

User Manual for Communication

HMI

**GP/LP Series
(Panasonic NAiS)**

Thank you for purchasing an Autonics product.
This user manual contains information about the product and its proper use,
and should be kept in a place where it will be easy to access.

Preface

Thank you for purchasing Autonics product.





Please familiarize yourself with the information contained in the Safety Considerations section before using this product.

This user manual contains information about the product and its proper use, and should be kept in a place where it will be easy to access.

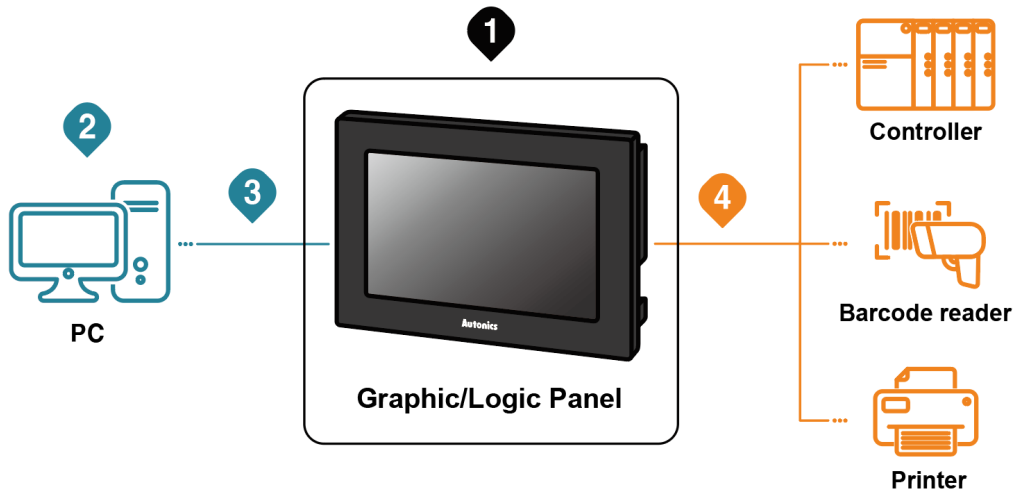
User Manual Guide

- Please familiarize yourself with the information in this manual before using the product.
- This manual provides detailed information on the product's features. It does not offer any guarantee concerning matters beyond the scope of this manual.
- This manual may not be edited or reproduced in either part or whole without permission.
- A user manual is not provided as part of the product package. Please visit our website (www.autonics.com) to download a copy.
- The manual's content may vary depending on changes to the product's software and other unforeseen developments within Autonics, and is subject to change without prior notice. Upgrade notice is provided through our website.
- We contrived to describe this manual more easily and correctly. However, if there are any corrections or questions, please notify us these on our website.
- Inner device of this user manual for communication is based on GP.
If you use LP, refer to "LP user manual" for inner device of LP.

User Manual Symbols

Symbol	Description
 Note	Supplementary information for a particular feature.
 Warning	Failure to follow instructions can result in serious injury or death.
 Caution	Failure to follow instructions can lead to a minor injury or product damage.
 Ex.	An example of the concerned feature's use.
※1	Annotation mark.

Reference Manual for Each Configuration



1 Graphic/Logic panel device specification, installation, maintenance, management, firmware update and system configuration

Hardware Manual	A Series	GP-A Series User Manual, LP-A Series User Manual
	S Series	GP-S070 User Manual, GP-S044/057 User Manual, LP-S070 User Manual, LP-S044 User Manual

2 Project drawing, programming

Software Manual	Drawing	atDesigner User Manual, GP Editor User Manual
	Programming	atLogic User Manual, atLogic Programming Manual

3 Project Upload/Download

Hardware Manual	A Series	GP-A Series User Manual, LP-A Series User Manual
	S Series	GP-S070 User Manual, GP-S044/057 User Manual, LP-S070 User Manual, LP-S044 User Manual

4 Connected device setting, communication setting

Software Manual	Drawing	atDesigner User Manual, GP Editor User Manual
	Programming	atLogic User Manual, atLogic Programming Manual
Hardware Manual	A Series	GP-A Series User Manual, LP-A Series User Manual
	S Series	GP-S070 User Manual, GP-S044/057 User Manual, LP-S070 User Manual, LP-S044 User Manual

4 Check connectable device, connection cable model name and protocol

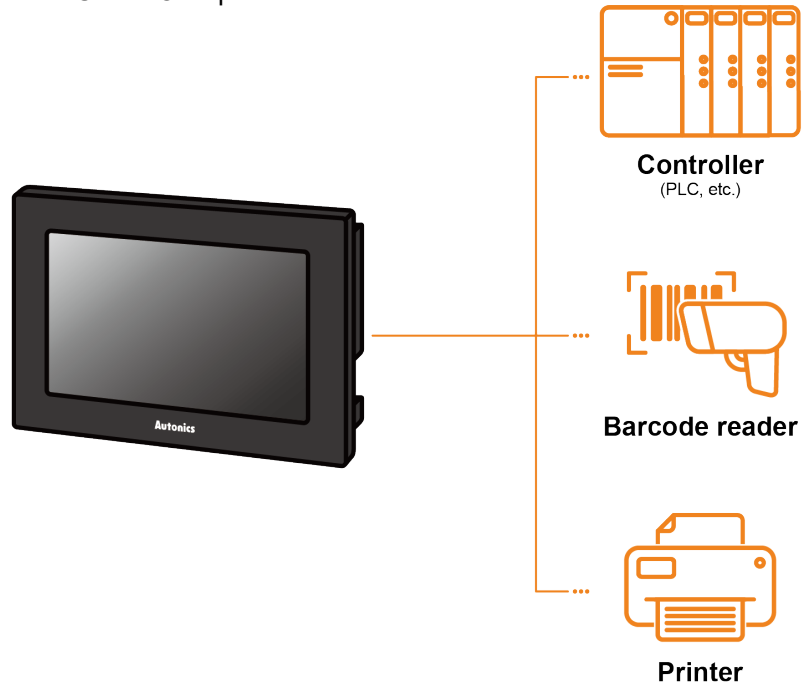
Communication Manual	GP/LP Communication Manual
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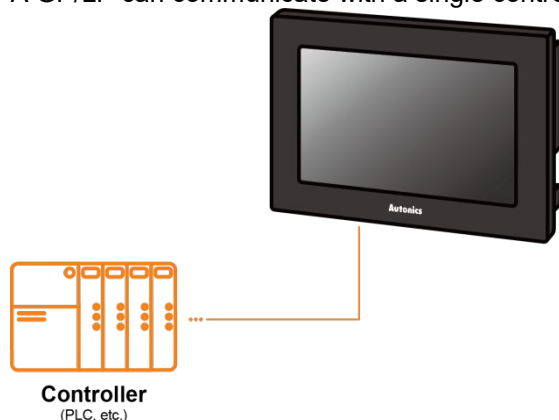
1 System Organization

GP/LP can be connected with various controller, barcode reader and printer via RS232C, RS422, Ethernet, CAN and USB HOST port.



1.1 1:1 Communication

A GP/LP can communicate with a single controller A.



(1) Communication configuration by GP/LP model

The communication configuration by GP/LP model is listed below.

For detailed information about the communication configuration, please refer to 'GP/LP User Manual'.

- GP/LP-S Series

Series	Chanel	Connecting port	Description
GP/LP-S044, GP-S057	CH1	RS232C/RS422	Direct communication available
	CH2	RS422/RS485	Link device ^{※1} communication available
GP/LP-S070	CH1	RS232C/RS422	Direct communication available Link device ^{※1} communication available
	CH2	RS422/RS485	Direct communication available Link device ^{※1} communication available

- GP/LP-A Series

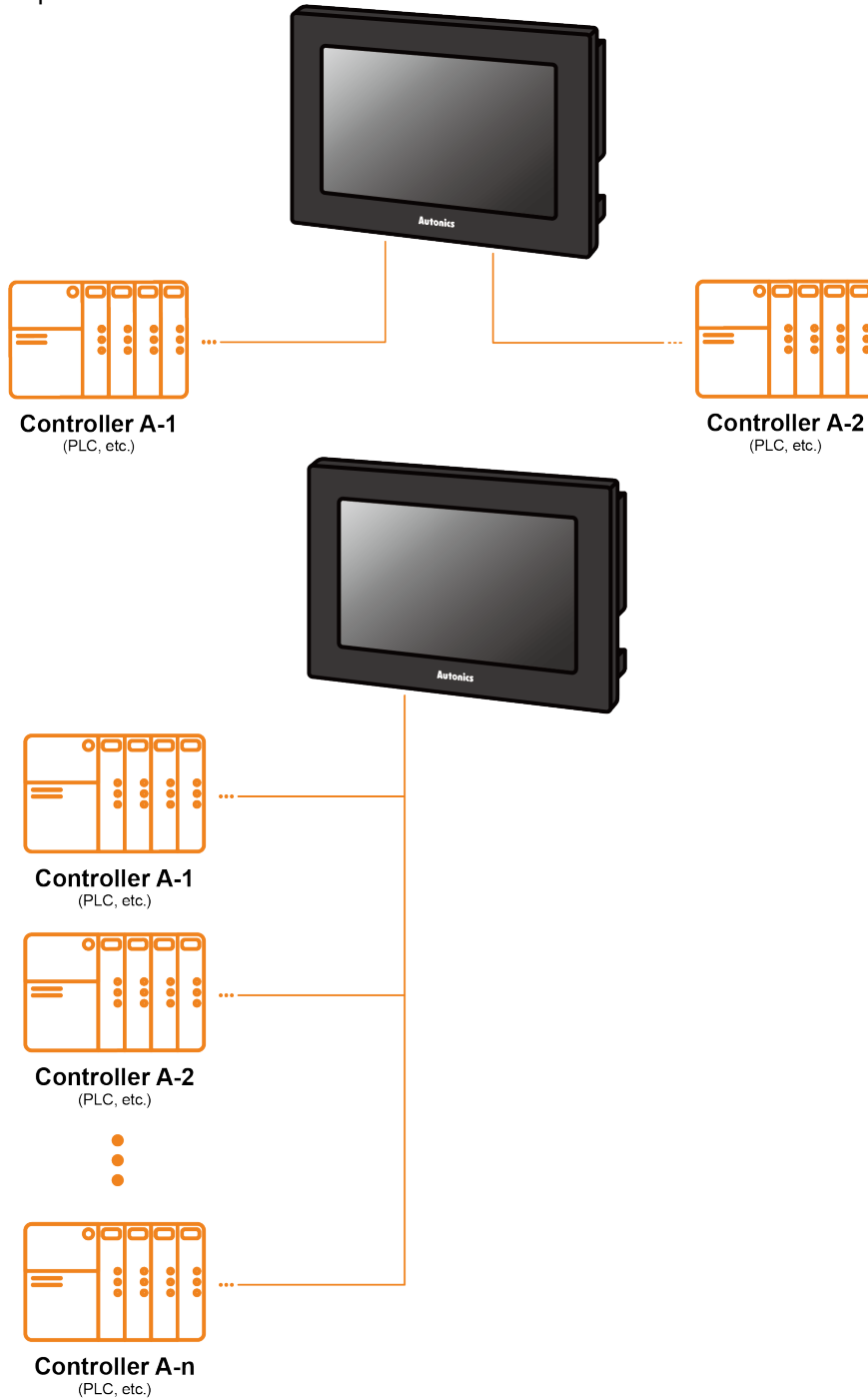
Series	Connecting port	Description
GP/LP-A070	RS422 or RS232C-A port, RS232C or RS232C-B port, Ethernet port	Direct communication available Link device ^{※1} communication available
GP/LP-A104	RS422 or RS232C-A port, RS232C or RS232C-B port, Ethernet port, CAN ^{※2} port	Direct communication available Link device ^{※1} communication available

※1: Please refer to 'GP Editor User Manual' for Link device instruction.

※2: Only Autonics' ARD Series can be connected to CAN port.

1.2 1:N Communication of Same Controllers

1:N communication stands for one LP communicating with multiple of controllers. The GP/LP observes the connected controllers or relays data between controllers. A GP/LP can communicate with the multiple of controller As. The controller has to be able to set address of each device, and the address should not be duplicated.



(1) Communication configuration by GP/LP model

The communication configuration by GP/LP model is listed below. For detailed information about the communication configuration, please refer to 'GP/LP User Manual'.

- GP/LP-S Series

Series	Chanel	Connecting port	Description
GP/LP-S044, GP-S057	CH1	-	Multiple connection unavailable
	CH2	RS422	Link device ^{※1} communication available
GP/LP-S070	CH1 or CH2	RS422	Direct communication available Link device ^{※1} communication available

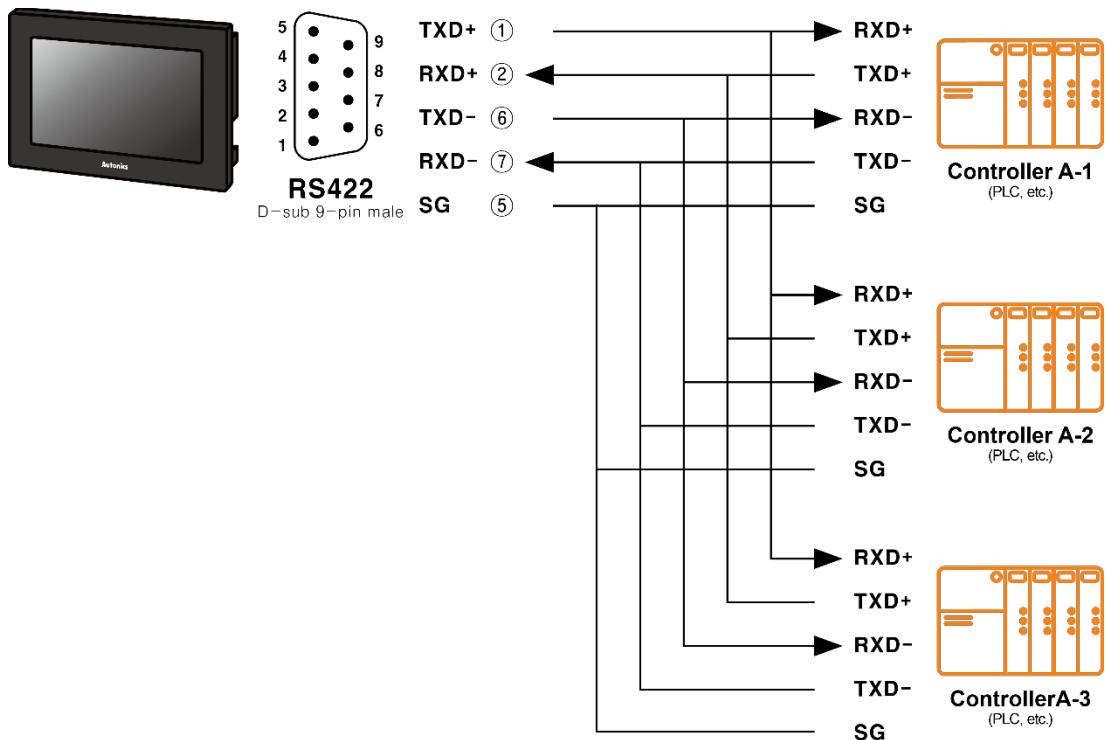
- GP/LP-A Series

Series	Connecting port	Description
GP/LP-A070	RS422 or RS232C-A port, RS232C or RS232C-B port, Ethernet port	Direct communication available Link device ^{※1} communication available
GP/LP-A104	RS422 or RS232C-A port, RS232C or RS232C-B port, Ethernet port, CAN ^{※2} port	Direct communication available Link device ^{※1} communication available

※1: Please refer to 'GP Editor User Manual' for Link device instruction.

※2: Only Autonics' ARD Series can be connected to CAN port.

(2) RS422 communication connection diagram

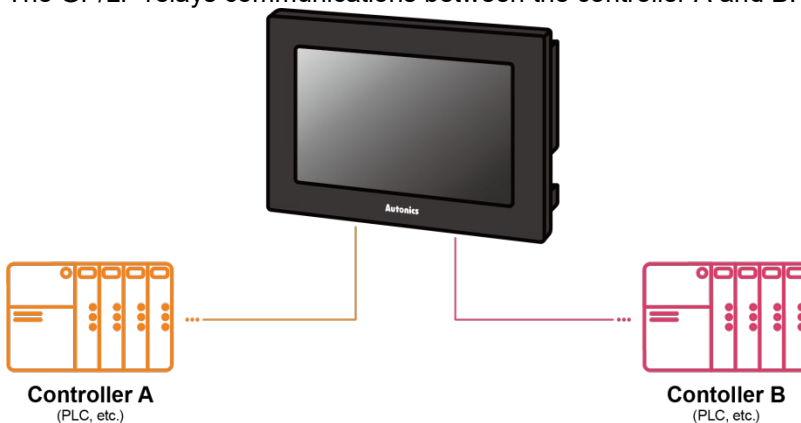


1.3 1:N Communication of Different Controllers

1:N communication stands for one GP/LP communicating with multiple of controllers. The GP/LP observes the connected controllers or relays data between controllers. The GP/LP can communicate with the multiple of different controllers.

1.3.1 1:1:1 Communication

A GP/LP can communicate with a single controller A and a single controller B. The GP/LP relays communications between the controller A and B.



(1) Communication configuration by GP/LP model

The communication configuration by GP/LP model is listed below.

For detailed information about the communication configuration, please refer to 'GP/LP User Manual'.

- GP/LP-S Series

Series	Chanel	Connecting port	Description
GP/LP-S044, GP-S057	CH1	RS232C/RS422	Direct communication available
	CH2	RS422/RS485	Link device*1 communication available
GP/LP-S070	CH1 or CH2	RS422/RS485	Direct communication available Link device*1 communication available

- GP/LP-A Series

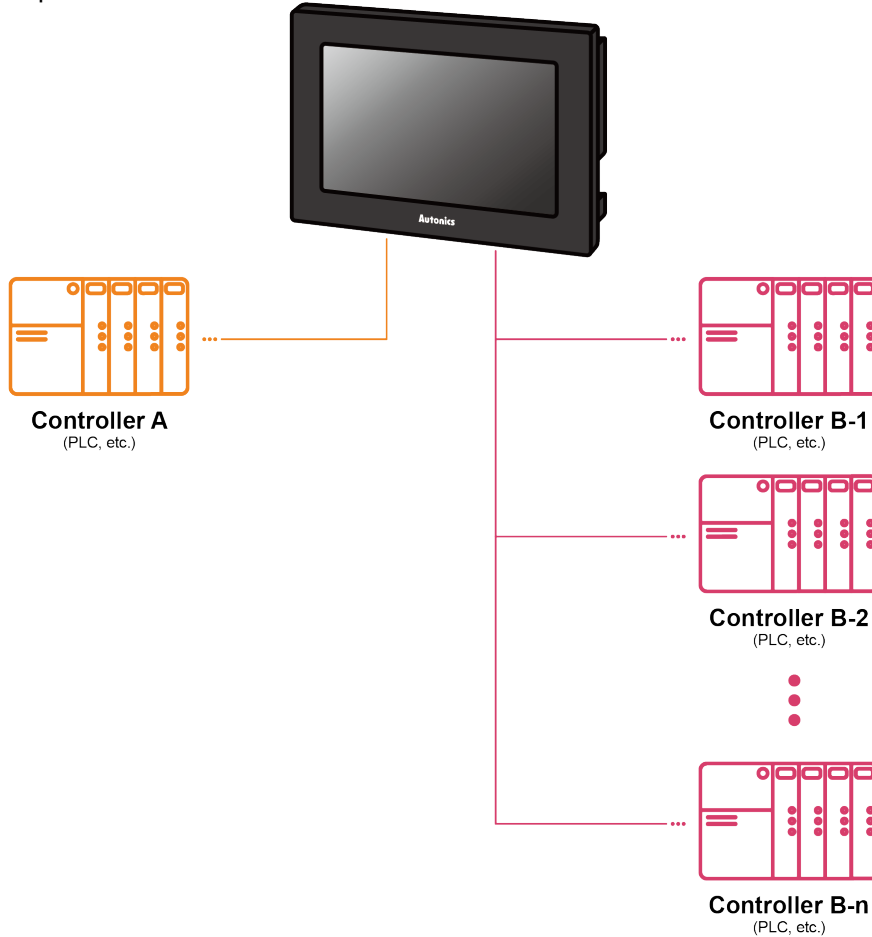
Series	Connecting port	Description
GP/LP-A070	RS422 or RS232C-A port, RS232C or RS232C-B port, Ethernet port	Direct communication available Link device*1 communication available
GP/LP-A104	RS422 or RS232C-A port, RS232C or RS232C-B port, Ethernet port, CAN*2 port	Direct communication available Link device*1 communication available

※1: Please refer to 'GP Editor User Manual' for Link device instruction.

※2: Only Autonics' ARD Series can be connected to CAN*2 port.

1.3.2 1:1:N Communication

A GP/LP can communicate with a single controller A and the multiple of controller Bs..
 The GP/LP relays communication between the controller A and B.
 The controller has to be able to set address of each device, and the address should not be duplicated.



(1) Communication configuration by GP/LP model

The communication configuration by GP/LP model is listed below.
 For detailed information about the communication configuration, please refer to 'GP/LP User Manual'.

- GP/LP-S Series

Series	Chanel	Connecting port	Description
GP/LP-S044, GP-S057	CH1	RS232C	Single direct communication available
	CH2	RS422/RS485	Link device ^{※1} multiple communication available
GP/LP-S070	CH1 or CH2	RS232C	Single direct communication available Link device ^{※1} single communication available
		RS422/RS485	Multiple direct communication available Link device ^{※1} multiple communication available

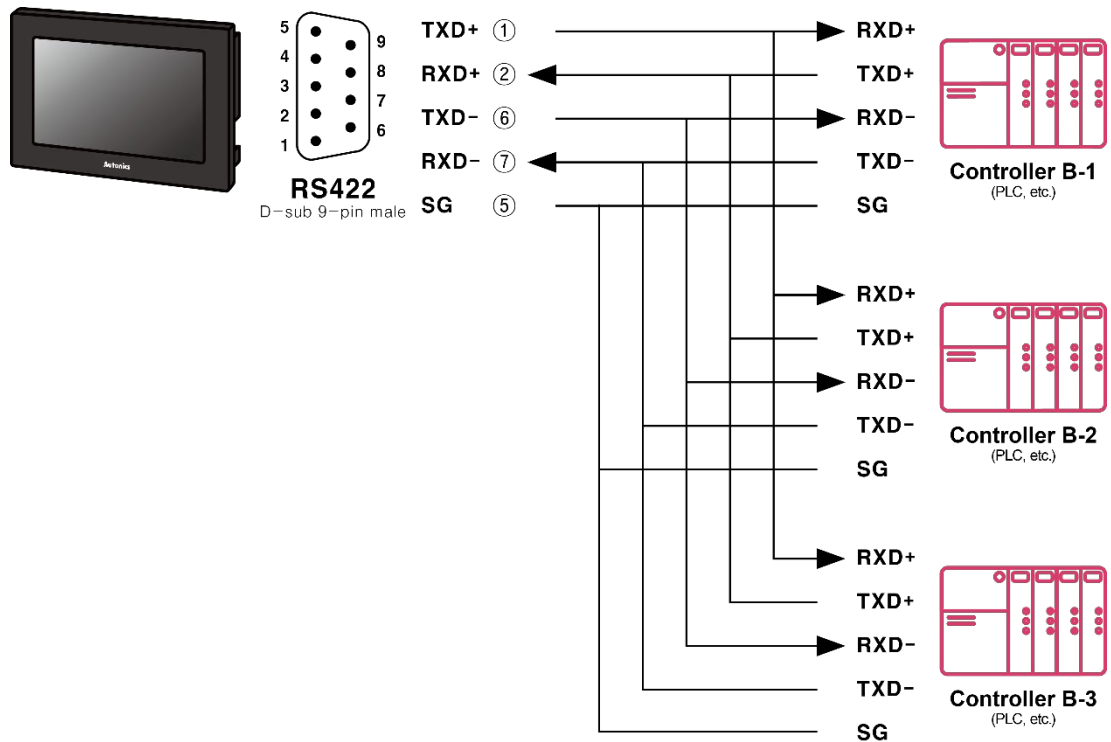
- GP/LP-A Series

Series	Connecting port	Description
GP/LP-A070	RS422 or RS232C-A port, RS232C or RS232C-B port, Ethernet port	Direct communication available Link device*1 communication available
GP/LP-A104	RS422 or RS232C-A port, RS232C or RS232C-B port, Ethernet port, CAN*2 port	Direct communication available Link device*1 communication available

※1: Please refer to 'GP Editor User Manual' for Link device instruction.

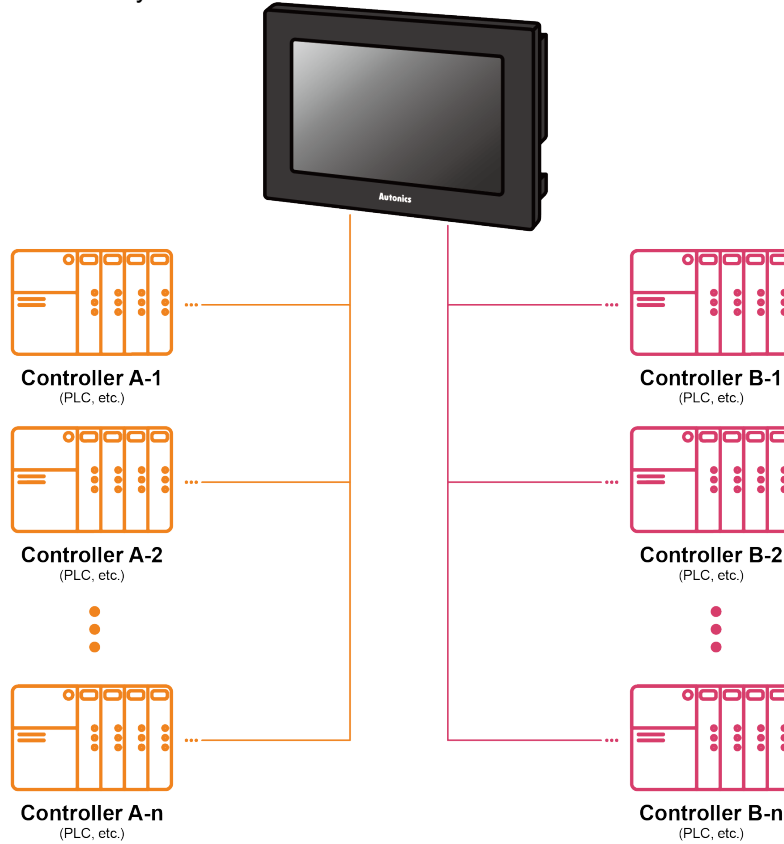
※2: Only Autonics' ARD Series can be connected to CAN port.

(2) RS422 communication connection diagram



1.3.3 N:1:N Communication

A GP/LP can communicate with the multiple of controller As and Bs.
The LP relays communication between the controller A and B.



(1) Communication configuration by GP/LP model

The communication configuration by GP/LP model is listed below.

For detailed information about the communication configuration, please refer to 'GP/LP User Manual'.

- GP/LP-S Series

Series	Chanel	Connecting port	Description
GP/LP-S070	CH1 or CH2	RS232C/RS422	Multiple direct communication available Link device ^{※1} multiple communication available

- GP/LP-A Series

Series	Connecting port	Description
GP/LP-A070	RS422 or RS232C-A port, RS232C or RS232C-B port, Ethernet port	Direct communication available Link device ^{※1} communication available
GP/LP-A104	RS422 or RS232C-A port, RS232C or RS232C-B port, Ethernet port, CAN ^{※2} port	Direct communication available Link device ^{※1} communication available

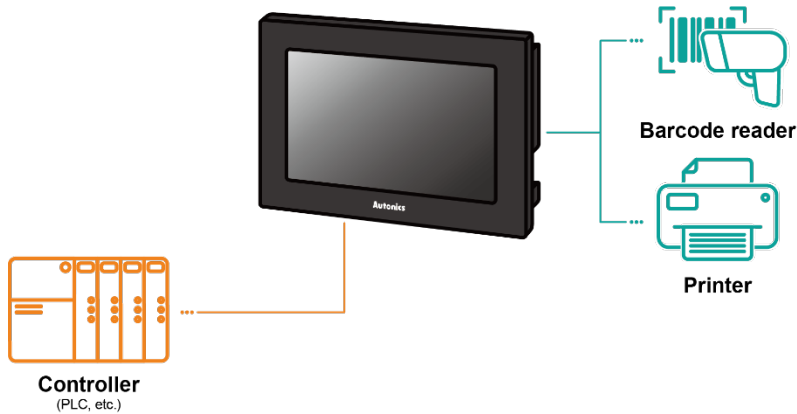
※1: Please refer to 'GP Editor User Manual' for Link device instruction.

※2: Only Autonics' ARD Series can be connected to CAN port.

1.4 Barcode Reader, Printer Communication

A GP/LP can communicate with the barcode reader and printer.
 Connect the barcode reader to utilize the barcode data.
 Connect the printer to print the alarm log or the screen.

- GP/LP-S Series: printing alarm log
- GP/LP-A Series: print alarm log and screen



1.4.1 Communication Configuration

1.4.1.1 Barcode Reader

(1) Connected communication port

- GP/LP-S Series

Series	Connected device	Communication port		
		RS232C*	RS422*	USB Host
GP/LP-S044, GP-S057	Controller	○	○	-
	Barcode reader	○	○	-
GP/LP-S070	Controller	○	○	-
	Barcode reader	○	○	-

- GP/LP-A Series

Series	Connected device	Communication port		
		RS232C*	RS422*	USB Host
GP/LP-A070 GP/LP-A104	Controller	○	○	-
	Barcode reader	○	○	○

※RS232C/422 converter allows to opposite communication.

(2) Configuration method

1st Set the items related to the use of bar codes in the project in the drawing program, GP Editor/atDesigner.

Series	Description	Drawing program menu
GP/LP-S	Device setting for data storage	Common > Barcode
	System device setting for action control	Common > System Information > System Signal 1
GP/LP-A	Device setting for connection port/data storage	Project > Project Property > Special Device Setting

※For detailed information about system device setting, please refer to 'GP Editor/atDesigner User Manual'.

2nd Download the set project in the drawing program , GP Editor/atDesigner, to GP/LP device.

3rd Make communication settings for each port in the GP/LP system menu.

※For detailed information about communication setting, please refer to 'GP/LP User Manual'.

(3) Communication specification

Item	Specification
Baud rate	300, 600, 1200, 3200, 4800, 9600, 19200, 38400, 57600, 115200bps
Data length	7, 8 bit
Parity	None, Odd, Even
Stop bit	1, 2 bit
Flow control	DSR/DTR, XON/XOFF

1.4.1.2 Printer**(1) Connected communication port**

- GP/LP-S Series

Series	Connected device	Communication port		
		RS232C※	RS422※	USB Host
GP/LP-S044, GP-S057	Controller	○	○	-
	Printer	○	○	-
GP/LP-S070	Controller	○	○	-
	Printer	○	○	-

- GP/LP-A Series

Series	Connected device	Communication port		
		RS232C※	RS422※	USB Host
GP/LP-A070, GP/LP-A104	Controller	○	○	-
	Printer	-	-	○

(2) Configuration method

1st Set screen printing/alarm log printing device and touch key/switch in drawing program, GP Editor/atDesigner.

Series	Description	Drawing program menu
GP/LP-S	System device setting for action control	Common > System Information > System Signal
GP/LP-A	Device setting for screen print control	Project window > Right-click menu of the screen to print > Screen Printer Setting
	Device setting for alarm log print	Project window > Alarm History > Use Print

2nd Download the set project in the drawing program , GP Editor/atDesigner, to GP/LP device.

3rd Make communication settings for each port in the GP/LP system menu.

※ For detailed information about communication setting, please refer to 'GP/LP User Manual'.

(3) Communication specification

Item	Specification
Baud rate	300, 600, 1200, 3200, 4800, 9600, 19200, 38400, 57600 bps
Data length	7, 8 bit
Parity	None, Odd, Even
Stop bit	1, 2 bit
Flow control	DSR/DTR, XON/XOFF

2 Communication Configuration by Devices

2.1 Panasonic NAiS FP Series PLC Connection

GP/LP is able to communicate with Panasonic Nais FP Series.

2.1.1 Connection Support PLC Model

PLC type		Communication method	Communication type	Baud rate (bps)	
Nais FP	FP0	FP0-C10	RS232C	CPU direct Loader	9600
		FP0-C14			
		FP0-C16			
		FP0-C32			
		FP0-T32C			
	FP Sigma	FPG-C24R2			19200
		FPG-C32T			
		FPG-C32T2			
	FP0R	FP0R-C10			9600
		FP0R-C14			
		FP0R-C16			
		FP0R-C32			
		FP0R-T32			
		FP0R-F32			

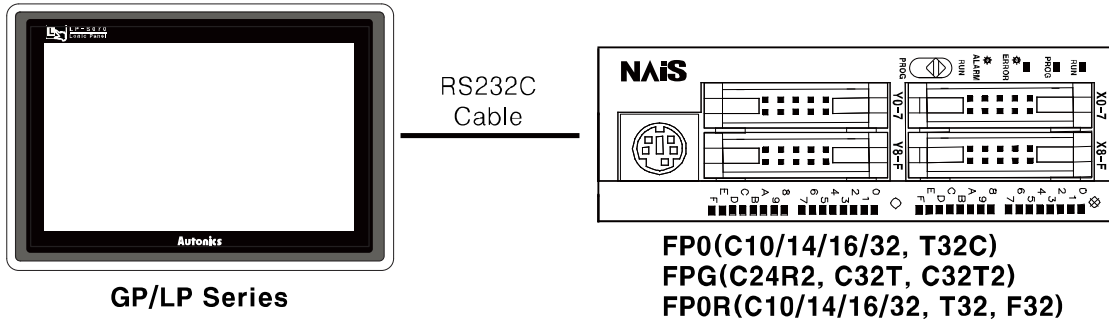
※Select 'FP0-C16(CPU)' in GP Editor, you can use FP0-C10/C14/C16.

2.1.2 Connectable GP/LP Model

Connected devices	Connection method	GP/LP Model								
		GP-2480 (under V2.70)	GP-2480 (over V3.00)	GP-S057	GP/LP-S044	GP/LP-S070	GP-S057 (V2)	GP/LP-S044 (V2)	GP/LP-S070 (V2)	GP/LP-A Series
FP0-C10	CPU direct Loader	○	○	○	○	○	○	○	○	○
FP0-C14	CPU direct Loader	○	○	○	○	○	○	○	○	○
FP0-C16	CPU direct Loader	○	○	○	○	○	○	○	○	○
FP0-C32	CPU direct Loader	○	○	○	○	○	○	○	○	○
FPG-C24R2	CPU direct Loader	○	○	○	○	○	○	○	○	○
FPG-C32T	CPU direct Loader	○	○	○	○	○	○	○	○	○
FPG-C32T2	CPU direct Loader	○	○	○	○	○	○	○	○	○
FP0R-C10	CPU direct Loader	×	○	○	○	○	○	○	○	○
FP0R-C14	CPU direct Loader	×	○	○	○	○	○	○	○	○
FP0R-C16	CPU direct Loader	×	○	○	○	○	○	○	○	○
FP0R-C32	CPU direct Loader	×	○	○	○	○	○	○	○	○

Connected devices	Connection method	GP/LP Model								
		GP-2480 (under V2.70)	GP-2480 (over V3.00)	GP-S057	GP/LP-S044	GP/LP-S070	GP-S057 (V2)	GP/LP-S044 (V2)	GP/LP-S070 (V2)	GP/LP-A Series
FP0R-T32	CPU direct Loader	x	○	○	○	○	○	○	○	○
FP0R-F32	CPU direct Loader	x	○	○	○	○	○	○	○	○

2.1.3 System Organization

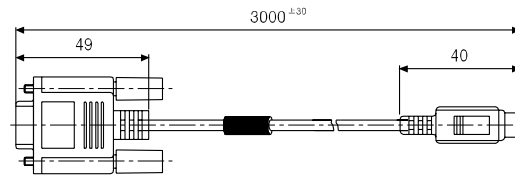
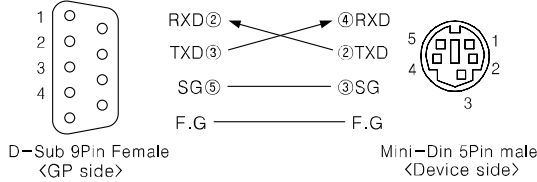


FP Series executes RS232C communication. By Tool Port, it is connected with GP/LP. It executes also RS-422 communication with RS-232/422 converter.

2.1.4 Communication Cable

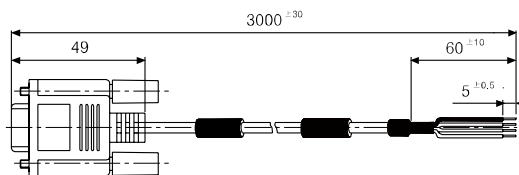
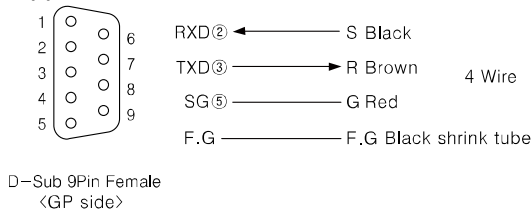
(1) Using Tool Port

- Applied cable: C3M5P10-D9F0-M5M0



(2) Using COM Port

- Applied cable: C3M5P11-D9F0-W4*0



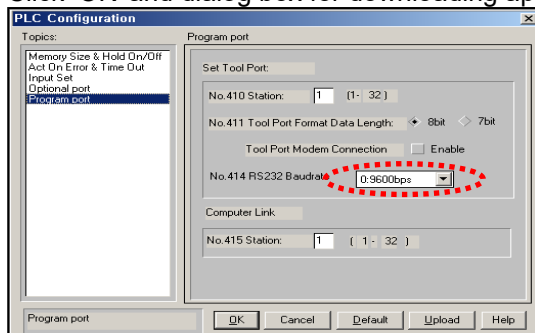
2.1.5 Communication Configuration

2.1.5.1 Tool Port

PLC communication configuration is available to set or edit from the dedicated ladder program (FPSOFT or FPWIN GR).

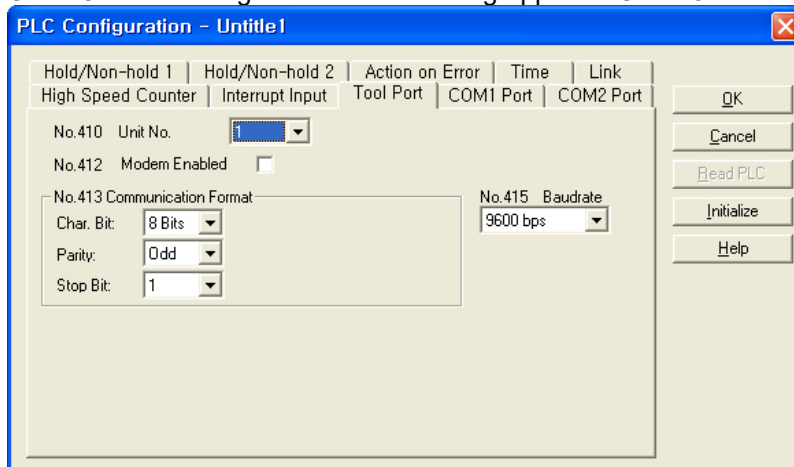
(1) Using FPSOFT

- 1st After connect the ladder program and PLC, maintain communication status.
- 2nd Select [Option]-[PLC Configuration] of menu in the ladder software.
- 3rd 'PLC Configuration' dialog box appears. Select 'Program port' in the left Topics box.
- 4th Select as below at the right 'No.414 RS232 Baudrate' item.
 - In case of PLC is FP0 Series, select '1:9600bps'.
 - In case of PLC is FP Sigma Series, select '1:19200bps'.
- 5th Click 'OK' and dialog box for downloading appears. Click 'OK' and baudrate is changed.



(2) Using FPWIN GR

- 1st After connect the ladder program and PLC, maintain communication status.
- 2nd Select [Option]-[PLC Configuration] of menu in the ladder software.
- 3rd 'PLC Configuration' dialog box appears. Select 'Tool Port' tab.
- 4th Select as below at the 'No.414 Baudrate Setting' item.
 - In case of PLC is FP0 Series, select '9600bps'.
 - In case of PLC is FP Sigma Series, select '19200bps'.
- 5th Click 'OK' and dialog box for downloading appears. Click 'OK' and baudrate is changed.

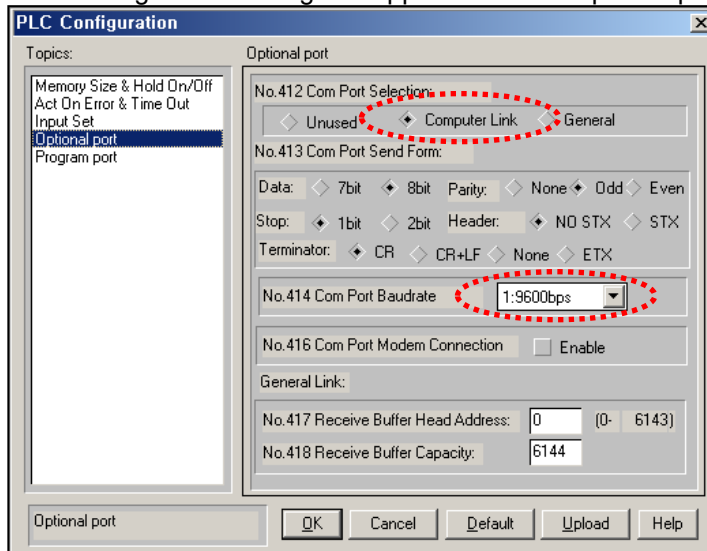


2.1.5.2 COM Port

Communication configuration is available to set or edit from the dedicated ladder program (FPSOFT or FPWIN GR).

(1) Using FPSOFT

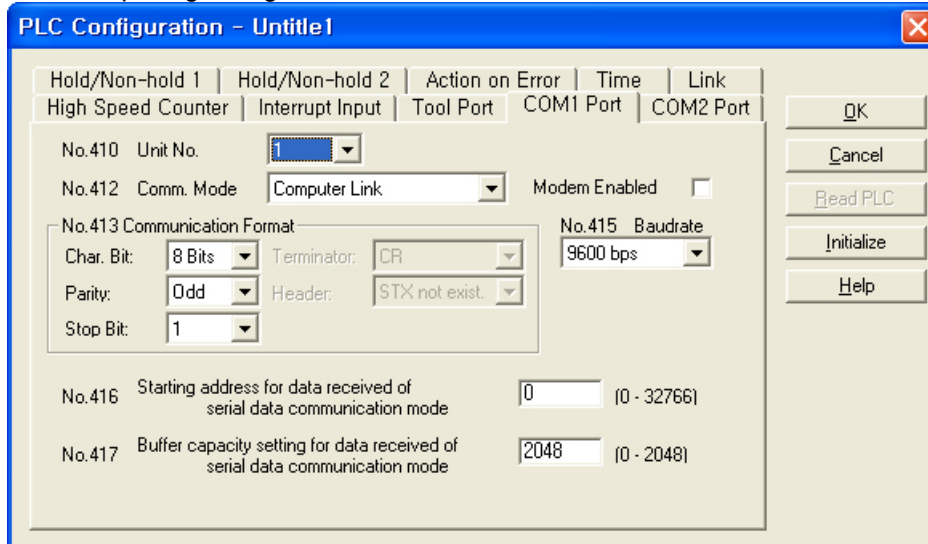
- 1st After connect the ladder program and PLC, maintain communication status.
- 2nd Select [Option]-[PLC Configuration] of menu in the ladder software.
- 3rd 'PLC Configuration' dialog box appears. Select 'Optional port' in the left Topics box.



- 4th Select 'Computer Link' at the 'No.412 Com Port Selection' item.
- 5th Select as below at the 'No.414 Com Port Baudrate' item.
 - In case of PLC is FP0 Series, select '1:9600bps'.
 - In case of PLC is FP Sigma Series, select '0:19200bps'.
- 6th Click 'OK' and dialog box for downloading appears. Click 'OK' and baudrate is changed.
- 7th After completing configuration, PLC model should be RUN status once to use COM Port.

(2) Using FPWIN GR

- 1st After connect the ladder program and PLC, maintain communication status.
- 2nd Select [Option]-[PLC Configuration] of menu in the ladder software.
- 3rd 'PLC Configuration' dialog box appears. Select 'COM1 Port' tab.
- 4th Select 'Computer Link' at the 'No.412 Comm. Mode'.
- 5th Select as below at the 'No.414 Baudrate' item.
 - In case of PLC is FP0 Series, select '9600bps'.
 - In case of PLC is FP Sigma Series, select '19200bps'.
- 6th Click 'OK' and dialog box for downloading appears. Click 'OK' and baudrate is changed.
- 7th After completing configuration, PLC model should be RUN status once to use COM Port.



2.1.6 Available Device

The device range differs depending on the PLC model and the number of I/O contacts.

The available PLC model in GP/LP are as follows.

For detailed information about each device, please refer to the manuals provided by each manufacturer and

For detailed information about GP/LP internal device, please refer to 'atLogic Programming Manual'.

2.1.6.1 Device Structure

X	00	0
---	----	---

① Device name ② Word address ③ Bit address

Type	①	②	③
Bit	X	Decimal	Hexadecimal
	Y	Decimal	Hexadecimal
	R	Decimal	Hexadecimal
	L	Decimal	Hexadecimal
	T	Bit address (Decimal)	
	C	Bit address (Decimal)	
Word	WX	Word address (Decimal)	None
	WY	Word address (Decimal)	None
	WR	Word address (Decimal)	None
	WL	Word address (Decimal)	None
	EV	Word address (Decimal)	
	SV	Word address (Decimal)	
	DT	Word address (Decimal)	

2.1.6.2 Device Range

(1) FP0-C10/14/16

Type	Device	Mark	Range	
			Start	End
Bit	Input relay	X	X0	X12F
	Output relay	Y	Y0	Y12F
	Internal auxiliary relay	R	R0	R62F
	Special relay	R	R9000	R903F
	Timer contact [1ms]	T	T0	T99
	Timer contact [10ms]	T	T0	T99
	Timer contact [100ms]	T	T0	T99
	Timer contact [1000ms]	T	T0	T99
	Counter contact [16 bit]	C	C100	C143
Word	Input relay	WX	WX0	WX12
	Output relay	WY	WY0	WY12
	Internal auxiliary relay	WR	WR0	WR62
	Special relay	WR	WR900	WR903
	Timer current value [1ms]	EV	EV0	EV99
	Timer current value [10ms]	EV	EV0	EV99
	Timer current value [100ms]	EV	EV0	EV99
	Timer current value [1000ms]	EV	EV0	EV99
	Timer setting value [1ms]	SV	SV0	SV99
	Timer setting value [10ms]	SV	SV0	SV99
	Timer setting value [100ms]	SV	SV0	SV99
	Timer setting value [1000ms]	SV	SV0	SV99
	Counter current value [16 bit]	EV	EV100	EV143
	Counter setting value [16 bit]	SV	SV100	SV143
	Data register	DT	DT0	DT1659
Special register	DT	DT9000	DT9111	

(2) FP0-C32

Type	Device	Mark	Range	
			Start	End
Bit	Input relay	X	X0	X12F
	Output relay	Y	Y0	Y12F
	Internal auxiliary relay	R	R0	R62F
	Special relay	R	R9000	R903F
	Timer contact [1ms]	T	T0	T99
	Timer contact [10ms]	T	T0	T99
	Timer contact [100ms]	T	T0	T99
	Timer contact [1000ms]	T	T0	T99
	Counter contact [16 bit]	C	C100	C143
Word	Input relay	WX	WX0	WX12
	Output relay	WY	WY0	WY12
	Internal auxiliary relay	WR	WR0	WR62
	Special relay	WR	WR900	WR903
	Timer current value [1ms]	EV	EV0	EV99
	Timer current value [10ms]	EV	EV0	EV99
	Timer current value [100ms]	EV	EV0	EV99
	Timer current value [1000ms]	EV	EV0	EV99
	Timer setting value [1ms]	SV	SV0	SV99
	Timer setting value [10ms]	SV	SV0	SV99
	Timer setting value [100ms]	SV	SV0	SV99
	Timer setting value [1000ms]	SV	SV0	SV99
	Counter current value [16 bit]	EV	EV100	EV143
	Counter setting value [16 bit]	SV	SV100	SV143
	Data register	DT	DT0	DT6143
Special register	DT	DT9000	DT9111	

(3) FP0-T32C

Type	Device	Mark	Range	
			Start	End
Bit	Input relay	X	X0	X12F
	Output relay	Y	Y0	Y12F
	Internal auxiliary relay	R	R0	R62F
	Special relay	R	R9000	R903F
	Timer contact [1ms]	T	T0	T99
	Timer contact [10ms]	T	T0	T99
	Timer contact [100ms]	T	T0	T99
	Timer contact [1000ms]	T	T0	T99
	Counter contact [16 bit]	C	C100	C143
Word	Input relay	WX	WX0	WX12
	Output relay	WY	WY0	WY12
	Internal auxiliary relay	WR	WR0	WR62
	Special relay	WR	WR900	WR903
	Timer current value [1ms]	EV	EV0	EV99
	Timer current value [10ms]	EV	EV0	EV99
	Timer current value [100ms]	EV	EV0	EV99
	Timer current value [1000ms]	EV	EV0	EV99
	Timer setting value [1ms]	SV	SV0	SV99
	Timer setting value [10ms]	SV	SV0	SV99
	Timer setting value [100ms]	SV	SV0	SV99
	Timer setting value [1000ms]	SV	SV0	SV99
	Counter current value [16 bit]	EV	EV100	EV143
	Counter setting value [16 bit]	SV	SV100	SV143
	Data register	DT	DT0	DT16382
Special register	DT	DT90000	DT90111	

(4) FPG-C24R2

Type	Device	Mark	Range	
			Start	End
Bit	Input relay	X	X0	X73F
	Output relay	Y	Y0	Y73F
	Internal auxiliary relay	R	R0	R97F
	Special relay	R	R9000	R910F
	Link relay	L	L0	L63F
	Timer contact [1ms]	T	T0	T1007
	Timer contact [10ms]	T	T0	T1007
	Timer contact [100ms]	T	T0	T1007
	Timer contact [1000ms]	T	T0	T1007
	Counter contact [16 bit]	C	C1008	C1023
Word	Input relay	WX	WX0	WX73
	Output relay	WY	WY0	WY73
	Internal auxiliary relay	WR	WR0	WR97
	Special relay	WR	WR900	WR910
	Link relay	WL	WL0	WL63
	Timer current value [1ms]	EV	EV0	EV1007
	Timer current value [10ms]	EV	EV0	EV1007
	Timer current value [100ms]	EV	EV0	EV1007
	Timer current value [1000ms]	EV	EV0	EV1007
	Timer setting value [1ms]	SV	SV0	SV1007
	Timer setting value [10ms]	SV	SV0	SV1007
	Timer setting value [100ms]	SV	SV0	SV1007
	Timer setting value [1000ms]	SV	SV0	SV1007
	Counter current value [16 bit]	EV	EV1008	EV1023
	Counter setting value [16 bit]	SV	SV1008	SV1023
	Data register	DT	DT0	DT32764
Special register	DT	DT90000	DT90259	

(5) FPG-C32T

Type	Device	Mark	Range	
			Start	End
Bit	Input relay	X	X0	X31F
	Output relay	Y	Y0	Y31F
	Internal auxiliary relay	R	R0	R97F
	Special relay	R	R9000	R910F
	Link relay	L	L0	L63F
	Timer contact [1ms]	T	T0	T1007
	Timer contact [10ms]	T	T0	T1007
	Timer contact [100ms]	T	T0	T1007
	Timer contact [1000ms]	T	T0	T1007
	Counter contact [16 bit]	C	C1008	C1023
Word	Input relay	WX	WX0	WX31
	Output relay	WY	WY0	WY31
	Internal auxiliary relay	WR	WR0	WR97
	Special relay	WR	WR900	WR910
	Link relay	WL	WL0	WL63
	Timer current value [1ms]	EV	EV0	EV1007
	Timer current value [10ms]	EV	EV0	EV1007
	Timer current value [100ms]	EV	EV0	EV1007
	Timer current value [1000ms]	EV	EV0	EV1007
	Timer setting value [1ms]	SV	SV0	SV1007
	Timer setting value [10ms]	SV	SV0	SV1007
	Timer setting value [100ms]	SV	SV0	SV1007
	Timer setting value [1000ms]	SV	SV0	SV1007
	Counter current value [16 bit]	EV	EV1008	EV1023
	Counter setting value [16 bit]	SV	SV1008	SV1023
	Data register	DT	DT0	DT32764
Special register	DT	DT90000	DT90259	

(6) FPG-C32T2

Type	Device	Mark	Range	
			Start	End
Bit	Input relay	X	X0	X73F
	Output relay	Y	Y0	Y73F
	Internal auxiliary relay	R	R0	R97F
	Special relay	R	R9000	R910F
	Link relay	L	L0	L63F
	Timer contact [1ms]	T	T0	T1007
	Timer contact [10ms]	T	T0	T1007
	Timer contact [100ms]	T	T0	T1007
	Timer contact [1000ms]	T	T0	T1007
	Counter contact [16 bit]	C	C1008	C1023
Word	Input relay	WX	WX0	WX73
	Output relay	WY	WY0	WY73
	Internal auxiliary relay	WR	WR0	WR97
	Special relay	WR	WR900	WR910
	Link relay	WL	WL0	WL63
	Timer current value [1ms]	EV	EV0	EV1007
	Timer current value [10ms]	EV	EV0	EV1007
	Timer current value [100ms]	EV	EV0	EV1007
	Timer current value [1000ms]	EV	EV0	EV1007
	Timer setting value [1ms]	SV	SV0	SV1007
	Timer setting value [10ms]	SV	SV0	SV1007
	Timer setting value [100ms]	SV	SV0	SV1007
	Timer setting value [1000ms]	SV	SV0	SV1007
	Counter current value [16 bit]	EV	EV1008	EV1023
	Counter setting value [16 bit]	SV	SV1008	SV1023
	Data register	DT	DT0	DT32764
Special register	DT	DT90000	DT90259	

(7) FP0R-C10/C14/C16

Type	Device	Mark	Range	
			Start	End
Bit	Input relay	X	X0	X109F
	Output relay	Y	Y0	Y109F
	Internal auxiliary relay	R	R0	R255F
	Special relay	R	R9000	R913F
	Timer contact [1ms]	T	T0	T1023
	Timer contact [10ms]	T	T0	T1023
	Timer contact [100ms]	T	T0	T1023
	Timer contact [1000ms]	T	T0	T1023
	Counter contact [16 bit]	C	C100	C1023
Word	Input relay	WX	WX0	WX109
	Output relay	WY	WY0	WY109
	Internal auxiliary relay	WR	WR0	WR255
	Special relay	WR	WR900	WR913
	Timer current value [1ms]	EV	EV0	EV1024
	Timer current value [10ms]	EV	EV0	EV1024
	Timer current value [100ms]	EV	EV0	EV1024
	Timer current value [1000ms]	EV	EV0	EV1024
	Timer setting value [1ms]	SV	SV0	SV1024
	Timer setting value [10ms]	SV	SV0	SV1024
	Timer setting value [100ms]	SV	SV0	SV1024
	Timer setting value [1000ms]	SV	SV0	SV1024
	Counter current value [16 bit]	EV	EV100	EV1024
	Counter setting value [16 bit]	SV	SV100	SV1024
	Data register	DT	DT0	DT12315
Special register	DT	DT90000	DT90439	

(8) FP0R-C32/F32/T32

Type	Device	Mark	Range	
			Start	End
Bit	Input relay	X	X0	X109F
	Output relay	Y	Y0	Y109F
	Internal auxiliary relay	R	R0	R255F
	Special relay	R	R9000	R913F
	Timer contact [1ms]	T	T0	T1023
	Timer contact [10ms]	T	T0	T1023
	Timer contact [100ms]	T	T0	T1023
	Timer contact [1000ms]	T	T0	T1023
	Counter contact [16 bit]	C	C100	C1023
Word	Input relay	WX	WX0	WX109
	Output relay	WY	WY0	WY109
	Internal auxiliary relay	WR	WR0	WR255
	Special relay	WR	WR900	WR913
	Timer current value [1ms]	EV	EV0	EV1024
	Timer current value [10ms]	EV	EV0	EV1024
	Timer current value [100ms]	EV	EV0	EV1024
	Timer current value [1000ms]	EV	EV0	EV1024
	Timer setting value [1ms]	SV	SV0	SV1024
	Timer setting value [10ms]	SV	SV0	SV1024
	Timer setting value [100ms]	SV	SV0	SV1024
	Timer setting value [1000ms]	SV	SV0	SV1024
	Counter current value [16 bit]	EV	EV100	EV1024
	Counter setting value [16 bit]	SV	SV100	SV1024
	Data register	DT	DT0	DT32765
Special register	DT	DT90000	DT90439	

2.1.7 Monitorable Device in GP/LP

GP/LP is able to monitor PLC device and change the status.

The following is available device list of this menu, please refer to 'Available device' for available device range.

Type	Mark	Device	Note
Bit	X	Input relay	
	Y	Output relay	
	R	Internal auxiliary relay, Special relay	
	L	Link relay	In case of FP Sigma Series
	T	Timer contact	
	C	Counter contact	
Word	WX	Input relay	
	WY	Output relay	
	WR	Internal auxiliary relay, Special relay	
	WL	Link relay	In case of FP Sigma Series
	EV	Timer current value	
	SV	Counter setting value	
	DT16	Data/File/Special register	16 bit
	DT32	Data/File/Special register	32 bit type combining designated number of device and next number of device

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* Dimensions or specifications on this manual are subject to change and some models may be discontinued without notice.

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