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NATIONAL INSTRUMENTS NI 61xx Shielded I-O Connector Block User Guide

NI 61xx Shielded I-O Connector Block
User Guide

Contents

NI 61xx Shielded I-O Connector Block

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NOTE TO USERS

NI 61xx Pinout Labels for the SCB-68A

Multifunction I/O S Series Modules/Devices Using the 68-Pin Shielded Connector Block

If you are using an NI 61xx (formerly referred to as S Series) multifunction I/O device or module with the SCB-68A, you can print and attach a connector-specific pinout label to the cover of the connector block for easy connection reference.This document provides labels for the following models:

- NI 6110
- NI 6111
- NI 6115
- NI 6120
- NI 6122
- NI 6123
- NI 6124
- NI 6132
- NI 6133
- NI 6143

Use the following label if you are connecting the SCB-68A to the NI 6110, NI 6115, and NI 6120 models.
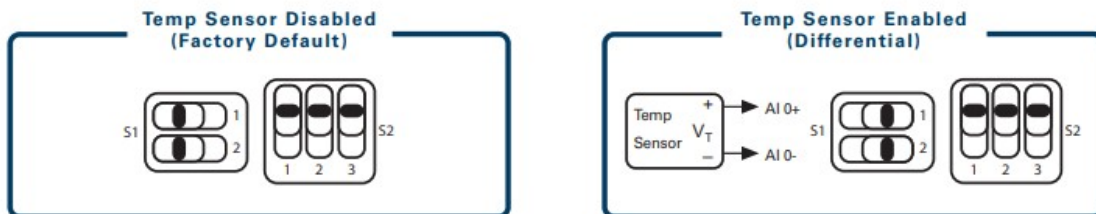
Figure 1. NI 6110/6115/6120

SCB-68A Quick Reference Label

NI 6110/6115/6120 (S Series) Models

*NC: No Connect

Use the following label if you are connecting the SCB-68A to the NI 6111 model.

Figure 2. NI 6111

SCB-68A Quick Reference Label

NI 6111 (S Series) Models

*NC: No Connect

Temp Sensor Disabled (Factory Default)

Temp Sensor Enabled (Differential)
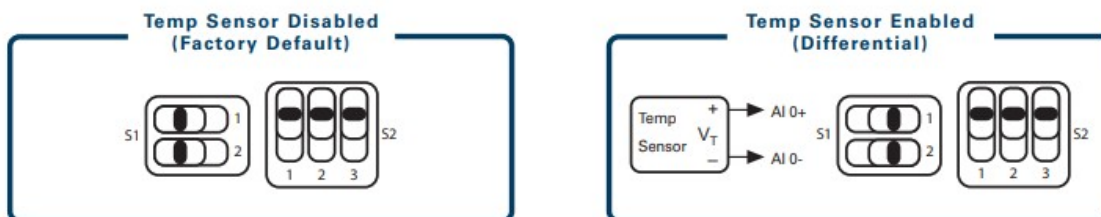
Use the following label if you are connecting the SCB-68A to the NI 6122 and NI 6132 models.

Figure 3. NI 6122/6132

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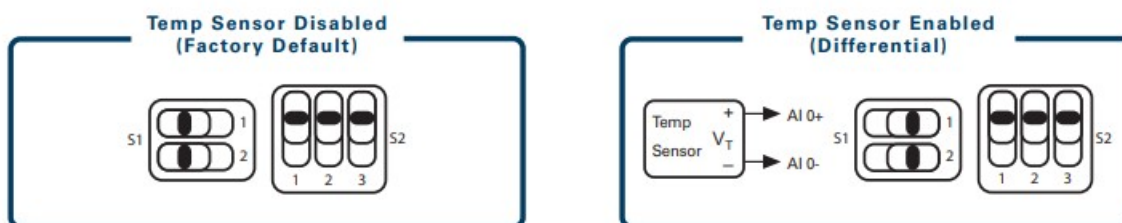
SCB-68A Quick Reference Label

NI 6122/6132 (S Series) Models

*NC: No Connect

ANALOG

68	AI 0+
34	AI 0-
67	AI 0 GND
33	AI 1+
66	AI 1-
32	AI 1 GND
65	AI 2+
31	AI 2-
64	AI 2 GND
30	AI 3+
63	AI 3-
29	AI 3 GND
62	NC
28	NC
61	NC
27	NC
60	NC
26	NC

DIGITAL

59	NC
25	NC
58	NC
24	NC
57	NC
23	NC
56	NC
22	NC
55	NC
21	NC
54	NC
20	NC
53	D GND
19	P0.4
52	P0.0
18	D GND

DIGITAL

51	P0.5
17	P0.1
50	D GND
16	P0.6
49	P0.2
15	D GND
48	P0.7
14	+5V
47	P0.3
13	D GND
46	AI HOLD COMP
12	D GND
45	EXT STROBE
11	PFI 0/AI START TRIG
44	D GND
10	PFI 1/AI REF TRIG

DIGITAL

1	FREQ OUT
35	D GND
2	CTR 0 OUT
36	D GND
3	PFI 9/CTR 0 GATE
37	PFI 8/CTR 0 SOURCE
4	D GND
38	PFI 7/AI SAMP CLK
5	PFI 6/AO START TRIG
39	D GND
6	PFI 5/AO SAMP CLK
40	CTR 1 OUT
7	D GND
41	PFI 4/CTR 1 GATE
8	+5V
42	PFI 3/CTR 1 SOURCE
9	D GND
43	PFI 2/AI CONV CLK

Temp Sensor Disabled (Factory Default)

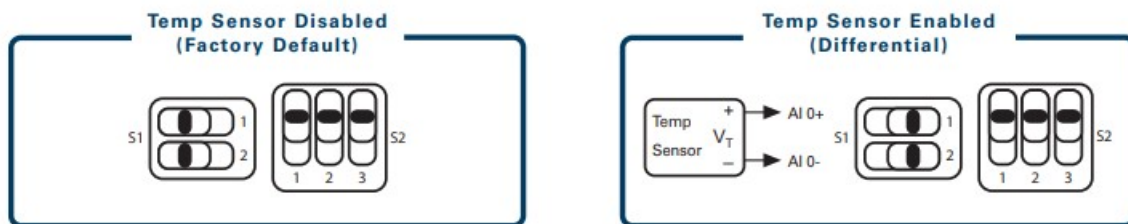**Temp Sensor Enabled (Differential)**

Temp Sensor V_T + → AI 0+ − → AI 0-

Use the following label if you are connecting the SCB-68A to the NI 6123, NI 6133, and NI 6143 models.

Figure 4. NI 6123/6133/6143

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ANALOG

68	AI 0+
34	AI 0-
67	AI 0 GND
33	AI 1+
66	AI 1-
32	AI 1 GND
65	AI 2+
31	AI 2-
64	AI 2 GND
30	AI 3+
63	AI 3-
29	AI 3 GND
62	NC
28	AI 4+
61	AI 4-
27	AI 4 GND
60	AI 5+
26	AI 5-

ANALOG/ DIGITAL

59	AI 5 GND
25	AI 6+
58	AI 6-
24	AI 6 GND
57	AI 7+
23	AI 7-
56	AI 7 GND
22	NC
55	NC
21	NC
54	NC
20	NC
53	D GND
19	P0.4
52	P0.0
18	D GND

DIGITAL

51	P0.5
17	P0.1
50	D GND
16	P0.6
49	P0.2
15	D GND
48	P0.7
14	+5V
47	P0.3
13	D GND
46	AI HOLD COMP
12	D GND
45	EXT STROBE
11	PFI 0/AI START TRIG
44	D GND
10	PFI 1/AI REF TRIG

DIGITAL

1	FREQ OUT
35	D GND
2	CTR 0 OUT
36	D GND
3	PFI 9/CTR 0 GATE
37	PFI 8/CTR 0 SOURCE
4	D GND
38	PFI 7/AI SAMP CLK
5	PFI 6/AO START TRIG
39	D GND
6	PFI 5/AO SAMP CLK
40	CTR 1 OUT
7	D GND
41	PFI 4/CTR 1 GATE
8	+5V
42	PFI 3/CTR 1 SOURCE
9	D GND
43	PFI 2/AI CONV CLK

SCB-68A Quick Reference Label

NI 6123/6133/6143 (S Series) Models

*NC: No Connect

Temp Sensor Disabled (Factory Default)

S1   1   2   S2   1 2 3

Temp Sensor Enabled (Differential)

Temp Sensor   + V_T −   → AI 0+   → AI 0-   S1   1   2   S2   1 2 3

Use the following label if you are connecting the SCB-68A to the NI 6124 model.

Figure 5. NI 6124
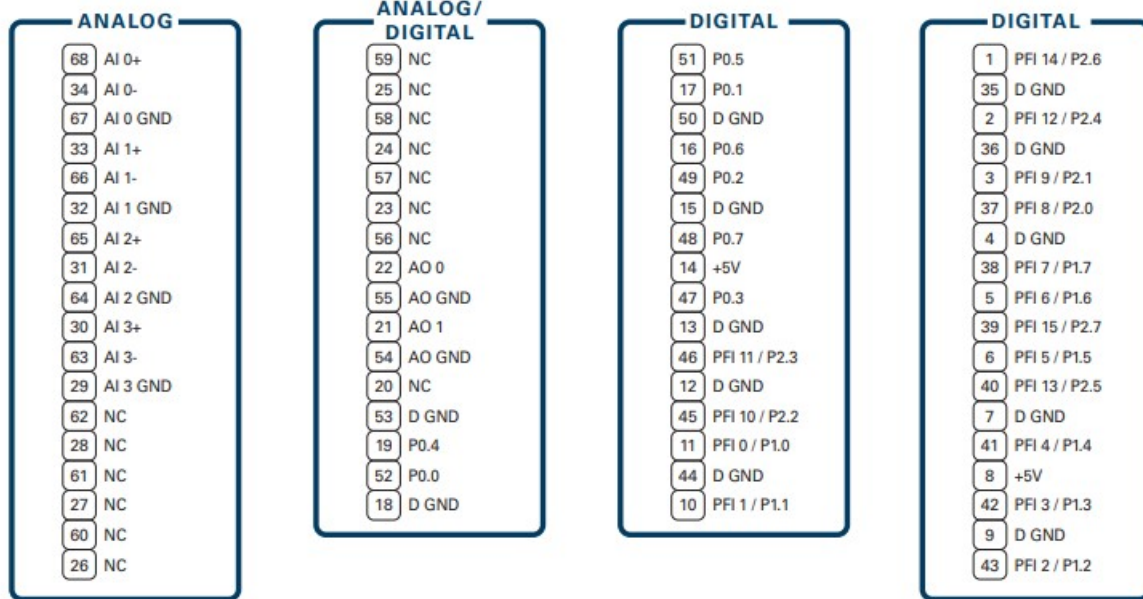
Documents / Resources

	NATIONAL INSTRUMENTS NI 61xx Shielded I-O Connector Block [pdf] User Guide SCB-68A, NI 6110, NI 6115, NI 6120, NI 6111, NI 61xx Shielded I-O Connector Block, Shielded I-O Connector Block, I-O Connector Block, Connector Block, Block

References
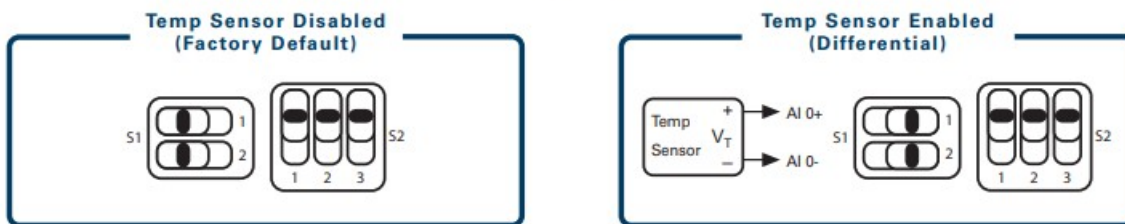
- **ni** **Test and Measurement Systems, a part of Emerson - NI**
- **ni** **Trade Compliance - NI**
- **ni** **National Instruments Patents - NI**
- **ni** **NI Trademarks and Logo Guidelines - NI**
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