CC-Link/LT Power Supply Adapter

CC-Link/LT requires 24VDC power to be supplied to the network. The two options for doing this are the CL1PAD1 and the CL1PSU-2A. CL1PAD1 allows network power to be derived from a 24VDC supply, whereas the CL1PSU-2A allows a 120VAC supply to be used.

Model Number	CL1PAD1
Stocked Item	-
Certification	UL • cUL
Maximum Input Voltage	28.8VDC
Maximum Input Current	5.0A
Insulation Resistance	10MΩ across input-FG by 500VDC insulation resistance tester
External Connection System	CL1PAD1 to external PSU: screw terminals CL1PAD1 to CC-Link/LT network: CL9-CNF-18 connectors to network cable
Dimensions (W x H x D) mm (in)	66 x 85 x 90 (2.5 x 3.3 x 3.5)

Model Number		CL1PSU-2A
Stocked Item		-
Certification		CE
Input	Rated Voltage	100, 120, 200, 230, and 240VAC
	Rated Current	1.2A / 100V AC 0.7A / 200VAC
	Power Fuse	3.15A
	Inrush Current	Max. 50A / 100V AC Max. 60A / 200
Output	Output Voltage	24VDC +10 % / -5 %
	Output Current	0.01A to 2A Derating occurs according to the ambient temperature and power voltage. [Use the module in a proper range so that the total current consumption of each module does not exceed 2A (except the period immediately after the power is turned on).]
Noise Resistance		By noise simulator of 1000Vp-p in noise voltage, 1μs in noise width, and 25 to 60Hz in frequency
Dimensions (W x H x D) mm (inch)		90 x 90 x 90 (3.55 x 3.55 x 3.55)

CC-Link/LT to CC-Link Bridge Module

The AJ65SBT-CLB allows a CC-Link/LT network segment to be connected to a CC-Link network. The module uses the A6CON-L5P and A6CON-LJ5P network connectors.

Model Number		AJ65SBT-CLB		
Stocked Item		-		
CC-Link				
Station Type		Remote device station		
Number of Occupied Stations		Selected between 2, 4 and 8 stations *When 2 stations are selected: 64 points for each of RX/RY (16 points used by the system), 8 words for each of RWr/RWw		
		When 4 stations are selected: 128 points for each of RX/RY (16 points used by the system), 16 words for each of RWr/RWw		
		When 4 stations are selected: 128 points for each of RX/RY (16 points used by the system), 16 words for each of RWr/RWw		
		When 8 stations are selected: 256 points for each of RX/RY (32 points used by the system), 32 words for each of RWr/RWw		
CC-Link/LT				
Number of CC-Link Occupied Stations		2 stations occupied	4 stations occupied	8 stations occupied
Maximum Number of CC-Link/LT Connected Stations	4-Points Mode	12 stations	28 stations	56 stations
	8-Points Mode	6 stations	14 stations	28 stations
	16-Points Mode	3 stations	7 stations	14 stations
Remote Station Numbers		1 to 56		
Bridge Station Connection Position		Connected at the end of the trunk line		
Dimensions (W x H x D) mm (inch)		87 x 49 x 40 (3.43 x 1.93 x 1.57)		

Note: When 8 stations are occupied make parameter setting so that two 4-station occupying modules are consecutively connected.

CC-Link/LT: Screw Terminal Modules

Input Modules

Model Number	CL1X4-D1B2	CL2X8-D1B2
Stocked Item	-	-
Input Type	DC / +COM/-COM	
Number of Input Points	4	8
Rated Input Voltage	24VDC	
External Connection Wire Type	Two wire	
Common Connection	4 points / common	8 points / common
Internal Current Consumption	40mA	
Dimensions (W x H x D) mm	50 x 49 x 40	64 x 49 x 40

Output Modules

Model Number		CL1Y4-T1B2	CL1Y4-R1B2	CL1Y4-R1B1	CL2Y8-TP1B2
Stocked Item		-	-	-	-
Output Type		Transistor / Sink	Relay	Relay	Transistor / Sink
Number of Output Points		4	4	4	8
Rated Load Voltage		12/24VDC	250VAC/30VDC	250VAC/30VDC	12/24VDC
Maximum Load Current	1 Point	0.1A	2A	2A	0.1A
	1 Common	0.4A	4A	2A	0.8A
External Connection Wire Type		Two wire	Two wire	One wire	Two wire
Common Connection		4 points / common	4 points / common	1 point / common	8 points / common
Internal Current Consumption		60mA	65mA	65mA	40mA
Dimensions (W x H x D) mm		50 x 49 x 40	80 x 49 x 40	80 x 49 x 40	64 x 49 x 40

I/O Modules

Model Number		CL1XY4-DT1B2	CL1XY4-DR1B2	CL1XY8-DT1B2	CL1XY8-DR1B2
Stocked Item		-	-	-	-
I/O Type		DC Input/Transistor Output / +COM/-COM/sink	DC Input/Relay Output / +COM /-COM	DC Input/Transistor Output / +COM/-COM/sink	DC input / relay output
Number of I/O Points		2 / 2	2 / 2	4 / 4	4 / 4
Input/Load Voltage		24VDC / 24VDC and 12VDC	24VDC / 250VAC and 30VDC	24VDC / 24VDC and 12VDC	24VDC / 250VAC and 30VDC
Maximum Output Load Current	1 Point	0.1A	2A	0.1A	2A
	1 Common	0.4A	4A	0.4A	4A
Leakage Current		0.1mA	N/A	0.1mA	N/A
Connection Wire Type on Input / Output Sides		Two wire / two wire			
Common Connection		2 points/common; 2 points/common	2 points/common; 2 points/common	4 points/common; 4 points/common	4 points/common; 4 points/common
Internal Current Consumption		55mA	60mA	65mA	70mA
Dimensions (W x H x D) mm		80 x 49 x 40			

CC-Link/LT: Spring Clamp Modules

Input Modules

Model Number	CL1X4-D1S2	CL2X8-D1S2
Stocked Item	-	-
Input Type	DC / +COM/-COM	
Number of Input Points	4	8
Rated Input Voltage	24VDC	
External Connection Wire Type	Two wire	
Common Connection	4 points / common	8 points / common
Internal Current Consumption	40mA	
Dimensions (W x H x D) mm	69 x 49 x 40	

Output Modules

Model Number		CL1Y4-T1S2	CL2Y8-TP1S2
Stocked Item		-	-
Output Type		Transistor / Sink	
Number of Output Points		4	8
Rated Load Voltage		12/24VDC	
Maximum Load Current	1 Point	0.1A	0.1A
	1 Common	0.4A	0.8A
Leakage Current		0.1mA	
External Connection Wire Type		Two wire	
Common Connection		4 points / common	8 points / common
Internal Current Consumption		60mA	40mA
Dimensions (W x H x D) mm		69 x 49 x 40	

CC-Link/LT: e-CON (Sensor Connector Modules)

Input Modules

Model Number		CL1X4-D1C3	CL2X8-D1C3V	CL2X16-D1C3V
Stocked Item		-	-	-
Input Type		DC / +COM		
Number of Input Points		4	8	16
Rated Input Voltage		24VDC		
External Connection Wire Type		Two wire/three wire		
Common Connection		4 points / common	8 points / common	16 points / common
Internal Current Consumption		35mA	40mA	45mA
Dimensions (W x H x D) mm		69 x 49 x 23.6	24 x 85 x 39	48 x 85 x 39

Output Modules

Model Number		CL1Y4-T1C2	CL2Y8-TP1C2V	CL2Y16-TP1C2V
Stocked Item		-	-	-
Output Type		Transistor / Sink		
Number of Output Points		4	8	16
Rated Load Voltage		24VDC		
Maximum Load Current	1 Point	0.1A	0.1A	0.1A
	1 Common	0.4A	0.8A	1.6A
Leakage Current		0.1mA		
External Connection Wire Type		Three wire	Two wire	Two wire
Common Connection		4 points / common	8 points / common	16 points / common
Internal Current Consumption		60mA	55mA	55mA
Dimensions (W x H x D) mm		69 x 49 x 23.6	24 x 85 x 39	48 x 85 x 39

I/O Modules

Model Number		CL2XY16-DTP1C5V
Stocked Item		S
I/O Type		DC input/transistor output / +COM/sink
Number of I/O Points		8 / 8
Input/Load Voltage		24VDC / 24VDC
Maximum Output Load Current	1 Point	0.1A
	1 Common	0.8A
Leakage Current		0.1mA
Connection Wire Type on Input / Output Sides		Two wire or three wire / two wire
Common Connection		8 points/common; 8 points/common
Internal Current Consumption		50mA
Dimensions (W x H x D) mm		48 x 85 x 39

CC-Link/LT: MIL Connector Modules

Input Modules

Model Number	CL2X16-D1M1V
Stocked Item	-
Input Type	DC / +COM
Number of Input Points	16
Rated Input Voltage	24VDC
External Connection Wire Type	One wire
Common Connection	16 points / common
Internal Current Consumption	45mA
Dimensions (W x H x D) mm	24 x 85 x 39

Output Modules

Model Number		CL2Y16-TP1M1V	CL2Y16-TPE1M1V	CL2Y16-TP1MJ1V
Stocked Item		-	-	-
Output Type		Transistor / sink	Transistor / source	Transistor / sink
Number of Output Points		16		
Rated Load Voltage		12/24VDC		
Maximum Load Current	1 Point	0.1A		
	1 Common	1.6A		
Leakage Current		0.1mA		
External Connection Wire Type		One wire		
Common Connection		16 points / common		
Internal Current Consumption		50mA		55mA
Dimensions (W x H x D) mm		24 x 85 x 39		

CC-Link/LT: Cable Type Modules

Input Modules

Model Number	CL1X2-D1D3S
Stocked Item	-
Input Type	DC / +COM
Number of Input Points	2
Rated Input Voltage	24VDC
External Connection Wire Type	Three wire
Common Connection	2 points / common
Internal Current Consumption	40mA
Dimensions (W x H x D) mm	20 x 65 x 12

Output Modules

Model Number		CL1Y2-T1D2S
Stocked Item		-
Output Type		Transistor / sink
Number of Output Points		2
Rated Load Voltage		24VDC
Maximum Load Current	1 Point	0.1A
	1 Common	0.2A
Output Response Time	OFF – ON	1.0 ms
	ON – OFF	1.0 ms
Leakage Current		0.1mA
External Connection Wire Type		Two wire
Common Connection		2 points / common
Internal Current Consumption		40mA
Dimensions (W x H x D) mm		20 x 65 x 12

I/O Modules

Model Number		CL1XY2-DT1D5S
Stocked Item		-
I/O Type		DC input/transistor / +COM/sink
Number of I/O Points		1 / 1
Input/Load Voltage		24VDC / 24VDC
Maximum Output Load Current	1 Point	0.1A
	1 Common	0.1A
Leakage Current		0.1mA
Connection Wire Type on Input / Output Sides		Three wire / two wire
Common Connection		1 point/common; 1 point/common
Internal Current Consumption		40mA
Dimensions (W x H x D) mm		20 x 65 x 12

CC-Link/LT: CL2AD4-B Analog-Digital Converter Module

Model Number		CL2AD4-B
Stocked Item		-
Analog Input	Voltage	-10 to 10VDC (input resistance 1MΩ)
	Current	0 to 20mADC (input resistance 250Ω)
Digital Output		15-bit signed binary (-4096 to 4095)

I/O Characteristics, Maximum Resolution, Accuracy (Accuracy Relative To Maximum Value of Digital Output Value)

	Analog Input Range	Digital Output Value	Accuracy: Ambient Temp. 25 ± 5°C (*1)	Accuracy: Ambient Temp. 0 to 55°C	Accuracy: Temperature Coefficient (*3)	Max. Resolution
Voltage	-10 to 10V	-4000 to 4000	± 0.2% (±8 digit) (*2)	±4% (±8 digit) (*2)	±80ppm / °C (±0.0080% / °C)	2.5mV
	0 to 10V	0 to 4000				1.25mV
	0 to 5V					1.0mV
	1 to 5V					5µA
Current	0 to 20mA	0 to 4000				4µA
	4 to 20mA					

Conversion Speed	200µs / 4 channel (*4)
Absolute Maximum Output	Voltage: ±15V, current: ±30mA
Analog Output	4 channels / 1 module
CC-Link/LT Station Type	Remote device station
Number of Occupied Stations	16 point mode with four occupied stations (*5)

Isolation

Specific Isolated Area	Isolation System	Dielectric Withstand Voltage	Insulation Resistance
Between communication system terminals and all analog input terminals	Photocoupler isolated Transformer isolated	1 min. duration of 500VAC	500VDC 10MΩ or more
Between power supply system terminals and all analog input terminals			
Between communication system terminals and power supply system terminals			
Across channels	Non-isolated	-	-

Connected Terminal Block		Direct-coupled, 14-point terminal block (M3 screw)
Applicable Wire Size		0.3 to 1.25mm²
Applicable Crimping Terminal		RAV1.25-3 (conforming to JIS C2805), V1.25-3 (manufactured by JST Mfg. CO., Ltd.), 1.25-3, TG1.25-3 (manufactured by NICHIFU CO., Ltd.)
Module Power Supply (*6)	Voltage	24VDC (20.4VDC to 28.8VDC, ripple ratio: within 5%)
	Current Consumption	0.070A
	Start Up Current	0.570A
Protection Degree		IP2X
Weight (kg)		0.15
Dimensions (W x H x D) mm		69 x 49 x 40

Notes:
1. Standard accuracy
2. Digital indicates the digital output value
3. Accuracy for each 1°C temperature change
4. The conversion speed of the first order lag filter channel is 400µs when a first order lag filter is used.
5. The number of I/O occupied points (occupied station count) differs depending on the final channel permitted for conversion.
6. A dedicated power supply/supply adaptor is used to supply power.

CC-Link/LT: Digital-Analog Converter Module

Model Number		CL2DA2-B
Stocked Item		-
Digital Resolution	Voltage	12-bit signed binary (-4096 to 4095)
	Current	12-bit signed binary (-96 to 4095)
Analog Output	Voltage	-10 to 10VDC (external load resistance: 1kΩ to 1MΩ)
	Current	0 to 20mADC (external load resistance: 0 to 600Ω)

I/O Characteristics, Maximum Resolution, Accuracy (Accuracy Relative To Maximum Value of Digital Output Value)

	Analog Output Range	Digital Input Value	Accuracy			Max. Resolution
			Ambient Temp. 25 ±5°C (*1)	Ambient Temp. 0 to 55°C	Temperature Coefficient (*2)	
Voltage	-10 to 10V	-4000 to 4000	±0.2% (±20mV)	±0.4% (±40mV)	±80ppm /°C (±0.0080% /°C)	2.5mV
	0 to 10V	0 to 4000				
	0 to 5V		±0.2% (±10mV)	±0.4% (±20mV)		1.25mV
	1 to 5V					1.0mV
Current	0 to 20mA	0 to 4000	±0.2% (±40µA)	±0.4% (±80µA)		5µA
	4 to 20mA					4µA

Conversion Speed	200µs / 2 channel
Output Short-Circuit Protection	Provided
Absolute Maximum Output	Voltage: ±12V, current: +21mA
Analog Output Points	2 channels / 1 module
CC-Link/LT Station Type	Remote device station
Number of Occupied Stations	16 point mode with two occupied stations (*3)

Isolation

Specific Isolated Area	Isolation System	Dielectric Withstand Voltage	Insulation Resistance
Between communication system terminals and all analog input terminals	Photocoupler isolated Transformer isolated	1 min. duration of 500VAC	500VDC 10MΩ or more
Between power supply system terminals and all analog input terminals			
Between communication system terminals and power supply system terminals			
Across channels	Non-isolated	-	-

Connected Terminal Block		Direct-coupled, 14-point terminal block (M3 screw)
Applicable Wire Size		0.3 to 1.25mm²
Applicable Crimping Terminal		RAV1.25-3 (conforming to JIS C2805), V1.25-3 (manufactured by JST Mfg. CO., Ltd.), 1.25-3, TG1.25-3 (manufactured by NICHIFU CO., Ltd.)
Module Power Supply (*4)	Voltage	24VDC (20.4VDC to 28.8VDC, ripple ratio: within 5%)
	Current Consumption	0.170A
	Start Up Current	0.470A
Protection Degree		IP2X
Weight (kg)		0.15
Dimensions (W x H x D) mm		69 x 49 x 40

Notes:
1. Standard accuracy.
2. Accuracy for each 1°C temperature change.
3. The number of I/O occupied points (occupied station count) differs depending on the final channel permitted for conversion.
4. A dedicated power supply/supply adaptor is used to supply power.