3.2.1.4 Models and suffix codes

Nest for I/O Adaptor (for RIO System Upgrade, With I/O Module)

		Description
Model	A2BA3D	Nest for I/O Adaptor (for RIO System Upgrade, With I/O Module)
Suffix Codes	-3	Always 3
	3	M4 Screw Terminal type
	4	ELCO Connector type
	0	With no explosion protection
	0	Basic type
	1	With ISA Standard G3 option
	0	Always 0

3.2.1.5 Accessories (Only for A2BA3D-□3□□□)

Part Number	Description	Quantity
T9081CN	Sheet	1
T9081CF	Cover (Terminal cover)	1
T9081CM	Plate	1

3.2.2 I/O adaptors

I/O adaptors are used for upgrading each of the analog I/O module for RIO.

Analog I/O modules (RIO)before upgrading			I/O adaptors after upgrading		
Model	**Name**	**Number of modules mountable per nest**	**Model**	**Name**	**Number of adaptors mountable per nest**
AAM10	Current/Voltage Input Module (Simplified Type)	Total 16	A2SAM105	Current Input / Voltage Input Adaptor	Total 16
AAM11	Current/Voltage Input Module				
AAM11B	Current/Voltage Input Module (for BRAIN)				
AAM50	Current Output Module		A2SAM505	Current Output / Voltage Output Adaptor	
AAM51	Current/Voltage Output Module				
AAM21	mV, Thermocouple, and RTD Input Module		A2SAT105	mV / TC / RTD Input Adaptor	
AAM21J	mV, Thermocouple, and RTD Input Module (compliant with JIS C1602: 1995, C1604: 1997)				
APM11	Pulse Input Module		A2SAP105	Pulse Input Adaptor	

3.2.3 Field Interface

SIgnal connection of I/O adaptors

I/O adaptor	Contact terminals/ pins of A2BA3D (*1)	Signal type (*2)				
A2SAM105 (*3)	☐A (*4)	2-wire transmitter input +	NC	NC	—	—
	☐B	2-wire transmitter input -	4-wire transmitter Current input +	Voltage input +	—	—
	☐C	NC	4-wire transmitter Current input –	Voltage input –	—	—
A2SAM505	☐A	Current output +	Voltage output +	—	—	—
	☐B	NC (*5)	NC (*5)	—	—	—
	☐C	Current output -	Voltage output -	—	—	—
A2SAT105	☐A	NC	RTD input A (*5)	Potentiometer input100% (*5)	—	—
	☐B	Thermocouple/mV input +	RTD input B	Potentiometer input variable	—	—
	☐C	Thermocouple/mV input -	RTD input B (*5)	Potentiometer input 0% (*5)	—	—
A2SAP105 (*6)	☐A	NC	Contact + (*7) (*8)	NC	Power supply type, 2-wire, power supply	Power supply type, 3-wire, power supply
	☐B	2-wire type (contact) + (*9)	Contact - (*7) (*8) Shunt resistor Connection (*7)	2-wire type (voltage) +	Power supply type, 2-wire, signal, Shunt resistor connection	Power supply type, 3-wire, +
	☐C	2-wire type (contact) - (*9)	Shunt resistor Connection (*7)	2-wire type (voltage) -	Shunt resistor connection	Power supply type, 3-wire, -

*1: The field interface of each I/O adaptor consists of three contact terminals (☐A, ☐B, and ☐C).
☐ represents slot number of the A2BA3D (1 to 16).
*2: Do not connect anything to "NC." NC terminal or pin is connected to the internal circuit of the I/O adaptor.
*3: When the A2SAM105 is off power or overcurrent is detected, the current input loop becomes high impedance.
Do not share current signals with other receiving devices; or in such case, use it in voltage input mode with a shunt resistor.
(250 Ω Shunt Resistor Module [Part No.: A1080RZ])
*4: ☐A terminal is to output the transmitter power supply. When overcurrent is detected, ☐A terminal becomes open.
*5: Wiring resistances for ☐A and ☐C terminals/pins must be identical.
*6: ☐A terminal is to output the transmitter power supply. When the A2SAP105 is off power or overcurrent is detected, ☐A terminal becomes open. When an external shunt resister is used, it must be fastened together with an input signal wire on the ☐B terminal.
*7: When the input frequency is 0 to 10 kHz.
*8: When the input frequency is 0 to 5 kHz.
*9: When the input frequency is 0 to 800 Hz.