GP-PRO/PBIII for Windows
Device/PLC CONNECTION MANUAL

ADDITIONAL MANUAL
Toyoda Machine Works PLC
TOYOPUC-PC3J Series

Pro-face
Human Machine Interface

Installation

This CD-ROM includes all the protocol files required by the GP to communicate with an Schneider's Inverter. Also, you will need to have one or more of the following software applications installed. The screen and data transfer file included in the CD-ROM must be installed in each of those applications. For information about the installation of the software, refer to that software's Operation Manual.

■ Software Applications

• GP-PRO/PBIII for Windows Ver. 2.1 or later[*1]

• Pro-Server with Pro-Studio for Windows Ver. 3.0 or later [*2]

1) Be sure to confirm that GP-PRO/PBIII for Windows is installed in your PC prior to starting this driver installation.

2) To install the new driver, double-click on "TOYOPC3.exe" file contained in the CD-ROM.

3) Once the installation program starts, follow the instructions given to install the protocol files.

***1 When using the GP2000 Series unit, GP-PRO/PBIII for Windows Ver.5.0 or later is required.**

***2 When using the Factory Gateway unit, GP-Web Ver.1.0 or later or GP-Viewer Ver.1.0 or later, be sure to select Pro-Server with Pro-Studio for Windows as the "Destination Folder".**

1 List of Connectable PLCs

The following tables list the devices that can be connected and used with the GP.

■ PLCs

◆ 1:1 Connection, 1:n Connection

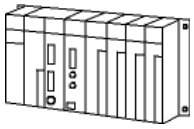
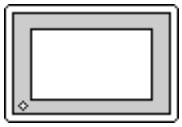
Series Name	CPU	Link Unit	Device type in Screen Editor	GP Series GLC 2000 Series	GLC 100 Series GLC 300 Series
TOYOPUC -PC2	PC2, L2	TLU-2652	TOYOTA TOYOPUC-PC2 series	○	○
	PC2J	THU-2755			
	PC2J (1:n connection)	THU-2755	TOYOTA TOYOPUC-PC2 1:n Comm.		
TOYOPUC -PC3	PC3J PC3JD PC3JG	Link I/F on CPU unit	TOYOTA TOYOPUC-PC3J	○	X
		THU-2755			
	PC3J PC3JD PC3JG (1:n connection)	Link I/F on CPU unit	TOYOTA TOYOPUC-PC3J 1:n Comm.		
		THU-2755			

2 System Structure

The following describes the system structure for connecting the GP to Toyoda Machine Works PLCs.

Reference *The Cable Diagram mentioned in the following table is listed in the section titled "**3 Cable Diagrams.**"*

■ TOYOPUC-PC3J

CPU	Link I/F	Cable Diagram	GP
			
PC3J	Link I/F for CPU unit	RS-422 (4 wires) (Cable Diagram 3)	GP Series
		RS-422 (2 wires) (Cable Diagram 4)	
		RS-422 (4 wires) (1:n) (Cable Diagram 5)	
		RS-422 (2 wires) (1:n) (Cable Diagram 6)	
	PC/CMP-Link (THU-2755) *1	RS-422 (2 wires) (Cable Diagram 7)	
		RS-422 (2 wires) (1:n) (Cable Diagram 8)	
PC3JD PC3JG	Link I/F for CPU unit	RS-422 (2 wires) (Cable Diagram 1)	
		RS-422 (2 wires) (1:n) (Cable Diagram 2)	
	PC/CMP-Link (THU-2755) *1	RS-422 (2 wires) (Cable Diagram 1)	
		RS-422 (2 wires) (1:n) (Cable Diagram 2)	

**1 When using PC3J commands to operate the PC/CMP-LINK(THU-2775), a Ver.5.00 or higher link unit is required. This unit, however, will not have the settings for the PC2J or PC3J switches (SW). If a PC3J command is sent to a version5.00 or lower link unit, an error code will appear on the bottom left corner on the GP screen.*

Note

- **A maximum of 16 PLCs can be connected.**
- **For the connection cable, the Chugoku Densen Kogyo's double shield twist cable, 0-VCTF-SS 2C*0.75mm^2 is recommended.**
- **The maximum cable length is 600 meters.**

3 Cable Diagrams

The cable diagrams illustrated below and the cable diagrams recommended by Toyota Machine Works, Ltd. may differ; however, using these cables for your PLC operations will not cause any problems.

Careful!

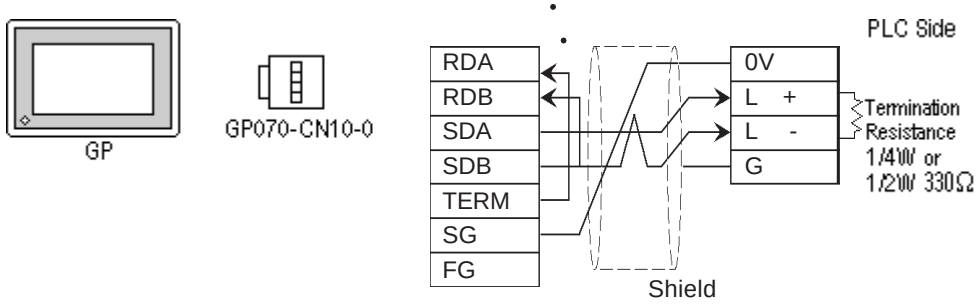
Ground your PLC's FG terminal according to your country's applicable standard. For details, refer to the corresponding PLC manual.

Important

- ***Connect the FG line of the Shield cable to either the GP or PLC, depending on your environment.***
- ***If a communications cable is used, it must be connected to the SG (signal ground).***
- ***When connecting RS-422,for the length of cable, refer to the manual of Toyoda Machine Works.***

Cable Diagram 1 (RS-422)

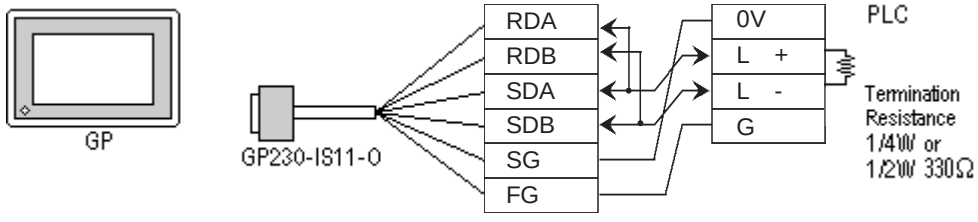
• When using Digital's RS-422 connector terminal adapter GP070-CN10-0



Note

Connect terminals SD A and SD B to terminal L+, and SD B and RD B to terminal L-.

• When using Digital's RS-422 Cable, GP230-IS11-0

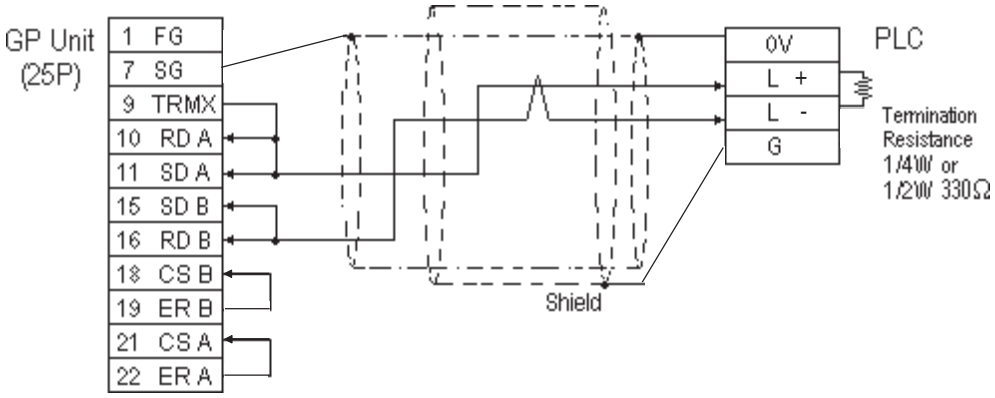


Note

Connect terminals SDA and SDB to terminal L+, and SDB and RDB to terminal L-.

When connecting RS-422,for the length of cable,refer to the manual of Toyoda Machine Works.

• When making your own cable connections

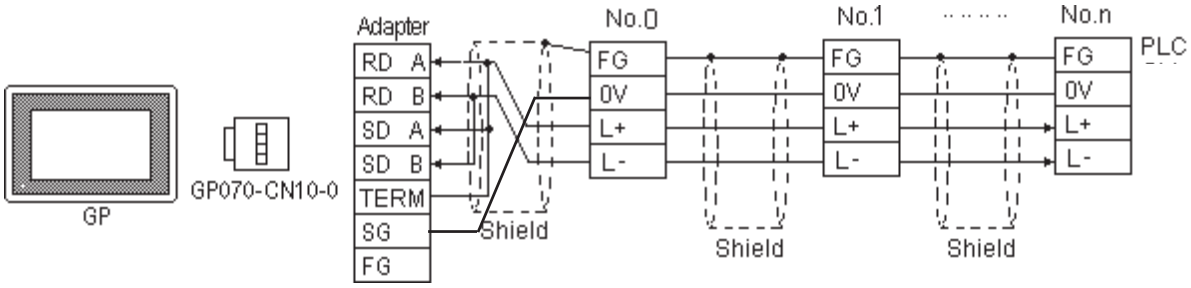


Note:

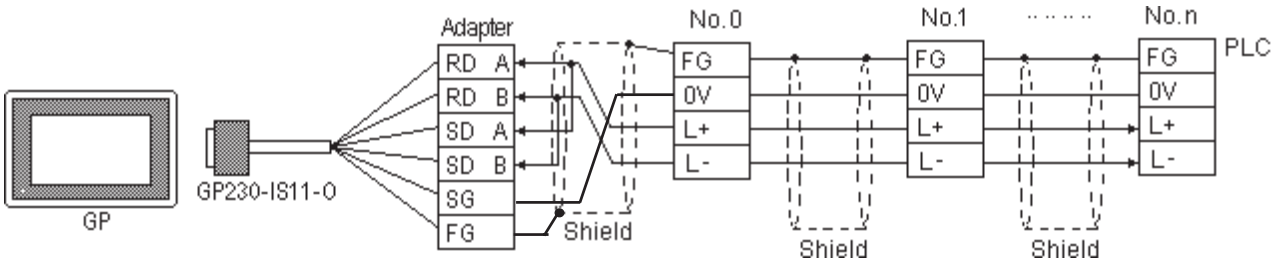
- **When making your own connections, we recommend using Chugoku Densen Kogi's O-VCTF-SS2C*0.75mm^2 (2 overlapping *Shield Twist Pair*) cable.**
- **When connecting the #9 and #10 pins in the GP Serial I/F, a termination resistance of 100Ω is added between RDA and RDB.**

Cable Diagram 2 (RS-422)

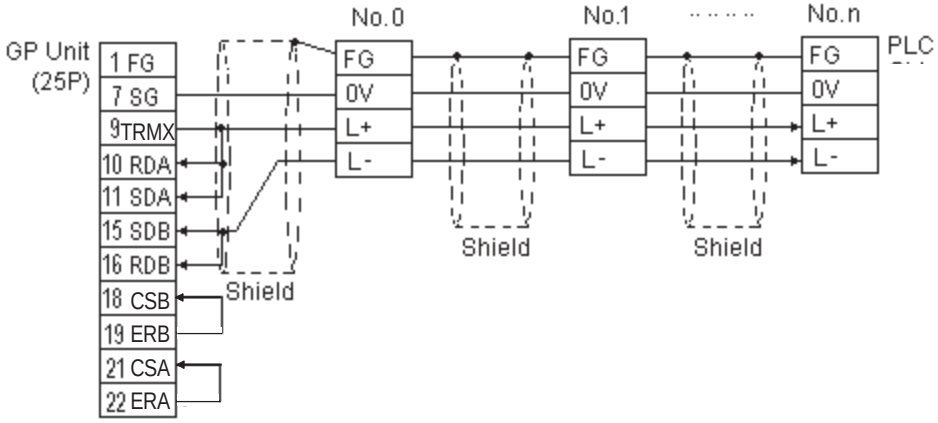
• When using Digital's RS-422 connector terminal adapter GP070-CN10-0



• When using Digital's RS-422 Cable, GP230-IS11-0

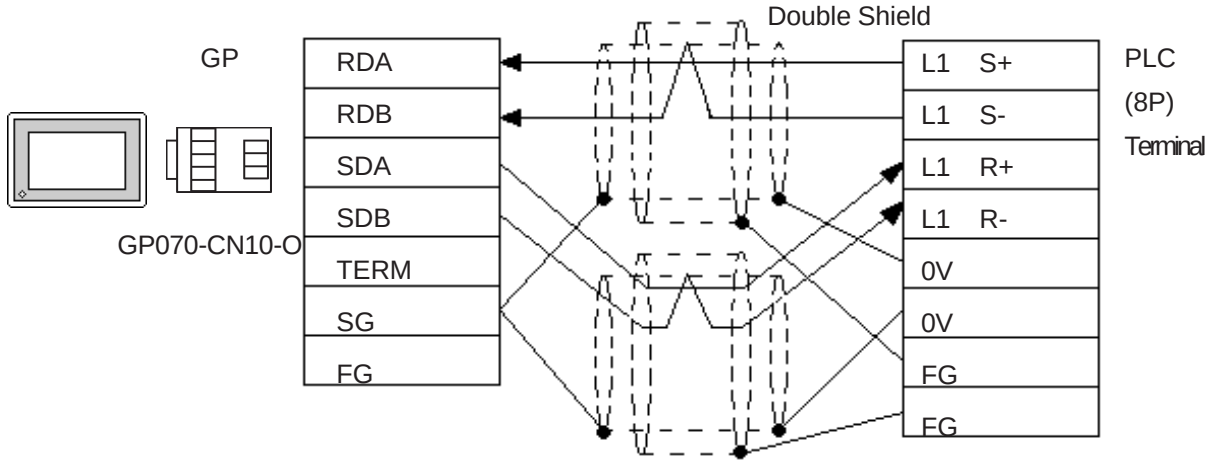


• When making your own cable connections



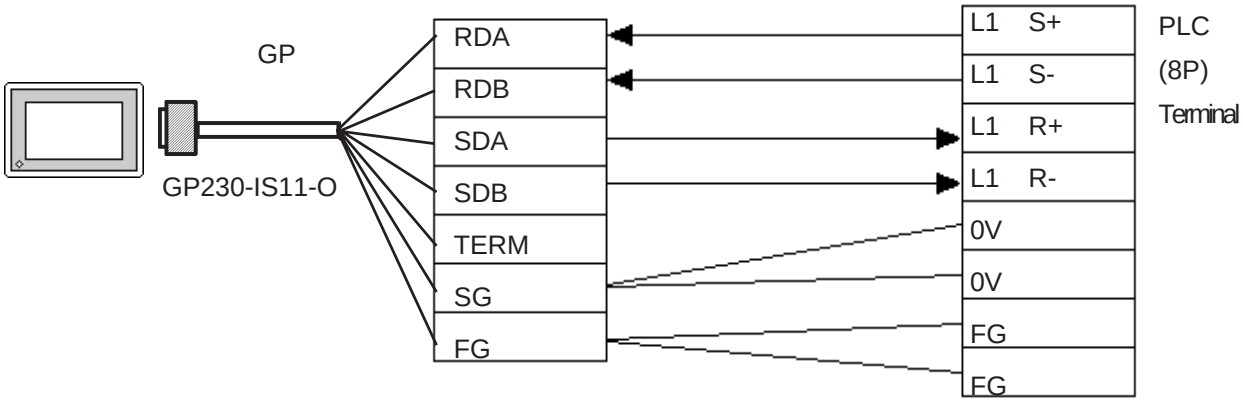
Cable Diagram 3 RS-422 4-wire type

• When using Digital's RS-422 connector terminal adapter GP070-CN10-0

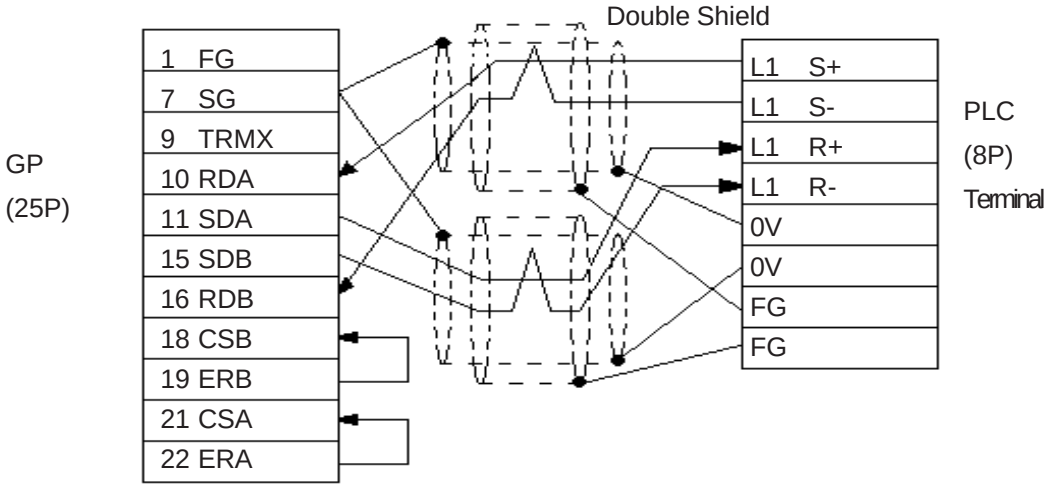


• When using Digital's RS-422 cable, GP230-IS12-0

Note: **In areas with excessive noise, use a double shielded cable.**

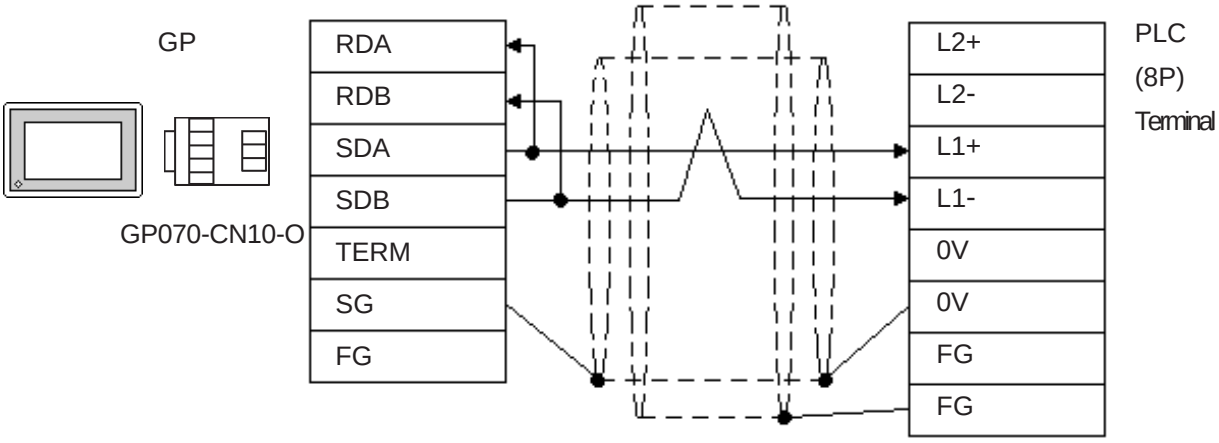


• When making your own cable



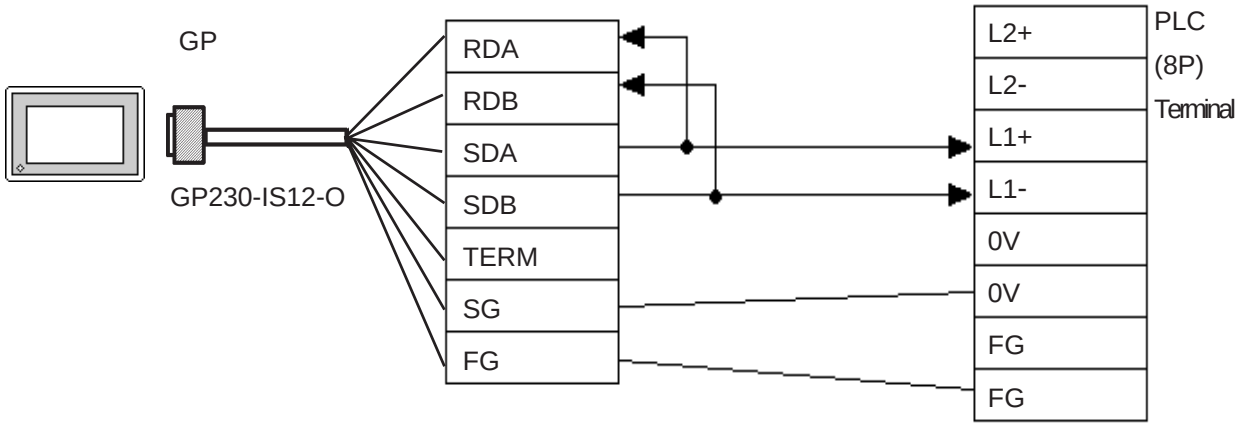
Cable Diagram 4 (1:1) RS-422 2-wire type, using I/F unit for CPU

• When using Digital's RS-422 connector terminal adapter GP070-CN10-0

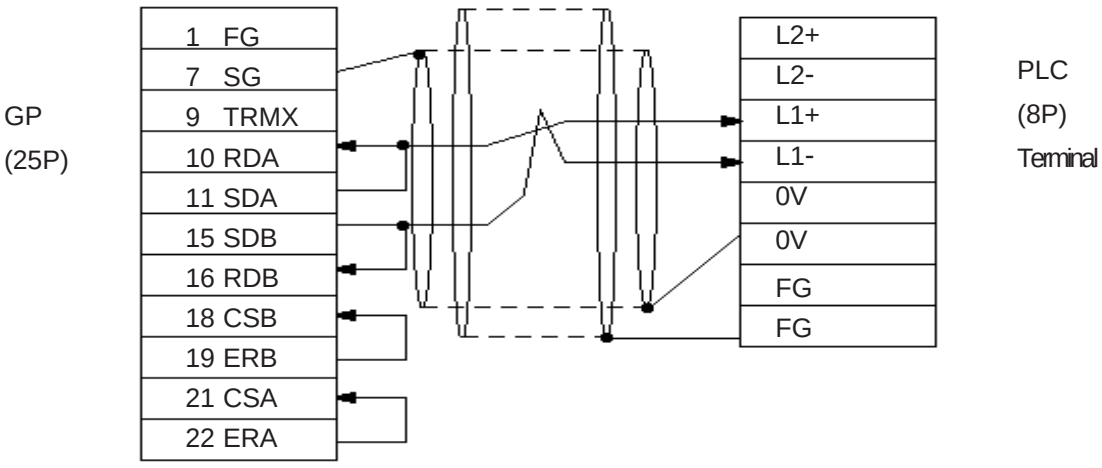


• When using Digital's RS-422 cable, GP230-IS12-0

Note: **In areas with excessive noise, use a double shielded cable.**

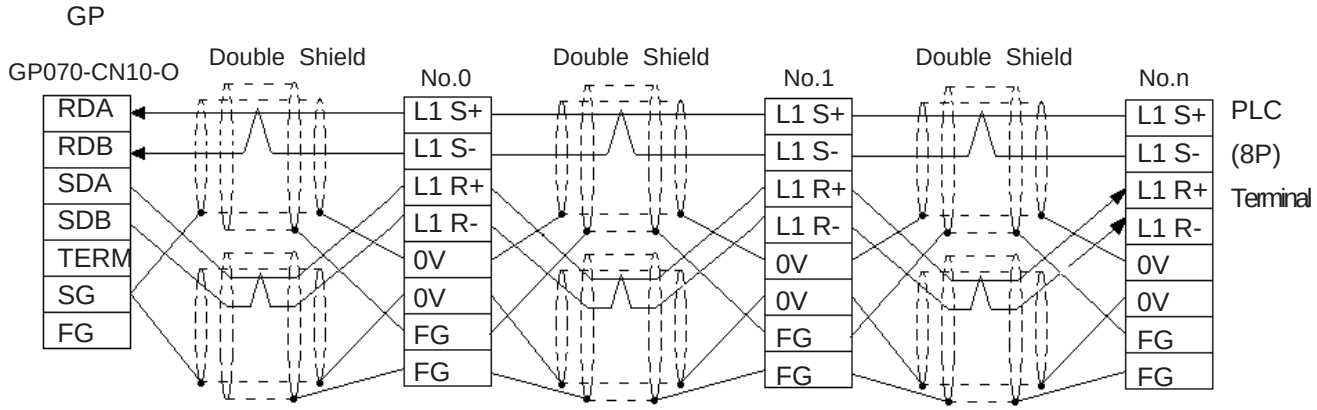


• When making your own cable



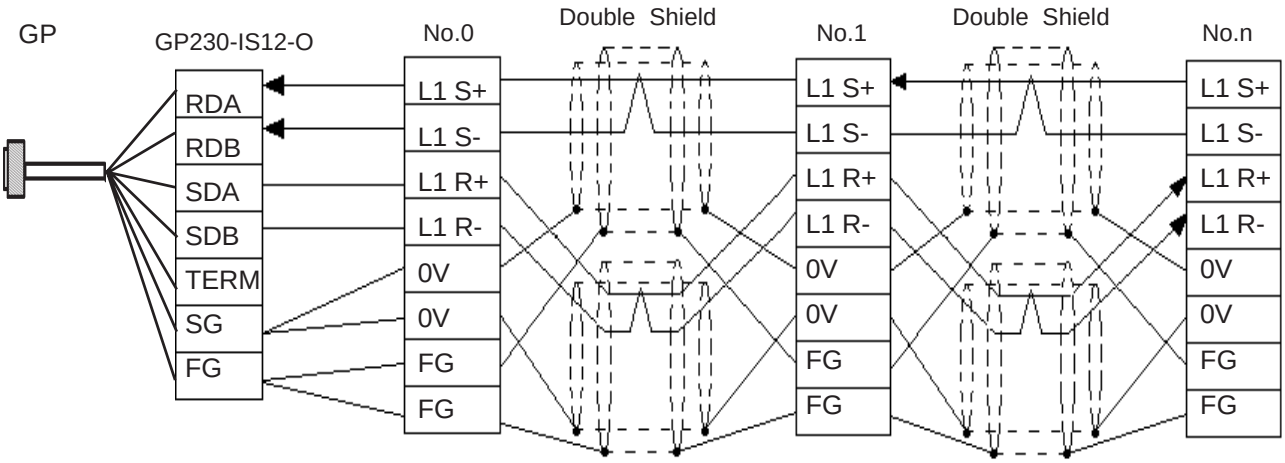
Cable Diagram 5 (1:n) RS-422 4-wire type

• When using Digital's RS-422 connector terminal adapter GP070-CN10-0

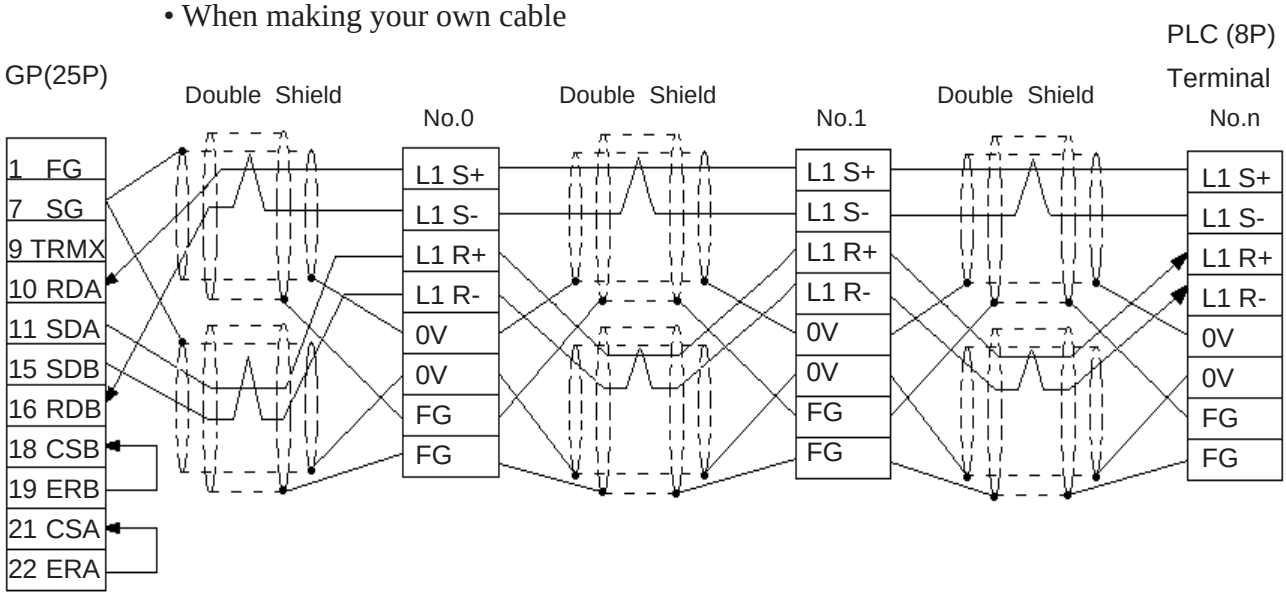


• When using Digital's RS-422 cable, GP230-IS12-0

In areas with excessive noise, use a double shielded cable.

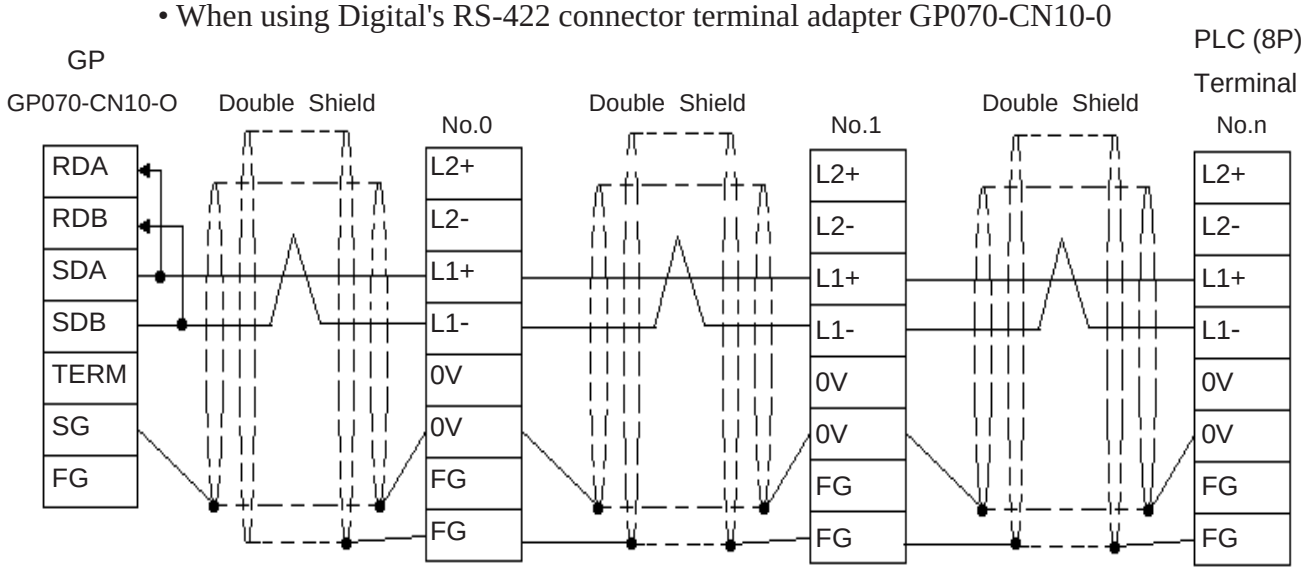


• When making your own cable



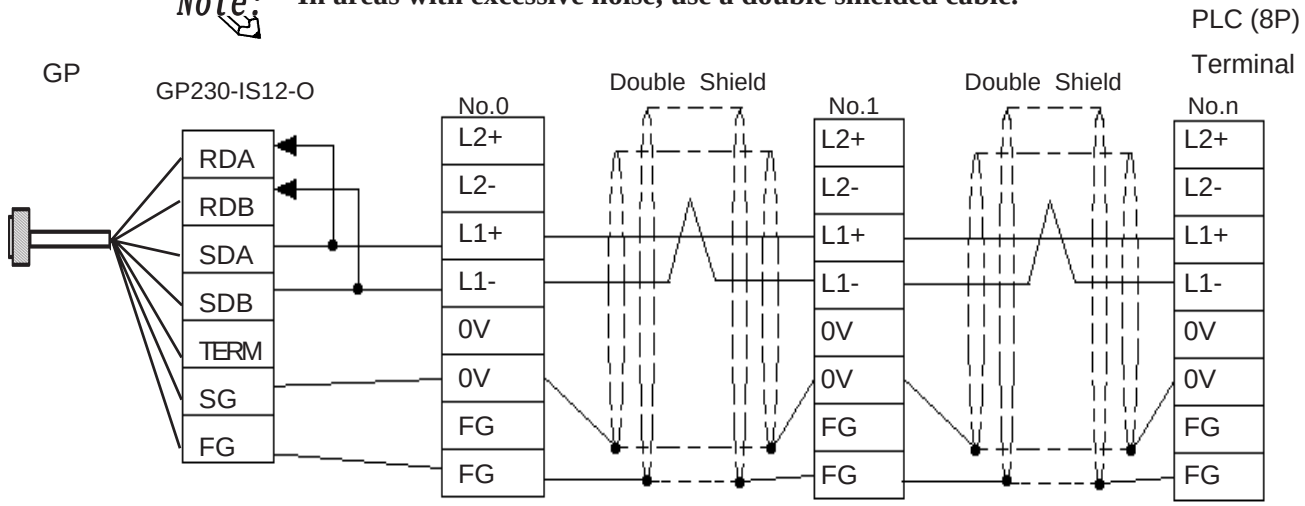
Cable Diagram 6 (1:n) RS-422 2-wire type, using I/F unit for CPU

• When using Digital's RS-422 connector terminal adapter GP070-CN10-0

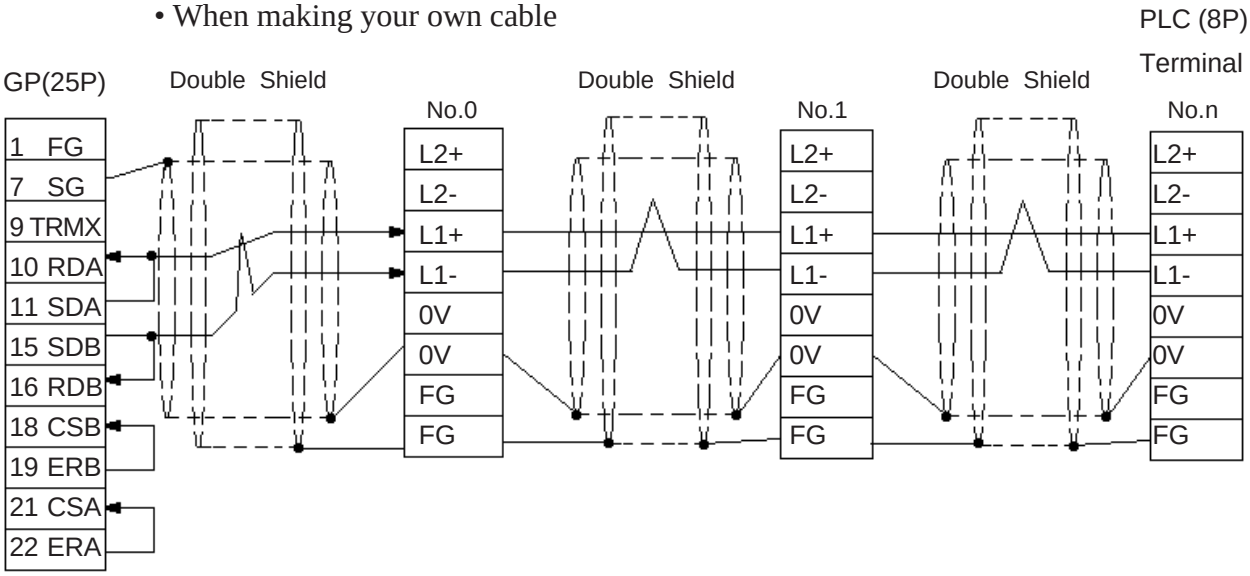


• When using Digital's RS-422 cable, GP230-IS12-0

Note: **In areas with excessive noise, use a double shielded cable.**

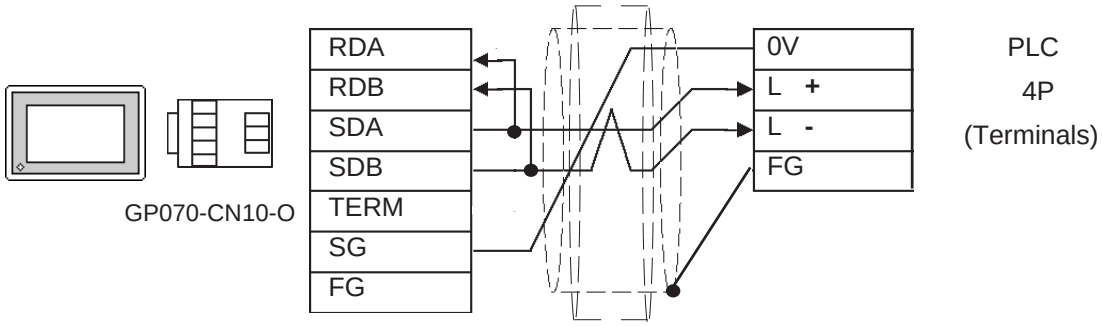


• When making your own cable



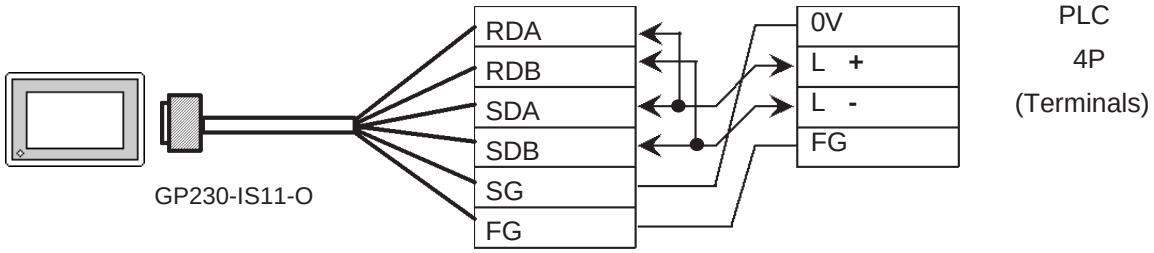
Cable Diagram 7 (1:1) <PC/CMP-Link> RS-422 2-wire type

• When using Digital's RS-422 connector terminal adapter GP070-CN10-0

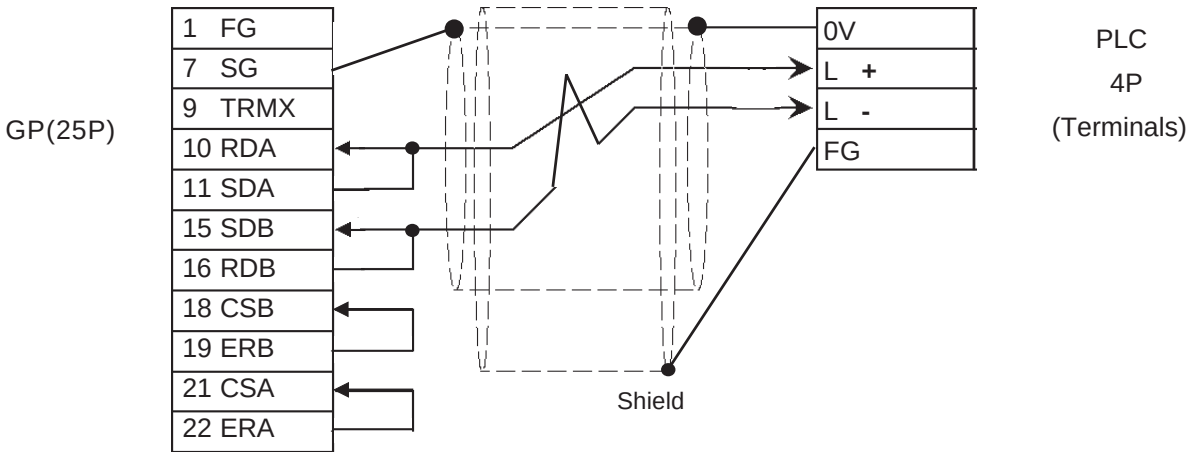


• When using Digital's RS-422 cable, GP230-IS11-0

Note: **In areas with excessive noise, use a double shielded cable.**

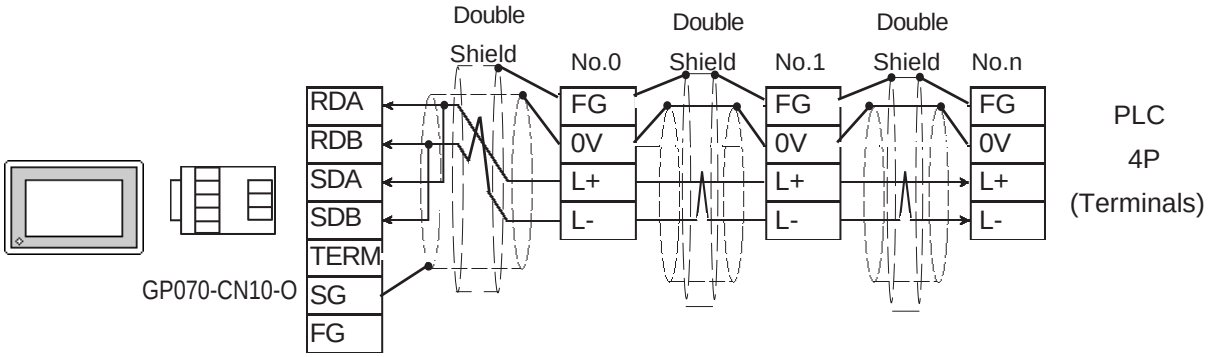


• When making your own cable



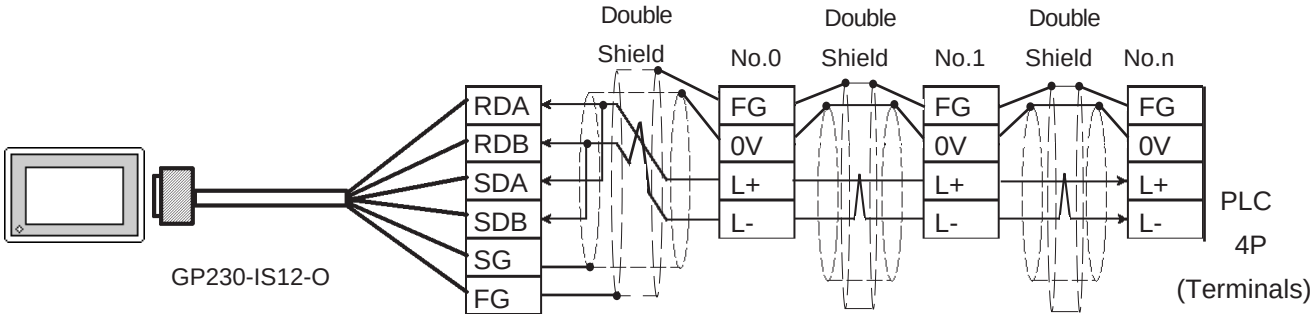
Cable Diagram 8 (1:n) <PC/CMP-Link> RS-422 2-wire type

• When using Digital's RS-422 connector terminal adapter GP070-CN10-0

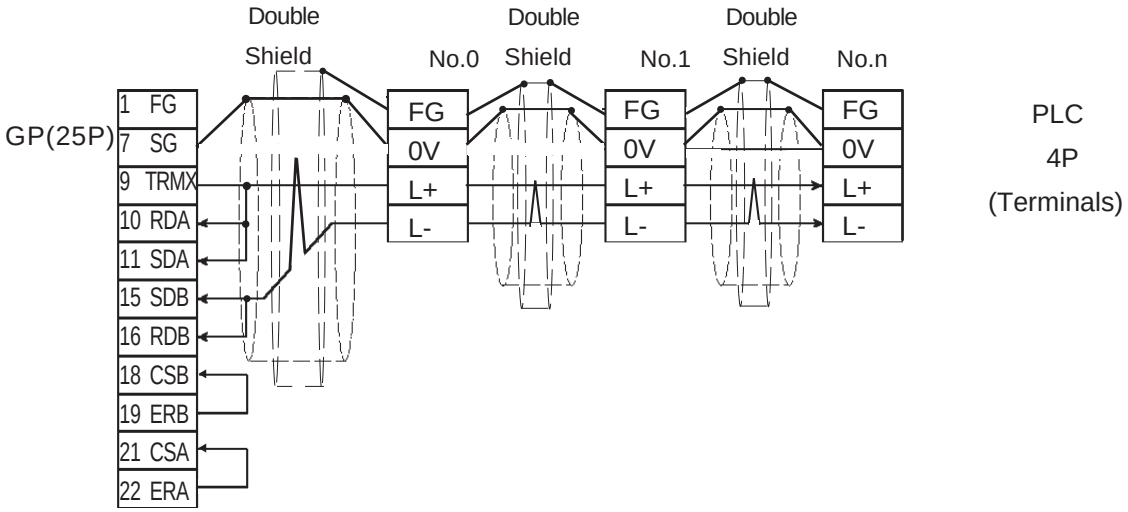


• When using Digital's RS-422 cable, GP230-IS12-0

Note: **In areas with excessive noise, use a double shielded cable.**



• When making your own cable



4 Supported Devices

The following describes the range of devices supported by the GP.

■ TOYOPUC-PC3J (1:1 connection)

In this list, "Exp." means "Expansion". Setup system area here.

Device	Bit Address	Word Address	Comments	
Input	1X0000 ~ 1X07FF	1X0000 ~ 1X007F	*1	L/H
	2X0000 ~ 2X07FF	2X0000 ~ 2X007F		
	3X0000 ~ 3X07FF	3X0000 ~ 3X007F		
Output	1Y0000 ~ 1Y07FF	1Y0000 ~ 1Y007F	*1	
	2Y0000 ~ 2Y07FF	2Y0000 ~ 2Y007F		
	3Y0000 ~ 3Y07FF	3Y0000 ~ 3Y007F		
Internal Relay	1M0000 ~ 1M07FF	1M0000 ~ 1M007F		
	2M0000 ~ 2M07FF	2M0000 ~ 2M007F		
	3M0000 ~ 3M07FF	3M0000 ~ 3M007F		
Keep Relay	1K0000 ~ 1K02FF	1K0000 ~ 1K002F		
	2K0000 ~ 2K02FF	2K0000 ~ 2K002F		
	3K0000 ~ 3K02FF	3K0000 ~ 3K002F		
Link Relay	1L0000 ~ 1L07FF	1L0000 ~ 1L007F		
	2L0000 ~ 2L07FF	2L0000 ~ 2L007F		
	3L0000 ~ 3L07FF	3L0000 ~ 3L007F		
Special Relay	1V0000 ~ 1V00FF	1V0000 ~ 1V000F		
	2V0000 ~ 2V00FF	2V0000 ~ 2V000F		
	3V0000 ~ 3V00FF	3V0000 ~ 3V000F		
Edge Detection	1P0000 ~ 1P01FF	----		
	2P0000 ~ 2P01FF	----		
	3P0000 ~ 3P01FF	----		
Timer	1T0000 ~ 1T01FF	1T0000 ~ 1T001F	*1	
	2T0000 ~ 2T01FF	2T0000 ~ 2T001F		
	3T0000 ~ 3T01FF	3T0000 ~ 3T001F		
Counter	1C0000 ~ 1C01FF	1C0000 ~ 1C001F	*1	
	2C0000 ~ 2C01FF	2C0000 ~ 2C001F		
	3C0000 ~ 3C01FF	3C0000 ~ 3C001F		
Data Register	1D00000 ~ 1D2FFFF	1D0000 ~ 1D2FFF		
	2D00000 ~ 2D2FFFF	2D0000 ~ 2D2FFF		
	3D00000 ~ 3D2FFFF	3D0000 ~ 3D2FFF		
Link Register	1R00000 ~ 1R07FFF	1R0000 ~ 1R07FF		
	2R00000 ~ 2R07FFF	2R0000 ~ 2R07FF		
	3R00000 ~ 3R07FFF	3R0000 ~ 3R07FF		
Special Register	1S00000 ~ 1S03FFF	1S0000 ~ 1S03FF		
	2S00000 ~ 2S03FFF	2S0000 ~ 2S03FF		
	3S00000 ~ 3S03FFF	3S0000 ~ 3S03FF		
Current Value Register	1N00000 ~ 1N01FFF	1N0000 ~ 1N01FF		
	2N00000 ~ 2N01FFF	2N0000 ~ 2N01FF		
	3N00000 ~ 3N01FFF	3N0000 ~ 3N01FF		
File Register	B00000 ~ B1FFFF	B0000 ~ B1FFF		
Exp. Input	EX0000 ~ EX07FF	EX0000 ~ EX007F	*1	
Exp. Output	EY0000 ~ EY07FF	EY0000 ~ EY007F	*1	
Exp.Internal Relay	EM0000 ~ EM1FFF	EM0000 ~ EM01FF		
Exp. Keep Relay	EK0000 ~ EK0FFF	EK0000 ~ EK00FF		
Exp. Link Relay	EL0000 ~ EL1FFF	EL0000 ~ EL01FF		
Exp. Special Relay	EV0000 ~ EV0FFF	EV0000 ~ EV00FF		
Exp. Edge Relay	EP0000 ~ EP0FFF	----		
Exp. Timer	ET0000 ~ ET07FF	ET0000 ~ ET007F	*1	
Exp. Counter	EC0000 ~ EC07FF	EC0000 ~ EC007F	*1	
Exp. Special Register	ES00000 ~ ES07FFF	ES0000 ~ ES07FF		
Exp. Current Value Register	EN00000 ~ EN07FFF	EN0000 ~ EN07FF		
Exp. Setting Value Register	H00000 ~ H07FFF	H0000 ~ H07FF		
Exp. Data Register	U00000 ~ U7FFFF	U0000 ~ U7FFF		
Exp. 2 Input	GX0000 ~ GXFFFF	GX0000 ~ GX0FFF	*1,*2	
Exp. 2 Output	GY0000 ~ GYFFFF	GY0000 ~ GY0FFF	*1,*2	
Exp. 2 Internal Relay	GM0000 ~ GMFFFF	GM0000 ~ GM0FFF	*2	

**1 For X and Y(EX,EY,GX,GY),T and C(ET,EC),dupulicate addresses cannot be used. For details,refer to the manual of Toyoda Machine Works.*

**2 Supported by Link I/F on the CPU of PC3JG.*

■ TOYOPUC-PC3J (1:n connection)

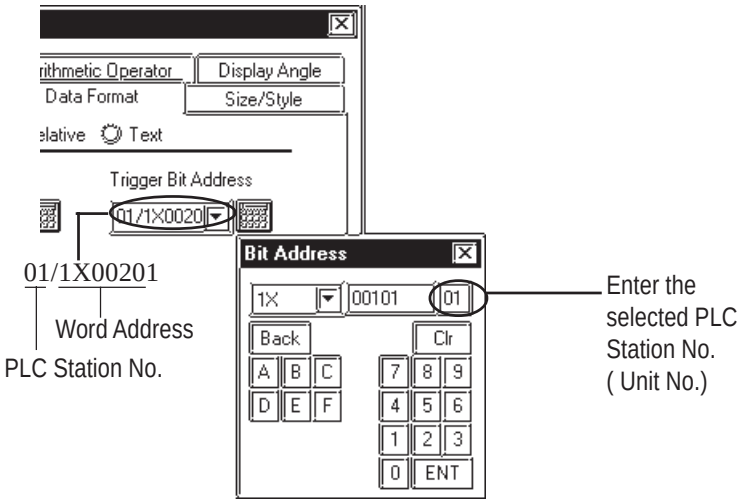
In this list, "Exp." means "Expansion". Setup system area here.

Device	Bit Address	Word Address	Comments	
Input	1X0000 ~ 1X07FF	1X0000 ~ 1X007F	*1	L/H
	2X0000 ~ 2X07FF	2X0000 ~ 2X007F		
	3X0000 ~ 3X07FF	3X0000 ~ 3X007F		
Output	1Y0000 ~ 1Y07FF	1Y0000 ~ 1Y007F	*1	
	2Y0000 ~ 2Y07FF	2Y0000 ~ 2Y007F		
	3Y0000 ~ 3Y07FF	3Y0000 ~ 3Y007F		
Internal Relay	1M0000 ~ 1M07FF	1M0000 ~ 1M007F		
	2M0000 ~ 2M07FF	2M0000 ~ 2M007F		
	3M0000 ~ 3M07FF	3M0000 ~ 3M007F		
Keep Relay	1K0000 ~ 1K02FF	1K0000 ~ 1K002F		
	2K0000 ~ 2K02FF	2K0000 ~ 2K002F		
	3K0000 ~ 3K02FF	3K0000 ~ 3K002F		
Link Relay	1L0000 ~ 1L07FF	1L0000 ~ 1L007F		
	2L0000 ~ 2L07FF	2L0000 ~ 2L007F		
	3L0000 ~ 3L07FF	3L0000 ~ 3L007F		
Special Relay	1V0000 ~ 1V00FF	1V0000 ~ 1V000F		
	2V0000 ~ 2V00FF	2V0000 ~ 2V000F		
	3V0000 ~ 3V00FF	3V0000 ~ 3V000F		
Edge Detection	1P0000 ~ 1P01FF	----		
	2P0000 ~ 2P01FF	----		
	3P0000 ~ 3P01FF	----		
Timer	1T0000 ~ 1T01FF	1T0000 ~ 1T001F		
	2T0000 ~ 2T01FF	2T0000 ~ 2T001F	*1	
	3T0000 ~ 3T01FF	3T0000 ~ 3T001F		
Counter	1C0000 ~ 1C01FF	1C0000 ~ 1C001F		
	2C0000 ~ 2C01FF	2C0000 ~ 2C001F	*1	
	3C0000 ~ 3C01FF	3C0000 ~ 3C001F		
Data Register	1D00000 ~ 1D0FFFF	1D0000 ~ 1D0FFF		
	2D00000 ~ 2D0FFFF	2D0000 ~ 2D0FFF		
	3D00000 ~ 3D0FFFF	3D0000 ~ 3D0FFF		
Link Register	1R00000 ~ 1R07FFF	1R0000 ~ 1R07FF		
	2R00000 ~ 2R07FFF	2R0000 ~ 2R07FF		
	3R00000 ~ 3R07FFF	3R0000 ~ 3R07FF		
Special Register	1S00000 ~ 1S03FFF	1S0000 ~ 1S03FF		
	2S00000 ~ 2S03FFF	2S0000 ~ 2S03FF		
	3S00000 ~ 3S03FFF	3S0000 ~ 3S03FF		
Current Value Register	1N00000 ~ 1N01FFF	1N0000 ~ 1N01FF		
	2N00000 ~ 2N01FFF	2N0000 ~ 2N01FF		
	3N00000 ~ 3N01FFF	3N0000 ~ 3N01FF		
File Register	B00000 ~ B0FFFF	B0000 ~ B0FFF		
Exp. Input	EX0000 ~ EX07FF	EX0000 ~ EX007F	*1	
Exp. Output	EY0000 ~ EY07FF	EY0000 ~ EY007F	*1	
Exp. Internal Relay	EM0000 ~ EM0FFF	EM0000 ~ EM01FF		
Exp. Keep Relay	EK0000 ~ EK0FFF	EK0000 ~ EK00FF		
Exp. Link Relay	EL0000 ~ EL0FFF	EL0000 ~ EL01FF		
Exp. Special Relay	EV0000 ~ EV0FFF	EV0000 ~ EV00FF		
Exp. Edge Relay	EP0000 ~ EP0FFF	----		
Exp. Timer	ET0000 ~ ET07FF	ET0000 ~ ET007F	*1	
Exp. Counter	EC0000 ~ EC07FF	EC0000 ~ EC007F	*1	
Exp.Special Register	ES00000 ~ ES07FFF	ES0000 ~ ES07FF		
Exp.Current Value Register	EN00000 ~ EN07FFF	EN0000 ~ EN07FF		
Exp. Setting Value Register	H00000 ~ H07FFF	H0000 ~ H07FF		
Exp. Data Register	U00000 ~ U0FFFF	U0000 ~ U0FFF		
Exp. 2 Input	GX0000 ~ GXFFFF	GX0000 ~ GX0FFF	*1,*2	
Exp. 2 Output	GY0000 ~ GYFFFF	GY0000 ~ GY0FFF	*1,*2	
Exp. 2 Internal Relay	GM0000 ~ GMFFFF	GM0000 ~ GM0FFF	*2	

**1 For X and Y(EX,EY,GX,GY),T and C(ET,EC),dupulicate addresses cannot be used. For details,refer to the manual of Toyoda Machine Works.*

**2 Supported by Link I/F on the CPU of PC3JG.*

- **The range of devices supported may differ for 1:1 communication and for 1:n communication. A maximum of 16 PLCs can be connected.**
- **The range of addresses differs depending on a type of CPU.**
- **Exp. 2 Input(GX),Exp. 2 Output(GY),Exp. 2 Internal Relay(GM) device can be used for PC3JG only.**
- **When setting tags in GP-PRO/PBIII for Windows, the PLC Station number can be specified during address Input. If a station number is not indicated, the previously entered station number is used. (The default value is 0)**



5 Environment Setup

The following lists Digital's recommended PLC and GP communication settings.

■ TOYOPUC-PC3J Series (1:1 connection) <Link I/F on CPU unit>

GP Setup		PLC Setup	
Baud Rate *1	19200 bps	Baud Rate	19200 bps
Data Length	8 bits	Data Length	8 bits
Stop Bit	1 bit	Stop Bit	1 bit
Parity Bit	Even	Parity Bit	Even
Data Flow Control	ER	----	----
Communication Format *2	4-wire or 2-wire type	RS-422 communication port	4-wire or 2-wire type
Unit No.	0	Station No.	0

*1 *The CPU's Link I/F unit maximum baud rate is 57600bps. It does not support 115200bps.*

*2 *Change the communication format depending on the cables you use.*

■ TOYOPUC-PC3J Series (1:n connection) <Link I/F on CPU unit>

GP Setup		PLC Setup	
Baud Rate *1	19200 bps	Baud Rate	19200 bps
Data Length	8 bits	Data Length	8 bits
Stop Bit	1 bit	Stop Bit	1 bit
Parity Bit	Even	Parity Bit	Even
Data Flow Control	ER	----	----
Communication Format *2	4-wire or 2-wire type	RS-422 communication port	4-wire or 2-wire type
Unit No.	Select any unit number between 0 to 15. *3	Station No.	All link station numbers must be different

*1 *The CPU's Link I/F unit maximum baud rate is 57600bps. It does not support 115200bps.*

*2 *Change the communication format depending on the cable you use.*

*3 *A maximum of 16 PLCs can be connected. The PLC's station number must be in base8, however, GP's unit number must be in decimal.*

■ TOYOPUC-PC3J Series (1:1 connection) <PC/CMP-Link>

GP Setup		PLC Setup	
Baud Rate *1	19200 bps	Baud Rate	19200 bps
Data Length	8 bits	Data Length	8 bits
Stop Bit	1 bit	Stop Bit	1 bit
Parity Bit	Even	Parity Bit	Even
Data Flow Control	ER	----	----
Communication Format	2-wire type	RS-422 communication port *2	2-wire type
Unit No.	0	Station No.	0
----	----	Internal Switch	SW4-1 OFF
			SW4-2 ON

*1 *The PC/CMP-Link (THU-2755) unit's maximum baud rate is 57600bps. It does not support 115200bps.*

*2 *With the PC/CMP-Link (THU-2755), only a 2-wire type can be used. When using PC3J commands, the link unit must be version 5.00 or higher.*

■ TOYOPUC-PC3J Series (1:n connection) <PC/CMP-Link>

GP Setup		PLC Setup	
Baud Rate *1	19200 bps	Baud Rate	19200 bps
Data Length	8 bits	Data Length	8 bits
Stop Bit	1 bit	Stop Bit	1 bit
Parity Bit	Even	Parity Bit	Even
Data Flow Control	ER	----	----
Communication Format	2-wire type	RS-422 communication port *2	2-wire type
Unit No. *3	Select any unit number between 0 to 15.	Station No.	All PC/CMP link station numbers must be different
----	----	Internal Switch	SW4-1 OFF
			SW4-2 ON

*1 *The PC/CMP-Link (THU-2755) unit's maximum baud rate is 57600bps. It does not support 115200bps.*

*2 *With the PC/CMP-Link (THU-2755), only a 2-wire type can be used. When using PC3J commands, the link unit must be version 5.00 or higher.*

*3 *A maximum of 16 PLCs can be connected. The PLC's station number must be in octal, however, GP's unit number must be in decimal.*

6 Maximum No. of Consecutive Addresses

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.)

<TOYOPUC-PC3J Series>

Device	Max. No. of Consecutive Address	Device	Max. No. of Consecutive Address
Input Relay X	128 Words	Exp. Output Relay EY	128 Words
Output Relay Y		Exp. Internal Relay EM	
Internal Relay R		Exp. Keep Relay EK	
Keep Relay K		Exp. Link Relay EL	
Link Relay L		Exp. Special Relay EV	
Special Relay V		Exp. Edge Relay EP	
Edge Detect P		Exp. Timer ET	
Timer (contact) T		Exp. Counter EC	
Counter (contact) C		Exp. Special Register ES	
Data Register D		Exp. Current Value Register EN	
Link Register R		Exp. Setting Value Register H	
Special Register S		Exp. Data Register U	
Current Value Register N		Exp. 2 Input Relay GX	
File Register B		Exp. 2 Output Relay GY	
Exp. Input Relay EX		Exp. 2 Internal Relay GM	

7 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)

<TOYOPUC-PC3J Series>

	Device	Word Address	Device code (HEX)	Address code
Bit Device	Input Relay	1X0000~	8000	Word Address
		2X0000~	8200	Word Address
		3X0000~	8400	Word Address
	Output Relay	1Y0000~	8800	Word Address
		2Y0000~	8A00	Word Address
		3Y0000~	8C00	Word Address
	Internal Relay	1M0000~	9000	Word Address
		2M0000~	9200	Word Address
		3M0000~	9400	Word Address
	Keep Relay	1K0000~	C000	Word Address
		2K0000~	C200	Word Address
		3K0000~	C400	Word Address
	Link Relay	1L0000~	C800	Word Address
		2L0000~	CA00	Word Address
		3L0000~	CC00	Word Address
	Special Relay	1V0000~	B000	Word Address
		2V0000~	B200	Word Address
		3V0000~	B400	Word Address
	Timer	1T0000~	E000	Word Address
		2T0000~	E200	Word Address
		3T0000~	E400	Word Address
	Counter	1C0000~	F000	Word Address
		2C0000~	F200	Word Address
		3C0000~	F400	Word Address
	Exp. Input	EX0000~	8600	Word Address
	Exp. Output	EY0000~	8E00	Word Address
	Exp.Internal Relay	EM0000~	9600	Word Address
	Exp. Keep Relay	EK0000~	C600	Word Address
	Exp.n Link Relay	EL0000~	CE00	Word Address
	Exp. Special Relay	EV0000~	B600	Word Address
	Exp. Timer	ET0000~	E600	Word Address
	Exp. Counter	EC0000~	F600	Word Address
Word Device	Data Register	1D0000~	0000	Word Address
		2D0000~	0200	Word Address
		3D0000~	0400	Word Address
	Link Register	1R0000~	4800	Word Address
		2R0000~	4A00	Word Address
		3R0000~	4C00	Word Address
	Special Register	1S0000~	5000	Word Address
		2S0000~	5200	Word Address
		3S0000~	5400	Word Address
	Register (current value)	1N0000~	6000	Word Address
		2N0000~	6200	Word Address
		3N0000~	6400	Word Address
	File Register	B0000~	7800	Word Address
	Exp. Special Register	ES0000~	5600	Word Address
	Exp. Current Value Register	EN0000~	6600	Word Address
	Exp. Setting Value Register	H0000~	7600	Word Address
	Exp. Data Register	U0000~	6000	Word Address
	Exp. 2 Input	GX0000~	A600	Word Address
	Exp. 2 Output	GY0000~	AE00	Word Address
	Exp. 2 Internal Relay	GM0000~	BE00	Word Address
	LS area	LS0000~	4000	Word Address

8 Address Conversion Table

The symbols used in the table have the following meanings:

❍: When the address conversion device type is set to [Word], the system converts both word and bit devices. When the [Bit] setting is used, only bit device addresses are changed.

■ : When [Bit] mode is selected, the system converts only bit addresses.

For the timers and counters, the bit indicates the contact or coil used, and the word indicates the current value (elapsed value) or setting value

		After Conversion																												
		X	Y	M	K	L	V	P	T	C	D	R	S	N	B	EX	EY	EM	EK	EL	EV	EP	ET	EC	ES	EN	H	U	GX	GY	GM	LS
Before Conversion	X Input	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	Y Output	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	M Internal Relay	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	K Keep Relay	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	L Link Relay	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	V Special Relay	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	P Edge Detection	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	T Timer	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	C Counter	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	D Data Register	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	R Link Register	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	S Special Register	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	N Current Value Register	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	B File Register	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	EX Extended Input	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	EY Extended Output	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	EM Extended Embedded Relay	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	EK Extended Keep Relay	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	EL Extended Link Relay	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	EV Extended Special Relay	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	EP Extended Edge Relay	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	ET Extended Timer	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	EC Extended Counter	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	ES Extended Special Register	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	EN Extended Current Value Register	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	H(Extended Setting Value Register)	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	U(Extended Data Register)	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	GX Exp.2 Input	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	GY Exp.2 Output	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	GM Exp.2 Internal Relay	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍
	LS System Area	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍	■	❍	❍	❍	❍	❍	❍	❍	❍	❍	❍