

100-Channel SPST (Form A) Relays

NEW

NI PXI-2569, NI SCXI-1169

- 100 independent SPST relays
- Maximum switch capacity
 - Up to 100 VDC, 100 VAC CAT I
 - Up to 1 A switching/1 A carry
- Latching relays
- 32,000-step scanlist for deterministic scanning
- Fully software programmable
- 145 operations/s
- Tight synchronization with instruments through hardware triggers

Operating Systems

- Windows 2000/NT/XP

Recommended Software

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

Other Compatible Software

- Visual Basic
- C/C++

Driver/Services Software (included)

- NI-SWITCH
- NI-DAQmx

Compliance

- UL
- CE



Overview

The National Instruments PXI-2569 and SCXI-1169 are 100-channel general-purpose switch modules, featuring SPST (Form A) armature relays. Ideal for medium-power automated test loads, these modules offers maximum relay density, with 100 latching relays in a single PXI or SCXI slot. The NI PXI-2569 and NI SCXI-1169 are able to switch up to 100 VDC/100 VAC or up to 1 A. These modules are fully software programmable and contain a 32,000-step scan list for deterministic scanning capability.

Relay Count Tracking

The PXI-2569 and SCXI-1169 count relay closures on each of their individual relays. Relay counts are incremented each time a relay is actuated. The counts, stored onboard the modules, are retrievable programmatically and can be used for predictive maintenance to reduce unexpected system downtime.

Automatic Scanning

The PXI-2569 and SCXI-1169 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 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-2569 or SCXI-1169 with a companion modular instrument that will issue a trigger after each measurement is complete.

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.

Ordering Information

NI PXI-2569	778572-69
NI SCXI-1169	776572-69
Includes NI-SWITCH driver software	

Accessories

LFH200 connector to bare wire switch cable	779038-01
LFH200 connector to 50-pin D-Sub switch cable	779038-02

NI Switch Executive

Development System	778546-01
Deployment Engine	778548-00

BUY NOW!

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

100-Channel SPST (Form A) Relays

Specifications

Maximum switching voltage

Channel-to-ground.....	100 V, CAT I
Channel-to-channel	100 V
Maximum current.....	1 A
(switching or carry, per channel)	
Simultaneous channels at	
maximum current (≥35°C).....	50
Maximum switching power	60 W, 62.5 VA (DC to 60 Hz)
(per channel, resistive)	
Typical DC path resistance	
Initial	<0.55 Ω
End of life	≥1 Ω
Thermal emf	≤12 μV
Bandwidth (-3 dB, typical at 23°C).....	≥20 MHz

Dynamic characteristics

Maximum speed.....	145 cycles/s
Relay operate time	
Typical	1 ms
Maximum.....	3.4 ms
Expected relay life	
Mechanical	1x10 ⁸ cycles
Electrical	
10 VDC, 100 mADC resistive.....	2.5x10 ⁶ cycles
10 VDC, 1 ADC resistive.....	1x10 ⁶ cycles
30 VDC, 1 ADC resistive.....	5x10 ⁵ cycles
60 VDC, 1 ADC resistive.....	1x10 ⁵ cycles

Physical

Relay types	electromechanical, latching
Contact material	palladium-ruthenium, gold covered
I/O connectors.....	200 POS LFH Matrix 50, receptacle
Dimensions	
PXI-2569.....	10 by 17.4 cm (3.9 by 6.9 in.) single-slot, 3U
SCXI-1169.....	3 by 17.3 by 19.5 cm (1.2 by 6.8 by 7.5 in.)

Environment

Operating temperature.....	0 to 55°C
Storage temperature.....	-20 to 70°C
Relative humidity	5 to 85% noncondensing
Pollution degree	2
Approved at altitudes up to 2,000 m	

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

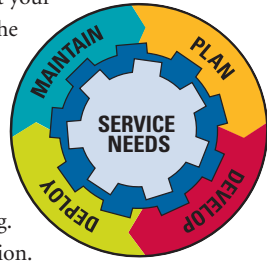
CE Compliance

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

NI Services and Support

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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.

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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.

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