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Find the *National Instruments TBX-1316* at our website: ***Click HERE***

SCXI High-Voltage Attenuator Terminal Block

NI TBX-1316

- Cabled terminal block for:
  - SCXI-1125 (recommended)
  - SCXI-1120/D
  - SCXI-1126
- Input voltage range
  - 1,000 V Cat I
  - 600 V Cat II
- 200:1 attenuation (fixed)
- 8 differential input channels
- Lockable shielded metal enclosure
- Screw-terminal signal connectivity
- Secure strain-relief wire collars
- Flanges for panel mounting

Operating Systems
- Windows 2000/NT/XP

Recommended Software
- LabVIEW
- LabWindows/CVI
- Measurement Studio

Other Compatible Software
- Visual Basic, C, C++

Measurement Services Software
- NI-DAQmx Driver Software



Overview

The National Instruments TBX-1316 is a high-voltage attenuator terminal block for the SCXI-1125, SCXI-1120/D, and SCXI-1126 analog input modules. The NI TBX-1316 extends the input voltage range for AC/DC signals to 1,000 V for Category I installations and 600 V for Category II installations. For voltage measurements, the TBX-1316 is recommended for use with the SCXI-1125, but can also be used with the SCXI-1120/D. For frequency measurements, you can use the TBX-1316 with the SCXI-1126.

Features

The TBX-1316 provides 200:1 attenuation for eight differential input channels. Screw terminals provide connectivity for primary, neutral, and ground connections. Additionally, wire strain-relief collars secure cables in place. A rigid metal enclosure ensures safety and proper grounding and also assists in easy panel-mount installation. The TBX-1316 contains calibration EEPROMs, which when used with the SCXI-1125, provide calibration information specific to each input channel. The SH3232 shielded cable should be used to connect the TBX-1316 to the analog input module.

Measurement Services Software

NI-DAQmx is the robust driver software included with all National Instruments data acquisition and signal conditioning products. This easy-to-use software tightly integrates the full functionality of your DAQ hardware to NI LabVIEW, LabWindows/CVI, and Measurement Studio for Visual Basic. High-performance features include multidevice synchronization, networked measurements, and DMA data management. Bundled with NI-DAQmx, Measurement & Automation Explorer (MAX) simplifies measurement hardware configuration with device test panels, interactive measurements, and scaled I/O channels. NI-DAQmx also provides numerous example programs for LabVIEW and other application development environments to get you started with your application quickly.

Ordering Information

NI TBX-1316 777207-16

BUY NOW!

For complete product specifications, pricing, and accessory information, call (800) 813 3693 (U.S. only) or go to **ni.com/signalconditioning**.

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SCXI High-Voltage Attenuator Terminal Block

Specifications

Input Voltage Range

Input Voltage Range	
AC/DC	1,000 V Category I
AC/DC	600 V Category II
Max input current per channel	50 µA
Impulse overvoltage	4000 V
Bandwidth (3 dB)	
SCXI-1125	400 Hz
SCXI-1120	400 Hz
Attenuation ratio	200:1 (fixed)
Attenuation-ratio accuracy	
Uncalibrated	1% max
Attenuation-ratio temperature drift	20 ppm/°C max
Differential input resistance	44 MΩ typ

Physical

NI recommends that the TBX-1316 be permanently connected equipment with an appropriate UL Listed external breaker for each line. Enclosure protective earth (PE) ground must be installed.

Dimensions	30.48 by 25.40 by 15.24 cm (12 by 10 by 6 in.)
Weight	5.8 kg (12.8 lb)
Strain-relief cable diameter	6 to 12 mm signals (0.24 to 0.47 in.) 4 to 8 mm PE ground (0.157 to 0.314 in.)

Note: If your application cable diameter is smaller than what is listed above, replace the supplied strain reliefs with the following strain reliefs or their equivalents. These strain reliefs are not supplied with the TBX-1316.

Strain-relief cable diameter	5 to 9 mm signals (0.197 to 0.354 in.) SKINTOP # S2213 2 to 6 mm PE ground (0.079 to 0.236 in.) SKINTOP # S2209
Strain reliefs available	8 signals 1 PE ground
Field wire	
Diameter	6 to 20 AWG
Temperature rating	90 °C
Connector type	Screw terminal

Environmental

Operating temperature	0 to 55 °C
Storage temperature	–20 to 70 °C
Relative Humidity	10 to 90%, noncondensing
Maximum altitude	2,000 m
Pollution degree (indoor use only)	2

Safety

The TBX-1316 is designed to meet the requirements of the following standards of safety for electrical equipment for measurement, control, and laboratory use:

- IEC 61010-1, EN 61010-1
- UL 61010-1
- CAN/CSA-C22.2 No. 61010-1

Note: For UL and other safety certifications, refer to the product label, or visit ni.com/certification, search by model number or product line, and click the appropriate link in the Certification column.

Electromagnetic Compatibility

Emissions	EN 55011 Class A at 10 m FCC Part 15A above 1 GHz
Immunity	EN 61326:1997 + A2:2001, Table 1
EMC/EMI	CE, C-Tick, and FCC Part 15 (Class A) Compliant

Note: For EMC compliance, operate this device with shielded cabling.

CE Compliance

The TBX-1316 meets the essential requirements of applicable European Directives, as amended for CE marking, as follows:

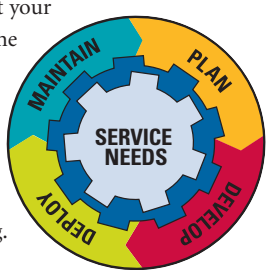
Low-Voltage Directive (safety)	73/23/EEC
Electromagnetic Compatibility	
Directive (EMC)	89/336/EEC

Note: Refer to the Declaration of Conformity (DoC) for this product for any additional regulatory compliance information. To obtain the DoC for this product, visit **ni.com/certification**, search by model number or product line, and click the appropriate link in the Certification column.

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We also offer service programs that provide automatic upgrades to your application development environment and higher levels of technical support. Visit ni.com/ssp.

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.

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.

Repair and Extended Warranty

NI provides complete repair services for our products. Express repair and advance replacement services are also available. We offer extended warranties to help you meet project life-cycle requirements. Visit ni.com/services.

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