Signal connection of a terminal block for the multichannel I/O module

The signal cables of the field devices to the terminal blocks for the multi-channel I/O module must be connected to different terminals depending on the types of signals. To prevent damage to devices, connect signal cables to the appropriate terminals according to the type of signals. The following table shows the relationship between signal types and terminal numbers of channels.

Table Terminal numbers and signal types - Analog I/O module

I/O modules		Terminal number (*1)	Signal types
Device	Model and suffix code		
Analog input module	AAI143-HM☐	☐A	Current input +
		☐B	Current input -
Analog output module	AAI543-HM☐	☐A	Current output +
		☐B	Current output -
RTD/POT input module(* 2)	AAR145-SM☐	☐A	RTD input A (*3)
		☐B	RTD input B
		☐B	RTD input B (*3)
TC/mV input module	AAT145-SM☐	☐A	TC/mV input +
		☐B	TC/mV input -
Analog input module	AAV144-SM☐	☐A	Voltage input +
		☐B	Voltage input -

*1: ☐: 1 to 16
*2: POT input is not supported.
*3: The resistance values of the connecting cables must match.

Table Terminal numbers and signal types - Digital I/O module

I/O modules		Terminal number (*1)	Signal types	
Device	Model and suffix code			
ST3-compatible digital input module	ADV159-PM☐	☐A	Status input +	Push button input +
		☐B	Status input -	Push button input -
	ADV159-PY☐	☐A	Relay status input +	Relay push button input +
		☐B	Relay status input -	Relay push button input -
		☐C	—	—
ST6-compatible digital input module	ADV169-PM☐	☐A	Status input +	Push button input +
		☐B	Status input -	Push button input -

I/O modules		Terminal number (*1)	Signal types	
Device	Model and suffix code			
ST4-compatible digital input module	ADV559-PM☐	☐A	Status output +	Pulse width output +
		☐B	Status output -	Pulse width output -
	ADV559-PY☐	☐A	Relay status output Contact closed when energized	Relay pulse width output Contact closed when energized
		☐B	Relay status output Contact close when not energized	Relay pulse width output Contact close when not energized
		☐C	Relay status output Common	Relay pulse width output Common
ST7-compatible digital input module	ADV569-PM☐	☐A	Status output +	Pulse width output +
		☐B	Status output -	Pulse width output -

*1: For ADV169-PM☐ and ADV569-PM☐, ☐ ranges from 1 to 32, for all others, ☐ ranges from 1 to 16.
*2: "—" denotes that the terminal is not used. Do not connect any signal to it.

Connect the signal cables to the terminal blocks.

Analog I/O

This section describes the signal wiring when the following signals are received or sent:

- Voltage signals are received on AAV144-SM☐.
- Thermocouple or mV signals are received on AAT145-SM☐.
- Signals from the 2-wire transmitter are received on AAI143-HM☐.
- Current signals are sent by AAI543-HM☐.

The following figure shows the signal wiring for the preceding signals.

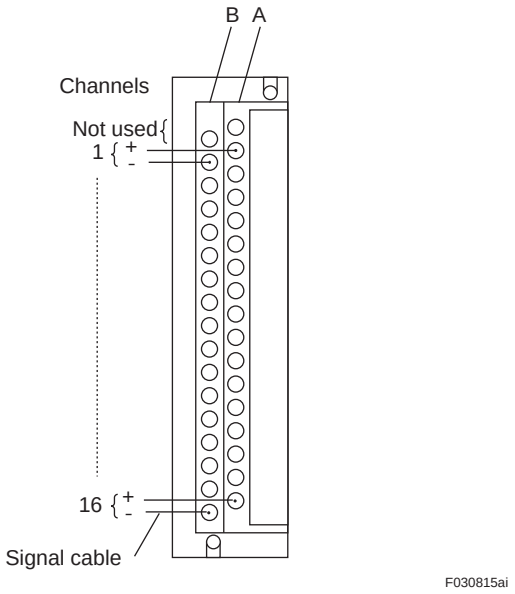

Figure For voltage input, thermocouple input, mV input, 2-wire transmitter input, or current output

IMPORTANT

When using I/O module AAI143-HM☐, do not share the current signals with other receiving devices.