MITSUBISHI ELECTRIC

TECHNICAL BULLETIN

FA-A-0285-A

Transition to Made-to-order Production and Production Discontinuation of the CC-Link Remote I/O Modules, Analog Modules, High-speed Counter Module, and Wiring Conversion Adapters

■Date of Issue

September 2019

■Relevant Models

AJ65BTB1-16D, AJ65BTB2-16D, AJ65BTB1-16T, AJ65BTB2-16T, AJ65BTB2-16R, AJ65BTB1-16DT, AJ65BTB2-16DT, AJ65BTB2-16DR, AJ65BT-64AD, AJ65BT-64DAV, AJ65BT-64DAI, AJ65BT-64RD3, AJ65BT-64RD4, AJ65BT-68TD, AJ65BT-D62D-S1, A6ADP-1MC16D, A6ADP-2MC16D, A6ADP-1MC16T

Thank you for your continued support of Mitsubishi Electric programmable controllers, MELSEC series.
Production of some CC-Link remote I/O modules, analog modules, high-speed counter module, and wiring conversion adapters will be discontinued.

CONTENTS

MITSUBISHI ELECTRIC CORPORATION

HEAD OFFICE : TOKYO BUILDING, 2-7-3 MARUNOUCHI, CHIYODA-KU, TOKYO 100-8310, JAPAN
NAGOYA WORKS : 1-14 , YADA-MINAMI 5-CHOME , HIGASHI-KU, NAGOYA , JAPAN

1 MODELS TO BE DISCONTINUED

1.1 CC-Link Remote I/O Module

Model to be discontinued		Alternative model	
Model	**Specifications**	**Model**	**Specifications**
AJ65BTB1-16D	DC input (1-wire, positive/negative common shared type)	AJ65SBTB1-16D	DC input (1-wire, positive/negative common shared type)
AJ65BTB2-16D	DC input (2-wire, positive/negative common shared type)	AJ65SBTB3-16D	DC input (3-wire, positive/negative common shared type)
AJ65BTB1-16T	Transistor output (1-wire, sink type)	AJ65SBTB1-16T1	Transistor output (1-wire, sink type)
AJ65BTB2-16T	Transistor output (2-wire, sink type)	AJ65SBTB2-16T1	Transistor output (2-wire, sink type)
AJ65BTB2-16R	Relay output	AJ65SBTB2N-16R	Relay output
AJ65BTB1-16DT	DC input (1-wire, positive common type) Transistor output (1-wire, sink type)	AJ65SBTB1-16DT2	DC input (1-wire, positive common type) Transistor output (1-wire, sink type)
AJ65BTB2-16DT	DC input (2-wire, positive common type) Transistor output (2-wire, sink type)	AJ65SBTB32-16DT2	DC input (3-wire, positive common type) Transistor output (2-wire, sink type)
AJ65BTB2-16DR	DC input (2-wire, positive/negative common shared type) Relay output	AJ65SBTB32-16DR	DC input (3-wire, positive/negative common shared type) Relay output

1.2 CC-Link Analog Module

Model to be discontinued		Alternative model	
Model	**Specifications**	**Model**	**Specifications**
AJ65BT-64AD	Voltage/current input	AJ65SBT2B-64AD	Voltage/current input
		AJ65SBT-64AD	Voltage/current input
AJ65BT-64DAV	Voltage output	AJ65SBT2B-64DA	Voltage/current output
		AJ65SBT-62DA	Voltage/current output
AJ65BT-64DAI	Current output	AJ65SBT2B-64DA	Voltage/current output
		AJ65SBT-62DA	Voltage/current output
AJ65BT-64RD3	3-wire type platinum temperature-measuring resistor (Pt100, JPt100) input	AJ65SBT2B-64RD3	3-wire type platinum temperature-measuring resistor (Pt100, JPt100, Ni100) input
AJ65BT-64RD4	4-wire type platinum temperature-measuring resistor (Pt100, JPt100) input		
AJ65BT-68TD	Thermocouple (B, R, S, K, E, J, T) input	AJ65SBT2B-64TD	Thermocouple (B, R, S, K, E, J, T, N) input

1.3 CC-Link High-speed Counter Module

Model to be discontinued		Alternative model	
Model	**Specifications**	**Model**	**Specifications**
AJ65BT-D62D-S1	Differential input/sink output (preset: differential input)	AJ65BT-D62D	Differential input/sink output (preset: DC input)

1.4 MELSECNET/MINI-S3 of CC-Link Module Wiring Conversion Adapter

Model to be discontinued	Alternative model
Model	**Model**
A6ADP-1MC16D	None
A6ADP-2MC16D	
A6ADP-1MC16T	

2 SCHEDULE

- Transition to made-to-order: March 31, 2020
- Order acceptance: Until August 10, 2021
- Production discontinuation: September 30, 2021

3 REASON FOR DISCONTINUATION

Main parts of the above product are now obsolete, and we will have difficulty to maintain our production system.

4 REPAIR SUPPORT

Repair support period: Until September 30, 2028 (for seven years after the discontinuation of production)

5 RECOMMENDABLE PROPOSALS

The delivery time for the made-to-order production is 3.5 months.
Please allow for this time and purchase the models to be discontinued early enough.
For details on the delivery time, please consult your local Mitsubishi representative.

6 SPECIFICATIONS COMPARISON BETWEEN THE DISCONTINUED AND ALTERNATIVE MODELS

6.1 Input Module

AJ65BTB1-16D

Model to be discontinued		Alternative model	
Model	**Specifications**	**Model**	**Specifications**
AJ65BTB1-16D	DC input (1-wire, positive/negative common shared type)	AJ65SBTB1-16D	DC input (1-wire, positive/negative common shared type)

■Performance specifications comparison

○: Compatible, △: Check required, ×: Not compatible

Item		Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
		AJ65BTB1-16D	AJ65SBTB1-16D		
Number of input points		16 points		○	—
Isolation method		Photocoupler		○	—
Rated input voltage		24VDC (ripple ratio: within 5%)	24VDC	○	—
Rated input current		Approx. 7mA		○	—
Operating voltage range		19.2 to 28.8VDC	19.2 to 26.4VDC (ripple ratio: within 5%)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
Maximum number of simultaneous input points		100%		○	—
ON voltage/ON current		14VDC or higher/3.5mA or higher		○	—
OFF voltage/OFF current		6VDC or lower/1.7mA or lower		○	—
Input resistance		Approx. 3.3kΩ		○	—
Response time	OFF → ON	10ms or less	1.5ms or less (at 24VDC)	△	The response time may be incorrect due to noise. Verify the time in the system.
	ON → OFF	10ms or less	1.5ms or less (at 24VDC)		
Wiring method for common		16 points/common (1-wire, terminal block type)	16 points/common (2 points) (1-wire, terminal block type)	○	—
Input type		Positive/negative common shared type (sink/source shared type)		○	—
Number of occupied stations		1 station		○	—
Module power supply	Voltage	24VDC (ripple ratio: within 5%) (allowable voltage range: 15.6 to 28.8VDC)	20.4 to 26.4VDC (ripple ratio: within 5%)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
	Current	60mA or lower (at TYP. 24VDC)	35mA or lower (at 24VDC, all points ON)	○	—
Noise immunity		Noise voltage 500Vp-p, noise width 1μs, noise frequency 25 to 60Hz (DC type noise simulator condition)		○	—
Withstand voltage		500VAC for 1 minute between all DC external terminals and ground		○	—
Insulation resistance		10MΩ or higher between all DC external terminals and ground (500VDC insulation resistance tester)		○	—

Item		Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
		AJ65BTB1-16D	AJ65SBTB1-16D		
External interface	Communication part, module power supply part	27-point terminal block (M3.5 screw) Including transmission path and module power supply terminals	7-point two-piece terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	The screw size is different.
	I/O part		18-point direct-mount terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	
Applicable solderless terminal Applicable wire size*1		RAV1.25-3.5 (compliant with JIS C 2805) RAV2-3.5 0.75 to 2mm² (18 to 14 AWG) stranded wire	• RAV1.25-3 (compliant with JIS C 2805) [Applicable wire size: 0.3 to 1.25mm² (22 to 16 AWG) stranded wire] • V2-MS3 (JST Mfg. Co., Ltd.), RAP2-3SL (Nippon Tanshi Co., Ltd.), TGV2-3N (NICHIFU Co., Ltd.) [Applicable wire size: 1.25 to 2.0mm² (16 to 14 AWG) stranded wire]	×	The screw size is different. Change the solderless terminals.
Wire	Material	Copper		○	—
	Temperature rating	75℃ or higher		○	—
External dimensions	Height (H)	65mm	50mm	○	—
	Width (W)	151.9mm	118mm	○	—
	Depth (D)	46mm	40mm	○	—
Installation hall		ϕ4.5 (2 places)	4.5×5.1 (2 places)	○	—
Installation hall pitch	Height (H)	56mm	—	×	The installation hall pitch is different.
	Width (W)	142.9mm	109mm	×	
Weight		0.32kg	0.18kg	○	—

*1 Use the wires suitable for the solderless terminals to use and install the terminals with suitable tightening torque. Use the UL certified solderless terminals and use the recommended tools to crimp the terminals.

AJ65BTB2-16D

Model to be discontinued		Alternative model	
Model	**Specifications**	**Model**	**Specifications**
AJ65BTB2-16D	DC input (2-wire, positive/negative common shared type)	AJ65SBTB3-16D	DC input (3-wire, positive/negative common shared type)

■Performance specifications comparison

○: Compatible, △: Check required, ×: Not compatible

Item		Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
		AJ65BTB2-16D	AJ65SBTB3-16D		
Number of input points		16 points		○	—
Isolation method		Photocoupler		○	—
Rated input voltage		24VDC (ripple ratio: within 5%)	24VDC	○	—
Rated input current		Approx. 7mA		○	—
Operating voltage range		19.2 to 28.8VDC	19.2 to 26.4VDC (ripple ratio: within 5%)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
Maximum number of simultaneous input points		100%		○	—
ON voltage/ON current		14VDC or higher/3.5mA or higher		○	—
OFF voltage/OFF current		6VDC or lower/1.7mA or lower		○	—
Input resistance		Approx. 3.3kΩ		○	—
Response time	OFF → ON	10ms or less	1.5ms or less (at 24VDC)	△	The response time may be incorrect due to noise. Verify the time in the system.
	ON → OFF	10ms or less	1.5ms or less (at 24VDC)		
Wiring method for common		16 points/common (2-wire, terminal block type)	16 points/common (3-wire, terminal block type)	△	The wiring method is different.
Input type		Positive/negative common shared type (sink/source shared type)		○	—
Supply current for connected device		—	1.0A or lower/common	△	Check the maximum current value per common.
Number of occupied stations		1 station		○	—
Module power supply	Voltage	24VDC (ripple ratio: within 5%) (allowable voltage range: 15.6 to 28.8VDC)	20.4 to 26.4VDC (ripple ratio: within 5%)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
	Current	60mA or lower (at TYP. 24VDC)	45mA or lower (at 24VDC, all points ON)	○	—
Noise immunity		Noise voltage 500Vp-p, noise width 1μs, noise frequency 25 to 60Hz (DC type noise simulator condition)		○	—
Withstand voltage		500VAC for 1 minute between all DC external terminals and ground		○	—
Insulation resistance		10MΩ or higher between all DC external terminals and ground (500VDC insulation resistance tester)		○	—
External interface	Communication part, module power supply part	37-point terminal block (M3.5 screw) Including transmission path and module power supply terminals	7-point two-piece terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	The screw size is different.
	I/O part		34-point direct-mount terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	

Item		Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
		AJ65BTB2-16D	AJ65SBTB3-16D		
Applicable solderless terminal Applicable wire size*1		RAV1.25-3.5 (compliant with JIS C 2805) RAV2-3.5 0.75 to 2mm² (18 to 14 AWG) stranded wire	• RAV1.25-3 (compliant with JIS C 2805) [Applicable wire size: 0.3 to 1.25mm² (22 to 16 AWG) stranded wire] • V2-MS3 (JST Mfg. Co., Ltd.), RAP2-3SL (Nippon Tanshi Co., Ltd.), TGV2-3N (NICHIFU Co., Ltd.) [Applicable wire size: 1.25 to 2.0mm² (16 to 14 AWG) stranded wire]	×	The screw size is different. Change the solderless terminals.
Wire	Material	Copper		○	—
	Temperature rating	75℃ or higher		○	—
External dimensions	Height (H)	65mm	50mm	○	—
	Width (W)	197.4mm	179mm	○	—
	Depth (D)	46mm	40mm	○	—
Installation hall		ϕ4.5 (2 places)	4.5×5.1 (2 places)	○	—
Installation hall pitch	Height (H)	56mm	—	×	The installation hall pitch is different.
	Width (W)	188.4mm	170mm	×	
Weight		0.40kg	0.25kg	○	—

*1 Use the wires suitable for the solderless terminals to use and install the terminals with suitable tightening torque. Use the UL certified solderless terminals and use the recommended tools to crimp the terminals.

6.2 Output Module

AJ65BTB1-16T

Model to be discontinued		Alternative model	
Model	**Specifications**	**Model**	**Specifications**
AJ65BTB1-16T	Transistor output (1-wire, sink type)	AJ65SBTB1-16T1	Transistor output (1-wire, sink type)

■Performance specifications comparison

○: Compatible, △: Check required, ×: Not compatible

Item		Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
		AJ65BTB1-16T	**AJ65SBTB1-16T1**		
Number of output points		16 points		○	—
Isolation method		Photocoupler		○	—
Rated load voltage		12/24VDC (ripple ratio: within 5%)	12/24VDC	○	—
Operating load voltage range		10.2 to 28.8VDC	10.2 to 26.4VDC (ripple ratio: within 5%)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
Maximum load current		0.5A/point 4A/common (Ta = 45℃) 2.8A/common (Ta = 55℃)	0.5A/point 3.6A/common	△	The maximum load current per common is different.
Maximum inrush current		4A, 10ms or less	1A, 10ms or less	○	—
Leakage current at OFF		0.1mA or lower	0.25mA or lower	△	The leakage current at OFF is lower. Check that the current value does not affect the load.
Maximum voltage drop at ON		0.9VDC or lower (TYP.): 0.5A, 1.5VDC or lower (MAX.): 0.5A	0.3VDC or lower (TYP.): 0.5A, 0.6VDC or lower (MAX.): 0.5A	○	—
Output type		Sink type		○	—
Response time	OFF → ON	2ms or less	0.5ms or less	△	Check the output timing.
	ON → OFF	2ms or less (resistive load)	1.5ms or less (resistive load)		
External power supply for output part	Voltage	10.2 to 28.8VDC (ripple ratio: within 5%)	10.2 to 26.4VDC (ripple ratio: within 5%)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
	Current	100mA or lower/common (TYP. 24VDC) Not including external load current.	30mA or lower/common (TYP. 24VDC) Not including external load current.	○	—
Surge suppressor		Zener diode		○	—
Wiring method for common		8 points/common (1-wire, terminal block type)	16 points/common (1-wire, terminal block type)	△	The common type is different, so the common wiring is different.
Number of occupied stations		1 station		○	—
Module power supply	Voltage	24VDC (ripple ratio: within 5%) (allowable voltage range: 15.6 to 28.8VDC)	20.4 to 26.4VDC (ripple ratio: within 5%)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
	Current	80mA or lower (at TYP. 24VDC)	50mA or lower (at 24VDC, all points ON)	○	—

Item		Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
		AJ65BTB1-16T	AJ65SBTB1-16T1		
Noise immunity		Noise voltage 500Vp-p, noise width 1μs, noise frequency 25 to 60Hz (DC type noise simulator condition)		○	—
Withstand voltage		500VAC for 1 minute between all DC external terminals and ground		○	—
Insulation resistance		10MΩ or higher between all DC external terminals and ground (500VDC insulation resistance tester)		○	—
External interface	Communication part, module power supply part	27-point terminal block (M3.5 screw) Including transmission path and module power supply terminals	7-point two-piece terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	The screw size is different.
	I/O part		18-point direct-mount terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	
Applicable solderless terminal Applicable wire size*1		RAV1.25-3.5 (compliant with JIS C 2805) RAV2-3.5 0.75 to 2㎟ (18 to 14 AWG) stranded wire	• RAV1.25-3 (compliant with JIS C 2805) [Applicable wire size: 0.3 to 1.25㎟ (22 to 16 AWG) stranded wire] • V2-MS3 (JST Mfg. Co., Ltd.), RAP2-3SL (Nippon Tanshi Co., Ltd.), TGV2-3N (NICHIFU Co., Ltd.) [Applicable wire size: 1.25 to 2.0㎟ (16 to 14 AWG) stranded wire]	×	The screw size is different. Change the solderless terminals.
Wire	Material	Copper		○	—
	Temperature rating	75℃ or higher		○	—
External dimensions	Height (H)	65mm	50mm	○	—
	Width (W)	151.9mm	118mm	○	—
	Depth (D)	46mm	40mm	○	—
Installation hall		ϕ4.5 (2 places)	4.5×5.1 (2 places)	○	—
Installation hall pitch	Height (H)	56mm	—	×	The installation hall pitch is different.
	Width (W)	142.9mm	109mm	×	
Weight		0.34kg	0.18kg	○	—

*1 Use the wires suitable for the solderless terminals to use and install the terminals with suitable tightening torque. Use the UL certified solderless terminals and use the recommended tools to crimp the terminals.

AJ65BTB2-16T

Model to be discontinued		Alternative model	
Model	**Specifications**	**Model**	**Specifications**
AJ65BTB2-16T	Transistor output (2-wire, sink type)	AJ65SBTB2-16T1	Transistor output (2-wire, sink type)

■Performance specifications comparison

○: Compatible, △: Check required, ×: Not compatible

Item		Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
		AJ65BTB2-16T	AJ65SBTB2-16T1		
Number of output points		16 points		○	—
Isolation method		Photocoupler		○	—
Rated load voltage		12/24VDC (ripple ratio: within 5%)	12/24VDC	○	—
Operating load voltage range		10.2 to 28.8VDC	10.2 to 26.4VDC (ripple ratio: within 5%)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
Maximum load current		0.5A/point 4A/common	0.5A/point 3.6A/common	△	The maximum load current per common is lower.
Maximum inrush current		4A, 10ms or less	1.0A, 10ms or less	○	—
Leakage current at OFF		0.1mA or lower		○	—
Maximum voltage drop at ON		0.9VDC or lower (TYP.): 0.5A, 1.5VDC or lower (MAX.): 0.5A	0.3VDC or lower (TYP.): 0.5A, 0.6VDC or lower (MAX.): 0.5A	○	—
Output type		Sink type		○	—
Response time	OFF → ON	2ms or less	0.5ms or less	△	Check the output timing.
	ON → OFF	2ms or less (resistive load)	1.5ms or less (resistive load)		
External power supply for output part	Voltage	10.2 to 28.8VDC (ripple ratio: within 5%)	10.2 to 26.4VDC (ripple ratio: within 5%)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
	Current	100mA or lower/common (TYP. 24VDC) Not including external load current.	24.2mA or lower/common (TYP. 24VDC) Not including external load current.	○	—
Surge suppressor		Zener diode		○	—
Wiring method for common		8 points/common (2-wire, terminal block type)	16 points/common (2-wire, terminal block type)	△	The common type is different, so the common wiring is different.
Number of occupied stations		1 station		○	—
Module power supply	Voltage	24VDC (ripple ratio: within 5%) (allowable voltage range: 15.6 to 28.8VDC)	20.4 to 26.4VDC (ripple ratio: within 5%)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
	Current	80mA or lower (at TYP. 24VDC)	55mA or lower (at 24VDC, all points ON)	○	—
Noise immunity		Noise voltage 500Vp-p, noise width 1μs, noise frequency 25 to 60Hz (DC type noise simulator condition)		○	—
Withstand voltage		500VAC for 1 minute between all DC external terminals and ground		○	—
Insulation resistance		10MΩ or higher between all DC external terminals and ground (500VDC insulation resistance tester)		○	—

Item		Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
		AJ65BTB2-16T	AJ65SBTB2-16T1		
External interface	Communication part, module power supply part	37-point terminal block (M3.5 screw) Including transmission path and module power supply terminals	7-point two-piece terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	The screw size is different.
	I/O part		34-point direct-mount terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	
Applicable solderless terminal Applicable wire size*1		RAV1.25-3.5 (compliant with JIS C 2805) RAV2-3.5 0.75 to 2mm² (18 to 14 AWG) stranded wire	• RAV1.25-3 (compliant with JIS C 2805) [Applicable wire size: 0.3 to 1.25mm² (22 to 16 AWG) stranded wire] • V2-MS3 (JST Mfg. Co., Ltd.), RAP2-3SL (Nippon Tanshi Co., Ltd.), TGV2-3N (NICHIFU Co., Ltd.) [Applicable wire size: 1.25 to 2.0mm² (16 to 14 AWG) stranded wire]	×	The screw size is different. Change the solderless terminals.
Wire	Material	Copper		○	—
	Temperature rating	75℃ or higher		○	—
External dimensions	Height (H)	65mm	50mm	○	—
	Width (W)	197.4mm	179mm	○	—
	Depth (D)	46mm	40mm	○	—
Installation hall		ϕ4.5 (2 places)	4.5×5.1 (2 places)	○	—
Installation hall pitch	Height (H)	56mm	—	×	The installation hall pitch is different.
	Width (W)	188.4mm	170mm	×	
Weight		0.41kg	0.25kg	○	—

*1 Use the wires suitable for the solderless terminals to use and install the terminals with suitable tightening torque. Use the UL certified solderless terminals and use the recommended tools to crimp the terminals.

AJ65BTB2-16R

Model to be discontinued		Alternative model	
Model	**Specifications**	**Model**	**Specifications**
AJ65BTB2-16R	Relay output	AJ65SBTB2N-16R	Relay output

■Performance specifications comparison

○: Compatible, △: Check required, ×: Not compatible

Item		Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
		AJ65BTB2-16R	AJ65SBTB2N-16R		
Number of output points		16 points		○	—
Isolation method		Photocoupler	Relay	△	The isolation method is different.
Rated load voltage/current		24VDC (resistive load), 240VAC (COSϕ= 1) 2A/point, 8A/common		○	—
Minimum switching load		5VDC, 1mA		○	—
Maximum switching voltage		250VAC, 110VDC	264VAC, 125VDC	○	—
Response time	OFF → ON	10ms or less		○	—
	ON → OFF	12ms or less		○	—
Life	Mechanical	20 million times or more		○	—
	Electrical	Rated switching voltage/current load: 100 thousand times or more 200VAC/1.5A, 240VAC/1A (COSϕ= 0.7): 100 thousand times or more 200VAC/1A, 240VAC/0.5A (COSϕ= 0.35): 100 thousand times or more 24VDC/1A, 100VDC/0.1A (L/R = 7ms): 100 thousand times or more		○	—
Maximum switching frequency		3600 times/hour		○	—
External power supply for output part (I/O: 24V, 24G)	Voltage	24VDC ±10%, ripple ratio: 4Vp-p or lower	None	○	—
	Current	90mA or lower (at TYP. 24VDC and all points ON)	None	○	—
Surge suppressor		None		○	—
Wiring method for common		8 points/common (2-wire, terminal block type)	16 points/common (2-wire, terminal block type)	△	The common type is different, so the common wiring is different.
Number of occupied stations		1 station		○	—
Module power supply	Voltage	24VDC (ripple ratio: within 5%) (allowable voltage range: 15.6 to 28.8VDC)	20.4 to 26.4VDC (ripple ratio: within 5%)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
	Current	85mA or lower (at TYP. 24VDC)	120mA or lower (at 24VDC, all points ON)	○	—
Noise immunity		Noise voltage 1500Vp-p for AC, noise voltage 500Vp-p for DC, noise width 1μs, noise frequency 25 to 60Hz (noise simulator condition)	Noise voltage 1500Vp-p for AC, noise voltage 500Vp-p for DC, noise width 1μs, noise frequency 25 to 60Hz (noise simulator condition) Fast transient/burst immunity test IEC 61000-4-4: 1kV	○	—
Withstand voltage		1500VAC for 1 minute between all AC external terminals and ground 500VAC for 1 minute between all DC external terminals and ground	2830VACrms for 3 cycles between all AC external terminals and ground (2000m above sea level) 500VAC for 1 minute between all DC external terminals and ground	○	—
Insulation resistance		10MΩ or higher between all AC external terminals and ground (500VDC insulation resistance tester) 10MΩ or higher between all DC external terminals and ground (500VDC insulation resistance tester)		○	—

Item		Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
		AJ65BTB2-16R	AJ65SBTB2N-16R		
External interface	Communication part, module power supply part	37-point terminal block (M3.5 screw) Including transmission path and module power supply terminals	7-point two-piece terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	The screw size is different.
	I/O part		34-point direct-mount terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	
Applicable solderless terminal Applicable wire size*1		RAV1.25-3.5 (compliant with JIS C 2805) RAV2-3.5 0.75 to 2mm² (18 to 14 AWG) stranded wire	• RAV1.25-3 (compliant with JIS C 2805) [Applicable wire size: 0.3 to 1.25mm² (22 to 16 AWG) stranded wire] • V2-MS3 (JST Mfg. Co., Ltd.), RAP2-3SL (Nippon Tanshi Co., Ltd.), TGV2-3N (NICHIFU Co., Ltd.) [Applicable wire size: 1.25 to 2.0mm² (16 to 14 AWG) stranded wire]	×	The screw size is different. Change the solderless terminals.
Wire	Material	Copper		○	—
	Temperature rating	75℃ or higher		○	—
External dimensions	Height (H)	65mm	50mm	○	—
	Width (W)	197.4mm	179mm	○	—
	Depth (D)	46mm	40mm	○	—
Installation hall		ϕ4.5 (2 places)	4.5×5.1 (2 places)	○	—
Installation hall pitch	Height (H)	56mm	—	×	The installation hall pitch is different.
	Width (W)	188.4mm	170mm	×	
Weight		0.47kg	0.35kg	○	—

*1 Use the wires suitable for the solderless terminals to use and install the terminals with suitable tightening torque. Use the UL certified solderless terminals and use the recommended tools to crimp the terminals.

6.3 I/O Combined Module

AJ65BTB1-16DT

Model to be discontinued		Alternative model	
Model	**Specifications**	**Model**	**Specifications**
AJ65BTB1-16DT	DC input (1-wire, positive common type) Transistor output (1-wire, sink type)	AJ65SBTB1-16DT2	DC input (1-wire, positive common type) Transistor output (1-wire, sink type)

■Performance specifications comparison

○: Compatible, △: Check required, ×: Not compatible

Item			Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
			AJ65BTB1-16DT	AJ65SBTB1-16DT2		
Input part	Number of input points		8 points		○	—
	Isolation method		Photocoupler		○	—
	Rated input voltage		24VDC (ripple ratio: within 5%)	24VDC	○	—
	Rated input current		Approx. 7mA		○	—
	Operating voltage range		19.2 to 28.8VDC	19.2 to 26.4VDC (ripple ratio: within 5%)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
	Maximum number of simultaneous input points		100%		○	—
	ON voltage/ON current		14VDC or higher/3.5mA or higher		○	—
	OFF voltage/OFF current		6VDC or lower/1.7mA or lower		○	—
	Input resistance		Approx. 3.3kΩ		○	—
	Response time	OFF → ON	10ms or less	1.5ms or less (at 24VDC)	△	The response time may be incorrect due to noise. Verify the time in the system.
		ON → OFF	10ms or less	1.5ms or less (at 24VDC)		
	Input type		Positive common (sink type)		○	—
	Wiring method for common		8 points/common (1-wire, terminal block type)	16 points/common (1-wire, terminal block type), common shared type	△	The common type is different, so the common wiring is different.

Item			Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
			AJ65BTB1-16DT	AJ65SBTB1-16DT2		
Output part	Number of output points		8 points		○	—
	Isolation method		Photocoupler		○	—
	Rated load voltage		12/24VDC (ripple ratio: within 5%)	24VDC	△	12VDC is not available.
	Operating load voltage range		10.2 to 28.8VDC	19.2 to 26.4VDC (ripple ratio: within 5%)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
	Maximum load current		0.5A/point 4A/common	0.5A/point 2.4A/common	△	The maximum load current per common is lower.
	Maximum inrush current		4A, 10ms or less	1.0A, 10ms or less	○	—
	Leakage current at OFF		0.1mA or lower		○	—
	Maximum voltage drop at ON		0.9VDC or lower (TYP.): 0.5A, 1.5VDC or lower (MAX.): 0.5A	0.3VDC or lower (TYP.): 0.5A, 0.6VDC or lower (MAX.): 0.5A	○	—
	Output type		Sink type		○	—
	Response time	OFF → ON	2ms or less	0.5ms or less	△	Check the output timing.
		ON → OFF	2ms or less (resistive load)	1.5ms or less (resistive load)	△	
	External power supply for output part	Voltage	12/24VDC (ripple ratio: within 5%) (allowable voltage range: 10.2 to 28.8VDC)	19.2 to 26.4VDC (ripple ratio: within 5%)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
		Current	50mA or lower/common (TYP. 24VDC) Not including external load current.	17.8mA or lower (at 24VDC, all points ON) Not including external load current.	○	—
	Surge suppressor		Zener diode		○	—
	Wiring method for common		8 points/common (1-wire, terminal block type)	16 points/common (1-wire, terminal block type), common shared type	△	The common type is different, so the common wiring is different.

Item			Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
			AJ65BTB1-16DT	AJ65SBTB1-16DT2		
Common part	Number of occupied stations		1 station		○	—
	Module power supply	Voltage	24VDC (ripple ratio: within 5%) (allowable voltage range: 15.6 to 28.8VDC)	20.4 to 26.4VDC (ripple ratio: within 5%)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
		Current	70mA or lower (at TYP. 24VDC)	50mA or lower (at 24VDC, all points ON)	○	—
	Noise immunity		Noise voltage 500Vp-p, noise width 1μs, noise frequency 25 to 60Hz (DC type noise simulator condition)		○	—
	Withstand voltage		500VAC for 1 minute between all DC external terminals and ground		○	—
	Insulation resistance		10MΩ or higher between all DC external terminals and ground (500VDC insulation resistance tester)		○	—
	External interface	Communication part, module power supply part	27-point terminal block (M3.5 screw) Including transmission path and module power supply terminals	7-point two-piece terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	The screw size is different.
		I/O part		18-point direct-mount terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	
	Applicable solderless terminal Applicable wire size*1		RAV1.25-3.5 (compliant with JIS C 2805) RAV2-3.5 0.75 to 2mm² (18 to 14 AWG) stranded wire	• RAV1.25-3 (compliant with JIS C 2805) [Applicable wire size: 0.3 to 1.25mm² (22 to 16 AWG) stranded wire] • V2-MS3 (JST Mfg. Co., Ltd.), RAP2-3SL (Nippon Tanshi Co., Ltd.), TGV2-3N (NICHIFU Co., Ltd.) [Applicable wire size: 1.25 to 2.0mm² (16 to 14 AWG) stranded wire]	×	The screw size is different. Change the solderless terminals.
	Wire	Material	Copper		○	—
		Temperature rating	75℃ or higher		○	—
	External dimensions	Height (H)	65mm	50mm	○	—
		Width (W)	151.9mm	118mm	○	—
		Depth (D)	46mm	40mm	○	—
	Installation hall		ϕ4.5 (2 places)	4.5×5.1 (2 places)	○	—
	Installation hall pitch	Height (H)	56mm	—	×	The installation hall pitch is different.
		Width (W)	142.9mm	109mm	×	
	Weight		0.33kg	0.18kg	○	—

*1 Use the wires suitable for the solderless terminals to use and install the terminals with suitable tightening torque. Use the UL certified solderless terminals and use the recommended tools to crimp the terminals.

AJ65BTB2-16DT

Model to be discontinued		Alternative model	
Model	**Specifications**	**Model**	**Specifications**
AJ65BTB2-16DT	DC input (2-wire, positive common type) Transistor output (2-wire, sink type)	AJ65SBTB32-16DT2	DC input (3-wire, positive common type) Transistor output (2-wire, sink type)

■Performance specifications comparison

○: Compatible, △: Check required, ×: Not compatible

Item			Model to be discontinued AJ65BTB2-16DT	Alternative model AJ65SBTB32-16DT2	Compatibility	Precautions for replacement
Input part	Number of input points		8 points		○	—
	Isolation method		Photocoupler		○	—
	Rated input voltage		24VDC (ripple ratio: within 5%)	24VDC	○	—
	Rated input current		Approx. 7mA		○	—
	Operating voltage range		19.2 to 28.8VDC	19.2 to 26.4VDC (ripple ratio: within 5%)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
	Maximum number of simultaneous input points		100%		○	—
	ON voltage/ON current		14VDC or higher/3.5mA or higher		○	—
	OFF voltage/OFF current		6VDC or lower/1.7mA or lower		○	—
	Input resistance		Approx. 3.3kΩ		○	—
	Response time	OFF → ON	10ms or less	1.5ms or less (at 24VDC)	△	The response time may be incorrect due to noise. Verify the time in the system.
		ON → OFF	10ms or less	1.5ms or less (at 24VDC)		
	Input type		Positive common (sink type)		○	—
	Wiring method for common		8 points/common (2-wire, terminal block type)	16 points/common (common to input part and output part) (3-wire, terminal block type)	△	The common type is different, so the common wiring is different.
	Supply current for connected device		—	1.0A or lower/common	△	Check the current value per common.

Item			Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
			AJ65BTB2-16DT	AJ65SBTB32-16DT2		
Output part	Number of output points		8 points		○	—
	Isolation method		Photocoupler		○	—
	Rated load voltage		12/24VDC (ripple ratio: within 5%)	24VDC	△	12VDC is not available.
	Operating load voltage range		10.2 to 28.8VDC	19.2 to 26.4VDC (ripple ratio: within 5%)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
	Maximum load current		0.5A/point 4A/common	0.5A/point 2.4A/common	△	The maximum load current per common is lower.
	Maximum inrush current		4A, 10ms or less	1.0A, 10ms or less	○	—
	Leakage current at OFF		0.1mA or lower		○	—
	Maximum voltage drop at ON		0.9VDC or lower (TYP.): 0.5A, 1.5VDC or lower (MAX.): 0.5A	0.3VDC or lower (TYP.): 0.5A, 0.6VDC or lower (MAX.): 0.5A	○	—
	Output type		Sink type		○	—
	Response time	OFF → ON	2ms or less	0.5ms or less	△	Check the output timing.
		ON → OFF	2ms or less (resistive load)	1.5ms or less (resistive load)	△	
	External power supply for output part	Voltage	12/24VDC (ripple ratio: within 5%) (allowable voltage range: 10.2 to 28.8VDC)	19.2 to 26.4VDC (ripple ratio: within 5%)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
		Current	50mA or lower/common (TYP. 24VDC) Not including external load current.	17.8mA or lower (at 24VDC, all points ON) Not including external load current.	○	—
	Surge suppressor		Zener diode		○	—
	Wiring method for common		8 points/common (2-wire, terminal block type)	16 points/common (common to input part and output part) (2-wire, terminal block type)	△	The common type is different, so the common wiring is different.

Item			Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
			AJ65BTB2-16DT	AJ65SBTB32-16DT2		
Common part	Number of occupied stations		1 station		○	—
	Module power supply	Voltage	24VDC (ripple ratio: within 5%) (allowable voltage range: 15.6 to 28.8VDC)	20.4 to 26.4VDC (ripple ratio: within 5%)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
		Current	70mA or lower (at TYP. 24VDC)	50mA or lower (at 24VDC, all points ON)	○	—
	Noise immunity		Noise voltage 500Vp-p, noise width 1μs, noise frequency 25 to 60Hz (DC type noise simulator condition)		○	—
	Withstand voltage		500VAC for 1 minute between all DC external terminals and ground		○	—
	Insulation resistance		10MΩ or higher between all DC external terminals and ground (500VDC insulation resistance tester)		○	—
	External interface	Communication part, module power supply part	37-point terminal block (M3.5 screw) Including transmission path and module power supply terminals	7-point two-piece terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	The screw size is different.
		I/O part		34-point direct-mount terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	
	Applicable solderless terminal Applicable wire size*1		RAV1.25-3.5 (compliant with JIS C 2805) RAV2-3.5 0.75 to 2mm² (18 to 14 AWG) stranded wire	• RAV1.25-3 (compliant with JIS C 2805) [Applicable wire size: 0.3 to 1.25mm² (22 to 16 AWG) stranded wire] • V2-MS3 (JST Mfg. Co., Ltd.), RAP2-3SL (Nippon Tanshi Co., Ltd.), TGV2-3N (NICHIFU Co., Ltd.) [Applicable wire size: 1.25 to 2.0mm² (16 to 14 AWG) stranded wire]	×	The screw size is different. Change the solderless terminals.
	Wire	Material	Copper		○	—
		Temperature rating	75℃ or higher		○	—
	External dimensions	Height (H)	65mm	50mm	○	—
		Width (W)	197.4mm	179mm	○	—
		Depth (D)	46mm	40mm	○	—
	Installation hall		ϕ4.5 (2 places)	4.5×5.1 (2 places)	○	—
	Installation hall pitch	Height (H)	56mm	—	×	The installation hall pitch is different.
		Width (W)	188.4mm	170mm	×	
	Weight		0.41kg	0.25kg	○	—

*1 Use the wires suitable for the solderless terminals to use and install the terminals with suitable tightening torque. Use the UL certified solderless terminals and use the recommended tools to crimp the terminals.

AJ65BTB2-16DR

Model to be discontinued		Alternative model	
Model	**Specifications**	**Model**	**Specifications**
AJ65BTB2-16DR	DC input (2-wire, positive/negative common shared type) Relay output	AJ65SBTB32-16DR	DC input (3-wire, positive/negative common shared type) Relay output

■Performance specifications comparison

○: Compatible, △: Check required, ×: Not compatible

Item			Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
			AJ65BTB2-16DR	AJ65SBTB32-16DR		
Input part	Number of input points		8 points		○	—
	Isolation method		Photocoupler		○	—
	Rated input voltage		24VDC (ripple ratio: within 5%)	24VDC	○	—
	Rated input current		Approx. 7mA		○	—
	Operating voltage range		19.2 to 28.8VDC	19.2 to 26.4VDC (ripple ratio: within 5%)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
	Maximum number of simultaneous input points		100%		○	—
	ON voltage/ON current		14VDC or higher/3.5mA or higher		○	—
	OFF voltage/OFF current		6VDC or lower/1.7mA or lower		○	—
	Input resistance		Approx. 3.3kΩ		○	—
	Response time	OFF → ON	10ms or less	1.5ms or less (at 24VDC)	△	The response time may be incorrect due to noise. Verify the time in the system.
		ON → OFF	10ms or less	1.5ms or less (at 24VDC)		
	Input type		Positive/negative common shared type (sink/source shared type)		○	—
	Wiring method for common		8 points/common (2-wire, terminal block type)	8 points/common (3-wire, terminal block type)	△	The wiring method is different.
	Supply current for connected device		—	1.0A or lower/common	△	Check the current value per common.

Item			Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
			AJ65BTB2-16DR	AJ65SBTB32-16DR		
Output part	Number of output points		8 points		○	—
	Isolation method		Photocoupler	Relay	△	The isolation method is different.
	Rated load voltage/current		24VDC (resistive load), 240VAC (COSϕ= 1) 2A/point 8A/common	24VDC (resistive load), 240VAC (COSϕ= 1) 2A/point 4A/common	△	The maximum load current per common is lower.
	Minimum switching load		5VDC, 1mA		○	—
	Maximum switching voltage		250VAC, 110VDC	264VAC, 125VDC	○	—
	Response time	OFF → ON	10ms or less		○	—
		ON → OFF	12ms or less		○	—
	Life	Mechanical	20 million times or more		○	—
		Electrical	Rated switching voltage/current load: 100 thousand times or more 200VAC/1.5A, 240VAC/1A (COSϕ= 0.7): 100 thousand times or more 200VAC/1A, 240VAC/0.5A (COSϕ= 0.35): 100 thousand times or more 24VDC/1A, 100VDC/0.1A (L/R = 7ms): 100 thousand times or more		○	—
	Maximum switching frequency		3600 times/hour		○	—
	Surge suppressor		None		○	—
	Wiring method for common		8 points/common (2-wire, terminal block type)	4 points/common (2-wire, terminal block type)	△	The number of commons is different, so the common wiring is different.

Item			Model to be discontinued AJ65BTB2-16DR	Alternative model AJ65SBTB32-16DR	Compatibility	Precautions for replacement
Common part	Number of occupied stations		1 station		○	—
	Module power supply	Voltage	24VDC (ripple ratio: within 5%) (allowable voltage range: 15.6 to 28.8VDC)	20.4 to 26.4VDC (ripple ratio: within 5%)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
		Current	70mA or lower (at TYP. 24VDC)	85mA or lower (at 24VDC, all points ON)	△	
	Noise immunity		Noise voltage 1500Vp-p for AC, noise voltage 500Vp-p for DC, noise width 1μs, noise frequency 25 to 60Hz (noise simulator condition)		○	—
	Withstand voltage		1500VAC for 1 minute between all AC external terminals and ground 500VAC for 1 minute between all DC external terminals and ground	2830VACrms for 3 cycles between all AC external terminals and ground (2000m above sea level) 500VAC for 1 minute between all DC external terminals and ground	○	—
	Insulation resistance		10MΩ or higher between all AC external terminals and ground (500VDC insulation resistance tester) 10MΩ or higher between all DC external terminals and ground (500VDC insulation resistance tester)		○	—
	External interface	Communication part, module power supply part	37-point terminal block (M3.5 screw) Including transmission path and module power supply terminals	7-point two-piece terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	The screw size is different.
		I/O part		34-point direct-mount terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	
	Applicable solderless terminal Applicable wire size*1		RAV1.25-3.5 (compliant with JIS C 2805) RAV2-3.5 0.75 to 2mm² (18 to 14 AWG) stranded wire	• RAV1.25-3 (compliant with JIS C 2805) [Applicable wire size: 0.3 to 1.25mm² (22 to 16 AWG) stranded wire] • V2-MS3 (JST Mfg. Co., Ltd.), RAP2-3SL (Nippon Tanshi Co., Ltd.), TGV2-3N (NICHIFU Co., Ltd.) [Applicable wire size: 1.25 to 2.0mm² (16 to 14 AWG) stranded wire]	×	The screw size is different. Change the solderless terminals.
	Wire	Material	Copper		○	—
		Temperature rating	75℃ or higher		○	—
	External dimensions	Height (H)	65mm	50mm	○	—
		Width (W)	197.4mm	179mm	○	—
		Depth (D)	46mm	40mm	○	—
	Installation hall		ϕ4.5 (2 places)	4.5×5.1 (2 places)	○	—
	Installation hall pitch	Height (H)	56mm	—	×	The installation hall pitch is different.
		Width (W)	188.4mm	170mm	×	
	Weight		0.43kg	0.28kg	○	—

*1 Use the wires suitable for the solderless terminals to use and install the terminals with suitable tightening torque. Use the UL certified solderless terminals and use the recommended tools to crimp the terminals.

6.4 Analog Module

Voltage/current input (AJ65BT-64AD)

Replacement from AJ65BT-64AD to AJ65SBT2B-64AD

Model to be discontinued		Alternative model	
Model	**Specifications**	**Model**	**Specifications**
AJ65BT-64AD	Voltage/current input	AJ65SBT2B-64AD	Voltage/current input

■Performance specifications comparison

○: Compatible, △: Check required, ×: Not compatible

Item		Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
		AJ65BT-64AD	**AJ65SBT2B-64AD**		
Analog input	Voltage	-10 to 10VDC (input resistance: 1MΩ)		○	—
	Current	-20 to 20mADC (input resistance: 250Ω)	0 to 20mADC (input resistance: 250Ω)	△	Only the positive current is available.
Digital output		16-bit signed binary data (data: 12 bits) -2048 to 2047, 0 to 4095	16-bit signed binary data -16384 to 16383	△	The range of digital output value is wider.
I/O characteristics, maximum resolution		*1	*2	△	The maximum resolution is smaller, resulting in finer control.
Conversion accuracy	Ambient temperature: 0 to 55℃	±1% (±40 digits)	±0.2% (±32 digits)	○	—
Conversion speed		1ms/channel	200μs/channel	△	The conversion accuracy may be degraded due to noise. Verify the accuracy in the system.
Absolute maximum input	Voltage	±15V		○	—
	Current	±30mA		○	—
Number of analog input channels		4 channels		○	—
CC-Link station type		Remote device station		○	—
Number of occupied stations		2 stations	1 station	○	—
Connection cable		CC-Link dedicated cable		○	—
Withstand voltage		Between all power supply and communication system terminals and all analog input terminals 500VAC for 1 minute		○	—
Isolation method		Between all power supply and communication system terminals and all analog input terminals: Photocoupler Between input channels: Non-isolation	Between communication system terminals and all analog input terminals: Photocoupler Between power supply system terminal and all analog input terminals: Transformer isolation Between input channels: Non-isolation	○	—
Noise immunity		Noise voltage 500Vp-p, noise width 1μs, noise frequency 25 to 60Hz (noise simulator condition)		○	—
Built-in terminating resistor		None	Disable/Enable (110Ω): Switchable	○	—
Number of offset/gain settings		—	10 thousand times maximum	○	—

Item		Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
		AJ65BT-64AD	AJ65SBT2B-64AD		
External power supply	Voltage	24VDC (18 to 30VDC)	24VDC (20.4 to 28.8VDC)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
	Inrush current	—	Inrush current: 1.6A, 4.0ms or less	○	—
	Current consumption	0.12A (at 24VDC)		○	—
External interface	Communication part, module power supply part	27-point two-piece terminal block	7-point two-piece terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	The screw size is different.
	I/O part		18-point two-piece terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	
Applicable wire size		0.75 to 2.0mm² (18 to 14 AWG)	0.3 to 2.0mm² (22 to 14 AWG)	○	—
Applicable solderless terminal		RAV1.25-3.5, RAV2-3.5	• RAV1.25-3 (compliant with JIS C 2805) [Applicable wire size: 0.3 to 1.25mm² (22 to 16 AWG)] • V2-MS3 (JST Mfg. Co., Ltd.), RAP2-3SL (Nippon Tanshi Co., Ltd.), TGV2-3N (NICHIFU Co., Ltd.) [Applicable wire size: 1.25 to 2.0mm² (16 to 14 AWG)]	×	The screw size is different. Change the solderless terminals.
External dimensions	Height (H)	65mm	50mm	○	—
	Width (W)	151.9mm	122mm	○	—
	Depth (D)	63mm	54mm	○	—
Installation hall		ϕ4.5 (2 places)	4.5×5.1 (2 places)	○	—
Installation hall pitch	Height (H)	56mm	0mm	×	The installation hall pitch is different.
	Width (W)	142.9mm	109.5mm	×	
Weight		0.35kg	0.25kg	○	—

*1 The following table lists the I/O characteristics and maximum resolution of AJ65BT-64AD.

Analog input range		Digital output value	Maximum resolution
Voltage	-10 to 10V	0 to 4000 or -2000 to 2000	5mV
	0 to 10V		2.5mV
	0 to 5V		1.25mV
	1 to 5V		1mV
Current	-20 to 20mA	0 to 4000 or -2000 to 2000	20μA
	0 to 20mA		10μA
	4 to 20mA		4μA

*2 The following table lists the I/O characteristics and maximum resolution of AJ65SBT2B-64AD.

Analog input range		Digital output value	Maximum resolution
Voltage	-10 to 10V	-16000 to 16000	0.625mV
	User range setting 1 (-10 to 10V)		0.5mV
	User range setting 2 (-5 to 5V)		0.25mV
	0 to 5V	0 to 16000	0.3125mV
	1 to 5V		0.25mV

Analog input range		Digital output value	Maximum resolution
Current	0 to 20mA	0 to 16000	1.25μA
	4 to 20mA		1μA
	User range setting 2	-16000 to 16000	1μA

■Functional comparison

○: Available, ×: Not available

Item	Description	Model to be discontinued	Alternative model	Precautions for replacement
		AJ65BT-64AD	AJ65SBT2B-64AD	
A/D conversion enable/disable setting	• The A/D conversion can be enabled or disabled for each channel using this function. • By setting A/D conversion disabled for unnecessary channels, the sampling period shortens.	○	○	The remote register settings of AJ65BT-64AD is changed to the remote I/O signal settings of AJ65SBT2B-64AD.
Sampling processing/ averaging processing specification	The sampling processing or average processing can be specified using this function.	○ Count average: 1 to 10000 times Time average: 4 to 10000ms Moving average: Not available	○ Count average: 4 to 255 times Time average: 0 to 25.5ms Moving average: 4, 8, 16, 32, 64, 128 times	The accuracy may be degraded due to noise. Verify the speed in the system.
Input range setting function	The analog input range can be specified using this function.	○ (All channels)	○ (Each channel)	The pin settings and remote I/O signal settings of AJ65BT-64AD are changed to the remote I/O signal settings of AJ65SBT2B-64AD.
Offset/gain settings	Offset/gain values can be set using this function	○	○	—
Transmission speed auto-tracking function	When the module is powered on, the transmission speed is set automatically depending on the setting in the master module.	×	○	—
Data format setting	The display format of digital output value for each channel can be set using this function.	○	×	The equivalent function is available by operation in the sequence program.
Error code	When the write data error occurs, the error code is stored.	○	×	No error codes. Check the error cause using the ON/OFF state of remote input signal. ☞Page 27 Comparison of remote I/O signals
Error flag	The flag is set when an error other than the watchdog timer error occurs.	○	○	—

■Comparison of remote I/O signals

The remote I/O signals are different. Change the sequence program.

For details, refer to the user's manuals.

n: Address assigned to the master station by station number setting

Signal direction: Remote module → Master module			Signal direction: Master module → Remote module		
Remote input (RX)	Signal name		Remote output (RY)	Signal name	
	Model to be discontinued	Alternative model		Model to be discontinued	Alternative model
	AJ65BT-64AD	AJ65SBT2B-64AD		AJ65BT-64AD	AJ65SBT2B-64AD
RXn0	CH1 A/D conversion completion flag		RYn0	Offset/gain value selection	CH1 A/D conversion enable/disable setting
RXn1	CH2 A/D conversion completion flag		RYn1	Voltage/current selection	CH2 A/D conversion enable/disable setting
RXn2	CH3 A/D conversion completion flag		RYn2	Use prohibited	CH3 A/D conversion enable/disable setting
RXn3	CH4 A/D conversion completion flag		RYn3		CH4 A/D conversion enable/disable setting
RXn4	Use prohibited	Use prohibited	RYn4		CH1 Input range setting (0th bit)
RXn5			RYn5		CH1 Input range setting (1st bit)
RXn6			RYn6		CH1 Input range setting (2nd bit)
RXn7			RYn7		CH2 Input range setting (0th bit)
RXn8			RYn8		CH2 Input range setting (1st bit)
RXn9			RYn9		CH2 Input range setting (2nd bit)
RXnA		Hardware error flag	RYnA		CH3 Input range setting (0th bit)
RXnB		User range read error flag	RYnB		CH3 Input range setting (1st bit)
RXnC		Flash memory write error flag	RYnC		CH3 Input range setting (2nd bit)
RXnD		Number of offset/gain settings excess flag	RYnD		CH4 Input range setting (0th bit)
RXnE		Use prohibited	RYnE		CH4 Input range setting (1st bit)
RXnF		Test mode flag	RYnF		CH4 Input range setting (2nd bit)
RX(n+1)0		Use prohibited	RY(n+1)0		Use prohibited
RX(n+1)1			RY(n+1)1		
RX(n+1)2			RY(n+1)2		
RX(n+1)3			RY(n+1)3		
RX(n+1)4			RY(n+1)4		
RX(n+1)5			RY(n+1)5		
RX(n+1)6			RY(n+1)6		
RX(n+1)7			RY(n+1)7		
RX(n+1)8	Initial data processing request flag		RY(n+1)8	Initial data processing completion flag	
RX(n+1)9	Initial data setting completion flag		RY(n+1)9	Initial data setting request flag	
RX(n+1)A	Error flag		RY(n+1)A	Error reset request flag	

Signal direction: Remote module → Master module			Signal direction: Master module → Remote module		
Remote input (RX)	Signal name		Remote output (RY)	Signal name	
	Model to be discontinued	Alternative model		Model to be discontinued	Alternative model
	AJ65BT-64AD	AJ65SBT2B-64AD		AJ65BT-64AD	AJ65SBT2B-64AD
RX(n+1)B	Remote READY		RY(n+1)B	Use prohibited	Use prohibited
RX(n+1)C ⋮ RX(n+1)F	Use prohibited	Use prohibited	RY(n+1)C ⋮ RY(n+1)F		
RX(n+2)0 ⋮ RX(n+3)F	Use prohibited	Unusable (not assigned because the number of occupied stations is 1)	RY(n+2)0 ⋮ RY(n+3)F	Use prohibited	Unusable (not assigned because the number of occupied stations is 1)

■Comparison of remote register

The assignment of remote resisters is changed. Change the sequence program.

For details, refer to the user's manuals.

m, n: Address assigned to the master station by station number setting

Direction	Address	Model to be discontinued		Alternative model	
		AJ65BT-64AD		AJ65SBT2B-64AD	
		Description	Default	Description	Default
Master → Remote	RWwm	Average processing specification	0	CH1 Average processing setting	0
	RWwm+1	CH1 average time, number of times	0	CH2 Average processing setting	0
	RWwm+2	CH2 average time, number of times	0	CH3 Average processing setting	0
	RWwm+3	CH3 average time, number of times	0	CH4 Average processing setting	0
	RWwm+4	CH4 average time, number of times	0	Unusable (not assigned because the number of occupied stations is 1)	
	RWwm+5	Data format	0		
	RWwm+6	A/D conversion enable/prohibit specification	0		
	RWwm+7	Use prohibited	—		
Remote → Master	RWrn	CH1 digital output value	0	CH1 Digital output value	0
	RWrn+1	CH2 digital output value	0	CH2 Digital output value	0
	RWrn+2	CH3 digital output value	0	CH3 Digital output value	0
	RWrn+3	CH4 digital output value	0	CH4 Digital output value	0
	RWrn+4	Error code	0	Unusable (not assigned because the number of occupied stations is 1)	
	RWrn+5	Use prohibited	—		
	RWrn+6				
	RWrn+7				

Replacement from AJ65BT-64AD to AJ65SBT-64AD

Model to be discontinued		Alternative model	
Model	**Specifications**	**Model**	**Specifications**
AJ65BT-64AD	Voltage/current input	AJ65SBT-64AD	Voltage/current input

■Performance specifications comparison

○: Compatible, △: Check required, ×: Not compatible

Item		Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
		AJ65BT-64AD	AJ65SBT-64AD		
Analog input	Voltage	-10 to 10VDC (input resistance: 1MΩ)		○	—
	Current	-20 to 20mADC (input resistance: 250Ω)	0 to 20mADC (input resistance: 250Ω)	△	Only the positive current is available.
Digital output		16-bit signed binary data (data: 12 bits) -2048 to 2047, 0 to 4095	16-bit signed binary data -4096 to 4095	△	The range of digital output value is wider.
I/O characteristics, maximum resolution		*1	*2	△	The maximum resolution is smaller, resulting in finer control.
Conversion accuracy	Ambient temperature: 25±5℃	±1% (±40 digits)	±0.2% (±8 digits)	○	—
	Ambient temperature: 0 to 55℃		±0.4% (±16 digits)		
Conversion speed		1ms/channel		○	—
Absolute maximum input	Voltage	±15V		○	—
	Current	±30mA		○	—
Number of analog input channels		4 channels		○	—
CC-Link station type		Remote device station		○	—
Number of occupied stations		2 stations	1 station	○	—
Connection cable		CC-Link dedicated cable		○	—
Withstand voltage		Between all power supply and communication system terminals and all analog input terminals 500VAC for 1 minute		○	—
Isolation method		Between all power supply and communication system terminals and all analog input terminals: Photocoupler Between input channels: Non-isolation	Between communication system terminals and all analog input terminals: Photocoupler Between power supply system terminals and all analog input terminals: Photocoupler Between input channels: Non-isolation	○	—
Noise immunity		Noise voltage 500Vp-p, noise width 1μs, noise frequency 25 to 60Hz (noise simulator condition)		○	—
External power supply	Voltage	24VDC (18 to 30VDC)	24VDC (20.4 to 26.4VDC)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
	Inrush current	—	Inrush current: 8.5A, 2.3ms or less	○	—
	Current consumption	0.12A (at 24VDC)	0.09A (at 24VDC)	○	—

Item		Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
		AJ65BT-64AD	AJ65SBT-64AD		
External interface	Communication part, module power supply part	27-point two-piece terminal block	7-point two-piece terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	The screw size is different.
	I/O part		18-point direct-mount terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	
Applicable wire size		0.75 to 2.0mm² (18 to 14 AWG)	0.3 to 0.75mm² (22 to 18 AWG)	×	The screw size is different. Change the solderless terminals.
Applicable solderless terminal		RAV1.25-3.5, RAV2-3.5	• RAV1.25-3 (compliant with JIS C 2805) [Applicable wire size: 0.3 to 1.25mm² (22 to 16 AWG)] • V2-MS3 (JST Mfg. Co., Ltd.), RAP2-3SL (Nippon Tanshi Co., Ltd.), TGV2-3N (NICHIFU Co., Ltd.) [Applicable wire size: 1.25 to 2.0mm² (16 to 14 AWG)]	×	
External dimensions	Height (H)	65mm	50mm	○	—
	Width (W)	151.9mm	118mm	○	—
	Depth (D)	63mm	40mm	○	—
Installation hall		ϕ4.5 (2 places)	4.5×5.1 (2 places)	○	—
Installation hall pitch	Height (H)	56mm	0mm	×	The installation hall pitch is different.
	Width (W)	142.9mm	109.0mm	×	
Weight		0.35kg	0.20kg	○	—

*1 The following table lists the I/O characteristics and maximum resolution of AJ65BT-64AD.

Analog input range		Digital output value	Maximum resolution
Voltage	-10 to 10V	0 to 4000 or -2000 to 2000	5mV
	0 to 10V		2.5mV
	0 to 5V		1.25mV
	1 to 5V		1mV
Current	-20 to 20mA	0 to 4000 or -2000 to 2000	20μA
	0 to 20mA		10μA
	4 to 20mA		4μA

*2 The following table lists the I/O characteristics and maximum resolution of AJ65SBT-64AD.

Analog input range		Digital output value	Maximum resolution
Voltage	-10 to 10V	-4000 to 4000	2.5mV
	User range setting 1 (-10 to 10V)		
	0 to 5V	0 to 4000	1.25mV
	1 to 5V		1mV
	User range setting 2 (0 to 5V)		
Current	0 to 20mA	0 to 4000	5μA
	4 to 20mA		4μA
	User range setting 3		

■Functional comparison

○: Available, ×: Not available

Item	Description	Model to be discontinued	Alternative model	Precautions for replacement
		AJ65BT-64AD	AJ65SBT-64AD	
A/D conversion enable/ disable setting	• The A/D conversion can be enabled or disabled for each channel using this function. • By setting A/D conversion disabled for unnecessary channels, the sampling period shortens.	○	○	—
Sampling processing/ averaging processing specification	The sampling processing or average processing can be specified using this function.	○ Count average: 1 to 10000 times Time average: 4 to 10000ms Moving average: Not available	○ Count average: Not available Time average: Not available Moving average: 4, 8, 16, 32 times	The accuracy may be degraded due to noise. Verify the speed in the system.
Input range setting function	The analog input range can be specified using this function.	○ (All channels)	○ (Each channel)	The pin settings and remote I/ O signal settings AJ65BT-64AD is changed to the remote register settings of AJ65SBT-64AD.
Offset/gain settings	The offset/gain setting can be set for each channel using this function.	○	○	—
Data format setting	The display format of digital output value can be set for each channel using this function.	○	×	The equivalent function is available by operation in the sequence program.
Error code	When the write data error occurs, the error code is stored.	○	×	No error codes. Check the error cause using the ON/OFF state of remote input signal. ☞ Page 33 Comparison of remote I/O signals
Error flag	The flag is set when an error other than the watchdog timer error occurs.	○	○	—

■Comparison of remote I/O signals

The remote I/O signals are different. Change the sequence program.

For details, refer to the user's manuals.

n: Address assigned to the master station by station number setting

Signal direction: Remote module → Master module			Signal direction: Master module → Remote module		
Remote input (RX)	Signal name		Remote output (RY)	Signal name	
	Model to be discontinued	Alternative model		Model to be discontinued	Alternative model
	AJ65BT-64AD	AJ65SBT-64AD		AJ65BT-64AD	AJ65SBT-64AD
RXn0	CH1 A/D conversion completion flag		RYn0	Offset/gain value selection	CH1 moving average processing specifying flag
RXn1	CH2 A/D conversion completion flag		RYn1	Voltage/current selection	CH2 moving average processing specifying flag
RXn2	CH3 A/D conversion completion flag		RYn2	Use prohibited	CH3 moving average processing specifying flag
RXn3	CH4 A/D conversion completion flag		RYn3		CH4 moving average processing specifying flag
RXn4	Use prohibited	CH1 range error flag	RYn4		Use prohibited
RXn5		CH2 range error flag	RYn5		
RXn6		CH3 range error flag	RYn6		
RXn7		CH4 range error flag	RYn7		
RXn8		Use prohibited	RYn8		
RXn9			RYn9		
RXnA			RYnA		
RXnB			RYnB		
RXnC		E^2PROM write error flag	RYnC		
RXnD		Use prohibited	RYnD		
RXnE			RYnE		
RXnF		Test mode flag	RYnF		
RX(n+1)0		Use prohibited	RY(n+1)0		
RX(n+1)1			RY(n+1)1		
RX(n+1)2			RY(n+1)2		
RX(n+1)3			RY(n+1)3		
RX(n+1)4			RY(n+1)4		
RX(n+1)5			RY(n+1)5		
RX(n+1)6			RY(n+1)6		
RX(n+1)7			RY(n+1)7		
RX(n+1)8	Initial data processing request flag		RY(n+1)8	Initial data processing completion flag	
RX(n+1)9	Initial data setting completion flag		RY(n+1)9	Initial data setting request flag	
RX(n+1)A	Error status flag		RY(n+1)A	Error reset request flag	
RX(n+1)B	Remote READY		RY(n+1)B	Use prohibited	Use prohibited
RX(n+1)C ⋮ RX(n+1)F	Use prohibited	Use prohibited	RY(n+1)C ⋮ RY(n+1)F		
RX(n+2)0 ⋮ RX(n+3)F	Use prohibited	Unusable (not assigned because the number of occupied stations is 1)	RY(n+2)0 ⋮ RY(n+3)F	Use prohibited	Unusable (not assigned because the number of occupied stations is 1)

■Comparison of remote register

The assignment of remote resisters is changed. Change the sequence program.

For details, refer to the user's manuals.

m, n: Address assigned to the master station by station number setting

Direction	Address	Model to be discontinued		Alternative model	
		AJ65BT-64AD		AJ65SBT-64AD	
		Description	Default	Description	Default
Master → Remote	RWwm	Average processing specification	0	A/D conversion enable/prohibit specification	0
	RWwm+1	CH1 average time, number of times	0	Input range setting	0
	RWwm+2	CH2 average time, number of times	0	Moving average processing count setting	0
	RWwm+3	CH3 average time, number of times	0	Use prohibited	—
	RWwm+4	CH4 average time, number of times	0	Unusable (not assigned because the number of occupied stations is 1)	
	RWwm+5	Data format	0		
	RWwm+6	A/D conversion enable/prohibit specification	0		
	RWwm+7	Use prohibited	—		
Remote → Master	RWrn	CH1 digital output value	0	CH1 digital output value	0
	RWrn+1	CH2 digital output value	0	CH2 digital output value	0
	RWrn+2	CH3 digital output value	0	CH3 digital output value	0
	RWrn+3	CH4 digital output value	0	CH4 digital output value	0
	RWrn+4	Error code	0	Unusable (not assigned because the number of occupied stations is 1)	
	RWrn+5	Use prohibited	—		
	RWrn+6				
	RWrn+7				

Voltage output (AJ65BT-64DAV)

Replacement from AJ65BT-64DAV to AJ65SBT2B-64DA

Model to be discontinued		Alternative model	
Model	**Specifications**	**Model**	**Specifications**
AJ65BT-64DAV	Voltage output	AJ65SBT2B-64DA	Voltage/current output

■Performance specifications comparison

○: Compatible, △: Check required, ×: Not compatible

Item		Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
		AJ65BT-64DAV	AJ65SBT2B-64DA		
Digital input value	Voltage	16-bit signed binary data (data: 12 bits) -2048 to 2047	16-bit signed binary data -16384 to 16383, -12288 to 12287, -288 to 12287	△	The range of digital input value is wider.
	Current	—	16-bit signed binary data -288 to 12287	○	—
Analog output value	Voltage	-10 to 10VDC (external load resistance: 2kΩ to 1MΩ)	-10 to 10VDC (external load resistance: 1kΩ to 1MΩ)	○	—
	Current	—	0 to 20mADC (external load resistance: 0 to 600Ω)	○	—
I/O characteristics, maximum resolution		*1	*2	△	The maximum resolution is smaller, resulting in finer control.
Total accuracy (accuracy for the maximum analog output value)	Ambient temperature: 25±5℃	±1% (±100mV)	±0.2% • -10 to 10V, user range setting 2: ±20mV • 0 to 5V, 1 to 5V: ±10mV • 0 to 20mA, 4 to 20mA, user range setting 1: ±40μA	○	—
	Ambient temperature: 0 to 55℃		±0.3% • -10 to 10V, user range setting 2: ±30mV • 0 to 5V, 1 to 5V: ±15mV • 0 to 20mA, 4 to 20mA, user range setting 1: ±60μA		
Conversion speed		1ms/channel	200μs/channel	○	The conversion accuracy may be degraded due to noise. Verify the accuracy in the system.
Output short circuit protection		Available		○	—
Number of analog output channels		4 channels		○	—
Number of flash memory writes		—	10 thousand times maximum	○	—
CC-Link station type		Remote device station		○	—
Number of occupied stations		2 stations	1 station	○	—
Connection cable		CC-Link dedicated cable		○	—
Withstand voltage		Between all power supply and communication system terminals and all analog output terminals 500VAC for 1 minute		○	—

Item		Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
		AJ65BT-64DAV	AJ65SBT2B-64DA		
Isolation method		Between power supply system terminals and all analog output terminals: Transformer isolation Between output channels: Non-isolation	Between communication system terminals and all analog output terminals: Photocoupler Between power supply system terminals and all analog output terminals: Transformer isolation Between output channels: Non-isolation	○	—
Noise immunity		Noise voltage 500Vp-p, noise width 1μs, noise frequency 25 to 60Hz (noise simulator condition)		○	—
Built-in terminating resistor		None	Disable/Enable (110Ω): Switchable	○	—
Offset/gain settings		Available		○	—
External power supply	Voltage	24VDC (20.4 to 26.4VDC)	24VDC (20.4 to 28.8VDC)	○	—
	Inrush current	1.5A, 0.67ms or less	2.6A, 3.2ms or less	△	The inrush current is higher. Check that the current value does not affect the system.
	Current consumption	0.18A (at 24VDC)	0.24A (at 24VDC)	△	The current consumption is higher. Check that the current consumption does not affect the system.
External interface	Communication part, module power supply part	27-point two-piece terminal block (M3.5×7)	7-point two-piece terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	The screw size is different.
	I/O part		18-point two-piece terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	
Applicable wire size		0.75 to 2.0mm² (18 to 14 AWG)	0.3 to 2.0mm² (22 to 14 AWG)	○	—
Applicable solderless terminal		RAV1.25-3.5 (compliant with JIS C 2805), RAV2-3.5	• RAV1.25-3 (compliant with JIS C 2805) [Applicable wire size: 0.3 to 1.25mm² (22 to 16 AWG)] • V2-MS3 (JST Mfg. Co., Ltd.), RAP2-3SL (Nippon Tanshi Co., Ltd.), TGV2-3N (NICHIFU Co., Ltd.) [Applicable wire size: 1.25 to 2.0mm² (16 to 14 AWG)]	×	The screw size is different. Change the solderless terminals.
External dimensions	Height (H)	65mm	50mm	○	—
	Width (W)	151.9mm	122mm	○	—
	Depth (D)	63mm	54mm	○	—
Installation hall		ϕ4.5 (2 places)	4.5×5.1 (2 places)	○	—
Installation hall pitch	Height (H)	56mm	0mm	×	The installation hall pitch is different.
	Width (W)	143mm	109.5mm	×	
Weight		0.4kg	0.25kg	○	—

*1 The following table lists the I/O characteristics and maximum resolution of AJ65BT-64DAV.

Analog output range		Digital input value	Maximum resolution
Voltage	-10 to 10V	-2000 to 2000	5mV

*2 The following table lists the I/O characteristics and maximum resolution of AJ65SBT2B-64DA.

Analog output range		Digital input value	Maximum resolution
Voltage	-10 to 10V	-16000 to 16000	0.625mV
	0 to 5V	0 to 12000	0.416mV
	1 to 5V		0.333mV
	User range setting 2 (-10 to 10V)	-12000 to 12000	0.3125mV
Current	0 to 20mA	0 to 12000	1.66μA
	4 to 20mA		1.33μA
	User range setting 1 (0 to 20mA)		0.95μA

■Functional comparison

○: Available, ×: Not available

Item	Description	Model to be discontinued	Alternative model	Precautions for replacement
		AJ65BT-64DAV	AJ65SBT2B-64DA	
D/A output enable/ disable function	• Specifies a value to be output, D/A conversion value or offset value, for each channel. • The conversion speed is constant regardless of the output enable/ disable setting.	○	○	—
D/A conversion enable/disable function	• Sets the D/A conversion enable/ disable status for each channel. • Setting "Disable" for the unused channel shortens the conversion speed.	○	○	The remote register settings of AJ65BT-64DAV is changed to the remote I/O signal settings of AJ65SBT2B-64DA.
Output range switching function	Sets the analog output range for each channel to change the I/O conversion characteristics.	×	○	—
Analog output hold/ clear function when the programmable controller CPU is in the STOP status (HOLD/ CLEAR setting)	Specifies whether to hold or clear an analog value (output an offset value) output from each channel immediately before the programmable controller CPU has entered the STOP status or the module has stopped D/A conversion due to an error.	○ (All channels)	○ (Each channel)	The terminal wiring of AJ65BT-64DAV is changed to the remote I/O signal settings of AJ65SBT2B-64DA.
Offset/gain settings	The offset/gain setting can be set for each channel using this function.	○	○	—
Transmission speed auto-tracking function	When the module is powered on, the transmission speed is set automatically depending on the setting in the master module.	×	○	—
Error code	When the write data error occurs, the error code is stored.	○	○	—
Error flag	The flag is set when an error other than the watchdog timer error occurs.	○	○	—

■Comparison of remote I/O signals

The remote I/O signals are different. Change the sequence program.

For details, refer to the user's manuals.

n: Address assigned to the master station by station number setting

Signal direction: Remote module → Master module			Signal direction: Master module → Remote module		
Remote input (RX)	Signal name		Remote output (RY)	Signal name	
	Model to be discontinued	Alternative model		Model to be discontinued	Alternative model
	AJ65BT-64DAV	AJ65SBT2B-64DA		AJ65BT-64DAV	AJ65SBT2B-64DA
RXn0	Use prohibited	Use prohibited	RYn0	CH1 Analog output enable/disable flag	
RXn1			RYn1	CH2 Analog output enable/disable flag	
RXn2			RYn2	CH3 Analog output enable/disable flag	
RXn3			RYn3	CH4 Analog output enable/disable flag	
RXn4			RYn4	Offset/gain value selection	CH1 Input range setting (0th bit)
RXn5			RYn5	Use prohibited	CH1 Input range setting (1st bit)
RXn6			RYn6		CH1 Input range setting (2nd bit)
RXn7			RYn7		CH2 Input range setting (0th bit)
RXn8			RYn8		CH2 Input range setting (1st bit)
RXn9			RYn9		CH2 Input range setting (2nd bit)
RXnA		Flash memory write error flag	RYnA		CH3 Input range setting (0th bit)
RXnB		User range read error flag	RYnB		CH3 Input range setting (1st bit)
RXnC		Flash memory write error flag	RYnC		CH3 Input range setting (2nd bit)
RXnD		Use prohibited	RYnD		CH4 Input range setting (0th bit)
RXnE			RYnE		CH4 Input range setting (1st bit)
RXnF		Test mode flag	RYnF		CH4 Input range setting (2nd bit)
RX(n+1)0	Use prohibited	Use prohibited	RY(n+1)0	Use prohibited	CH1 HOLD/CLEAR setting
RX(n+1)1			RY(n+1)1		CH2 HOLD/CLEAR setting
RX(n+1)2			RY(n+1)2		CH3 HOLD/CLEAR setting
RX(n+1)3			RY(n+1)3		CH4 HOLD/CLEAR setting
RX(n+1)4			RY(n+1)4		CH1 Conversion enable/ disable setting
RX(n+1)5			RY(n+1)5		CH2 Conversion enable/ disable setting
RX(n+1)6			RY(n+1)6		CH3 Conversion enable/ disable setting
RX(n+1)7			RY(n+1)7		CH4 Conversion enable/ disable setting
RX(n+1)8	Initial data processing request flag		RY(n+1)8	Initial data processing completion flag	
RX(n+1)9	Initial data setting completion flag		RY(n+1)9	Initial data setting request flag	
RX(n+1)A	Error status flag		RY(n+1)A	Error reset request flag	

Signal direction: Remote module → Master module			Signal direction: Master module → Remote module		
Remote input (RX)	Signal name		Remote output (RY)	Signal name	
	Model to be discontinued	Alternative model		Model to be discontinued	Alternative model
	AJ65BT-64DAV	AJ65SBT2B-64DA		AJ65BT-64DAV	AJ65SBT2B-64DA
RX(n+1)B	Remote READY		RY(n+1)B	Use prohibited	Use prohibited
RX(n+1)C ⋮ RX(n+1)F	Use prohibited	Use prohibited	RY(n+1)C ⋮ RY(n+1)F		
RX(n+2)0 ⋮ RX(n+3)F	Use prohibited	Unusable (not assigned because the number of occupied stations is 1)	RY(n+2)0 ⋮ RY(n+3)F	Use prohibited	Unusable (not assigned because the number of occupied stations is 1)

■Comparison of remote register

The assignment of remote resisters is changed. Change the sequence program.

For details, refer to the user's manuals.

m, n: Address assigned to the master station by station number setting

Direction	Address	Model to be discontinued		Alternative model	
		AJ65BT-64DAV		AJ65SBT2B-64DA	
		Description	Default	Description	Default
Master → Remote	RWwm	CH1 digital value setting	0	CH1 Digital input value setting	0
	RWwm+1	CH2 digital value setting	0	CH2 Digital input value setting	0
	RWwm+2	CH3 digital value setting	0	CH3 Digital input value setting	0
	RWwm+3	CH4 digital value setting	0	CH4 Digital input value setting	0
	RWwm+4	Analog output enable/disable	0	Unusable (not assigned because the number of occupied stations is 1)	
	RWwm+5	Use prohibited	—		
	RWwm+6				
	RWwm+7				
Remote → Master	RWrn	CH1 set value check code	0	CH1, 2 Check code	0
	RWrn+1	CH2 set value check code	0	CH3, 4 Check code	0
	RWrn+2	CH3 set value check code	0	Error code	0
	RWrn+3	CH4 set value check code	0	Use prohibited	—
	RWrn+4	Error code	0	Unusable (not assigned because the number of occupied stations is 1)	
	RWrn+5	Use prohibited	—		
	RWrn+6				
	RWrn+7				

Replacement from AJ65BT-64DAV to AJ65SBT-62DA

Model to be discontinued		Alternative model	
Model	**Specifications**	**Model**	**Specifications**
AJ65BT-64DAV	Voltage output	AJ65SBT-62DA	Voltage/current output

■Performance specifications comparison

○: Compatible, △: Check required, ×: Not compatible

Item		Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
		AJ65BT-64DAV	AJ65SBT-62DA		
Digital input value	Voltage	16-bit signed binary data (data: 12 bits) -2048 to 2047	16-bit signed binary data -4096 to 4095	△	The range of digital input value is wider.
	Current	—	16-bit signed binary data 0 to 4095	○	—
Analog output value	Voltage	-10 to 10VDC (external load resistance: 2kΩ to 1MΩ)	-10 to 10VDC (external load resistance: 1kΩ to 1MΩ)	○	—
	Current	—	0 to 20mADC (external load resistance: 0 to 600Ω)	○	—
I/O characteristics, maximum resolution		*1	*2	△	The maximum resolution is smaller, resulting in finer control.
Total accuracy (accuracy for the maximum analog output value)	Ambient temperature: 25±5℃	±1% (±100mV)	±0.2% • -10 to 10V, user range setting 1: ±20mV • 0 to 5V, 1 to 5V, user range setting 2: ±10mV • 0 to 20mA, 4 to 20mA, user range setting 3: ±40μA	○	—
	Ambient temperature: 0 to 55℃		±0.4% • -10 to 10V, user range setting 1: ±40mV • 0 to 5V, 1 to 5V, user range setting 2: ±20mV • 0 to 20mA, 4 to 20mA, user range setting 3: ±80μA		
Conversion speed		1ms/channel		○	—
Output short circuit protection		Available		○	—
Number of analog output channels		4 channels	2 channels	×	When using three channels or more, use two modules.
CC-Link station type		Remote device station		○	—
Number of occupied stations		2 stations	1 station	○	—
Connection cable		CC-Link dedicated cable		○	—
Withstand voltage		Between all power supply and communication system terminals and all analog output terminals 500VAC for 1 minute		○	—
Isolation method		Between power supply system terminals and all analog output terminals: Transformer isolation Between output channels: Non-isolation	Between communication system terminals and all analog output terminals: Photocoupler Between power supply system terminals and all analog output terminals: Photocoupler Between output channels: Non-isolation	○	—
Noise immunity		Noise voltage 500Vp-p, noise width 1μs, noise frequency 25 to 60Hz (noise simulator condition)		○	—
Built-in terminating resistor		None		○	—

Item		Model to be discontinued AJ65BT-64DAV	Alternative model AJ65SBT-62DA	Compatibility	Precautions for replacement
Offset/gain settings		Available		○	—
External power supply	Voltage	24VDC (20.4 to 26.4VDC)		○	—
	Inrush current	1.5A, 0.67ms or less	8.2A, 2.1ms or less	△	The inrush current is higher. Check that the current consumption does not affect the system.
	Current consumption	0.18A (at 24VDC)	0.16A (at 24VDC)	○	—
External interface	Communication part, module power supply part	27-point two-piece terminal block (M3.5×7)	7-point two-piece terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	The screw size is different.
	I/O part		18-point direct-mount terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	
Applicable wire size		0.75 to 2.0mm² (18 to 14 AWG)	0.3 to 0.75mm² (22 to 18 AWG)	×	The screw size is different. Change the solderless terminals.
Applicable solderless terminal		RAV1.25-3.5 (compliant with JIS C 2805), RAV2-3.5	• RAV1.25-3 (compliant with JIS C 2805) [Applicable wire size: 0.3 to 1.25mm² (22 to 16 AWG)] • V2-MS3 (JST Mfg. Co., Ltd.), RAP2-3SL (Nippon Tanshi Co., Ltd.), TGV2-3N (NICHIFU Co., Ltd.) [Applicable wire size: 1.25 to 2.0mm² (16 to 14 AWG)]	×	
External dimensions	Height (H)	65mm	50mm	○	—
	Width (W)	151.9mm	118mm	○	—
	Depth (D)	63mm	40mm	○	—
Installation hall		ϕ4.5 (2 places)	4.5×5.1 (2 places)	○	—
Installation hall pitch	Height (H)	56mm	0mm	×	The installation hall pitch is different.
	Width (W)	143mm	109mm	×	
Weight		0.4kg	0.2kg	○	—

*1 The following table lists the I/O characteristics and maximum resolution of AJ65BT-64DAV.

Analog output range		Digital input value	Maximum resolution
Voltage	-10 to 10V	-2000 to 2000	5mV

*2 The following table lists the I/O characteristics and maximum resolution of AJ65SBT-62DA.

Analog output range		Digital input value	Maximum resolution
Voltage	-10 to 10V	-4000 to 4000	2.5mV
	User range setting 1 (-10 to 10V)		
	0 to 5V	0 to 4000	1.25mV
	1 to 5V		1.0mV
	User range setting 2 (0 to 5V)		
Current	0 to 20mA	0 to 4000	5μA
	4 to 20mA		4μA
	User range setting 3 (0 to 20mA)		

■Functional comparison

○: Available, ×: Not available

Item	Description	Model to be discontinued	Alternative model	Precautions for replacement
		AJ65BT-64DAV	AJ65SBT-62DA	
D/A output enable/disable function	• Specifies a value to be output, D/A conversion value or offset value, for each channel. • The conversion speed is constant regardless of the output enable/ disable setting.	○	○	—
D/A conversion enable/ disable function	• The D/A conversion can be enabled or disabled for each channel using this function. • Setting "Disable" for the unused channel shortens the conversion speed.	○	○	—
Output range switching function	Sets the analog output range for each channel to change the I/O conversion characteristics.	×	○	—
Analog output hold/clear function when the programmable controller CPU is in the STOP status (HOLD/CLEAR setting)	Specifies whether to hold or clear an analog value (output an offset value) output from each channel immediately before the programmable controller CPU has entered the STOP status or the module has stopped D/A conversion due to an error.	○ (All channels)	○ (Each channel)	The terminal wiring of AJ65BT-64DAV is changed to the remote I/O signal settings of AJ65SBT-62DA.
Offset/gain settings	The offset/gain setting can be set for each channel using this function.	○	○	—
Error code	When the write data error occurs, the error code is stored.	○	○	—

■Comparison of remote I/O signals

The remote I/O signals are different. Change the sequence program.

For details, refer to the user's manuals.

n: Address assigned to the master station by station number setting

Signal direction: Remote module → Master module			Signal direction: Master module → Remote module		
Remote input (RX)	Signal name		Remote output (RY)	Signal name	
	Model to be discontinued	Alternative model		Model to be discontinued	Alternative model
	AJ65BT-64DAV	AJ65SBT-62DA		AJ65BT-64DAV	AJ65SBT-62DA
RXn0	Use prohibited	Use prohibited	RYn0	CH1 analog output enable/disable flag	
RXn1			RYn1	CH2 analog output enable/disable flag	
RXn2			RYn2	CH3 analog output enable/ disable flag	Use prohibited
RXn3			RYn3	CH4 analog output enable/ disable flag	
RXn4			RYn4	Offset/gain value selection	
RXn5			RYn5	Use prohibited	
RXn6			RYn6		
RXn7			RYn7		
RXn8			RYn8		
RXn9			RYn9		
RXnA			RYnA		
RXnB			RYnB		
RXnC		E^2PROM write error flag	RYnC		
RXnD		Use prohibited	RYnD		
RXnE			RYnE		
RXnF		Test mode flag	RYnF		
RX(n+1)0	Use prohibited	Use prohibited	RY(n+1)0	Use prohibited	Use prohibited
RX(n+1)1			RY(n+1)1		
RX(n+1)2			RY(n+1)2		
RX(n+1)3			RY(n+1)3		
RX(n+1)4			RY(n+1)4		
RX(n+1)5			RY(n+1)5		
RX(n+1)6			RY(n+1)6		
RX(n+1)7			RY(n+1)7		
RX(n+1)8	Initial data processing request flag		RY(n+1)8	Initial data processing completion flag	
RX(n+1)9	Initial data setting completion flag		RY(n+1)9	Initial data setting request flag	
RX(n+1)A	Error status flag		RY(n+1)A	Error reset request flag	
RX(n+1)B	Remote READY		RY(n+1)B	Use prohibited	Use prohibited
RX(n+1)C ⋮ RX(n+1)F	Use prohibited	Use prohibited	RY(n+1)C ⋮ RY(n+1)F		
RX(n+2)0 ⋮ RX(n+3)F	Use prohibited	Unusable (not assigned because the number of occupied stations is 1)	RY(n+2)0 ⋮ RY(n+3)F	Use prohibited	Unusable (not assigned because the number of occupied stations is 1)

■Comparison of remote register

The assignment of remote resisters is changed. Change the sequence program.

For details, refer to the user's manuals.

m, n: Address assigned to the master station by station number setting

Direction	Address	Model to be discontinued		Alternative model	
		AJ65BT-64DAV		AJ65SBT-62DA	
		Description	Default	Description	Default
Master → Remote	RWwm	CH1 digital value setting	0	CH1 digital value setting	0
	RWwm+1	CH2 digital value setting	0	CH2 digital value setting	0
	RWwm+2	CH3 digital value setting	0	Analog output enable/disable setting	0
	RWwm+3	CH4 digital value setting	0	Output range, HOLD/CLEAR setting	0
	RWwm+4	Analog output enable/disable	0	Unusable (not assigned because the number of occupied stations is 1)	
	RWwm+5	Use prohibited	—		
	RWwm+6				
	RWwm+7				
Remote → Master	RWrn	CH1 set value check code	0	CH1 check code	0
	RWrn+1	CH2 set value check code	0	CH2 check code	0
	RWrn+2	CH3 set value check code	0	Error code	0
	RWrn+3	CH4 set value check code	0	Use prohibited	—
	RWrn+4	Error code	0	Unusable (not assigned because the number of occupied stations is 1)	
	RWrn+5	Use prohibited	—		
	RWrn+6				
	RWrn+7				

Current output (AJ65BT-64DAI)

Replacement from AJ65BT-64DAI to AJ65SBT2B-64DA

Model to be discontinued		Alternative model	
Model	**Specifications**	**Model**	**Specifications**
AJ65BT-64DAI	Current output	AJ65SBT2B-64DA	Voltage/current output

■Performance specifications comparison

○: Compatible, △: Check required, ×: Not compatible

Item		Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
		AJ65BT-64DAI	**AJ65SBT2B-64DA**		
Digital input value	Voltage	—	16-bit signed binary data -12288 to 12287, -16384 to 16383, -288 to 12287	○	—
	Current	16-bit signed binary data (data: 12 bits) 0 to 4095	16-bit signed binary data -288 to 12287	△	The range of digital input value is wider.
Analog output value	Voltage	—	-10 to 10VDC (external load resistance: 1kΩ to 1MΩ)	○	—
	Current	4 to 20mADC (external load resistance: 0 to 600Ω)	0 to 20mADC (external load resistance: 0 to 600Ω)	○	—
I/O characteristics, maximum resolution		*1	*2	△	The maximum resolution is smaller, resulting in finer control.
Total accuracy (accuracy for the maximum analog output value)	Ambient temperature: 25±5℃	±1% (±200μA)	±0.2% • -10 to 10V, user range setting 2: ±20mV • 0 to 5V, 1 to 5V: ±10mV • 0 to 20mA, 4 to 20mA, user range setting 1: ±40μA	○	—
	Ambient temperature: 0 to 55℃		±0.3% • -10 to 10V, user range setting 2: ±30mV • 0 to 5V, 1 to 5V: ±15mV • 0 to 20mA, 4 to 20mA, user range setting 1: ±60μA		
Conversion speed		1ms/channel	200μs/channel	△	The conversion accuracy may be degraded due to noise. Verify the accuracy in the system.
Output short circuit protection		Available		○	—
Number of analog output channels		4 channels		○	—
Number of flash memory writes		—	10 thousand times maximum	○	—
CC-Link station type		Remote device station		○	—
Number of occupied stations		2 stations	1 station	○	—
Connection cable		CC-Link dedicated cable		○	—
Withstand voltage		Between all power supply and communication system terminals and all analog output terminals 500VAC for 1 minute		○	—

Item		Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
		AJ65BT-64DAI	AJ65SBT2B-64DA		
Isolation method		Between power supply system terminals and all analog output terminals: Transformer isolation Between output channels: Non-isolation	Between communication system terminals and all analog output terminals: Photocoupler Between power supply system terminals and all analog output terminals: Transformer isolation Between output channels: Non-isolation	○	—
Noise immunity		Noise voltage 500Vp-p, noise width 1μs, noise frequency 25 to 60Hz (noise simulator condition)		○	—
Built-in terminating resistor		None	Disable/Enable (110Ω): Switchable	○	—
Offset/gain settings		Available		○	—
External power supply	Voltage	24VDC (20.4 to 26.4VDC)	24VDC (20.4 to 28.8VDC)	○	—
	Inrush current	3.2A, 0.43ms or less	2.6A, 3.2ms or less	○	—
	Current consumption	0.27A (at 24VDC)	0.24A (at 24VDC)	○	—
External interface	Communication part, module power supply part	27-point two-piece terminal block (M3.5×7)	7-point two-piece terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	The screw size is different.
	I/O part		18-point two-piece terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	
Applicable wire size		0.75 to 2.0mm² (18 to 14 AWG)	0.3 to 2.0mm² (22 to 14 AWG)	○	—
Applicable solderless terminal		RAV1.25-3.5 (compliant with JIS C 2805), RAV2-3.5	• RAV1.25-3 (compliant with JIS C 2805) [Applicable wire size: 0.3 to 1.25mm² (22 to 16 AWG)] • V2-MS3 (JST Mfg. Co., Ltd.), RAP2-3SL (Nippon Tanshi Co., Ltd.), TGV2-3N (NICHIFU Co., Ltd.) [Applicable wire size: 1.25 to 2.0mm² (16 to 14 AWG)]	×	The screw size is different. Change the solderless terminals.
External dimensions	Height (H)	65mm	50mm	○	—
	Width (W)	151.9mm	122mm	○	—
	Depth (D)	63mm	54mm	○	—
Installation hall		ϕ4.5 (2 places)	4.5×5.1 (2 places)	○	—
Installation hall pitch	Height (H)	56mm	0mm	×	The installation hall pitch is different.
	Width (W)	143mm	109.5mm	×	
Weight		0.4kg	0.25kg	○	—

*1 The following table lists the I/O characteristics and maximum resolution of AJ65BT-64DAI.

Analog output range		Digital input value	Maximum resolution
Current	4 to 20mA	0 to 4000	4μA

*2 The following table lists the I/O characteristics and maximum resolution of AJ65SBT2B-64DA.

Analog output range		Digital input value	Maximum resolution
Voltage	-10 to 10V	-16000 to 16000	0.625mV
	0 to 5V	0 to 12000	0.416mV
	1 to 5V		0.333mV
	User range setting 2 (-10 to 10V)	-12000 to 12000	0.3125mV
Current	0 to 20mA	0 to 12000	1.66μA
	4 to 20mA		1.33μA
	User range setting 1 (0 to 20mA)		0.95μA

■Functional comparison

○: Available, ×: Not available

Item	Description	Model to be discontinued	Alternative model	Precautions for replacement
		AJ65BT-64DAI	AJ65SBT2B-64DA	
D/A output enable/ disable function	• Specifies a value to be output, D/A conversion value or offset value, for each channel. • The conversion speed is constant regardless of the output enable/ disable setting.	○	○	—
D/A conversion enable/disable function	• The D/A conversion can be enabled or disabled for each channel using this function. • Setting "Disable" for the unused channel shortens the conversion speed.	○	○	The remote register settings of AJ65BT-64DAI is changed to the remote I/O signal settings of AJ65SBT2B-64DA.
Output range switching function	Sets the analog output range for each channel to change the I/O conversion characteristics.	×	○	—
Analog output hold/ clear function when the programmable controller CPU is in the STOP status (HOLD/ CLEAR setting)	Specifies whether to hold or clear an analog value (output an offset value) output from each channel immediately before the programmable controller CPU has entered the STOP status or the module has stopped D/A conversion due to an error.	○ (All channels)	○ (Each channel)	The terminal wiring of AJ65BT-64DAI is changed to the remote I/O signal settings of AJ65SBT2B-64DA.
Offset/gain settings	The offset/gain setting can be set for each channel using this function.	○	○	—
Transmission speed auto-tracking function	When the module is powered on, the transmission speed is set automatically depending on the setting in the master module.	×	○	—
Error code	When the write data error occurs, the error code is stored.	○	○	—
Error flag	The flag is set when an error other than the watchdog timer error occurs.	○	○	—

■Comparison of remote I/O signals

The remote I/O signals are different. Change the sequence program.

For details, refer to the user's manuals.

n: Address assigned to the master station by station number setting

Signal direction: Remote module → Master module			Signal direction: Master module → Remote module		
Remote input (RX)	Signal name		Remote output (RY)	Signal name	
	Model to be discontinued	Alternative model		Model to be discontinued	Alternative model
	AJ65BT-64DAI	AJ65SBT2B-64DA		AJ65BT-64DAI	AJ65SBT2B-64DA
RXn0	Use prohibited	Use prohibited	RYn0	CH1 analog output enable/disable flag	
RXn1			RYn1	CH2 analog output enable/disable flag	
RXn2			RYn2	CH3 analog output enable/disable flag	
RXn3			RYn3	CH4 analog output enable/disable flag	
RXn4			RYn4	Offset/gain value selection	CH1 Input range setting (0th bit)
RXn5			RYn5	Use prohibited	CH1 Input range setting (1st bit)
RXn6			RYn6		CH1 Input range setting (2nd bit)
RXn7			RYn7		CH2 Input range setting (0th bit)
RXn8			RYn8		CH2 Input range setting (1st bit)
RXn9			RYn9		CH2 Input range setting (2nd bit)
RXnA		Flash memory write error flag	RYnA		CH3 Input range setting (0th bit)
RXnB		User range read error flag	RYnB		CH3 Input range setting (1st bit)
RXnC		Flash memory write error flag	RYnC		CH3 Input range setting (2nd bit)
RXnD		Use prohibited	RYnD		CH4 Input range setting (0th bit)
RXnE			RYnE		CH4 Input range setting (1st bit)
RXnF		Test mode flag	RYnF		CH4 Input range setting (2nd bit)
RX(n+1)0	Use prohibited	Use prohibited	RY(n+1)0	Use prohibited	CH1 HOLD/CLEAR setting
RX(n+1)1			RY(n+1)1		CH2 HOLD/CLEAR setting
RX(n+1)2			RY(n+1)2		CH3 HOLD/CLEAR setting
RX(n+1)3			RY(n+1)3		CH4 HOLD/CLEAR setting
RX(n+1)4			RY(n+1)4		CH1 Conversion enable/ disable setting
RX(n+1)5			RY(n+1)5		CH2 Conversion enable/ disable setting
RX(n+1)6			RY(n+1)6		CH3 Conversion enable/ disable setting
RX(n+1)7			RY(n+1)7		CH4 Conversion enable/ disable setting
RX(n+1)8	Initial data processing request flag		RY(n+1)8	Initial data processing completion flag	
RX(n+1)9	Initial data setting completion flag		RY(n+1)9	Initial data setting request flag	
RX(n+1)A	Error status flag		RY(n+1)A	Error reset request flag	

Signal direction: Remote module → Master module			Signal direction: Master module → Remote module		
Remote input (RX)	Signal name		Remote output (RY)	Signal name	
	Model to be discontinued	Alternative model		Model to be discontinued	Alternative model
	AJ65BT-64DAI	AJ65SBT2B-64DA		AJ65BT-64DAI	AJ65SBT2B-64DA
RX(n+1)B	Remote READY		RY(n+1)B	Use prohibited	Use prohibited
RX(n+1)C ⋮ RX(n+1)F	Use prohibited	Use prohibited	RY(n+1)C ⋮ RY(n+1)F		
RX(n+2)0 ⋮ RX(n+3)F	Use prohibited	Unusable (not assigned because the number of occupied stations is 1)	RY(n+2)0 ⋮ RY(n+3)F	Use prohibited	Unusable (not assigned because the number of occupied stations is 1)

■Comparison of remote register

The assignment of remote resisters is changed. Change the sequence program.

For details, refer to the user's manuals.

m, n: Address assigned to the master station by station number setting

Direction	Address	Model to be discontinued		Alternative model	
		AJ65BT-64DAI		AJ65SBT2B-64DA	
		Description	Default	Description	Default
Master → Remote	RWwm	CH1 digital value setting	0	CH1 digital input value setting	0
	RWwm+1	CH2 digital value setting	0	CH2 digital input value setting	0
	RWwm+2	CH3 digital value setting	0	CH3 digital input value setting	0
	RWwm+3	CH4 digital value setting	0	CH4 digital input value setting	0
	RWwm+4	Analog output enable/disable	0	Unusable (not assigned because the number of occupied stations is 1)	
	RWwm+5	Use prohibited	—		
	RWwm+6				
	RWwm+7				
Remote → Master	RWrn	CH1 set value check code	0	CH1, 2 check code	0
	RWrn+1	CH2 set value check code	0	CH3, 4 check code	0
	RWrn+2	CH3 set value check code	0	Error code	0
	RWrn+3	CH4 set value check code	0	Use prohibited	—
	RWrn+4	Error code	0	Unusable (not assigned because the number of occupied stations is 1)	
	RWrn+5	Use prohibited	—		
	RWrn+6				
	RWrn+7				

Replacement from AJ65BT-64DAI to AJ65SBT-62DA

Model to be discontinued		Alternative model	
Model	**Specifications**	**Model**	**Specifications**
AJ65BT-64DAI	Current output	AJ65SBT-62DA	Voltage/current output

■Performance specifications comparison

○: Compatible, △: Check required, ×: Not compatible

Item		Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
		AJ65BT-64DAI	**AJ65SBT-62DA**		
Digital input value	Voltage	—	16-bit signed binary data -4096 to 4095	○	—
	Current	16-bit signed binary data (data: 12 bits) 0 to 4095	16-bit signed binary data 0 to 4095	○	—
Analog output value	Voltage	—	-10 to 10VDC (external load resistance: 1kΩ to 1MΩ)	○	—
	Current	4 to 20mADC (external load resistance: 0 to 600Ω)	0 to 20mADC (external load resistance: 0 to 600Ω)	○	—
I/O characteristics, maximum resolution		*1	*2	○	—
Total accuracy (accuracy for the maximum analog output value)	Ambient temperature: 25±5℃	±1% (±200μA)	±0.2% • -10 to 10V, user range setting 1: ±20mV • 0 to 5V, 1 to 5V, user range setting 2: ±10mV • 0 to 20mA, 4 to 20mA, user range setting 3: ±40μA	○	—
	Ambient temperature: 0 to 55℃		±0.4% • -10 to 10V, user range setting 1: ±40mV • 0 to 5V, 1 to 5V, user range setting 2: ±20mV • 0 to 20mA, 4 to 20mA, user range setting 3: ±80μA		
Conversion speed		1ms/channel		○	—
Output short circuit protection		Available		○	—
Number of analog output channels		4 channels	2 channels	×	When using three channels or more, use two modules.
CC-Link station type		Remote device station		○	—
Number of occupied stations		2 stations	1 station	○	—
Connection cable		CC-Link dedicated cable		○	—
Withstand voltage		Between all power supply and communication system terminals and all analog output terminals 500VAC for 1 minute		○	—
Isolation method		Between power supply system terminals and all analog output terminals: Transformer isolation Between output channels: Non-isolation	Between communication system terminals and all analog output terminals: Photocoupler Between power supply system terminals and all analog output terminals: Photocoupler Between output channels: Non-isolation	○	—
Noise immunity		Noise voltage 500Vp-p, noise width 1μs, noise frequency 25 to 60Hz (noise simulator condition)		○	—
Built-in terminating resistor		None		○	—
Offset/gain settings		Available		○	—

Item		Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
		AJ65BT-64DAI	AJ65SBT-62DA		
External power supply	Voltage	24VDC (20.4 to 26.4VDC)		○	—
	Inrush current	3.2A, 0.43ms or less	8.2A, 2.1ms or less	△	The inrush current is higher. Check that the current consumption does not affect the system.
	Current consumption	0.27A (at 24VDC)	0.16A (at 24VDC)	○	—
External interface	Communication part, module power supply part	27-point two-piece terminal block (M3.5×7)	7-point two-piece terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	The screw size is different.
	I/O part		18-point direct-mount terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	
Applicable wire size		0.75 to 2.0mm² (18 to 14 AWG)	0.3 to 0.75mm² (22 to 18 AWG)	×	The screw size is different. Change the solderless terminals.
Applicable solderless terminal		RAV1.25-3.5 (compliant with JIS C 2805), RAV2-3.5	• RAV1.25-3 (compliant with JIS C 2805) [Applicable wire size: 0.3 to 1.25mm² (22 to 16 AWG)] • V2-MS3 (JST Mfg. Co., Ltd.), RAP2-3SL (Nippon Tanshi Co., Ltd.), TGV2-3N (NICHIFU Co., Ltd.) [Applicable wire size: 1.25 to 2.0mm² (16 to 14 AWG)]	×	
External dimensions	Height (H)	65mm	50mm	○	—
	Width (W)	151.9mm	118mm	○	—
	Depth (D)	63mm	40mm	○	—
Installation hall		ϕ4.5 (2 places)	4.5×5.1 (2 places)	○	—
Installation hall pitch	Height (H)	56mm	0mm	×	The installation hall pitch is different.
	Width (W)	143mm	109mm	×	
Weight		0.4kg	0.2kg	○	—

*1 The following table lists the I/O characteristics and maximum resolution of AJ65BT-64DAI.

Analog output range		Digital input value	Maximum resolution
Current	4 to 20mA	0 to 4000	4μA

*2 The following table lists the I/O characteristics and maximum resolution of AJ65SBT-62DA.

Analog output range		Digital input value	Maximum resolution
Voltage	-10 to 10V	-4000 to 4000	2.5mV
	User range setting 1 (-10 to 10V)		
	0 to 5V	0 to 4000	1.25mV
	1 to 5V		1mV
	User range setting 2 (0 to 5V)		
Current	0 to 20mA	0 to 4000	5μA
	4 to 20mA		4μA
	User range setting 3 (0 to 20mA)		

■Functional comparison

○: Available, ×: Not available

Item	Description	Model to be discontinued	Alternative model	Precautions for replacement
		AJ65BT-64DAI	AJ65SBT-62DA	
D/A output enable/disable function	• Specifies a value to be output, D/A conversion value or offset value, for each channel. • The conversion speed is constant regardless of the output enable/ disable setting.	○	○	—
D/A conversion enable/ disable function	• The D/A conversion can be enabled or disabled for each channel using this function. • Setting "Disable" for the unused channel shortens the conversion speed.	○	○	—
Output range switching function	Sets the analog output range for each channel to change the I/O conversion characteristics.	×	○	—
Analog output hold/clear function when the programmable controller CPU is in the STOP status (HOLD/CLEAR setting)	Specifies whether to hold or clear an analog value (output an offset value) output from each channel immediately before the programmable controller CPU has entered the STOP status or the module has stopped D/A conversion due to an error.	○ (All channels)	○ (Each channel)	The terminal wiring of AJ65BT-64DAI is changed to the remote I/O signal settings of AJ65SBT-62DA.
Offset/gain settings	The offset/gain setting can be set for each channel using this function.	○	○	—
Error code	When the write data error occurs, the error code is stored.	○	○	—

■Comparison of remote I/O signals

The remote I/O signals are different. Change the sequence program.

For details, refer to the user's manuals.

n: Address assigned to the master station by station number setting

Signal direction: Remote module → Master module			Signal direction: Master module → Remote module		
Remote input (RX)	Signal name		Remote output (RY)	Signal name	
	Model to be discontinued	Alternative model		Model to be discontinued	Alternative model
	AJ65BT-64DAI	AJ65SBT-62DA		AJ65BT-64DAI	AJ65SBT-62DA
RXn0	Use prohibited	Use prohibited	RYn0	CH1 analog output enable/disable flag	
RXn1			RYn1	CH2 analog output enable/disable flag	
RXn2			RYn2	CH3 analog output enable/ disable flag	Use prohibited
RXn3			RYn3	CH4 analog output enable/ disable flag	
RXn4			RYn4	Offset/gain value selection	
RXn5			RYn5	Use prohibited	
RXn6			RYn6		
RXn7			RYn7		
RXn8			RYn8		
RXn9			RYn9		
RXnA			RYnA		
RXnB			RYnB		
RXnC		E^2PROM write error flag	RYnC		
RXnD		Use prohibited	RYnD		
RXnE			RYnE		
RXnF		Test mode flag	RYnF		
RX(n+1)0	Use prohibited	Use prohibited	RY(n+1)0	Use prohibited	Use prohibited
RX(n+1)1			RY(n+1)1		
RX(n+1)2			RY(n+1)2		
RX(n+1)3			RY(n+1)3		
RX(n+1)4			RY(n+1)4		
RX(n+1)5			RY(n+1)5		
RX(n+1)6			RY(n+1)6		
RX(n+1)7			RY(n+1)7		
RX(n+1)8	Initial data processing request flag		RY(n+1)8	Initial data processing completion flag	
RX(n+1)9	Initial data setting completion flag		RY(n+1)9	Initial data setting request flag	
RX(n+1)A	Error status flag		RY(n+1)A	Error reset request flag	
RX(n+1)B	Remote READY		RY(n+1)B	Use prohibited	Use prohibited
RX(n+1)C ⋮ RX(n+1)F	Use prohibited	Use prohibited	RY(n+1)C ⋮ RY(n+1)F		
RX(n+2)0 ⋮ RX(n+3)F	Use prohibited	Unusable (not assigned because the number of occupied stations is 1)	RY(n+2)0 ⋮ RY(n+3)F	Use prohibited	Unusable (not assigned because the number of occupied stations is 1)

■Comparison of remote register

The assignment of remote resisters is changed. Change the sequence program.

For details, refer to the user's manuals.

m, n: Address assigned to the master station by station number setting

Direction	Address	Model to be discontinued		Alternative model	
		AJ65BT-64DAI		AJ65SBT-62DA	
		Description	Default	Description	Default
Master → Remote	RWwm	CH1 digital value setting	0	CH1 digital input value setting	0
	RWwm+1	CH2 digital value setting	0	CH2 digital input value setting	0
	RWwm+2	CH3 digital value setting	0	Analog output enable/disable setting	0
	RWwm+3	CH4 digital value setting	0	Output range, HOLD/CLEAR setting	0
	RWwm+4	Analog output enable/disable	0	Unusable (not assigned because the number of occupied stations is 1)	
	RWwm+5	Use prohibited	—		
	RWwm+6				
	RWwm+7				
Remote → Master	RWrn	CH1 set value check code	0	CH1 check code	0
	RWrn+1	CH2 set value check code	0	CH2 check code	0
	RWrn+2	CH3 set value check code	0	Error code	0
	RWrn+3	CH4 set value check code	0	Use prohibited	—
	RWrn+4	Error code	0	Unusable (not assigned because the number of occupied stations is 1)	
	RWrn+5	Use prohibited	—		
	RWrn+6				
	RWrn+7				

3-wire type platinum temperature-measuring resistor input (AJ65BT-64RD3)

Replacement from AJ65BT-64RD3 to AJ65SBT2B-64RD3

Model to be discontinued		Alternative model	
Model	**Specifications**	**Model**	**Specifications**
AJ65BT-64RD3	3-wire type platinum temperature-measuring resistor (Pt100, JPt100) input	AJ65SBT2B-64RD3	3-wire type platinum temperature-measuring resistor (Pt100, JPt100, Ni100) input

■Performance specifications comparison

○: Compatible, △: Check required, ×: Not compatible

Item	Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
	AJ65BT-64RD3	AJ65SBT2B-64RD3		
Measurement method	3-wire		○	—
Measured temperature value	16-bit signed binary data (-1800 to 6000) 32-bit signed binary data (-180000 to 600000)	16-bit signed binary data (-2000 to 8500)	△	The 32-bit signed binary data is not available.
Applicable RDT	Pt100 (JIS C 1604-1997, IEC 751-1983), JPt100 (JIS C 1604-1981)	Pt100 (JIS C 1604-1997, IEC 751-1983), JPt100 (JIS C 1604-1981), Ni100 (DIN 43760 1987)	○	—
Detection current	1mA		○	—
Measurement range, conversion accuracy, resolution	*1	*2	△	The resolution is measured in units of 0.1℃.
Conversion speed	40ms/channel		○	—
Number of temperature input points	4 channels		○	—
Number of flash memory writes	—	10 thousand times maximum	○	—
CC-Link station type	Remote device station		○	—
Number of occupied stations	4 stations	1 station	○	—
Connection cable	CC-Link dedicated cable		○	—
Withstand voltage	Between all power supply system terminals and ground Between all power supply system terminals and all communication system terminals Between all communication system terminals and all RTD inputs Between all RTD inputs and ground 500VAC for 1 minute	Between all power supply and communication system terminals and all RTD inputs 500VAC for 1 minute	○	—
Isolation method	Between communication system terminals and all RTD inputs: Photocoupler Between channels: Non-isolation	Between communication system terminals and all RTD inputs: Photocoupler Between power supply system terminals and all RTD inputs: Transformer isolation Between channels: Non-isolation	○	—
Noise immunity	Noise voltage 500Vp-p, noise width 1μs, noise frequency 25 to 60Hz (noise simulator condition)		○	—
Built-in terminating resistor	None	Disable/Enable (110Ω): Switchable	○	—
Offset/gain settings	Available		○	—
Disconnection detection	Available		○	—

Item		Model to be discontinued AJ65BT-64RD3	Alternative model AJ65SBT2B-64RD3	Compatibility	Precautions for replacement
External power supply	Voltage	24VDC (18 to 30VDC)	24VDC (20.4 to 28.8VDC)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
	Inrush current	—	1.7A, 2.4ms or less	○	—
	Current consumption	0.17A (at 24VDC)	0.14A (at 24VDC)	○	—
Cable between module and RTD		• 100Ω or lower (wiring resistance per conductor) • Approx. 0.025℃/10mΩ (influence of resistance difference between A and b connecting conductor on measurement resistance)	• 100Ω or lower (wiring resistance per conductor) • Approx. 0.025℃/10mΩ (influence of resistance difference between A and b connecting conductor on measurement resistance) • 10Ω or lower (resistance difference between A and b connecting conductor)	○	—
External interface	Communication part, module power supply part	27-point two-piece terminal block (M3.5×7)	7-point two-piece terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	The screw size is different.
	I/O part		18-point two-piece terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	
Applicable wire size		0.75 to 2.0mm² (18 to 14 AWG)	0.3 to 2.0mm² (22 to 14 AWG)	○	—
Applicable solderless terminal		RAV1.25-3.5, RAV2-3.5 (compliant with JIS C 2805)	• RAV1.25-3 (compliant with JIS C 2805) [Applicable wire size: 0.3 to 1.25mm² (22 to 16 AWG)] • V2-MS3 (JST Mfg. Co., Ltd.), RAP2-3SL (Nippon Tanshi Co., Ltd.), TGV2-3N (NICHIFU Co., Ltd.) [Applicable wire size: 1.25 to 2.0mm² (16 to 14 AWG)]	×	The screw size is different. Change the solderless terminals.
External dimensions	Height (H)	65mm	50mm	○	—
	Width (W)	151.9mm	122mm	○	—
	Depth (D)	63mm	54mm	○	—
Installation hall		ϕ4.5 (2 places)	4.5×5.1 (2 places)	○	—
Installation hall pitch	Height (H)	56mm	0mm	×	The installation hall pitch is different.
	Width (W)	142.9mm	109.5mm	×	
Weight		0.38kg	0.25kg	○	—

*1 The following table lists the measurement range, conversion accuracy, and resolution of AJ65BT-64RD3. The accuracy for measured temperature value is the sum of the conversion accuracy and the tolerance of the RTD.

Measurement range		Conversion accuracy		Resolution
		Ambient temperature: 0 to 55℃	Ambient temperature: 25±5℃	
Pt100	-180 to 600℃	±1.5℃	±0.6℃	0.025℃
JPt100				

*2 The following table lists the measurement range, conversion accuracy, and resolution of AJ65SBT2B-64RD3. The accuracy for measured temperature value is the sum of the conversion accuracy and the tolerance of the RTD.

Measurement range		Conversion accuracy		Resolution
		Ambient temperature: 0 to 55℃	Ambient temperature: 25±5℃	
Pt100	-200 to 850℃	±1.4℃	±0.5℃	0.1℃
	-20 to 120℃	±0.6℃	±0.2℃	
	0 to 200℃			
JPt100	-180 to 600℃	±1.0℃	±0.4℃	
	-20 to 120℃	±0.6℃	±0.2℃	
	0 to 200℃			
Ni100	-60 to 180℃	±0.5℃	±0.2℃	

■Functional comparison

○: Available, ×: Not available

Item	Description	Model to be discontinued	Alternative model	Precautions for replacement
		AJ65BT-64RD3	AJ65SBT2B-64RD3	
Conversion enable/ disable function	• The conversion can be enabled or disabled for each channel using this function. • By setting conversion disabled for unnecessary channels, the sampling period shortens.	○	○	—
Sampling processing/ averaging processing specification	The sampling processing or average processing can be specified using this function.	○ Count average: Not available Time average: Not available Moving average: 4 times	○ Count average: 1 to 255 times Time average: 160 to 2550ms Moving average: 4 times	The remote I/O signal settings of AJ65BT-64RD3 is changed to the remote register settings of AJ65SBT2B-64RD3.
Disconnection detection function	• The disconnection of RTD to connect with each channel is detected using this function. • The measured temperature value immediately before the disconnection detection of channel is held.	○	○	For AJ65SBT2B-64RD3, the up scale or down scale value is stored in the measured temperature value of the disconnected channel.
Measured temperature value storage	The measured temperature value rounded off to one decimal place and the measured temperature value rounded off to to three decimal place are stored to the remote register.	○	○	For AJ65SBT2B-64RD3, only the measured temperature value rounded off to one decimal point is stored.
RTD type selection	The RTD type to use is selectable.	○ (All channels)	○ (Each channel)	The pin setting of AJ65BT-64RD3 is changed to the remote I/O signal settings of AJ65SBT2B-64RD3.
Offset/gain settings	The offset/gain setting can be set for each channel using this function.	○	○	—
Transmission speed auto-tracking function	When the module is powered on, the transmission speed is set automatically depending on the setting in the master module.	×	○	—
Error flag	The flag is set when an error other than the watchdog timer error occurs.	○	○	—

■Comparison of remote I/O signals

The remote I/O signals are different. Change the sequence program.

For details, refer to the user's manuals.

n: Address assigned to the master station by station number setting

Signal direction: Remote module → Master module			Signal direction: Master module → Remote module		
Remote input (RX)	Signal name		Remote output (RY)	Signal name	
	Model to be discontinued	Alternative model		Model to be discontinued	Alternative model
	AJ65BT-64RD3	AJ65SBT2B-64RD3		AJ65BT-64RD3	AJ65SBT2B-64RD3
RXn0	CH1 conversion completion flag		RYn0	CH1 conversion enable flag	
RXn1	CH2 conversion completion flag		RYn1	CH2 conversion enable flag	
RXn2	CH3 conversion completion flag		RYn2	CH3 conversion enable flag	
RXn3	CH4 conversion completion flag		RYn3	CH4 conversion enable flag	
RXn4	CH1 disconnection detection flag		RYn4	CH1 sampling processing/ travel average processing specification flag	Use prohibited
RXn5	CH2 disconnection detection flag		RYn5	CH2 sampling processing/ travel average processing specification flag	
RXn6	CH3 disconnection detection flag		RYn6	CH3 sampling processing/ travel average processing specification flag	
RXn7	CH4 disconnection detection flag		RYn7	CH4 sampling processing/ travel average processing specification flag	
RXn8	E^2PROM abnormal flag	Use prohibited	RYn8	Use prohibited	CH1 Input range setting (0th bit)
RXn9	Test mode flag		RYn9		CH1 Input range setting (1st bit)
RXnA	Use prohibited	Flash memory read error flag	RYnA		CH1 Input range setting (2nd bit)
RXnB		User range read error flag	RYnB		CH2 Input range setting (0th bit)
RXnC		Flash memory write error flag	RYnC		CH2 Input range setting (1st bit)
RXnD		Use prohibited	RYnD		CH2 Input range setting (2nd bit)
RXnE			RYnE		CH3 Input range setting (0th bit)
RXnF		Test mode flag	RYnF		CH3 Input range setting (1st bit)

Signal direction: Remote module → Master module			Signal direction: Master module → Remote module		
Remote input (RX)	Signal name		Remote output (RY)	Signal name	
	Model to be discontinued	Alternative model		Model to be discontinued	Alternative model
	AJ65BT-64RD3	AJ65SBT2B-64RD3		AJ65BT-64RD3	AJ65SBT2B-64RD3
RX(n+1)0	Use prohibited	Use prohibited	RY(n+1)0	Use prohibited	CH3 Input range setting (2nd bit)
RX(n+1)1			RY(n+1)1		CH4 Measurement range setting 0th bit
RX(n+1)2			RY(n+1)2		CH4 Measurement range setting 1st bit
RX(n+1)3			RY(n+1)3		CH4 Measurement range setting 2nd bit
RX(n+1)4			RY(n+1)4		Disconnection detection upper/lower limit selection flag (all channels batch-select)
RX(n+1)5			RY(n+1)5		Use prohibited
RX(n+1)6			RY(n+1)6		
RX(n+1)7			RY(n+1)7		Offset/gain value selection flag
RX(n+1)8		Initial data processing request flag	RY(n+1)8		Initial data processing completion flag
RX(n+1)9		Initial data setting completion flag	RY(n+1)9		Initial data setting request flag
RX(n+1)A		Error status flag	RY(n+1)A		Error reset request flag
RX(n+1)B		Remote READY	RY(n+1)B		Use prohibited
RX(n+1)C ⋮ RX(n+1)F		Use prohibited	RY(n+1)C ⋮ RY(n+1)F		
RX(n+2)0 ⋮ RX(n+7)6	Use prohibited	Unusable (not assigned because the number of occupied stations is 1)	RY(n+2)0 ⋮ RY(n+7)6	Use prohibited	Unusable (not assigned because the number of occupied stations is 1)
RX(n+7)7			RY(n+7)7	Offset/gain value selection flag	
RX(n+7)8	Initial data processing request flag		RY(n+7)8	Initial data processing completion flag	
RX(n+7)9	Initial data setting completion flag		RY(n+7)9	Initial data setting request flag	
RX(n+7)A	Error status flag		RY(n+7)A	Error reset request flag	
RX(n+7)B	Remote READY		RY(n+7)B	Use prohibited	
RX(n+7)C ⋮ RX(n+7)F	Use prohibited		RY(n+7)C ⋮ RY(n+7)F		

■Comparison of remote register

The assignment of remote resisters is changed. Change the sequence program.

For details, refer to the user's manuals.

m, n: Address assigned to the master station by station number setting

Direction	Address	Model to be discontinued		Alternative model	
		AJ65BT-64RD3		AJ65SBT2B-64RD3	
		Description	Default	Description	Default
Master → Remote	RWwm	Use prohibited	—	CH1 Averaging processing selection	0
	RWwm+1			CH2 Averaging processing selection	0
	RWwm+2			CH3 Averaging processing selection	0
	RWwm+3			CH4 Averaging processing selection	0
	RWwm+4 ⋮ RWwm+F			Unusable (not assigned because the number of occupied stations is 1)	
Remote → Master	RWrn	CH1 Measured temperature value (in units of 0.1℃)	0	CH1 Measured temperature value (in units of 0.1℃)	0
	RWrn+1	CH2 Measured temperature value (in units of 0.1℃)	0	CH2 Measured temperature value (in units of 0.1℃)	0
	RWrn+2	CH3 Measured temperature value (in units of 0.1℃)	0	CH3 Measured temperature value (in units of 0.1℃)	0
	RWrn+3	CH4 Measured temperature value (in units of 0.1℃)	0	CH4 Measured temperature value (in units of 0.1℃)	0
	RWrn+4	CH1 Measured temperature value (in units of 0.001℃)	0	Unusable (not assigned because the number of occupied stations is 1)	
	RWrn+5				
	RWrn+6	CH2 Measured temperature value (in units of 0.001℃)	0		
	RWrn+7				
	RWrn+8	CH3 Measured temperature value (in units of 0.001℃)	0		
	RWrn+9				
	RWrn+A	CH4 Measured temperature value (in units of 0.001℃)	0		
	RWrn+B				
	RWrn+C ⋮ RWrn+F	Use prohibited	—		

4-wire type platinum temperature-measuring resistor input (AJ65BT-64RD4)

Replacement from AJ65BT-64RD4 to AJ65SBT2B-64RD3

Model to be discontinued		Alternative model	
Model	**Specifications**	**Model**	**Specifications**
AJ65BT-64RD4	4-wire type platinum temperature-measuring resistor (Pt100, JPt100) input	AJ65SBT2B-64RD3	3-wire type platinum temperature-measuring resistor (Pt100, JPt100, Ni100) input

■Performance specifications comparison

○: Compatible, △: Check required, ×: Not compatible

Item	Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
	AJ65BT-64RD4	AJ65SBT2B-64RD3		
Measurement method	4-wire	3-wire	△	The conductor resistance may affect the measurement value.
Measured temperature value	16-bit signed binary data (-1800 to 6000) 32-bit signed binary data (-180000 to 600000)	16-bit signed binary data (-2000 to 8500)	△	The 32-bit signed binary data is not available.
Applicable RDT	Pt100 (JIS C 1604-1997, IEC 751-1983), JPt100 (JIS C 1604-1981)	Pt100 (JIS C 1604-1997, IEC 751-1983), JPt100 (JIS C 1604-1981), Ni100 (DIN 43760 1987)	○	—
Detection current	1mA		○	—
Measurement range, conversion accuracy, resolution	*1	*2	△	The resolution is measured in units of 0.1℃.
Conversion speed	40ms/channel		○	—
Number of temperature input points	4 channels		○	—
Number of flash memory writes	—	10 thousand times maximum	○	—
CC-Link station type	Remote device station		○	—
Number of occupied stations	4 stations	1 station	○	—
Connection cable	CC-Link dedicated cable		○	—
Withstand voltage	Between all power supply system terminals and ground Between all power supply system terminals and all communication system terminals Between all communication system terminals and all RTD inputs Between all RTD inputs and ground 500VAC for 1 minute	Between all power supply and communication system terminals and all RTD inputs 500VAC for 1 minute	○	—
Isolation method	Between communication system terminals and all RTD inputs: Photocoupler Between channels: Non-isolation	Between communication system terminals and all RTD inputs: Photocoupler Between power supply system terminals and all RTD inputs: Transformer isolation Between channels: Non-isolation	○	—
Noise immunity	Noise voltage 500Vp-p, noise width 1μs, noise frequency 25 to 60Hz (noise simulator condition)		○	—
Built-in terminating resistor	None	Disable/Enable (110Ω): Switchable	○	—
Offset/gain settings	Available		○	—
Disconnection detection	Available		○	—

Item		Model to be discontinued AJ65BT-64RD4	Alternative model AJ65SBT2B-64RD3	Compatibility	Precautions for replacement
External power supply	Voltage	24VDC (18 to 30VDC)	24VDC (20.4 to 28.8VDC)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
	Inrush current	—	1.7A, 2.4ms or less	○	—
	Current consumption	0.17A (at 24VDC)	0.14A (at 24VDC)	○	—
Cable between module and RTD		• 100Ω or lower (wiring resistance per conductor)	• 100Ω or lower (wiring resistance per conductor) • Approx. 0.025℃/10mΩ (influence of resistance difference between A and b connecting conductor on measurement resistance) • 10Ω or lower (resistance difference between A and b connecting conductor)	○	—
External interface	Communication part, module power supply part	27-point two-piece terminal block (M3.5×7)	7-point two-piece terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	The screw size is different.
	I/O part		18-point two-piece terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	
Applicable wire size		0.75 to 2.0mm² (18 to 14 AWG)	0.3 to 2.0mm² (22 to 14 AWG)	○	—
Applicable solderless terminal		RAV1.25-3.5, RAV2-3.5 (compliant with JIS C 2805)	• RAV1.25-3 (compliant with JIS C 2805) [Applicable wire size: 0.3 to 1.25mm² (22 to 16 AWG)] • V2-MS3 (JST Mfg. Co., Ltd.), RAP2-3SL (Nippon Tanshi Co., Ltd.), TGV2-3N (NICHIFU Co., Ltd.) [Applicable wire size: 1.25 to 2.0mm² (16 to 14 AWG)]	×	The screw size is different. Change the solderless terminals.
External dimensions	Height (H)	65mm	50mm	○	—
	Width (W)	151.9mm	122mm	○	—
	Depth (D)	63mm	54mm	○	—
Installation hall		ϕ4.5 (2 places)	4.5×5.1 (2 places)	○	—
Installation hall pitch	Height (H)	56mm	0mm	×	The installation hall pitch is different.
	Width (W)	142.9mm	109.5mm	×	
Weight		0.38kg	0.25kg	○	—

*1 The following table lists the measurement range, conversion accuracy, and resolution of AJ65BT-64RD4. The accuracy for measured temperature value is the sum of the conversion accuracy and the tolerance of the RTD.

Measurement range		Conversion accuracy Ambient temperature: 0 to 55℃	Conversion accuracy Ambient temperature: 25±5℃	Resolution
Pt100	-180 to 600℃	±1.5℃	±0.6℃	0.025℃
JPt100				

*2 The following table lists the measurement range, conversion accuracy, and resolution of AJ65SBT2B-64RD3. The accuracy for measured temperature value is the sum of the conversion accuracy and the tolerance of the RTD.

Measurement range		Conversion accuracy		Resolution
		Ambient temperature: 0 to 55℃	Ambient temperature: 25±5℃	
Pt100	-200 to 850℃	±1.4℃	±0.5℃	0.1℃
	-20 to 120℃	±0.6℃	±0.2℃	
	0 to 200℃			
JPt100	-180 to 600℃	±1.0℃	±0.4℃	
	-20 to 120℃	±0.6℃	±0.2℃	
	0 to 200℃			
Ni100	-60 to 180℃	±0.5℃	±0.2℃	

■Functional comparison

○: Available, ×: Not available

Item	Description	Model to be discontinued	Alternative model	Precautions for replacement
		AJ65BT-64RD4	AJ65SBT2B-64RD3	
Conversion enable/ disable function	• The conversion can be enabled or disabled for each channel using this function. • By setting conversion disabled for unnecessary channels, the sampling period shortens.	○	○	—
Sampling processing/ averaging processing specification	The sampling processing or average processing can be specified using this function.	○ Count average: Not available Time average: Not available Moving average: 4 times	○ Count average: 1 to 255 times Time average: 160 to 2550ms Moving average: 4 times	The remote I/O signal settings of AJ65BT-64RD4 is changed to the remote register settings of AJ65SBT2B-64RD3.
Disconnection detection function	• The disconnection of RTD to connect with each channel is detected using this function. • The measured temperature value immediately before the disconnection detection of channel is held.	○	○	For AJ65SBT2B-64RD3, the up scale or down scale value is stored in the measured temperature value of the disconnected channel.
Measured temperature value storage	The measured temperature value rounded off to one decimal place and the measured temperature value rounded off to to three decimal place are stored to the remote register.	○	○	For AJ65SBT2B-64RD3, only the measured temperature value rounded off to one decimal point is stored.
RTD type selection	The RTD type to use is selectable.	○ (All channels)	○ (Each channel)	The pin setting of AJ65BT-64RD4 is changed to the remote I/O signal settings of AJ65SBT2B-64RD3.
Offset/gain settings	The offset/gain setting can be set for each channel using this function.	○	○	—
Transmission speed auto-tracking function	When the module is powered on, the transmission speed is set automatically depending on the setting in the master module.	×	○	—
Error flag	The flag is set when an error other than the watchdog timer error occurs.	○	○	—

■Comparison of remote I/O signals

The remote I/O signals are different. Change the sequence program.

For details, refer to the user's manuals.

n: Address assigned to the master station by station number setting

Signal direction: Remote module → Master module			Signal direction: Master module → Remote module		
Remote input (RX)	Signal name		Remote output (RY)	Signal name	
	Model to be discontinued	Alternative model		Model to be discontinued	Alternative model
	AJ65BT-64RD4	AJ65SBT2B-64RD3		AJ65BT-64RD4	AJ65SBT2B-64RD3
RXn0	CH1 conversion completion flag		RYn0	CH1 conversion enable flag	
RXn1	CH2 conversion completion flag		RYn1	CH2 conversion enable flag	
RXn2	CH3 conversion completion flag		RYn2	CH3 conversion enable flag	
RXn3	CH4 conversion completion flag		RYn3	CH4 conversion enable flag	
RXn4	CH1 disconnection detection flag		RYn4	CH1 sampling processing/ travel average processing specification flag	Use prohibited
RXn5	CH2 disconnection detection flag		RYn5	CH2 sampling processing/ travel average processing specification flag	
RXn6	CH3 disconnection detection flag		RYn6	CH3 sampling processing/ travel average processing specification flag	
RXn7	CH4 disconnection detection flag		RYn7	CH4 sampling processing/ travel average processing specification flag	
RXn8	E^2PROM abnormal flag	Use prohibited	RYn8	Use prohibited	CH1 Input range setting 0th bit
RXn9	Test mode flag		RYn9		CH1 Input range setting 1st bit
RXnA	Use prohibited	Flash memory read error flag	RYnA		CH1 Input range setting 2nd bit
RXnB		User range read error flag	RYnB		CH2 Input range setting 0th bit
RXnC		Flash memory write error flag	RYnC		CH2 Input range setting 1st bit
RXnD		Use prohibited	RYnD		CH2 Input range setting 2nd bit
RXnE			RYnE		CH3 Input range setting 0th bit
RXnF		Test mode flag	RYnF		CH3 Input range setting 1st bit

Signal direction: Remote module → Master module			Signal direction: Master module → Remote module		
Remote input (RX)	Signal name		Remote output (RY)	Signal name	
	Model to be discontinued	Alternative model		Model to be discontinued	Alternative model
	AJ65BT-64RD4	AJ65SBT2B-64RD3		AJ65BT-64RD4	AJ65SBT2B-64RD3
RX(n+1)0	Use prohibited	Use prohibited	RY(n+1)0	Use prohibited	CH3 Input range setting 2nd bit
RX(n+1)1			RY(n+1)1		CH4 Measurement range setting 0th bit
RX(n+1)2			RY(n+1)2		CH4 Measurement range setting 1st bit
RX(n+1)3			RY(n+1)3		CH4 Measurement range setting 2nd bit
RX(n+1)4			RY(n+1)4		Disconnection detection upper/lower limit selection flag (all channels batch-select)
RX(n+1)5			RY(n+1)5		Use prohibited
RX(n+1)6			RY(n+1)6		
RX(n+1)7			RY(n+1)7		Offset/gain value selection flag
RX(n+1)8		Initial data processing request flag	RY(n+1)8		Initial data processing completion flag
RX(n+1)9		Initial data setting completion flag	RY(n+1)9		Initial data setting request flag
RX(n+1)A		Error status flag	RY(n+1)A		Error reset request flag
RX(n+1)B		Remote READY	RY(n+1)B		Use prohibited
RX(n+1)C ⋮ RX(n+1)F		Use prohibited	RY(n+1)C ⋮ RY(n+1)F		
RX(n+2)0 ⋮ RX(n+7)6	Use prohibited	Unusable (not assigned because the number of occupied stations is 1)	RY(n+2)0 ⋮ RY(n+7)6	Use prohibited	Unusable (not assigned because the number of occupied stations is 1)
RX(n+7)7			RY(n+7)7	Offset/gain value selection flag	
RX(n+7)8	Initial data processing request flag		RY(n+7)8	Initial data processing completion flag	
RX(n+7)9	Initial data setting completion flag		RY(n+7)9	Initial data setting request flag	
RX(n+7)A	Error status flag		RY(n+7)A	Error reset request flag	
RX(n+7)B	Remote READY		RY(n+7)B	Use prohibited	
RX(n+7)C ⋮ RX(n+7)F	Use prohibited		RY(n+7)C ⋮ RY(n+7)F		

■Comparison of remote register

The assignment of remote resisters is changed. Change the sequence program.

For details, refer to the user's manuals.

m, n: Address assigned to the master station by station number setting

Direction	Address	Model to be discontinued		Alternative model	
		AJ65BT-64RD4		AJ65SBT2B-64RD3	
		Description	Default	Description	Default
Master → Remote	RWwm	Use prohibited	—	CH1 Averaging processing selection	0
	RWwm+1			CH2 Averaging processing selection	0
	RWwm+2			CH3 Averaging processing selection	0
	RWwm+3			CH4 Averaging processing selection	0
	RWwm+4 ⋮ RWwm+F			Unusable (not assigned because the number of occupied stations is 1)	
Remote → Master	RWrn	CH1 Measured temperature value (in units of 0.1℃)	0	CH1 Measured temperature value (in units of 0.1℃)	0
	RWrn+1	CH2 Measured temperature value (in units of 0.1℃)	0	CH2 Measured temperature value (in units of 0.1℃)	0
	RWrn+2	CH3 Measured temperature value (in units of 0.1℃)	0	CH3 Measured temperature value (in units of 0.1℃)	0
	RWrn+3	CH4 Measured temperature value (in units of 0.1℃)	0	CH4 Measured temperature value (in units of 0.1℃)	0
	RWrn+4	CH1 Measured temperature value (in units of 0.001℃)	0	Unusable (not assigned because the number of occupied stations is 1)	
	RWrn+5				
	RWrn+6	CH2 Measured temperature value (in units of 0.001℃)	0		
	RWrn+7				
	RWrn+8	CH3 Measured temperature value (in units of 0.001℃)	0		
	RWrn+9				
	RWrn+A	CH4 Measured temperature value (in units of 0.001℃)	0		
	RWrn+B				
	RWrn+C ⋮ RWrn+F	Use prohibited	—		

Thermocouple input (AJ65BT-68TD)

Replacement from AJ65BT-68TD to AJ65SBT2B-64TD

Model to be discontinued		Alternative model	
Model	**Specifications**	**Model**	**Specifications**
AJ65BT-68TD	Thermocouple (B, R, S, K, E, J, T) input	AJ65SBT2B-64TD	Thermocouple (B, R, S, K, E, J, T, N) input

■Performance specifications comparison

○: Compatible, △: Check required, ×: Not compatible

Item		Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
		AJ65BT-68TD	AJ65SBT2B-64TD		
Temperature sensor input		-200 to 1700℃	-270 to 1820℃	○	—
Output	Measured temperature value	16-bit signed binary data (-2000 to 17000)	16-bit signed binary data (-2700 to 18200)	○	—
	Scaling value	16-bit signed binary data (0 to 2000)	—	×	The equivalent function is available by operation in the sequence program.
Cold junction compensation accuracy		±1.0℃ (0 to 55℃)	±1.0℃ (25℃±10℃) ±1.5℃ (0 to 15℃, 35 to 55℃)	△	Check the functions using the calculation formula of *1 and the tables of *2 and *3.
Applicable thermocouples and temperature measurement range		*2*3		○	
Overall accuracy*1				△	
Maximum resolution		B, R, S: 0.3℃ K, E, J, T: 0.1℃	B, R, S, N: 0.3℃ K, E, J, T: 0.1℃	○	—
Conversion speed		45ms/channel	640ms/4 channels	×	The conversion speed is different. Check the specifications.
Sampling cycle		45ms/channel	160ms/4 channels	×	
Absolute maximum input		±5V		○	—
Number of temperature input points		8 channels + Pt100 connection channel	4 channels + Pt100 connection channel × 2	×	When using five or more channels, use two modules.
Number of flash memory writes		—	10000 times maximum	○	—
CC-Link station type		Remote device station		○	—
Number of occupied stations		4 stations	1 station	○	—
Connection cable		CC-Link dedicated cable		○	—
Withstand voltage		Between all power supply system terminals and ground Between all power supply system terminals and all communication system terminals Between all communication system terminals and all thermocouple inputs Between all thermocouple inputs and ground 500VAC for 1 minute	Between all power supply system terminals and all communication system terminals and cold junction compensation channels Between all thermocouple inputs and all communication system terminals and cold junction compensation channels Between thermocouple input channels 500VAC for 1 minute	○	—
Isolation method		Between communication system terminal and all thermocouple inputs: Transformer isolation Between channels: Transformer isolation	Between all power supply system terminals and all communication system terminals and cold junction compensation channels: Transformer isolation Between thermocouple input and all communication system terminals and cold junction compensation channels: Transformer isolation Between thermocouple input channels: Transformer isolation	○	—

Item		Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
		AJ65BT-68TD	AJ65SBT2B-64TD		
Noise immunity		Noise voltage 500Vp-p, noise width 1μs, noise frequency 25 to 60Hz (noise simulator condition)		○	—
Built-in terminating resistor		None	Disable/Enable (110Ω): Switchable	○	—
Offset/gain settings		Available		○	—
Disconnection detection		Available		○	—
External power supply	Voltage	24VDC (18 to 30VDC)	24VDC (20.4 to 28.8VDC)	△	Check the output voltage range and the voltage drop for wire length of power supply device to use.
	Inrush current	—	1.5A, 1.3ms or less	○	—
	Current consumption	0.081A (at 24VDC)	0.12A (at 24VDC)	△	The current consumption is higher. Check that the current consumption does not affect the system.
External interface	Communication part, module power supply part	27-point two-piece terminal block (M3.5×7)	7-point two-piece terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	The screw size is different.
	I/O part		18-point two-piece terminal block M3×5.2 screw (tightening torque range: 0.59 to 0.88 N•m) Applicable solderless terminal: 2 or less	×	
Applicable wire size		0.75 to 2.0mm² (18 to 14 AWG)	0.3 to 2.0mm² (22 to 14 AWG)	○	—
Applicable solderless terminal		RAV1.25-3.5, RAV2-3.5	• RAV1.25-3 (compliant with JIS C 2805) [Applicable wire size: 0.3 to 1.25mm² (22 to 16 AWG)] • V2-MS3 (JST Mfg. Co., Ltd.), RAP2-3SL (Nippon Tanshi Co., Ltd.), TGV2-3N (NICHIFU Co., Ltd.) [Applicable wire size: 1.25 to 2.0mm² (16 to 14 AWG)]	×	The screw size is different. Change the solderless terminals.
External dimensions	Height (H)	65mm	50mm	○	—
	Width (W)	151.9mm	122mm	○	—
	Depth (D)	63mm	54mm	○	—
Installation hall		ϕ4.5 (2 places)	4.5×5.1 (2 places)	○	—
Installation hall pitch	Height (H)	56mm	0mm	×	The installation hall pitch is different.
	Width (W)	142.9mm	109.5mm	×	
Weight		0.4kg	0.3kg	○	—

*1 (Overall accuracy) = (Conversion accuracy) + (Temperature characteristics) × (Operating ambient temperature variation) + (Cold junction compensation accuracy)
Operating ambient temperature variation means the value out of operating ambient temperature range of 25±5℃.

*2 The following table lists the applicable thermocouples and measured temperature range accuracy. The thermocouples are compliant with JIS C 1602-1995.

Thermocouple type	Measured temperature range	Model to be discontinued		Alternative model		Compatibility	Precautions for replacement
		AJ65BT-68TD		AJ65SBT2B-64TD			
		Conversion accuracy Ambient temperature: 25±5℃	Temperature characteristics Variation per ambient temperature of 1℃	Conversion accuracy Ambient temperature: 25±5℃	Temperature characteristics Variation per ambient temperature of 1℃		
B	600 to 1700℃	±2.5℃	±0.4℃	±2.5℃	±0.4℃	○	—
R	0 to 200℃	±2.0℃	±0.4℃	±2.0℃	±0.4℃	○	—
	200 to 1600℃		±0.3℃			△	Check the overall accuracy depending on the temperature characteristics and operating ambient temperature variation.
S	0 to 200℃	±2.0℃	±0.4℃	±2.0℃	±0.4℃	○	—
	200 to 1600℃		±0.3℃			△	Check the overall accuracy depending on the temperature characteristics and operating ambient temperature variation.
K	-200 to 0℃	±0.5℃ or ±0.25% of measured temperature, whichever is greater	±0.06℃ or ±0.3% of measured temperature, whichever is greater	±0.5℃ or ±0.25% of measured temperature, whichever is greater	±0.06℃ or ±0.3% of measured temperature, whichever is greater	○	—
	0 to 1200℃				±0.06℃ or ±0.02% of measured temperature, whichever is greater		
E	-200 to 0℃	±0.5℃ or ±0.25% of measured temperature, whichever is greater	±0.06℃ or ±0.3% of measured temperature, whichever is greater	±0.5℃ or ±0.25% of measured temperature, whichever is greater	±0.06℃ or ±0.3% of measured temperature, whichever is greater	○	—
	0 to 800℃		±0.06℃ or ±0.02% of measured temperature, whichever is greater		±0.06℃ or ±0.02% of measured temperature, whichever is greater		
	800 to 900℃	—	—				
J	-40 to 0℃	—	—	±0.5℃ or ±0.25% of measured temperature, whichever is greater	±0.06℃ or ±0.02% of measured temperature, whichever is greater	○	—
	0 to 750℃	±0.5℃ or ±0.25% of measured temperature, whichever is greater	±0.06℃ or ±0.02% of measured temperature, whichever is greater				

Thermocouple type	Measured temperature range	Model to be discontinued AJ65BT-68TD		Alternative model AJ65SBT2B-64TD		Compatibility	Precautions for replacement
		Conversion accuracy Ambient temperature: 25±5℃	Temperature characteristics Variation per ambient temperature of 1℃	Conversion accuracy Ambient temperature: 25±5℃	Temperature characteristics Variation per ambient temperature of 1℃		
T	-200 to 0℃	±0.5℃ or ±0.25% of measured temperature, whichever is greater	±0.06℃ or ±0.3% of measured temperature, whichever is greater	±0.5℃ or ±0.25% of measured temperature, whichever is greater	±0.06℃ or ±0.3% of measured temperature, whichever is greater	○	—
	0 to 350℃		±0.06℃ or ±0.02% of measured temperature, whichever is greater		±0.06℃ or ±0.02% of measured temperature, whichever is greater		
N	-200 to 0℃	No setting		±0.5℃ or ±0.25% of measured temperature, whichever is greater	±0.06℃ or ±0.3% of measured temperature, whichever is greater	—	—
	0 to 1250℃				±0.06℃ or ±0.02% of measured temperature, whichever is greater		

*3 The following table lists the applicable thermocouples and effect by wiring resistance of 1Ω. The thermocouples are compliant with JIS C 1602-1995.

Thermocouple type	Measured temperature range	Effect by wiring resistance of 1Ω		Compatibility	Precautions for replacement
		Model to be discontinued AJ65BT-68TD	Alternative model AJ65SBT2B-64TD		
B	600 to 1700℃	0.019℃/Ω	0.042℃/Ω	△	The effect by wiring resistance is larger. Check the wiring resistance.
R	0 to 200℃	0.023℃/Ω	0.050℃/Ω	△	
	200 to 1600℃	0.015℃/Ω			
S	0 to 200℃	0.023℃/Ω	0.050℃/Ω	△	
	200 to 1600℃	0.015℃/Ω			
K	-200 to 0℃	0.008℃/Ω	0.009℃/Ω	△	
	0 to 1200℃	0.003℃/Ω	0.007℃/Ω		
E	-200 to 0℃	0.005℃/Ω	0.006℃/Ω	△	
	0 to 800℃	0.002℃/Ω	0.005℃/Ω		
	800 to 900℃	—		—	—
J	-40 to 0℃	—	0.006℃/Ω	—	—
	0 to 750℃	0.003℃/Ω		△	The effect by wiring resistance is larger. Check the wiring resistance.
T	-200 to 0℃	0.008℃/Ω	0.009℃/Ω	△	
	0 to 350℃	0.003℃/Ω	0.007℃/Ω		
N	-200 to 0℃	No setting	0.012℃/Ω	—	—
	0 to 1250℃		0.010℃/Ω		

■Functional comparison

○: Available, ×: Not available

Item	Description	Model to be discontinued	Alternative model	Precautions for replacement
		AJ65BT-68TD	AJ65SBT2B-64TD	
Conversion enable/ disable function	• The conversion can be enabled or disabled for each channel using this function. • By setting conversion disabled for unnecessary channels, the sampling period shortens.	○	○	The sampling period of AJ65SBT2B-64TD does not shorten by setting conversion disabled for unnecessary channels.
Sampling processing/ averaging processing specification	The sampling processing or average processing can be specified using this function.	○ Count average: Not available Time average: Not available Moving average: 4 times	○ Count average: 3 to 255 times Time average: 480 to 2550ms Moving average: 4 times	The remote I/O signal settings of AJ65BT-68TD is changed to the remote register settings of AJ65SBT2B-64TD.
Disconnection detection function	• The disconnection of thermocouple to connect with each channel is detected using this function. • The measured temperature value immediately before the disconnection detection of channel is held.	○	○	For AJ65SBT2B-64TD, the up scale or down scale value is stored in the measured temperature value of the disconnected channel.
Measured temperature value storage	The measured temperature value rounded off to one decimal place is stored to the remote register.	○	○	—
Upper/lower limit value of measured temperature setting function	The upper/lower limit value of measured temperature is set for each channel using this function	○	×	The equivalent function is available by operation in the sequence program.
Scaling function	The temperature measured value is increase/decrease within the upper/ lower limit value up to 0 to 2000 using this function.	○	×	The equivalent function is available by operation in the sequence program.
Thermocouple type selection	The thermocouple type to use is set for channel using this function.	○	○	—
Offset/gain settings	The offset/gain setting can be set for each channel using this function.	○	○	—
Pt100 cold junction compensation enable/ disable function	The Pt100 cold junction compensation can be enabled or disabled using this function.	○	○	—
Transmission speed auto-tracking function	When the module is powered on, the transmission speed is set automatically depending on the setting in the master module.	×	○	—
Error flag	The flag is set when an error other than the watchdog timer error occurs.	○	○	—

■Comparison of remote I/O signals

The remote I/O signals are different. Change the sequence program.

For details, refer to the user's manuals.

n: Address assigned to the master station by station number setting

Signal direction: Remote module → Master module			Signal direction: Master module → Remote module		
Remote input (RX)	Signal name		Remote output (RY)	Signal name	
	Model to be discontinued	Alternative model		Model to be discontinued	Alternative model
	AJ65BT-68TD	AJ65SBT2B-64TD		AJ65BT-68TD	AJ65SBT2B-64TD
RXn0	CH1 conversion completion flag		RYn0	CH1 conversion enable flag	
RXn1	CH2 conversion completion flag		RYn1	CH2 conversion enable flag	
RXn2	CH3 conversion completion flag		RYn2	CH3 conversion enable flag	
RXn3	CH4 conversion completion flag		RYn3	CH4 conversion enable flag	
RXn4	CH5 conversion completion flag	CH1 Disconnection detection flag	RYn4	CH5 conversion enable flag	Use prohibited
RXn5	CH6 conversion completion flag	CH2 Disconnection detection flag	RYn5	CH6 conversion enable flag	
RXn6	CH7 conversion completion flag	CH3 Disconnection detection flag	RYn6	CH7 conversion enable flag	
RXn7	CH8 conversion completion flag	CH4 Disconnection detection flag	RYn7	CH8 conversion enable flag	
RXn8	CH1 Disconnection detection flag	Use prohibited	RYn8	CH1 sampling/travel average processing specification designation flag	CH1 Thermocouple selection bit 0
RXn9	CH2 disconnection detection flag		RYn9	CH2 sampling/travel average processing specification designation flag	CH1 Thermocouple selection bit 1
RXnA	CH3 disconnection detection flag	Flash memory read error flag	RYnA	CH3 sampling/travel average processing specification designation flag	CH1 Thermocouple selection bit 2
RXnB	CH4 disconnection detection flag	User range read error flag	RYnB	CH4 sampling/travel average processing specification designation flag	CH2 Thermocouple selection bit 0
RXnC	CH5 disconnection detection flag	Flash memory write error flag	RYnC	CH5 sampling/travel average processing specification designation flag	CH2 Thermocouple selection bit 1
RXnD	CH6 disconnection detection flag	Use prohibited	RYnD	CH6 sampling/travel average processing specification designation flag	CH2 Thermocouple selection bit 2
RXnE	CH7 disconnection detection flag		RYnE	CH7 sampling/travel average processing specification designation flag	CH3 Thermocouple selection bit 0
RXnF	CH8 disconnection detection flag	Test mode flag	RYnF	CH8 sampling/travel average processing specification designation flag	CH3 Thermocouple selection bit 1

Signal direction: Remote module → Master module			Signal direction: Master module → Remote module		
Remote input (RX)	Signal name		Remote output (RY)	Signal name	
	Model to be discontinued	Alternative model		Model to be discontinued	Alternative model
	AJ65BT-68TD	AJ65SBT2B-64TD		AJ65BT-68TD	AJ65SBT2B-64TD
RX(n+1)0	CH1 measurement range over flag (lower limit)	Use prohibited	RY(n+1)0	CH1 type "K" thermocouple selection flag	CH3 Thermocouple selection bit 2
RX(n+1)1	CH1 measurement range over flag (upper limit)		RY(n+1)1	CH1 type "E" thermocouple selection flag	CH4 Thermocouple selection bit 0
RX(n+1)2	CH2 measurement range over flag (lower limit)		RY(n+1)2	CH1 type "J" thermocouple selection flag	CH4 Thermocouple selection bit 1
RX(n+1)3	CH2 measurement range over flag (upper limit)		RY(n+1)3	CH1 type "T" thermocouple selection flag	CH4 Thermocouple selection bit 2
RX(n+1)4	CH3 measurement range over flag (lower limit)		RY(n+1)4	CH1 type "B" thermocouple selection flag	Converted value at disconnection detection selection flag (all channel batch-select)
RX(n+1)5	CH3 measurement range over flag (upper limit)		RY(n+1)5	CH1 type "R" thermocouple selection flag	Use prohibited
RX(n+1)6	CH4 measurement range over flag (lower limit)		RY(n+1)6	CH1 type "S" thermocouple selection flag	Pt100 cold junction compensation disable flag
RX(n+1)7	CH4 measurement range over flag (upper limit)		RY(n+1)7	Use prohibited	Offset/gain value selection flag
RX(n+1)8	CH5 measurement range over flag (lower limit)	Initial data processing request flag	RY(n+1)8	CH2 type "K" thermocouple selection flag	Initial data processing completion flag
RX(n+1)9	CH5 measurement range over flag (upper limit)	Initial data setting completion flag	RY(n+1)9	CH2 type "E" thermocouple selection flag	Initial data setting request flag
RX(n+1)A	CH6 measurement range over flag (lower limit)	Error status flag	RY(n+1)A	CH2 type "J" thermocouple selection flag	Error reset request flag
RX(n+1)B	CH6 measurement range over flag (upper limit)	Remote READY	RY(n+1)B	CH2 type "T" thermocouple selection flag	Use prohibited
RX(n+1)C	CH7 measurement range over flag (lower limit)	Use prohibited	RY(n+1)C	CH2 type "B" thermocouple selection flag	
RX(n+1)D	CH7 measurement range over flag (upper limit)		RY(n+1)D	CH2 type "R" thermocouple selection flag	
RX(n+1)E	CH8 measurement range over flag (lower limit)		RY(n+1)E	CH2 type "S" thermocouple selection flag	
RX(n+1)F	CH8 measurement range over flag (upper limit)		RY(n+1)F	Use prohibited	

Signal direction: Remote module → Master module			Signal direction: Master module → Remote module		
Remote input (RX)	Signal name		Remote output (RY)	Signal name	
	Model to be discontinued	Alternative model		Model to be discontinued	Alternative model
	AJ65BT-68TD	AJ65SBT2B-64TD		AJ65BT-68TD	AJ65SBT2B-64TD
RX(n+2)0	CH1 write data error flag	Unusable (not assigned because the number of occupied stations is 1)	RY(n+2)0	CH3 type "K" thermocouple selection flag	Unusable (not assigned because the number of occupied stations is 1)
RX(n+2)1	CH2 write data error flag		RY(n+2)1	CH3 type "E" thermocouple selection flag	
RX(n+2)2	CH3 write data error flag		RY(n+2)2	CH3 type "J" thermocouple selection flag	
RX(n+2)3	CH4 write data error flag		RY(n+2)3	CH3 type "T" thermocouple selection flag	
RX(n+2)4	CH5 write data error flag		RY(n+2)4	CH3 type "B" thermocouple selection flag	
RX(n+2)5	CH6 write data error flag		RY(n+2)5	CH3 type "R" thermocouple selection flag	
RX(n+2)6	CH7 write data error flag		RY(n+2)6	CH3 type "S" thermocouple selection flag	
RX(n+2)7	CH8 write data error flag		RY(n+2)7	Use prohibited	
RX(n+2)8	E^2PROM abnormal flag		RY(n+2)8	CH4 type "K" thermocouple selection flag	
RX(n+2)9	Test mode flag		RY(n+2)9	CH4 type "E" thermocouple selection flag	
RX(n+2)A	Use prohibited		RY(n+2)A	CH4 type "J" thermocouple selection flag	
RX(n+2)B			RY(n+2)B	CH4 type "T" thermocouple selection flag	
RX(n+2)C			RY(n+2)C	CH4 type "B" thermocouple selection flag	
RX(n+2)D			RY(n+2)D	CH4 type "R" thermocouple selection flag	
RX(n+2)E			RY(n+2)E	CH4 type "S" thermocouple selection flag	
RX(n+2)F			RY(n+2)F	Use prohibited	
RX(n+3)0			RY(n+3)0	CH5 type "K" thermocouple selection flag	
RX(n+3)1			RY(n+3)1	CH5 type "E" thermocouple selection flag	
RX(n+3)2			RY(n+3)2	CH5 type "J" thermocouple selection flag	
RX(n+3)3			RY(n+3)3	CH5 type "T" thermocouple selection flag	
RX(n+3)4			RY(n+3)4	CH5 type "B" thermocouple selection flag	
RX(n+3)5			RY(n+3)5	CH5 type "R" thermocouple selection flag	
RX(n+3)6			RY(n+3)6	CH5 type "S" thermocouple selection flag	
RX(n+3)7			RY(n+3)7	Use prohibited	

Signal direction: Remote module → Master module			Signal direction: Master module → Remote module		
Remote input (RX)	Signal name		Remote output (RY)	Signal name	
	Model to be discontinued	Alternative model		Model to be discontinued	Alternative model
	AJ65BT-68TD	AJ65SBT2B-64TD		AJ65BT-68TD	AJ65SBT2B-64TD
RX(n+3)8	Use prohibited	Unusable (not assigned because the number of occupied stations is 1)	RY(n+3)8	CH6 type "K" thermocouple selection flag	Unusable (not assigned because the number of occupied stations is 1)
RX(n+3)9			RY(n+3)9	CH6 type "E" thermocouple selection flag	
RX(n+3)A			RY(n+3)A	CH6 type "J" thermocouple selection flag	
RX(n+3)B			RY(n+3)B	CH6 type "T" thermocouple selection flag	
RX(n+3)C			RY(n+3)C	CH6 type "B" thermocouple selection flag	
RX(n+3)D			RY(n+3)D	CH6 type "R" thermocouple selection flag	
RX(n+3)E			RY(n+3)E	CH6 type "S" thermocouple selection flag	
RX(n+3)F			RY(n+3)F	Use prohibited	
RX(n+4)0			RY(n+4)0	CH7 type "K" thermocouple selection flag	
RX(n+4)1			RY(n+4)1	CH7 type "E" thermocouple selection flag	
RX(n+4)2			RY(n+4)2	CH7 type "J" thermocouple selection flag	
RX(n+4)3			RY(n+4)3	CH7 type "T" thermocouple selection flag	
RX(n+4)4			RY(n+4)4	CH7 type "B" thermocouple selection flag	
RX(n+4)5			RY(n+4)5	CH7 type "R" thermocouple selection flag	
RX(n+4)6			RY(n+4)6	CH7 type "S" thermocouple selection flag	
RX(n+4)7			RY(n+4)7	Use prohibited	
RX(n+4)8			RY(n+4)8	CH8 type "K" thermocouple selection flag	
RX(n+4)9			RY(n+4)9	CH8 type "E" thermocouple selection flag	
RX(n+4)A			RY(n+4)A	CH8 type "J" thermocouple selection flag	
RX(n+4)B			RY(n+4)B	CH8 type "T" thermocouple selection flag	
RX(n+4)C			RY(n+4)C	CH8 type "B" thermocouple selection flag	
RX(n+4)D			RY(n+4)D	CH8 type "R" thermocouple selection flag	
RX(n+4)E			RY(n+4)E	CH8 type "S" thermocouple selection flag	
RX(n+4)F			RY(n+4)F	Use prohibited	

Signal direction: Remote module → Master module			Signal direction: Master module → Remote module		
Remote input (RX)	Signal name		Remote output (RY)	Signal name	
	Model to be discontinued	Alternative model		Model to be discontinued	Alternative model
	AJ65BT-68TD	AJ65SBT2B-64TD		AJ65BT-68TD	AJ65SBT2B-64TD
RX(n+5)0	Use prohibited	Unusable (not assigned because the number of occupied stations is 1)	RY(n+5)0	All CH batch type "K" thermocouple selection flag	Unusable (not assigned because the number of occupied stations is 1)
RX(n+5)1			RY(n+5)1	All CH batch type "E" thermocouple selection flag	
RX(n+5)2			RY(n+5)2	All CH batch type "J" thermocouple selection flag	
RX(n+5)3			RY(n+5)3	All CH batch type "T" thermocouple selection flag	
RX(n+5)4			RY(n+5)4	All CH batch type "B" thermocouple selection flag	
RX(n+5)5			RY(n+5)5	All CH batch type "R" thermocouple selection flag	
RX(n+5)6			RY(n+5)6	All CH batch type "S" thermocouple selection flag	
RX(n+5)7			RY(n+5)7	Pt100 cold junction compensation disable flag	
RX(n+5)8 ⋮ RX(n+7)6			RY(n+5)8 ⋮ RY(n+7)6	Use prohibited	
RX(n+7)7			RY(n+7)7	Offset/gain value selection flag	
RX(n+7)8	Initial data processing request flag		RY(n+7)8	Initial data processing completion flag	
RX(n+7)9	Initial data setting completion flag		RY(n+7)9	Initial data setting request flag	
RX(n+7)A	Error status flag		RY(n+7)A	Error reset request flag	
RX(n+7)B	Remote READY		RY(n+7)B	Use prohibited	
RX(n+7)C ⋮ RX(n+7)F	Use prohibited		RY(n+7)C ⋮ RY(n+7)F		

■Comparison of remote register

The assignment of remote resisters is changed. Change the sequence program.

For details, refer to the user's manuals.

m, n: Address assigned to the master station by station number setting

Direction	Address	Model to be discontinued		Alternative model	
		AJ65BT-68TD		AJ65SBT2B-64TD	
		Description	Default	Description	Default
Master → Remote	RWwm	CH1 lower limit value (0.1℃)	Measured temperature range of selected thermocouple	CH1 Averaging processing setting	0
	RWwm+1	CH1 upper limit value (0.1℃)		CH2 Averaging processing setting	0
	RWwm+2	CH2 lower limit value (0.1℃)		CH3 Averaging processing setting	0
	RWwm+3	CH2 upper limit value (0.1℃)		CH4 Averaging processing setting	0
	RWwm+4	CH3 lower limit value (0.1℃)		Unusable (not assigned because the number of occupied stations is 1)	
	RWwm+5	CH3 upper limit value (0.1℃)			
	RWwm+6	CH4 lower limit value (0.1℃)			
	RWwm+7	CH4 upper limit value (0.1℃)			
	RWwm+8	CH5 lower limit value (0.1℃)			
	RWwm+9	CH5 upper limit value (0.1℃)			
	RWwm+A	CH6 lower limit value (0.1℃)			
	RWwm+B	CH6 upper limit value (0.1℃)			
	RWwm+C	CH7 lower limit value (0.1℃)			
	RWwm+D	CH7 upper limit value (0.1℃)			
	RWwm+E	CH8 lower limit value (0.1℃)			
	RWwm+F	CH8 upper limit value (0.1℃)			
Remote → Master	RWrn	CH1 Measured temperature value (in units of 0.1℃)	0	CH1 Measured temperature value (in units of 0.1℃)	0
	RWrn+1	CH2 Measured temperature value (in units of 0.1℃)	0	CH2 Measured temperature value (in units of 0.1℃)	0
	RWrn+2	CH3 Measured temperature value (in units of 0.1℃)	0	CH3 Measured temperature value (in units of 0.1℃)	0
	RWrn+3	CH4 Measured temperature value (in units of 0.1℃)	0	CH4 Measured temperature value (in units of 0.1℃)	0
	RWrn+4	CH5 Measured temperature value (in units of 0.1℃)	0	Unusable (not assigned because the number of occupied stations is 1)	
	RWrn+5	CH6 Measured temperature value (in units of 0.1℃)	0		
	RWrn+6	CH7 Measured temperature value (in units of 0.1℃)	0		
	RWrn+7	CH8 Measured temperature value (in units of 0.1℃)	0		
	RWrn+8	CH1 scaling value	0		
	RWrn+9	CH2 scaling value	0		
	RWrn+A	CH3 scaling value	0		
	RWrn+B	CH4 scaling value	0		
	RWrn+C	CH5 scaling value	0		
	RWrn+D	CH6 scaling value	0		
	RWrn+E	CH7 scaling value	0		
	RWrn+F	CH8 scaling value	0		

6.5 High-speed Counter Module

AJ65BT-D62D-S1

Model to be discontinued		Alternative model	
Model	**Specifications**	**Model**	**Specifications**
AJ65BT-D62D-S1	Differential input/sink output (preset: differential input)	AJ65BT-D62D	Differential input/sink output (preset: DC input)

■Performance specifications comparison

○: Compatible, △: Check required, ×: Not compatible

Item			Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
			AJ65BT-D62D-S1	AJ65BT-D62D		
Number of channels			2 channels		○	—
Count input signal	Phase		1-phase input, 2-phase input		○	—
	Signal level (ϕA, ϕB)		EIA Standard RS-422-A differential type line driver level (equivalent to AM26LS31 (Japan Texas Instruments make))		○	—
Counter	Counting speed (max.)	1-phase input	Counting speed setting switch of HIGH position: 400kpps Counting speed setting switch of LOW position: 10kpps		○	—
		2-phase input	Counting speed setting switch of HIGH position: 300kpps Counting speed setting switch of LOW position: 7kpps			
	Counting range		24-bit signed binary data (0 to 16777215)			
	Type		UP/DOWN preset counter and ring counter functions			
Coincidence output	Comparison range		24-bit signed binary data		○	—
	Comparison result		Set value < count value, set value = count value, set value > count value			
External input	Preset		EIA Standard RS-422-A differential type line driver level (equivalent to AM26LS31 (Japan Texas Instruments make))	5/12/24VDC, 2 to 5mA	×	The input type is different.*1
	Function start		5/12/24VDC, 2 to 5mA		○	—
	Response time	OFF → ON	0.5ms or less		○	—
		ON → OFF	3ms or less			
External output	Coincidence output		2A/common		○	—
	Response time		0.1ms or less			
CC-Link station type			Remote device station		○	—
Number of occupied stations			4 stations		○	—
Connection cable			CC-Link dedicated cable		○	—
Withstand voltage			Between all DC external terminals and ground 500VAC for 1 minute		○	—
insulation resistance			Between all DC external terminals and ground 10MΩ or higher (500VDC insulation resistance tester)		○	—
Noise immunity			Noise voltage 500Vp-p, noise width 1μs, noise frequency 25 to 60Hz (noise simulator condition)		○	—
Terminal block			27-point two-piece terminal block (M3.5×7 screws)		○	—
Applicable wire size			0.75 to 2.0mm² (18 to 14 AWG)		○	—
Applicable solderless terminal			RAV1.25-3, RAV2-3.5 (compliant with JIS C 2805)		○	—
Module mounting screws			Screws of M4×0.7mm×16mm or larger (tightening torque range: 0.78 to 1.18N•m)		○	—
Applicable DIN rail			TH35-7.5Fe, TH35-7.5Al, TH35-15Fe (compliant with JIS C 2812, IEC 60715)		○	—
External power supply	Voltage		18 to 28.8VDC		○	—
	Current consumption		120mA (at 24VDC)	100mA (at 24VDC)	○	—
Permissible instantaneous power failure time			1ms		○	—

Item		Model to be discontinued	Alternative model	Compatibility	Precautions for replacement
		AJ65BT-D62D-S1	AJ65BT-D62D		
External dimensions	Height (H)	63mm		○	—
	Width (W)	151.9mm			
	Depth (D)	65mm			
Weight		0.42kg		○	—

*1 The input type of external input (preset) is different. Check the specifications of sensors to connect. Take measures such as converting differential signals to DC signals with a signal converter.
The transmission time between the differential input and DC input may be different. Verify the operation in the system.

■Functional comparison

○: Available, ×: Not available

Item		Description	Model to be discontinued	Alternative model	Precautions for replacement
			AJ65BT-D62D-S1	AJ65BT-D62D	
Coincidence output function		Outputs an ON/OFF signal in a specified output status, comparing it with the present value.	○	○	—
Preset function		Counting alternates between the preset value and the ring counter value. The preset operation can be done either by a sequence program or by an external preset input.	○	○	—
Ring counter function		Counting alternates between the preset value and the ring counter.	○	○	—
Counter function selection	Count disable function	Stops counting pulses while the count disable command is ON.	○	○	—
	Latch counter function	Stores the present value of the counter into the remote register when the signal of the counter function selection start command is input.	○	○	—
	Sampling counter function	Stores the present value of the counter into the remote register when the signal of the counter function selection start command is input.	○	○	—
	Periodical pulse counter function	Stores the number of input pulses into the remote register every preset cycle time when the signal of the counter function selection start command is input.	○	○	—

■Comparison of remote I/O signals

All the remote I/O signals are the same.

For details, refer to the user's manuals.

n: Address assigned to the master station by station number setting

Signal direction: Remote module → Master module				Signal direction: Master module → Remote module			
Remote input (RX)	Signal name			Remote output (RY)	Signal name		
	CH	Model to be discontinued	Alternative model		CH	Model to be discontinued	Alternative model
		AJ65BT-D62D-S1	AJ65BT-D62D			AJ65BT-D62D-S1	AJ65BT-D62D
RXn0	CH1	Counter value greater (point No. 1)		RYn0	—	Use prohibited	
RXn1		Counter value coincidence (point No. 1)		RYn1			
RXn2		Counter value less (point No. 1)		RYn2			
RXn3		External preset command detection		RYn3			
RXn4	CH2	Counter value greater (point No. 1)		RYn4			
RXn5		Counter value coincidence (point No. 1)		RYn5			
RXn6		Counter value less (point No. 1)		RYn6			
RXn7		External preset command detection		RYn7			
RXn8	CH1	Counter value greater (point No. 2)		RYn8			
RXn9		Counter value coincidence (point No. 2)		RYn9			
RXnA		Counter value less (point No. 2)		RYnA			
RXnB	CH2	Counter value greater (point No. 2)		RYnB			
RXnC		Counter value coincidence (point No. 2)		RYnC			
RXnD		Counter value less (point No. 2)		RYnD			
RXnE	—	Use prohibited		RYnE			
RXnF				RYnF			
RX(n+1)0	CH1	Preset completion		RY(n+1)0	CH1	Point No. 1 coincidence signal reset command	
RX(n+1)1		Counter function detection		RY(n+1)1		Preset command	
RX(n+1)2	CH2	Preset completion		RY(n+1)2		Coincidence signal enable	
RX(n+1)3		Counter function detection		RY(n+1)3		Down count command	
RX(n+1)4	—	Use prohibited		RY(n+1)4		Count enable	
RX(n+1)5				RY(n+1)5		Use prohibited	
RX(n+1)6				RY(n+1)6		Counter function selection start command	
RX(n+1)7				RY(n+1)7	CH2	Point No. 1 coincidence signal reset command	
RX(n+1)8				RY(n+1)8		Preset command	
RX(n+1)9				RY(n+1)9		Coincidence signal enable	
RX(n+1)A				RY(n+1)A		Down count command	
RX(n+1)B				RY(n+1)B		Count enable	
RX(n+1)C				RY(n+1)C		Use prohibited	
RX(n+1)D				RY(n+1)D		Counter function selection start command	
RX(n+1)E				RY(n+1)E	—	Use prohibited	
RX(n+1)F				RY(n+1)F			
RX(n+2)0				RY(n+2)0	CH1	External preset detection reset command	
RX(n+2)1				RY(n+2)1		Point No. 2 coincidence signal reset command	
RX(n+2)2				RY(n+2)2	CH2	External preset detection reset command	
RX(n+2)3				RY(n+2)3		Point No. 2 coincidence signal reset command	
RX(n+2)4 ⋮ RX(n+7)7				RY(n+2)4 ⋮ RY(n+7)7	—	Use prohibited	
RX(n+7)8	—	Initial data processing request flag		RY(n+7)8	—	Initial data processing completion flag	

Signal direction: Remote module → Master module				Signal direction: Master module → Remote module			
Remote input (RX)	Signal name			Remote output (RY)	Signal name		
	CH	Model to be discontinued	Alternative model		CH	Model to be discontinued	Alternative model
		AJ65BT-D62D-S1	AJ65BT-D62D			AJ65BT-D62D-S1	AJ65BT-D62D
RX(n+7)9	—	Use prohibited		RY(n+7)9	—	Use prohibited	
RX(n+7)A	—	Use prohibited		RY(n+7)A			
RX(n+7)B	—	Remote READY		RY(n+7)B			
RX(n+7)C ⋮ RX(n+7)F	—	Use prohibited		RY(n+7)C ⋮ RY(n+7)F			

■Comparison of remote register

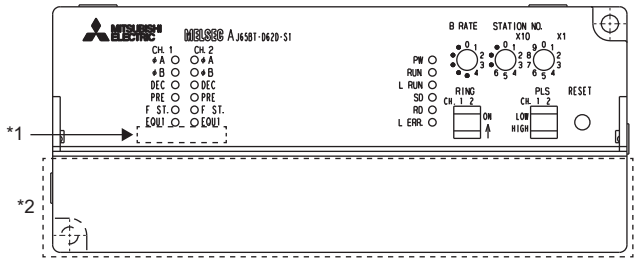
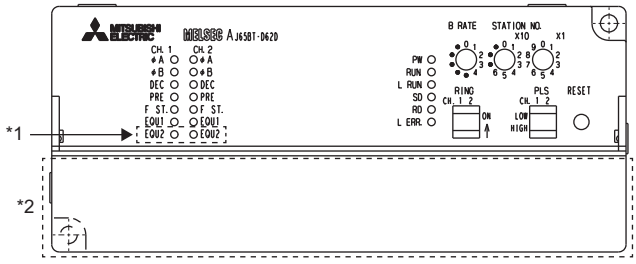
The assignment of remote register is the same.

For details, refer to the user's manuals.

m, n: Address assigned to the master station by station number setting

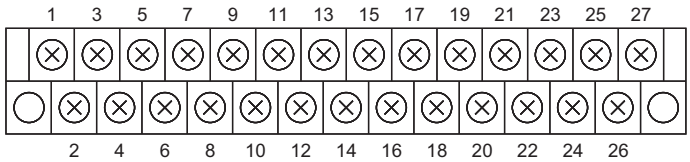
Direction	Address	Model to be discontinued			Alternative model		
		AJ65BT-D62D-S1			AJ65BT-D62D		
		CH	Description	Default	CH	Description	Default
Master → Remote	RWwm	CH1	Preset value setting area	0	CH1	Preset value setting area	0
	RWwm+1						
	RWwm+2		Pulse input mode/function selection register/external output hold or clear setting area	0		Pulse input mode/function selection register/external output hold or clear setting area	0
	RWwm+3		Coincidence output point No. 1 setting area	0		Coincidence output point No. 1 setting area	0
	RWwm+4						
	RWwm+5		Sampling/cycle time setting area	0		Sampling/cycle time setting area	0
	RWwm+6		Coincidence output point No. 2 setting area	0		Coincidence output point No. 2 setting area	0
	RWwm+7						
	RWwm+8	CH2	Preset value setting area	0	CH2	Preset value setting area	0
	RWwm+9						
	RWwm+A		Pulse input mode/function selection register/external output hold or clear setting area	0		Pulse input mode/function selection register/external output hold or clear setting area	0
	RWwm+B		Coincidence output point No. 1 setting area	0		Coincidence output point No. 1 setting area	0
	RWwm+C						
	RWwm+D		Sampling/cycle time setting area	0		Sampling/cycle time setting area	0
	RWwm+E		Coincidence output point No. 2 setting area	0		Coincidence output point No. 2 setting area	0
	RWwm+F						
Remote → Master	RWrn	CH1	Present value storage area	0	CH1	Present value storage area	0
	RWrn+1						
	RWrn+2		Latch count value/sampling count value/periodic pulse count previous value storage area	0		Latch count value/sampling count value/periodic pulse count previous value storage area	0
	RWrn+3						
	RWrn+4		Periodic pulse count present value storage area	0		Periodic pulse count present value storage area	0
	RWrn+5						
	RWrn+6	CH1, CH2	Sampling/periodic counter flag storage area (for both CH1 and CH2)	0	CH1, CH2	Sampling/periodic counter flag storage area (for both CH1 and CH2)	0
	RWrn+7	—	Use prohibited	—	—	Use prohibited	—
	RWrn+8	CH2	Present value storage area	0	CH2	Present value storage area	0
	RWrn+9						
	RWrn+A		Latch count value/sampling count value/periodic pulse count previous value storage area	0		Latch count value/sampling count value/periodic pulse count previous value storage area	0
	RWrn+B						
	RWrn+C		Periodic pulse count present value storage area	0		Periodic pulse count present value storage area	0
	RWrn+D						
	RWrn+E	—	Use prohibited	—	—	Use prohibited	—
	RWrn+F						

■External appearance, terminal block

Model to be discontinued	Alternative model
AJ65BT-D62D-S1	**AJ65BT-D62D**
External Appearance	External Appearance
	

*1 AJ65BT-D62D has EQU2 of LED indication.

*2 The terminal layout is different. Change the wiring. The following figure shows the pin numbers of terminal block and the terminal layout of AJ65BT-D62D-S1 and AJ65BT-D62D.



Pin number	Signal name					
	Model to be discontinued			Alternative model		
	AJ65BT-D62D-S1			AJ65BT-D62D		
1	DA			DA		
2	DB			DB		
3	DG			DG		
4	SLD			SLD		
5	24V			24V		
6	F.G.			F.G.		
7	24G			24G		
8	CH1	ϕA	A	CH1	ϕA	A
9			$\overline{A}$			$\overline{A}$
10		ϕB	B		ϕB	B
11			$\overline{B}$			$\overline{B}$
12		PRESET			PRESET	
13		$\overline{PRESET}$			COM	
14		F.START			F.START	
15				CH2	ϕA	A
16	CH2	ϕA	A			$\overline{A}$
17			$\overline{A}$		ϕB	B
18		ϕB	B			$\overline{B}$
19			$\overline{B}$		PRESET	
20		PRESET			COM	
21		$\overline{PRESET}$			F.START	
22		F.START		CH1	EQU1	
23					EQU2	
24	CH1	EQU1		CH2	EQU1	
25	CH2	EQU1			EQU2	
26	12/24V			12/24V		
27	COM			COM		

REVISIONS

Version	Date of Issue	Revision
A	September 2019	First edition