



2000 No.143E

NEW PRODUCT RELEASE

GENERAL-PURPOSE
PROGRAMMABLE LOGIC CONTROLLERS

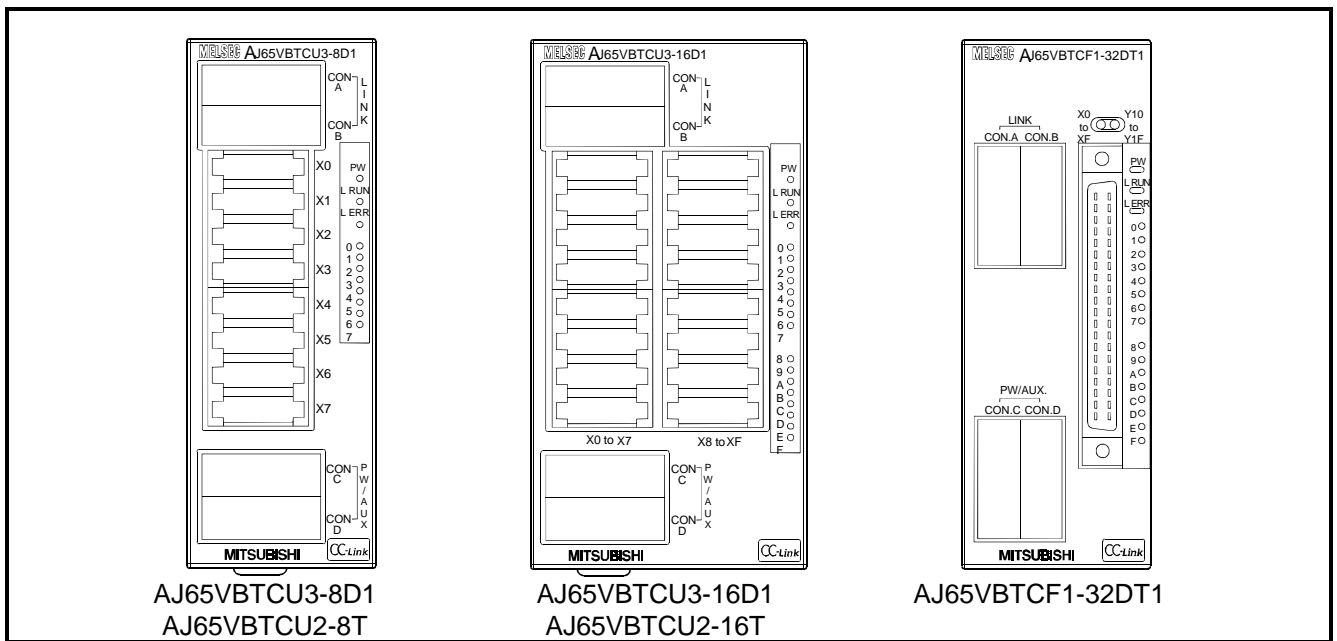
CC-Link

Type AJ65VBTCU3-8D1, AJ65VBTCU3-16D1, AJ65VBTCU2-8T,
AJ65VBTCU2-16T, AJ65VBTCF1-32DT1

The CC-Link system small remote I/O module

New!

**Announcing 5 new connector types for the CC-Link system small remote I/O module!
The CC-Link system small remote I/O module line-up is even more complete.**



[Features]

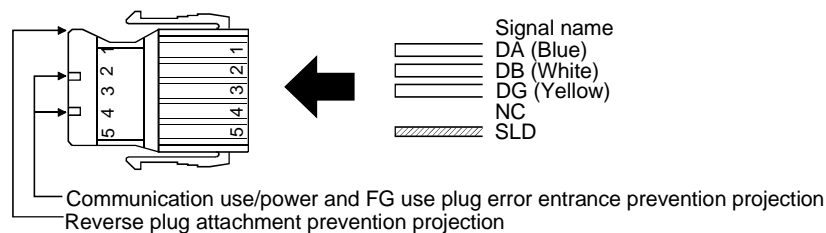
(1) The CC-Link system small remote I/O module line-up is even more complete.

- The five types of input/output/combined modules for the small remote I/O module listed below are now available.

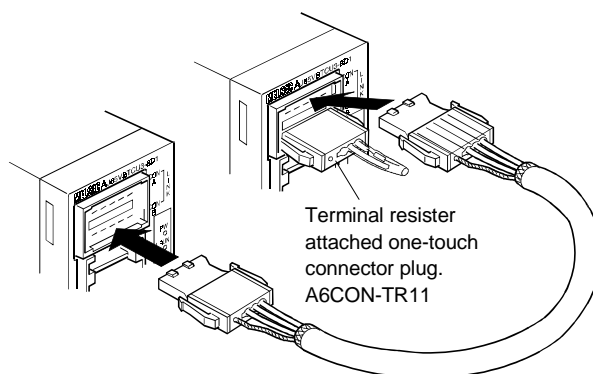
Model	Details	Number of I/O points	
		Input	Output
AJ65VBTCU3-8D1	Communication power connection connector type	8	-
AJ65VBTCU3-16D1		16	-
AJ65VBTCU2-8T		-	8
AJ65VBTCU2-16T		-	16
AJ65VBTCF1-32DT1		16	16

(2) Further Improvements in Efficiency of Wiring Operations are Possible!

- A steep reduction in man-hours spent in wiring work connecting the communication cable and power cable, due to the separate line pressure displacement connection system (no soldering, unwrapping of power lines, or tightening of screws necessary).



- Because the IN side / OUT side connections are made separately with the communication cable and power cable connection, the wiring characteristics of the in-panel crossover wiring time are greatly improved.



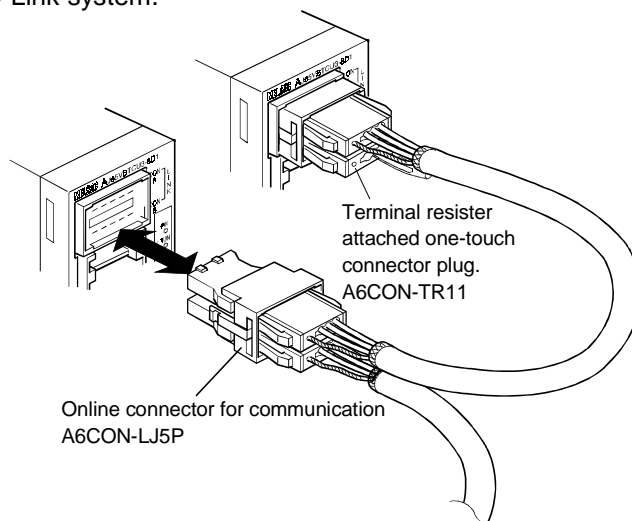
- Because the connector types are all arranged on one side, connection is only possible to the front wiring, and the work characteristics of the wiring time are greatly improved.
- By the adoption of the one-touch type connector for the input/output section, the wiring to the connector can be connected simply without soldering, unwrapping the wires, or tightening screws. (AJ65VBTCU□-8□, AJ65VBTCU□-16□)

(3) Reduction of Installation Surface Area!

- Compared to the present small remote I/O (AJ65SBTCU□-□), the installation surface area with the cables connected can be reduced by approximately 33%. (AJ65VBTCU□-8□).

(4) The Module Can Be Replaced Without Stopping the CC-Link System! (Applicable Soon)

- By using online connectors for communication or for power (available soon), the module can be replaced without stopping the CC-Link system.



[Specification]

(1) Type AJ65VBTCU3-8D1, AJ65VBTCU3-16D1 input module.

Specification		Form	DC input module	
			AJ65VBTCU3-8D1	AJ65VBTCU3-16D1
Number of input points			8 points	16 points
Insulation method			Photocoupler	
Rated input voltage			24 V DC	
Rated input current			Approx. 5 mA	
Operating voltage range			19.2 to 26.4 V DC (ripple ratio: within 5 %)	
Max. simultaneous ON input points			100 %	
ON voltage/ON current			15 V or higher/3 mA or higher	
OFF voltage/OFF current			3 V or lower/0.5 mA or lower	
Input resistance			Approx. 4.7 k Ω	
Response time	OFF \rightarrow ON		0.2 ms or lower (when 24 V DC)	
	ON \rightarrow OFF		0.2 ms or lower (when 24 V DC)	
Input method			Sink type	Sink type
Common wiring method			8 points/1 common (One-touch connector 3-wire type)	16 points/1 common (One-touch connector 3-wire type)
Number of stations occupied			1 station 32 points assignment (use 8 points)	1 station 32 points assignment (use 16 points)
I/O module	Voltage		20.4 to 26.4 V DC (ripple rate: within 5 %)	20.4 to 26.4 V DC (ripple rate: within 5 %)
			35 mA or lower (when 24 V DC and all point is ON)	40 mA or lower (when 24 V DC and all point is ON)
Noise durability			DC type noise voltage 500 Vp-p, noise width 1 μ s, noise carrier frequency 25 to 60 Hz (noise simulator condition)	
Withstand voltage			500 V AC for 1 minute between all DC external terminals and ground	
Insulation resistance			10 k Ω or higher, measured with a 500 V DC insulation resistance tester	
External wiring system			One-touch connector for communication [Transmission circuit] (5 pins pressure welding type, the plug for the connector is sold separately) One-touch connector for power supply and FG [Unit power supply, I/O power supply, and FG] (5 pins pressure welding type, the plug for the connector is sold separately) One-touch connector for I/O (4 pins pressure welding type, the plug for the connector is sold separately) <Option> Online connector for communication : A6CON-LJ5P <Available soon> Online connector for power supply : A6CON-PWJ5P <Available soon>	
Applicable wire size	Cable for communication		Applicable cable : FANC-110SBH, CS-110	
	Connector for power supply		0.66 to 0.98 mm ² (AWG#18) [ϕ 2.2 to 3.0]	
	Connector for I/O		Wire diameter 0.16 mm or more ϕ 1.0 to 1.4 (A6CON-P214), ϕ 1.4 to 2.0 (A6CON-P220) [Applicable cable : 0.14 to 0.2 mm ²] ϕ 1.0 to 1.4 (A6CON-P514), ϕ 1.4 to 2.0 (A6CON-P520) [Applicable cable : 0.3 to 0.5 mm ²]	
Weight (kg)(lb.)			0.15 (0.33)	0.19 (0.42)

(2) Type AJ65VBTCU2-8T • AJ65VBTCU2-16T output module

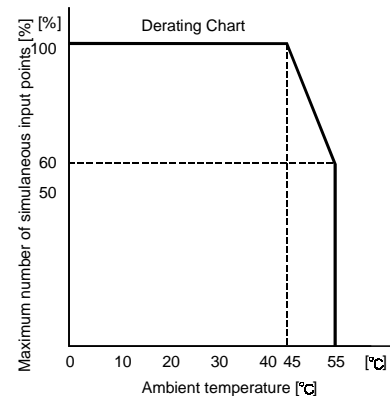
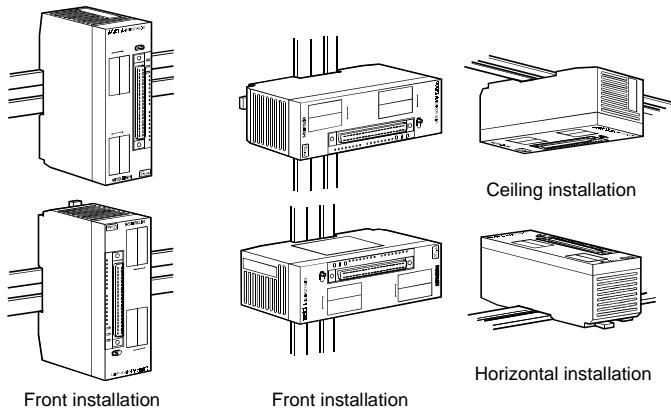
Form		Transistor output module	
Specification		AJ65VBTCU2-8T	AJ65VBTCU3-16D1
Number of output points		8 points	16 points
Insulation method		Photocoupler	
Rated load voltage		12/24 V DC	
Operating load voltage range		10.2 to 26.4 V DC (ripple ratio: within 5 %)	
Max. load current		0.1 A/point 0.8 A/1 common	
Max. inrush current		0.7 A 10 ms or lower	
Leakage current at OFF		0.1 mA or lower	
Max. voltage drop at ON		0.1 V or lower (TYP) 0.1 A 0.2 V or lower (MAX) 0.1 A	
Output method		Sink type with overload protection function, overvoltage protection function and overheat protection function	
Response time	OFF → ON	1 ms or lower	
	ON → OFF	1 ms or lower (rated load, resistive load)	
External Power supply for output	Voltage	10.2 to 26.4 V DC (ripple ratio: within 5 %)	10.2 to 26.4 V DC (ripple ratio: within 5 %)
	Current	5 mA or lower (TYP. 24 V DC/1 common) Not including external load current	10 mA or lower (TYP. 24 V DC/1 common) Not including external load current
Surge suppression		Zener diode	
Common wiring method		8 points/1 common (One-touch connector 2-wire type)	16 points/1 common (One-touch connector 2-wire type)
Number of stations occupied		1 station 32 points assignment (use 8 points)	1 station 32 points assignment (use 16 points)
I/O module power supply	Voltage	20.4 to 26.4 V DC (ripple ratio: within 5 %)	20.4 to 26.4 V DC (ripple ratio: within 5 %)
	Current	35 mA or lower (when 24 V DC and all point is ON)	40 mA or lower (when 24 V DC and all point is ON)
Noise durability		DC type noise voltage 500 Vp-p, noise width 1 μs, noise carrier frequency 25 to 60 Hz (noise simulator condition)	
Withstand voltage		500 V AC for 1 minute between all DC external terminals and ground	
Insulation resistance		10 k Ω or higher, measured with a 500 V DC insulation resistance tester	
External wiring system		One-touch connector for communication [Transmission circuit] (5 pins pressure welding type, the plug for the connector is sold separately) One-touch connector for power supply and FG [Unit power supply, I/O power supply, and FG] (5 pins pressure welding type, the plug for the connector is sold separately) One-touch connector for I/O (4 pins pressure welding type, the plug for the connector is sold separately) <Option> Online connector for communication : A6CON-LJ5P <Available soon> Online connector for power supply : A6CON-PWJ5P <Available soon>	
Applicable wire size	Cable for communication	Applicable cable : FANC-110SBH, CS-110	
	Connector for power supply	0.66 to 0.98 mm ² (AWG#18) [φ2.2 to 3.0] Wire diameter 0.16 mm or more	
	Connector for I/O	φ1.0 to 1.4 (A6CON-P214), φ1.4 to 2.0 (A6CON-P220) [Applicable cable : 0.14 to 0.2 mm ²] φ1.0 to 1.4 (A6CON-P514), φ1.4 to 2.0 (A6CON-P520) [Applicable cable : 0.3 to 0.5 mm ²]	
Accessory		User's Manual	
Weight (kg)(lb.)		0.15 (0.33)	0.19 (0.42)

(3) Type AJ65VBTCF1-32DT1 output module

Form		AJ65VBTCF1-32DT1	
Specification			
Input specification		Output specification	
Number of input points	16 points	Number of output points	16 points
Insulation method	Photocoupler	Insulation method	Photocoupler
Rated input voltage	24 V DC	Rated load voltage	12/24 V DC
Rated input current	Approx. 5 mA	Operating load voltage range	10.2 to 26.4 V DC(ripple ratio: within 5 %)
Operating voltage range	19.2 to 26.4 V DC (ripple ratio: within 5 %)	Max. load current	0.1 A/point 1.6 A/1 common
Max. simultaneous input points	100 %/60 %	Max. inrush current	0.7 A 10 ms or lower
ON voltage/ON current	15 V or higher/3 mA or higher	Leakage current at OFF	0.1 mA or lower
OFF voltage/OFF current	3 V or lower/0.5 mA or lower	Voltage drop at ON	0.1 V DC or lower (TYP)0.1 A 0.2 V DC or lower (MAX)0.1 A
Input resistance	Approx. 4.7 kΩ	Output form	Sink type with overload protection function, overvoltage protection function, overheat protection function
Response time	OFF → ON	Response time	OFF → ON
	ON → OFF		ON → OFF
Input form	Sink/source loading type	OFF → ON	1 ms or lower
Common method	16-points /1 common (FCN connector single wire type)	ON → OFF	1 ms or lower (resistive load)
		External Power supply for output	Voltage
			Current
		Common wiring method	
Number of stations occupied	1 station 32 points assignment (use 32 points)		
I/O module power supply	Voltage	20.4 to 26.4 V DC (ripple ratio: within 5 %)	
	Current	50 mA or lower (when TYP. 24 V DC and all point is ON.)	
Noise durability	DC type noise voltage 500 Vp-p, noise width 1 μs, noise carrier frequency 25 to 60 Hz (noise simulator condition)		
Withstand voltage	500 V AC for 1 minute between all DC external terminals and ground		
Insulation resistance	10 kΩ or higher, measured with a 500 V DC insulation resistance tester between all DC external terminal and ground		
External wiring system	One-touch connector for communication [Transmission circuit] (5 pins pressure welding type, the plug for the connector is sold separately) One-touch connector for power supply and FG [Unit power supply, I/O power supply, and FG] (5 pins pressure welding type, the plug for the connector is sold separately) One-touch connector for I/O (4 pins pressure welding type, the plug for the connector is sold separately) <Option> Online connector for communication : A6CON-LJ5P <Available soon> Online connector for power supply : A6CON-PWJ5P <Available soon>		
Applicable wire size	Cable for communication	Applicable cable : FANC-110SBH, CS-110	
	Connector for power supply	0.66 to 0.98 mm ² (AWG#18) [φ2.2 to 3.0] Wire diameter 0.16 mm or more	
	Connector for I/O	0.3 mm ² (AWG22)	
Applicable I/O connector	A6CON1 (soldering type), A6CON2 (crimp-connector type), A6CON3 (pressure displacement type)		
Accessory	User's Manual		
Weight (kg) (lb.)	0.16 (0.35)		

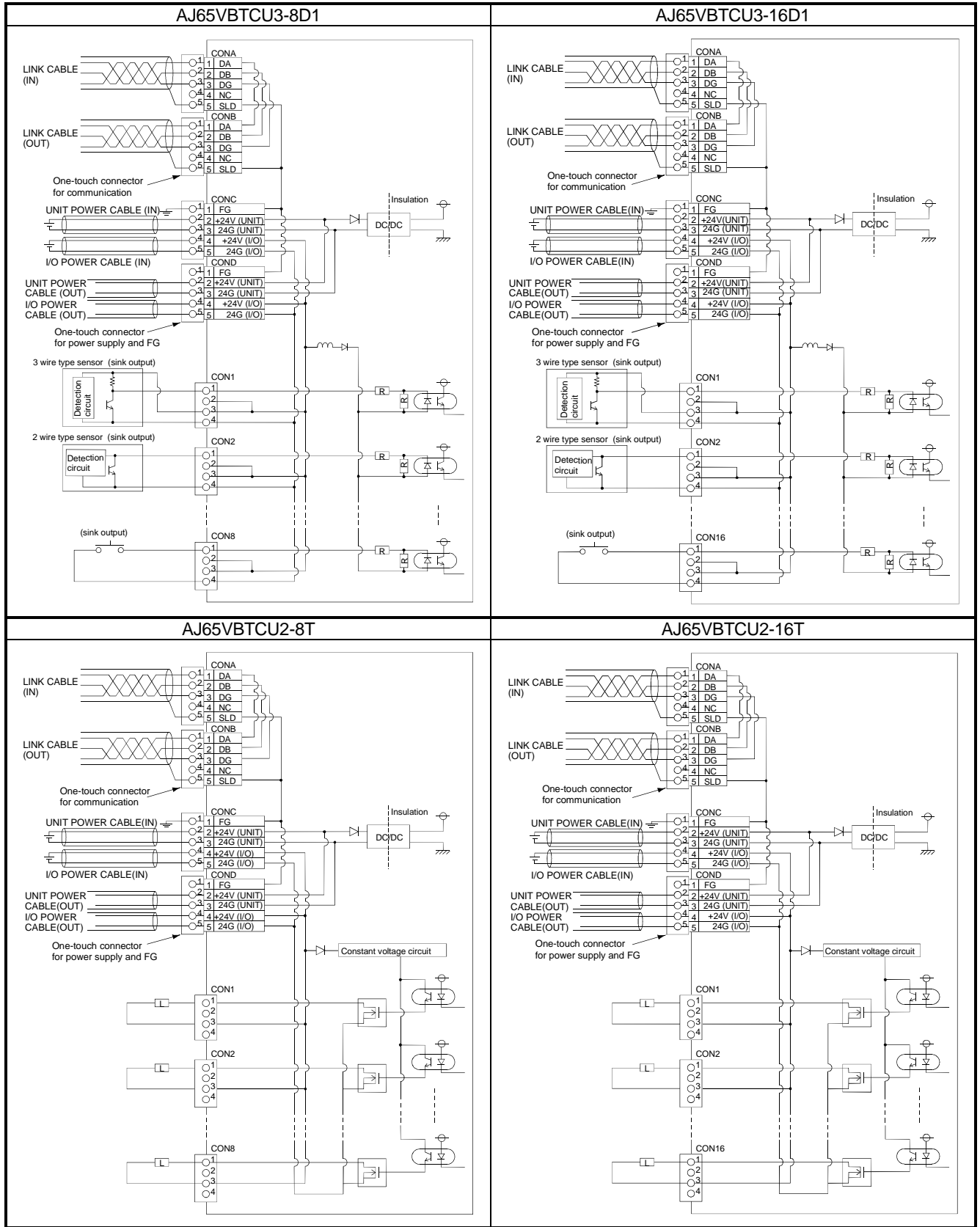
Installation Direction and Restrictions

- Installation Directions with No Restrictions
- Installation Directions with Restrictions and Derating Curve

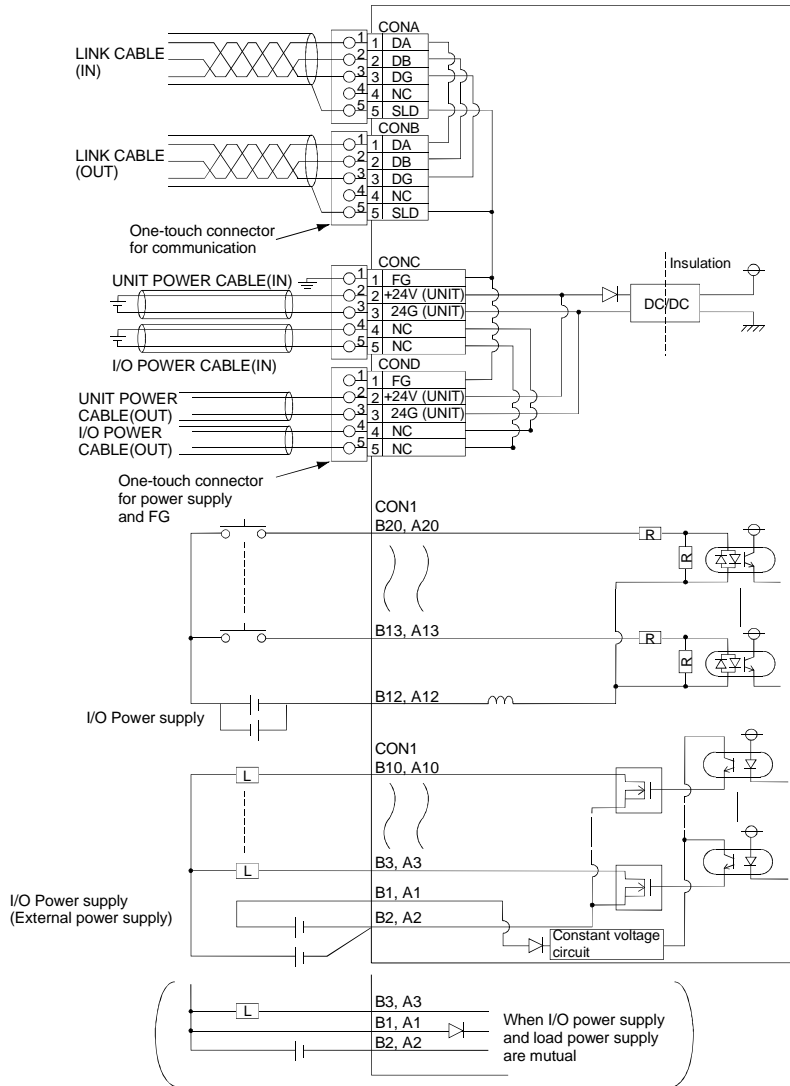


[External wiring]

The working environment of the MELSECNET/H board is listed below.



AJ65VBTCF1-32DT1

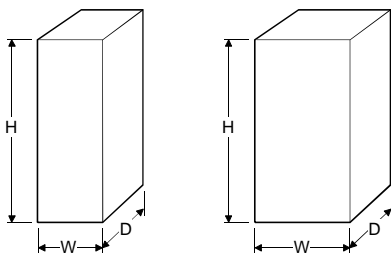


[Option parts list]

Part name	Model	Specifications	
One-touch connector for communication (including 10)	A6CON-L5P	One-touch connector plug for communication 5P [Transmission circuit terminal (pressure displacement type)] Applicable cable : FANC-110SBH CS-110	
Online connector for communication (including 5) <Available soon>	A6CON-LJ5P	Online connector for communication 5 poles (10P)	
One-touch connector for power supply and FG	A6CON-PW5P	One-touch connector plug for power supply and FG 5P [module power terminal, I/O power terminal, FG terminal (pressure displacement type)] Applicable power line size : 0.66 to 0.98 mm ² (AWG18) (φ2.2 to 3.0) Wire diameter 0.16 mm or more	
Online connector for power supply (including 5) <Available soon>	A6CON-PWJ5P	Online connector for power supply 5 poles (10P)	
Terminal resistor attached one-touch connector plug (including 1)	A6CON-TR11	Terminal resistor (110Ω) attached one-touch connector plug for communication • When using a connector to terminal module connector type remote I/O, be sure to use this terminal resistance.	
Plug for one-touch connector (including 20)		Applicable cable core size (mm ²)	Applicable cable external size (mm)
	A6CON-P214	0.14 to 0.2(AWG#26 to 24)	φ1.0 to 1.4
	A6CON-P220		φ1.4 to 2.0
	A6CON-P514	0.3 to 0.5(AWG#22 to 20)	φ1.0 to 1.4
			φ1.4 to 2.0

[External Dimensions Diagram]

AJ65VBTCU□-8□ AJ65VBTCU□-16□
AJ65VBTCF1-32DT1



Model	H	W	D
AJ65VBTCU□-8□	115	41	62
AJ65VBTCU□-16□	115	60	62
AJ65VBTCF1-32DT1	115	41	67

(Unit:mm)

[Manuals]

Manual name	Manual shipping state	IB/SH No.	Type code
AJ65VBTCU3-8D1 CC-Link System Compact Type Remote I/O Module User's Manual	Enclosed with product	IB-0800159	-
AJ65VBTCU3-16D1 CC-Link System Compact Type Remote I/O Module User's Manual	Enclosed with product	IB-0800160	-
AJ65VBTCU2-8T CC-Link System Compact Type Remote I/O Module User's Manual	Enclosed with product	IB-0800161	-
AJ65VBTCU2-16T CC-Link System Compact Type Remote I/O Module User's Manual	Enclosed with product	IB-0800162	-
AJ65VBTCF1-32DT1 CC-Link System Compact Type Remote I/O Module User's Manual	Enclosed with product	IB-0800163	-
CC-Link System Compact Type Remote I/O Module User's Manual	Optional	SH-4007	13JL72

Country/Region

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