DE140200 DATASHEET

PXIE RELAY MODULE 53CH 2A SPDT
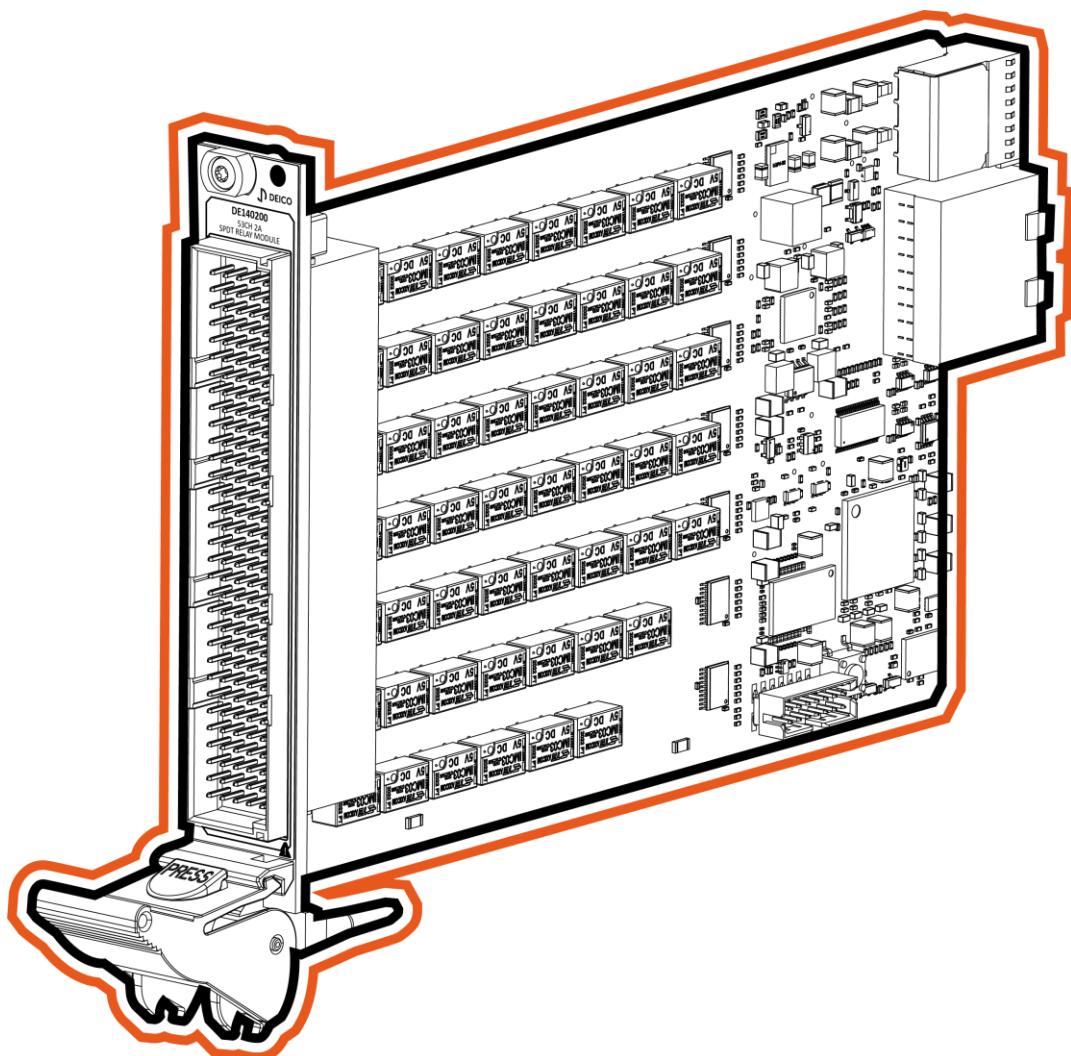
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DESCRIPTION

PXIe Relay Module 53Ch 2A SPDT is a general-purpose relay module which is designed for high density switching with medium power. The module has 53 channel SPDT electromechanical relay. Each relay can switch up to 220VDC/250VAC and up to 60W/62.5VA power. The module's current capacity is 2A. PXIe chassis is necessary for module usage.

Key Features

- ⇨ 53 channel SPDT electromechanical relay
- ⇨ Up to 220VDC/250VAC
- ⇨ Up to 60W/62.5VA
- ⇨ 2A rated current
- ⇨ Hot or cold switching
- ⇨ Maximum 200mΩ DC path resistance
- ⇨ Maximum 5ms relay operate time

HARDWARE OVERVIEW

Circuitry

DE140200 relay configuration diagram is shown in figure below.
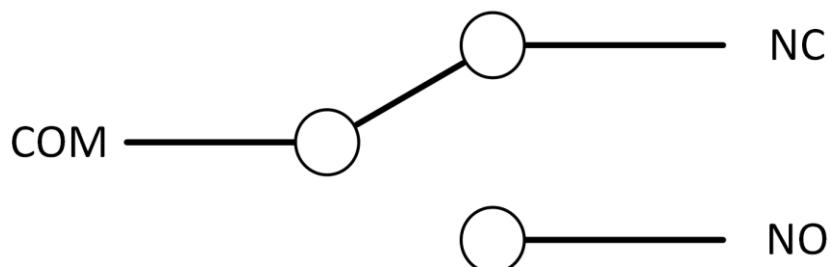
DE140200 Relay Configuration Diagram

Hardware Specifications

DE140200 is compliant with PXI Express Hardware Specification Revision 1.1. DE140200 is compatible with all 3U PXI Express chassis and it can be used with hybrid slots and PXIe slots.

⚠️ **Caution** ESD can damage electronic components without adequate protection and may cause permanent damage to the device.

⚠️ **Caution** DE140200 does not support hot-plug therefore do not insert or remove the device when chassis power is on.

Electrical

Specification	Min	Typical	Max	Units
Power Supply Requirements				
Power supply current of +12V (In full operation)	—	—	1.650	A
Power supply current of +3.3V (In full operation)	—	—	0.3	A
Switching Specifications				
Switch voltage	10^{-4}	—	220 250	VDC VAC
Switch current	10^{-6}	—	2	A
Switch power	—	—	60 62.5	W VA
DC path resistance	—	—	200	
Operate time	—	1	5	ms
Bounce time		1	5	ms
Relay Endurance				
Resistive, 220VDC/0.27A - 60W	10^{5}	—	—	Operations
Resistive, 250VAC/0.25A - 62.5VA	10^{5}	—	—	Operations
Resistive, 30VDC/1A - 30W	5×10^{5}	—	—	Operations

Physical

The module's dimensions are shown in figure below.

Dimensions of the Module

Environmental

Specification	Condition	Value
Operating Humidity	Relative, non-condensing	10% - 90%
Storage Humidity	Relative, non-condensing	5% - 95%
Operating Temperature	Forced-air cooling from chassis	0°C - 40°C
Storage Temperature	—	-40°C - 85°C

SIGNAL CONNECTIONS

J1 Connector Pinout

Pin	A	B	C	D	E
1	CH1_NO	CH1_COM	CH1_NC	CH33_NO	CH34_NO
2	CH2_NO	CH2_COM	CH2_NC	CH33_COM	CH34_COM
3	CH3_NO	CH3_COM	CH3_NC	CH33_NC	CH34_NC
4	CH4_NO	CH4_COM	CH4_NC	CH35_NO	CH36_NO
5	CH5_NO	CH5_COM	CH5_NC	CH35_COM	CH36_COM
6	CH6_NO	CH6_COM	CH6_NC	CH35_NC	CH36_NC
7	CH7_NO	CH7_COM	CH7_NC	CH37_NO	CH38_NO
8	CH8_NO	CH8_COM	CH8_NC	CH37_COM	CH38_COM
9	CH9_NO	CH9_COM	CH9_NC	CH37_NC	CH38_NC
10	CH10_NO	CH10_COM	CH10_NC	CH39_NO	CH40_NO
11	CH11_NO	CH11_COM	CH11_NC	CH39_COM	CH40_COM
12	CH12_NO	CH12_COM	CH12_NC	CH39_NC	CH40_NC
13	CH13_NO	CH13_COM	CH13_NC	CH41_NO	CH42_NO
14	CH14_NO	CH14_COM	CH14_NC	CH41_COM	CH42_COM
15	CH15_NO	CH15_COM	CH15_NC	CH41_NC	CH42_NC
16	CH16_NO	CH16_COM	CH16_NC	CH43_NO	CH44_NO
17	CH17_NO	CH17_COM	CH17_NC	CH43_COM	CH44_COM
18	CH18_NO	CH18_COM	CH18_NC	CH43_NC	CH44_NC
19	CH19_NO	CH19_COM	CH19_NC	CH45_NO	CH46_NO
20	CH20_NO	CH20_COM	CH20_NC	CH45_COM	CH46_COM
21	CH21_NO	CH21_COM	CH21_NC	CH45_NC	CH46_NC
22	CH22_NO	CH22_COM	CH22_NC	CH47_NO	CH48_NO
23	CH23_NO	CH23_COM	CH23_NC	CH47_COM	CH48_COM
24	CH24_NO	CH24_COM	CH24_NC	CH47_NC	CH48_NC
25	CH25_NO	CH25_COM	CH25_NC	CH49_NO	CH50_NO
26	CH26_NO	CH26_COM	CH26_NC	CH49_COM	CH50_COM
27	CH27_NO	CH27_COM	CH27_NC	CH49_NC	CH50_NC
28	CH28_NO	CH28_COM	CH28_NC	CH51_NO	CH52_NO
29	CH29_NO	CH29_COM	CH29_NC	CH51_COM	CH52_COM
30	CH30_NO	CH30_COM	CH30_NC	CH51_NC	CH52_NC
31	CH31_NO	CH31_COM	CH31_NC	CH53_COM	CH53_NO
32	CH32_NO	CH32_COM	CH32_NC	CH53_NC	NOT CONNECTED

NOTES

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