



# 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

# **GE Fanuc Automation**

## **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.)

## PLCs

#### <SNP-X Protocol>

|                   | Max. No. of |
|-------------------|-------------|
| Device            | Consecutive |
|                   | Address     |
| Input Relay I     |             |
| Output Relay Q    |             |
| Internal Relay M  |             |
| Global Relay G    |             |
| Momentary Relay T |             |
| System Function   |             |
| Relay SA          | 128 Words   |
| System Function   |             |
| Relay SB          |             |
| System Function   |             |
| Relay SC          |             |
| Register R        |             |
| Analog Input AI   |             |
| Analog Output AQ  |             |

#### <GE FANUC 90-30/90-70 SNP>

|                        | Max. No. of |  |  |
|------------------------|-------------|--|--|
| Device                 | Consecutive |  |  |
|                        | Address     |  |  |
| Input Relay I          |             |  |  |
| Output Relay Q         |             |  |  |
| Internal Relay M       |             |  |  |
| Global Relay G         | oal Relay G |  |  |
| Temporary Relay T      | 250 Words   |  |  |
| System Status Relay SA |             |  |  |
| System Status Relay SB |             |  |  |
| System Status Relay SC |             |  |  |
| System Status Relay S  |             |  |  |
| Register R             |             |  |  |
| Analog Input AI        | ]           |  |  |
| Analog Input AQ        |             |  |  |

# 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**

<Series 90-70/90-30 (SNP-X protocol)>

|                | Device                        | Word Address | Device code<br>(HEX) | Address code                                      |
|----------------|-------------------------------|--------------|----------------------|---|
| Bit Device     | Input Relay (I)               | 100001~      | 8000                 | Save as word address value minus 1 divided by 16. |
|                | Output Relay (Q)              | Q00001~      | 8800                 | Save as word address value minus 1 divided by 16. |
|                | Internal Relay (M)            | M00001~      | 9000                 | Save as word address value minus 1 divided by 16. |
|                | Global Relay (G)              | G0001~       | C 200                | Save as word address value minus 1 divided by 16. |
|                | Momentary Relay (T)           | T001~        | 9400                 | Save as word address value minus 1 divided by 16. |
|                | System Function<br>Relay (SA) | SA001~       | A200                 | Save as word address value minus 1 divided by 16. |
|                | System Function<br>Relay (SB) | SB001~       | A400                 | Save as word address value minus 1 divided by 16. |
|                | System Function<br>Relay (SC) | SC001~       | A800                 | Save as word address value minus 1 divided by 16. |
|                | System Function<br>Relay (S)  | S001~        | AA00                 | Save as word address value minus 1 divided by 16. |
| Word<br>Device | Register (R)                  | R00001~      | 0000                 | Save as word address value minus 1.               |
|                | Analog Input (AI)             | AI0001~      | 0A00                 | Save as word address value minus 1.               |
|                | Analog Output (AQ)            | AQ0001~      | 0C 00                | Save as word address value minus 1.               |
|                | LS area                       | LS0000~      | 4000                 | Word Address                                      |

## <Series 90-70/90-30 (SNP protocol)>

|            | Device                      | Word Address | Device Code | Address Code  |
|------------|-----------------------------|--------------|-------------|---|
| Bit Device | Input Relay (I)             | 100001~      | 8000        | Save as: word address value minus 1, then divided by 16 |
|            | Output Relay (Q)            | Q00001~      | 8800        | Save as: word address value minus 1, then divided by 16 |
|            | Internal Relay (M)          | M00001~      | 9000        | Save as: word address value minus 1, then divided by 16 |
|            | Global Relay (G)            | G0001~       | C 200       | Save as: word address value minus 1, then divided by 16 |
|            | Temporary Relay (T)         | T001~        | 9400        | Save as: word address value minus 1, then divided by 16 |
|            | System Status Relay (SA)    | SA001~       | A200        | Save as: word address value minus 1, then divided by 16 |
|            | System Status Relay<br>(SB) | SB001~       | A400        | Save as: word address value minus 1, then divided by 16 |
|            | System Status Relay (SC)    | SC001~       | A800        | Save as: word address value minus 1, then divided by 16 |
|            | System Status Relay<br>(S)  | S001~        | AA00        | Save as: word address value minus 1, then divided by 16 |