



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

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## NI 61xx Shielded I-O Connector Block User Guide

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## 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**

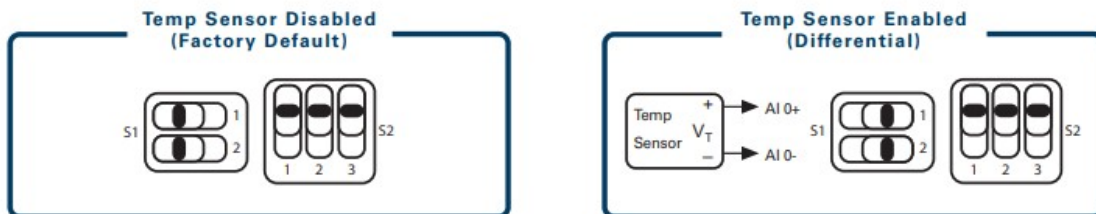


ANALOG		ANALOG/ DIGITAL		DIGITAL		DIGITAL	
68	AI 0+	59	NC	51	P0.5	1	FREQ OUT
34	AI 0-	25	NC	17	P0.1	35	D GND
67	AI 0 GND	58	NC	50	D GND	2	CTR 0 OUT
33	AI 1+	24	NC	16	P0.6	36	D GND
66	AI 1-	57	NC	49	P0.2	3	PFI 9/CTR 0 GATE
32	AI 1 GND	23	NC	15	D GND	37	PFI 8/CTR 0 SOURCE
65	AI 2+	56	NC	48	P0.7	4	D GND
31	AI 2-	22	AO 0	14	+5V	38	PFI 7/AI SAMP CLK
64	AI 2 GND	55	AO GND	47	P0.3	5	PFI 6/AO START TRIG
30	AI 3+	21	AO 1	13	D GND	39	D GND
63	AI 3-	54	AO GND	46	AI HOLD COMP	6	PFI 5/AO SAMP CLK
29	AI 3 GND	20	NC	12	D GND	40	CTR 1 OUT
62	NC	53	D GND	45	EXT STROBE	7	D GND
28	NC	19	P0.4	11	PFI 0/AI START TRIG	41	PFI 4/CTR 1 GATE
61	NC	52	P0.0	44	D GND	8	+5V
27	NC	18	D GND	10	PFI 1/AI REF TRIG	42	PFI 3/CTR 1 SOURCE
60	NC					9	D GND
26	NC					43	PFI 2/AI CONV CLK

### 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.

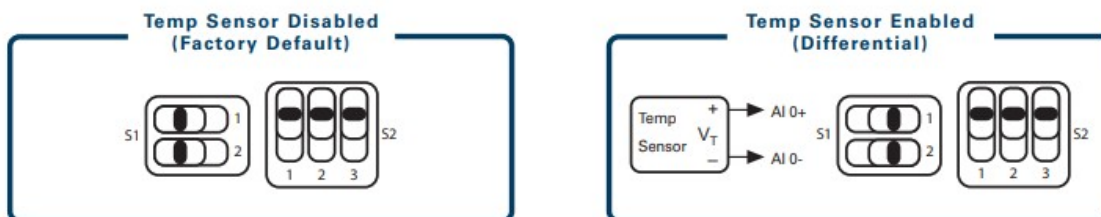
**Figure 2. NI 6111**

ANALOG		ANALOG/ DIGITAL		DIGITAL		DIGITAL	
68	AI 0+	59	NC	51	P0.5	1	FREQ OUT
34	AI 0-	25	NC	17	P0.1	35	D GND
67	AI 0 GND	58	NC	50	D GND	2	CTR 0 OUT
33	AI 1+	24	NC	16	P0.6	36	D GND
66	AI 1-	57	NC	49	P0.2	3	PFI 9/CTR 0 GATE
32	AI 1 GND	23	NC	15	D GND	37	PFI 8/CTR 0 SOURCE
65	NC	56	NC	48	P0.7	4	D GND
31	NC	22	AO 0	14	+5V	38	PFI 7/AI SAMP CLK
64	NC	55	AO GND	47	P0.3	5	PFI 6/AO START TRIG
30	NC	21	AO 1	13	D GND	39	D GND
63	NC	54	AO GND	46	AI HOLD COMP	6	PFI 5/AO SAMP CLK
29	NC	20	NC	12	D GND	40	CTR 1 OUT
62	NC	53	D GND	45	EXT STROBE	7	D GND
28	NC	19	P0.4	11	PFI 0/AI START TRIG	41	PFI 4/CTR 1 GATE
61	NC	52	P0.0	44	D GND	8	+5V
27	NC	18	D GND	10	PFI 1/AI REF TRIG	42	PFI 3/CTR 1 SOURCE
60	NC					9	D GND
26	NC					43	PFI 2/AI CONV CLK

### SCB-68A Quick Reference Label

NI 6111 (S Series) Models

\*NC: No Connect



Use the following label if you are connecting the SCB-68A to the NI 6122 and NI 6132 models.

**Figure 3. NI 6122/6132**

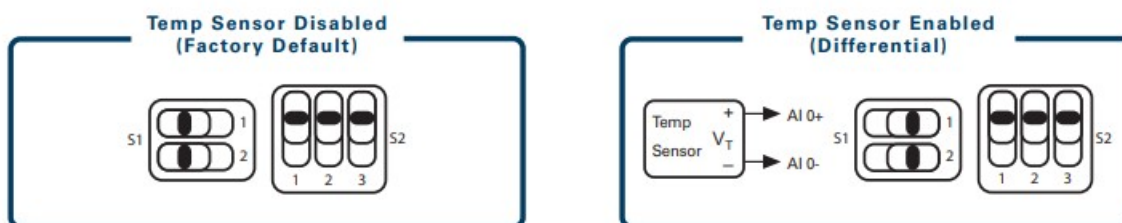


ANALOG		DIGITAL		DIGITAL		DIGITAL	
68	AI 0+	59	NC	51	P0.5	1	FREQ OUT
34	AI 0-	25	NC	17	P0.1	35	D GND
67	AI 0 GND	58	NC	50	D GND	2	CTR 0 OUT
33	AI 1+	24	NC	16	P0.6	36	D GND
66	AI 1-	57	NC	49	P0.2	3	PFI 9/CTR 0 GATE
32	AI 1 GND	23	NC	15	D GND	37	PFI 8/CTR 0 SOURCE
65	AI 2+	56	NC	48	P0.7	4	D GND
31	AI 2-	22	NC	14	+5V	38	PFI 7/AI SAMP CLK
64	AI 2 GND	55	NC	47	P0.3	5	PFI 6/AO START TRIG
30	AI 3+	21	NC	13	D GND	39	D GND
63	AI 3-	54	NC	46	AI HOLD COMP	6	PFI 5/AO SAMP CLK
29	AI 3 GND	20	NC	12	D GND	40	CTR 1 OUT
62	NC	53	D GND	45	EXT STROBE	7	D GND
28	NC	19	P0.4	11	PFI 0/AI START TRIG	41	PFI 4/CTR 1 GATE
61	NC	52	P0.0	44	D GND	8	+5V
27	NC	18	D GND	10	PFI 1/AI REF TRIG	42	PFI 3/CTR 1 SOURCE
60	NC					9	D GND
26	NC					43	PFI 2/AI CONV CLK

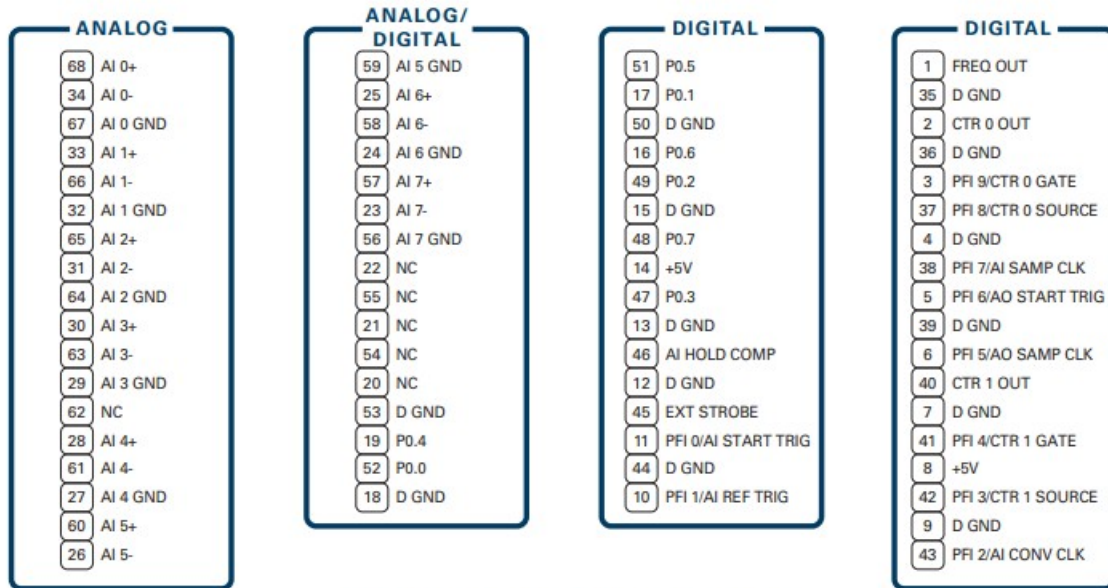
### SCB-68A Quick Reference Label

NI 6122/6132 (S Series) Models

\*NC: No Connect



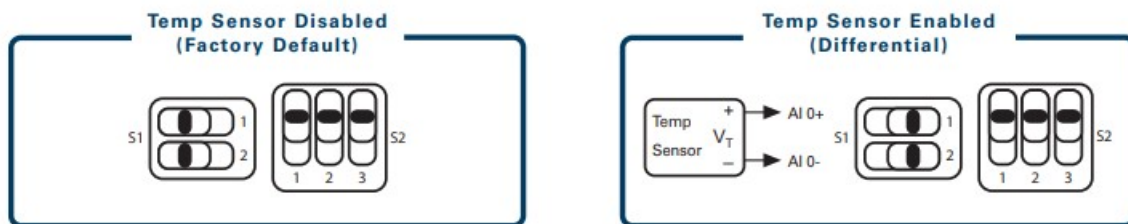
Use the following label if you are connecting the SCB-68A to the NI 6123, NI 6133, and NI 6143 models.  
**Figure 4. NI 6123/6133/6143**



### SCB-68A Quick Reference Label

NI 6123/6133/6143 (S Series) Models

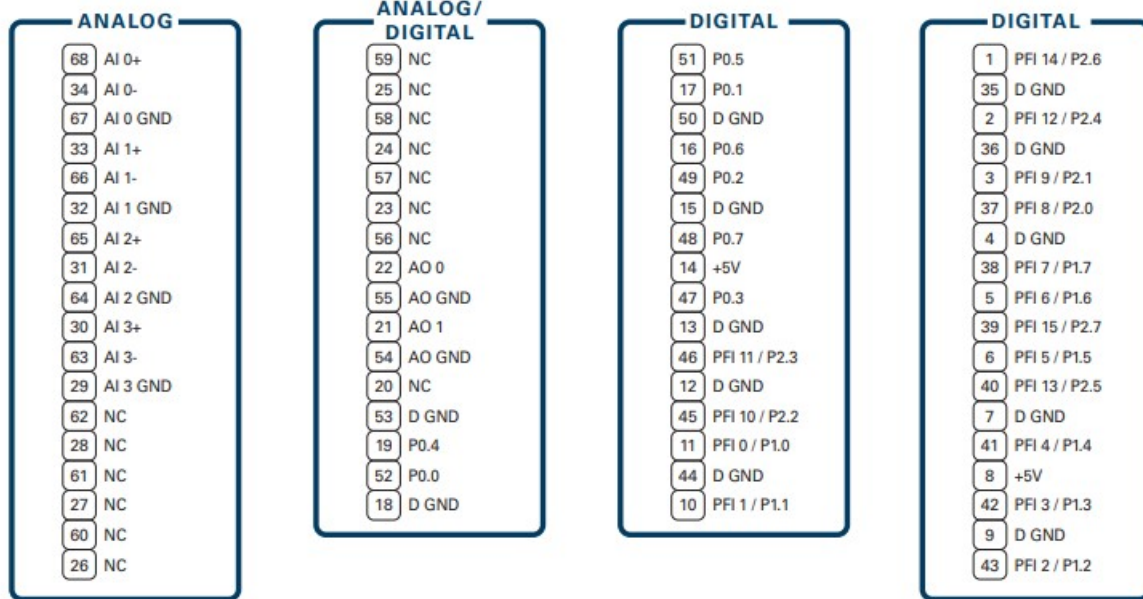
\*NC: No Connect



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

**Figure 5. NI 6124**

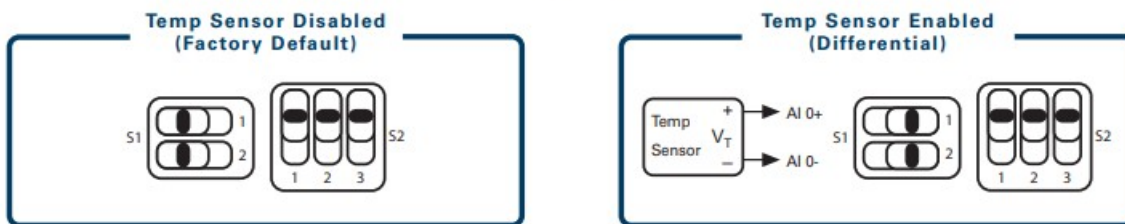




### SCB-68A Quick Reference Label

PXIe-6124 (S Series)

\*NC: No Connect



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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 Trademarks and Logo Guidelines - NI](#)
- [SCB-68A National Instruments Shielded I/O Connector Block | Apex Waves](#)
- [User Manual](#)