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NI SCXI-1520

8-Channel Universal Strain Gage Input Module

- 8 simultaneously sampled analog input channels; quarter-, half-, and full-bridge completion
- Programmable excitation (0 to 10 V) per channel
- Programmable gain (1 to 1000) per channel
- Programmable 4-pole Butterworth filter (10 Hz, 100 Hz, 1 kHz, 10 kHz) per channel
- NI-DAQmx measurement services software to simplify configuration and measurements



Overview

Use the "Configure System" link above to configure an SCXI DAQ system based on this module.

The NI SCXI-1520 is an 8-channel universal strain gage input module that offers all of the features you need for simple or advanced strain measurements. With this single module, you can read signals from strain, force, torque, and pressure sensors. The SCXI-1520 includes an onboard reference for automatic calibration in changing environments. It offers a programmable amplifier and programmable 4-pole Butterworth filter on each channel. Each channel also has an independent 0 to 10 V programmable excitation source. In addition, the SCXI-1520 system offers a half-bridge completion resistor network in the module and a socketed 350 Ω quarter-bridge completion resistor in the NI SCXI-1314 terminal block. A 120 Ω quarter-bridge completion resistor is also included with the terminal block.

An SCXI chassis is required to house the SCXI modules. The NI SCXI-1000 chassis can hold up to four modules while the NI SCXI-1001 can hold up to 12. You can choose NI X Series, M Series, E Series, or S Series DAQ modules for controlling the chassis.

Specifications

Specifications Documents

- Specifications (2)
- Data Sheet

Specifications Summary

General	
Product Name	SCXI-1520
Product Family	Signal Conditioning
Form Factor	SCXI
Part Number	777966-20

Operating System/Target	Real-Time , Linux , Windows
LabVIEW RT Support	Yes
Measurement Type	Strain gauge , Bridge-based sensor
RoHS Compliant	No
Signal Conditioning	Voltage excitation , Bridge completion , Low-pass filtering
Analog Input	
Channels	0 , 8
Single-Ended Channels	0
Differential Channels	8
Max Voltage	10 V
Maximum Voltage Range	-10 V , 10 V
Minimum Voltage Range	-10 mV , 10 mV
Simultaneous Sampling	Yes
Input Impedance	1 GOhm
Available Filters	1 kHz , 10 Hz , 100 Hz , 10 kHz
Excitation Voltage	0 V , 10 V
Bridge Configurations	Full Bridge , Quarter Bridge , Half Bridge
Analog Output	
Channels	0
Digital I/O	
Bidirectional Channels	0
Input-Only Channels	0
Output-Only Channels	0
Number of Channels	0
Counter/Timers	
Counters	0
Physical Specifications	
Length	20.3 cm
Width	17.2 cm
Height	3 cm
I/O Connector	Screw terminals

Minimum Operating Temperature	0 °C
Maximum Operating Temperature	50 °C
Minimum Storage Temperature	-20 °C
Maximum Storage Temperature	70 °C
Timing/Triggering/Synchronization	
Triggers cDAQ Chassis	No