

# SCXI™-1315 LVDT TERMINAL BLOCK

This guide describes how to install and use the SCXI-1315 terminal block with your SCXI-1540 module.

## Introduction

---

The SCXI-1315 terminal block is used with the SCXI-1540 LVDT module to allow convenient connection to linear variable differential transformers (LVDTs), rotary variable differential transformers (RVDTs), and resolvers through screw terminals. There are 48 terminals arranged in eight groups of six. Each group corresponds to one of the eight channels available on the SCXI-1540. The signal names of the six terminals for the  $n$ th channel are as follows:

- CH+( $n$ )—input signal from the LVDT secondary, positive terminal
- CH-( $n$ )—input signal from the LVDT secondary, negative terminal
- GND—ground
- SYNC( $n$ )—input synchronization signal
- EX+( $n$ )—excitation signal to the LVDT primary, positive terminal
- EX-( $n$ )—excitation signal to the LVDT primary, negative terminal

For a complete description of the use and operation of the SCXI-1540 module, refer to the *SCXI-1540 User Manual*.

## What You Need to Get Started

---

To set up and use your SCXI-1315 terminal block, you need the following items:

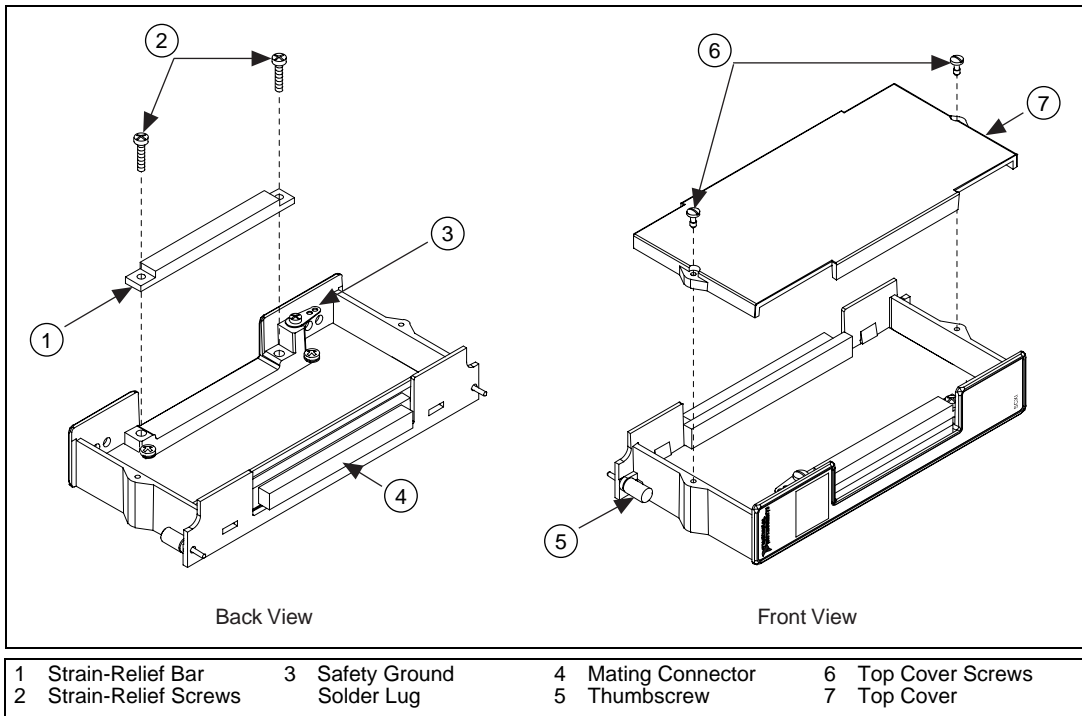
- SCXI-1315 terminal block
- SCXI-1315 LVDT Terminal Block Installation Guide*
- SCXI chassis

- ❑ SCXI-1540 module
- ❑ *SCXI-1540 User Manual*
- ❑ Number 1 and 2 Phillips-head screwdrivers
- ❑ 1/8 in. flathead screwdriver
- ❑ Long-nose pliers
- ❑ Wire cutter
- ❑ Wire insulation stripper

## Signal Connection

To connect the signal to the terminal block, perform the following steps, referring to Figures 1 and 2 as necessary:

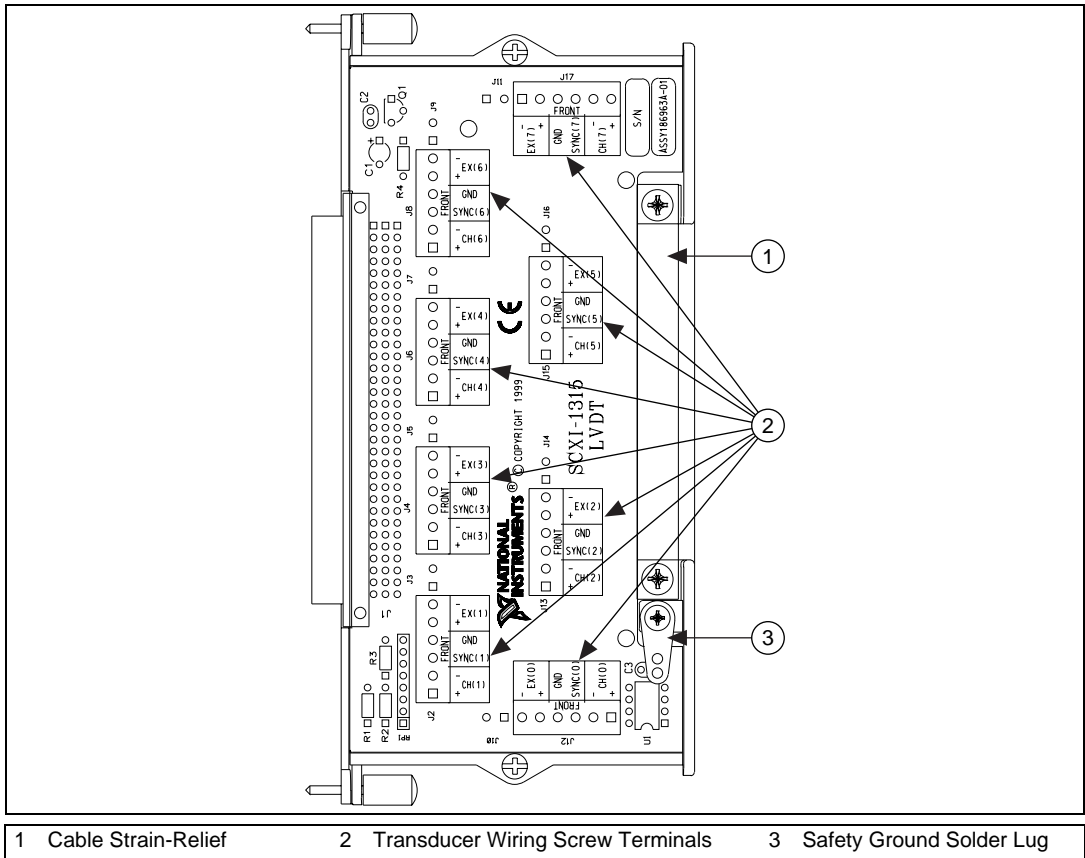
1. Unscrew the top cover screws and remove the cover.
2. Loosen the strain-relief screws and remove the strain-relief bar.



**Figure 1.** SCXI-1315 Parts Locator Diagram

3. Run the signal wires through the strain-relief opening. You can add insulation or padding if necessary.
4. Prepare your signal wire by stripping the insulation no more than 7 mm.
5. Connect the signal wires to the screw terminals by inserting the stripped end of the wire fully into the terminal. No bare wire should extend past the screw terminal. Exposed wire increases the risk of a short circuit that might cause the circuit to fail.

When connecting your signals to the SCXI-1315, follow the labeling on the SCXI-1315, as indicated in Figure 2.



**Figure 2.** SCXI-1315 Signal Connections

6. Tighten the screws to a torque of 5 to 7 in.-lb.
7. Reinstall the strain-relief bar and tighten the strain-relief screws.
8. Reinstall the top cover and tighten the top cover screws.
9. Connect the terminal block to the module front connector as explained in the [Installation](#) section later in this guide.

# Installation

---

To connect the terminal block to the SCXI module front connector, perform the following steps:

1. Connect the module front connector to its mating connector on the terminal block.
2. Tighten the top and bottom thumbscrews on the back of the terminal block to hold it securely in place.

# Cleaning the Terminal Block

---

Clean the terminal block by brushing off light dust with a soft, nonmetallic brush. Remove other contaminants with deionized water and a stiff nonmetallic brush. The unit must be completely dry and free from contaminants before returning to service.

# Specifications

---

All specifications are typical at 25 °C unless otherwise specified.

## Environment

Operating temperature .....0 to 50 °C

Storage temperature .....-20 to 70 °C

Relative humidity .....10 to 90%

Indoor use only

