Pro-face

Digital Human Machine Interface

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.

A Keyence

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*.

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.)

■ PLC

< KZ-300/KZ-350 Series>

Device	Max. No. of Consecutive Address
Input Relay	19 Words
Output Relay	
Auxiliary Relay	
Internal Hold Relay	
Special Auxilary Relay	
Timer T	48 Words
Counter C	
Data Memory DM	64 Words
Temporary Data Memory TM	10 Words

<KZ-A500 Series>

Device	Max. No. of Consecutive Addresses
Input Relay (X)	32 Words
Output Relay (Y)	
Internal Relay (M)	
Latch Relay (L)	
Link Relay (B)	
Annunciator Relay (F)	
Special Relay (M9)	
Timer (contact) TS	16 Words
Timer (coil) TC	
Counter (contact) CS	
Counter (coil) CC	
Timer(current value) TN	64 Words
Counter (current value) CN	
Data Register (D)	
Link Register (W)	
File Register (R)	
Special Register (D9)	

<Visual KV Series>

Device	Max. No. of Consecutive Addresses
Input/Output Relay	16 Words
Internal AUX Relay	
Special AUX Relay	
Timer (contact)	1 Bit
Counter (contact)	
High-Speed Counter comparator (contact)	
Timer (set value)	16 Words
Timer (current value)	
Counter (set value)	
Counter (current value)	
Data Memory	
Temporary Data Memory	
Digital Trimmer	2 Words
High-Speed Counter (current value)	1 Word
High-Speed Counter Comparator (set value)	

<KV-700 Series>

Device	Max No. of Consecutive Addresses
Input/Output Relay	124 Words
Internal AUX Relay	
Control Relay	40 Words
Timer (contact)	28 Bits
Counter (contact)	
High-Speed Counter Comparator (contact)	4 Bits
Timer (set value)	124 Words
Timer (current value)	
Counter (set value)	
Counter (current value)	
Data Memory	
Temporary Data Memory	
Digital Trimmer	16 Words
High-Speed Counter (current value)	4 Words
High-Speed Counter Comparator (set value)	8 Words
Control Memory	40 Words

<KV Series>

Device	Max No. of Consecutive Address
Input/Output Relay	1 Bit
Internal AUX Relay	
Special AUX Relay	
Timer (contact)	
Counter (contact)	
High-Speed Counter Comparator (contact)	
Timer (set value)	1 Word
Counter (set value)	
Timer (current value)	
Counter (current value)	
Data Memory	30 Words
Temporary Data Memory	1 Word
Analog Timer	2 Words
High-Speed Counter (current value)	1 Word
High-Speed Counter Comparator (set value)	

<KV-1000 Series>

Device	Max No. of Consecutive Addresses
Input/Output Relay	124 Words
Internal AUX Relay	
Control Relay	40 Words
Internal AUX Relay	124 Words
Latch Relay	
Timer (contact)	28 Bits
Counter (contact)	
High-Speed Counter Comparator (contact)	
Timer (set value)	124 Words
Counter (set value)	
Timer (current value)	
Counter (current value)	
Data Memory	
Extended Data Memory EM	
Extended Data Memory FM	
Temporary Data Memory	
Control Memory	40 Words
Index Register	12 Words
Digital Trimmer	16 Words
High-Speed Counter (current value)	4 Words
High-Speed Counter Comparator (set value)	8 Words

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)

■ PLC

< KZ-300/KZ-350 Series>

	Device	Word Address	Device code (HEX)	Address code
Bit Device	Input Relay	00~	9100	Word Address
		70~	9100	Word Address
	Output Relay	05~	9100	Word Address
		75~	9100	Word Address
	Internal Auxilary Relay	10~	9100	Word Address
	Special Auxilary Relay	20~	9100	Word Address
Word Device	Timer (current value)	T000~	6000	Word Address
	Counter (current value)	C000~	7000	Word Address
	Data Memory	DM0000~	0000	Word Address
	Temporary Data Memory	TM00~	C100	Word Address
	LS area	LS0000~	4000	Word Address

<KZ-A500 Series>

	Device	Word Address	Device code	Address code
Bit Device	Input Relay	X0000 ~	8000	Word Address'last digit, exept "0"
	Output Relay	Y0000 ~	8800	Word Address'last digit, exept "0"
	Internal Relay	M0000 ~	9000	Save as Word Address value divided by 16
	Special Relay	M9000 ~	B000	Save as (Word Address value minus 9000) divided by 16
	Latch Relay	L0000 ~	C000	Save as Word Address value divided by 16
	Annunciator Relay	F0000 ~	B800	Save as Word Address value divided by 16
Word Device	Timer (current value)	TN0000 ~	6000	Word Address
	Counter (current value)	CN0000 ~	7000	Word Address
	Data Register	D0000 ~	0000	Word Address
	Special Register	D9000 ~	0000	Word Address
	Link Register	W0000 ~	4800	Word Address
	File Register	R0000 ~	5800	Word Address
	LS area	LS0000 ~	4000	Word Address

<Visual KV Series>

	Device	Word Address	Device code (HEX)	Address code
Bit Device	Input Relay	0000 ~	9000	Word Address
	Internal Auxilary Relay			
	Special Auxilary Relay			
Word Device	Timer (setting value)	TC 000 ~	6000	Word Address
	Counter (setting value)	CC 000 ~	7000	Word Address
	Timer (current value)	TS 000 ~	6800	Word Address
	Counter (current value)	CS 000 ~	7800	Word Address
	Data Memory	DM 0000 ~	0000	Word Address
	Temporary Data Memory	TM 00 ~	4800	Word Address
	Digital Trimer	AT 0 ~	5800	Word Address
	High Speed Counter (current value)	CTH 0 ~	1000	Word Address
	High Speed Counter Conparator (setting value)	CTC 0 ~	2000	Word Address
	LS area	LS0000 ~	4000	Word Address

<KV-700 Series>

	Device	Word Address	Device Code	Address Code
Bit Device	Input/Output Relay	0000 ~	9000	Word Address
	Internal AUX Relay			
	Control Relay	CR000 ~	9200	
Word Device	Timer (set value)	TS000 ~	6000	Double Word Address
	Counter (set value)	CS000 ~	7000	Double Word Address
	Timer (current value)	TC000 ~	6800	Double Word Address
	Counter (current value)	CC000 ~	7800	Double Word Address
	Data Memory	DM0000 ~	0	Word Address
	Temporary Data Memory	TM00 ~	4800	Word Address
	Control Memory	CM0000 ~	3800	Word Address
	Digital Trimmer	TRM0 ~	5800	Double Word Address
	High-Speed Counter (current value)	CTH0 ~	2000	Double Word Address
	High-Speed Counter Comparator (set value)	CTC0 ~	1000	Double Word Address
	LS area	LS0000 ~	4000	Word Address

<KV Series>

Device	Word Address	Device Code (HEX)	Address Code
Timer (set value)	TS000 ~	6800	Word Address
Counter (set value)	CS000 ~	7800	Word Address
Timer (current value)	TC000 ~	6000	Word Address
Counter (current value)	CC000 ~	7000	Word Address
Data Memory	DM0000 ~	0000	Word Address
Temporary Data Memory	TM00 ~	4800	Word Address
Analog Timer	AT0 ~	5800	Word Address
High-Speed Counter (current value)	CTH0 ~	1000	Word Address
High-Speed Counter Comparator (set value)	CTC0 ~	2000	Word Address
LS area	LS0000 ~	4000	Word Address

<KV-1000 Series>

	Device	Word Address	Device Code	Address Code
Bit Device	Input/Output Relay	0000 -	9000	Word Address
	Internal AUX Relay			
	Control Relay	CR000 -	9200	
	Internal AUX Relay	MR000 -	9400	
	Latch Relay	LR000 -	9600	
Word Device	Timer (Setting value)	TS000 -	6000	Double Word Address
	Counter (Setting value)	CS000 -	7000	Double Word Address
	Timer (contact)	TC000 -	6800	Double Word Address
	Counter (contact)	CC000 -	7800	Double Word Address
	Data Memory	DM0000 -	0000	Word Address
	Extended Data Memory EM	EM0000 -	0200	Word Address
	Extended Data Memory FM	FM0000 -	0400	Word Address
	Temporary Data Memory	TM00 -	4800	Word Address
	Control Memory	CM0000 -	3800	Word Address
	Index Register	Z00 -	3000	Word Address
	Digital Trimmer	TRM0 -	5800	Double Word Address
	High-Speed Counter (current value)	CTH0 -	1000	Double Word Address
	High-Speed Counter Comparator (set value)	CTC0 -	2000	Double Word Address
	LS Area	LS0000 -	4000	Word Address