Pro-face

Device/PLC Connection Manuals

About the Device/PLC Connection Manuals

Prior to reading these manuals and setting up your device, be sure to read the "Important: Prior to reading the Device/PLC Connection manual" information. Also, be sure to download the "Preface for Trademark Rights, List of Units Supported, How to Read Manuals and Documentation Conventions" PDF file. Furthermore, be sure to keep all manual-related data in a safe, easy-to-find location.

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A.1 Maximum Number of Consecutive Device Address

The following lists the maximum number of consecutive addresses that can be read by each PLC. Refer to these tables to utilize *Block Transfer*.

Note: **When the device is setup using the methods below, the Data Communication Speed declines by the number of times the device is read.**

- **When consecutive addresses exceed the maximum data number range**
- **When an address is designated for *division***
- **When device types are different**

To speed up data communication, plan the tag layout in screen units, as consecutive devices. (Includes the Alarm and Trend screens.)

■ PLCs

<SYSMAC C Series (includes α Series)>

Device	Max. No. of Consecutive Address
Input/Output Relay	19 Words
Internal Hold Relay	
Data Link Relay LR	10 Words
Latch Relay HR	
Auxilary Memory Relay AR	28 Words
Timer (contact) TIM	48 Words
Counter (contact) CNT	
Data Memory DM	64 Words
Timer (current value) TIM	48 Words
Counter (current value) CNT	

<SYSMAC CV Series>

Device	Max. No. of Consecutive Address
Input/Output Relay	19 Words
Internal Hold Relay	
SYSMAC BUS/2 Remote I/O Relay	
Data Link Relay	
Latch Relay	
SYSMAC Remote I/O Relay	
Special Auxiliary Relay A	28 Words
Timer (contact) T	48 Words
Counter (contact) C	
Data Memory D	64 Words
Timer (current value) T	48 Words
Counter (current value) C	

<SYSMAC CS1/CJ/CJ1M Series>

Device	Max. No. of Consecutive Addresses
Channel I/O	255 Words
Internal Auxiliary Relay	
Hold Relay	
Special Auxiliary Relay	
Timer(Contact)	
Counter(Contact)	
Timer(Current)	
Counter(Current)	
Data Memory	
Exp. Data Memory (E0 to EX)	
Exp. Data Memory (Current Bank)	
Task Flag	16 Words
Index Register	32 Words
Data Register	16 Words

◆ **Ethernet Communication**

<SYSMAC CS1 Series>

Device	Max.No.of Consecutive Addresses
Channal I/O	400 words
Internal Auxilary Relay	
Latch Relay	
Special Auxilary Relay	
Timer (Contact)	
Counter (Contact)	
Timer (Current Value)	
Counter (Current Value)	
Data Memory	
Extended Data Memory (E0 ~ EC)	
Extended Data Memory (Current Bank)	
Task Flag	16 words
Index Register	32 words
Data Register	16 words

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■ Controllers

Device	Max. No. of Consecutive Address
C0	2 Double Words
C1	
C3	
A	1 Word

A.2 Device Codes and Address Codes

Device codes and address codes are used to specify indirect addresses for the E-tags or K-tags.

The word addresses of data to be displayed are coded and stored in the word address specified by the E-tags and K-tags. (Code storage is done either by the PLC, or with T-tag and K-tags)

■ PLCs

\<SYSMAC C Series\>

	Device	Word Address	Device code (HEX)	Address code
Bit Device	Input Relay	000~	9100	Word Address
	Internal Auxilary Relay			
	Analog Setup Value Storage Area	220~	9100	Word Address
	Data Link Relay	LR00~	C900	Word Address
	Special Auxilary Relay	244~	9100	Word Address
	Auxilary Memory Relay	AR00~	B000	Word Address
	Latch Relay	HR00~	C100	Word Address
Word Device	Timer (current value)	TIM0000~	6000	Word Address
	Counter (current value)	CNT0000~	7000	Word Address
	Data Register	DM0000~	0000	Word Address
	LS area	LS0000~	4000	Word Address

<SYSMAC a Series>

	Device	Word Address	Device code (HEX)	Address code
Bit Device	I/O Relay I	000~	9100	Word Address
	I/O Relay II	300~	9100	Word Address
	Internal Auxilary Relay I	030~	9100	Word Address
	Internal Auxilary Relay II	310~	9100	Word Address
	Special Auxilary Relay I	236~	9100	Word Address
	Special Auxilary Relay II	256~	9100	Word Address
	Latch Relay	HR00~	C100	Word Address
	Auxilary Memory Relay	AR00~	B000	Word Address
	Link Relay	LR00~	C900	Word Address
Word Device	Timer (current value)	TIM000~	6000	Word Address
	Counter (current value)	CNT000~	7000	Word Address
	Data Memory	DM0000~	0000	Word Address
	LS area	LS0000~	4000	Word Address

<SYSMAC CV Series>

	Device	Word Address	Device code (HEX)	Address code
Bit Device	Input Relay	000~	9100	Word Address
	Internal Auxilary Relay			Word Address
	SYSMAC BUS/2 Remote I/O Relay	0200~	9100	Word Address
	Data Link Relay	1000~	9100	Word Address
	Special Auxilary Relay	A000~	B000	Word Address
	Latch Relay	1200~	9100	Word Address
	Internal Auxilary Relay	1900~	9100	Word Address
	SYSMAC BUS/2 Remote I/O Relay	2300~	9100	Word Address
Word Device	Timer (current value)	T0000~	6000	Word Address
	Counter (current value)	C0000~	7000	Word Address
	Data Memory	D0000~	0000	Word Address
	LS area	LS0000~	4000	Word Address

<SYSMAC CS1/CJ/CJ1M Series >

Device	Word Address	Device Address	Address Code
Channel I/O	CIO000000 -	CIO9000	Word Address
Internal Auxiliary Relay	W00000 -	B200	Word Address
Hold Relay	H00000 -	C000	Word Address
Special Auxiliary Relay	A00000 -	B000	Word Address
Timer(Current)	T0000 -	6000	Word Address
Counter(Current)	C0000 -	7000	Word Address
Data Memory	D0000 -	0000	Word Address
Exp. Data Memory (E0 to EC)	E000000 -	9200	Word Address
	E100000 -	9400	Word Address
	E200000 -	9600	Word Address
	E300000 -	9800	Word Address
	E400000 -	9A00	Word Address
	E500000 -	9C00	Word Address
	E600000 -	9E00	Word Address
	E700000 -	A000	Word Address
	E800000 -	A200	Word Address
	E900000 -	A400	Word Address
	EA00000 -	A600	Word Address
	EB00000 -	A800	Word Address
	EC00000 -	AA00	Word Address
Exp. Data Memory (Current Bank)	EM00000 -	1000	Word Address
Task Flag	TK0 -	5000	Save as word address value divided by 2.
Index Register	IR0 -	2000	Word Address
Data Register	DR0 -	3000	Word Address
LS area	LS0000 -	4000	Word Address

◆ **DeviceNet Communication**

	Device	Word Address	Device code (HEX)	Address code
Word Device	LS area	LS0000 ~	4000	Word Address

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■ Controllers

	Device	Word Address	Device Code (HEX)	Address Code
Word Device	Variable Areas	C00000 ~	80E0	Word Address
		C10000 ~	82E0	Word Address
		C30000 ~	84E0	Word Address
	Operation Commands	A0000 ~	8660	Word Address
	LS Area	LS0000 ~	40E0	Word Address