



2000 No.127E

NEW PRODUCT RELEASE

CC-LINK

**GENERAL-PURPOSE
PROGRAMMABLE CONTROLLERS**

**AJ65SBTB2N-8A,AJ65SBTB2N-16A,AJ65SBTB3-8D,AJ65SBTB3-16D,AJ65SBTB2-8T,
AJ65SBTB2-16T,AJ65SBTB2N-8R,AJ65SBTB2N-16R,AJ65SBTB2N-8S,AJ65SBTB2N-16S,
AJ65SBTB1-16DT,AJ65SBTB1-16DT1,AJ65SBTB1-32DT,AJ65SBTB32-8DT,AJ65SBTB32-16DT**

CC-Link System Compact Remote Type Input/Output Module

New!

A total of 15 types including four types of input modules, six types of output modules and five types of input/output combined modules have been added to the line up of the popular CC-Link system compact remote type input/output modules.

[Features]

1) Powerful line up with 1-wire type, 2-wire type and 3-wire type terminal blocks.

Part name	Type	Details
Input module	AJ65SBTB2N-8A	8 points AC100V(7mA) 2-wire type response time 20ms terminal block type
	AJ65SBTB2N-16A	16 points AC100V(7mA) 2-wire type response time 20ms terminal block type
	AJ65SBTB3-8D	8 points DC24V(7mA) 3-wire type response time 1.5ms terminal block type
	AJ65SBTB3-16D	16 points DC24V(7mA) 3-wire type response time 1.5ms terminal block type
Output module	AJ65SBTB2-8T	8 points DC12/24V 2-wire type transistor output terminal block type
	AJ65SBTB2-16T	16 points DC12/24V 2-wire type transistor output terminal block type
	AJ65SBTB2N-8R	8 points AC240V/DC24V 2-wire type relay output terminal block type
	AJ65SBTB2N-16R	16 points AC240V/DC24V 2-wire type relay output terminal block type
	AJ65SBTB2N-8S	8 points AC100-240V 2-wire type TRIAC output terminal block type
	AJ65SBTB2N-16S	16 points AC100-240V 2-wire type TRIAC output terminal block type
Input/output combined module	AJ65SBTB1-16DT	8 input points DC24V(7mA) 1-wire type response time 1.5ms 8 output points DC24V(0.5A) 1-wire type transistor output terminal block type
	AJ65SBTB1-16DT1	8 input points DC24V(5mA) 1-wire type response time 0.2ms 8 output points DC24V(0.5A) 1-wire type transistor output terminal block type
	AJ65SBTB1-32DT1	16 input points DC24V(5mA) 1-wire type response time 0.2ms 16 output points DC24V(0.5A) 1-wire type transistor output terminal block type
	AJ65SBTB32-8DT	4 input points DC24V(7mA) 3-wire type response time 1.5ms 4 output points DC24V(0.5A) 2-wire type transistor output terminal block type
	AJ65SBTB32-16DT	4 input points DC24V(7mA) 3-wire type response time 1.5ms 4 output points DC24V(0.5A) 2-wire type transistor output terminal block type

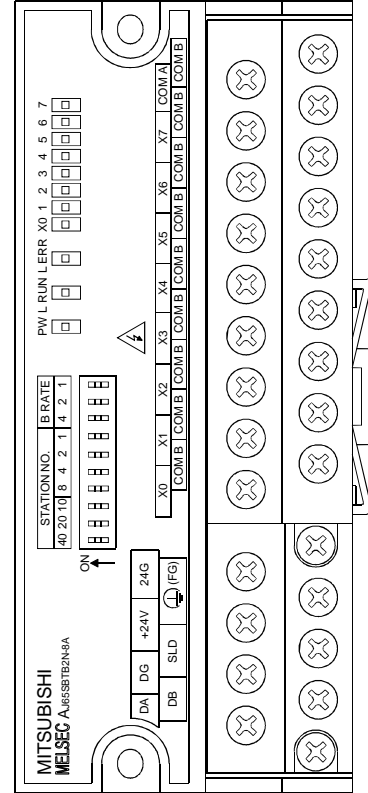
2) Module exchange possible without stopping CC-Link system

A two-piece terminal block is incorporated for the communication section and power supply section of the CC-Link, so the modules can be exchanged without stopping the entire CC-Link system.

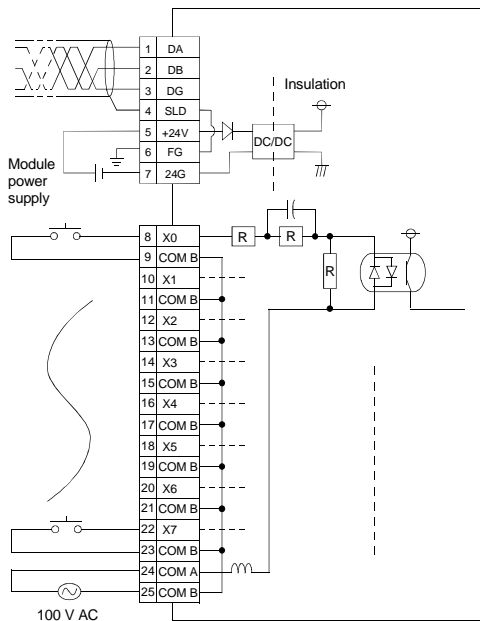
[Features]

1) AJ65SBTB2N-8A 100 V AC input module

Form	AC input module	
Specification	AJ65SBTB2-8A	
Number of input points	8 points	
Insulation method	Photocoupler	
Rated input voltage	100 to 120 V AC 50/60 Hz	
Rated input current	Approx. 7 mA (100 V AC 60 Hz)	
Operating voltage range	85 to 132 V AC (50/60 Hz $\pm 5\%$)	
Max. simultaneous ON input points	100 % simultaneous ON (at 100 V AC) 60 % simultaneous ON (at 132 V AC)	
Inrush current	Max. 200 mA within 1 ms (at 132 V AC)	
ON voltage/ON current	80 V AC or higher/5 mA or higher	
OFF voltage/OFF current	30 V AC or lower/1 mA or lower	
Input resistance	Approx. 15 k Ω (60 Hz), Approx. 18 k Ω (50 Hz)	
Response time	OFF \rightarrow ON	20 ms or lower (at 100 V AC 60 Hz)
	ON \rightarrow OFF	20 ms or lower (at 100 V AC 60 Hz)
Common method	8 points/1 common (terminal block 2-wire type)	
Number of stations occupied	1 station 32 points assignment (use 8 points)	
I/O module power supply	Voltage	20.4 to 26.4 V DC (ripple ratio: within 5 %)
	Current	35 mA or lower (24 V DC and all point is ON)
Noise durability	Simulator noise 1500 Vp-p, noise width 1 μ s, noise carrier frequency 25 to 60 Hz (noise simulator condition) Fast transient/noise burst IEC61000-4-4 : 1 kV	
Withstand voltage	1780 V AC between all AC external terminals and ground, rms/ 3 cycles (2000 m above sea level) 500 V AC for 1 minutes between all DC external terminals and ground	
Insulation resistance	10 M Ω or higher, measured with a 500 V DC insulation resistance tester between all AC external terminals and ground 10 M Ω or higher, measured with a 500 V DC insulation resistance tester between all DC external terminals and ground	
Weight (kg)(lb.)	0.2 (0.44)	
External wiring system	7-point 2-piece terminal block (transmission circuit, module power supply terminal), Direct-type 18-point terminal block (I/O power supply area) (M3 screw)	
Applicable solderless terminal	<ul style="list-style-type: none"> • RAV1.25-3.5 (in conformance with JIS-C2805) [Applicable wire size: 0.3 to 1.25 mm²] • V2-MS3 (Japan Solderless Terminal Mfg. Co., Ltd.), RAP2-3S RAP2-3SL (Japan Terminal Co., Ltd.) • 2-3N, 2-3S (NICHIFU TERMINAL INDUSTRIES Co., Ltd.) [Applicable wire size: 1.25 to 2.0 mm²] 	
Accessory	User's Manual	



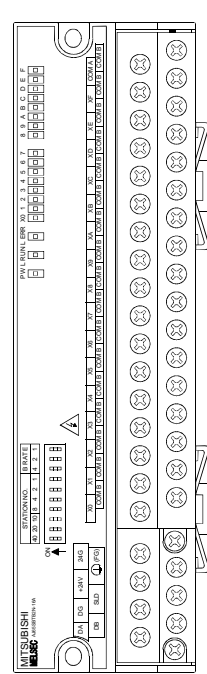
External connection



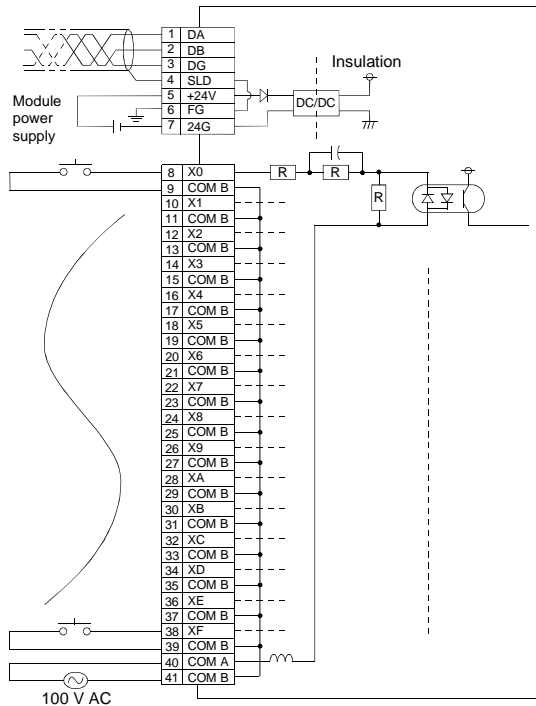
The COM terminals are all connected inside the module. (Shared commons)

Terminal number	Signal name
TB1	DA
TB2	DB
TB3	DG
TB4	SLD
TB5	+24V
TB6	FG
TB7	24G
TB8	X0
TB9	COMB
TB10	X1
TB11	COMB
TB12	X2
TB13	COMB
TB14	X3
TB15	COMB
TB16	X4
TB17	COMB
TB18	X5
TB19	COMB
TB20	X6
TB21	COMB
TB22	X7
TB23	COMB
TB24	COMA
TB25	COMB

2) AJ65SBTB2N-16A 100 V AC input module

Form	AJ65SBTB2-16A		AC input module	Outline
Specification				
Number of input points	16 points			
Insulation method	Photocoupler			
Rated input voltage	100 to 120 V AC 50/60 Hz			
Rated input current	Approx. 7 mA (100 V AC 60 Hz)			
Operating voltage range	85 to 132 V AC (50/60 Hz $\pm 5\%$)			
Max. simultaneous input points	100 % simultaneous ON (at 100 V AC) 60 % simultaneous ON (at 132 V AC)			
Inrush current	Max. 200 mA within 1 ms (at 132 V AC)			
ON voltage/ON current	80 V AC or higher/5 mA or higher			
OFF voltage/OFF current	30 V AC or lower/1 mA or lower			
Input resistance	Approx. 15 k Ω (60 Hz), Approx. 18 k Ω (50 Hz)			
Response time	OFF \rightarrow ON	20 ms or lower (at 100 V AC 60 Hz)		
	ON \rightarrow OFF	20 ms or lower (at 100 V AC 60 Hz)		
Common method	16 points/1 common (terminal block 2-wire type)			
Number of stations occupied	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 %)		
	Current	40 mA or lower (24 V DC and all point is ON)		
Noise durability	Simulator noise 1500 Vp-p, noise width 1 μ s, noise carrier frequency 25 to 60 Hz (noise simulator condition) Fast transient/noise burst IEC61000-4-4 : 1 kV			
Withstand voltage	1780 V AC between all AC external terminals and ground, rms/ 3 cycles (2000 m above sea level) 500 V AC for 1 minutes between all DC external terminals and ground			
Insulation resistance	10 M Ω or higher, measured with a 500 V DC insulation resistance tester between all AC external terminals and ground 10 M Ω or higher, measured with a 500 V DC insulation resistance tester between all DC external terminals and ground			
Weight (kg)(lb.)	0.25 (0.55)			
External wiring system	7-point 2-piece terminal block (transmission circuit, module power supply terminal), Direct-type 34-point terminal block (I/O power supply area) (M3 screw)			
Applicable solderless terminal	<ul style="list-style-type: none"> • RAV1.25-3.5 (in conformance with JIS-C2805) [Applicable wire size: 0.3 to 1.25 mm²] • V2-MS3 (Japan Solderless Terminal Mfg. Co., Ltd.), RAP2-3S RAP2-3SL (Japan Terminal Co., Ltd.) • 2-3N, 2-3S (NICHIFU TERMINAL INDUSTRIES Co., Ltd.) [Applicable wire size: 1.25 to 2.0 mm²] 			
Accessory	User's Manual			

External connection



The COM terminals are all connected inside the module. (Shared commons)

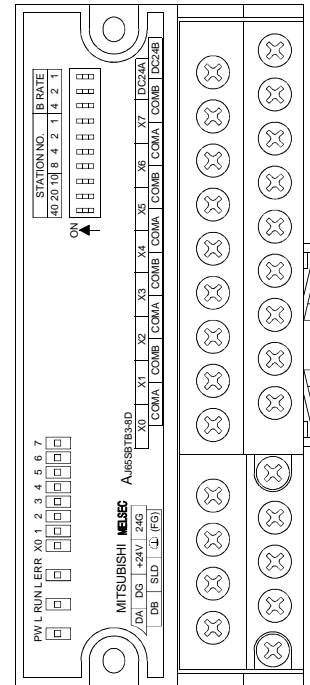
Terminal number

Signal name

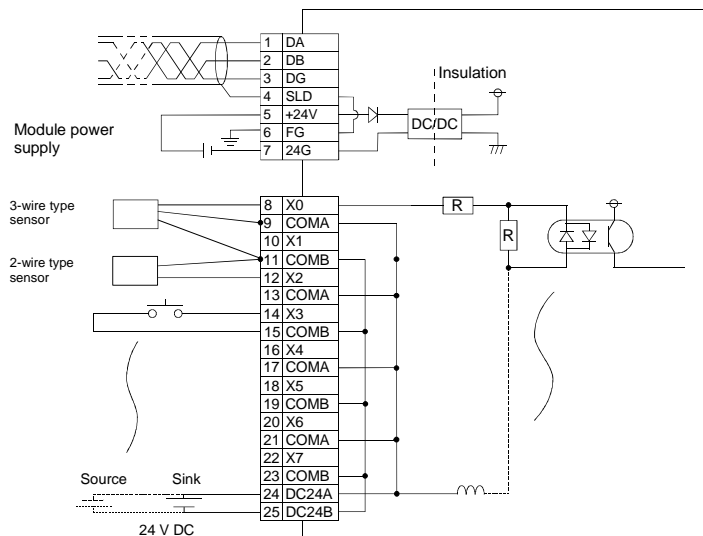
TB1	DA
TB2	DB
TB3	DG
TB4	SLD
TB5	+24V
TB6	FG
TB7	24G
TB8	X0
TB9	COMB
TB10	X1
TB11	COMB
TB12	X2
TB13	COMB
TB14	X3
TB15	COMB
TB16	X4
TB17	COMB
TB18	X5
TB19	COMB
TB20	X6
TB21	COMB
TB22	X7
TB23	COMB
TB24	X8
TB25	COMB
TB26	X9
TB27	COMB
TB28	XA
TB29	COMB
TB30	XB
TB31	COMB
TB32	XC
TB33	COMB
TB34	XD
TB35	COMB
TB36	XE
TB37	COMB
TB38	XF
TB39	COMB
TB40	COMA
TB41	COMB

3) AJ65SBTB3-8D 24 V DC input module (Sink/source loading)

Form	DC input module	
Specification	AJ65SBTB3-8D	
Number of input points	16 points	
Insulation method	Photocoupler	
Rated input voltage	24 V DC	
Rated input current	Approx. 7 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	14 V or higher/3.5 mA or higher	
OFF voltage/OFF current	6 V or lower/1.7 mA or lower	
Input resistance	Approx. 3.3 kΩ	
Response time	OFF → ON: 1.5 ms or lower (when 24 V DC) ON → OFF: 1.5 ms or lower (when 24 V DC)	
Common wiring method	8 points/1 common (terminal block B-wire type)	
Input method	Sink/source shared type	
Number of stations occupied	1 station 32 points assignment (use 8 points)	
I/O module power supply	Voltage	20.4 to 26.4 V DC (ripple rate: within 5%)
	Current	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 MΩ or higher, measured with a 500 V DC insulation resistance tester	
Weight (kg)	0.18	
External wiring system	7-point 2-piece terminal block (transmission circuit, module power supply terminal), Direct-type 18-point terminal block (I/O power supply area) (M3 screw)	
Applicable solderless terminal	<ul style="list-style-type: none"> RAV1.25-3.5 (in conformance with JIS-C2805) [Applicable wire size: 0.3 to 1.25 mm²] V2-MS3 (Japan Solderless Terminal Mfg. Co., Ltd.), RAP2-3S RAP2-3SL (Japan Terminal Co., Ltd.) 2-3N, 2-3S (NICHIFU TERMINAL INDUSTRIES Co., Ltd.) [Applicable wire size: 1.25 to 2 mm²] 	
Accessory	User's Manual	



External connection

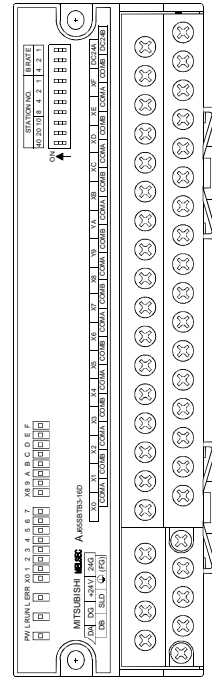


Terminal number	Signal name
TB1	DA
TB2	DB
TB3	DG
TB4	SLD
TB5	+24V
TB6	FG
TB7	24G
TB8	X0
TB9	COMA
TB10	X1
TB11	COMB
TB12	X2
TB13	COMA
TB14	X3
TB15	COMB
TB16	X4
TB17	COMA
TB18	X5
TB19	COMB
TB20	X6
TB21	COMA
TB22	X7
TB23	COMB
TB24	DC24A
TB25	DC24B

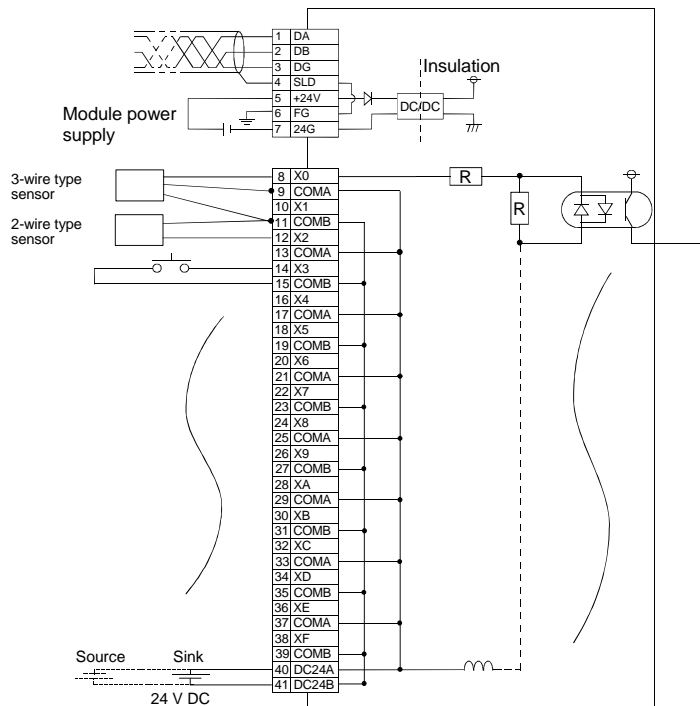
Terminal number	Signal name
TB1	DA
TB2	DB
TB3	DG
TB4	SLD
TB5	+24V
TB6	FG
TB7	24G
TB8	X0
TB9	COMA
TB10	X1
TB11	COMB
TB12	X2
TB13	COMA
TB14	X3
TB15	COMB
TB16	X4
TB17	COMA
TB18	X5
TB19	COMB
TB20	X6
TB21	COMA
TB22	X7
TB23	COMB
TB24	DC24A
TB25	DC24B

4) AJ65SBTB3-16D 24 V DC input module (Sink/source loading)

Form	DC input module	
Specification	AJ65SBTB3-16D	
Number of input points	16 points	
Insulation method	Photocoupler	
Rated input voltage	24 V DC	
Rated input current	Approx. 7 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	14 V or higher/3.5 mA or higher	
OFF voltage/OFF current	6 V or lower/1.7 mA or lower	
Input resistance	Approx. 3.3 kΩ	
Response time	OFF → ON	1.5 ms or lower (When 24 V DC)
	ON → OFF	1.5 ms or lower (When 24 V DC)
Common wiring method	16 points/1 common (terminal block 3-wire type)	
Input method	Sink/source shared type	
Number of stations occupied	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 %)
	Current	45 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 M Ω or higher, measured with a 500 V DC insulation resistance tester	
Weight (kg)	0.25	
External wiring system	7-point 2-piece terminal block (transmission circuit, module power supply terminal), Direct-type 34-point terminal block (I/O power supply area) (M3 screw).	
Applicable solderless terminal	<ul style="list-style-type: none"> • RAV1.25-3.5 (in conformance with JJS-C2805) [Applicable wire size: 0.3 to 1.25 mm²] • V2-MS3 (Japan Solderless Terminal Mfg. Co., Ltd.), RAP2-3S RAP2-3SL (Japan Terminal Co., Ltd.) 2-3N, 2-3S (NICHIFU TERMINAL INDUSTRIES Co., Ltd.) [Applicable wire size: 1.25 to 2 mm²] 	
Accessory	User's Manual	



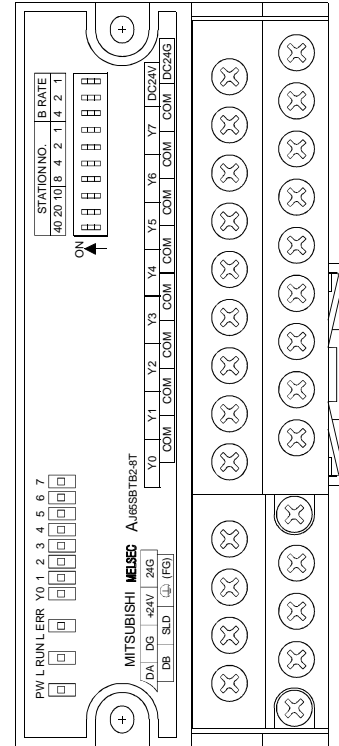
External connection



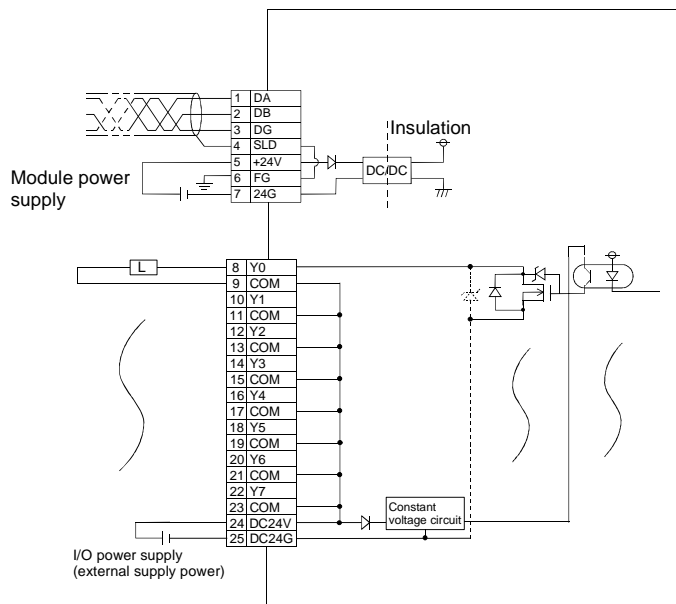
Terminal number	Signal name
TB1	DA
TB2	DB
TB3	DG
TB4	SLD
TB5	+24V
TB6	FG
TB7	24G
TB8	X0
TB9	COMA
TB10	X1
TB11	COMB
TB12	X2
TB13	COMA
TB14	X3
TB15	COMB
TB16	X4
TB17	COMA
TB18	X5
TB19	COMB
TB20	X6
TB21	COMA
TB22	X7
TB23	COMB
TB24	X8
TB25	COMA
TB26	X9
TB27	COMB
TB28	XA
TB29	COMA
TB30	XB
TB31	COMB
TB32	XC
TB33	COMA
TB34	XD
TB35	COMB
TB36	XE
TB37	COMA
TB38	XF
TB39	COMB
TB40	DC24A
TB41	DC24B

5) AJ65SBTB2-8T transistor output module (Sink type)

Form	Transistor output module	
Specification	AJ65SBTB2-8T	
Number of output points	8 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	0.5 A/point (when all point 5 are ON: 0.3 A/point) 2.4 A/1 common	
Max. inrush current	1.0 A 10 ms or lower	
Leakage current at OFF	0.25 mA or lower	
Voltage drop at ON	0.3 V or lower (TYP) 0.5 A 0.6 V or lower (MAX) 0.5 A	
Response time	OFF → ON	0.5 ms or lower
	ON → OFF	1.5 ms or lower (resistive load)
External Power supply for output	Voltage	10.2 to 26.4 V DC (ripple ratio: within 5 %)
	Current	17.8 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 (terminal block 2-wire type)	
Number of stations occupied	1 station 32 points assignment (use 8 points)	
I/O module power supply	Voltage	20.4 to 26.4 V DC (ripple ratio: within 5 %)
	Current	45 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 MΩ or higher, measured with a 500 V DC insulation resistance tester	
Weight (kg)	0.18	
External wiring system	7-point 2-piece terminal block (transmission circuit, module power supply terminal), Direct-type 18-point terminal block (I/O power supply area) (M3 screw)	
Applicable solderless terminal	<ul style="list-style-type: none"> • RAV1.25-3.5 (in conformance with JIS C 2805) [Applicable wire size: 0.3 to 1.25 mm²] • V2-MS3 (Japan Solderless Terminal Mfg. Co., Ltd.), RAP2-3S RAP2-3 (Japan Terminal Co., Ltd.) • 2-3N, 2-3S (NICHIFU TERMINAL INDUSTRIES Co., Ltd.) [Applicable wire size: 1.25 to 2 mm²] 	
Accessory	User's Manual	



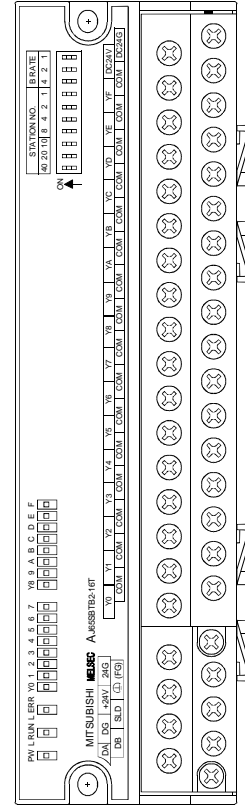
External connection



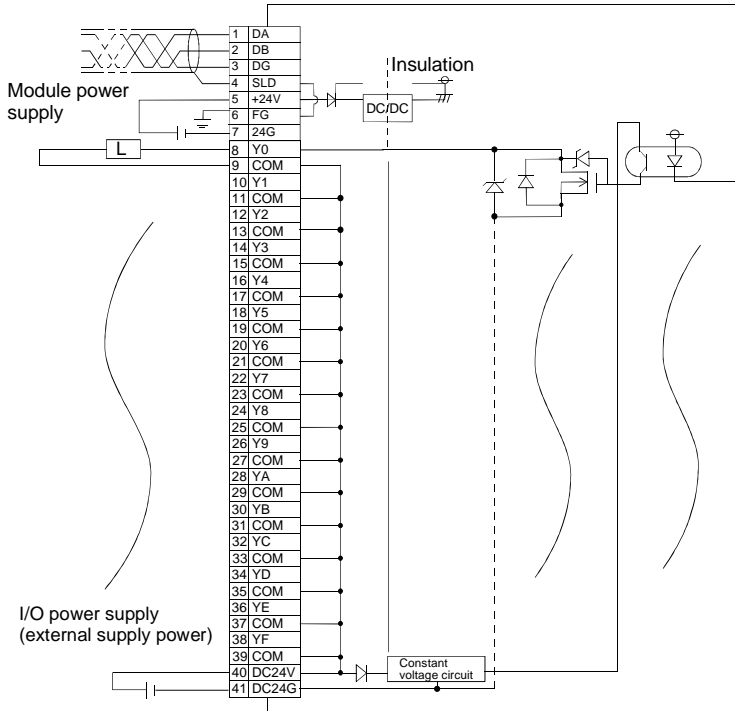
Terminal number	Signal name
TB1	DA
TB2	DB
TB3	DG
TB4	SLD
TB5	+24V
TB6	FG
TB7	24G
TB8	Y0
TB9	COM
TB10	Y1
TB11	COM
TB12	Y2
TB13	COM
TB14	Y3
TB15	COM
TB16	Y4
TB17	COM
TB18	Y5
TB19	COM
TB20	Y6
TB21	COM
TB22	Y7
TB23	COM
TB24	DC24V
TB25	DC24G

6) AJ65SBTB2-16T transistor output module (Sink type)

Form	Transistor output module	
Specification	AJ65SBTB2-16T	
Number of output 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	0.5 A/point (when all point is ON: 0.22 A/point) 3.6 A/1 common	
Max. inrush current	1.0 A 10 ms or lower	
Leakage current at OFF	0.25 mA or lower	
Voltage drop at ON	0.3 V or lower (TYP) 0.5 A 0.6 V or lower (MAX) 0.5 A	
Response time	OFF → ON	0.5 ms or lower
	ON → OFF	1.5 ms or lower (resistive load)
External power supply for output	Voltage	10.2 to 26.4 V DC (ripple ratio: within 5 %)
	Current	24.2 mA or lower (TYP. 24 V DC/1 common) Not including external load current
Surge suppression	Zener diode	
Common wiring method	16 points/1 common (terminal block 2-wire type)	
Occupied station number	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 %)
	Current	55 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 MΩ or higher, measured with a 500 V DC insulation resistance tester	
Weight (kg)	0.25	
External wiring system	7-point 2-piece terminal block (transmission circuit, module power supply terminal), Direct-type 34-point terminal block (I/O power supply area) (M3 screw)	
Applicable solderless terminal	<ul style="list-style-type: none"> • RAV1.25-3.5 (in conformance with JIS C 2805) [Applicable wire size: 0.3 to 1.25 mm²] • V2-MS3 (Japan Solderless Terminal Mfg. Co., Ltd.), RAP2-3S RAP2-3SL (Japan Terminal Co., Ltd.) 2-3N, 2-3S (NICHIFU TERMINAL INDUSTRIES Co., Ltd.) [Applicable wire size: 1.25 to 2 mm²] 	
Accessory	User's Manual	



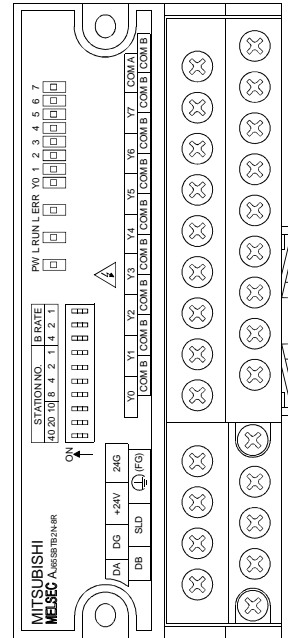
External connection



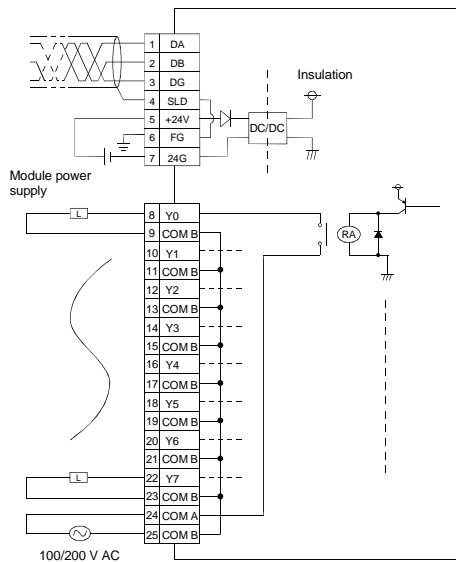
Terminal number	Signal name
TB1	DA
TB2	DB
TB3	DG
TB4	SLD
TB5	+24V
TB6	FG
TB7	24G
TB8	Y0
TB9	COM
TB10	Y1
TB11	COM
TB12	Y2
TB13	COM
TB14	Y3
TB15	COM
TB16	Y4
TB17	COM
TB18	Y5
TB19	COM
TB20	Y6
TB21	COM
TB22	Y7
TB23	COM
TB24	Y8
TB25	COM
TB26	Y9
TB27	COM
TB28	YA
TB29	COM
TB30	YB
TB31	COM
TB32	YC
TB33	COM
TB34	YD
TB35	COM
TB36	YE
TB37	COM
TB38	YF
TB39	COM
TB40	DC24V
TB41	DC24G

7) AJ65SBTB2N-8R relay output module

Form		Relay output module	
Specification		AJ65SBTB2N-8R	
Number of output points		8 points	
Insulation method		Relay	
Rated load voltage-current		24 V DC (resistive load), 240 V AC ($\cos\phi = 1$)/ 2 A/point 4 A/common	
Min. switching load		5 V DC 1 mA	
Max. switching voltage		264 V AC 125 V DC	
Response time		OFF → ON: 10 ms or lower ON → OFF: 12 ms or lower	
Life		Mechanical: 20 million times or more Electrical: Rated switching voltage-current load 10 million times or more	
		200 V AC 1.5 A, 240 V AC 1 A ($\cos\phi = 0.7$) 10 million times or more	
		200 V AC 1 A, 240 V AC 0.5 A ($\cos\phi = 0.35$) 10 million times or more	
		24 V DC 1 A, 100 V DC 0.1 A (L/R = 7 ms) 10 million times or more	
Max. switching frequency		3600 times/hour	
Surge suppression		None	
Common method		8 points/1 common (terminal block 2-wire type)	
Number of stations occupied		1 station 32 points assignment (use 8 points)	
I/O module power supply		Voltage: 20.4 to 26.4 V DC (ripple ratio: within 5%) Current: 85 mA or lower (when 24 V DC and all point is ON)	
Noise durability		Simulator noise 1500 Vp-p, noise width 1 μ s, noise carrier frequency 25 to 60 Hz (noise simulator condition) Fast transient/noise burst IEC61000-4-4 : 1 kV	
Withstand voltage		2830 V AC between all AC external terminals and ground, rms/ 3 cycles (2000 m above sea level) 500 V AC for 1 minutes between all DC external terminals and ground	
Insulation resistance		10 M Ω or higher, measured with a 500 V DC insulation resistance tester between all AC external terminals and ground 10 M Ω or higher, measured with a 500 V DC insulation resistance tester between all DC external terminals and ground	
Weight (kg) (lb.)		0.25 (0.55)	
External connection method		7-point 2-piece terminal block (transmission circuit, module power supply terminal), Direct-type 18-point terminal block (I/O power supply area) (M3 screw)	
Applicable solderless terminal		<ul style="list-style-type: none"> • RAV1.25-3.5 (in conformance with JIS C 2805) [Applicable wire size: 0.3 to 1.25 mm²] • V2-MS3 (Japan Solderless Terminal Mfg. Co., Ltd.), RAP2-3S RAP2-3 (Japan Terminal Co., Ltd.) • 2-3N, 2-3S (NICHIFU TERMINAL INDUSTRIES Co., Ltd.) [Applicable wire size: 1.25 to 2 mm²] 	
Accessory		User's Manual	



External connection



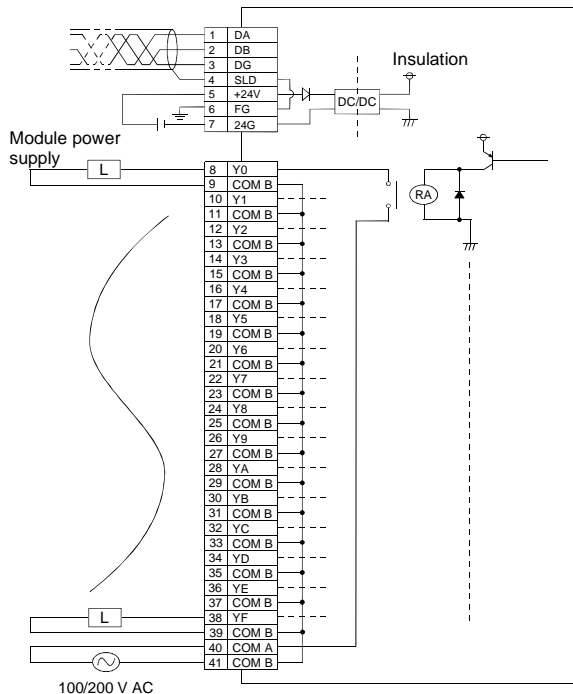
The COM terminals are all connected inside the module. (Shared commons)

Terminal number	Signal name
TB1	DA
TB2	DB
TB3	DG
TB4	SLD
TB5	+24V
TB6	FG
TB7	24G
TB8	Y0
TB9	COMB
TB10	Y1
TB11	COMB
TB12	Y2
TB13	COMB
TB14	Y3
TB15	COMB
TB16	Y4
TB17	COMB
TB18	Y5
TB19	COMB
TB20	Y6
TB21	COMB
TB22	Y7
TB23	COMB
TB24	COMA
TB25	COMB

8) AJ65SBTB2N-16R relay output module

Form		Relay output module	Outline	
Specification		AJ65SBTB2N-16R		
Number of output points		16 points		
Insulation method		Relay		
Rated load voltage-current		24 V DC (resistive load), 240 V AC (cosφ = 1)/ 2 A/point 8 A/1 common		
Min. switching load		5 V DC 1 mA		
Max. switching voltage		264 V AC 125 V DC		
Response time	OFF → ON	10 ms or lower		
	ON → OFF	12 ms or lower		
Life	Mechanical	20 million times or more		
	Electrical	Rated switching voltage-current load		10 million times or more
		200 V AC 1.5 A, 240 V AC 1 A (cosφ = 0.7)		10 million times or more
		200 V AC 1 A, 240 V AC 0.5 A (cosφ = 0.35)		10 million times or more
24 V DC 1 A, 240 V DC 1 A (L/R = 7 ms)	10 million times or more			
Max. switching frequency		3600 times/hour		
Surge suppression		None		
Common method		16 points/1 common (terminal block 2-wire type)		
Number of stations occupied		1 station 32 points assignment (use 16 points)		
I/O module	Voltage	20.4 to 26.4 V DC (ripple ratio: within 5 %)		
	Current	120 mA or lower (when 24 V DC and all point is ON)		
Noise durability		Simulator noise 1500 Vp-p, noise width 1 μs, noise carrier frequency 25 to 60 Hz (noise simulator condition) Fast transient/noise burst IEC61000-4-4 : 1 kV		
Withstand voltage		2830 V AC between all AC external terminals and ground, rms/ 3 cycles (2000 m above sea level) 500 V AC for 1 minutes between all DC external terminals and ground		
Insulation resistance		10 M Ω or higher, measured with a 500 V DC insulation resistance tester between all AC external terminals and ground 10 M Ω or higher, measured with a 500 V DC insulation resistance tester between all DC external terminals and ground		
Weight (kg) (lb.)		0.35 (0.77)		
External wiring system		7-point 2-piece terminal block (transmission circuit, module power supply terminal), Direct-type 34-point terminal block (I/O power supply area) (M3 screw)		
Applicable solderless terminal		<ul style="list-style-type: none"> RAV1.25-3.5 (in conformance with JIS-C2805) [Applicable wire size: 0.3 to 1.25 mm²] V2-MS3 (Japan Solderless Terminal Mfg. Co., Ltd.), RAP2-3S RAP2-3 (Japan Terminal Co., Ltd.) 2-3N, 2-3S (NICHIFU TERMINAL INDUSTRIES Co., Ltd.) [Applicable wire size: 1.25 to 2 mm²] 		
Accessory		User's Manual		

External connection



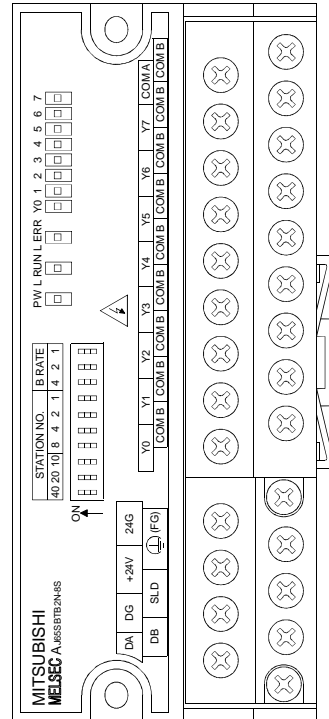
The COM terminals are all connected inside the module. (Shared commons)

Terminal number	Signal name
TB1	DA
TB2	DB
TB3	DG
TB4	SLD
TB5	+24V
TB6	FG
TB7	24G
TB8	Y0
TB9	COMB
TB10	Y1
TB11	COMB
TB12	Y2
TB13	COMB
TB14	Y3
TB15	COMB
TB16	Y4
TB17	COMB
TB18	Y5
TB19	COMB
TB20	Y6
TB21	COMB
TB22	Y7
TB23	COMB
TB24	Y8
TB25	COMB
TB26	Y9
TB27	COMB
TB28	YA
TB29	COMB
TB30	YB
TB31	COMB
TB32	YC
TB33	COMB
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TB36	YE
TB37	COMB
TB38	YF
TB39	COMB
TB40	COMA
TB41	COMB

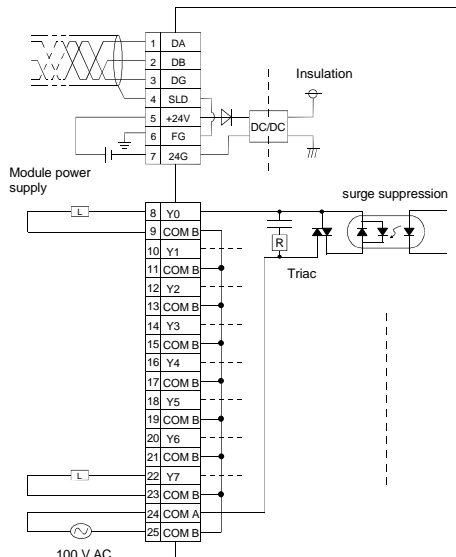
Terminal number	Signal name
TB1	DA
TB2	DB
TB3	DG
TB4	SLD
TB5	+24V
TB6	FG
TB7	24G
TB8	Y0
TB9	COMB
TB10	Y1
TB11	COMB
TB12	Y2
TB13	COMB
TB14	Y3
TB15	COMB
TB16	Y4
TB17	COMB
TB18	Y5
TB19	COMB
TB20	Y6
TB21	COMB
TB22	Y7
TB23	COMB
TB24	Y8
TB25	COMB
TB26	Y9
TB27	COMB
TB28	YA
TB29	COMB
TB30	YB
TB31	COMB
TB32	YC
TB33	COMB
TB34	YD
TB35	COMB
TB36	YE
TB37	COMB
TB38	YF
TB39	COMB
TB40	COMA
TB41	COMB

9) AJ65SBTB2N-8S triac output module

Form	Triac output module	
Specification	AJ65SBTB2N-8S	
Number of output points	8 points	
Insulation method	Photocoupler	
Rated load voltage	100 to 240 V AC 50/60 Hz \pm 5 %	
Max. load voltage	264 V AC	
Max. load current	0.6 A/point, 2.4 A/1 common	
Min. load voltage-current	50 V AC 100 mA, 100 V AC 10 mA, 240 V AC 10 mA	
Max. inrush current	25 A 10 ms or lower	
Leakage current at OFF	1.5 mA rms or lower (100 V AC rms 60 Hz), 3 mA rms or lower (200 V AC rms 60 Hz)	
Max. voltage drop at ON	1.5 V rms or lower (at 0.6 A)	
Response	OFF \rightarrow ON	
time	1 ms or lower	
	ON \rightarrow OFF	
	1/2 cycle + 1 ms or lower	
Surge suppression	C-R absorber (0.01 μ F + 47 Ω)	
Common method	8 points/1 common (terminal block 2-wire type)	
Number of stations occupied	1 station 32 points assignment (use 8 points)	
I/O module	Voltage	
power supply	Current	
	20.4 to 26.4 V DC (ripple ratio: within 5 %)	
	55 mA or lower (when 24 V DC and all point is ON)	
Noise durability	Simulator noise 1500 Vp-p, noise width 1 μ s, noise carrier frequency 25 to 60 Hz (noise simulator condition) Fast transient/noise burst IEC61000-4-4 : 1 kV	
Withstand voltage	2830 V AC between all AC external terminals and ground, rms/ 3 cycles (2000 m above sea level) 500 V AC for 1 minutes between all DC external terminals and ground	
Insulation resistance	10 M Ω or higher, measured with a 500 V DC insulation resistance tester between all AC external terminals and ground 10 M Ω or higher, measured with a 500 V DC insulation resistance tester between all DC external terminals and ground	
Weight (kg) (lb.)	0.25 (0.55)	
External connection method	7-point 2-piece terminal block (transmission circuit, module power supply terminal), Direct-type 18-point terminal block (I/O power supply area) (M3 screw)	
Applicable solderless terminal	<ul style="list-style-type: none"> • RAV1.25-3.5 (in conformance with JIS C 2805) [Applicable wire size: 0.3 to 1.25 mm²] • V2-MS3 (Japan Solderless Terminal Mfg. Co., Ltd.), RAP2-3S RAP2-3 (Japan Terminal Co., Ltd.) • 2-3N, 2-3S (NICHIFU TERMINAL INDUSTRIES Co., Ltd.) [Applicable wire size: 1.25 to 2 mm²] 	
Accessory	User's Manual	



External connection



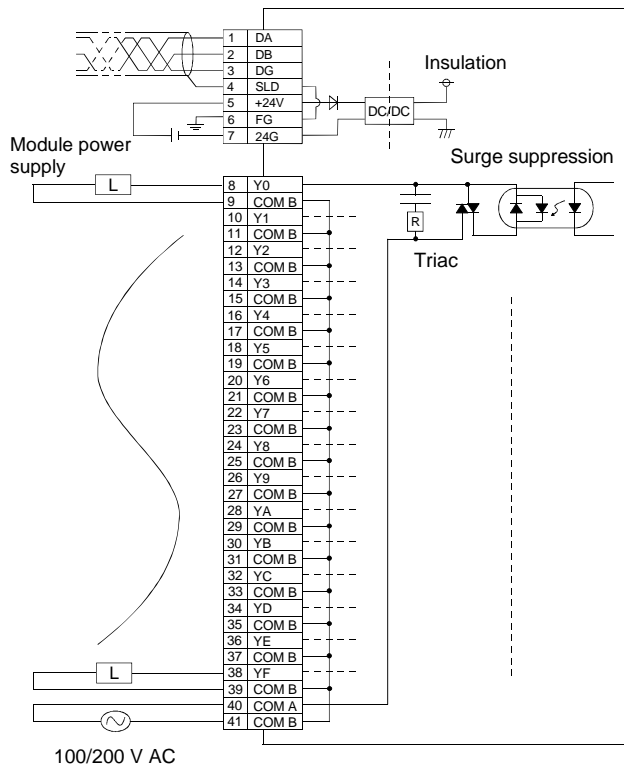
The COM terminals are all connected inside the module. (Shared commons)

Terminal number	Signal name
TB1	DA
TB2	DB
TB3	DG
TB4	SLD
TB5	+24V
TB6	FG
TB7	24G
TB8	Y0
TB9	COMB
TB10	Y1
TB11	COMB
TB12	Y2
TB13	COMB
TB14	Y3
TB15	COMB
TB16	Y4
TB17	COMB
TB18	Y5
TB19	COMB
TB20	Y6
TB21	COMB
TB22	Y7
TB23	COMB
TB24	COMA
TB25	COMB

10) AJ65SBTB2N-16S triac output module

Form	Triac output module		Outline
Specification	AJ65SBTB2N-16S		
Number of output points	16 points		
Insulation method	Photocoupler		
Rated load voltage	100 to 240 V AC 50/60 Hz ± 5 %		
Max. load voltage	264 V AC		
Max. load current	0.6 A/point, 4.8A/1 common		
Min. load voltage-current	50 V AC 100 mA, 100 V AC 10 mA, 240 V AC 10 mA		
Max. inrush current	25 A 10 ms or lower		
Leakage current at OFF	1.5 mA rms or lower (100 V AC rms 60 Hz), 3 mA rms or lower (200 V AC rms 60 Hz)		
Max. voltage drop at ON	1.5 V rms or lower (at 0.6 A)		
Response time	OFF → ON	1 ms or lower	
	ON → OFF	1/2 cycle + 1 ms or lower	
Surge suppression	C-R absorber (0.01 μF + 47 Ω)		
Common method	16 points/1 common (terminal block 2-wire type)		
Number of stations occupied	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 %)	
	Current	85 mA or lower (when 24 V DC and all point is ON)	
Noise durability	Simulator noise 1500 Vp-p, noise width 1 μs, noise carrier frequency 25 to 60 Hz (noise simulator condition) Fast transient/noise burst IEC61000-4-4 : 1 kV		
Withstand voltage	2830 V AC between all AC external terminals and ground, rms/ 3 cycles (2000 m above sea level) 500 V AC for 1 minutes between all DC external terminals and ground		
Insulation resistance	10 M Ω or higher, measured with a 500 V DC insulation resistance tester between all AC external terminals and ground 10 M Ω or higher, measured with a 500 V DC insulation resistance tester between all DC external terminals and ground		
Weight (kg) (lb.)	0.35 (0.77)		
External connection method	7-point 2-piece terminal block (transmission circuit, module power supply terminal), Direct-type 34-point terminal block (I/O power supply area) (M3 screw)		
Applicable solderless terminal	<ul style="list-style-type: none"> • RAV1.25-3.5 (in conformance with JJS C 2805) [Applicable wire size: 0.3 to 1.25 mm²] • V2-MS3 (Japan Solderless Terminal Mfg. Co., Ltd.), RAP2-3S RAP2-3 (Japan Terminal Co., Ltd.) • 2-3N, 2-3S (NICHIFU TERMINAL INDUSTRIES Co., Ltd.) [Applicable wire size: 1.25 to 2 mm²] 		
Accessory	User's Manual		

External connection

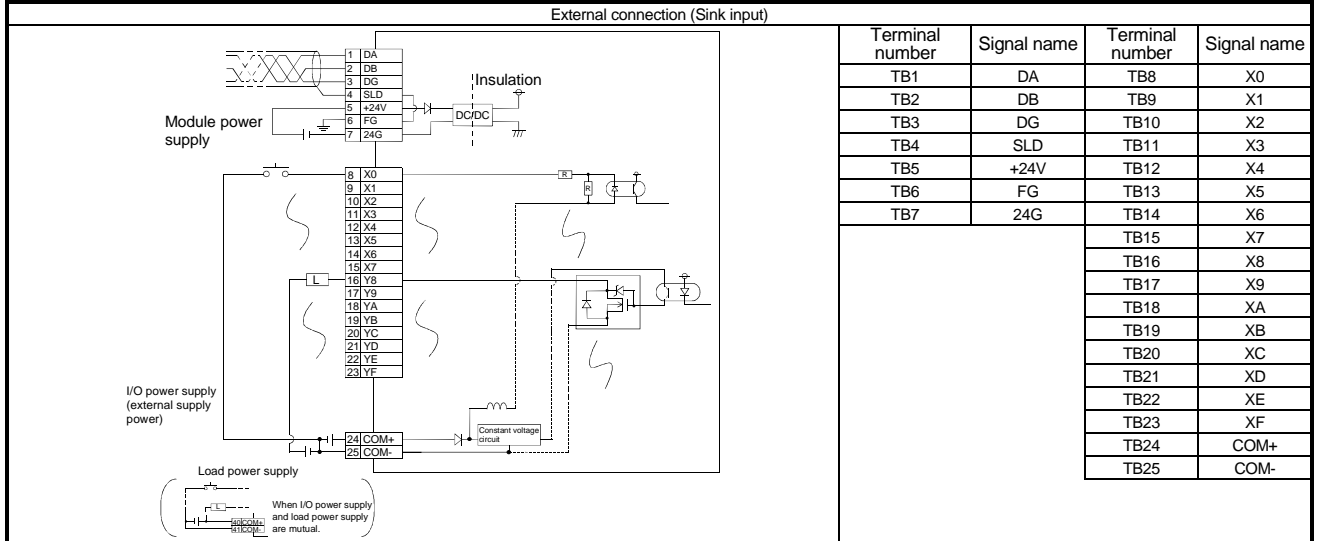


The COM terminals are all connected inside the module. (Shared commons)

Terminal number	Signal name
TB1	DA
TB2	DB
TB3	DG
TB4	SLD
TB5	+24V
TB6	FG
TB7	24G
TB8	Y0
TB9	COMB
TB10	Y1
TB11	COMB
TB12	Y2
TB13	COMB
TB14	Y3
TB15	COMB
TB16	Y4
TB17	COMB
TB18	Y5
TB19	COMB
TB20	Y6
TB21	COMB
TB22	Y7
TB23	COMB
TB24	Y8
TB25	COMB
TB26	Y9
TB27	COMB
TB28	YA
TB29	COMB
TB30	YB
TB31	COMB
TB32	YC
TB33	COMB
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TB37	COMB
TB38	YF
TB39	COMB
TB40	COMA
TB41	COMB

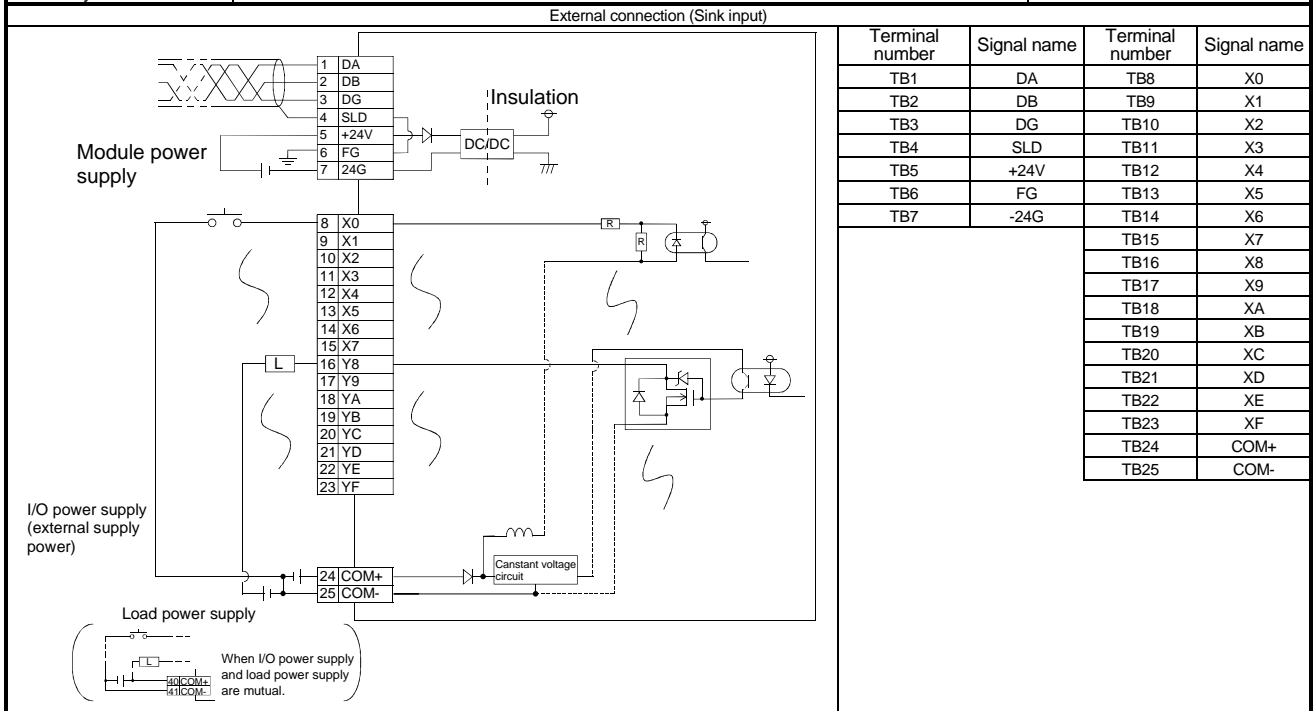
11) AJ65SBTB1-16DT combined module

Form		DC input transistor output combined module		AJ65SBTB1-16DT		Outline				
Specification		Input specification		Output specification						
Number of input points	8 points	Number of output points	16 points							
Insulation method	Photocoupler	Insulation method	Photocoupler							
Rated input voltage	24 V DC	Rated load voltage	24 V DC							
Rated input current	Approx. 7 mA	Operating load voltage range	19.2 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	0.5 A/point (when all point 5 are ON : 0.225 A/1 point) 3.6 A/common							
Max. simultaneous input points	100 %	Max. inrush current	1.0 A 10 ms or lower							
ON voltage/ON current	14 V or higher/3.5 mA or higher	Leakage current at OFF	0.25 mA or lower							
OFF voltage/OFF current	6 V or lower/1.7 mA or lower	Voltage drop at ON	0.3 V or lower (TYP) 0.5 A 0.6 V or lower (MAX) 0.5 A							
Input resistance	A approx. 3.3 k Ω	Output form	Sink type with overload protection function, overvoltage protection function, overheat protection function.							
Response time	OFF → ON	1.5 ms or lower (when 24 V DC)	Response time					OFF → ON	0.5 ms or lower	
	ON → OFF	1.5 ms or lower (when 24 V DC)	ON → OFF					1.5 ms or lower (resistive load)		
		External Power supply for output	Voltage					19.2 to 26.4 V DC (ripple ratio: within 5%)	Current	110 mA or lower (Per 24 V DC/1 common) Not including external load current
Input form	Sink type		Surge suppression					Zener diode		
Common wiring method	16 points/1 common (Terminal block single wire type)									
Number of stations occupied	1 station 32 points assignment (use 16 points)									
I/O module	Voltage	20.4 to 26.4 V DC (ripple ratio: within 5%)								
power supply	Current	50 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 M Ω or higher, measured with a 500 V DC insulation resistance tester between all DC external terminals and ground									
Weight (kg) (lb.)	0.18 (0.4)									
External wiring system	7-point 2-piece terminal block (transmission circuit, module power supply terminal), Direct-type 18-point terminal block (I/O power supply area) (M3 screw)									
Applicable solderless terminal	<ul style="list-style-type: none"> • RAV1.25-3.5 (in conformance with JIS-C2805) [Applicable wire size: 0.3 to 1.25 mm²] • V2-MS3 (Japan Solderless Terminal Mfg. Co., Ltd.), RAP2-3S RAP2-3SL (Japan Terminal Co., Ltd.) • 2-3N, 2-3S (NICHIFU TERMINAL INDUSTRIES Co., Ltd.) [Applicable wire size: 1.25 to 2 mm²] 									
Accessory	User's Manual									



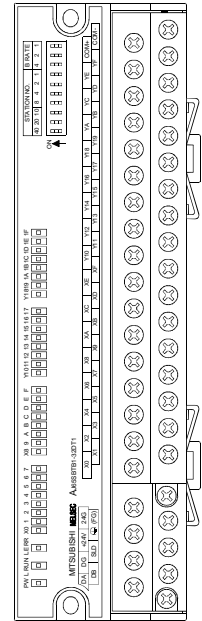
12) AJ65SBTB1-16DT1 combined module

Form		DC input transistor output combined module		AJ65SBTB1-16DT1		Outline				
Specification		Input specification		Output specification		Outline				
Number of input points	8 points	Number of output points	8 points							
Insulation method	Photocoupler	Insulation method	Photocoupler							
Rated input voltage	24 V DC	Rated load voltage	24 V DC							
Rated input current	Approx. 5 mA	Operating load voltage range	19.2 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	0.5 A/point 2.4 A/common							
Max. simultaneous input points	100 %	Max. inrush current	1.0 A 10 ms or lower							
ON voltage/ON current	15 V or higher/3.0 mA or higher	Leakage current at OFF	0.25 mA or lower							
OFF voltage/OFF current	3 V or lower/0.5 mA or lower	Voltage drop at ON	0.3 V or lower (TYP)0.5 A 0.6 V or lower (MAX)0.5 A							
Input resistance	A pprox. 4.7 k Ω	Output form	Sink type							
Response time	OFF → ON	Sink type	OFF → ON							
	ON → OFF	ON → OFF	1.5 ms or lower (resistive load)							
		External Power supply for output	Voltage					19.2 to 26.4 V DC(ripple ratio: within 5%)		
			Current					17.8 mA or lower (When 24 V DC and all point is ON) Not including external load current		
		Input form	Sink type					Surge suppression	Zener diode	
Common wiring method		16 points/1 common (Terminal block single wire type)								
Number of stations occupied		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%)								
	Current	55 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 M Ω or higher, measured with a 500 V DC insulation resistance tester between all DC external terminals and ground								
Weight (kg) (lb.)		0.18 (0.4)								
External wiring system		7-point 2-piece terminal block (transmission circuit, module power supply terminal), Direct-type 18-point terminal block (I/O power supply area) (M3 screw)								
Applicable solderless terminal		<ul style="list-style-type: none"> • RAV1.25-3.5(in conformance with JIS-C2805) [Applicable wire size: 0.3 to 1.25 mm²] • V2-MS3 (Japan Solderless Terminal Mfg. Co., Ltd.), RAP2-3S RAP2-3SL (Japan Terminal Co., Ltd.) • 2-3N, 2-3S (NICHIFU TERMINAL INDUSTRIES Co., Ltd.) [Applicable wire size: 1.25 to 2 mm²] 								
Accessory		User's Manual								

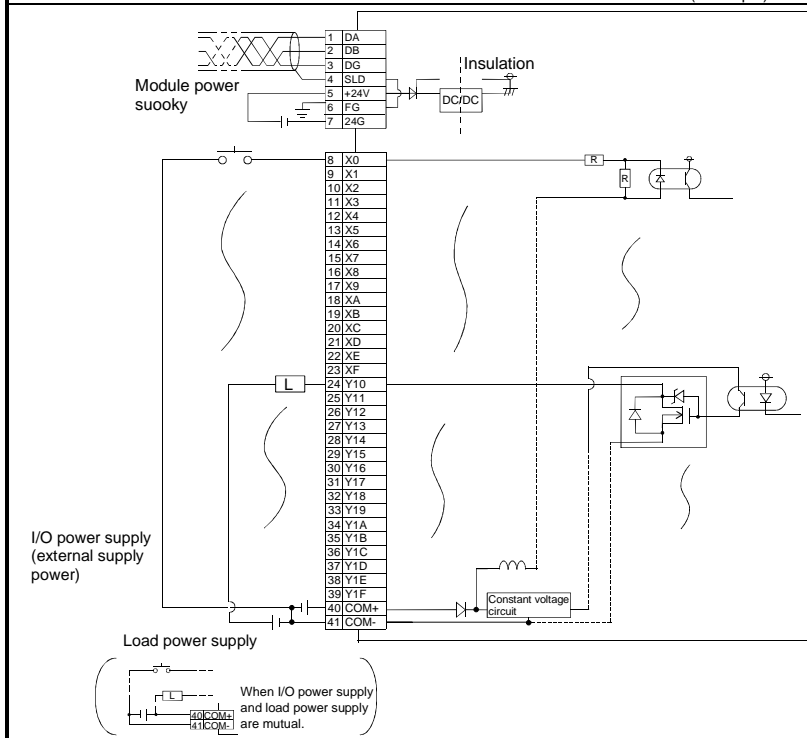


13) AJ65SBTB1-32DT1 combined module

Form		DC input transistor output combined module		Outline
Specification		AJ65SBTB1-32DT1		
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	24 V DC	
Rated input current	Approx. 5 mA	Operating load voltage range	19.2 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	0.5 A/point 3.6 A/common	
Max. simultaneous input points	100 %	Max. inrush current	1.0 A 10 ms or lower	
ON voltage/ON current	15 V or higher/3.0 mA or higher	Leakage current at OFF	0.25 mA or lower	
OFF voltage/OFF current	3 V or lower/0.5 mA or lower	Voltage drop at ON	0.3 V or lower (TYP)0.5 A 0.6 V or lower (MAX)0.5 A	
Input resistance	A approx. 4.7 kΩ	Output form	Sink type	
Response time	OFF → ON	Sink type	OFF → ON	
	ON → OFF	ON → OFF	ON → OFF	
	0.2 ms or lower (when 24 V DC)		0.5 ms or lower	
	0.2 ms or lower (when 24 V DC)		1.5 ms or lower (resistive load)	
		External Power supply for output	Voltage	
			19.2 to 26.4 V DC (ripple ratio: within 5%)	
			Current	
			24.2 mA or lower (When 24 V DC and all point is ON) Not including external load current	
Input form	Sink type	Surge suppression	Zener diode	
Common wiring method	32 points/1 common (Terminal block single wire type)			
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			
	60 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 M Ω or higher, measured with a 500 V DC insulation resistance tester between all DC external terminals and ground			
Weight (kg) (lb.)	0.25 (0.55)			
External wiring system	7-point 2-piece terminal block (transmission circuit, module power supply terminal), Direct-type 34-point terminal block (I/O power supply area) (M3 screw)			
Applicable solderless terminal	<ul style="list-style-type: none"> • RAV1.25-3.5(in conformance with JIS-C2805) [Applicable wire size: 0.3 to 1.25 mm²] • V2-MS3 (Japan Solderless Terminal Mfg. Co., Ltd.), RAP2-3S RAP2-3SL (Japan Terminal Co., Ltd.) • 2-3N, 2-3S (NICHIFU TERMINAL INDUSTRIES Co., Ltd.) [Applicable wire size: 1.25 to 2 mm²] 			
Accessory	User's Manual			



External connection (Sink input)

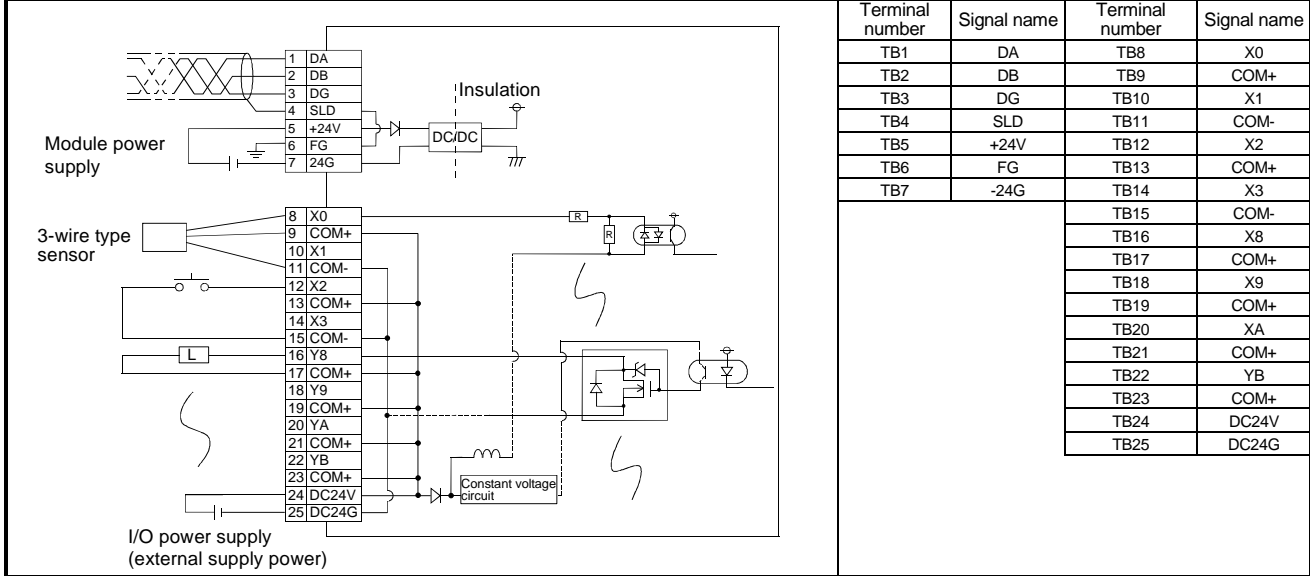


Terminal number	Signal name	Terminal number	Signal name
TB1	DA	TB22	XE
TB2	DB	TB23	XF
TB3	DG	TB24	Y10
TB4	SLD	TB25	T11
TB5	+24V	TB26	Y12
TB6	FG	TB27	Y13
TB7	24G	TB28	Y14
Terminal number	Signal name	TB29	Y15
		TB30	Y16
TB8	X0	TB31	Y17
TB9	X1	TB32	Y18
TB10	X2	TB33	Y19
TB11	X3	TB34	Y1A
TB12	X4	TB35	Y1B
TB13	X5	TB36	Y1C
TB14	X6	TB37	Y1D
TB15	X7	TB38	Y1E
TB16	X8	TB39	Y1F
TB17	X9	TB40	COM+
TB18	XA	TB41	COM-
TB19	XB		
TB20	XC		
TB21	XD		

14) AJ65SBTB32-8DT combined module

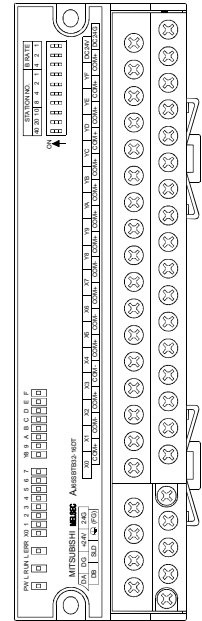
Specification	Form	DC input transistor output combined module		Outline		
		AJ65SBTB32-8DT				
		Input specification	Output specification			
Number of input points		4 points	Number of output points		4 points	
Insulation method		Photocoupler	Insulation method		Photocoupler	
Rated input voltage		24 V DC	Rated load voltage		24 V DC	
Rated input current		Approx. 7 mA	Operating load voltage range		19.2 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		0.5 A/point 1.2 A/common	
Max. simultaneous input points		100 %	Max. inrush current		1.0 A 10 ms or lower	
ON voltage/ON current		14 V or higher/3.5 mA or higher	Leakage current at OFF		0.25 mA or lower	
OFF voltage/OFF current		6 V or lower/1.7 mA or lower	Voltage drop at ON		0.3 V or lower (TYP)0.5 A 0.6 V or lower (MAX)0.5 A	
Input resistance		A pprox. 3.3 k Ω	Output form		Sink type	
Response time	OFF → ON	1.5 ms or lower (when 24 V DC)	Response time		OFF → ON	0.5 ms or lower
	ON → OFF	1.5 ms or lower (when 24 V DC)	Response time		ON → OFF	1.5 ms or lower (resistive load)
			External Power supply for output		Voltage	19.2 to 26.4 V DC (ripple ratio: within 5%)
					Current	14.6 mA or lower (When 24 V DC and all point is ON) Not including external load current
Input form		Sink type	Surge suppression		Zener diode	
Common wiring method		8 points/1 common (3-wire type terminal block: input, 2-wire type terminal block: output)				
Number of stations occupied		1 station 32 points assignment (use 8 points)				
I/O module power supply	Voltage	20.4 to 26.4 V DC(ripple ratio: within 5%)				
	Current	45 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 M Ω or higher, measured with a 500 V DC insulation resistance tester				
Weight (kg) (lb.)		0.18 (0.4)				
External wiring system		7-point 2-piece terminal block (transmission circuit, module power supply terminal), Direct-type 18-point terminal block (I/O power supply area) (M3 screw)				
Applicable solderless terminal		<ul style="list-style-type: none"> • RAV1.25-3.5(in conformance with JIS-C2805) [Applicable wire size: 0.3 to 1.25 mm²] • V2-MS3 (Japan Solderless Terminal Mfg. Co., Ltd.), RAP2-3S RAP2-3SL (Japan Terminal Co., Ltd.) • 2-3N, 2-3S (NICHIFU TERMINAL INDUSTRIES Co., Ltd.) [Applicable wire size: 1.25 to 2 mm²] 				
Accessory		User's Manual				

External connection (Sink input)

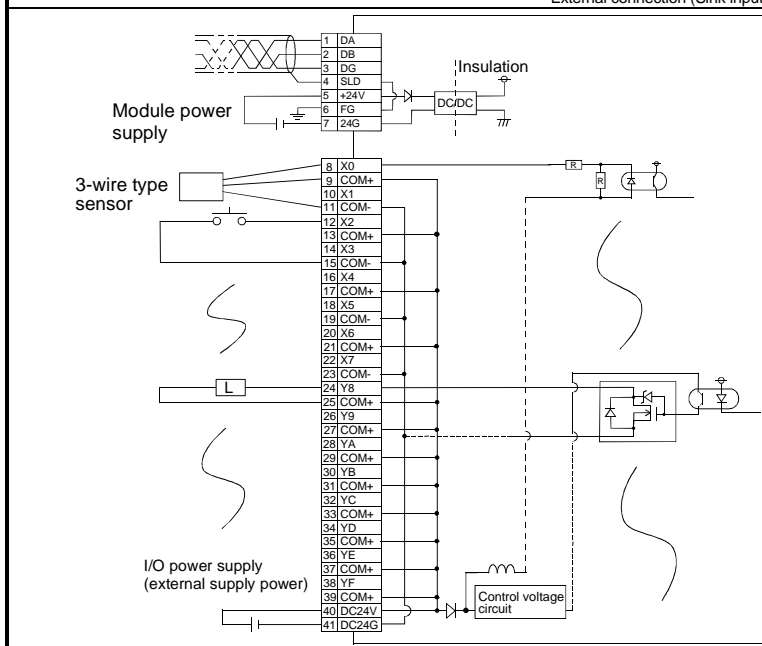


15) AJ65SBTB32-16DT combined module

Form		DC input transistor output combined module		Outline
Specification		AJ65SBTB32-16DT		
Input specification		Output specification		
Number of input points	8 points	Number of output points	8 points	
Insulation method	Photocoupler	Insulation method	Photocoupler	
Rated input voltage	24 V DC	Rated load voltage	24 V DC	
Rated input current	Approx. 7 mA	Operating load voltage range	19.2 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	0.5 A/point 2.4 A/common	
Max. simultaneous input points	100 %	Max. inrush current	1.0 A 10 ms or lower	
ON voltage/ON current	14 V or higher/3.5 mA or higher	Leakage current at OFF	0.25 mA or lower	
OFF voltage/OFF current	6 V or lower/1.7 mA or lower	Voltage drop at ON	0.3 V or lower (TYP)0.5 A 0.6 V or lower (MAX)0.5 A	
Input resistance	A approx. 3.3 kΩ	Output form	Sink type	
Response time	OFF → ON 1.5 ms or lower (when 24 V DC) ON → OFF 1.5 ms or lower (when 24 V DC)	Response time	OFF → ON 0.5 ms or lower ON → OFF 1.5 ms or lower (resistive load)	
		External Power supply for output	Voltage 19.2 to 26.4 V DC (ripple ratio: within 5%) Current 17.8 mA or lower (When 24 V DC and all point is ON) Not including external load current	
Input form	Sink type	Surge suppression	Zener diode	
Common wiring method	16 points/1 common (3-wire type terminal block: input, 2-wire type terminal block: output)			
Number of stations occupied	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%) Current 50 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 MΩ or higher, measured with a 500 V DC insulation resistance tester between all DC external terminals and ground			
Weight (kg) (lb.)	0.25 (0.55)			
External wiring system	7-point 2-piece terminal block (transmission circuit, module power supply terminal), Direct-type 34-point terminal block (I/O power supply area) (M3 screw)			
Applicable solderless terminal	<ul style="list-style-type: none"> • RAV1.25-3.5(in conformance with JIS-C2805) [Applicable wire size: 0.3 to 1.25 mm²] • V2-MS3 (Japan Solderless Terminal Mfg. Co., Ltd.), RAP2-3S RAP2-3SL (Japan Terminal Co., Ltd.) • 2-3N, 2-3S (NICHIFU TERMINAL INDUSTRIES Co., Ltd.) [Applicable wire size: 1.25 to 2 mm²] 			
Accessory	User's Manual			



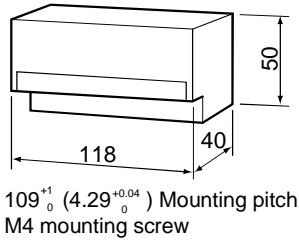
External connection (Sink input)



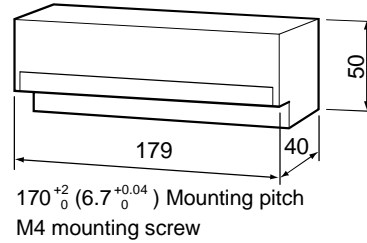
Terminal number	Signal name	Terminal number	Signal name
TB1	DA	TB21	COM+
TB2	DB	TB22	X7
TB3	DG	TB23	COM-
TB4	SLD	TB24	Y8
TB5	+24V	TB25	COM+
TB6	FG	TB26	Y9
TB7	24G	TB27	COM+
Terminal number	Signal name	TB28	YA
TB8	X0	TB29	COM+
TB9	COM+	TB30	YB
TB10	X1	TB31	COM+
TB11	COM-	TB32	YC
TB12	X2	TB33	COM+
TB13	COM+	TB34	YD
TB14	X3	TB35	COM+
TB15	COM-	TB36	YE
TB16	X4	TB37	COM+
TB17	COM+	TB38	YF
TB18	X5	TB39	COM+
TB19	COM-	TB40	DC24V
TB20	X6	TB41	DC24G

[External Dimensions]

AJ65SBTB2(N)-8□, AJ65SBTB3-8□
AJ65SBTB1-16DT, AJ65SBTB32-8DT



AJ65SBTB2(N)-16□, AJ65SBTB1-32DT
AJ65SBTB32-16DT



Unit:mm (in.)

[Manual]

Manual name	Manual shipment type	IB/SH No.	Type code
AJ65SBTB2N-8A CC-Link System Small Type Remote I/O MODULE USER'S MANUAL	Enclosed with product	IB-0800124	-
AJ65SBTB2N-16A CC-Link System Small Type Remote I/O MODULE USER'S MANUAL	Enclosed with product	IB-0800125	-
AJ65SBTB3-8D CC-Link System Small Type Remote I/O MODULE USER'S MANUAL	Enclosed with product	IB-0800101	-
AJ65SBTB3-16D CC-Link System Small Type Remote I/O MODULE USER'S MANUAL	Enclosed with product	IB-0800109	-
AJ65SBTB2-8T CC-Link System Small Type Remote I/O MODULE USER'S MANUAL	Enclosed with product	IB-0800108	-
AJ65SBTB2-16T CC-Link System Small Type Remote I/O MODULE USER'S MANUAL	Enclosed with product	IB-0800107	-
AJ65SBTB2N-8R CC-Link System Small Type Remote I/O MODULE USER'S MANUAL	Enclosed with product	IB-0800128	-
AJ65SBTB2N-16R CC-Link System Small Type Remote I/O MODULE USER'S MANUAL	Enclosed with product	IB-0800129	-
AJ65SBTB2N-8S CC-Link System Small Type Remote I/O MODULE USER'S MANUAL	Enclosed with product	IB-0800126	-
AJ65SBTB2N-16S CC-Link System Small Type Remote I/O MODULE USER'S MANUAL	Enclosed with product	IB-0800127	-
AJ65SBTB1-16DT CC-Link System Small Type Remote I/O MODULE USER'S MANUAL	Enclosed with product	IB-0800102	-
AJ65SBTB1-16DT1 CC-Link System Small Type Remote I/O MODULE USER'S MANUAL	Enclosed with product	IB-0800104	-
AJ65SBTB1-32DT1 CC-Link System Small Type Remote I/O MODULE USER'S MANUAL	Enclosed with product	IB-0800103	-
AJ65SBTB32-8DT CC-Link System Small Type Remote I/O MODULE USER'S MANUAL	Enclosed with product	IB-0800106	-
AJ65SBTB32-16DT CC-Link System Small Type Remote I/O MODULE USER'S MANUAL	Enclosed with product	IB-0800105	-
CC-Link System Compact Type Remote I/O Module User's Manual	Sold separately	SH-4007	13JM93

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Singapore	Mitsubishi Electric Asia Pte, Ltd. 307 ALEXANDRA ROAD #05-01/02, MITSUBISHI ELECTRIC BUILDING SINGAPORE 159943	Tel : 65-473-2480 Fax : 65-476-7439
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India	Messung Systems Put,Ltd. Electronic Sadan NO:111 Unit No15, M.I.D.C BHOSARI,PUNE-411026	Tel : 91-20-7128927 Fax : 91-20-7128108
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