

# SCXI Terminal Block for Class 2 TEDS Sensors

## NI SCXI-1314T

- Front-mount terminal block for SCXI-1520 bridge input module
- TEDS reader for Class 2 bridge sensors
- Factory-installed, socketed 100 k $\Omega$  shunt calibration resistor per channel
- RJ-50 connectors (one per channel for both sensor and TEDS data)

### SCXI-1520 Conditioning

- Programmable excitation (0-10 V)
- Programmable filter (10 Hz-10 kHz)
- Bridge completion
- Programmable null calibration

### Operating Systems

- Windows 2000/NT/XP

### Recommended Software

- LabVIEW™

### Other Compatible Software

- LabWindows™/CVI™
- Measurement Studio™

### Measurement Services Software

- NI-DAQmx



## Overview

The National Instruments SCXI-1314T is a front-mount terminal block for the SCXI-1520 bridge input module. It is compatible with any Class 2 TEDS (Transducer Electronic Data Sheet) bridge-based sensors as well as voltage-output sensors (up to  $\pm 10$  V). The NI SCXI-1314T plugs directly into the front of the SCXI-1520. It includes the TEDS reader and RJ-50 connector per channel. A 100 k $\Omega$  shunt calibration resistor on each channel can be programmatically engaged.

## Sensors Plug&Play

The IEEE 1451.4 standard delivers plug-and-play capability to analog sensors. End users, systems integrators, and developers can automate the configuration of measurement systems for analog sensors. By defining an easy add-on approach that brings TEDS benefits to all types of sensors, the standard makes data acquisition systems easier to set up, configure, and maintain. The TEDS structure is compact and flexible enough to handle a very wide range of sensor requirements.

## Smart TEDS Sensors

An IEEE 1451.4 smart TEDS sensor consists of the analog components and an embedded memory chip, which together provide the mixed-mode interface for analog and digital signals. A smart

TEDS sensor identifies and describes itself – providing the manufacturer, sensor model number, serial number, measurement range, sensitivity, and calibration information. TEDS information resides on a memory chip (EEPROM) within the sensor and is accessed by measurement systems via serial interface. The SCXI-1314T provides the digital communication to the TEDS EEPROM as well as the physical connectivity to both the analog and digital sensor signals. All signal conditioning is provided by the SCXI-1520 module to which it is connected.

## LabVIEW and NI-DAQmx

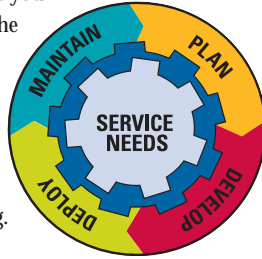
A fundamental component of any Sensors Plug&Play system is the TEDS processing software. National Instruments developed the TEDS library for LabVIEW to implement the TEDS reading and writing functions. In addition, you can perform basic TEDS reading and configuration direct in NI-DAQmx, reducing set up time and system complexity.

## Ordering Information

NI SCXI-1314T .....777687-14T

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## Hardware Services

### NI Factory Installation Services

NI Factory Installation Services (FIS) is the fastest and easiest way to use your PXI or PXI/SCXI™ combination systems right out of the box. Trained NI technicians install the software and hardware and configure the system to your specifications. NI extends the standard warranty by one year on hardware components (controllers, chassis, modules) purchased with FIS. To use FIS, simply configure your system online with [ni.com/pxiadvisor](http://ni.com/pxiadvisor).

### Calibration Services

NI recognizes the need to maintain properly calibrated devices for high-accuracy measurements. We provide manual calibration procedures, services to recalibrate your products, and automated calibration software specifically designed for use by metrology laboratories. Visit [ni.com/calibration](http://ni.com/calibration).

### Repair and Extended Warranty

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