

# NI PXI-2565 Specifications

## 16-SPST Power Relay Module

This document lists specifications for the NI PXI-2565 power relay module. All specifications are subject to change without notice. Visit [ni.com/manuals](http://ni.com/manuals) for the most current specifications.

Configuration ..... 16-channel SPST

## Input Characteristics

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All input characteristics are DC,  $AC_{rms}$ , or a combination unless otherwise specified.

Maximum switching voltage

Channel-to-channel ..... 125 VDC, 250 VAC

Channel-to-ground ..... 125 VDC, 250 VAC, CAT II



**Caution** This module is rated for Measurement Category II and intended to carry signal voltages no greater than 250 VAC/125 VDC. This module Features 1400  $V_{rms}$  isolation between input signals and the backplane as verified by a dielectric withstand test, 1 minute maximum. Do *not* use this module for connection to signals or for measurements within Categories III or IV. Do *not* connect to MAINs supply circuits (for example, wall outlets) greater than 150 VDC; do *not* connect to MAINs circuits of 208 VAC (US) or 230 VAC (Europe). Refer to the *Read Me First: Safety and Radio-Frequency Interference* document for more information on measurement categories.

When hazardous voltages ( $>42.4 V_{pk}/60$  VDC) are present on any relay terminal, safety low-voltage ( $<42.4 V_{pk}/60$  VDC) cannot be connected to any other relay terminal.



**Caution** The switching power is limited by the maximum switching current, the maximum voltage, and must not exceed 150 W, 1750 VA.

Maximum switching capacity ..... 5 A at 30 VDC  
(resistive, per channel) ..... 7 A at 250 VAC

Maximum switching power ..... 150 W, 1750 VA  
(per channel)

### DC path resistance

Initial.....<0.03  $\Omega$   
End of life .....>1  $\Omega$

DC path resistance typically remains low for the life of the relay. At the end of relay life, the path resistance rises rapidly above 1  $\Omega$ . Load ratings apply to relays used within the specification before the end of relay life.

### Power dissipation

All relays open.....1.75 W  
All relays closed, 0 A per channel...7 W  
All relays closed, 5 A per channel...21.5 W  
All relays closed, 7 A per channel...35.0 W

## Dynamic Characteristics

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Relay operate time (at 20 °C) .....5 ms typical, 10 ms maximum

Release time (at 20 °C).....4 ms typical, 5 ms maximum



**Note** Certain applications may require additional time for proper settling. For information about including additional settling time, refer to the *NI Switches Help*.

### Expected relay life

Mechanical ..... $5 \times 10^7$  cycles  
Electrical..... $1 \times 10^5$  cycles  
(maximum load)

## Trigger Characteristics

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### Input trigger

Sources .....PXI trigger lines 0–7 and STAR  
Minimum pulse width.....70 ns

### Output trigger

Destinations .....PXI trigger lines 0–7  
Pulse width .....1  $\mu$ s

# Physical Characteristics

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Relay type .....	Electromechanical, non-latching
I/O connector.....	16x2 minicombin header
Contact material .....	Gold-flash over silver alloy
Dimensions (W × H × D).....	4 cm × 10 cm × 16 cm (1.6 in. × 3.9 in. × 6.3 in.)
Weight.....	390 g (14 oz)

## Environment

The PXI-2565 is intended for indoor use only.

Operating temperature..... 0 °C to 50 °C

Storage temperature .....

–20 °C to 70 °C

Relative humidity .....

5% to 85% noncondensing

Pollution Degree .....

2

Approved at altitudes up to 2,000 m.

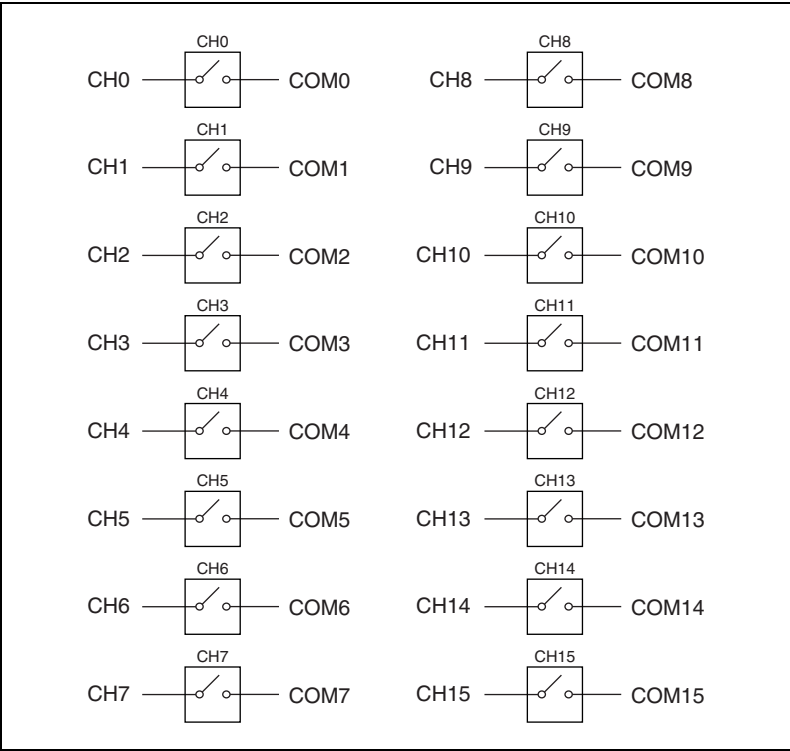
## Accessories

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Visit [ni.com](http://ni.com) for more information about the following accessory.

**Table 1.** NI Accessory for the NI PXI-2565

Accessory	Part Number
16-pin screw terminal plug kit terminal block	761289-16



**Figure 1.** NI PXI-2565 Configuration (Relay Shown in Power-On State)

# Compliance and Certifications

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## 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



**Note** For UL and other safety certifications, refer to the product label or visit [ni.com/certification](http://ni.com/certification), search by model number or product line, and click the appropriate link in the Certification column.

## Electromagnetic Compatibility

Emissions ..... EN 55011 Class A at 10 m  
FCC Part 15A above 1 GHz

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

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



**Note** For EMC compliance, you *must* operate this device with shielded cabling.

## 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



**Note** 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](http://ni.com/certification), search by model number or product line, and click the appropriate link in the Certification column.

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