Specifications for the NI SCXI™-1161

8-SPDT Relay Module

This document lists specifications for the NI SCXI-1161 general purpose relay module. All specifications are subject to change without notice. Visit `ni.com/manuals` for the most current specifications.

Configuration ..... 8-channel SPDT

Input Characteristics

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

Maximum switching voltage..... 250 V, CAT II
(channel-to-channel and channel-to-ground)

Note Refer to the *NI Switches Getting Started Guide* for more information on measurement categories.

Maximum switching capacity
(per channel, resistive loads)[1]

AC ..... 8 A at 125 VAC
6 A at 250 VAC

DC ..... 5 A at 30 VDC

Maximum switching current

Per channel..... 8 A

Per module ..... 50 A

Minimum switching capacity..... 100 mA at 100 mVDC

[1] Switching low currents with the SCXI-1161 may not be possible after switching high currents due to contact wear.

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NATIONAL INSTRUMENTS

DC path resistance

Initial.....<175 mΩ

End of life.....>1 Ω

Path resistance is a combination of relay contact resistance and trace resistance. Contact resistance typically remains low for the life of a relay. At the end of relay life, the contact resistance rises rapidly above 1.0 Ω.

Dynamic Characteristics

Relay operate time.....15 ms

Expected relay life

Mechanical.....10,000,000 cycles

Electrical.....100,000 cycles
(maximum resistive load)

Physical Characteristics

Relay type.....Electromechanical, non-latching

I/O connectors.....24 screw terminals

Contact material.....Silver alloy

Dimensions (W × H × D).....3.0 cm × 17.3 cm × 19.6 cm
(1.2 in. × 6.7 in. × 7.6 in.)

Weight.....775 g
(1 lb 12 oz)

Environment

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

Storage temperature.....–20 °C to 70 °C

Relative humidity.....5% to 85% non condensing

Pollution Degree.....2

Approved at altitudes up to 2,000 m

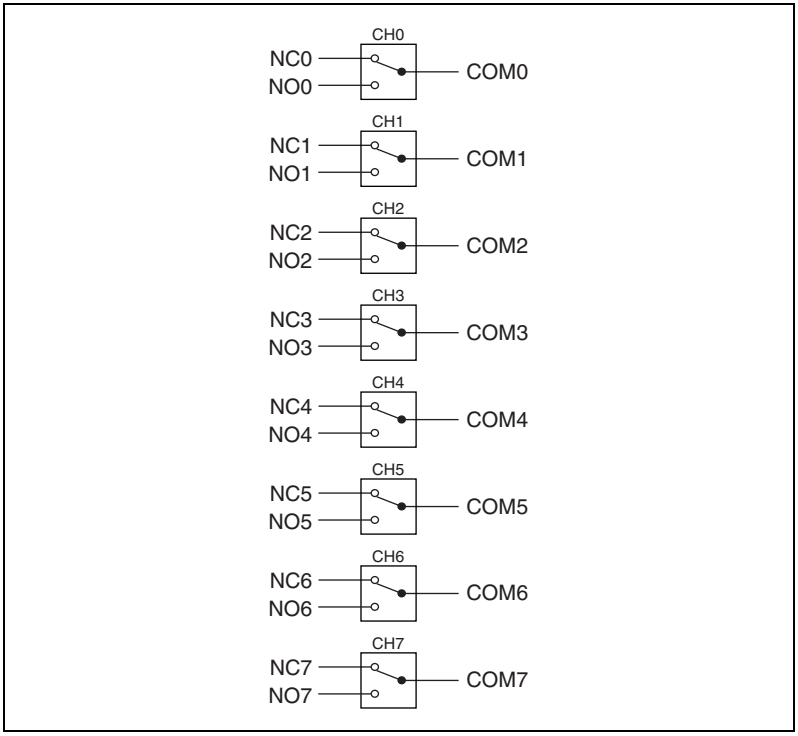

Figure 1. NI SCXI-1161 8-SPDT Power-On State

Compliance and Certifications

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

Note For UL and other safety certifications refer to the product label or visit `ni.com`.

Electromagnetic Compatibility

Emissions	EN 55011 Class A at 10 m FCC Part 15A above 1 GHz
Immunity	EN 61326:1997 + A2:2001, Table 1
EMC/EMI	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, click **Declarations of Conformity Information** at `ni.com/hardref.nsf/`.

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