

64-Channel External Relay Driver

NI PXI-2567, NI SCXI-1167

- Controls up to 64 single-side stable relays (or 32 2-coil latching relays)
- Accepts internal and external power
 - Up to 50 V
 - Up to 600 mA per channel
- High-power protection circuitry
- Hardware or software scanning
- 32,000-step scan list for deterministic scanning
- Programmable switching delay

Applications

- High-current relays
- RF relays
- Small DC motors
- Existing embedded relays

Operating Systems

- Windows 2000/NT/XP

Recommended Software

- LabVIEW™
- LabWindows™/CVI™
- Measurement Studio
- NI Switch Executive

Other Compatible Software

- Visual Basic
- C/C++

Driver Software (included)

- NI-SWITCH

NEW



Overview

The National Instruments PXI-2567 and SCXI-1167 are designed to be 64-channel, multipurpose relay drive modules, capable of driving many types of external relays. The relay driver is the ideal choice when the current and voltage requirements for relays exceed those found in existing relay modules (or for relays embedded in a test system). High-current, high-voltage, or multipole RF switches all fit into the realm of possibilities. The NI PXI-2567 and NI SCXI-1167 can also drive small DC motors or other inductive relay coils.

Internal and External Power Support

The PXI-2567 and SCXI-1167 can provide up to 50 V or 600 mA of drive capacity per channel when connected to an external power supply. Without an external power supply, the PXI-2567 can source up to 1.25 A from the 5 V pin or 500 mA from the 12 V pin provided by the PXI backplane. The SCXI-1167 can supply up to 750 mA at 5 V without an external power source. No one channel can drive more than 600 mA with either an internal or external source, and total module current is limited to 25 A of simultaneous drive.

Protection Circuitry

The eight banks of eight drivers in the PXI-2567 and SCXI-1167 protect against overvoltage and overcurrent conditions. When the condition clears, the channel is automatically reset so no disassembly of the module is required. A fly-back diode is also included to protect against damage from inductive loads.

Automatic Scanning

The PXI-2567 and SCXI-1167 are able to maximize throughput in automated test applications by the use of scanning. Scanning improves throughput by downloading a list of up to 32,000 connections to the switch modules and cycling through the list using an event (trigger) without any interruption from the host processor. Scanning is most efficiently accomplished by mating the PXI-2567 or SCXI-1167 with an instrument, such as the NI PXI-4070 FlexDMM, that issues a trigger after each measurement.

Software

All National Instruments PXI and SCXI switch modules are shipped with NI-SWITCH, an IVI-compliant driver offering complete functionality for all switch modules. For additional assistance in configuring, programming, and managing higher-channel-count switching systems, NI Switch Executive software offers an easy-to-use intelligent switch management and visual routing environment.

64-Channel External Relay Driver

Ordering Information

NI PXI-2567778572-67
NI SCXI-1167776572-67

Includes NI-SWITCH driver software and one mating connector and backshell kit.

BUY ONLINE!

Visit ni.com/info and enter *pxi2567* and/or *scxi1167*.

Specifications

Input Characteristics

Channels.....	64 single-coil nonlatching relay drivers, 32, 2-coil latching relays
Max drive voltage.....	50 V
Max drive current.....	600 mA
Maximum current per module.....	25 A

Internal Drive Power

PXI-2567.....	5 V, 1.25 A or 12 V, 0.5 A
SCXI-1167.....	5 V, 0.75 A

Dynamic Characteristics

Maximum operating speed.....	150 operations/s
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Physical

Dimensions	
PXI-2567.....	2 x 10 x 16 cm (.8 x 3.9 x 6.4 in.)
SCXI-1167.....	3.0 x 17.2 x 20.3 cm (1.2 x 6.9 x 8.0 in.)
I/O connector.....	78 pin D-Sub

Environment

Operating temperature.....	0 to 55 °C
Storage temperature.....	-40 to 70 °C
Relative humidity.....	5 to 85% noncondensing
Pollution degree.....	2
Approved at altitudes up to 2,000 m	
Indoor use only	

Safety

This product 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 3111-1, UL 61010B-1
- CAN/CSA C22.2 No. 1010.1

CE Compliance

This product 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

Global Services and Support

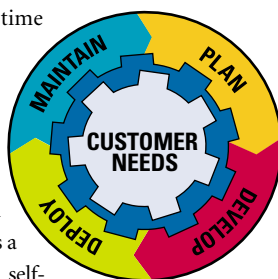
NI has the services and support to meet your needs around the globe and through the application life cycle – from planning and development through deployment and ongoing maintenance – and tailored for customer requirements in research, design, validation, and manufacturing. We have direct operations in more than 37 countries and distributors in another 12 locations. Our local sales and support representatives are degreed engineers, ready to partner with you to find solutions that best fit your needs.

Local Sales and Technical Support

In offices around the globe, our staff is local to the country so that you have access to field engineers who speak your language and are available to consult on your unique needs. We also have a worldwide support organization staffed with Applications Engineers trained to quickly provide superior technical assistance. Use our online Request Support interface (ni.com/support) to define your question, then speak to or e-mail an Applications Engineer, or access more than 14,000 worldwide measurement and automation professionals within NI Developer Exchange Discussion Forums. ni.com/support also provides immediate answers to your questions through self-help troubleshooting, product reference, and application development resources. For advanced technical support and software maintenance services, sign up for Premier Support, a program that provides expanded hours of support availability and expedited phone/e-mail response time (typically four business hours).

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