Medium-Power General-Purpose SPST Relays

NI PXI-2568

- 31 independent SPST relays
- Maximum switch capacity
  Up to 150 VDC, 150 VAC
  Up to 2 A switching/2 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™ for Visual C++
- NI Switch Executive

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

Driver Software (included)
- NI-SWITCH

Compliance
- UL
- CE

NEW

Overview and Applications

The National Instruments PXI-2568 is a general-purpose 31-channel switch module, featuring independent SPST (Form A) armature relays. Each relay is latching with very low on-resistance and low thermal offsets. The NI PXI-2568 can switch up to 2 A at 30 VAC/30 VDC. With an efficient coupling of voltage/current capability and relay density, the PXI-2568 is ideal for automated test equipment (ATE) loads or for controlling heaters, lights, and fans.

Automatic Scanning

The PXI-2568 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-2568 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-2568 778572-68
Includes switch module and NI-SWITCH driver software

Accessories
NI Switch Executive
Development System 778546-01
Deployment Engine 778548-00

BUY ONLINE!
Visit ni.com/info and enter pxi2568.

NATIONAL INSTRUMENTS™

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Specifications

Input Characteristics

Maximum switching voltage	
Channel-to-ground	150 V, CAT I
Channel-to-channel	150 V
Maximum switching/carry current	2 A
Simultaneous channels at maximum switching current (25 °C)	31
Maximum switching power (per channel)	60 W, 62.5 VA
Typical DC path resistance	
Initial	<0.15 Ω
End of life	≥1 Ω
Thermal EMF	≤12 µV
Bandwidth (-3 dB)	≥40 MHz

Dynamic characteristics

Maximum speed	145 cycles/s
Relay operate 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	62-pin D-Sub
Dimensions	10 by 17.4 cm (3.9 by 6.9 in.) Single-slot, 3U

Environment

Operating temperature	0 to 55 °C
Storage temperature	-20 to 70 °C
Relative humidity	5 to 85% noncondensing
Pollution degree	2

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