
TBX-24F Feedthrough Terminal Block

This guide describes how to install and use the TBX-24F feedthrough terminal block with your SCXI terminal block and SCXI module.

Introduction

The TBX-24F is a DIN-rail mountable, pluggable terminal block. It connects to your SCXI module via your SCXI terminal block, unless you are using the SCXI-1161. The TBX-24F connects directly to the SCXI-1161 front connector because it has internal terminal blocks. You can use the TBX-24F with any SCXI module.

The TBX-24F mounts on most European standard DIN EN mounting rails.

What You Need to Get Started

- TBX-24F kit
 - TBX-24F feedthrough terminal block
 - TBX-24F Feedthrough Terminal Block Installation Guide*
 - Self-adhesive blank labels (to identify signals)
 - 1/8 in. flathead screwdriver
- SCXI chassis
- SCXI module and documentation
- SCXI terminal block and documentation

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Rack Mounting

If you are using the National Instruments TBX rack-mount assembly, refer to the *TBX Rack-Mount Kit Installation Guide* for instructions on mounting the TBX assembly into your rack. If you are not using this rack-mount assembly, perform the following step to mount the TBX assembly directly onto your DIN rail.

1. Snap the TBX-24F onto the DIN rail with a firm push.

To remove the TBX-24F from the DIN rail, place a flathead screwdriver into the slot above its base and pry it from the rail.

Signal Connection

The following warnings contain important safety information concerning the use of hazardous voltage levels with your TBX-24F terminal block.

Warnings: ***SHOCK HAZARD: Only qualified personnel aware of the dangers involved should use this product. If signal wires are connected to the terminal block, dangerous voltage levels may exist even when the equipment is turned off. Before you remove or work with any installed terminal block, disconnect the AC power line or any high-voltage sources (≥ 30 Vrms, 42.4 V peak, or 60 VDC) that may be connected to the terminal block. National Instruments is NOT liable for any damages or injuries due to misuse of high-voltage signals connected to the terminal block.***

When using the terminal block with high voltage levels, you MUST insulate all signal wires appropriately to the highest voltage the terminal block may come in contact with. National Instruments is NOT liable for any damages or injuries resulting from inadequate signal wire insulation.

To connect your signals to the TBX-24F feedthrough terminal block for use with SCXI modules, perform the following instructions. Refer to your SCXI module documentation for examples of how to connect field signals and loads. See Figure 1 for the completed connection.

1. Turn off your SCXI chassis.
2. Turn off the computer that contains your data acquisition device or disconnect the device from your SCXI chassis.
3. Connect the TBX-24F DIN-rail mountable terminals to your SCXI terminal block or module using appropriately insulated wires.
4. Connect your field signal wires to the TBX-24F pluggable terminal that connects to the appropriate terminal for your SCXI module (see Figure 2).

- Write your signal names on the self-adhesive labels and affix the labels to your TBX-24F DIN-rail mountable and pluggable terminals (see Figure 2).

Figure 1 shows the TBX-24F connected to an SCXI module via a terminal block, as well as connected directly to an SCXI-1161 module.

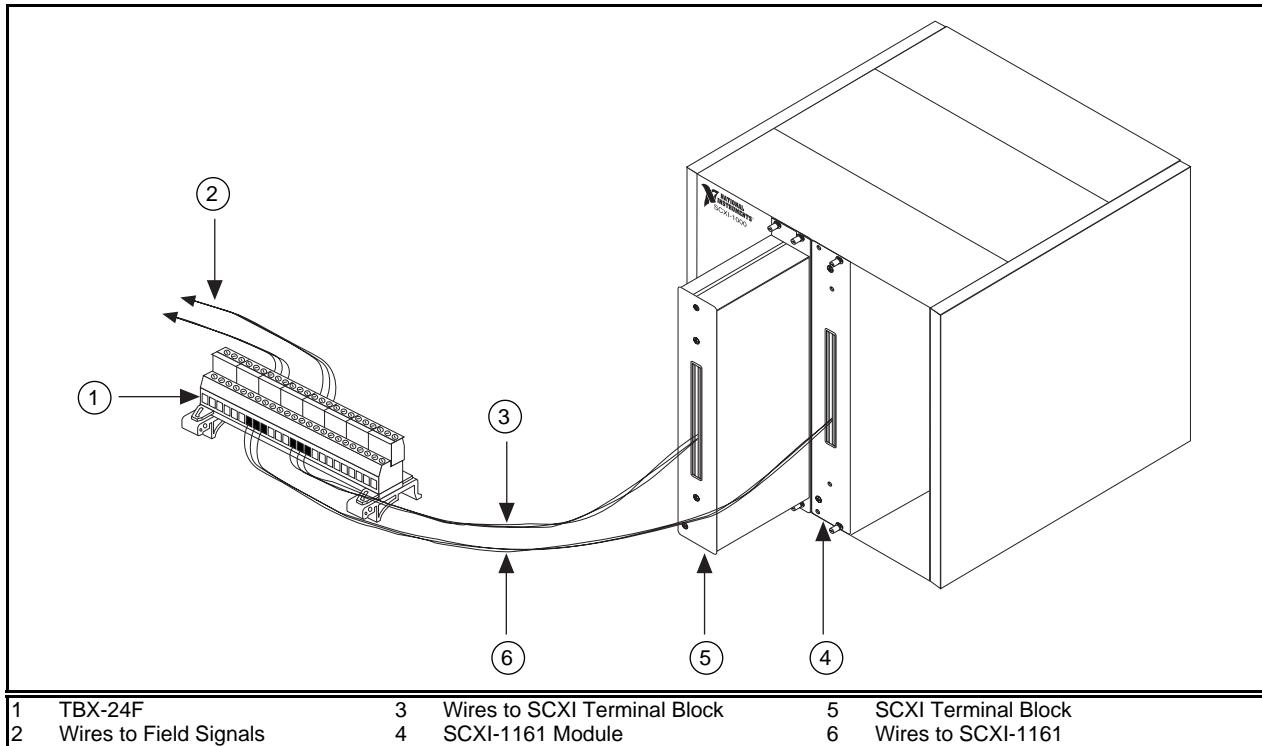


Figure 1. TBX-24F Connection

Figure 2 shows a unique feature of the TBX-24F; there are eight sets of three pluggable terminals you can use to disconnect field wires from your system without disconnecting them from the terminals. For example, you can remove the plug, with field wires intact, and then connect the field wires to another terminal block or measuring device. The plugs are keyed so that you can only insert them one way.

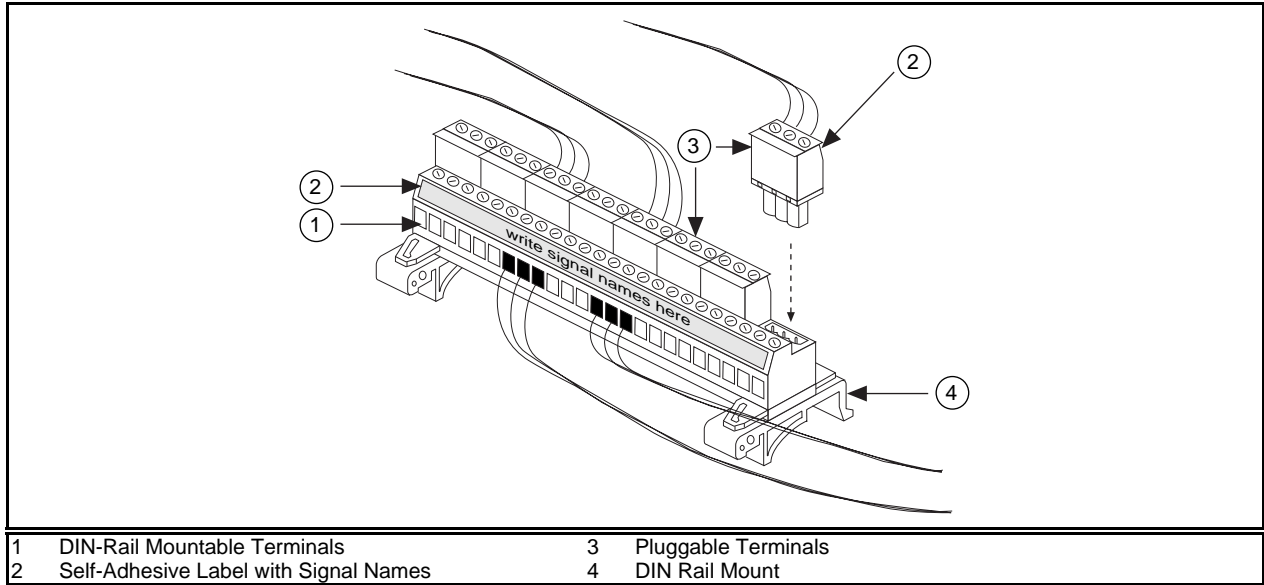


Figure 2. TBX-24F Components

Specifications

Number of positions.....	24
Maximum voltage	250 V
Maximum current.....	12 A
AWG	24–12
Compatible DIN rails	DIN EN 50 022 DIN EN 50 035
Terminal block dimensions.....	12.34 x 4.24 x 5.08 cm (4.86 x 1.67 x 2.0 in.)



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