10-Channel, 12 A SPST (Form A) Relays/Multiplexer

NI PXI-2585, NI PXI-2586

- Configurations
  - PXI-2585: 10x1 multiplexer
  - PXI-2586: 10 SPST (Form A) nonlatching relays
- Switch capacity
  - Up to 300 VDC/300 VAC CAT II
  - Up to 12 A switching/12 A carry
- Maximum switching power (per channel)
  - AC – 3000 VA (to 60 Hz)
  - DC – See Figure 1
- Onboard relay counting
- Fully software programmable
- 32,000-step scanlist for deterministic scanning
- Tight synchronization with instruments through hardware triggers
- 65 cycles/s

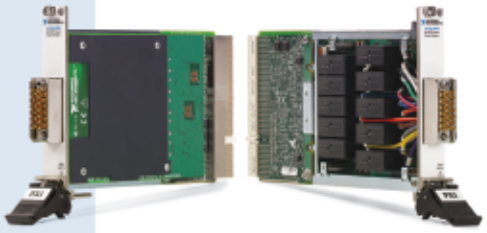
Operating Systems
- Windows 2000/NT/XP

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

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

Driver/Services Software (included)
- NI-SWITCH
- NI-DAQmx

NEW



Overview

The National Instruments PXI-2585 and PXI-2586 are high-power switch modules in a single-slot, 3U PXI form factor. They each have 10 channels, with the PXI-2585 configured as a 10x1 multiplexer and the PXI-2586 configured as independent SPST (Form A) relays. Both have low contact resistance and high isolation voltage. The NI PXI-2585 and PXI-2586, rated for both high currents (up to 12 A) and high voltages (up to 300 VDC/300 VAC), are ideal for switching power signals and loads in control applications, and battery, power supply, and automotive testing. In AC applications, they can switch up to 3000 VA. For DC, see Figure 1.

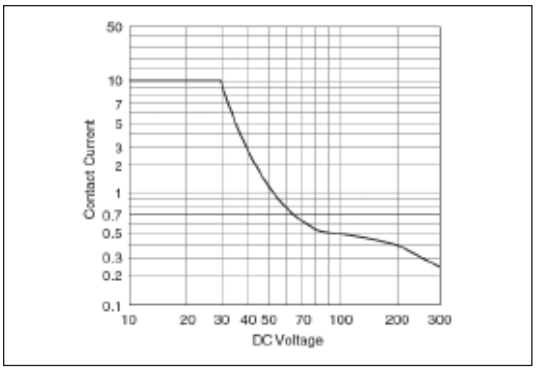


Figure 1. Maximum Switching Power for DC Loads (per channel)

Relay Count Tracking

The PXI-2585 and PXI-2586 count each relay closure on each of its high-power relays. The counts are stored onboard and can be retrieved as necessary for predictive maintenance to reduce unexpected system downtime.

Automatic Scanning

The PXI-2585 and PXI-2586 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-2585 and PXI-2586 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-2585 778572-85
NI PXI-2586 778572-86

Accessories
Connector and backshell 779168-01
NI Switch Executive
  Development System 778546-01
  Deployment Engine 778548-00

BUY ONLINE!

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

NATIONAL INSTRUMENTS™

10-Channel, 12 A SPST (Form A) Relays/Multiplexer

Specifications

Relay Characteristics

Number of channels
- PXI-2585 ..... 10x1
- PXI-2586 10

Relay type ..... SPST, normally open, nonlatching

Maximum switching voltage
- AC ..... 300 VAC
- DC ..... 300 VDC

Maximum switching current ..... 12 A

Maximum carry current ..... 12 A

Maximum AC switching power ..... 3000 VA

Maximum DC switching power

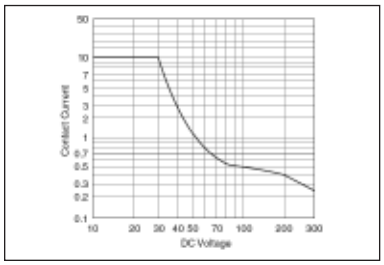


Figure 2. Maximum Switching Power for DC Loads (per channel)

DC path resistance
- Initial ..... ≤ 50 mΩ
- End of life ..... >100 mΩ

Minimum switching capacity ..... 12 V or 100 mA

Dynamic Characteristics

Maximum cycle speed ..... 65 cycles/s

Relay operate time
- Typical ..... 7.4 ms
- Maximum ..... 15.4 ms

Expected relay life
- Mechanical ..... 1 x 10^7 cycles
- Electrical
- 30 VDC, 10 ADC resistive ..... 1 x 10^5 cycles
- 30 VDC, 12 ADC resistive ..... 3 x 10^4 cycles

AC contact life

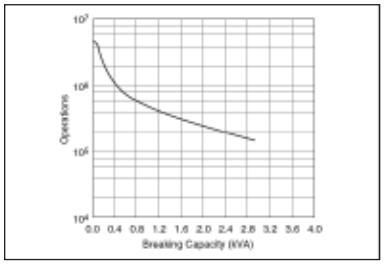


Figure 3. Contact Life for Resistive AC Load (Typical)

Physical

Relay type ..... Armature

Relay contact material ..... AgNi

I/O connector ..... Positronic GMCT20M0T0000

Dimensions ..... Single PXI slot, 3U

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 2000 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 61010-1
- CAN/CSA-C22.2 No. 61010-1

Electromagnetic Compatibility

Emissions ..... EN 55011 Class A at 10 m;

FCC ..... Part 15A above 1 GHz

Immunity ..... EN 61326:1997 + A2:2001, Table A.1

CE, C-Tick, and FCC Part 15 (Class A) Compliant

For EMC compliance, operate this device with shielded cabling.

CE Compliance CE

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

Refer to the Declaration of Conformity (DoC) for this product for any additional regulatory compliance information. To obtain the DoC for this product, visit ***ni.com/certification***, search by model number or product line, and click the appropriate link in the Certification column.

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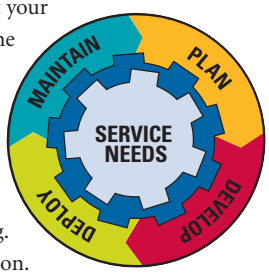

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