

High-Density General-Purpose SPST Relays

NI PXI-2569

- 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 cycles/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 Software (included)

- NI-SWITCH

Compliance

- UL
- CE



Overview

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

Automatic Scanning

The PXI-2569 is 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 with an instrument, such as the NI PXI-4070 6½-digit FlexDMM, which issues a trigger after each measurement.

Software

All National Instruments PXI 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-2569778572-69
Includes switch module and NI-SWITCH driver software

Accessories

NI Switch Executive
Development System778546-01
Deployment Engine778548-00

BUY ONLINE!

Visit ni.com/info and enter *pxi2569*.

High-Density General-Purpose SPST Relays

Specifications

Input Characteristics

| | |
|------------------------------------|-----------------------------|
| Maximum switching voltage | |
| Channel-to-ground | 100 V, CAT I |
| Channel-to-channel | 100 V |
| Maximum current | |
| (switching or carry, per channel) | 1 A |
| 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 |
| End of life | ≤1 |
| Thermal EMF | ≤12 μV |
| Bandwidth (-3 dB, typical at 23°C) | ≤20 MHz |

Dynamic Characteristics

| | |
|----------------------------------|--------------------|
| Maximum speed | 145 cycles |
| Relay operate plus debounce time | |
| Typical | 1 ms |
| Maximum | 3.4 ms |
| Expected relay life | |
| Mechanical | 100,000,000 cycles |
| Electrical | |
| 10 VDC, 100 mADC, resistive | 2,500,000 cycles |
| 10 VDC, 1 ADC, resistive | 1,000,000 cycles |
| 30 VDC, 1 ADC resistive | 500,000 cycles |
| 60 VDC, 1 ADC resistive | 100,000 cycles |

Physical

| | |
|------------------|--|
| Relay types | electromechanical, latching |
| Contact material | palladium-ruthenium, gold covered |
| I/O connectors | 200 POS LFH Matrix 50, receptacle |
| Dimensions | 10 by 17.5 cm (3.9 by 6.9 in.) 1 3U slot |

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

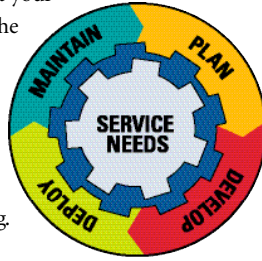
CE Compliance

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

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. We offer services and service levels to meet customer requirements in research, design, validation, and manufacturing. Visit ni.com/services.



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Hardware Services

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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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