch the contacts or remove the I/O boards or cables while the system is energized.

Complete the following steps to install the RTI-12308 in the chassis.

1. Power off the main DC power source or disconnect it from the chassis before installing any RTIs.
2. Ensure that the chassis is powered off.
   The POWER LED should be off. If it is not off, do not proceed until it is off.
3. Loosen the screws of the upper rear panel of the chassis.
4. Position the RTI-12308 at the desired slot and insert the securing screws, but do not fully tighten them.
5. Insert an SLSC module into the same slot as its corresponding RTI-12308 while firmly holding the RTI-12308 in place until the RTI-12308 is firmly connected to the module.
6. Repeat steps 4 and 5 for all required RTIs.
7. Tighten the screws for all RTI-12308s and the screws of the upper rear panel of the chassis.

This ensures proper alignment for future connections between modules and RTIs.

8. Tighten the two module mounting screws on each newly installed module.

## Connecting JH1

To connect JH1, complete the following steps.

1. Prepare a terminal wire for JH1 by stripping insulation and installing a Molex Ultra-Fit™ crimp terminal following the manufacturer's specifications.
2. Insert a prepared terminal into an appropriate terminal socket of Molex Ultra-Fit™ 6-position receptacle housing.
3. Repeat steps 1 and 2 for all appropriate terminals.
4. Insert a receptacle housing into JH1 until the plastic retention latch snaps into place.
   JH1 is keyed to prevent reverse installation of the receptacle housing.

# RTI-12308 Pinout

**Figure 2.** RTI-12308 Front View

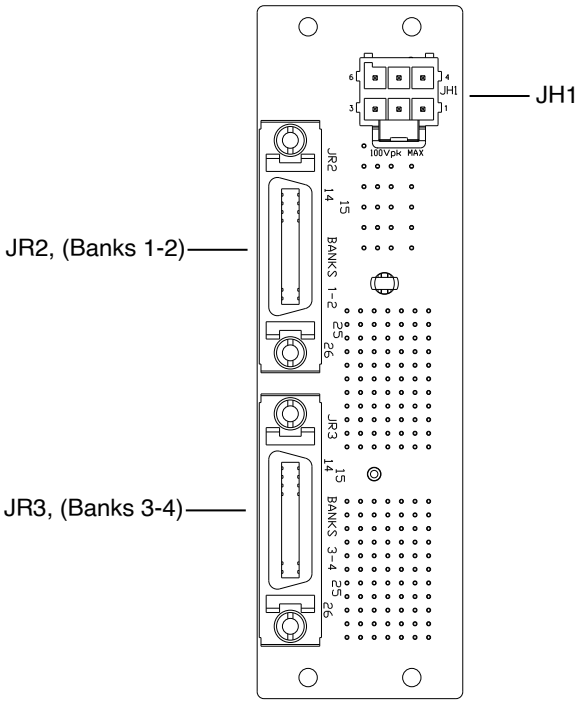



**Figure 3.** JH1 Pinout

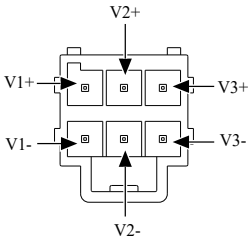



**Table 1.** JH1 Connector Descriptions

| JH1 Signal | XP4 Contact | JH1 Pin | Description |
|---|---|---|---|
| V1+ | F | 6 | Positive voltage for signal 1 |
| V1- | E | 3 | Negative voltage/Return for signal 1 |
| V2+ | D | 5 | Positive voltage for signal 2 |
| V2- | C | 2 | Negative voltage/Return for signal 2 |

| JH1 Signal | XP4 Contact | JH1 Pin | Description |
|---|---|---|---|
| V3+ | B | 4 | Positive voltage for signal 3 |
| V3- | A | 1 | Negative voltage/Return for signal 3 |

**Figure 4.** User I/O Pinout

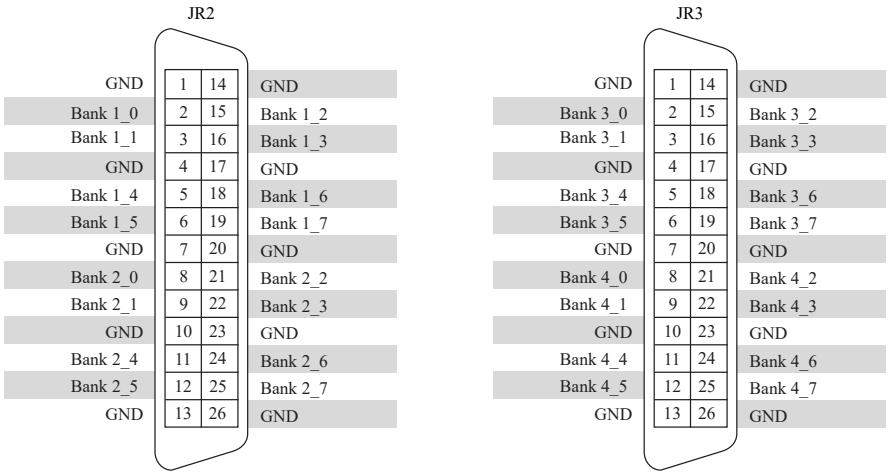



**Table 2.** JR2 and JR3 Connector Signal Descriptions

| Signal | Description |
|---|---|
| Bank ***x_y*** | Line ***y*** in Bank ***x*** |
| GND | Ground connection |

# Design Standards and Compatibility

| | |
|---|---|
| SLSC Module Design Specifications Version | 1.6 |
| RTI compatibility category | Fully Compatible Rear I/O; Digital Input/Output, Analog Input, or Analog Output up to 4 signal banks |

# Physical Characteristics

| | |
|---|---|
| SLSC RTI slots | 1 |
| Dimensions | 101.9 mm x 30.2 mm x 49.0 mm (4.01 in. x 1.19 in. x 1.93 in.) |
| Weight | 49.0 g (1.7 oz) |
| **Rear connectors** | |
| JH1 | 6-position Molex Ultra-Fit™, keyed white (recommended mating connector—Molex 172258-4106; recommended crimp terminal—Molex 172253-6011; recommended wire size 16 AWG - 18 AWG (UL 1061 or equivalent); minimum wire temperature rating 80 °C; minimum wire voltage rating 100V) |
| JR2 and JR3 | 26-position female MDR connectors |
| **Connectors to SLSC module(s)** | |
| XP2 | 110-pin Hard Metric type A |
| XP4 | 6-blade Universal Power Module (UPM) |

# Product Certifications and Declarations

Refer to the product Declaration of Conformity (DoC) for additional regulatory compliance information. To obtain product certifications and the DoC for NI products, visit ni.com/product-certifications, search by model number, and click the appropriate link.

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