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 Fenwal

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.)

■ Controllers

<AL Series>

Device	Max. No. of Consecutive Address	Device	Max. No. of Consecutive Address
Input signal IN	1 Word	Temperature value before high-point correction for IRr/c 2-point correction value IA	1 Word
Decimal place in linear input UN		Temperature value after high-point correction for IRr/c 2-point correction value IB	
With or without IRr/c 2-point correction IR		Temperature value after low-point correction for IRr/c 2-point correction value IC	
Control mode CM		Temperature value after low-point correction for IRr/c 2-point correction value ID	
Filter constant FS		Transmission output scaling H and L DS	2 Words
Control LED illumination direction OD		Setting value for heater breakage current CA	1 Word
Control output direction OA		Warning sensitivity AD	
Burnout direction BO		Main temperature setting S1	
Output limit method LT		Warning 1: 1 point SP	
Warning type AK		Warning 1: Bands H and L SB	2 Words
Warning 1: Alarm warning code HA		Warning 2: 1 point DP	1 Word
Warning 1: Temperature warning code A11		Warning 2: Bands H and L DB	2 Words
Warning 2: Temperature warning code A21		Warning 3: 1 point TP	1Word
Warning 3: Temperature warning code A31		Warning 3: Bands H and L TB	2 Words
Warning LED illumination direction LE		Output method OU	1 Word
CT type CT		Number of warnings AN	
Upper and lower limits of setting range HL	2 Words	RUN/STOP RS	
Linear input scaling H and L L		Auto tuning AT	
Upper and lower output limits OL		Key locking KY	
Proportional time PT	1 Word	Mode locking ML	
Proportional band PB		POWER ON/OFF ON	
Integral action time IT		Current temperature PV	
Derivative action time DT		Operation panel MV	
ARW AR		Temperature control GC	8 Words
ON/OFF sensitivity DI		Warning GA	
Manual reset RT		Panel data GP	
Sensor error correction SA			

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)

■ Controllers

<AL Series>

	Device	Word Address	Device Code (HEX)	Address Code
Word Device	Input signal	IN1	0000	Word Address-1
	Decimal place in linear input UN	UN1	0200	Word Address-1
	With or without IRr/c2 point correction	IR1	0400	Word Address-1
	Control mode	CM1	0600	Word Address-1
	Filter constant	FS1	0800	Word Address-1
	Control LED illumination direction	OD1	0A00	Word Address-1
	Control output direction	OA1	0C00	Word Address-1
	Burnout direction	BO1	0E00	Word Address-1
	Output limit method	LT1	1000	Word Address-1
	Warning type	AK1	1200	Word Address-1
	Warning 1: Alarm warning code	HA1	1400	Word Address-1
	Warning 1: Temperature warning code	A11	1600	Word Address-1
	Warning 2: Temperature warning code	A21	1800	Word Address-1
	Warning 3: Temperature warning code	A31	1A00	Word Address-1
	Warning LED illumination direction	LE1	1C00	Word Address-1
	CT type	CT1	1E00	Word Address-1
	Upper and lower limits of setting range	HL1 ~	2000	Word Address-1
	Linear input scaling	L1 ~	2200	Word Address-1
	Upper and lower output limits	OL1 ~	2400	Word Address-1
	Proportional time	PT1	2600	Word Address-1
	Proportional band	PB1	2800	Word Address-1
	Integral action time	IT1	2A00	Word Address-1
	Derivative action time	DT1	2C00	Word Address-1
	ARW	AR1	2E00	Word Address-1
	ON/OFF sensitivity	DI1	3000	Word Address-1
	Manual resetting	RT1	3200	Word Address-1
	Sensor error correction	SA1	3400	Word Address-1
	Temperature value before high-point correction for IRr/c2 point correction value	IA1	3600	Word Address-1
	Temperature value after high-point correction for IRr/c2 point correction value	IB1	3800	Word Address-1
	Temperature value after low-point correction for IRr/c2 point correction value	IC1	3A00	Word Address-1
	Temperature value after low-point correction for IRr/c2 point correction value	ID1	3C00	Word Address-1
	Transmission output scaling H and L	DS1 ~	3E00	Word Address-1
	Setting value for heater breakage current	CA1	4200	Word Address-1