Make Life Easy

User Manual for Communication

HMI

GP/LP Series (CIMON)

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.

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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.

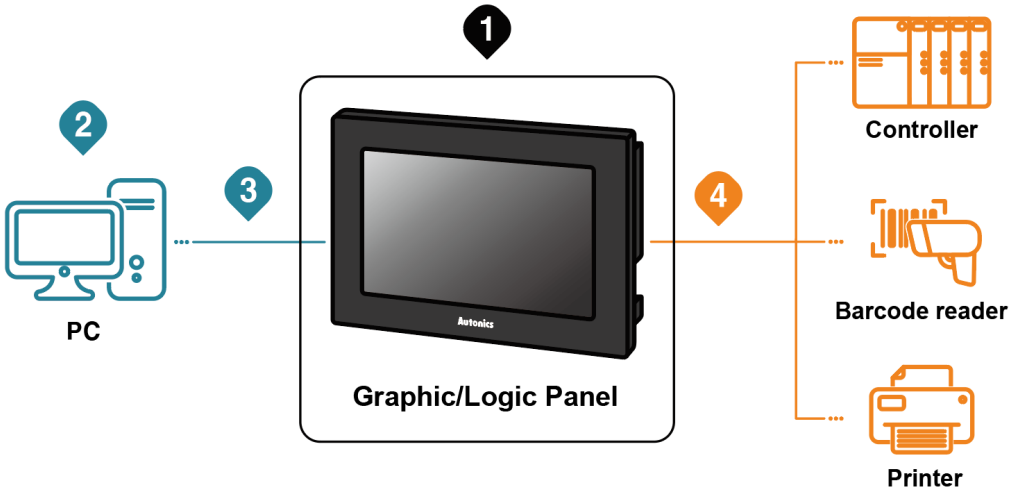
User Manual Guide

- 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

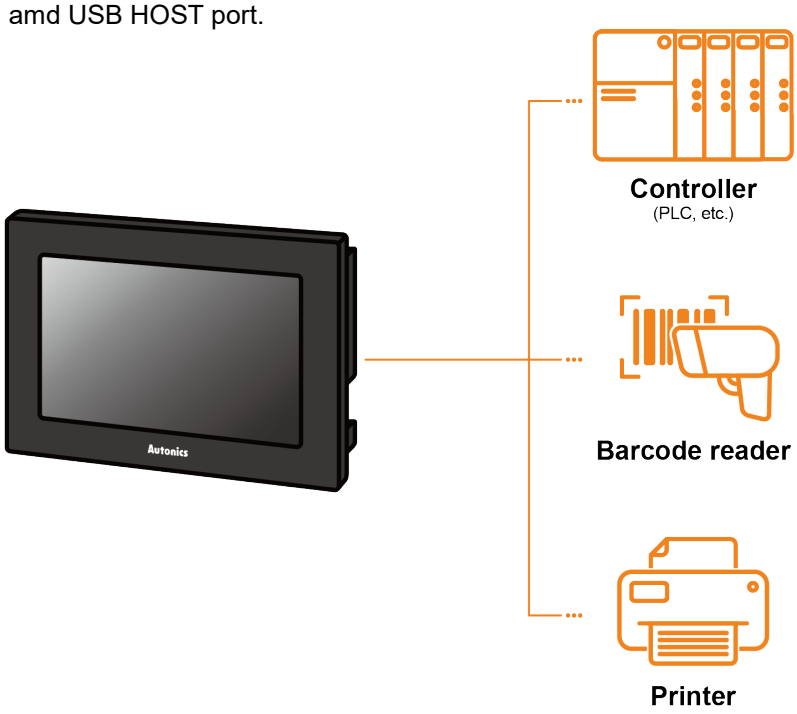
4 Check connectable device, connection cable model name and protocol

Communication Manual	GP/LP Communication Manual

Table of Contents

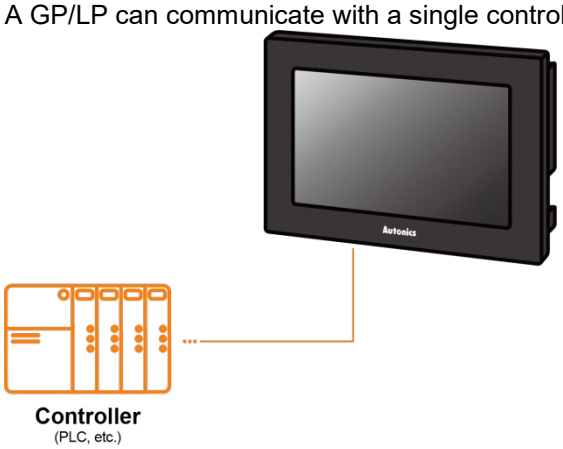
1 System Organization

GP/LP can be connected with various controller, barcode reader and printer via RS232C, RS422, Ethernet, CAN amd 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

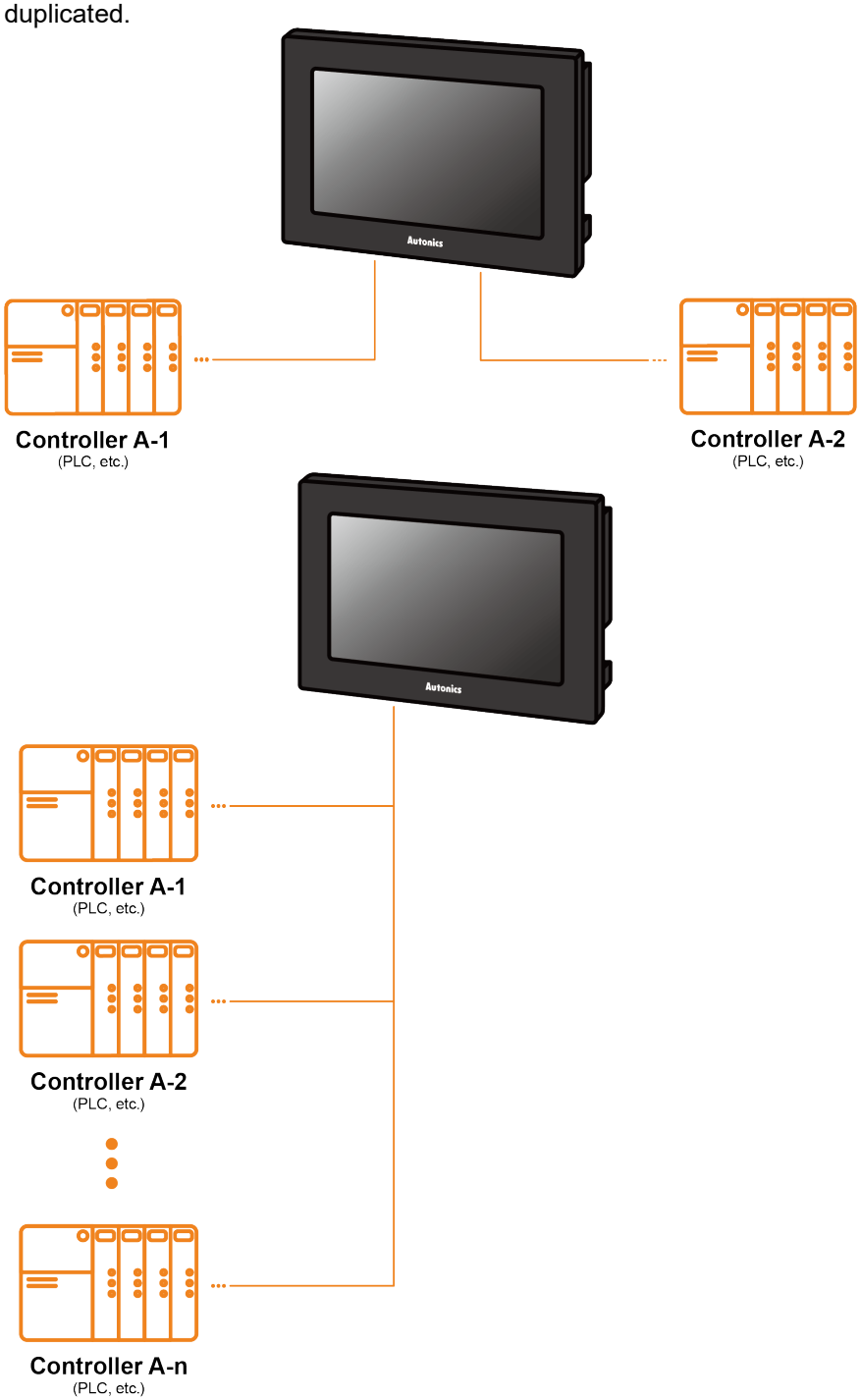
Series	Connecting port	Description
GP/LP-A070	RS422 or RS232C-A port, RS232C or RS232C-B port, Ethernet port	Direct communication available Link device※1 communication available
GP/LP-A104	RS422 or RS232C-A port, RS232C or RS232C-B port, Ethernet port, CAN※2 port	Direct communication available Link device※1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

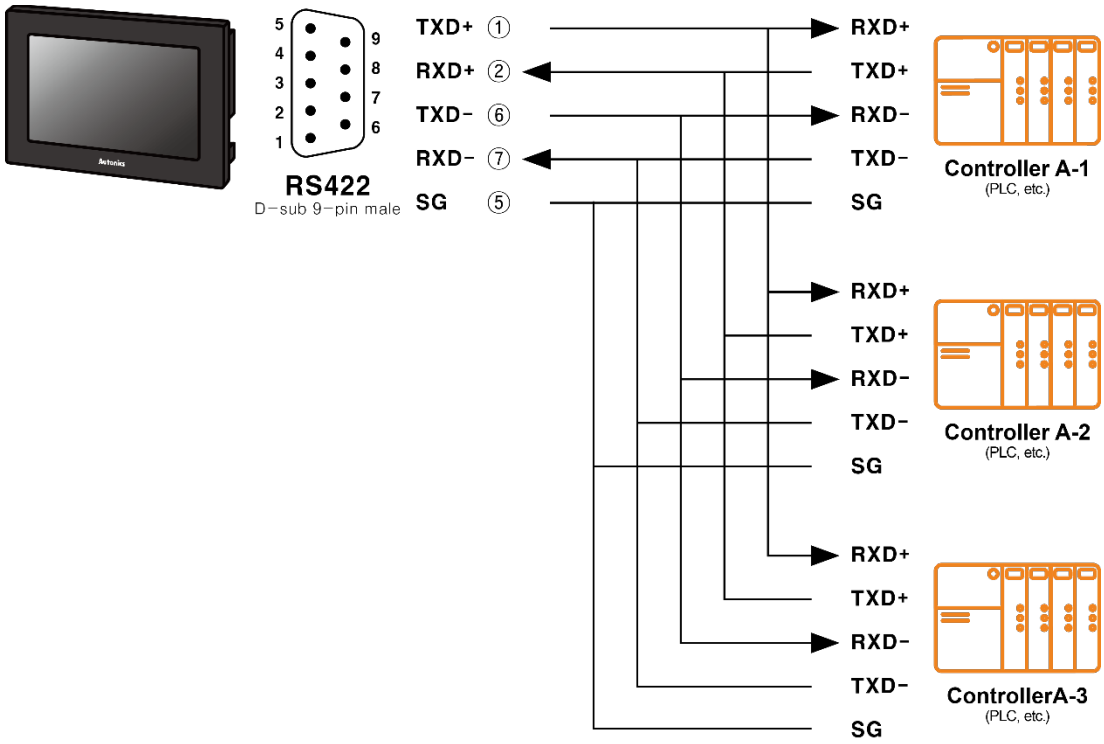
- GP/LP-A Series

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※2port	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

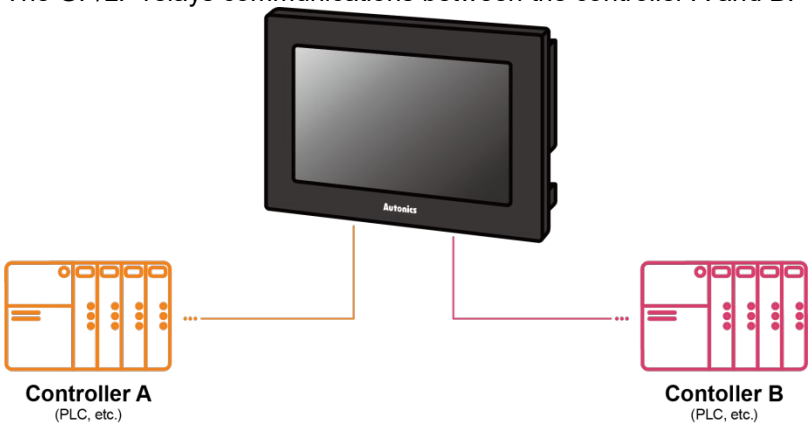


1.3 1:N Communication of Different Controllers

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 signle controller A and a signle 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

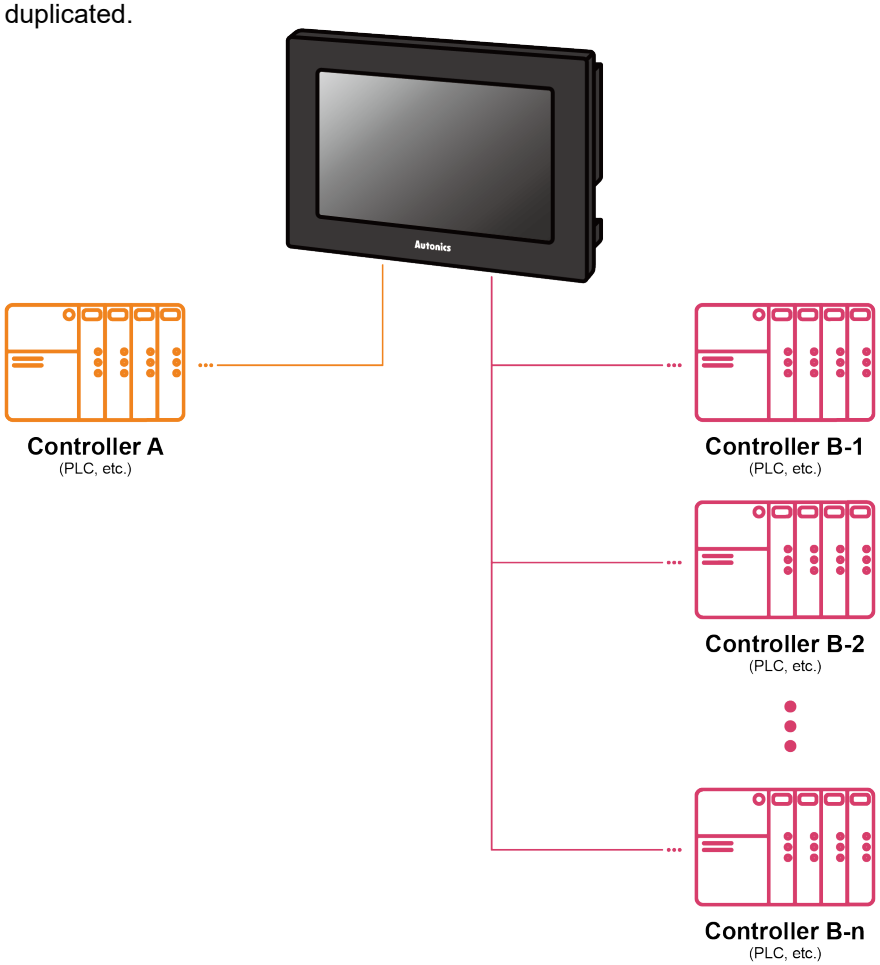
Series	Connecting port	Description
GP/LP-A070	RS422 or RS232C-A port, RS232C or RS232C-B port, Ethernet port	Direct communication available Link device※1 communication available
GP/LP-A104	RS422 or RS232C-A port, RS232C or RS232C-B port, Ethernet port, CAN※2 port	Direct communication available Link device※1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

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

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

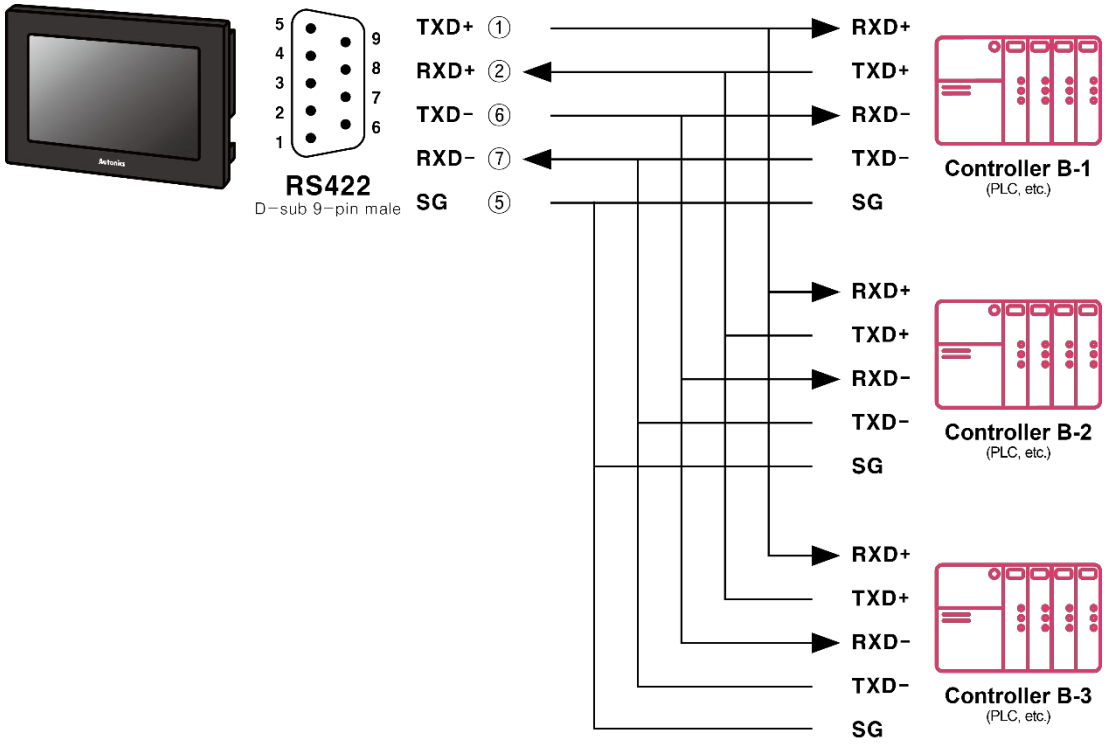
- GP/LP-A Series

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.

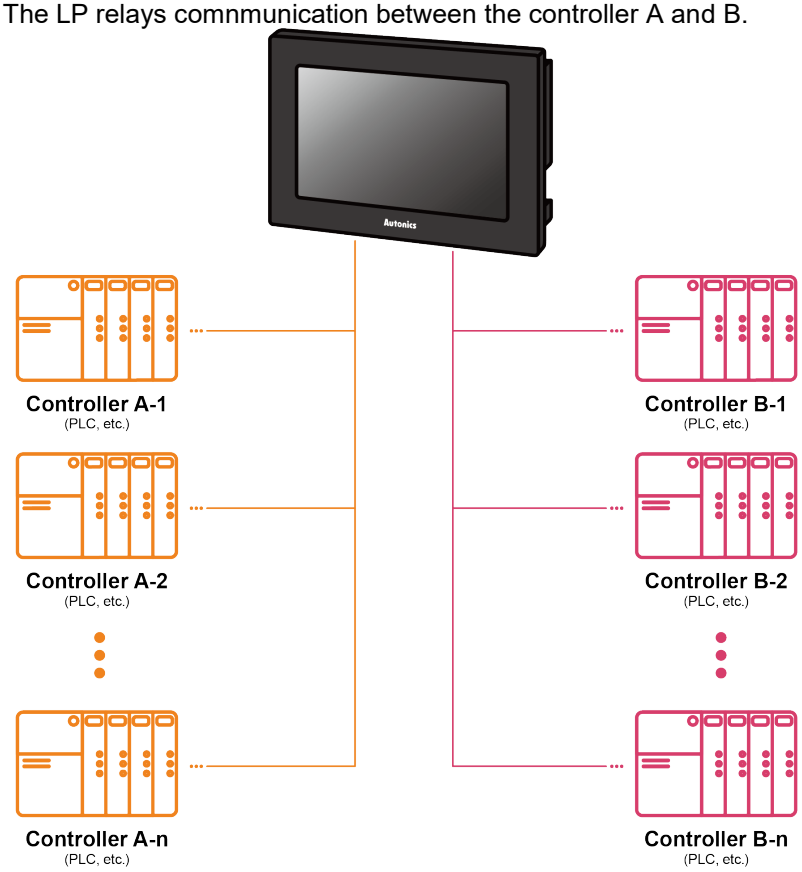
※2: Only Autonics' ARD Series can be connected to CAN port.

(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 comnmunication 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

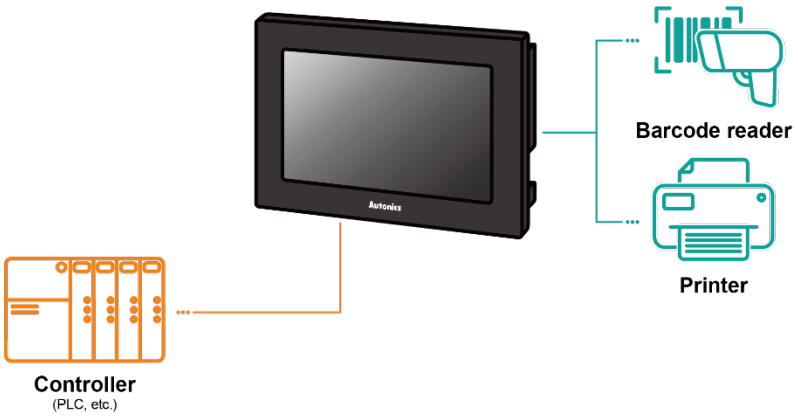
※1: Please refer to 'GP Editor User Manual' for Link device instruction.

※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 KDT CIMON BP/CP/XP PLC CPU Direct Connection

GP/LP is able to be connected directly with KDT CIMON BP/CP/XP Series.
Supported protocol is KDT CIMON CICON protocol.
It is available to connect other communication module which supports KDT CIMON CICON protocol.

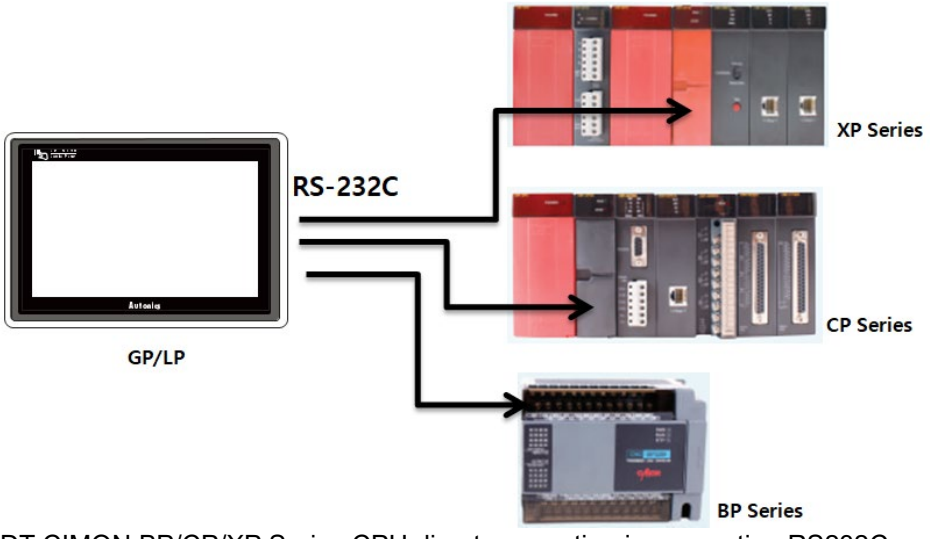
2.1.1 Connection Support PLC Model

PLC Type		Comm. method	Communication type	Baud rate (bps)
BP	CM2-BP16M CM2-BP32M	RS232C	CPU direct connection (Loader)	300 to 115200
CP	CM1-CP3A/B/P CM1-CP4A/B/C/D	RS232C	CPU direct connection (Loader)	
XP	CM1-XP1A/R	RS232C	CPU direct connection (Loader)	

2.1.2 Connectable PLC 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
BP Series	CPU direct connection Loader	×	×	○	○	○	○	○	○	○
CP Series	CPU direct connection Loader	×	×	○	○	○	○	○	○	○
XP Series	CPU direct connection Loader	×	×	○	○	○	○	○	○	○

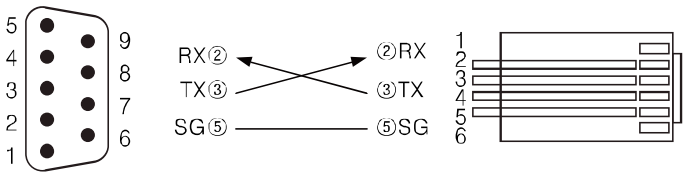
2.1.3 System Organization



KDT CIMON BP/CP/XP Series CPU direct connection is connecting RS232C port of GP/LP and tool port (RS232C) of the PLC.

2.1.4 Communication Cable

Please prduce the cable as below.



D-Sub 9-pin Male
〈GP side〉

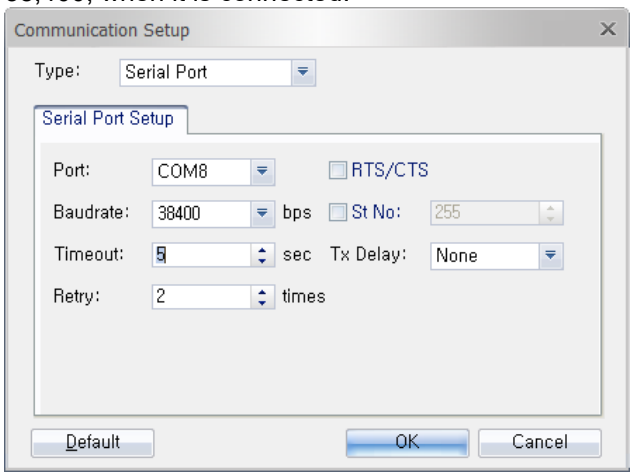
RJ11
〈Device side〉

2.1.5 Communication Configuration

Communication configuration when using KDT CIMON BP/CP/XP Series, in CICON (KDT PLC Program), configure KDT CIMON BP/CP/XP Series.
(For more information, please refer to the manual from KDT.)
Defaul is as below.

Condition	Value
Stop bit	1
Data bit	8
Parity	None
Baud rate	38,400

Even tough baudrate is settable from 300 to 115200bps, automatically starts at the default value, 38,400, when it is connected.



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 Programing Manual'.

2.1.6.1 Device Structure

X	00	0

① Device name ② Word address ③ Bit address

Type	①	②	③	Format
Bit	X	Decimal	Hexadecimal	DDh
	Y	Decimal	Hexadecimal	DDh
	M	Decimal	Hexadecimal	DDDh
	K	Decimal	Hexadecimal	DDDh
	L	Decimal	Hexadecimal	DDDh
	F	Decimal	Hexadecimal	DDDh
	T	Decimal		DDDD
	C	Decimal		DDDD
Word	D	Decimal		DDDD
	TS	Decimal		DDDD
	TC	Decimal		DDDD
	CS	Decimal		DDDD
	CC	Decimal		DDDD

Format
D/d: decimal, H/h: hexadecimal

2.1.6.2 Device Range

(1) BP Series

- BP16M

Type	Device	Name	Range		Note
			Start	End	
Bit	Input relay	X※1	X0	X7f	X0 to X1F are Read only
	Output relay	Y※1	Y0	Y7f	Y0 to YF are for controlling. In case Y4 to Y7 are ON, communication error occurs.
	Internal auxiliary relay	M	M0	M255	
	Electrostatic relay	K	K0	K63f	
	Link relay	L	L0	L63f	
	Special relay	F	F0	F127f	Read only
	Timer contact	T	T0	T255	
	Counter contact	C	C0	C255	
Word	Data register	D	D0	D4999	
	Timer set value register	TS	TS0	TS255	
	Timer current value register	TC	TC0	TC255	
	Counter set value register	CS	CS0	CS255	
	Counter current value register	CC	CC0	CC255	

※1: Please refer to '2.2.6.3 I/O Point Map'.

- BP32M

Type	Device	Name	Range		Note
			Start	End	
Bit	Input relay	X※1	X0	X8	X0 to X1F are Read only
	Output relay	Y※1	Y0	Y7	Y0 to YF are for controlling. In case Y4 to Y7 are ON, communication error occurs.
	Internal auxiliary relay	M	M0	M255f	
	Electrostatic relay	K	K0	K63f	
	Link relay	L	L0	L63f	
	Special relay	F	F0	F127f	Read only
	Timer contact	T	T0	T255	
	Counter contact	C	C0	C255	
Word	Data register	D	D0	D4999	
	Timer set value register	TS	TS0	TS255	
	Timer current value register	TC	TC0	TC255	
	Counter set value register	CS	CS0	CS255	
	Counter current value register	CC	CC0	CC255	

※1: Please refer to '2.2.6.3 I/O Point Map'.

(2) CP Series

- CP3

Type	Device	Name	Range		Note
			Start	End	
Bit	Input relay	X※1	X0	X63f	Read only
	Output relay	Y※1	Y0	Y63f	Y0 to YF are for controlling. In case Y4 to Y7 are ON, communication error occurs.
	Internal auxiliary relay	M	M0	M511f	
	Electrostatic relay	K	K0	K127f	
	Link relay	L	L0	L127f	
	Special relay	F	F0	F127f	Read only
	Timer contact	T	T0	T1023	Read only
	Counter contact	C	C0	C1023	Read only
Word	Data register	D	D0	D9999	
	Timer set value register	TS	TS0	TS1023	
	Timer current value register	TC	TC0	TC1023	
	Counter set value register	CS	CS0	CS1023	
	Counter current value register	CC	CC0	CC1023	

※1: Please refer to '2.2.6.3 I/O Point Map'.

- CP4

Type	Device	Name	Range		Note
			Start	End	
Bit	Input relay	X※1	X0	X23f	Read only
	Output relay	Y※1	Y0	Y23f	Y0 to YF are for controlling. In case Y4 to Y7 are ON, communication error occurs.
	Internal auxiliary relay	M	M0	M511f	
	Electrostatic relay	K	K0	K127f	
	Link relay	L	L0	L127f	
	Special relay	F	F0	F127f	Read only
	Timer contact	T	T0	T1023	Read only
	Counter contact	C	C0	C1023	Read only
Word	Data register	D	D0	D4999	
	Timer set value register	TS	TS0	TS1023	
	Timer current value register	TC	TC0	TC1023	
	Counter set value register	CS	CS0	CS1023	
	Counter current value register	CC	CC0	CC1023	

※1: Please refer to '2.2.6.3 I/O Point Map'.

(3) XP Series

- XP1

Type	Device	Name	Range		Note
			Start	End	
Bit	Input relay	X※1	X0	X511f	Read only
	Output relay	Y※1	Y0	Y511f	Y0 to YF are for controlling. In case Y4 to Y7 are ON, communication error occurs.
	Internal auxiliary relay	M	M0	M999f	
	Electrostatic relay	K	K0	K999f	
	Link relay	L	L0	L999f	
	Special relay	F	F0	F127f	Read only
	Timer contact	T	T0	T4095	Read only
	Counter contact	C	C0	C4095	Read only
Word	Data register	D	D0	D31999	
	Timer set value register	TS	TS0	TS4095	
	Timer current value register	TC	TC0	TC4095	
	Counter set value register	CS	CS0	CS4095	
	Counter current value register	CC	CC0	CC4095	

※1: Please refer to '2.2.6.3 I/O Point Map'.

- XP2

Type	Device	Name	Range		Note
			Start	End	
Bit	Input relay	X※1	X0	X255f	Read only
	Output relay	Y※1	Y0	Y255f	Y0 to YF are for controlling. In case Y4 to Y7 are ON, communication error occurs.
	Internal auxiliary relay	M	M0	M999f	
	Electrostatic relay	K	K0	K999f	
	Link relay	L	L0	L999f	
	Special relay	F	F0	F127f	Read only
	Timer contact	T	T0	T4095	Read only
	Counter contact	C	C0	C4095	Read only
Word	Data register	D	D0	D31999	
	Timer set value register	TS	TS0	TS4095	
	Timer current value register	TC	TC0	TC4095	
	Counter set value register	CS	CS0	CS4095	
	Counter current value register	CC	CC0	CC4095	

※1: Please refer to '2.2.6.3 I/O Point Map'.

- XP3

Type	Device	Name	Range		Note
			Start	End	
Bit	Input relay	X※1	X0	X127f	Read only
	Output relay	Y※1	Y0	Y127f	Y0 to YF are for controlling. In case Y4 to Y7 are ON, communication error occurs.
	Internal auxiliary relay	M	M0	M999f	
	Electrostatic relay	K	K0	K999f	
	Link relay	L	L0	L999f	
	Special relay	F	F0	F127f	Read only
	Timer contact	T	T0	T4095	Read only
	Counter contact	C	C0	C4095	Read only
Word	Data register	D	D0	D31999	
	Timer set value register	TS	TS0	T4095	
	Timer current value register	TC	TC0	TC4095	
	Counter set value register	CS	CS0	CS4095	
	Counter current value register	CC	CC0	CC4095	

※1: Please refer to '2.2.6.3 I/O Point Map'.

2.1.6.3 I/O Point Map

Device	Description	Device	Description
X0000	Error in module	Y0000	Error clear
X0001	Initialized (Card Ready)	Y0001	
X0002		Y0002	
X0003		Y0003	
X0004	Rx Data exist (CH1)	Y0004	Rx Buffer clear (CH1)
X0005	Tx Buffer empty (CH1)	Y0005	Tx Buffer clear (CH1)
X0006	Rx Data exist (CH2)	Y0006	Rx Buffer clear (CH2)
X0007	Tx Buffer empty (CH2)	Y0007	Tx Buffer clear (CH2)
X0008		Y0008	
X0009		Y0009	
X000A	Initialized modem	Y000A	Request to initialize modem
X000B	Dialing	Y000B	Request dialing
X000C	Dialing status	Y000C	Request to clear dialing
X000D		Y000D	
X000E		Y000E	
X000F	Parameter has been saved	Y000F	Request to save parameter

2.1.7 Monitorable Device in GP/LP

GP/LP is able to monitor PLC device and change the status.
The following is avilable device list of this menu, please refer to 'Available device' for available device range.

Type	Name	Device	Note
Bit	X	Input relay	
	Y	Output relay	
	M	Internal auxiliary relay	
	K	Electrostatic relay	
	L	Link relay	
	F	Special relay	
	C	Timer contact	
	T	Counter contact	
Word	D	Data register	
	TS	Timer set value register	
	TC	Timer current value register	
	CS	Counter set value register	
	CC	Counter current value register	

2.2 KDT CIMON CP/XP PLC Comm. Module Connection

GP/LP is able to be connected with serial communication modules which are compatible with KDT CIMON CP/XP Series.
Supported protocol is KDT CIMON HMI protocol.
It is available to connect other communication module which supports KDT CIMON HMI protocol.

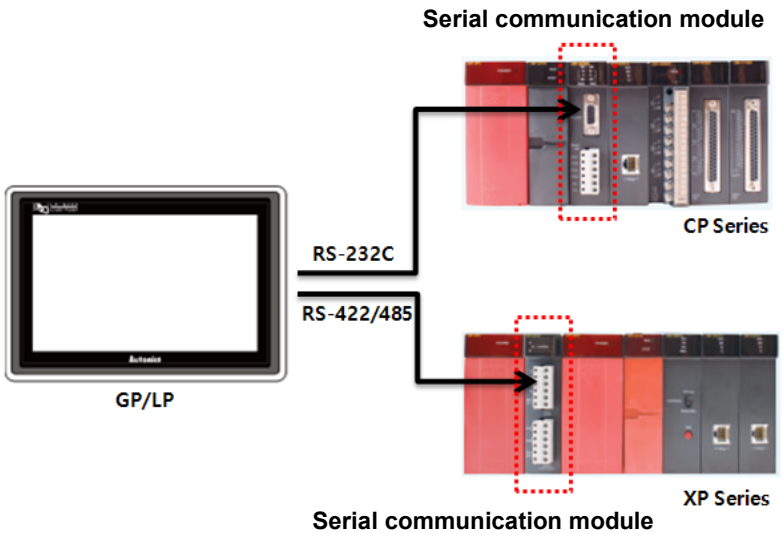
2.2.1 Connection Support PLC Model

PLC Type			Comm. method	Communication type	Baud rate (bps)
CP	CM1-CP3A/B/P CM1-CP4A/B/C/D	Communication module	RS232C	CM1-SC02A CM1-SC01A	38,400
			RS422/485	CM1-SC02A CM1-SC01B	
		CPU integrated	RS232C	CPU (CP4C)	
			RS422/485	CPU (CP4D)	
XP	CM1-XP1A/R CM1-XP2A CM1-XP3A	Communication module	RS232C	CM1-SC02A CM1-SC01A	
			RS422/485	CM1-SC02A CM1-SC01B	

2.2.2 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
CP Series	CPU direct connection Loader & Comm. module	×	×	○	○	○	○	○	○	○
XP Series		×	×	○	○	○	○	○	○	○

2.2.3 System Organization

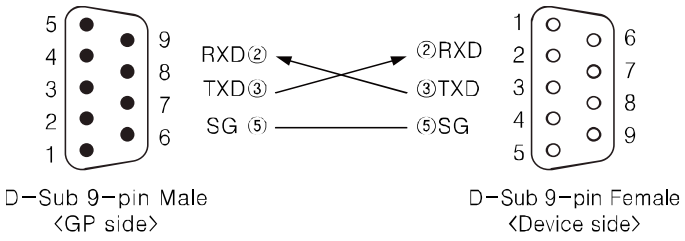


KDT CIMON CP/XP Series communication module connection is connecting RS232C, RS422/485 port of GP/LP and PLC compatible serial communication module (RS232C, RS422/485).

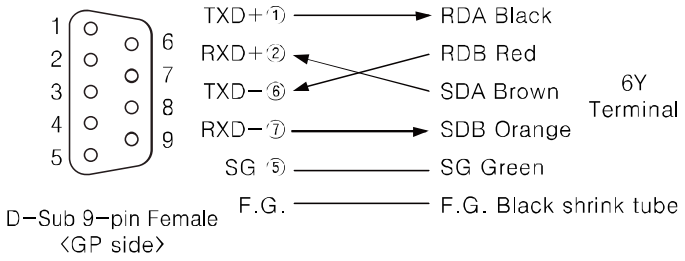
2.2.4 Communication Cable

Please prduce the cable as below.

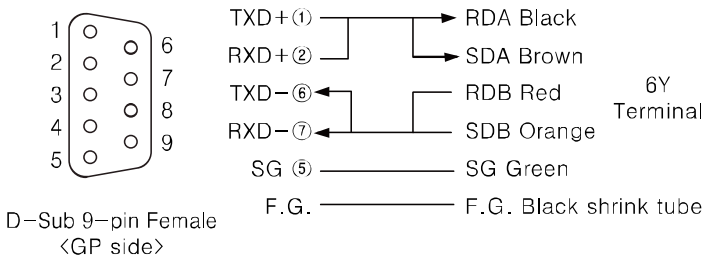
(1) RS232C



(2) RS422



(3) RS485

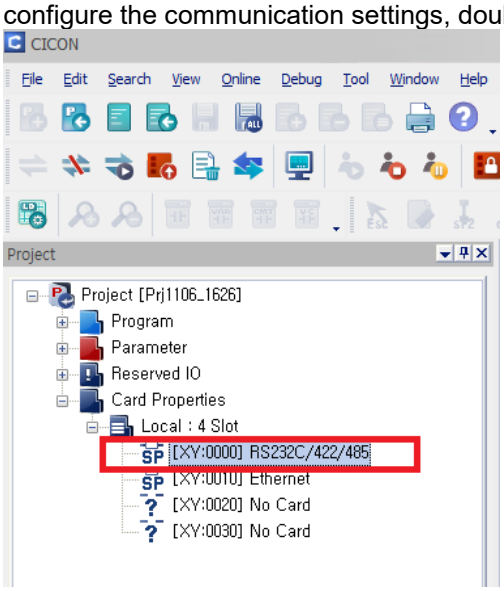


2.2.5 Communication Setting

Communication setting is configured with CICON (KDT PLC Program), when using KDT CIMON CP/XP Series.
(For more information, please refer to the manual from KDT.)
Defaul is as below.

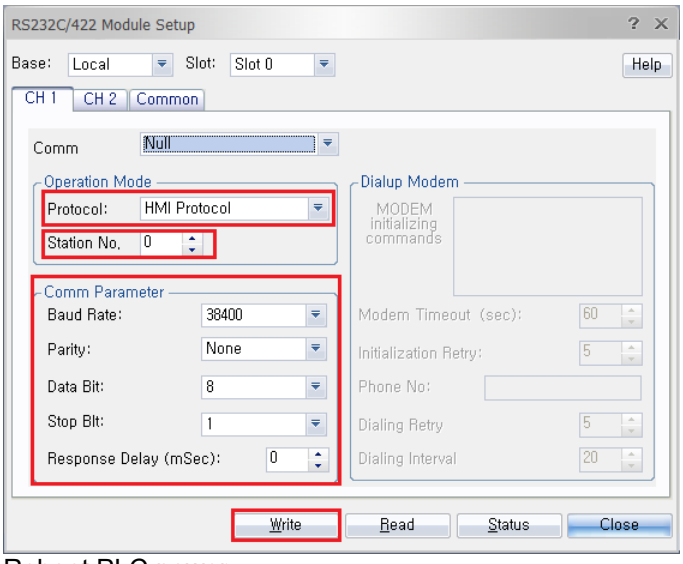
Condition	Value
Stop bit	1
Data bit	8
Parity	None
Baud rate	38,400

1st When connecting CICON and Tool Port (Load Port) of the PLC CPU, connected serial communication module is displayed in [Project] window > [Module information]. In order to configure the communication settings, double click the module.



2nd In the module setting window, configure the settings of each channel as below and click 'Write' button.

Item	Setting
Protocol	HMI Protocol
Address	0 to 31
Stop bit	1
Data bit	8
Parity	None
Baud rate	38,400
Response delay time	0



3rd Reboot PLC power.

2.2.6 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 Programing Manual'.

2.2.6.1 Device Structure

X	00	0

① Device name ② Word address ③ Bit address

Type	①	②	③	Format
Bit	X	Decimal	Hexadecimal	DDh
	Y	Decimal	Hexadecimal	DDh
	M	Decimal	Hexadecimal	DDDh
	K	Decimal	Hexadecimal	DDDh
	L	Decimal	Hexadecimal	DDDh
	F	Decimal	Hexadecimal	DDDh
	T	Decimal		DDDD
	C	Decimal		DDDD
Word	D	Decimal		DDDD
	TS	Decimal		DDDD
	TC	Decimal		DDDD
	CS	Decimal		DDDD
	CC	Decimal		DDDD

Format
D/d: decimal, H/h: hexadecimal

2.2.6.2 Device Range

(1) CP Series

- CP3

Type	Device	Name	Range		Note
			Start	End	
Bit	Input relay	X※1	X0	X63f	Read only
	Output relay	Y※1	Y0	Y63f	Y0 to YF are for controlling. In case Y4 to Y7 are ON, communication error occurs.
	Internal auxiliary relay	M	M0	M511f	
	Electrostatic relay	K	K0	K127f	
	Link relay	L	L0	L127f	
	Special relay	F	F0	F127f	Read only
	Timer contact	T	T0	T1023	Read only
	Counter contact	C	C0	C1023	Read only
Word	Data register	D	D0	D9999	
	Timer set value register	TS	TS0	TS1023	
	Timer current value register	TC	TC0	TC1023	
	Counter set value register	CS	CS0	CS1023	
	Counter current value register	CC	CC0	CC1023	

※1: Please refer to '2.2.6.3 I/O Point Map'.

- CP4

Type	Device	Name	Range		Note
			Start	End	
Bit	Input relay	X※1	X0	X23f	Read only
	Output relay	Y※1	Y0	Y23f	Y0 to YF are for controlling. In case Y4 to Y7 are ON, communication error occurs.
	Internal auxiliary relay	M	M0	M511f	
	Electrostatic relay	K	K0	K127f	
	Link relay	L	L0	L127f	
	Special relay	F	F0	F127f	Read only
	Timer contact	T	T0	T1023	Read only
	Counter contact	C	C0	C1023	Read only
Word	Data register	D	D0	D4999	
	Timer set value register	TS	TS0	TS1023	
	Timer current value register	TC	TC0	TC1023	
	Counter set value register	CS	CS0	CS1023	
	Counter current value register	CC	CC0	CC1023	

※1: Please refer to '2.2.6.3 I/O Point Map'.

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(2) XP Series

- XP1

Type	Device	Name	Range		Note
			Start	End	
Bit	Input relay	X※1	X0	X511f	Read only
	Output relay	Y※1	Y0	Y511f	Y0 to YF are for controlling. In case Y4 to Y7 are ON, communication error occurs.
	Internal auxiliary relay	M	M0	M999f	
	Electrostatic relay	K	K0	K999f	
	Link relay	L	L0	L999f	
	Special relay	F	F0	F127f	Read only
	Timer contact	T	T0	T4095	Read only
	Counter contact	C	C0	C4095	Read only
Word	Data register	D	D0	D31999	
	Timer set value register	TS	TS0	TS4095	
	Timer current value register	TC	TC0	TC4095	
	Counter set value register	CS	CS0	CS4095	
	Counter current value register	CC	CC0	CC4095	

※1: Please refer to '2.2.6.3 I/O Point Map'.

- XP2

Type	Device	Name	Range		Note
			Start	End	
Bit	Input relay	X※1	X0	X255f	Read only
	Output relay	Y※1	Y0	Y255f	Y0 to YF are for controlling. In case Y4 to Y7 are ON, communication error occurs.
	Internal auxiliary relay	M	M0	M999f	
	Electrostatic relay	K	K0	K999f	
	Link relay	L	L0	L999f	
	Special relay	F	F0	F127f	Read only
	Timer contact	T	T0	T4095	Read only
	Counter contact	C	C0	C4095	Read only
Word	Data register	D	D0	D31999	
	Timer set value register	TS	TS0	TS4095	
	Timer current value register	TC	TC0	TC4095	
	Counter set value register	CS	CS0	CS4095	
	Counter current value register	CC	CC0	CC4095	

※1: Please refer to '2.2.6.3 I/O Point Map'.

- XP3

Type	Device	Name	Range		Note
			Start	End	
Bit	Input relay	X※1	X0	X127f	Read only
	Output relay	Y※1	Y0	Y127f	Y0 to YF are for controlling. In case Y4 to Y7 are ON, communication error occurs.
	Internal auxiliary relay	M	M0	M999f	
	Electrostatic relay	K	K0	K999f	
	Link relay	L	L0	L999f	
	Special relay	F	F0	F127f	Read only
	Timer contact	T	T0	T4095	Read only
	Counter contact	C	C0	C4095	Read only
Word	Data register	D	D0	D31999	
	Timer set value register	TS	TS0	T4095	
	Timer current value register	TC	TC0	TC4095	
	Counter set value register	CS	CS0	CS4095	
	Counter current value register	CC	CC0	CC4095	

※1: Please refer to '2.2.6.3 I/O Point Map'.

2.2.6.3 I/O Point Map

Device	Description	Device	Description
X0000	Error in module	Y0000	Error clear
X0001	Initialized (Card Ready)	Y0001	
X0002		Y0002	
X0003		Y0003	
X0004	Rx Data exist (CH1)	Y0004	Rx Buffer clear (CH1)
X0005	Tx Buffer empty (CH1)	Y0005	Tx Buffer clear (CH1)
X0006	Rx Data exist (CH2)	Y0006	Rx Buffer clear (CH2)
X0007	Tx Buffer empty (CH2)	Y0007	Tx Buffer clear (CH2)
X0008		Y0008	
X0009		Y0009	
X000A	Initialized modem	Y000A	Request to initialize modem
X000B	Dialing	Y000B	Request dialing
X000C	Dialing status	Y000C	Request to clear dialing
X000D		Y000D	
X000E		Y000E	
X000F	Parameter has been saved	Y000F	Request to save parameter

2.2.7 Monitorable Device in GP/LP

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 Programing Manual'.

Type	Name	Device	Note
Bit	X	Input relay	
	Y	Output relay	
	M	Internal auxiliary relay	
	K	Electrostatic relay	
	L	Link relay	
	F	Special relay	
	C	Timer contact	
	T	Counter contact	
Word	D	Data register	
	TS	Timer set value register	
	TC	Timer current value register	
	CS	Counter set value register	
	CC	Counter current value register	

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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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